COMMONWEALTH OF PENNSYLVANIA

TEST PROTOCOL

FOR

EXAMINATION OF THE

ELECTION SYSTEMS & SOFTWARE (ES&S) EVS 5.2.0.0

TABLE OF CONTENTS

1.0 INTRODUCTION **1**

1.1 References 1

1.2 Terms and Abbreviations 1

1.3 Background 2

2.0 TEST ITEMS 3

2.1 Software 3

2.2 Hardware 3

2.3 Peripherals 3

2.4 Test Support Equipment/Materials 4

3.0 TEST MATERIALS **4**

3.1 Technical Data Package 4

3.2 Third Party Test Results 5

3.3 Previous Test Results 5

4.0 TEST SPECIFICATIONS 6

5.0 TEST PROCEDURES 6

6.0 TEST DATA 8

6.1 Data Recording 8

6.2 Data Evaluation 8

ATTACHMENT A 9

ATTACHMENT B 62

1.0 INTRODUCTION

The primary purpose of this examination is to confirm that the Election Systems and Software (ES&S) EVS 5.2.0.0 voting system meets the requirements of Article XI-A of the Pennsylvania Election Code, sections 1101-A to 1122-A, 25 P.S. §§ 3031.1 – 3031.22. This examination is being performed per the direction of the Secretary of the Commonwealth, acting through the Pennsylvania Department of State, Bureau of Commissions, Elections and Legislation. This examination will commence on September 8, 2014 at the following location:

Keystone Building
Training Room B
400 North Street
Harrisburg, Pennsylvania

The daily duration of this re-examination will be from 9:00 A.M. until 5:00 P.M. Eastern Standard Time unless a representative of the Secretary of the Commonwealth requests an extension, suspension, or a halt in testing.

1.1 References

The documents listed below were used in the development of the Test Protocol.

- Article XI-A of the Pennsylvania Election Code, sections 1101-A to 1122-A, 25 P.S. §§ 3031.1 – 3031.22
- Election Assistance Commission (EAC) 2005 Voluntary Voting System Guidelines (VVSG)
- Help America Vote Act (HAVA) of 2002, Public Law 107-252, 42 U.S.C. § 15301 *et seq.*

1.2 Terms and Abbreviation

This subsection lists terms and abbreviations relevant to this re-examination

"COTS" – Commercial Off-The-Shelf

"Department" – Pennsylvania Department of State

"EMS" – Election Management System

"Examiner" – The examiner appointed by the Secretary of the Commonwealth to conduct the re-examination

"GEMS" – ES&S election management system

"PA" – The Commonwealth of Pennsylvania

"Pennsylvania Election Code" - Article XI-A of the Pennsylvania Election Code, sections 1101-A to 1122-A, 25 P.S. §§ 3031.1 – 3031.22

"Secretary" – The Secretary of the Commonwealth

"TDP" – Technical Data Package

"VSS" – Federal Election Commission 2002 Voting System Standards

"VVSG" – Election Assistance Commission 2005 Voluntary Voting System Guidelines

1.3 Background

ES&S initiated the certification evaluation by a letter to the Pennsylvania Department of State on July 16, 2014. In this letter, ES&S requested certification of the EVS 5.2.0.0 as a new voting system to be certified for use in the Commonwealth of Pennsylvania. On July 2, 2014 the Election Assistance Commission (EAC) issued their Grant of Certification of the EVS 5.2.0.0, signifying successful completion of conformance testing to the 2005 *EAC Voluntary Voting System Guidelines (VVSG)*.

The EVS 5.2.0.0 voting system includes the following components:

- **ElectionWare**

  ElectionWare is the Election Management System (EMS) software for defining contents, candidates and ballot formats and performing results post-processing. The VAT Previewer and ExpressVote Previewer within the ElectionWare software provides jurisdictions the ability to preview the on-screen display and audio prompts prior to generating Election Day media.

- **DS850 Central Tabulator**

  The DS850 is the central ballot scanner component of the EVS 5.2.0.0 voting system. The DS850 features an S-Curve design that guides the ballot through the scanning process and produces a digital image of the ballot or ExpressVote card for later viewing in the ElectionWare software.

- **DS200 Precinct Tabulator**
  The DS200 is the precinct ballot scanner component of the EVS 5.2.0.0 voting system. The DS200 produces a digital image of the ballot or ExpressVote card for later viewing in the ElectionWare software.

- **ExpressVote Universal Voting Systems**

  The ExpressVote Universal System is a universal solution designed to be used in all elections by all voters, including those with disabilities.

- **ES&S AutoMARK**

  The ES&S AutoMARK is a ballot marking system that supports audio, touchscreen and tactile keypad inputs for ballot marking.

This Test Protocol was developed to ascertain whether the components comply with the requirements set forth in the Pennsylvania Election Code.

2.0 TEST ITEMS

This section contains detailed descriptions of the items tested during the re-examination, including all software, hardware, and peripherals, both proprietary and COTS, and any test support equipment or materials necessary for test performance.

2.1 Software

This subsection contains a listing of the software and firmware being evaluated.

Table 2.1 Software

Component Name	Version	Unique Identifier (digital signature or hash value)
Election Management System (EMS)		
ElectionWare	4.6.0.0	TBD
Election Reporting Manager (ERM)	8.11.0.0	TBD
Removable Media Service	1.4.5.0	TBD
Event Log Service	1.5.5.0	TBD
VAT Previewer	1.8.6.0	TBD
ExpressVote Previewer	1.4.0.0	TBD
ES&S Tabulators		
DS850 Central Tabulator	2.10.0.0	TBD
DS200 Precinct Tabulator	2.12.0.0	TBD
Voter Assist Terminal		
AutoMARK	1.8.6.0	TBD
Universal Voting System		
ExpressVote	1.4.0.0	TBD

2.2 Hardware

This subsection contains a listing of the hardware being evaluated.

Table 2.2 Hardware

Component Name	Model/Version Number	Description
DS850 Central Tabulator	1.0	central ballot scanner for tabulation of mail-in ballots, absentee ballots or Election Day ballots
DS200 Precinct Tabulator	1.2,1.3	precinct ballot scanner component of the voting system
AutoMARK	1.0, 1.1, 1.3	ADA-compliant ballot marking device
ExpressVote	1.0	universal voting solution that provides voters with disabilities the same voting experience as others

2.3 Peripherals

This subsection contains detailed descriptions of optional equipment used by the system being evaluated.

Table 2.3 Peripherals

Part Name	Model/Version Number	Description
Okidata	C711	Ballot on Demand Printer
ExpressPass	1.1.0.0	Software utility to print activation cards
Toolbox	2.1.0.0	Software utility to make audio files
ExpressPass Printer	Microcon	ExpressPass printer
ExpressVote Peripherals	various	Headphones, keypad, QR scanner, sip-n-puff, rocker paddles
AutoMARK Peripherals	various	Headphones, rocker paddles, stylus, sip-n-puff

2.4 Test Support Equipment/Materials

This subsection contains detailed descriptions of the test support equipment and materials needed to perform the required testing.

The Examiner will provide a tape measure (to be used in Test Case 1), Test Execution Logs, and a digital camera for test documentation.

The voting system manufacturer must provide the EMS to be certified loaded with the closed primary and general election definitions (Appendix A). These election definitions are the ballot configurations that will be used throughout the examination. The manufacturer must provide a DS850 central ballot scanner, a DS200 precinct tabulator, an AutoMARK Voter Assist Terminal (VAT), an ExpressVote Universal Voting System and an EMS to be examined. The manufacturer must be prepared to load the firmware/software on the device. The manufacturer must be prepared to print pre-election reports, audit logs, and post-election reports. The manufacturer is responsible for providing the Department and the Examiner with technical staff to support the examination.

3.0 TEST MATERIALS

This section contains a detailed description of all materials made available to Examiner for the re-examination.

3.1 Technical Data Package

This subsection lists all manufacturer provided documentation that is relevant to the system being tested.

Table 3.1 Documentation

Document Name	Version/Document Number	Revision	Issue Date
1: System Overview			
System Overview ES&S Voting System 5.2.0.0	---	9.0	4.22.2014
2: Operation Manuals			
AutoMARK System Operator's Guide	4.0	---	4.7.2014
DS200 Operator's Guide	6.00	---	4.18.2014

DS850 Operator's Guide	4.0	---	2.26.2014
ES&S EVS Event Logging Service User's Guide	3.0	---	2.26.2014
Election Reporting Manager User's Guide	7.0	---	4.2.2014
ElectionWare Volume I: Administrator Guide	4.0	---	4.24.2014
ElectionWare Volume II: Define User's Guide	5.0	---	4.25.2014
ElectionWare Volume III: Design User's Guide	3.0	---	4.25.2014
ElectionWare Volume IV: Deliver User's Guide	4.0	---	2.21.2014
ElectionWare Volume V: Results User's Guide	2.0	---	2.21.2014
ExpressPass Operator's Guide	4.0	---	3.20.2014
ExpressVote Operator's Guide	4.0	---	3.20.2014
Network Setup Guide ES&S Voting System 5.2.0.0	---	1.2	4.15.2014
3: Training			
ES&S Standards and Procedures Personnel Deployment and Training Program	---	3.0	12.20.2013
4: Setup and Repair Maintenance			
DS850 Maintenance Guide	3.0	---	2.26.2014
AutoMARK System Maintenance Manual	2.1	---	4.4.2014
DS200 Maintenance Guide	2.0	---	2.14.2014
ExpressVote Maintenance Guide	2.3	---	2.7.2014
5: System Security			
Voting System Security Specification ES&S Voting System 5.2.0.0	---	4.0	2.21.2014
Hardening Procedures for the Election System ES&S Voting System 5.2.0.0	---	1.2	1.10.2014
AutoMARK System Security Specifications	AQS-18-5002-001-S	6	10.23.2013

3.2 Third Party Test Reports

This subsection lists the reports provided by third party entities that are relevant to the system being evaluated and the test engagement.

Table 3.2 Third Party Test Reports

Report Title	Report No.	Issue Date
NTS Huntsville Operations Test Report: "National Certification Test Report for Certification Testing of the Election Systems and Software EVS 5.2.0.0 Voting Systems, EAC Certification Number – ESSEVS5200, Revision B"	T71379.01-01	June 20, 2014

3.3 Previous Test Results

This subsection describes the results of any previous testing performed by the Department that are relevant to the examination and the system being evaluated.

This EVS 5.2.0.0 is a new voting system; therefore, there are no previous test results relevant to the examination or the system being evaluated.

4.0 TEST SPECIFICATIONS

This section contains a detailed description of the procedures to be followed during test setup and preparation.

The examination of the voting system will occur in an environmentally controlled room. The room will be configured such that the Department, the Examiner, and the voting system manufacturer have their own independent work areas. The public will be allowed to observe the examination, but may not comment or interact with either the employees of the Department, the Examiner, or the voting system manufacturer, at any time. The manufacturer will be allotted time and space to stage the voting system prior to the examination. This time and space will be determined between the Department and the manufacturer in advance of the examination date. Once the manufacturer informs the Department that the voting system is properly set up, the Examiner will provide the manufacturer with the firmware/software for each device, submitted to the Department from the trusted source. The manufacturer will load the firmware/software on to the required media for installation onto each device and install the firmware/software onto each device before commencement of the re-examination. Once each device is loaded with the firmware/software, the manufacturer will not be allowed access to the internal components of the devices without the consent of the Department or the Examiner. If the examination is suspended, each device will be secured in a manner to ensure control of the test environment. If, at any point, the Department or the Examiner determines that the control of the test environment has been compromised, all firmware/software will be reloaded on each device.

5.0 TEST PROCEDURES

This section contains a detailed description of the test sequence, test procedures and expected results.

The test cases for this examination are contained in Appendix B of this Test Protocol. They can be executed independently and in any order.

All steps of the tests cases contain an expected result to provide objective pass/fail criteria. There are no dependencies for execution of the test cases. The test cases have been divided into three main areas for execution: (1) Targeted Functionality; (2) System Integration; and (3) Penetration Analysis. All areas of testing will be performed on-site during the examination. The test sequence for this examination will be as follows:

DS850 Central Tabulator

- Test Case Identifier: 02 – 1107-A(2), 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter (Regular/ADA)
- Test Case Identifier: 03 – 1107-A(3), 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method
- Test Case Identifier: 04 – 1107-A(4), 25 P.S. § 3031.7(4) Straight Party and Write-In
- Test Case Identifier: 05 – 1107-A(5), 25 P.S. § 3031.7(5) Selection of Candidate and Write-in
- Test Case Identifier: 07 – 1107-A(7), 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions (Regular/ADA)
- Test Case Identifier: 17 – 1107-A(17), 25 P.S. § 3031.7(17) Public Counter, No Reopening of Polls, Media Security with Tamper Proof Locks and Zero Proof and Tally Reports

- Test Case Identifier: Central Count Processing

ElectionWare

- Test Case Identifier: Election Management System (EMS)

DS200 Precinct Tabulator

- Test Case Identifier: 01 – 1107-A(2), 25 P.S. § 3031.7(1) Voter Secrecy
- Test Case Identifier: 02 – 1107-A(2), 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter (Regular/ADA)
- Test Case Identifier: 03 – 1107-A(3), 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method
- Test Case Identifier: 04 – 1107-A(4), 25 P.S. § 3031.7(4) Straight Party and Write-In
- Test Case Identifier: 05 – 1107-A(5), 25 P.S. § 3031.7(5) Selection of Candidate and Write-in
- Test Case Identifier: 07 – 1107-A(7), 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions (Regular/ADA)
- Test Case Identifier: 10 – 1107-A(2), 25 P.S. § 3031.7(10) Ballot Review and Change
- Test Case Identifier: 16 – 1107-A(2), 25 P.S. § 3031.7(16) Public Counter, No Reopening of Polls, Media Security with Tamper Proof Locks and Zero Proof and Tally Reports

ES&S AutoMARK

- Test Case Identifier: 01 – 1107-A(2), 25 P.S. § 3031.7(1) Voter Secrecy (ADA Voter)
- Test Case Identifier: 02 – 1107-A(2), 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter (Regular/ADA)
- Test Case Identifier: 03 – 1107-A(3), 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method
- Test Case Identifier: 04 – 1107-A(4), 25 P.S. § 3031.7(4) Straight Party and Write-In
- Test Case Identifier: 05 – 1107-A(5), 25 P.S. § 3031.7(5) Selection of Candidate and Write-in
- Test Case Identifier: 07 – 1107-A(7), 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions (Regular/ADA)
- Test Case Identifier: 10 – 1107-A(2), 25 P.S. § 3031.7(10) Ballot Review and Change (Regular/ADA)

ExpressVote Universal Voting Systems

- Test Case Identifier: 01 – 1107-A(2), 25 P.S. § 3031.7(1) Voter Secrecy (ADA Voter)
- Test Case Identifier: 02 – 1107-A(2), 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter (Regular/ADA)
- Test Case Identifier: 03 – 1107-A(3), 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method
- Test Case Identifier: 04 – 1107-A(4), 25 P.S. § 3031.7(4) Straight Party and Write-In
- Test Case Identifier: 05 – 1107-A(5), 25 P.S. § 3031.7(5) Selection of Candidate and Write-in
- Test Case Identifier: 07 – 1107-A(7), 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions (Regular/ADA)

- Test Case Identifier: 10 – 1107-A(2), 25 P.S. § 3031.7(10) Ballot Review and Change (Regular/ADA)

System Intergration

- General Election
- Closed Primary

6.0 TEST DATA

This section contains a detailed description of the test election definitions and ballot logic being exercised.

The election definitions being used for this examination are provided in Appendix A of this Test Protocol. A predefined set of election parameters are included in the election definitions. Both the general election and the closed primary election definitions provide the voting variations, geographic subdivisions, parties, supported languages and test voting pattern with results being tested. The only languages required for this re-examination are English and Spanish. The Department provided the Spanish translation. Each test voting pattern provides the input method and device. For all Write-In selections, the name will be input as "John Doe." For multiple Write-In selections, the name will be appended with the character "I" for the number of Write-In selections (*i.e.*, "John Doe I," "John Doe II," "John Doe III," and "John Doe IIII" in a "Vote for Four" contest with four write-ins).

6.1 Data Recording

This subsection contains a detailed description of the procedures to be followed during test execution and data collection.

All test data produced during this examination is the property of the Department. The output test data will be collected and stored in an appropriate manner as to allow for data analysis. Actual results from executed tests will be recorded in real-time in Test Execution Logs.

6.2 Data Evaluation

The Examiner will evaluate all test results against the expected results set forth in the test cases provided in Appendix B. The acceptable range for system performance and the expected results is derived from the test designers experience and expertise. If an expected result is not achieved, an evaluation will be performed as to "why" the test or test step did not produce the expected results. This evaluation will consider test error, invalid expectations, and system performance. Failure to achieve the expected results does not constitute a test failure. A test failure only occurs when the "Criteria for Evaluation of Test Results," as set forth in the test cases, are not achieved for a specific test.

ATTACHMENT A

ELECTION DEFINITIONS

Election Definition: Pennsylvania Certification Closed Primary Election

Primary Election Description:

A closed primary election for 2 parties in 3 precincts. This election contains 35 contests compiled into 6 ballot styles. Each ballot style contains 15 contests. The voting variations supported in a primary election by the Commonwealth of Pennsylvania are defined in this election. The voting variations are as follows:

- Partisan contest
- Non-Partisan
- Primary Presidential delegation nominations
- Write-In voting
- N of M Contest
- Cross-Party Filed Candidates

This closed primary election was designed to functionally test the handling of multiple ballot styles across geographical subdivisions, support for two languages, and support for common primary specific voting variations.

Configuration:

EMS computer loaded with software certified for use in Pennsylvania to create the following configuration:

Name: Pennsylvania Certification Closed Primary Election
Voting Devices: 1 machine for each precinct
Precincts: Precinct 1, Precinct 2, Precinct 3
Parties: Republican, Democrat
Languages: English, Spanish
Totals Contests: 35
Contests as follows:

Precinct 1 REP	Precinct 2 REP	Precinct 3 REP	Precinct 1 DEM	Precinct 2 DEM	Precinct 3 DEM
President of the United States Vote for One James Collins Alexander P. Bicket Carol Koethen Write-In			**President of the United States** Vote for One Barry Josey Calvin Marino Write-In		
United States Senator Vote for One Bob Ford *Allegheny County* Colby Lincoln *Delaware County* Write-In			**United States Senator** Vote for One Oscar Draper *Cumberland County* Carter McGaw *Philadelphia County* Write-In		
Representative in Congress **5th District** Vote for One		**Representative in Congress** **10th District**	**Representative in Congress** **5th District** Vote for One		**Representative in Congress**

Ben Baker *Allegheny County* Write-In	Vote for One Cheryl Simon *York County* Lois Koss *Erie County* Write-In	Barbara Barret Hicks *Montgomery County* Clinton Testo *Centre County* Write-In	**10th District** Vote for One William Sullivan *Butler County* Write-In
Governor Vote for One Dean Lindsey *Allegheny County* Don Etter *Allegheny County* Joe Carlton *Washington County* Edwin Lewis *Lancaster County* Samuel Lawton *Bucks County* Write-In		**Governor** Vote for One Charles Jasen *Montgomery County* Shirley Henning *Luzerne County* Write-In	
Lieutenant Governor Vote for One Scott Montes *Berks County* Saul Currier *Lehigh County* Arnold Krill *Lycoming County* Write-In		**Lieutenant Governor** Vote for One Sherman R. Bucher *Philadelphia County* Richard V. Suits *Cambria County* Tabathia Song *Allegheny County* Kenneth Interlicchio *Philadelphia County* Write-In	
Representative in the General Assembly 83rd District Vote for One Harry Rider *Cascade* Robert Tyrell *McNett* Write-In	**Representative in the General Assembly 84th District** Vote for One Peter Valle *Muncy* Write-In	**Representative in the General Assembly 83rd District** Vote for One R. J. Abbott *Shrewsbury* Peter F. Saxton *Willamsport* Write-In	**Representative in the General Assembly 84th District** Vote for One Neil Carey *Lewis* Saul Currier *Eldred* Write-In
Delegate to the National Convention –5th District Vote for Not More Than Three		**Delegate to the National Convention –5th District** Electing 2 Males and 2 Females	

Gloria Dillion Heather Heidelbaugh Herbert Devine George A. Fisk Doris Shiddles Andre Ninia Brian Getz Chad Snow Diane Rubin Elizabeth Piazza Write-In Write-In Write-In	Vote Not More Than Four Vincent Seymour *(M) Committed to Barry Josey* Toni Hamilton *(F) Committed to Calvin Marino* Sam Patel *(M) Committed to Barry Josey* Robert Rocco *(M) Committed to Calvin Marino* Renee Cohn Jubelrier *(F) Committed to Calvin Marino* Morton Steele *(M) Committed to Calvin Marino* Mary Burke *(F) Committed to Barry Josey* Nyda E. Hambin *(F) Committed to Barry Josey* Write-In Write-In Write-In Write-In
Judge of the Superior Court Vote for One Richard Maxian *Philadelphia County* Marjorie Hall *Delaware County* Robert L. Linkey *Bucks County* Write-In	**Judge of the Superior Court** Vote for One Linda Gapp *Cumberland County* Patricia Smallmon *Allegheny County* Write-In
Judge of the Commonwealth Court Vote for One Chris Carpenter *Montgomery County* Write-In	**Judge of the Commonwealth Court** Vote for One Eugene Ruff *Washington County* Lewis Tese *Luzerne County* Write-In
Judge of the Court of Common Pleas Vote for Not More Than Two Mary L. Daniel *Armstrong* John Roy *Clinton* Jack “Duke” Brodisky *McNett* Jon Young	**Judge of the Court of Common Pleas** Vote for Not More Than Two Joanne Shollzert *Williamsport* Kerry Jones *Williamsport* Steven Miller *Lewis* Shirley Henning

Muncy Vic Stabile *Gamble* Write-In Write-In	*Mill Creek* Write-In Write-In
County Chief Executive Four Year Term Vote for One Norman Powers *Williamsport* Sandra Reilly *McNett* Write-In	**County Chief Executive** Four Year Term Vote for One Micheal Santarcangelo *Fairfield* Charles Place *Gamble* Write-In
School Director **Region 6** Four Year Term Vote for Not More Than Two Gerald Danson Greg Ortiz Shlomo Archibald Delores DeVan Write-In Write-In	**School Director** **Region 6** Four Year Term Vote for Not More Than Two Douglas Stone Gerald Danson Greg Ortiz Shlomo Archibald Delores DeVan Write-In Write-In

Commissioner Seat 1 Four Year Term Vote for One Stephen Harrick Write-In	**Commissioner Seat 2** Four Year Term Vote for One Steve West Write-In	**Commissioner Seat 3** Four Year Term Vote for One William Malicki Gary Klemann Write-In	**Commissioner Seat 1** Four Year Term Vote for One George Fisk Write-In	**Commissioner Seat 2** Four Year Term Vote for One Tetty Rogiers Write-In	**Commissioner Seat 3** Four Year Term Vote for One Arnold Wells Write-In

Referendum A
Bond Issue

To promote and assure the preservation and improvement of essential rail passenger and freight services to the inhabitants of the state, shall section two of chapter one hundred eighteen of the laws of nineteen hundred seventy-four, authorizing the creation of a state debt in the amount of two hundred fifty million dollars for capital facilities be approved?

Yes

No

Spanish

<table>
<tr><th>Distrito electoral 1
REP</th><th>Distrito electoral 2
REP</th><th>Distrito electoral 3
REP</th><th>Distrito electoral 1
DEM</th><th>Distrito electoral 2
DEM</th><th>Distrito electoral 3
DEM</th></tr>
<tr><td colspan="3">Presidente de los Estados Unidos
Vote por uno

James Collins

Alexander P. Bicket

Carol Koethen

Por escrito</td><td colspan="3">Presidente de los Estados Unidos
Vote por uno

Barry Josey

Calvin Marino

Por escrito</td></tr>
<tr><td colspan="3">Senador de los Estados Unidos
Vote por uno

Bob Ford
Condado de Allegheny

Colby Lincoln
Condado de Delaware

Por escrito</td><td colspan="3">Senador de los Estados Unidos
Vote por uno

Oscar Draper
Condado de Cumberland

Carter McGaw
Condado de Filadelfia

Por escrito</td></tr>
<tr><td colspan="2">Representante en el Congreso
5º Distrito
Vote por uno

Ben Baker
Condado de Allegheny

Por escrito</td><td>Representante en el Congreso
10.º Distrito
Vote por uno

Cheryl Simon
Condado de York

Lois Koss
Condado de Erie

Por escrito</td><td colspan="2">Representante en el Congreso
5º Distrito
Vote por uno

Barbara Barret Hicks
Condado de Montgomery

Clinton Testo
Condado Centre

Por escrito</td><td>Representante en el Congreso
10.º Distrito
Vote por uno

William Sullivan

Condado de Butler

Por escrito</td></tr>
<tr><td colspan="3">Gobernador
Vote por uno

Dean Lindsey
Condado de Allegheny

Don Etter
Condado de Allegheny

Joe Carlton
Condado de Washington

Edwin Lewis
Condado de Lancaster

Samuel Lawton
Condado de Bucks.

Por escrito</td><td colspan="3">Gobernador
Vote por uno

Charles Jasen
Condado de Montgomery

Shirley Henning
Condado de Luzerne

Por escrito</td></tr>
<tr><td colspan="3">Vicegobergador
Vote por uno

Scott Montes
Condado de Berks

Saul Currier</td><td colspan="3">Vicegobergador
Vote por uno

Sherman R. Bucher
Condado de Filadelfia

Richard V. Suits</td></tr>
</table>

Condado de Lehigh Arnold Krill *Condado de Lycoming* Por escrito		*Condado de Cambria* Tabathia Song *Condado de Allegheny* Kenneth Interlicchio *Condado de Filadelfia* Por escrito	
Representante en la Asamblea General 83.° Distrito Vote por uno Harry Rider *Cascade* Robert Tyrell *McNett* Por escrito	**Representante en la Asamblea General 84.° Distrito** Vote por uno Peter Valle *Muncy* Por escrito	**Representante en la Asamblea General 83.° Distrito** Vote por uno R. J. Abbott *Shrewsbury* Peter F. Saxton *Willamsport* Por escrito	**Representante en la Asamblea General 84.° Distrito** Vote por uno Neil Carey *Lewis* Saul Currier *Eldred* Por escrito
Delegado a la convención nacional – 5.° Distrito No vote por no más de tres Gloria Dillion Heather Heidelbaugh Herbert Devine George A. Fisk Doris Shiddles Andre Ninia Brian Getz Chad Snow Diane Rubin Elizabeth Piazza Write-In Write-In Write-In		**Delegado a la convención nacional – 5.° Distrito** Elija 2 damas y 2 caballeros No vote por más de cuatro Vincent Seymour *(H) Committed to Barry Josey* Toni Hamilton *(M) Committed to Calvin Marino* Sam Patel *(H) Committed to Barry Josey* Robert Rocco *(H) Committed to Calvin Marino* Renee Cohn Jubelrier *(M) Committed to Calvin Marino* Morton Steele *(H) Committed to Calvin Marino* Mary Burke *(M) Committed to Barry Josey* Nyda E. Hambin *(M) Committed to Barry Josey* Write-In Write-In Write-In Write-In	
Juez de la corte suprema Vote por uno Richard Maxian *Condado de Filadelfia* Marjorie Hall *Condado de Delaware* Robert L. Linkey *Condado de Bucks.*		**Juez de la corte suprema** Vote por uno Linda Gapp *Condado de Cumberland* Patricia Smallmon *Condado de Allegheny* Write-In	

Write-In	
Juez de la corte del estado Vote por uno Chris Carpenter *Condado de Montgomery* Write-In	**Juez de la corte del estado** Vote por uno Eugene Ruff *Condado de Washington* Lewis Tese *Condado de Luzerne* Write-In
Juez de la corte de primeras instancias Vote por no más de dos Mary L. Daniel *Armstrong* John Roy *Clinton* Jack “Duke” Brodisky *McNett* Jon Young *Muncy* Vic Stabile *Gamble* Por escrito Por escrito	**Juez de la corte de primeras instancias** No vote por más de dos Joanne Shollzert *Williamsport* Kerry Jones *Williamsport* Steven Miller *Lewis* Shirley Henning *Mill Creek* Por escrito Por escrito
Jefe principal del condado Término de cuatro años Vote por uno Norman Powers *Williamsport* Sandra Reilly *McNett* Por escrito	**Jefe principal del condado** Término de cuatro años Vote por uno Micheal Santarcangelo *Fairfield* Charles Place *Gamble* Por escrito
Director de la escuela **Región 6** Término de cuatro años No vote por más de dos Gerald Danson Greg Ortiz Shlomo Archibald Delores DeVan Por escrito Por escrito	**Director de la escuela** **Región 6** Término de cuatro años No vote por más de dos Douglas Stone Gerald Danson Greg Ortiz Shlomo Archibald Delores DeVan Por escrito Por escrito
Comisionado **Comisionado** **Comisionado**	**Comisionado** **Comisionado** **Comisionado**

Puesto 1 Término de cuatro años Vote por uno	**Puesto 2** Término de cuatro años Vote por uno	**Puesto 3** Término de cuatro años Vote por uno	**Puesto 1** Término de cuatro años Vote por uno	**Puesto 2** Término de cuatro años Vote por uno	**Puesto 3** Término de cuatro años Vote por uno
Stephen Harrick Por escrito	Steve West Por escrito	William Malicki Gary Klemann Por escrito	George Fisk Por escrito	Tetty Rogiers Por escrito	Arnold Wells Por escrito

Referéndum a nivel estatal

Asunto del bono

Para promover y asegurar la preservación y mejoramiento del pasajero férreo esencial y servicios de carga para los habitantes del estado, ¿se debe aprobar la sección dos del capítulo ciento dieciocho de las leyes de mil novecientos sesenticuatro, autorizando la creación de una deuda estatal en la cantidad de doscientos cincuenta millones de dólares para instalaciones de capital?

Sí

No

Voting Pattern:

Precinct 1 REP	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	B 14	B 15	B 16	B 17	B 18	B 19
President of the United States																			
James Collins	X				X	X		X		X		X		X		U	X	X	
Alexander P. Bicket		X					X								X				X
Carol Koethen			X						X		X								
Write-In				X									X						
United States Senator																			
Bob Ford			X				X		X				X		X				X
Colby Lincoln	X	X		X	X			X		X	X	X		X		X		X	
Write-In						X											X		
Representative in Congress 5th District																			
Ben Baker	X	X	X	X	U		X	X	X	X		X	X	X		X	X		X
Write-In						X					X				X			X	
Governor																			
Dean Lindsey				X			X				X		X			X			
Don Etter			X		X							X			X			X	
Joe Carlton	X					X			X	X				X			X		
Edwin Lewis		X																	X
Samuel Lawton								X											
Write-In																			
Lieutenant Governor																			
Scott Montes					X					X						X		U	X
Saul Currier				X					X					X					
Arnold Krill	X		X			X	X	X			X	X	X		X				
Write-In		X															X		
Representative in the General Assembly 83rd District																			
Harry Rider	X	X		X		X		X	X		X		X		X		X		X
Robert Tyrell			X				X			X		X		X		X			
Write-In					X\													X	
Presidential Nomination Delegation																			
Gloria Dillion	X	X		X		X		X	X	X	X		X		X	X		X	X
Heather Heidelbaugh		X			X					X		X			X	X			X
Herbert Devine		X	X	X			X	X	X	X		X	X	X	X	U			X
George A. Fisk	X				X								X					X	
Doris Shiddles			X						X			X							
Andre Ninia								X						X				X	
Brian Getz	X		X	X															
Chad Snow							X							X					
Diane Rubin							X												
Elizabeth Piazza					X														
Write-In						X											X		
Write-In						X											X		
Write-In																	X		
Judge of the Superior Court																			
Richard Maxian					X		X		U		X			X					X
Marjorie Hall		X				X							X		X				
Robert L. Linkey	X			X				X		X		X				X	X	X	
Write-In			X																
Judge of the Commonwealth Court																			
Chris Carpenter	X	X	X	X	X	U	X	X	X	X		X	X	X	U	X	X	X	X
Write-In											X								
Judge of the Court of Common Pleas																			
Mary L. Daniel	X	X		X		X		X	X	X			X		X	X	U	X	X
John Roy		X						U			X						U	X	
Jack "Duke" Brodisky	X		X	X	X		X		X	X			X	X		X			X
Jon Young			X				U				X	X			X				
Vic Stabile					X									X					
Write-In						X						X							
Write-In																			
County Chief Executive																			

Norman Powers	X		X	X		X	X	X		X		X	X	U				X	X	X
Sandra Reilly		X			X				X		X				X	X				
Write-In																	X			
School Director Region 6																				
Gerald Danson	X		X	X		X		X			X			X	X	U	X		X	X
Greg Ortiz	X				X		X			X		X	X			U				
Shlomo Archibald		X	X	X	X		X	X	X	X	X		X		X		X		X	X
Delores DeVan		X				X			X			X		X				X		
Write-In																		X		
Write-In																				
Commissioner Seat 1																				
Stephen Harrick	U	X	X	X	X		X	X	X	X	X	X	X	U	X	X		X	X	X
Write-In						X											X			
Referendum A																				
Yes	U		X	X	X		X	X		X	X	X	X	U	X	U	X			X
No		X				X			X									X	X	

Precinct 1 DEM	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**
President of the United States																			
Barry Josey	X	U				X					X		X				X		X
Calvin Marino			X	X	X			X	X	X		X		X	X	X		X	
Write-In							X												
United States Senator																			
Oscar Draper	X		X	X	X	X		X		X	X		X		X	X		X	
Carter McGaw		X					X		X					X			X		X
Write-In												X							
Representative in Congress 5th District																			
Barbara Barret Hicks	X	X	X		X		X		X		X	X		X	X	X		X	
Clinton Testo				X				X		X			X				X		X
Write-In						X													
Governor																			
Charles Jasen	X		X	X	X		X				X		X	X	X		X	X	
Shirley Henning		X				X		X	X			X				X			X
Write-In										X									
Lieutenant Governor																			
Sherman R. Bucher				X								X							
Richard V. Suits							X						X					X	
Tabathia Song	X								X					X		X			
Kenneth Interlicchio		X	X		X	X		X			X				X		X		X
Write-In										X									
Representative in the General Assembly 83rd District																			
R. J. Abbott	X	X		X		X		X		U		X	X	X		X		X	X
Peter F. Saxton			X		X				X		X				X		X		
Write-In							X												
Presidential Nomination Delegation																			
Vincent Seymour			U		X		X		X			X	X			X		U	X
Toni Hamilton	X	X	U	X		X		X			X		X	X			X	U	
Sam Patel			U		X		X		X			X	X		X	X		U	X
Robert Rocco	X	X	U	X	U	X		X			X		X	X	X		X	U	
Renee Cohn Jubelrier	X	X		X	U	X		X			X			X	X		X		
Morton Steele	X	U		X		X		X			X			X	X		X		
Mary Burke							X		X			X				X			X
Nyda E. Hambin							X					X				X			X
Write-In									X	X									
Write-In										X									
Write-In										X									
Write-In										X									
Judge of the Superior Court																			
Linda Gapp				X				X			X		U			X		X	
Patricia Smallmon	X	X	X		X	X			X	X		X		X	X		X		X

Write-In							X													
Judge of the Commonwealth Court																				
Eugene Ruff			X	X		X	X	X	X		X		X	X		U		X		X
Lewis Tese	X	X			X					X		X			X		X		X	
Write-In																				
Judge of the Court of Common Pleas																				
Joanne Shollzert	X		X	X	X	X		X		X		X		X	X		X	U		X
Kerry Jones	X	X		X	X		X	X	X		X	X		X		X	X	U	X	
Steven Miller		X				X			X		U		X		X					X
Shirley Henning			X				X						X			X			X	
Write-In										X										
Write-In																				
County Chief Executive																				
Micheal Santarcangelo	X		X	X	X		X	X	X		X		X		X	X		X		X
Charles Place		X				X				X		X		X			X		X	
Write-In																				
School Director Region 6																				
Douglas Stone		X		X					X			X		X			X	X		
Gerald Danson	X		X	X			X	X	X	X	X		X		X	X		X		X
Greg Ortiz		X			X					X				X			X		X	
Shlomo Archibald	X		X		X	X	X				X		X		X	X			X	X
Delores DeVan						X		X				X								
Write-In																				
Write-In																				
Commissioner Seat 1																				
George Fisk	X	X	X	X	X	X	X	X	X	X	X	X	X	U	X	X	X	X	X	X
Write-In																				
Referendum A																				
Yes	X		X	X	X		X	U			U	X	X	X		X	X		X	X
No		X				X			X	X					X			X		

Precinct 2 REP	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**
President of the United States																			
James Collins	X	X			X		X		X		X	X	X		X	X		X	U
Alexander P. Bicket			X			X								X					
Carol Koethen				X				X									X		
Write-In										X									
United States Senator																			
Bob Ford		X						X		X	X					X		X	
Colby Lincoln	X		X		X	X	X		X			X	X	X	X		X		X
Write-In				X															
Representative in Congress 5th District																			
Ben Baker	X	U	U		X		X	X	X	X	X	X	X	X	X	X	X	X	X
Write-In				X		X													
Governor																			
Dean Lindsey				X			X				X		X			X			
Don Etter			X		X							X			X			X	
Joe Carlton	X					X			X	X				X			X		
Edwin Lewis		X																	X
Samuel Lawton								X											
Write-In																			
Lieutenant Governor																			
Scott Montes	X							X			X							X	
Saul Currier		X					X			X				X			X		
Arnold Krill			X	X	X				X				X		X	X			X
Write-In						X						X							
Representative in the General Assembly 83rd District																			
Harry Rider	X	X	X		X	X		X		X	X		X	X		X	X	X	
Robert Tyrell				X			X		X			X			X				X
Write-In																			
Presidential Nomination Delegation																			
Gloria Dillion	X	X	X				X	X		X	U		X	X		X	X		X

Heather Heidelbaugh	X		X							X	U		X		X	X		X	X	
Herbert Devine	X			X	X		X	U		X	U			X			X		X	
George A. Fisk		X						U				X								X
Doris Shiddles		X			X												X			X
Andre Ninia			X									X						X		X
Brian Getz				X	X								X	X		X				
Chad Snow				X		X						X								
Diane Rubin						X			X						X					
Elizabeth Piazza						X	X								X			X		
Write-In									X											
Write-In									X											
Write-In																				
Judge of the Superior Court																				
Richard Maxian				X						X			X		X			X		
Marjorie Hall		X				X					X			X					X	
Robert L. Linkey	X		X		X		X	X	X			X				X				X
Write-In																	X			
Judge of the Commonwealth Court																				
Chris Carpenter	X	U	X	X	X	X	X	X	X	X	X	X	X	X	U	X	X	X	X	
Write-In																				X
Judge of the Court of Common Pleas																				
Mary L. Daniel		X	X	X		X	X	X	X		X	X		X			X		X	X
John Roy	X	X							X	X					X			X		
Jack “Duke” Brodisky	X		X		X	X		X		X	X		X	X			X	X	X	X
Jon Young				X									X		X	X				
Vic Stabile					X		X					X				X				
Write-In																				
Write-In																				
County Chief Executive																				
Norman Powers	X				X	X		X	X		X		X	X	U		X		X	X
Sandra Reilly		X	X	X			X			X		X				X		X		
Write-In																				
School Director Region 6																				
Gerald Danson	U	X		X	X			X	X	X		X		X	X	X		X		X
Greg Ortiz	U	X	X			X		X	X				X	X					X	
Shlomo Archibald			X	X	X					X	X	X			X	X	X	X		X
Delores DeVan						X					X		X						X	
Write-In							X										X			
Write-In							U													
Commissioner Seat 2																				
Steve West	X		X	X	X	X	X	X	U	X	X		X	X	X		X	X	X	
Write-In		X										X				X				X
Referendum A																				
Yes	U		X	X	X	X	X	X	U		X	X	X	X	X	X	X	X	X	
No		X								X										X

Precinct 2 DEM	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**
President of the United States																			
Barry Josey	X	X		X		X		X		X	U		X		X		X		X
Calvin Marino			X		X		X					X				X		X	
Write-In									X					X					
United States Senator																			
Oscar Draper	X		X	X			X			X		X	X	X	U		X		
Carter McGaw		X			X			X			X					X		X	X
Write-In						X			X										
Representative in Congress 5th District																			
Barbara Barret Hicks			X	X	X		X	X	X	X		X	X		X		X	X	X
Clinton Testo		X				X					X			X					
Write-In	X															X			
Governor																			
Charles Jasen	X	X	X		X	X			X		X	X	X	X		X		X	

Shirley Henning				X				X		X					X		X		X	
Write-In							X													X
Lieutenant Governor																				
Sherman R. Bucher		X						X						X		X		X		
Richard V. Suits										X										
Tabathia Song			X				X						X							X
Kenneth Interlicchio	X			X	X	X			X			X			X		X		X	
Write-In											X									
Representative in the General Assembly 83rd District																				
R. J. Abbott	X	X		X	X	X		X	X		X	U		X	X		X	X	X	X
Peter F. Saxton			X				X			X			X							
Write-In															X					
Presidential Nomination Delegation																				
Vincent Seymour		X		X		X		X			U			X		X		X		
Toni Hamilton	X		X		X	X	X		X	X	U	X	X		X		X	U	X	X
Sam Patel		X		X		X		X		X	U			X		X		U	X	X
Robert Rocco	X		X		X	X	X	U	X	X	U	X	X			X	X	U	X	X
Renee Cohn Jubelrier	X		X		X		X	U	X	X					X		X			
Morton Steele	X		X		X		X		X							X	X		X	X
Mary Burke		X		X										X	X					
Nyda E. Hambin		X		X										X	X					
Write-In												X	X							
Write-In												X	X							
Write-In																				
Write-In																				
Judge of the Superior Court																				
Linda Gapp		X				X		X				X			X				X	X
Patricia Smallmon	X		X	X	X		X		X	X			X	X		X	X			
Write-In											X							X		
Judge of the Commonwealth Court																				
Eugene Ruff	X	X		X	X		X	X	X			X			X	U			X	
Lewis Tese			X			X				X	X		X				X	X		X
Write-In														X						
Judge of the Court of Common Pleas																				
Joanne Shollzert	X	X	X		X	X		X	X	X		X	X	U	X		X		X	
Kerry Jones	X	X		X	X	U	X		X				X	U		X	X	X	X	
Steven Miller			X				X			X	X	X			X			X		X
Shirley Henning				X				X			X					X				X
Write-In																				
Write-In																				
County Chief Executive																				
Micheal Santarcangelo	X		X		X	X	X		X			X	X		X	X	X	U		X
Charles Place		X		X				X		X	X			X					X	
Write-In																				
School Director Region 6																				
Douglas Stone		X					U		X				X							
Gerald Danson		X		X		X	U	X	X	X		X	X	X		X	X			X
Greg Ortiz	X		X							X	X			X	X				X	
Shlomo Archibald			X	X		X		X			X	X			X	X		X	X	X
Delores DeVan	X				X												X	X		
Write-In					X															
Write-In																				
Commissioner Seat 2																				
Tetty Rogiers	X	X	X	X	U	X	X	X	X	X	X		X	X	X	X	U	X	X	X
Write-In												X								
Referendum A																				
Yes	X	X	U	X	U		U	X	X		U	X	U		X	X	U		U	
No						X				X				X				X		X

Precinct 3 REP	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**

President of the United States																				
James Collins	X	X		U		X		X		X			X			X			X	X
Alexander P. Bicket					X		X				X			X			X			
Carol Koethen			X						X			X						X		
Write-In															X					
United States Senator																				
Bob Ford	U					X			X		X				X				X	
Colby Lincoln		X		X	X		X	X		X		X		X		X	X			X
Write-In			X										X					X		
Representative in Congress 10th District																				
Cheryl Simon		X		X					X		X				X			X	X	
Lois Koss	X		X		X	X	X	X		X		X	X	X		X				X
Write-In																	X			
Governor																				
Dean Lindsey				X			X				X		X			X				
Don Etter			X		X							X			X			X		
Joe Carlton	X					X			X	X				X			X			X
Edwin Lewis		X																	X	
Samuel Lawton								X												
Write-In																				
Lieutenant Governor																				
Scott Montes	X		X			X		X				X	X		X		X	X		
Saul Currier				X						X									X	
Arnold Krill		X			X		X		X					X		X				X
Write-In											X									
Representative in the General Assembly 84rd District																				
Peter Valle	X	X	X	X	U	X	X		X	X	X	X	X	X		X		X		X
Write-In								X							X		X		X	
Presidential Nomination Delegation																				
Gloria Dillion	X				X	U	X				X			X		X				
Heather Heidelbaugh	X					U		X	X		X					X			X	
Herbert Devine	X				X	U	X				X				X	X				
George A. Fisk		X			X		X			X		X		X			X			X
Doris Shiddles		X										X			X		X	X		
Andre Ninia		X		X				X				X					X	X	X	
Brian Getz			X					X		X			X							X
Chad Snow			X	X					X	X			X	X	X					
Diane Rubin			X										X						X	
Elizabeth Piazza				X														X		X
Write-In									X											
Write-In																				
Write-In																				
Judge of the Superior Court																				
Richard Maxian			X				X			X	X					X				X
Marjorie Hall					X			X						X					X	
Robert L. Linkey	X	X		X		X			X			X	X				X	X		
Write-In															X					
Judge of the Commonwealth Court																				
Chris Carpenter	U	X	X		X	X	X	X	U	X	X	X	X	X	X	X	X	X	U	X
Write-In				X																
Judge of the Court of Common Pleas																				
Mary L. Daniel		U	X	X	X		X	X	X	X				X			X	X		X
John Roy		U		X					X		X				X				X	
Jack "Duke" Brodisky	X		X		X	X		X		X	X	X	X	X				X	X	
Jon Young						X						X			X	X				X
Vic Stabile							X						X			X				
Write-In	X																X			
Write-In																				
County Chief Executive																				
Norman Powers	X		X	X		X	X		X		X		X		X		X		X	X
Sandra Reilly		X			X			X		X		X		X		X		X		
Write-In																				
School Director Region 6																				

Gerald Danson		X	X			X		X		X		X	X		X		X			X
Greg Ortiz			X	X				X	X			X		X				X		
Shlomo Archibald	X	X		X	X	X	X		X	X	X		X		X	X	X	X	X	X
Delores DeVan	X				X		X				X			X		X			X	
Write-In																				
Write-In																				
Commissioner Seat 3																				
William Malicki	X	X	X		X		X	X	X	X		X	U		X		X		X	X
Gary Klemann				X		X					X			X		X		X		
Write-In																				
Referendum A																				
Yes	X		X		X	X		X	X		U		U	X	X	U	X	X	X	X
No		X		X			X			X		X								

Precinct 3 DEM	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**
President of the United States																			
Barry Josey				X		X		X				X		X		X			
Calvin Marino	X		X		X		X		X	X			X		X		X	X	X
Write-In		X									X								
United States Senator																			
Oscar Draper		X		X	X	X		X	X		X		X		X	X			
Carter McGaw	X		X				X			X		X		X			X	X	
Write-In																			X
Representative in Congress 10th District																			
William Sullivan	X	X	X	X	X	X	X	U	X	X		X	X		X	X	X	X	X
Write-In											X			X					
Governor																			
Charles Jasen	X		U	X	X		X		X		X	X		X		X		X	
Shirley Henning		X				X				X			X		X		X		X
Write-In								X											
Lieutenant Governor																			
Sherman R. Bucher		X	X		X			X				X		X		U			
Richard V. Suits										X							X		
Tabathia Song							X				X							X	
Kenneth Interlicchio	X			X		X			X						X				X
Write-In													X						
Representative in the General Assembly 84rd District																			
Neil Carey	X	X		X		X	X	X		X		X	X	X		X		X	X
Saul Currier			X		X				X						X		X		
Write-In											X								
Presidential Nomination Delegation																			
Vincent Seymour			U		X		X		X			X	X			X		U	X
Toni Hamilton	X	X	U	X		X		X			X		X	X			X	U	
Sam Patel			U		X		X		X			X	X		X	X		U	X
Robert Rocco	X	X	U	X	U	X		X			X		X	X	X		X	U	
Renee Cohn Jubelrier	X	X		X	U	X		X			X			X	X		X		
Morton Steele	X	U		X		X		X			X			X	X		X		
Mary Burke							X		X			X				X			X
Nyda E. Hambin							X					X				X			X
Write-In									X	X									
Write-In										X									
Write-In										X									
Write-In										X									
Judge of the Superior Court																			
Linda Gapp			X			X		X			X	X						X	
Patricia Smallmon	X	X		X	X		X		X	X			X	X		X	X		X
Write-In															X				
Judge of the Commonwealth Court																			
Eugene Ruff	X	X		X		X	X		X		X	X		X	X		X		X
Lewis Tese			X		X			X		X			X			X		X	
Write-In																			

Judge of the Court of Common Pleas																				
Joanne Shollzert		X	X		X	X		X	X		X		X		X	X	X		X	X
Kerry Jones			X	X	X	U	X	X			X	X	X	X		X		X	X	X
Steven Miller		X					X		X	X				X			X			
Shirley Henning				X						X		X						X		
Write-In	X														X					
Write-In	X																			
County Chief Executive																				
Micheal Santarcangelo	X		X	X		X	X		X	X	X		X		X	X		X	X	X
Charles Place					X			X				X		X			X			
Write-In		X																		
School Director Region 6																				
Douglas Stone	X		X					X			X	X				X		X		
Gerald Danson		X	X	X	X	X				X		X	X				X	X		X
Greg Ortiz	X			X					X		X					X				
Shlomo Archibald		X			X		X	X	X	X			X	X			X		X	X
Delores DeVan						X	X							X	X				X	
Write-In															X					
Write-In																				
Commissioner Seat 3																				
Arnold Wells	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Write-In								X												
Referendum A																				
Yes	X		X		X		X		X		X		X		X		X		X	
No		X		X		X		X		X		X		X		X		X		X

Precinct 3 Non Partisan	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**
Referendum A					
Yes	X		X		U
No		X		X	

Test Results:

Precinct 1 REP
President of the United States
James Collins 10

Alexander P. Bicket	4
Carol Koethen	3
Write-In	2
Undervotes	1

United States Senator

Bob Ford	6
Colby Lincoln	12
Write-In	2
Undervotes	0

Representative in Congress 5th District

Ben Baker	15
Write-In	4
Undervotes	1

Governor

Dean Lindsey	5
Don Etter	5
Joe Carlton	7
Edwin Lewis	2
Samuel Lawton	1
Write-In	0
Undervotes	0

Lieutenant Governor

Scott Montes	4
Saul Currier	4
Arnold Krill	9
Write-In	2
Undervotes	1

Representative in the General Assembly 83rd District

Harry Rider	12
Robert Tyrell	6
Write-In	2
Undervotes	0

Presidential Nomination Delegation

Gloria Dillion	14
Heather Heidelbaugh	8
Herbert Devine	13
George A. Fisk	4
Doris Shiddles	4
Andre Ninia	3
Brian Getz	3
Chad Snow	2
Diane Rubin	1
Elizabeth Piazza	2
Write-In	5
Undervotes	1

Judge of the Superior Court

Richard Maxian	5
Marjorie Hall	5
Robert L. Linkey	8
Write-In	1
Undervotes	1

Judge of the Commonwealth Court

Chris Carpenter	17
Write-In	1
Undervotes	2

Judge of the Court of Common Pleas

Mary L. Daniel	12

John Roy	3
Jack “Duke” Brodisky	11
Jon Young	5
Vic Stabile	3
Write-In	2
Undervotes	4

County Chief Executive

Norman Powers	12
Sandra Reilly	6
Write-In	1
Undervotes	1

School Director Region 6

Gerald Danson	11
Greg Ortiz	6
Shlomo Archibald	14
Delores DeVan	6
Write-In	1
Undervotes	2

Commissioner Seat 1

Stephen Harrick	16
Write-In	2
Undervotes	2

Referendum A

Yes	12
No	5
Undervote	3

Precinct 1 DEM

President of the United States

Barry Josey	6
Calvin Marino	12
Write-In	1
Undervotes	1

United States Senator

Oscar Draper	13
Carter McGaw	6
Write-In	1
Undervotes	0

Representative in Congress 5th District

Barbara Barret Hicks	13
Clinton Testo	6
Write-In	1
Undervotes	0

Governor

Charles Jasen	12
Shirley Henning	7
Write-In	1
Undervotes	0

Lieutenant Governor

Sherman R. Bucher	3
Richard V. Suits	3
Tabathia Song	4
Kenneth Interlicchio	9
Write-In	1
Undervotes	0

Representative in the General Assembly 83rd District

R. J. Abbott	12
Peter F. Saxton	6
Write-In	1

Undervotes	1

Presidential Nomination Delegation

Vincent Seymour	8
Toni Hamilton	10
Sam Patel	9
Robert Rocco	11
Renee Cohn Jubelrier	9
Morton Steele	8
Mary Burke	5
Nyda E. Hambin	4
Write-In	5
Undervotes	11

Judge of the Superior Court

Linda Gapp	6
Patricia Smallmon	12
Write-In	1
Undervotes	1

Judge of the Commonwealth Court

Eugene Ruff	11
Lewis Tese	8
Write-In	0
Undervotes	1

Judge of the Court of Common Pleas

Joanne Shollzert	12
Kerry Jones	13
Steven Miller	6
Shirley Henning	5
Write-In	1
Undervotes	3

County Chief Executive

Micheal Santarcangelo	13
Charles Place	7
Write-In	0
Undervotes	0

School Director Region 6

Douglas Stone	7
Gerald Danson	13
Greg Ortiz	6
Shlomo Archibald	11
Delores DeVan	3
Write-In	0
Undervotes	0

Commissioner Seat 1

George Fisk	19
Write-In	0
Undervotes	1

Referendum A

Yes	12
No	6
Undervote	2

Precinct 2 REP

President of the United States

James Collins	11
Alexander P. Bicket	4
Carol Koethen	3
Write-In	1
Undervotes	1

United States Senator

Bob Ford	7
Colby Lincoln	12
Write-In	1
Undervotes	0

Representative in Congress 5th District

Ben Baker	16
Write-In	2
Undervotes	2

Governor

Dean Lindsey	5
Don Etter	5
Joe Carlton	7
Edwin Lewis	2
Samuel Lawton	1
Write-In	0
Undervotes	0

Lieutenant Governor

Scott Montes	4
Saul Currier	5
Arnold Krill	9
Write-In	2
Undervotes	0

Representative in the General Assembly 83rd District

Harry Rider	13
Robert Tyrell	6
Write-In	1
Undervotes	0

Presidential Nomination Delegation

Gloria Dillion	11
Heather Heidelbaugh	8
Herbert Devine	8
George A. Fisk	3
Doris Shiddles	4
Andre Ninia	4
Brian Getz	5
Chad Snow	3
Diane Rubin	3
Elizabeth Piazza	4
Write-In	5
Undervotes	2

Judge of the Superior Court

Richard Maxian	5
Marjorie Hall	5
Robert L. Linkey	9
Write-In	1
Undervotes	0

Judge of the Commonwealth Court

Chris Carpenter	17
Write-In	1
Undervotes	2

Judge of the Court of Common Pleas

Mary L. Daniel	13
John Roy	6
Jack “Duke” Brodisky	13
Jon Young	4
Vic Stabile	4
Write-In	0
Undervotes	0

County Chief Executive

Norman Powers	11
Sandra Reilly	8
Write-In	0
Undervotes	1

School Director Region 6

Gerald Danson	12
Greg Ortiz	8
Shlomo Archibald	11
Delores DeVan	4
Write-In	2
Undervotes	3

Commissioner Seat 2

Steve West	15
Write-In	4
Undervotes	1

Referendum A

Yes	15
No	3
Undervote	2

Precinct 2 DEM

President of the United States

Barry Josey	11
Calvin Marino	6
Write-In	2
Undervotes	1

United States Senator

Oscar Draper	10
Carter McGaw	7
Write-In	2
Undervotes	1

Representative in Congress 5th District

Barbara Barret Hicks	13
Clinton Testo	5
Write-In	2
Undervotes	0

Governor

Charles Jasen	12
Shirley Henning	6
Write-In	2
Undervotes	0

Lieutenant Governor

Sherman R. Bucher	5
Richard V. Suits	1
Tabathia Song	4
Kenneth Interlicchio	9
Write-In	1
Undervotes	0

Representative in the General Assembly 83rd District

R. J. Abbott	14
Peter F. Saxton	4
Write-In	1
Undervotes	1

Presidential Nomination Delegation

Vincent Seymour	7
Toni Hamilton	13
Sam Patel	9

Robert Rocco	13
Renee Cohn Jubelrier	8
Morton Steele	9
Mary Burke	4
Nyda E. Hambin	4
Write-In	4
Undervotes	9

Judge of the Superior Court

Linda Gapp	7
Patricia Smallmon	11
Write-In	2
Undervotes	0

Judge of the Commonwealth Court

Eugene Ruff	10
Lewis Tese	8
Write-In	1
Undervotes	1

Judge of the Court of Common Pleas

Joanne Shollzert	13
Kerry Jones	11
Steven Miller	8
Shirley Henning	5
Write-In	0
Undervotes	3

County Chief Executive

Micheal Santarcangelo	12
Charles Place	7
Write-In	0
Undervotes	1

School Director Region 6

Douglas Stone	3
Gerald Danson	12
Greg Ortiz	7
Shlomo Archibald	11
Delores DeVan	4
Write-In	1
Undervotes	2

Commissioner Seat 2

Tetty Rogiers	17
Write-In	1
Undervotes	2

Referendum A

Yes	8
No	5
Undervote	7

Precinct 3 REP

President of the United States

James Collins	9
Alexander P. Bicket	5
Carol Koethen	4
Write-In	1
Undervotes	1

United States Senator

Bob Ford	5
Colby Lincoln	11
Write-In	3
Undervotes	1

Representative in Congress 10th District

Cheryl Simon	7
Lois Koss	12
Write-In	1
Undervotes	0

Governor

Dean Lindsey	5
Don Etter	5
Joe Carlton	7
Edwin Lewis	2
Samuel Lawton	1
Write-In	0
Undervotes	0

Lieutenant Governor

Scott Montes	9
Saul Currier	3
Arnold Krill	7
Write-In	1
Undervotes	0

Representative in the General Assembly 84rd District

Peter Valle	15
Write-In	4
Undervotes	1

Presidential Nomination Delegation

Gloria Dillion	6
Heather Heidelbaugh	6
Herbert Devine	6
George A. Fisk	8
Doris Shiddles	5
Andre Ninia	7
Brian Getz	5
Chad Snow	7
Diane Rubin	3
Elizabeth Piazza	3
Write-In	1
Undervotes	3

Judge of the Superior Court

Richard Maxian	6
Marjorie Hall	4
Robert L. Linkey	9
Write-In	1
Undervotes	0

Judge of the Commonwealth Court

Chris Carpenter	16
Write-In	1
Undervotes	3

Judge of the Court of Common Pleas

Mary L. Daniel	11
John Roy	5
Jack “Duke” Brodisky	12
Jon Young	5
Vic Stabile	3
Write-In	2
Undervotes	2

County Chief Executive

Norman Powers	12
Sandra Reilly	8
Write-In	0
Undervotes	0

School Director Region 6

Gerald Danson	10
Greg Ortiz	7

Shlomo Archibald	16
Delores DeVan	7
Write-In	0
Undervotes	0

Commissioner Seat 3

William Malicki	13
Gary Klemann	6
Write-In	0
Undervotes	1

Referendum A

Yes	12
No	5
Undervote	3

Precinct 3 DEM

President of the United States

Barry Josey	7
Calvin Marino	11
Write-In	2
Undervotes	0

United States Senator

Oscar Draper	11
Carter McGaw	8
Write-In	1
Undervotes	0

Representative in Congress 10th District

William Sullivan	17
Write-In	2
Undervotes	1

Governor

Charles Jasen	11
Shirley Henning	7
Write-In	1
Undervotes	1

Lieutenant Governor

Sherman R. Bucher	7
Richard V. Suits	2
Tabathia Song	3
Kenneth Interlicchio	6
Write-In	1
Undervotes	1

Representative in the General Assembly 84rd District

Neil Carey	14
Saul Currier	5
Write-In	1
Undervotes	0

Presidential Nomination Delegation

Vincent Seymour	8
Toni Hamilton	10
Sam Patel	9
Robert Rocco	11
Renee Cohn Jubelrier	9
Morton Steele	8
Mary Burke	5
Nyda E. Hambin	4
Write-In	5
Undervotes	11

Judge of the Superior Court

Linda Gapp	6
Patricia Smallmon	13
Write-In	1
Undervotes	0

Judge of the Commonwealth Court

Eugene Ruff	13
Lewis Tese	7
Write-In	0
Undervotes	0

Judge of the Court of Common Pleas

Joanne Shollzert	13
Kerry Jones	13
Steven Miller	6
Shirley Henning	4
Write-In	3
Undervotes	1

County Chief Executive

Micheal Santarcangelo	14
Charles Place	5
Write-In	1
Undervotes	0

School Director Region 6

Douglas Stone	7
Gerald Danson	11
Greg Ortiz	5
Shlomo Archibald	11
Delores DeVan	5
Write-In	1
Undervotes	0

Commissioner Seat 3

Arnold Wells	19
Write-In	1
Undervotes	0

Referendum A

Yes	10
No	10
Undervote	0

Precinct 3 Non Partisan

Referendum A

Yes	2
No	2
Undervote	1

Cumulative Totals REP:

President of the United States

James Collins	30
Alexander P. Bicket	13
Carol Koethen	10
Write-In	4
Undervote	3

United States Senator

Bob Ford	18
Colby Lincoln	35
Write-In	6
Undervote	1

Representative in Congress 5th District

Ben Baker	31
Write-In	6
Undervote	3

Representative in Congress 10th District

Cheryl Simon	7
Lois Koss	12
Write-In	1
Undervote	0

Governor

Dean Lindsey	15
Don Etter	15
Joe Carlton	21
Edwin Lewis	6
Samuel Lawton	3
Write-In	0
Undervotes	0

Lieutenant Governor

Scott Montes	17
Saul Currier	12
Arnold Krill	25
Write-In	5
Undervotes	1

Representative in the General Assembly 83rd District

Harry Rider	25
Robert Tyrell	12
Write-In	3
Undervotes	0

Representative in the General Assembly 84rd District

Peter Valle	15
Write-In	4
Undervotes	1

Presidential Nomination Delegation

Gloria Dillion	31
Heather Heidelbaugh	22
Herbert Devine	27
George A. Fisk	15
Doris Shiddles	13
Andre Ninia	14
Brian Getz	13
Chad Snow	12
Diane Rubin	7
Elizabeth Piazza	9
Write-In	11
Undervotes	6

Judge of the Superior Court

Richard Maxian	16
Marjorie Hall	14
Robert L. Linkey	26
Write-In	3
Undervotes	1

Judge of the Commonwealth Court

Chris Carpenter	50
Write-In	3
Undervotes	7

Judge of the Court of Common Pleas

Mary L. Daniel	36
John Roy	14
Jack “Duke” Brodisky	36
Jon Young	14
Vic Stabile	10

Write-In	4
Undervotes	6

County Chief Executive

Norman Powers	35
Sandra Reilly	22
Write-In	1
Undervotes	2

School Director Region 6

Gerald Danson	33
Greg Ortiz	21
Shlomo Archibald	41
Delores DeVan	17
Write-In	3
Undervotes	5

Commissioner Seat 1 REP

Stephen Harrick	16
Write-In	2
Undervotes	2

Commissioner Seat 2 REP

Steve West	15
Write-In	4
Undervotes	1

Commissioner Seat 3 REP

William Malicki	13
Gary Klemann	6
Write-In	0
Undervotes	1

Referendum A REP

Yes	39
No	13
Undervote	8

Cumulative Totals DEM:

President of the United States

Barry Josey	24
Calvin Marino	29
Write-In	5
Undervotes	2

United States Senator

Oscar Draper	34
Carter McGaw	21
Write-In	4
Undervotes	1

Representative in Congress 5th District

Barbara Barret Hicks	26
Clinton Testo	11
Write-In	3
Undervotes	0

Representative in Congress 10th District

William Sullivan	17
Write-In	2
Undervotes	1

Governor

Charles Jasen	35
Shirley Henning	20
Write-In	4

Undervotes	1

Lieutenant Governor

Sherman R. Bucher	15
Richard V. Suits	6
Tabathia Song	11
Kenneth Interlicchio	24
Write-In	3
Undervotes	1

Representative in the General Assembly 83rd District

R. J. Abbott	26
Peter F. Saxton	10
Write-In	2
Undervotes	2

Representative in the General Assembly 84rd District

Neil Carey	14
Saul Currier	5
Write-In	1
Undervotes	0

Presidential Nomination Delegation

Vincent Seymour	23
Toni Hamilton	33
Sam Patel	27
Robert Rocco	35
Renee Cohn Jubelrier	26
Morton Steele	25
Mary Burke	14
Nyda E. Hambin	12
Write-In	14
Undervotes	31

Judge of the Superior Court

Linda Gapp	19
Patricia Smallmon	36
Write-In	4
Undervotes	1

Judge of the Commonwealth Court

Eugene Ruff	34
Lewis Tese	23
Write-In	1
Undervotes	2

Judge of the Court of Common Pleas

Joanne Shollzert	38
Kerry Jones	37
Steven Miller	20
Shirley Henning	14
Write-In	4
Undervotes	7

County Chief Executive

Micheal Santarcangelo	39
Charles Place	19
Write-In	1
Undervotes	1

School Director Region 6

Douglas Stone	17
Gerald Danson	36
Greg Ortiz	18
Shlomo Archibald	33
Delores DeVan	12
Write-In	2
Undervotes	2

Commissioner Seat 1 DEM

George Fisk	19
Write-In	0
Undervotes	1

Commissioner Seat 2 DEM

Tetty Rogiers	17
Write-In	1
Undervotes	2

Commissioner Seat 3 DEM

Arnold Wells	19
Write-In	1
Undervotes	0

Referendum A DEM

Yes	30
No	21
Undervote	9

Cumulative Totals Non Partisan:

Referendum A

Yes	2
No	2
Undervote	1

Election Definition: Pennsylvania Certification General Election

General Election Description:

A general election combining presidential year contests, non-presidential year contests, and municipal contests into a single election held in 3 precincts one of which is a split precinct on the "Representative in the General Assembly" contests. This election contains 21 contests compiled into 4 ballot styles (excluding language styles). 15 of the contests are in all ballot styles. The other 6 are split between at least 2 of the precincts with a maximum of 21 different contests spread across the 3 precincts. All voting variations supported by the Commonwealth of Pennsylvania are defined in this election. The voting variations are as follows:

- Partisan contest
- Non-Partisan contest
- N of M contest
- Referendum contest
- Retention Contest
- Straight Party voting
- Write-In voting
- Split Precinct
- Cross-Party Nominated

This general election was designed to functionally test the handling of multiple ballot styles across geographical subdivisions, support for English and Spanish languages, support for all Pennsylvania voting variations, and audio support for English and Spanish.

Configuration:

EMS computer loaded with software certified for use in Pennsylvania to create the following configuration:

Name: Pennsylvania Certification General Election
Voting Devices: 1 machine for each precinct
Precincts: Precinct 1, Precinct 2 split into 2a and 2b, Precinct 3
Parties: Republican, Democratic, Green, Libertarian
Languages: English, Spanish
Totals Contests: 21
Contests as follows:

Precinct 1	Precinct 2a	Precinct 2b	Precinct 3
Straight Party Republican Democratic Green Libertarian			
President/Vice President of the United States Vote for the Candidate of One Party for President and Vice President or insert the names of candidates James Collins Arthur Remus			

Republican

Calvin Marino
Keith Satterwhite
Democratic

John P. Defazio
Louis Denn
Green

June Perkins
David Heroux
Libertarian

Write-In

United States Senator
Vote for One

Colby Lincoln
Republican

Oscar Draper
Democratic

Eric Sheely
Libertarian

Write-In

Representative in Congress
5th District
Vote for One

Ben Baker
Republican

Barbara Barrett Hicks
Democratic

Write-In

Representative in Congress
10th District
Vote for One

Lois Koss
Republican

William Sullivan
Democratic

Write-In

Governor/Lieutenant Governor
Vote for the Candidate of One Party for Governor and Lieutenant Governor

Joe Carlton
Arnold Krill
Republican

Charles Jasen
Kenneth Interlicchio
Democratic

Robert Marsh
Theodore Kopp
Green

Write-In

Representative in the General Assembly
83rd District
Vote for One

Harry Rider
Republican

R. J. Abbott
Democratic

Representative in the General Assembly
84th District
Vote for One

Peter Valle
Republican

Neil Carey
Democratic

Derek Carlson *Libertarian* Write-In	Write-In

Judge of the Superior Court
Vote for One

Robert L .Linkey
Republican

Patricia Smallmon
Democratic

Write-In

Judge of the Commonwealth Court
Vote for One

Chris Carpenter
Republican

Eugene Ruff
Democratic

Write-In

Judge of the Court of Common Pleas
Vote for Not More Than Two

Mary L. Daniel
Republican

Jack “Duke” Brodisky
Republican

Joanne Schollzert
Democratic

Kerry Jones
Democratic

Write-In

Write-In

County Chief Executive
Four Year Term
Vote for One

Norman Powers
Republican

Micheal Santarcangelo
Democratic
Write-In

County Controller
Four Year Term
Vote for One

Paul M Bertel-Lincoln
Republican

Donna Berke
Democratic

Write-In

District Attorney
Four Year Term
Vote for One

Franklin Margo
Republican

Donald Hensley
Democratic

Write-In

School Director
Region 6
Four Year Term
Vote for Not More Than Two

Gerald Danson
Republican/Democratic

Shlomo Archibald
Republican/Democratic

Write-In

Write-In

Commissioner Seat 1 Four Year Term Vote for One	**Commissioner** Seat 2 Four Year Term Vote for One	**Commissioner** Seat 3 Four Year Term Vote for One
Stephen Harrick *Republican*	Steve West *Republican*	William Malicki *Republican*
George Fisk *Democratic*	Tetty Rogiers *Democratic*	Arnold Wells *Democratic*
Write-In	Write-In	Write-In

Statewide Referendum
Water and Sewer Improvements Bond Referendum

Do you favor the incurring of indebtedness by the Commonwealth of $400,000,000 for grants and loans to municipalities and public utilities for the cost of all labor, materials, necessary operational machinery and equipment, lands, property, rights and easements, plans and specifications, surveys, estimates of costs and revenues, prefeasibility studies, engineering and legal services and all other expenses necessary or incident to the acquisition, construction, improvement, expansion, extension, repair or rehabilitation of all or part of the drinking water system, storm water, nonpoint source projects, nutrient credits and wastewater treatment system projects?

Yes

No

Retention of Tony Grzanich

Shall Tony Grzanich be retained for an additional term as Justice of the Supreme Court of the Commonwealth of Pennsylvania?

Yes

No

Retention of Debbie Marks

Shall Debbie Marks be retained for an additional term as Justice of the Supreme Court of the Commonwealth of Pennsylvania?

Yes

No

Spanish

Distrito electoral 1	Distrito electoral 2a	Distrito electoral 2b	Distrito electoral 3

Partido íntegro

Republicano

Demócrata

Verde

Libertario

Presidente/Vicepresidente de los Estados Unidos
Vote para el candidato de un partido para presidente y vicepresidente
o inserte los nombres de los candidatos

James Collins
Arthur Remus
Republicano

Calvin Marino
Keith Satterwhite
Demócrata

John P. Defazio
Louis Denn
Verde

June Perkins
David Heroux
Libertario

Por escrito

Senador de los Estados Unidos
Vote por uno

Colby Lincoln
Republicano

Oscar Draper
Demócrata

Eric Sheely
Libertario

Por escrito

Representante en el Congreso 5º Distrito Vote por uno	**Representante en el Congreso 10.º Distrito** Vote por uno
Ben Baker *Republicano*	Lois Koss

Barbara Barret Hicks *Demócrata* Por escrito	*Republicano* William Sullivan *Demócrata* Por escrito

Gobernador/vicegobernador
Vote para el candidato de un partido para gobernador y vicegobernador

Joe Carlton
Arnold Krill
Republicano

Charles Jasen
Kenneth Interlicchio
Demócrata

Robert Marsh
Theodore Kopp
Verde

Por escrito

Representante en la Asamblea General 83.° Distrito Vote por uno	**Representante en la Asamblea General 84.° Distrito** Vote por uno
Harry Rider *Republicano* R. J. Abbott *Demócrata* Derek Carlson *Libertario* Por escrito	Peter Valle *Republicano* Neil Carey *Demócrata* Por escrito

Juez de la corte suprema
Vote por uno

Robert L. Linkey
Republicano

Patricia Smallmon
Demócrata

Por escrito

Juez de la corte del estado
Vote por uno

Chris Carpenter
Republicano

Eugene Ruff
Demócrata

Por escrito

Juez de la corte de primeras instancias
No vote por más de dos

Mary L. Daniel

Republicano

Jack “Duke” Brodisky
Republicano

Joanne Schollzert
Demócrata

Kerry Jones
Demócrata

Por escrito

Por escrito

Jefe principal del condado
Término de cuatro años
Vote por uno

Norman Powers
Republicano

Micheal Santarcangelo
Demócrata
Por escrito

Contralor del condado
Término de cuatro años
Vote por uno

Paul M Bertel-Lincoln
Republicano

Donna Berke
Demócrata

Por escrito

Procurador del distrito
Término de cuatro años
Vote por uno

Franklin Margo
Republicano

Donald Hensley
Demócrata

Por escrito

Director de la escuela
Región 6
Término de cuatro años
No vote por más de dos

Gerald Danson
Republicano/Demócrata

Shlomo Archibald
Republicano/Demócrata

Por escrito

Por escrito

Comisionado Puesto 1 Término de cuatro años Vote por uno	**Comisionado** Puesto 2 Término de cuatro años Vote por uno	**Comisionado** Puesto 3 Término de cuatro años Vote por uno
Stephen Harrick *Republicano*	Steve West *Republicano*	William Malicki *Republicano*
George Fisk *Demócrata*	Tetty Rogiers *Demócrata*	Arnold Wells *Demócrata*
Por escrito	Por escrito	Por escrito

Referendum a nivel estatal
Referéndum de bono de mejoramientos de agua y drenaje

¿Está usted a favor de incurrir un endeudamiento por el Estado de $400,000,000 por subvenciones y prestamos a municipalidades y servicios públicos por el cotos de toda la mano de obra, materiales, maquinaria operacional necesaria y equipo, tierras, propiedad, derechos y servidumbres, planos y especificación, encuestas, calculo de costos e ingresos, estudios de previabilidad, servicios de legales y de ingeniería y todos los gastos necesarios o incidente a la adquisición, construcción, mejora, expansión, extensión, reparación o rehabilitación de todo o parte del sistema de agua potable, agua pluviales, proyectos de recurso sin punto, créditos de nutrientes y proyectos de sistemas de tratamiento de aguas negras?

Sí

No

Retención de Tony Grzanich

¿Debe Tony Grzanich ser retenido por un término adicional como magistrado de la corte suprema del Estado de Pennsylvania?

Sí

No

Retención de Debbie Marks

¿Debe Debbie Marks ser retenida por un término adicional como magistrada de la corte suprema del Estado de Pennsylvania?

Sí

No

Voting Pattern:

Ballots will be voted and cast with the following pattern. Ballots 3 and 13 will be input using the alternative language option. Ballots 10 and 18 will be input using the ADA audio capability. Ballots 5 and 10 in Precinct 1 and Ballot 10 in Precinct 3 will exercise the Pennsylvania Method for straight party.

The following test pattern will be input for the given precinct:

Precinct 1	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**	**B 20**
Straight Party																				
Republican	X		X		P	U	U		U		U	U	U	U		U	U	U	U	U
Democratic		X		X						P										
Green																				
Libertarian								X							X					
President/Vice President of the United States																				
James Collins Arthur Remus						X			X		X	X					X			U
Calvin Marino Keith Satterwhite							X						X	X		X		X		
John P. Defazio																				

Louis Denn																				
June Perkins David Heroux								X							X					
Write-In																			X	
United States Senator																				
Colby Lincoln						X							X			X				
Oscar Draper							X				X	X		X	X		X	X	X	
Eric Sheely								X												
Write-In									X											X
Representative in Congress 5th District																				
Ben Baker						X	X					U		X	X		X		X	X
Barbara Barrett Hicks									X		X		X					X		
Write-In								X								X				
Governor/Lieutenant Governor																				
Joe Carlton Arnold Krill								X	X		X	X		X	X		X	X		X
Charles Jasen Kenneth Interlicchio							X						X			X			X	
Robert Marsh Theodore Kopp																				
Write-In						X														
Representative in the General Assembly 83rd District																				
Harry Rider													X	X			X	X		X
R. J. Abbott						X		X				X							X	
Derek Carlson									X						X					
Write-In							X				X					X				
Judge of the Superior Court																				
Robert L. Linkey						X		X			U			X			X			
Patricia Smallmon							X		X			X	X		X	X		X	X	
Write-In																				X
Judge of the Commonwealth Court																				
Chris Carpenter								X	X		X			X		X				
Eugene Ruff						X	X					X			X		X	X		
Write-In													X						X	X
Judge of the Court of Common Pleas																				
Mary L. Daniel						X					X	X	X				X	X	X	X
Jack “Duke” Brodisky						X	X				X	X		X					X	X
Joanne Schollzert							X	X					X		X	X	X	X		
Kerry Jones								X	X					X	X	X				
Write-In									X	P										
Write-In										U										
County Chief Executive																				
Norman Powers						X	X					X		U	X		X			
Micheal Santarcangelo								X	X		X		X			X		X		
Write-in																			X	X
County Controller																				
Paul M Bertel- Lincoln						U			X			X	X	X			X	U		
Donna Berke							X				X				X				X	X
Write-In								X								X				
District Attorney																				
Franklin Margo						X			X				X		X		X	X		
Donald Hensley							X				X			X		X			X	
Write-In								X				X								X
School Director Region 6																				
Gerald Danson						X	X		X		X	X		X	X	X	U		X	X
Shlomo Archibald						X	X	X			X	X	X		X	U	U		X	X
Write-In					P			X	X				X	X				X		
Write-In					P													U		
Commissioner Seat 1																				
Stephen Harrick							X	X	X		X	X	X		X	X		X		X
George Fisk						X				X				X			X			
Write-in																			X	

Statewide Referendum																				
Yes			X	U	X							X		X	X	X	U			
No	X	X				X	X	X	X	X	X		X					X	X	X
Retention of Tony Grzanich																				
Yes	X	X			X	X		X		X	X	X	X		X			U	X	
No			X	X			X		X					X		X	X			X
Retention of Debbie Marks																				
Yes		X		X	X	X			X	X	X	X	X			X	U	U		X
No	X		X				X	X						X	X				X	

Precinct 2a	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**	**B 20**
Straight Party																				
Republican	X	X	X		U	U	U		U	P	U	U	U	U		U	U	U	U	U
Democratic				X																
Green																				
Libertarian								X							X					
President/Vice President of the United States																				
James Collins Arthur Remus					X	X	X				X	X				X	X	X	X	
Calvin Marino Keith Satterwhite									X				X	X						
John P. Defazio Louis Denn																				
June Perkins David Heroux								X							X					
Write-In																				X
United States Senator																				
Colby Lincoln					X		X				X	X		X			X	X		X
Oscar Draper						X			X				X						X	
Eric Sheely								X							X					
Write-In																X				
Representative in Congress 5th District																				
Ben Baker					X	X	X		X		X			X	U	X	X	X		
Barbara Barrett Hicks								X				X							X	X
Write-In													X							
Governor/Lieutenant Governor																				
Joe Carlton Arnold Krill					X		X	X	X			X			U	X	X		X	X
Charles Jasen Kenneth Interlicchio						X					X		X					X		
Robert Marsh Theodore Kopp																				
Write-In														X						
Representative in the General Assembly 83rd District																				
Harry Rider					X	X			X					X		X	X			X
R. J. Abbott							X				X	X	X					X	X	
Derek Carlson								X							X					
Write-In																				
Judge of the Superior Court																				
Robert L .Linkey						U	X		X			X	X	X				X	X	X
Patricia Smallmon					X						X				X	X	X			
Write-In								X												
Judge of the Commonwealth Court																				
Chris Carpenter					X	X	X		X		X	X		X		X		U	X	
Eugene Ruff								X					X				X			X
Write-In															X					
Judge of the Court of Common Pleas																				
Mary L. Daniel					X	X	X	X			X			X	X	X		X	X	
Jack "Duke" Brodisky					X	X			X		U		X		X	X				
Joanne Schollzert							X		X	P							X		X	X
Kerry Jones								X		P			X				X			X

Write-In												X		X						
Write-In												X						X		
County Chief Executive																				
Norman Powers					X		X	X	X			U	X				X	X	X	X
Micheal Santarcangelo						X					X				X	X				
Write-in														X						
County Controller																				
Paul M Bertel-Lincoln					X	X		X			X			X	U	X		X		U
Donna Berke							X		X			X	X				X		X	
Write-In																				
District Attorney																				
Franklin Margo						X	X				X			X		X				
Donald Hensley					X			X	X			X	X				X	X	X	X
Write-In															X					
School Director Region 6																				
Gerald Danson					X	X	X	X	X		X	X	U		X	X	X		X	X
Shlomo Archibald					X	X	X	X			X	X	U		X	U		X	X	X
Write-In									X					X			X	X		
Write-In														X						
Commissioner Seat 2																				
Steve West					U		X		X		X	X			X		X	X		
Tetty Rogiers						U		X					X			X			X	X
Write-in														X						
Statewide Referendum																				
Yes					U	X	X				U	X					X		X	X
No	X	X	X	X				X	X	X			X	X	X	X		X		
Retention of Tony Grzanich																				
Yes	X	X	X	X		X	X	X	X	X	U		X	X	X	X		U	X	X
No					X							X					X			
Retention of Debbie Marks																				
Yes	X	X	U	X		X	X	X		X	X	X	X		X	X	X	X	X	
No					X				X					X						X

Precinct 2b	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**	**B 20**
Straight Party																				
Republican		X			U	U	U	U	U		U			U		U		U	U	U
Democratic	X		X	X						P										
Green												X			X		X			
Libertarian													X							
President/Vice President of the United States																				
James Collins Arthur Remus					X	X		X	X		X			X			X		X	X
Calvin Marino Keith Satterwhite							X									X		X		
John P. Defazio Louis Denn												X			X					
June Perkins David Heroux													X							
Write-In																				
United States Senator																				
Colby Lincoln					X	X		X	X		X	X		X		U	X		X	X
Oscar Draper							X											X		
Eric Sheely													X							
Write-In															X					
Representative in Congress 5th District																				
Ben Baker					X	X	X		X				U		X		X		X	
Barbara Barrett Hicks								X			X			X		X		X		X
Write-In												X								
Governor/Lieutenant Governor																				
Joe Carlton Arnold Krill					X		X		X					X				X	X	X

Charles Jasen Kenneth Interlicchio						X		X			X					X				
Robert Marsh Theodore Kopp												X			X		X			
Write-In													X							
Representative in the General Assembly 84rd District																				
Peter Valle					X	X		X	X		X				X	X	X		X	
Neil Carey							X					X	X					X		X
Write-In														X						
Judge of the Superior Court																				
Robert L. Linkey					X		X	X			X	X	X		X	X	X	X		
Patricia Smallmon						X			X					X						X
Write-In																			X	
Judge of the Commonwealth Court																				
Chris Carpenter						X		X	X		X		X			X	X	U		X
Eugene Ruff							X					X		X					X	
Write-In					X										X					
Judge of the Court of Common Pleas																				
Mary L. Daniel					X	X	X	X			X			U		X	X	X		
Jack "Duke" Brodisky					X	X			X			X		U		X	X			
Joanne Schollzert							X		X									X	X	X
Kerry Jones								X							X				X	X
Write-In											X	X	X		U					
Write-In													X							
County Chief Executive																				
Norman Powers					X	X		X	X			X			X	X	U		X	X
Micheal Santarcangelo							X				X		X	X						
Write-in																		X		
County Controller																				
Paul M Bertel-Lincoln					U		X	X	X			X	X		X	X		X	X	X
Donna Berke						X					X			X			X			
Write-In																				
District Attorney																				
Franklin Margo											X			X			X			
Donald Hensley					X	X	X	X	X			X	X		X	X		X	X	X
Write-In																				
School Director Region 6																				
Gerald Danson					X	X	X	X			X	X	U	X	X	X		X	X	X
Shlomo Archibald					X	X		X	X		X	X	U	X	X	X	X	X	X	X
Write-In							X		X								U			
Write-In																				
Commissioner Seat 2																				
Steve West					X	X		X	X		X	X	X		X	X	X	X	X	
Tetty Rogiers							X													X
Write-in														X						
Statewide Referendum																				
Yes	X	X			X		X		X		X	X	X	X						
No			X	X		X		X		X					X	X	X	X	X	X
Retention of Tony Grzanich																				
Yes	X	X		X	X	X		X	X	X		U	X		X	X	X		X	X
No			X				X				X			X				X		
Retention of Debbie Marks																				
Yes		X	X	X		U			X	X	X	X	X	X		X	X		X	X
No	X				X		X	X							X			X		

Precinct 3	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**B 6**	**B 7**	**B 8**	**B 9**	**B 10**	**B 11**	**B 12**	**B 13**	**B 14**	**B 15**	**B 16**	**B 17**	**B 18**	**B 19**	**B 20**
Straight Party																				
Republican	X	X	X	X	U	U		U	U		U	U	U		U		U	U		U
Democratic										P										
Green														X		X				
Libertarian							X												X	

President/Vice President of the United States																				
James Collins Arthur Remus					X			X	X			X	X		X		X	X		X
Calvin Marino Keith Satterwhite						X					X									
John P. Defazio Louis Denn														X		X				
June Perkins David Heroux							X												X	
Write-In																				
United States Senator																				
Colby Lincoln						X		X			X		X	X	X	X		X		X
Oscar Draper					X				X			X					X			
Eric Sheely							X												X	
Write-In																				
Representative in Congress 10th District																				
Lois Koss					X		X	X	X		X		X	X		X		U	X	X
William Sullivan						X						X					X			
Write-In															X					
Governor/Lieutenant Governor																				
Joe Carlton Arnold Krill					X	X		X			X				X		X		X	
Charles Jasen Kenneth Interlicchio							X					X						X		X
Robert Marsh Theodore Kopp														X		X				
Write-In									X				X							
Representative in the General Assembly 84rd District																				
Peter Valle					X		X	X	X		X		X		X		U	X		
Neil Carey						X						X		X		X			X	
Write-In																				X
Judge of the Superior Court																				
Robert L. Linkey					X	X		X			X	X		X		X	X	X		X
Patricia Smallmon							X		X						X				X	
Write-In													X							
Judge of the Commonwealth Court																				
Chris Carpenter					X			X			X		X		X	X		X	X	X
Eugene Ruff						X	X		X					X			X			
Write-In												X								
Judge of the Court of Common Pleas																				
Mary L. Daniel					X										U	X	X		X	X
Jack "Duke" Brodisky					X	X	X	X					X	X	U	X	X		X	X
Joanne Schollzert						X	X		X		X	X		U				X		
Kerry Jones								X	X		X							X		
Write-In										P		X	X							
Write-In										U										
County Chief Executive																				
Norman Powers						X		X	X		X		X		X	X		X		X
Micheal Santarcangelo					X		X					X		X			X		X	
Write-in																				
County Controller																				
Paul M Bertel- Lincoln					U		U	X	X		X				X	X	X		X	X
Donna Berke						X						X		X				X		
Write-In													X							
District Attorney																				
Franklin Margo							X				X			U			X		X	X
Donald Hensley					X	X		X	X			X			X	X		X		
Write-In													X							
School Director Region 6																				
Gerald Danson					X	X	X	X	X		X		X	X	U	X	X	U	X	X
Shlomo Archibald					X	X	X	X	X		X	X	X	X	U	X		X	X	X
Write-In												X					X			
Write-In																				

Commissioner Seat 3																				
William Malicki						X	X	X				X	X		X		X	U	X	
Arnold Wells					X				X					X		X				X
Write-in											X									
Statewide Referendum																				
Yes	X				X			X		U		X			X				U	X
No		X	X	X		X	X		X		X		X	X		X	X	X		
Retention of Tony Grzanich																				
Yes	X	X	X		X	X		X		X	X	X		X	X		X		X	X
No				X			X		X				X			X		X		
Retention of Debbie Marks																				
Yes		X		X		X		X		X	X	X	X						X	X
No	X		X		X		X		X					X	X	X	X	X		

Test Results:

Precinct 1:
Straight Party

Republican	3
Democratic	3
Green	0
Libertarian	2
Undervote	12

President/Vice President of the United States

James Collins	
Arthur Remus	8
Calvin Marino	
Keith Satterwhite	8
John P .Defazio	
Louis Denn	0
June Perkins	
David Heroux	2
Write-In	1
Undervote	1

United States Senator

Colby Lincoln	6
Oscar Draper	11
Eric Sheely	1
Write-In	2
Undervote	0

Representative in Congress District 5

Ben Baker	10
Barbara Barrett-Hicks	7
Write-In	2
Undervote	1

Governor/Lieutenant Governor

Joe Carlton	
Arnold Krill	12
Charles Jasen	
Kenneth Interlicchio	7
Robert Marsh	
Theodore Kopp	0
Write-In	1
Undervote	0

Representative in the General Assembly District 83

Harry Rider	8
R.J. Abbott	7
Derek Carlson	2
Write-In	3
Undervote	0

Judge of Superior Court	
Robert L. Linkey	7
Patricia Smallmon	11
Write-In	1
Undervote	1
Judge of the Commonwealth Court	
Chris Carpenter	8
Eugene Ruff	9
Write-In	3
Undervote	0
Judge of the Court of Common Pleas	
Mary L. Daniel	11
Jack "Duke" Brodisky	10
Joanne Scholzert	9
Kerry jones	7
Write-In	2
Undervote	1
County Chief Executive	
Norman Powers	8
Micheal Santarcangelo	9
Write-In	2
Undervote	1
County Controller	
Paul M. Bertel-Lincoln	8
Donna Berke	8
Write-In	2
Undervote	2
District Attorney	
Franklin Margo	9
Donald Hensley	8
Write-In	3
Undervote	0
School Director Region 6	
Gerald Danson	15
Shlomo Archibald	14
Write-In	7
Undervote	4
Commissioner Seat 1	
Stephen Harrick	13
George Fisk	6
Write-In	1
Undervote	0
Statewide Referendum	
Yes	6
No	12
Undervote	2
Retention of Tony Grzanich	
Yes	11
No	8
Undervote	1
Retention of Debbie Marks	
Yes	11
No	7
Undervote	2

Precinct 2a:	
Straight Party	
Republican	4
Democratic	1

Green	0
Libertarian	2
Undervote	13

President/Vice President of the United States

James Collins	
Arthur Remus	13
Calvin Marino	
Keith Satterwhite	4
John P. Defazio	
Louis Denn	0
June Perkins	
David Heroux	2
Write-In	1
Undervote	0

United States Senator

Colby Lincoln	12
Oscar Draper	5
Eric Sheely	2
Write-In	1
Undervote	0

Representative in Congress District 5

Ben Baker	13
Barbara Barrett-Hicks	5
Write-In	1
Undervote	1

Governor/Lieutenant Governor

Joe Carlton	
Arnold Krill	13
Charles Jasen	
Kenneth Interlicchio	5
Robert Marsh	
Theodore Kopp	0
Write-In	1
Undervote	1

Representative in the General Assembly District 83

Harry Rider	11
R.J. Abbott	7
Derek Carlson	2
Write-In	0
Undervote	0

Judge of Superior Court

Robert L .Linkey	12
Patricia Smallmon	6
Write-In	1
Undervote	1

Judge of the Commonwealth Court

Chris Carpenter	13
Eugene Ruff	5
Write-In	1
Undervote	1

Judge of the Court of Common Pleas

Mary L. Daniel	13
Jack “Duke” Brodisky	9
Joanne Scholzert	7
Kerry jones	6
Write-In	4
Undervote	1

County Chief Executive

Norman Powers	13
Micheal Santarcangelo	5
Write-In	1

Undervote	1

County Controller

Paul M. Bertel-Lincoln	11
Donna Berke	7
Write-In	0
Undervote	2

District Attorney

Franklin Margo	9
Donald Hensley	10
Write-In	1
Undervote	0

School Director Region 6

Gerald Danson	17
Shlomo Archibald	15
Write-In	5
Undervote	3

Commissioner Seat 2

Steve West	11
Tetty Rogiers	6
Write-In	1
Undervote	2

Statewide Referendum

Yes	6
No	12
Undervote	2

Retention of Tony Grzanich

Yes	15
No	3
Undervote	2

Retention of Debbie Marks

Yes	15
No	4
Undervote	1

Precinct 2b:

Straight Party

Republican	1
Democratic	4
Green	3
Libertarian	1
Undervote	11

President/Vice President of the United States

James Collins	
Arthur Remus	10
Calvin Marino	
Keith Satterwhite	7
John P. Defazio	
Louis Denn	2
June Perkins	
David Heroux	1
Write-In	0
Undervote	0

United States Senator

Colby Lincoln	11
Oscar Draper	6
Eric Sheely	1
Write-In	1
Undervote	1

Representative in Congress District 5

Ben Baker	8
Barbara Barrett-Hicks	10
Write-In	1
Undervote	1

Governor/Lieutenant Governor

Joe Carlton	
Arnold Krill	8
Charles Jasen	
Kenneth Interlicchio	8
Robert Marsh	
Theodore Kopp	3
Write-In	1
Undervote	0

Representative in the General Assembly District 84

Peter Valle	10
Neil Carey	9
Write-In	1
Undervote	0

Judge of Superior Court

Robert L. Linkey	11
Patricia Smallmon	8
Write-In	1
Undervote	0

Judge of the Commonwealth Court

Chris Carpenter	9
Eugene Ruff	8
Write-In	2
Undervote	1

Judge of the Court of Common Pleas

Mary L. Daniel	9
Jack “Duke” Brodisky	7
Joanne Scholzert	9
Kerry jones	8
Write-In	4
Undervote	3

County Chief Executive

Norman Powers	10
Micheal Santarcangelo	8
Write-In	1
Undervote	1

County Controller

Paul M. Bertel-Lincoln	11
Donna Berke	8
Write-In	0
Undervote	1

District Attorney

Franklin Margo	4
Donald Hensley	16
Write-In	0
Undervote	0

School Director Region 6

Gerald Danson	17
Shlomo Archibald	18
Write-In	2
Undervote	3

Commissioner Seat 2

Steve West	13
Tetty Rogiers	6
Write-In	1

Undervote	0

Statewide Referendum

Yes	9
No	11
Undervote	0

Retention of Tony Grzanich

Yes	14
No	5
Undervote	1

Retention of Debbie Marks

Yes	13
No	6
Undervote	1

Precinct 3:

Straight Party

Republican	4
Democratic	1
Green	2
Libertarian	2
Undervote	11

President/Vice President of the United States

James Collins	
Arthur Remus	13
Calvin Marino	
Keith Satterwhite	3
John P. Defazio	
Louis Denn	2
June Perkins	
David Heroux	2
Write-In	0
Undervote	0

United States Senator

Colby Lincoln	13
Oscar Draper	5
Eric Sheely	2
Write-In	0
Undervote	0

Representative in Congress District 10

Lois Koss	14
William Sullivan	4
Write-In	1
Undervote	1

Governor/Lieutenant Governor

Joe Carlton	
Arnold Krill	11
Charles Jasen	
Kenneth Interlicchio	5
Robert Marsh	
Theodore Kopp	2
Write-In	2
Undervote	0

Representative in the General Assembly District 84

Peter Valle	12
Neil Carey	6
Write-In	1
Undervote	1

Judge of Superior Court

Robert L. Linkey	14

Patricia Smallmon	5
Write-In	1
Undervote	0

Judge of the Commonwealth Court

Chris Carpenter	13
Eugene Ruff	6
Write-In	1
Undervote	0

Judge of the Court of Common Pleas

Mary L. Daniel	9
Jack “Duke” Brodisky	14
Joanne Scholzert	6
Kerry jones	4
Write-In	3
Undervote	4

County Chief Executive

Norman Powers	13
Micheal Santarcangelo	7
Write-In	0
Undervote	0

County Controller

Paul M. Bertel-Lincoln	12
Donna Berke	5
Write-In	1
Undervote	2

District Attorney

Franklin Margo	9
Donald Hensley	9
Write-In	1
Undervote	1

School Director Region 6

Gerald Danson	17
Shlomo Archibald	18
Write-In	2
Undervote	3

Commissioner Seat 3

William Malicki	12
Arnold Wells	6
Write-In	1
Undervote	1

Statewide Referendum

Yes	6
No	12
Undervote	2

Retention of Tony Grzanich

Yes	14
No	6
Undervote	0

Retention of Debbie Marks

Yes	10
No	10
Undervote	0

Cumulative Totals:

Straight Party

Republican	12
Democratic	9
Green	5

Libertarian	7
Undervote	47

President/Vice President of the United States

James Collins	
Arthur Remus	44
Calvin Marino	
Keith Satterwhite	22
John P. Defazio	
Louis Denn	4
June Perkins	
David Heroux	7
Write-In	2
Undervote	1

United States Senator

Colby Lincoln	42
Oscar Draper	27
Eric Sheely	6
Write-In	4
Undervote	1

Representative in Congress District 5

Ben Baker	31
Barbara Barrett-Hicks	22
Write-In	4
Undervote	3

Representative in Congress District 10

Lois Koss	14
William Sullivan	4
Write-In	1
Undervote	1

Governor/Lieutenant Governor

Joe Carlton	
Arnold Krill	44
Charles Jasen	
Kenneth Interlicchio	25
Robert Marsh	
Theodore Kopp	5
Write-In	5
Undervote	1

Representative in the General Assembly District 83

Harry Rider	19
R.J. Abbott	14
Derek Carlson	4
Write-In	3
Undervote	0

Representative in the General Assembly District 84

Peter Valle	22
Neil Carey	15
Write-In	2
Undervote	1

Judge of Superior Court

Robert L. Linkey	44
Patricia Smallmon	30
Write-In	4
Undervote	2

Judge of the Commonwealth Court

Chris Carpenter	43
Eugene Ruff	28
Write-In	7
Undervote	2

Judge of the Court of Common Pleas

Mary L.D aniel	42
Jack “Duke” Brodisky	40
Joanne Scholzert	31
Kerry jones	25
Write-In	13
Undervote	9
County Chief Executive	
Norman Powers	44
Micheal Santarcangelo	29
Write-In	4
Undervote	3
County Controller	
Paul M. Bertel-Lincoln	42
Donna Berke	28
Write-In	3
Undervote	7
District Attorney	
Franklin Margo	31
Donald Hensley	43
Write-In	5
Undervote	1
School Director Region 6	
Gerald Danson	66
Shlomo Archibald	65
Write-In	16
Undervote	13
Commissioner Seat 1	
Stephen Harrick	13
George Fisk	6
Write-In	1
Undervote	0
Commissioner Seat 2	
Steve West	24
Tetty Rogiers	12
Write-In	2
Undervote	2
Commissioner Seat 3	
William Malicki	12
Arnold Wells	6
Write-In	1
Undervote	1
Statewide Referendum	
Yes	27
No	47
Undervote	6
Retention of Tony Grzanich	
Yes	54
No	22
Undervote	4
Retention of Debbie Marks	
Yes	49
No	27
Undervote	4

ATTACHMENT B

TEST CASES

TEST CASES

DS850 Central Scanner

Test Case Identifier: 02 – 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter		
PA ST 25 P.S. § 3031.7 Requirement:	*(2) Provides facilities for voting for such candidates as may be nominated and upon such questions as may be submitted.*	
Test Objective: To determine if a voter has the ability to select candidates and questions.	**Test Configuration:** Central Scan tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open. The device is ready to accept ballots for scanning.	

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the first candidate in the first partisan contest excluding a straight party contest. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first candidate in the first partisan contest excluding a straight party contest. *Actual:*
1020	On the first "N of M" contest, select the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be selected) by appropriately marking the ballot. *Expected:* The ballot indicates a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1030	On the first "Question" contest, select the "Yes" option in the contest by appropriately marking the ballot. *Expected:* The ballot indicates a vote selection for the "Yes" option in the first "Question" contest. *Actual:*
1040	On the second "Question" contest, select the "No" option in the contest by appropriately marking the ballot. *Expected:* The ballot indicates a vote selection for the "No" option in the second "Question" contest.

	Actual:
1050	Review the ballot to verify that the above selections are marked. *Expected:* The correct selections are marked appropriately. *Actual:*
1060	Cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1070	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1080	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester.	

Test Case Identifier: 03 – 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method	
PA ST 25 P.S. § 3031.7 Requirements:	*(3) Permits each voter, at other than primary elections, to vote a straight political party ticket by one mark or act and, by one mark or act, to vote for all the candidates of one political party for presidential electors and, by one mark or act, to vote for all the candidates of one political party for every office to be voted for, and every such mark or act shall be equivalent to and shall be counted as a vote for every candidate of the political party so marked including its candidates for presidential electors, except with respect to those offices as to which the voter has registered a vote for individual candidates of the same or another political party or political body, in which case the automatic tabulating equipment shall credit the vote for that office only for the candidate individually so selected, notwithstanding the fact that the voter may not have individually voted for the full number of candidates for that office for which he was entitled to vote.*
Test Objective: To determine if the voting system supports straight party voting and the Pennsylvania Methhod.	**Test Configuration:** Central Scan tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the device and the polls are open, ready for accepting ballots.

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Review the ballot to verify that the above selection is marked. *Expected:* The correct selection is marked appropriately.. *Actual:*
1030	Cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is cast successfully.

	Actual:
1040	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1050	Vote for the option for the second party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the second party selection in the straight party contest. *Actual:*
1060	Review the ballot to verify that the above selection is marked. *Expected:* The correct selection is marked appropriately. *Actual:*
1070	On the first "N of M" contest, select the first partisan candidate that is not the party associated with the second straight party selection. Leave the remainder of the selections under voted. *Expected:* The selected candidate should be the only selection marked. *Actual:*
1080	Review the ballot to verify that the above selections are marked. *Expected:* The correct selections are marked appropriately.. *Actual:*
1090	Cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1100	

	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1110	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The process of selecting a candidate of the same party or of a different party of the straight party selection de-selects all candidates for the straight party vote.	

Test Case Identifier: 04 – 25 P.S. § 3031.7(4) Straight Party and Write-In		
PA ST 25 P.S. § 3031.7 Requirements:	*(4) Permits each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot.*	
Test Objective: To determine if the voting system supports straight party voting and write-in.	**Test Configuration:** Central Scan tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open, ready for ballot scanning.	

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and the vote selections can be made. *Actual:*
1010	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Review the ballot to verify that the above selection is marked. *Expected:* The correct selection is marked appropriately.. *Actual:*
1030	Cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1040	Obtain a blank ballot. *Expected:* The ballot is blank and the vote selections can be made.

	Actual:
1050	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1060	On the first partisan contest, mark the ballot to indicate a write-in and input John Doe as the write-in name. *Expected:* The "Write-In" candidate John Doe appears. *Actual:*
1070	Cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1080	Obtain a blank ballot. *Expected:* The ballot is blank and the vote selections can be made. *Actual:*
1090	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1100	On the first "Question" contest, mark both the "Yes" option and the "No" option (to over vote the ballot). *Expected:* Both the "Yes" and "No" options are marked. *Actual:*

1110	Cast the ballot on the Central scan tabulation device. *Expected:* The precinct tabulation device displays or provides an indication of an attempt to over vote. The precinct tabulation device might disallow the selection and not display any communication. *Actual:*
1120	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1130	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a write-in candidate functions with a straight party selection.	

Test Case Identifier: 05 – 25 P.S. § 3031.7(5) Selection of Candidate and Write-in		
PA ST 25 P.S. § 3031.7 Requirements:	*(5) Permits each voter to vote for any person and any office for whom and for which he is lawfully entitled to vote, whether or not the name of such person appears upon the ballot as a candidate for nomination or election.*	
Test Objective: To determine if the voting system supports the selection of a candidate and a write-in candidate.	**Test Configuration:** Central Scan tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open, ready for ballot scanning.	

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the option for the first candidate in the first partisan contest. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first candidate selection in the first partisan contest. *Actual:*
1020	Review the ballot to verify that the above selection is marked. Cast the ballot on the Central Scan tabulation device. *Expected:* The correct selection is marked appropriately. The ballot is cast successfully *Actual:*
1030	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1040	Mark the option for a write-in candidate in the first partisan contest. Use the designed method to input "John Doe". *Expected:* A mark is made to indicate a vote selection for a write-in candidate with the name of "John Doe". *Actual:*

1050	Review the ballot, observing only the write-in candidate in the first partisan contest is marked. Use the designated method to cast the voted ballot. *Expected:* The ballot indicates the selection for only the write-in candidate "John Doe" in first partisan contests. After review the ballot is cast successfully. *Actual:*
1060	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1070	Mark the option for a write-in candidate in the first "N of M" contest. Use the designed method to input "John Doe" for all selections. *Expected:* The ballot indicates write-in's of "John Doe *Actual:*
1080	Cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1090	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1100	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a candidate and a write-in candidate functions.	

Test Case Identifier: 07– 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions	
PA ST 25 P.S. § 3031.7 Requirements:	*(7) If it is of a type that registers the vote electronically, the voting system shall preclude each voter from voting for more persons for any office than he is entitled to vote for or upon any question more than once.*
Test Objective: To determine if the voting device allows over voting on contests and questions	**Test Configuration:** Central scan tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the device and the polls are open, ready for ballot scanning.

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1020	Vote for the second candidate in the first partisan "1 of 1" contest ensure the contest is the same contest as voted in step 1010. *Expected:* The ballot indicates a vote selection for the second candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1030	Attempt to cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The central scan tabulation device displays or provides an indication of an attempt to over vote. \ *Actual:*
1040	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made.

	Actual:
1050	Vote for the first candidate in the first partisan "1 of 1" contest. *Expected:* The ballot indicates a vote selection for the second candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1060	Mark the write-in option for the same contest as in step 1050 and input the write-in "John Doe". *Expected:* The ballot indicates a vote selection for the write-in. *Actual:*
1070	Attempt to cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The central scan tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1080	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1090	On to the first "N of M" contest, mark the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be marked). *Expected:* The ballot indicates a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1100	Mark the "N +1" candidate in the first "N of M" contest. Esure the contest is the same contest as voted in step 1090. *Expected:* The ballot indicates a vote for the "N+1" candidate. *Actual:*
1110	

	Attempt to cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The central scan tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1120	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1130	On the first "Question" contest, mark the "Yes" option in the contest. *Expected:* The ballot indicates a vote for the "Yes" option in the first "Question" contest. *Actual:*
1140	Mark the "No" option in the first "Question" contest ensure the contest is the same contest as voted in step 1130. *Expected:* The ballot indicates a vote for the "No" option in the first "Question" contest. *Actual:*
1150	Attempt to cast the ballot on the Central Scan tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The central scan tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1160	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1170	Review the closed polls report to ensure no votes are recorded and no ballots were scanned. *Expected:* The closed polls report indicates zero totals.

	Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The attempts to select more persons than the vote for and any question more than once are unsuccessful.	

Test Case Identifier: 17 – 25 P.S. § 3031.7(17) Public Counter, No Reopening of Polls, Media Security with Tamper Proof Locks and Zero Proof and Tally Reports.	
PA ST 25 P.S. § 3031.7 Requirements:	*(17) If the voting system is of a type which provides for the computation and tabulation of all votes at a central counting center or if it provides for the tabulation of district totals at such a central counting center, the central automatic tabulating equipment shall include the following mechanisms or capabilities:* *(i) It shall be constructed so that every person is precluded from tampering with the tabulating element during the course of its operation.* *(ii) If the number of choices for any office or on any question exceeds the number for which the voter is entitled to vote, it shall reject all choices recorded on the ballot for that office or question.* *(iii) It shall have a means by which to verify that the counters for each candidate position and for each question are all set to zero and shall be able to generate a printed record of each election district showing the total number of voters whose ballots have been tabulated, the total number of votes cast for each candidate whose name appears on the ballot, and the total number of votes cast for, or against, any question appearing on the ballot. It may also be capable of generating cumulative election reports.*
Test Objective: To determine if the voting device has a public counter, does not allow the reopening of the polls, and supplies a zero proof and tally report.	**Test Configuration:** Optical Scan Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer. This includes all security locks and seals.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	The election media is installed but the polls have not been opened.

Step	Description
1000	Ensure media is loaded but the polls have not been opened. Use the designated method to open polls. If a response is needed to print "Zero Proof" report, select this option. *Expected:* The optical scan precinct tabulation device opens the polls and prints a "Zero Proof" report. *Actual:*
1010	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1020	On the straight party contest, mark the first selection in the straight party contest. *Expected:* The ballot indicates a vote selection for the first selection in the straight party contest. *Actual:*
1030	Proceed to the optical scan precinct tabulation device. Observe the public counter value being 0.

	Expected: The optical scan precinct tabulation device's public counter is visible and the value is 0. *Actual:*
1040	Cast the ballot. Observe the acknowledgement of "successful" ballot cast, if provided. Observe the public counter incrementing by one. *Expected:* The optical scan precinct tabulation device successfully cast the ballot and the public counter is incremented. If the ballot was not cast successfully the test is halted. *Actual:*
1050	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1060	Use the designated method to attempt to reopen the polls. *Expected:* The polls cannot be reopened. *Actual:*
1070	Place lock on the optical scan precinct tabulation device per Pennsylvania Procedures to ensure all operation of the tabulation element is prevented. *Expected:* The optical scan precinct tabulation device can by secured so that all operation of the tabulation element is prevented. *Actual:*
1070	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voting device is able to produce a "Zero Proof" and "Tally Report". The voting device has a visible public counter and the counter increments correctly.	

Test Case Identifier: Central Count Processing

Test Objective:

This test is designed to ensure a central count scanner to properly process a larger amount of ballots. The central counter scanner most have multi-feed protection, out stacking ability for ballots it is unable to process, and the ability to segregate ballots that require human intervention.

Test Configuration:

Central Scan tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.

Test Method:

An election definition will need to be created using the following requirements:

- 8 ½" X 14" ballot lengths
- 6 geographical subdivisions
- 1 split precinct
- 10 to 20 contests
- 10 candidates in 1 contests
- 1 "N of M" contest
- Actual names for candidates
- Support to outstack write-ins
- Support for Federal, State, and Local level offices

The test deck for this test will be created using the following formula:

- Number of ballots provided per precinct equal to $\sum_1^n x$ (where n is the number of options in the largest number contest on the ballot), plus two (to be left blank), plus one (to be overvoted) – this is applied per political party in a primary.
- Ballots marked such that the vote distribution in each contest is ascending order. For example, in a contest with 5 candidates and a write-in:
- Position 1: 6 votes
- Position 2: 5 votes
- Position 3: 4 votes
- Position 4: 3 votes
- Position 5: 2 votes
- Position 6 (write-in): 1 vote
- There should be two ballots in each precinct which are blank.
- There should be one overvoted ballot per precinct.

The test deck should be run to determined amount of times sufficient to determine the proper processing of the test deck. The actual number of times the test deck is to be run will be documented in the Test Protocol.

Criteria for Evaluation of the Test Results: All ballots are processed, recorded, stored, and reported as documented in the described test deck.

TEST CASE

Election Management System (EMS)

Test Case Identifier: Evaluation of Election Management System (EMS)	
PA ST 25 P.S. § 3031.7 Requirements:	*(2) Provides facilities for voting for such candidates as may be nominated and upon such questions as may be submitted.* *(3) Permits each voter, at other than primary elections, to vote a straight political party ticket by one mark or act and, by one mark or act, to vote for all the candidates of one political party for presidential electors and, by one mark or act, to vote for all the candidates of one political party for every office to be voted for, and every such mark or act shall be equivalent to and shall be counted as a vote for every candidate of the political party so marked including its candidates for presidential electors, except with respect to those offices as to which the voter has registered a vote for individual candidates of the same or another political party or political body, in which case the automatic tabulating equipment shall credit the vote for that office only for the candidate individually so selected, notwithstanding the fact that the voter may not have individually voted for the full number of candidates for that office for which he was entitled to vote.* *(4) Permits each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot.* *(5) Permits each voter to vote for any person and any office for whom and for which he is lawfully entitled to vote, whether or not the name of such person appears upon the ballot as a candidate for nomination or election.* *(6) Permits each voter to vote for as many persons for any office as he is entitled to vote for and to vote for or against any question upon which he is entitled to vote and precludes each voter from voting or from having his vote tabulated for any candidate, or upon any question, for whom or upon which he is not entitled to vote.* *(9) Permits each voter at a primary election to vote only for the candidates seeking nomination by a political party in which such voter is registered and enrolled, and for any candidate for nonpartisan nomination, and for any question upon which he is entitled to vote.* *(11) Is suitably designed for the purpose used, is constructed in a neat and workmanlike manner of durable material of good quality, is safely and efficiently useable in the conduct of elections and, with respect to the counting of ballots cast at each district, is suitably designed and equipped to be capable of absolute accuracy, which accuracy shall be demonstrated to the Secretary of the Commonwealth.* *(12) Provides acceptable ballot security procedures and impoundment of ballots to prevent tampering with or substitution of any ballots or ballot cards* *(13) When properly operated, records correctly and computes and tabulates accurately every valid vote registered.*
Test Objective: This test will focus on the ability of the election management system to support the requirements of PA ST 25 P.S. § 3031.7. The election functions being evaluated are: ballot layout and design; voting variation support; hardware programming; and accumulation and reporting of voted data.	
Test Configuration: The election management system will be configured as for pre-election ballot design and layout.	
Test Method: The method for testing these requirements is execution and inspection. The election management system will create elections containing specific voting variations, contests, and candidates required by PA ST 25 P.S. § 3031.7. In addition, an inspection will be performed on the product labeling of the election management system PC or laptop and the "hardening" of the OS and access controls to the PC or laptop. **Functional Testing:** The following election definition for a general election will be either input or observed by the examiner to ensure the	

election management system can support the Pennsylvania requirements:

Election Definition: Election Management General Election

General Election Description:
A general election containing a straight party contest, one partisan contest with write-in, one N of M contest, and one referendum contest in 1 precinct that contains two ballot styles. The voting variations are as follows:

- Partisan contest
- Non-Partisan contest
- N of M contest
- Referendum contest
- Straight Party voting
- Write-In voting

This general election is designed to functionally test the handling of multiple ballot styles and audio support. This election will only be input for the English language.

Configuration:

EMS computer, loaded with the software submitted for certification for use in Pennsylvania, to create the following configuration:

Name: EMS General Election
Voting Devices: All devices supported by the EMS
Precincts: Fire House Precinct
Parties: Democratic, Republican
Languages: English
Contests: 5
Contests as follows:

Fire House Precinct

Straight Party

Republican

Democratic

United States Senator
Vote for One

Colby Lincoln
Republican

Oscar Draper
Democratic

Write-In

Judge of the Court of Common Pleas
Vote for Not More Than Two

Mary L. Daniel
Republican

Jack “Duke” Brodisky
Republican

Joanne Schollzert
Democratic

Kerry Jones
Democratic

Write-In

Write-In

County Commissioner
Vote for One

George Fisk

Steve West

Write-In

Statewide Referendum

Do you favor raising state sales tax to fund a new highway?

Yes

No

The following election definition for a primary election will be either input or observed by the examiner to ensure the election management system can support the Pennsylvania requirements:

Election Definition: Election Management Primary Election
Primary Election Description: A primary election containing a contest with write-in, and one referendum contest in 1 precinct that contains two ballot styles. The voting variations are as follows: • Partisan contest • Referendum contest • Write-In voting This primary election was designed to functionally test the handling of multiple ballot styles and audio support. This election will only be input for the English language.
Configuration: **EMS computer loaded with the software submitted for certification for use in Pennsylvania to create the following configuration:**

Name: EMS Primary Election
Voting Devices: All devices supported by the EMS
Precincts: Church Precinct
Parties: Democratic, Republican
Languages: English
Contests: 2
Contests as follows:

Church Precinct (DEM)	Church Precinct (REP)
United States Senator Oscar Draper *Cumberland County* Carter McGaw *Philadelphia County* Write-In	**United States Senator** Bob Ford *Allegheny County* Colby Lincoln *Delaware County* Write-In
Statewide Referendum **Bond Issue** Shall section two of chapter one hundred eighteen of the laws of nineteen hundred seventy-four authoring state debt be approved? Yes No	

Product Labeling:
Test steps for inspecting the election management systems for product labeling. The method for testing this requirement will be inspection. For COTS equipment, the examiner will examine the device for product labeling. This labeling is usually around the area of the power supply, the rear of the device, or on the bottom of the device. The examiner will inspect for the following product labels.

Conformité Européenne "European Conformity"	**Underwriters Laboratories**	**Canadian Standards Association**	**Geprüfte Sicherhei** **"Tested Safety"**
CE	UL	CSA	GS geprüfte Sicherheit

If the device contains any of these product labels the conformance claim should be accepted.

If the device does not contain any of these product labels, but does have product labeling the examiner will photographically document the labeling and research whether the conformance claim is self-declared or independently tested and to what standard.

If the conformance claim is independently tested to an industry accepted standard, the conformance claim should be accepted.

If the conformance claim is self-declared or not independently tested to an industry accepted standard, voting systems manufacturer will be asked to provide the data upon which the device manufacturer based their claim to the examiner for further review.

Physical and Access Controls:
Test steps will be followed to evaluate the physical and access controls and procedures in place for the election management system. This test will be performed by evaluating the system to ensure that all access areas and seals and/or locks provide adequate security from external access. The examiner will:

- check all seals and/or locks and attempt to open the system
- exercise verification of password security management

Criteria for Evaluation of the Test Results:
The election management system supports all requirements set forth in PA ST 25 P.S. § 3031.7

Comments:

Examiner Approval: _____ Date: _____

TEST CASES

DS200 Scanner

Test Case Identifier: 01 – 25 P.S. § 3031.7(1) Voter Secrecy	
PA ST 25 P.S. § 3031.7 Requirement:	*(1) Provides for voting in absolute secrecy and prevents any person from seeing or knowing for whom any voter, except one who has received or is receiving assistance as prescribed by law, has voted or is voting.*
Test Objective: To determine if a voters selections can be observed during the act of voting, or once a vote has been cast.	**Test Configuration:** Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	A ballot test deck of 5 sequentially numbered ballots containing unique voting pattern.
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.

Step	Description
1000	Insert the ballot test deck into the optical scan precinct tabulation device. *Expected:* The five ballots are cast successfully *Actual:*
1010	Close the polls and print the closed polls results report. *Expected:* The polls close and a results report is printed. *Actual:*
1020	Retrieve the ballot test deck. Examine each ballot to ensure the sequence in which the ballots were cast cannot be determined. (Ignore any marks placed to identify the sequence). *Expected:* The ballot test deck can be retrieved and the ballots have no identifying marks that would connect a ballot with a voter. *Actual:*
1030	Retrieve the Cast Vote Record (CVR) report from the optical scan precinct tabulation device. Compare each vote cast record to the sequential ballot test deck. *Expected:* The optical scan precinct tabulation device is able to produce a CVR report. The CVR contain no information that could identify a ballot to a voter. *Actual:*

Criteria for Evaluation of the Test Results: No determination can be made of a voter to a specific ballot.

Test Case Identifier: 02 – 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter		
PA ST 25 P.S. § 3031.7 Requirement:	*(2) Provides facilities for voting for such candidates as may be nominated and upon such questions as may be submitted.*	
Test Objective: To determine if a voter has the ability to select candidates and questions.	**Test Configuration:** Optical Scan precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open. The device is ready to accept ballots for scanning.	

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the first candidate in the first partisan contest excluding a straight party contest. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first candidate in the first partisan contest excluding a straight party contest. *Actual:*
1020	On the first "N of M" contest, select the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be selected) by appropriately marking the ballot. *Expected:* The ballot indicates a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1030	On the first "Question" contest, select the "Yes" option in the contest by appropriately marking the ballot. *Expected:* The ballot indicates a vote selection for the "Yes" option in the first "Question" contest. *Actual:*
1040	On the second "Question" contest, select the "No" option in the contest by appropriately marking the ballot.

	Expected: The ballot indicates a vote selection for the "No" option in the second "Question" contest. *Actual:*
1050	Review the ballot to verify that the above selections are marked. *Expected:* The correct selections are marked appropriately. *Actual:*
1060	Cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1070	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1080	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester.	

Test Case Identifier: 03 – 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method-	
PA ST 25 P.S. § 3031.7 Requirements:	*(3) Permits each voter, at other than primary elections, to vote a straight political party ticket by one mark or act and, by one mark or act, to vote for all the candidates of one political party for presidential electors and, by one mark or act, to vote for all the candidates of one political party for every office to be voted for, and every such mark or act shall be equivalent to and shall be counted as a vote for every candidate of the political party so marked including its candidates for presidential electors, except with respect to those offices as to which the voter has registered a vote for individual candidates of the same or another political party or political body, in which case the automatic tabulating equipment shall credit the vote for that office only for the candidate individually so selected, notwithstanding the fact that the voter may not have individually voted for the full number of candidates for that office for which he was entitled to vote.*
Test Objective: To determine if the voting system supports straight party voting and the Pennsylvania Methhod.	**Test Configuration:** Optical Scan Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the device and the polls are open, ready for accepting ballots.

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Review the ballot to verify that the above selection is marked. *Expected:* The correct selection is marked appropriately.. *Actual:*
1030	Cast the ballot on the Optical Scan precinct tabulation device.

	Expected: The ballot is cast successfully. *Actual:*
1040	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1050	Vote for the option for the second party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the second party selection in the straight party contest. *Actual:*
1060	Review the ballot to verify that the above selection is marked. *Expected:* The correct selection is marked appropriately. *Actual:*
1070	On the first "N of M" contest, select the first partisan candidate that is not the party associated with the second straight party selection. Leave the remainder of the selections under voted. *Expected:* The selected candidate should be the only selection marked. *Actual:*
1080	Review the ballot to verify that the above selections are marked. *Expected:* The correct selections are marked appropriately. *Actual:*
1090	Obtain a blank ballot.

	Expected: The ballot is blank and vote selections can be made. Actual:
1100	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). Expected: The ballot indicates a vote selection for the first party selection in the straight party contest. Actual:
1110	On the first "N of M" contest, select the first partisan candidate that is associated with the first straight party selection. Leave the remainder of the selections under voted. Expected: The selected candidate should be the only selection marked. Actual:
1120	Review the ballot to verify that the above selections are marked. Expected: The correct selections are marked appropriately.. Actual:
1130	Cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1140	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1150	Review the closed polls report to ensure all selections input above are recorded and reported correctly.

	Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The process of selecting a candidate of the same party or of a different party of the straight party selection de-selects all candidates for the straight party vote.	

Test Case Identifier: 04 – 25 P.S. § 3031.7(4) Straight Party and Write-In	
PA ST 25 P.S. § 3031.7 Requirements:	*(4) Permits each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot.*
Test Objective: To determine if the voting system supports straight party voting and write-in.	**Test Configuration:** Optical Scan Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and the vote selections can be made. *Actual:*
1010	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Review the ballot to verify that the above selection is marked. *Expected:* The correct selection is marked appropriately. *Actual:*
1030	Cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1040	Obtain a blank ballot. *Expected:* The ballot is blank and the vote selections can be made.

	Actual:
1050	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1060	On the first partisan contest, mark the ballot to indicate a write-in and input John Doe as the write-in name. *Expected:* The "Write-In" candidate John Doe appears. *Actual:*
1070	Cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1080	Obtain a blank ballot. *Expected:* The ballot is blank and the vote selections can be made. *Actual:*
1090	Vote for the option for the first party selection of the straight party. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first party selection in the straight party contest. *Actual:*
1100	On the first "Question" contest, mark both the "Yes" option and the "No" option (to over vote the ballot). *Expected:* Both the "Yes" and "No" options are marked. *.Actual:*
1110	Cast the ballot on the optical scan tabulation device.

	Expected: The precinct tabulation device displays or provides an indication of an attempt to over vote. The precinct tabulation device might disallow the selection and not display any communication. *Actual:*
1120	Close the polls and print the closed polls report tape. Expected: The polls closed and a report is printed. Actual:
1130	Review the closed polls report to ensure all selections input above are recorded and reported correctly. Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a write-in candidate functions with a straight party selection.	

Test Case Identifier: 05 – 25 P.S. § 3031.7(5) Selection of Candidate and Write-in		
PA ST 25 P.S. § 3031.7 Requirements:	*(5) Permits each voter to vote for any person and any office for whom and for which he is lawfully entitled to vote, whether or not the name of such person appears upon the ballot as a candidate for nomination or election.*	
Test Objective: To determine if the voting system supports the selection of a candidate and a write-in candidate.	**Test Configuration:** Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.	

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the option for the first candidate in the first partisan contest. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first candidate selection in the first partisan contest. *Actual:*
1020	Review the ballot to verify that the above selection is marked. Cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The correct selection is marked appropriately. The ballot is cast successfully *Actual:*
1030	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1040	Mark the option for a write-in candidate in the first partisan contest. Use the designed method to input "John Doe". *Expected:* A mark is made to indicate a vote selection for a write-in candidate with the name of "John Doe". *Actual:*

1050	Review the ballot, observing only the write-in candidate in the first partisan contest is marked. Use the designated method to cast the voted ballot. *Expected:* The ballot indicates the selection for only the write-in candidate "John Doe" in first partisan contests. After review the ballot is cast successfully. *Actual:*
1060	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1070	Mark the option for a write-in candidate in the first "N of M" contest. Use the designed method to input "John Doe" for all selections. *Expected:* The ballot indicates write-in's of "John Doe *Actual:*
1080	Cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1090	Close the polls and print the closed polls report tape. Expected: The polls closed and a report is printed. Actual:
1100	Review the closed polls report to ensure all selections input above are recorded and reported correctly. Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a candidate and a write-in candidate functions.	

Test Case Identifier: 07– 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions		
PA ST 25 P.S. § 3031.7 Requirements:	*(7) If it is of a type that registers the vote electronically, the voting system shall preclude each voter from voting for more persons for any office than he is entitled to vote for or upon any question more than once.*	
Test Objective: To determine if the voting device allows over voting on contests and questions	**Test Configuration:** Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.	

Step	Description
1000	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates a vote selection for the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1020	Vote for the second candidate in the first partisan "1 of 1" contest ensure the contest is the same contest as voted in step 1010. *Expected:* The ballot indicates a vote selection for the second candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1030	Attempt to cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The precinct tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1040	Obtain a blank ballot.

	Expected: The ballot is blank and vote selections can be made. *Actual:*
1050	Vote for the first candidate in the first partisan "1 of 1" contest. *Expected:* The ballot indicates a vote selection for the second candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1060	Mark the write-in option for the same contest as in step 1050 and input the write-in "John Doe". *Expected:* The ballot indicates a vote selection for the write-in. *Actual:*
1070	Attempt to cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The precinct tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1080	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1090	On to the first "N of M" contest, mark the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be marked). *Expected:* The ballot indicates a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1100	Mark the "N +1" candidate in the first "N of M" contest. Ensure the contest is the same contest as voted in step 1090. *Expected:* The ballot indicates a vote for the "N+1" candidate.

	Actual:
1110	Attempt to cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The precinct tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1120	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1130	On the first "Question" contest, mark the "Yes" option in the contest. *Expected:* The ballot indicates a vote for the "Yes" option in the first "Question" contest. *Actual:*
1140	Mark the "No" option in the first "Question" contest. Ensure the contest is the same contest as voted in step 1130. *Expected:* The ballot indicates a vote for the "No" option in the first "Question" contest. *Actual:*
1150	Attempt to cast the ballot on the Optical Scan precinct tabulation device. *Expected:* The ballot is rejected due to the over-vote condition. The precinct tabulation device displays or provides an indication of an attempt to over vote. *Actual:*
1160	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*

1170	Review the closed polls report to ensure no votes are recorded and no ballots were scanned. *Expected:* The closed polls report indicates zero totals. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The attempts to select more persons than the vote for and any question more than once are unsuccessful.	

Test Case Identifier: 10 – 25 P.S. § 3031.7(10) Ballot Review and Change	
PA ST 25 P.S. § 3031.7 **Requirements:**	(*10) If it is of a type that registers the vote electronically, the voting system shall permit each voter to change his vote for any candidate or upon any question appearing on the official ballot up to the time that he takes the final step to register his vote and to have his vote computed.* *If it is of a type that uses paper ballots or ballot cards to register the vote and automatic tabulating equipment to compute such votes, the system shall provide that a voter who spoils his ballot may obtain another ballot; any ballot thus returned shall be immediately cancelled and at the close of the polls shall be enclosed in an envelope marked "Spoiled" which shall be sealed and returned to the county board.*
Test Objective: To determine if the voting device allows the voter to review the selections and change a vote selection before cast of the ballot.	**Test Configuration:** Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.

Step	Description
1000	Obtain a ballot for voting *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1010	Vote for the first candidate in the first all "1 of 1" contest excluding a straight party contest, the first "N" candidates in all "N of M" contests, and select the "Yes" option in all "Question" contests. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates selections as described above. *Actual:*
1020	Cast the ballot on the optical scan precinct tabulation device. *Expected:* The ballot is cast successfully. *Actual:*
1030	Obtain a ballot for voting

	Expected: The ballot is blank and vote selections can be made. *Actual:*
1040	Vote for the first candidate in the first all "1 of 1" contest excluding a straight party contest, the first "N" candidates in all "N of M" contests, and select the "Yes" option in all "Question" contests. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates selections as described above. *Actual:*
1050	Using the designated method, spoil the ballot. *Expected:* The ballot is successfully spoiled and placed in the appropriate envelope. *Actual:*
1070	Obtain a ballot for voting to replace the ballot spoiled in Step 1050. *Expected:* The ballot is blank and vote selections can be made. *Actual:*
1080	Vote for the first candidate in the first all "1 of 1" contest excluding a straight party contest, the first "N" candidates in all "N of M" contests, and select the "No" option in all "Question" contests. The ballot must be marked in such a way as to meet the manufacturer's given criteria for a mark (for example, the oval must be completely filled in with an appropriate marking utensil). *Expected:* The ballot indicates selections as described above. *Actual:*
1090	Cast the ballot on the optical scan precinct tabulation device. *Expected:* The ballot is cast successfully.

	Actual:
1100	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1090	Review the closed polls report to ensure all selections input above are recorded and reported correctly. The results should indicate two votes for the first candidate in the first all "1 of 1" contest excluding a straight party contest, two votes for the first "N" candidates in all "N of M" contests, and one vote for the "Yes" option and one vote for "No" option in all "Question" contests. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voter input can be changed by navigating through the ballot after a ballot has been reviewed.	

Test Case Identifier: 16 – 25 P.S. § 3031.7(16) Public Counter, No Reopening of Polls, Media Security with Tamper Proof Locks and Zero Proof and Tally Reports.	
PA ST 25 P.S. § 3031.7 **Requirements:**	*(16) If the voting system is of a type which provides for the computation and tabulation of votes at the district level, the district component of the automatic tabulating equipment shall include the following mechanisms or capabilities:* *(i) A public counter, the register of which is visible from the outside of the automatic tabulating equipment component into which the ballots are entered, which shall show during any period of operation the total number of ballots entered for computation and tabulation.* *(ii) A lock, or locks, by the use of which all operation of the tabulation element of the automatic tabulating equipment is absolutely prevented immediately after the polls are closed or where the tabulation of votes is completed.* *(iii) It shall be so constructed and controlled that, during the progress of voting, it shall preclude every person from seeing or knowing the number of votes theretofore registered for any candidate or question; and it shall preclude every person from tampering with the tabulating element.* *(iv)If the number of choices recorded for any office or on any question exceeds the number for which the voter is entitled to vote, it shall reject all choices recorded on the ballot for that office or question, provided, that if used during the period of voting it may also have the capacity to indicate to a voter that he has improperly voted for more candidates for any office than he is entitled to vote for, and in such case it shall have the capacity to permit the voter to mark a new ballot or to forego his opportunity to make such correction.* *(v) It shall be equipped with an element which generates a printed record at the beginning of its operation which verifies that the tabulating elements for each candidate position and each question and the public counter are all set to zero and with an element which generates a printed record at the finish of its operation of the total number of voters whose ballots have been tabulated, the total number of votes cast for each candidate whose name appears on the ballot, and the total number of votes cast for, or against, any question appearing on the ballot.*
Test Objective: To determine if the voting device has a public counter, does not allow the reopening of the polls, and supplies a zero proof and tally report.	**Test Configuration:** Optical Scan Precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer. This includes all security locks and seals.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	The election media is installed but the polls have not been opened.

Step	Description
1000	Ensure media is loaded but the polls have not been opened. Use the designated method to open polls. If a response is needed to print "Zero Proof" report, select this option. *Expected:* The optical scan precinct tabulation device opens the polls and prints a "Zero Proof" report. *Actual:*
1010	Obtain a blank ballot. *Expected:* The ballot is blank and vote selections can be made.

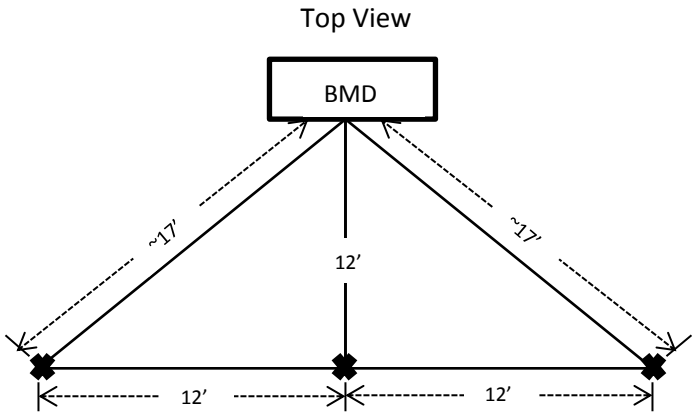
	Actual:
1020	On the straight party contest, mark the first selection in the straight party contest. *Expected:* The ballot indicates a vote selection for the first selection in the straight party contest. *Actual:*
1030	Proceed to the optical scan precinct tabulation device. Observe the public counter value being 0. *Expected:* The optical scan precinct tabulation device's public counter is visible and the value is 0. *Actual:*
1040	Cast the ballot. Observe the acknowledgement of "successful" ballot cast, if provided. Observe the public counter incrementing by one. *Expected:* The optical scan precinct tabulation device successfully cast the ballot and the public counter is incremented. If the ballot was not cast successfully the test is halted. *Actual:*
1050	Close the polls and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1060	Use the designated method to attempt to reopen the polls. *Expected:* The polls cannot be reopened. *Actual:*
1070	Place lock on the optical scan precinct tabulation device per Pennsylvania Procedures to ensure all operation of the tabulation element is prevented. *Expected:* The optical scan precinct tabulation device can be secured so that all operation of the tabulation element is prevented. *Actual:*
1070	Review the closed polls report to ensure all selections input above are recorded and reported correctly.

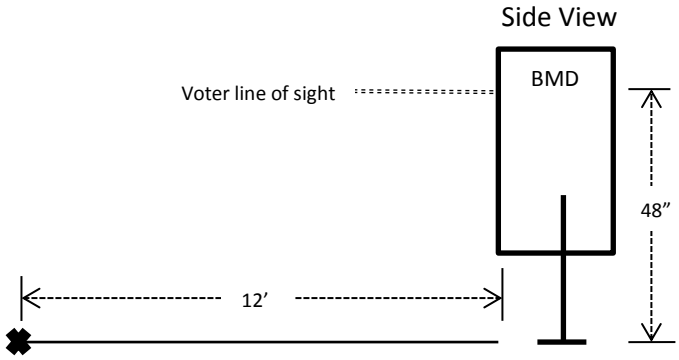
	Expected: The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voting device is able to produce a "Zero Proof" and "Tally Report". The voting device has a visible public counter and the counter increments correctly.	

TEST CASES

AutoMARK

Test Case Identifier: 01 – 25 P.S. § 3031.7(1) Voter Secrecy (ADA Voter)	
PA ST 25 P.S. § 3031.7 Requirement:	*(1) Provides for voting in absolute secrecy and prevents any person from seeing or knowing for whom any voter, except one who has received or is receiving assistance as prescribed by law, has voted or is voting.*
Test Objective: To determine if a voter's selections input using an ADA device can be observed during the act of voting, or once a vote has been cast.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer for an ADA voter. A marker is placed 12 feet (measured from the lowest point of the devices voting surface to the floor) directly behind the center of the BMD and the precinct tabulation device. From that marker, another marker is placed 12 feet to the right side and the left side. The side distance observation points should be approximately 17 feet. See Step 1000 for a layout diagram. The ADA voter will be positioned in the center of the BMD and the precinct tabulation device with a site line of 4 feet. See Step 1001.
Test Equipment:	Standard 15+ foot tape measure
Special Procedural Requirements:	Two roles are required for this test case: an ADA Voter role and an Observer role. The ADA voter will be positioned with a line of site at 48 inches. The observation must be made by an individual between the heights of 68 inches and 71 inches.
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	Layout Diagram:  Verify all measurements. *Expected:* Center measurement is 12 feet and the side distance observation points are approximately 17 feet. *Actual:*
1001	ADA Voter Position:

	 Verify all measurements. *Expected:* Center measurement is 12 feet and the side distance observation points are approximately 17 feet with a voter line of sight at 48 inches. *Actual::*
1010	Observer Role - Activate a ballot for ADA voting. *Expected:* Ballot is presented and vote selections can be input. *Actual:*
1020	ADA Voter Role - Select the candidate corresponding to the upper most left hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter’s input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the upper most left hand position. All other selections are to be under voted. *Expected:* The Observer cannot determine the ADA Voter’s input selections. *Actual:*
1030	ADA Voter Role - Select the candidate corresponding to the upper most right hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter’s input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the upper most right hand position. All other selections are to be under voted. *Expected:* The Observer cannot determine the ADA Voter’s input selections.

	Actual:
1040	ADA Voter Role - Select the candidate corresponding to the lower most left hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter's input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the lower most left hand position. All other selections are to be under voted. *Expected:* The Observer cannot determine the ADA Voter's input selections. *Actual:*
1050	ADA Voter Role - Select the candidate corresponding to the lower most right hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter's input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the lower most right hand position. All other selections are to be under voted. After the ballot has been accepted, cast the ballot on the precinct tabulation device. *Expected:* The Observer cannot determine the ADA Voter's input selections. *Actual:*
Criteria for Evaluation of the Test Results: The observer must not be able to determine the Voter's selection from any observation position or any Voter selection surface position.	

Test Case Identifier: 02 – 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter (Regular/ADA)		
PA ST 25 P.S. § 3031.7 Requirement:	*(2) Provides facilities for voting for such candidates as may be nominated and upon such questions as may be submitted.*	
Test Objective: To determine if a voter has the ability to select candidates and questions.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.	

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the first candidate in the first partisan contest excluding a straight party contest. *Expected:* The BMD displays or provides an indication of a vote selection for the first candidate in the first partisan contest excluding a straight party contest. *Actual:*
1020	Use the designated method to advance the ballot to the first "N of M" contest. Select the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be selected). *Expected:* The BMD advances to the first "N of M" contest. Once selected, the BMD displays or provides an indication of a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1030	Use the designated method to advance the ballot to the first "Question" contest. Select the "Yes" option in the contest. *Expected:* The BMD advances to the first "Question" contest. Once selected, the BMD displays or provides an indication of a vote selection for the "Yes" option in the first "Question" contest. *Actual:*
1040	Use the designated method to advance the ballot to the second "Question" contest. Select the "No" option in the

	contest. *Expected:* The BMD advances to the second "Question" contest. Once selected, the BMD displays or provides an indication of a vote selection for the "No" option in the second "Question" contest. *Actual:*
1050	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are displayed. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, cast the voted selections. *Expected:* The BMD advances to the "Ballot Review" screen. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1060	Repeat steps 1000- 1050 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ *Actual:*
1070	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1080	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester.	

Test Case Identifier: 03 – 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method	
PA ST 25 P.S. § 3031.7 Requirements:	*(3) Permits each voter, at other than primary elections, to vote a straight political party ticket by one mark or act and, by one mark or act, to vote for all the candidates of one political party for presidential electors and, by one mark or act, to vote for all the candidates of one political party for every office to be voted for, and every such mark or act shall be equivalent to and shall be counted as a vote for every candidate of the political party so marked including its candidates for presidential electors, except with respect to those offices as to which the voter has registered a vote for individual candidates of the same or another political party or political body, in which case the automatic tabulating equipment shall credit the vote for that office only for the candidate individually so selected, notwithstanding the fact that the voter may not have individually voted for the full number of candidates for that office for which he was entitled to vote.*
Test Objective: To determine if the voting system supports straight party voting and the Pennsylvania Method.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for the indication of a voter selection for all partisan candidates associated with the first straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the first straight party selection. *Actual:*
1030	Use the designated method to advance through the remainder of the ballots advancing to the ballot review screen. Observe the selection in the ballot review observing only the partisan contests associated with the first straight

	party selections are present. Use the designated method to accept and mark the ballot. Then, on the precinct tabulating device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of a vote selection for only the partisan contests associated with the first straight party selection. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1040	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1050	Select the option for the second party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the second party in the straight party contest. *Actual:*
1060	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for an indication of a voter selection for all partisan candidates associated with the second straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the second straight party selection. *Actual:*
1070	Use the designated method to retreat through the ballot selections to the first "N of M" contest. Select the first partisan candidate that is not the party associated with the second straight party selection. Leave the remainder of the selections under voted. *Expected:* "N" candidates for the party of the second straight party selections should display or provide an indication of the non-selection. The selected candidate should be the only selection displayed or indicated. *Actual:*
1080	Use the designated method to retreat through the ballot to the "Straight Party" contest. Observe the selection for the second straight party selection. *Expected:* The second straight party selections should be displayed or an indication given as selected.

	Actual:
1090	Use the designated method to advance through the ballot to the second "N of M" contest. Select the first partisan candidate that is not the party associated with the second straight party selection. Leave the remainder of the selections under voted. *Expected:* "N" candidates for the party of the second straight party selections should display or provide an indication of the non-selection. The selected candidate should be the only selection displayed or indicated. *Actual:*
1100	Use the designated method to advance through the remainder of the ballot advancing to the ballot review. Review the selections in the ballot review to verify that the partisan contests associated with the second straight party selections are present with the exception of the "N of M" contests. Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or indicates the selection for the partisan contests associated with the second straight party selection for all contests except the first "N of M" contest. The first "N of M" contest displays or indicates the selection of the first candidate that is not associated with the second straight party selection. After review, the ballot is accepted. The ballot is then cast successfully on the precinct tabulation device. *Actual:*
1110	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1120	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the first party in the straight party contest. *Actual:*
1130	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for an indication of a voter selection for all partisan candidates associated with the first straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the first straight party selection. *Actual:*
1140	

	Use the designated method to retreat through the ballot selections to the first "N of M" contest. Select the first partisan candidate that is associated with the first straight party selection. Leave this contest and the remainder of the selections under voted. *Expected:* "N" candidates for the party of the first straight party selections should display or provide an indication of the non-selection. The selected candidate should be the only selection displayed or indicated. *Actual:*
1150	Use the designated method to advance through the remainder of the ballot advancing to the ballot review. Review the selections in the ballot review to verify that the partisan contests associated with the first straight party selections are present with the exception of the first "N of M" contest. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or indicates the selection for the partisan contests associated with the first straight party selection for all contests except the first "N of M" contest. The first "N of M" contest displays or indicates the selection of the second candidate that is associated with the first straight party selection and an under vote. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1160	Repeat steps 1000- 1090 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ Repeat 1060 _____ Repeat 1070 _____ Repeat 1080 _____ Repeat 1090 _____ *Actual:*
1170	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. Expected: The polls are closed and a report is printed. Actual:
1180	

	Review the closed polls report to ensure all selections input above are recorded and reported correctly. Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a candidate of the same party or of a different party of the straight party selection de-selects all candidates for the straight party vote.	

Test Case Identifier: 04 – 25 P.S. § 3031.7(4) Straight Party and Write-In	
PA ST 25 P.S. § 3031.7 Requirements:	*(4) Permits each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot.*
Test Objective: To determine if the voting system supports straight party voting and write-in.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for a display or indication of a voter selection for all partisan candidates associated with the first straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the first straight party selection. *Actual:*
1030	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review observing only the partisan contests associated with the first straight party selections are present. Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of the selection for only the partisan contests associated with the first straight party selection. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1040	On the BMD, activate a ballot for regular voting

	Expected: The ballot is presented and vote selections can be input. *Actual:*
1050	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection in the straight party contest. *Actual:*
1060	Use the designated method to advance to the first partisan contest. Select the write-in option. Input John Doe as the write-in name. *Expected:* The BMD advances to the first partisan contest and allows the input of the "Write-In" candidate John Doe. *Actual:*
1070	Use the designated method to advance to the ballot review screen. Observe the selections associated with the first straight party selection with the exception of the first partisan contest. Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection in the straight party contest with the exception of the first partisan contest which should indicate the write-in input of John Doe. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1080	On the BMD, activate a ballot for regular voting *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1090	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection in the straight party contest. *Actual:*
1100	Use the designated method to advance to the first "Question" contest. Select the "Yes" option. Attempt to over vote by selecting the "No" option. Observe the action of attempting to select the second option. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The precinct tabulation device might disallow the selection and not display any communication.

	Actual:
1110	Use the designated method to advance to the ballot review screen. Observe the selections associated with the first straight party selection and "Yes" on the first "Question" contest (unless the device toggled, then "No"). Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection and "Yes" on the first "Question" contest. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1120	Repeat steps 1000- 1090 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ Repeat 1060 _____ Repeat 1070 _____ Repeat 1080 _____ Repeat 1090 _____ *Actual:*
1120	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected: The polls closed and a report is printed.* *Actual:*
1130	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected: The closed polls report presents the accumulated totals for the selections input above.* *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a write-in candidate functions with a straight party selection.	

Test Case Identifier: 05 – 25 P.S. § 3031.7(5) Selection of Candidate and Write-in		
PA ST 25 P.S. § 3031.7 Requirements:	*(5) Permits each voter to vote for any person and any office for whom and for which he is lawfully entitled to vote, whether or not the name of such person appears upon the ballot as a candidate for nomination or election.*	
Test Objective: To determine if the voting system supports the selection of a candidate and a write-in candidate.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.	

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the option for the first candidate in the first partisan contest. *Expected:* The BMD displays or provides an indication of a vote selection for the first candidate selection in the first partisan contest. *Actual:*
1020	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review, observing only the first candidate in the first partisan contest is selected. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of the selection for only the first candidate selection in first partisan contests. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1030	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1040	Select the option for a write-in candidate in the first partisan contest. Use the designed method to input "John Doe". *Expected:* The BMD displays or provides an indication of a vote selection for a write-in candidate.

	Actual:
1050	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review observing only the write-in candidate in the first partisan contest is selected. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The precinct tabulation device displays or provides an indication of the selection for only the write-in candidate "John Doe" in first partisan contests. After review, the ballot is cast successfully on the precinct tabulation device. *Actual:*
1060	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1070	Select the option for a write-in candidate in the first "N of M" contest. Use the designed method to input "John Doe" for all selections. Observe any activity to preclude the same input. *Expected:* The BMD displays or provides an indication of a duplicate vote selection for a write-in candidate. If no indication is provided, then trace the ability to adjudicate the vote through the entire system. It may require the EMS component to verify. *Actual:*
1080	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review observing only the write-in candidates in the first "N of M" contest are selected. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The precinct tabulation device displays or provides an indication of the selection for only the write-in candidates "John Doe" in first "N of M" contests. After review, the ballot is cast successfully on the precinct tabulation device. *Actual:*
1090	Repeat steps 1000- 1050 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____

	Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____
1100	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. Expected: The polls closed and a report is printed. Actual:
1100	Review the closed polls report to ensure all selections input above are recorded and reported correctly. Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a candidate and a write-in candidate functions.	

Test Case Identifier: 07– 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions (Regular/ADA)	
PA ST 25 P.S. § 3031.7 Requirements:	*(7) If it is of a type that registers the vote electronically, the voting system shall preclude each voter from voting for more persons for any office than he is entitled to vote for or upon any question more than once.*
Test Objective: To determine if the voting system allows over voting on contests and questions	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Expected:* The BMD displays or provides an indication of a vote selection for the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1020	Attempt to select the second candidate in the first partisan "1 of 1" contest ensure the contest is the same contest as voted in step 1010. Observe the action of attempting to place a second vote. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1030	Attempt to select the write-in option. Observe the action of attempting to input a write-in. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1040	Use the designated method to advance the ballot to the first "N of M" contest. Select the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be selected). *Expected:* The BMD advances to the first "N of M" contest. Once selected, the BMD displays or provides an

	indication of a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1050	Attempt to select the "N +1" candidate in the first "N of M" contest ensure the contest is the same contest as voted in step 1030. Observe the action of attempting to place an over vote. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1060	Use the designated method to advance the ballot to the first "Question" contest. Select the "Yes" option in the contest. *Expected:* The BMD advances to the first "Question" contest. Once selected, the BMD displays or provides an indication of a vote for the "Yes" option in the first "Question" contest. *Actual:*
1070	Attempt to select the "No" option in the first "Question" contest ensure the contest is the same contest as voted in step 1050. Observe the action of attempting to place an over vote. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1080	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method to mark the voted selections onto the paper ballot. Use the designated mark to cast the marked ballot on the precinct tabulation device. *Expected:* The ballot marking device advances to the "Ballot Review" screen and marks the selections. After review and ballot is cast successfully. *Actual:*
1090	Repeat steps 1000- 1070 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____

	Repeat 1050 _____ Repeat 1060 _____ Repeat 1070 _____ *Actual:*
1100	Disable the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1110	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The attempts to select more persons than the vote for and any question more than once are unsuccessful.	

Test Case Identifier: 10 – 25 P.S. § 3031.7(10) Ballot Review and Change (RegularADA)	
PA ST 25 P.S. § 3031.7 **Requirements:**	(*10) If it is of a type that registers the vote electronically, the voting system shall permit each voter to change his vote for any candidate or upon any question appearing on the official ballot up to the time that he takes the final step to register his vote and to have his vote computed.* *If it is of a type that uses paper ballots or ballot cards to register the vote and automatic tabulating equipment to compute such votes, the system shall provide that a voter who spoils his ballot may obtain another ballot; any ballot thus returned shall be immediately cancelled and at the close of the polls shall be enclosed in an envelope marked "Spoiled" which shall be sealed and returned to the county board.*
Test Objective: To determine if the voting system allows the voter to review the selections and change a vote selection before cast of the ballot.	**Test Configuration:** Ballot Marking Device (BDM) and precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	**Description**
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the first candidate in the first all "1 of 1" contest excluding a straight party contest, the first "N" candidates in all "N of M" contests, and select the "Yes" option in all "Question" contests. *Expected:* The BMD allows for the navigation and the voting inputs to be selected as described above. *Actual:*
1020	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are indicated. *Expected:* The BMD advances to the "Ballot Review" screen. The vote selections can be verified. *Actual:*
1030	Use the designated method to retract to the first partisan "1 of 1" contest excluding the straight party contest.. *Expected:* The BMD navigates to the first partisan "1 of 1" contest excluding the straight party contest. *Actual:*

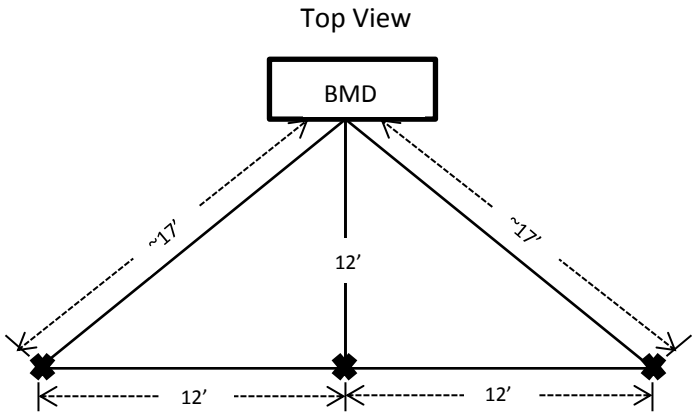
1040	Deselect the first candidate selection and select the second candidate. *Expected:* The BMD indicates the de-selection of the first candidate and the select of the second candidate. *Actual:*
1050	Use the designated method to advance to the first "Question" contest. De-select the "Yes" option and select the "No" option. *Expected:* The BMD navigates to the first "Question" contest and provides an indication of the de-selection of the "Yes" option and a selection of the "No" option. *Actual:*
1060	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted selections. *Expected:* The BMD advances to the "Ballot Review" screen. After review, the ballot is accepted and is then cast successfully. *Actual:*
1070	Repeat steps 1000- 1060 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ Repeat 1060 _____ *Actual:*
1080	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*

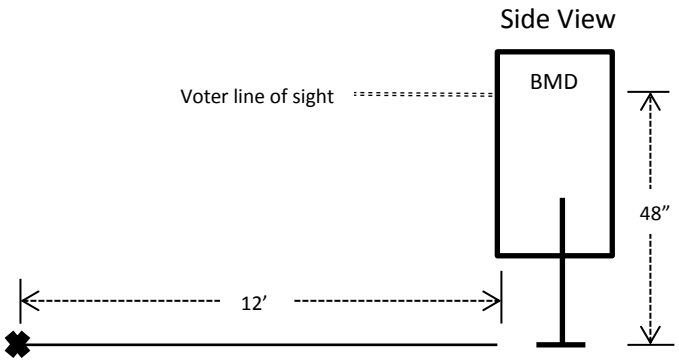
1090	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voter input can be changed by navigating through the ballot after a ballot has been reviewed.	

TEST CASES

ExpressVote

Test Case Identifier: 01 – 25 P.S. § 3031.7(1) Voter Secrecy (ADA Voter)	
PA ST 25 P.S. § 3031.7 Requirement:	*(1) Provides for voting in absolute secrecy and prevents any person from seeing or knowing for whom any voter, except one who has received or is receiving assistance as prescribed by law, has voted or is voting.*
Test Objective: To determine if a voter's selections input using an ADA device can be observed during the act of voting, or once a vote has been cast.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer for an ADA voter. A marker is placed 12 feet (measured from the lowest point of the devices voting surface to the floor) directly behind the center of the BMD and the precinct tabulation device. From that marker, another marker is placed 12 feet to the right side and the left side. The side distance observation points should be approximately 17 feet. See Step 1000 for a layout diagram. The ADA voter will be positioned in the center of the BMD and the precinct tabulation device with a site line of 4 feet. See Step 1001.
Test Equipment:	Standard 15+ foot tape measure
Special Procedural Requirements:	Two roles are required for this test case: an ADA Voter role and an Observer role. The ADA voter will be positioned with a line of site at 48 inches. The observation must be made by an individual between the heights of 68 inches and 71 inches.
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	Layout Diagram:  Verify all measurements. *Expected:* Center measurement is 12 feet and the side distance observation points are approximately 17 feet. *Actual:*
1001	ADA Voter Position:

	 Verify all measurements. *Expected:* Center measurement is 12 feet and the side distance observation points are approximately 17 feet with a voter line of sight at 48 inches. *Actual::*
1010	Observer Role - Activate a ballot for ADA voting. *Expected:* Ballot is presented and vote selections can be input. *Actual:*
1020	ADA Voter Role - Select the candidate corresponding to the upper most left hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter's input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the upper most left hand position. All other selections are to be under voted. *Expected:* The Observer cannot determine the ADA Voter's input selections. *Actual:*
1030	ADA Voter Role - Select the candidate corresponding to the upper most right hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter's input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the upper most right hand position. All other selections are to be under voted.

	Expected: The Observer cannot determine the ADA Voter's input selections. *Actual:*
1040	ADA Voter Role - Select the candidate corresponding to the lower most left hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter's input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the lower most left hand position. All other selections are to be under voted. *Expected:* The Observer cannot determine the ADA Voter's input selections. *Actual:*
1050	ADA Voter Role - Select the candidate corresponding to the lower most right hand position of the ballot presentation. Observer Role - Attempt to ascertain, both audibly and visually, the ADA Voter's input from the right most position, the center position, and the left most position. ADA Voter Role - Use the supplied method to advance the ballot to a vote marked state. The only selection should be the lower most right hand position. All other selections are to be under voted. After the ballot has been accepted, cast the ballot on the precinct tabulation device. *Expected:* The Observer cannot determine the ADA Voter's input selections. *Actual:*
Criteria for Evaluation of the Test Results: The observer must not be able to determine the Voter's selection from any observation position or any Voter selection surface position.	

Test Case Identifier: 02 – 25 P.S. § 3031.7(2) Selection of Candidates and Questions by Voter (Regular/ADA)		
PA ST 25 P.S. § 3031.7 Requirement:	*(2) Provides facilities for voting for such candidates as may be nominated and upon such questions as may be submitted.*	
Test Objective: To determine if a voter has the ability to select candidates and questions.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the device and the polls are open, ready for voting.	

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the first candidate in the first partisan contest excluding a straight party contest. *Expected:* The BMD displays or provides an indication of a vote selection for the first candidate in the first partisan contest excluding a straight party contest. *Actual:*
1020	Use the designated method to advance the ballot to the first "N of M" contest. Select the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be selected). *Expected:* The BMD advances to the first "N of M" contest. Once selected, the BMD displays or provides an indication of a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1030	Use the designated method to advance the ballot to the first "Question" contest. Select the "Yes" option in the contest. *Expected:* The BMD advances to the first "Question" contest. Once selected, the BMD displays or provides an indication of a vote selection for the "Yes" option in the first "Question" contest. *Actual:*
1040	Use the designated method to advance the ballot to the second "Question" contest. Select the "No" option in the

	contest. *Expected:* The BMD advances to the second "Question" contest. Once selected, the BMD displays or provides an indication of a vote selection for the "No" option in the second "Question" contest. *Actual:*
1050	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are displayed. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, cast the voted selections. *Expected:* The BMD advances to the "Ballot Review" screen. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1060	Repeat steps 1000- 1050 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ *Actual:*
1070	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1080	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester.	

Test Case Identifier: 03 – 25 P.S. § 3031.7(3) Straight Party and Pennsylvania Method	
PA ST 25 P.S. § 3031.7 Requirements:	*(3) Permits each voter, at other than primary elections, to vote a straight political party ticket by one mark or act and, by one mark or act, to vote for all the candidates of one political party for presidential electors and, by one mark or act, to vote for all the candidates of one political party for every office to be voted for, and every such mark or act shall be equivalent to and shall be counted as a vote for every candidate of the political party so marked including its candidates for presidential electors, except with respect to those offices as to which the voter has registered a vote for individual candidates of the same or another political party or political body, in which case the automatic tabulating equipment shall credit the vote for that office only for the candidate individually so selected, notwithstanding the fact that the voter may not have individually voted for the full number of candidates for that office for which he was entitled to vote.*
Test Objective: To determine if the voting system supports straight party voting and the Pennsylvania Method.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for the indication of a voter selection for all partisan candidates associated with the first straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the first straight party selection. *Actual:*
1030	Use the designated method to advance through the remainder of the ballots advancing to the ballot review screen. Observe the selection in the ballot review observing only the partisan contests associated with the first straight

	party selections are present. Use the designated method to accept and mark the ballot. Then, on the precinct tabulating device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of a vote selection for only the partisan contests associated with the first straight party selection. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1040	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1050	Select the option for the second party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the second party in the straight party contest. *Actual:*
1060	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for an indication of a voter selection for all partisan candidates associated with the second straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the second straight party selection. *Actual:*
1070	Use the designated method to retreat through the ballot selections to the first "N of M" contest. Select the first partisan candidate that is not the party associated with the second straight party selection. Leave the remainder of the selections under voted. *Expected:* "N" candidates for the party of the second straight party selections should display or provide an indication of the non-selection. The selected candidate should be the only selection displayed or indicated. *Actual:*
1080	Use the designated method to retreat through the ballot to the "Straight Party" contest. Observe the selection for the second straight party selection. *Expected:* The second straight party selections should be displayed or an indication given as selected.

	Actual:
1090	Use the designated method to advance through the ballot to the second "N of M" contest. Select the first partisan candidate that is not the party associated with the second straight party selection. Leave the remainder of the selections under voted. *Expected:* "N" candidates for the party of the second straight party selections should display or provide an indication of the non-selection. The selected candidate should be the only selection displayed or indicated. *Actual:*
1100	Use the designated method to advance through the remainder of the ballot advancing to the ballot review. Review the selections in the ballot review to verify that the partisan contests associated with the second straight party selections are present with the exception of the "N of M" contests. Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or indicates the selection for the partisan contests associated with the second straight party selection for all contests except the first "N of M" contest. The first "N of M" contest displays or indicates the selection of the first candidate that is not associated with the second straight party selection. After review, the ballot is accepted. The ballot is then cast successfully on the precinct tabulation device. *Actual:*
1110	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1120	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the first party in the straight party contest. *Actual:*
1130	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for an indication of a voter selection for all partisan candidates associated with the first straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the first straight party selection. *Actual:*
1140	

	Use the designated method to retreat through the ballot selections to the first "N of M" contest. Select the first partisan candidate that is associated with the first straight party selection. Leave this contest and the remainder of the selections under voted. *Expected:* "N" candidates for the party of the first straight party selections should display or provide an indication of the non-selection. The selected candidate should be the only selection displayed or indicated. *Actual:*
1150	Use the designated method to advance through the remainder of the ballot advancing to the ballot review. Review the selections in the ballot review to verify that the partisan contests associated with the first straight party selections are present with the exception of the first "N of M" contest. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or indicates the selection for the partisan contests associated with the first straight party selection for all contests except the first "N of M" contest. The first "N of M" contest displays or indicates the selection of the second candidate that is associated with the first straight party selection and an under vote. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1160	Repeat steps 1000- 1090 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ Repeat 1060 _____ Repeat 1070 _____ Repeat 1080 _____ Repeat 1090 _____ *Actual:*
1170	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. Expected: The polls are closed and a report is printed. Actual:
1180	

	Review the closed polls report to ensure all selections input above are recorded and reported correctly. Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a candidate of the same party or of a different party of the straight party selection de-selects all candidates for the straight party vote.	

Test Case Identifier: 04 – 25 P.S. § 3031.7(4) Straight Party and Write-In	
PA ST 25 P.S. § 3031.7 Requirements:	*(4) Permits each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot.*
Test Objective: To determine if the voting system supports straight party voting and write-in.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection for the first party selection in the straight party contest. *Actual:*
1020	Use the designated method to advance through the ballot to each partisan contest. Observe all partisan contests for a display or indication of a voter selection for all partisan candidates associated with the first straight party selection. *Expected:* The BMD displays or provides an indication of a vote selection for all the partisan candidates in each contest associated with the first straight party selection. *Actual:*
1030	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review observing only the partisan contests associated with the first straight party selections are present. Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of the selection for only the partisan contests associated with the first straight party selection. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1040	On the BMD, activate a ballot for regular voting

	Expected: The ballot is presented and vote selections can be input. *Actual:*
1050	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection in the straight party contest. *Actual:*
1060	Use the designated method to advance to the first partisan contest. Select the write-in option. Input John Doe as the write-in name. *Expected:* The BMD advances to the first partisan contest and allows the input of the "Write-In" candidate John Doe. *Actual:*
1070	Use the designated method to advance to the ballot review screen. Observe the selections associated with the first straight party selection with the exception of the first partisan contest. Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection in the straight party contest with the exception of the first partisan contest which should indicate the write-in input of John Doe. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1080	On the BMD, activate a ballot for regular voting *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1090	Select the option for the first party selection of the straight party. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection in the straight party contest. *Actual:*
1100	Use the designated method to advance to the first "Question" contest. Select the "Yes" option. Attempt to over vote by selecting the "No" option. Observe the action of attempting to select the second option. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The precinct tabulation device might disallow the selection and not display any communication.

	Actual:
1110	Use the designated method to advance to the ballot review screen. Observe the selections associated with the first straight party selection and "Yes" on the first "Question" contest (unless the device toggled, then "No"). Use the designated method to accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of a vote selection associated with the first party selection and "Yes" on the first "Question" contest. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1120	Repeat steps 1000- 1090 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ Repeat 1060 _____ Repeat 1070 _____ Repeat 1080 _____ Repeat 1090 _____ *Actual:*
1120	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected: The polls closed and a report is printed.* *Actual:*
1130	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected: The closed polls report presents the accumulated totals for the selections input above.* *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a write-in candidate functions with a straight party selection.	

Test Case Identifier: 05 – 25 P.S. § 3031.7(5) Selection of Candidate and Write-in		
PA ST 25 P.S. § 3031.7 Requirements:	*(5) Permits each voter to vote for any person and any office for whom and for which he is lawfully entitled to vote, whether or not the name of such person appears upon the ballot as a candidate for nomination or election.*	
Test Objective: To determine if the voting system supports the selection of a candidate and a write-in candidate.	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device are configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.	
Test Equipment:	None	
Special Procedural Requirements:	None	
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.	

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the option for the first candidate in the first partisan contest. *Expected:* The BMD displays or provides an indication of a vote selection for the first candidate selection in the first partisan contest. *Actual:*
1020	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review, observing only the first candidate in the first partisan contest is selected. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The BMD displays or provides an indication of the selection for only the first candidate selection in first partisan contests. After review, the ballot is accepted and is then cast successfully on the precinct tabulation device. *Actual:*
1030	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1040	Select the option for a write-in candidate in the first partisan contest. Use the designed method to input "John Doe". *Expected:* The BMD displays or provides an indication of a vote selection for a write-in candidate.

	Actual:
1050	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review observing only the write-in candidate in the first partisan contest is selected. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The precinct tabulation device displays or provides an indication of the selection for only the write-in candidate "John Doe" in first partisan contests. After review, the ballot is cast successfully on the precinct tabulation device. *Actual:*
1060	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1070	Select the option for a write-in candidate in the first "N of M" contest. Use the designed method to input "John Doe" for all selections. Observe any activity to preclude the same input. *Expected:* The BMD displays or provides an indication of a duplicate vote selection for a write-in candidate. If no indication is provided, then trace the ability to adjudicate the vote through the entire system. It may require the EMS component to verify. *Actual:*
1080	Use the designated method to advance through the remainder of the ballot advancing to the ballot review screen. Observe the selection in the ballot review observing only the write-in candidates in the first "N of M" contest are selected. Use the designated method to accept the marked ballot. Then, on the precinct tabulation device, use the designated method to cast the voted ballot. *Expected:* The precinct tabulation device displays or provides an indication of the selection for only the write-in candidates "John Doe" in first "N of M" contests. After review, the ballot is cast successfully on the precinct tabulation device. *Actual:*
1090	Repeat steps 1000- 1050 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____

	Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____
1100	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. Expected: The polls closed and a report is printed. Actual:
1100	Review the closed polls report to ensure all selections input above are recorded and reported correctly. Expected: The closed polls report presents the accumulated totals for the selections input above. Actual:
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The functionality of selecting a candidate and a write-in candidate functions.	

Test Case Identifier: 07– 25 P.S. § 3031.7(7) Attempt to Over Vote Contests and Questions (Regular/ADA)	
PA ST 25 P.S. § 3031.7 Requirements:	*(7) If it is of a type that registers the vote electronically, the voting system shall preclude each voter from voting for more persons for any office than he is entitled to vote for or upon any question more than once.*
Test Objective: To determine if the voting system allows over voting on contests and questions	**Test Configuration:** Ballot Marking Device (BMD) and precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Expected:* The BMD displays or provides an indication of a vote selection for the first candidate in the first partisan "1 of 1" contest excluding a straight party contest. *Actual:*
1020	Attempt to select the second candidate in the first partisan "1 of 1" contest ensure the contest is the same contest as voted in step 1010. Observe the action of attempting to place a second vote. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1030	Attempt to select the write-in option. Observe the action of attempting to input a write-in. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1040	Use the designated method to advance the ballot to the first "N of M" contest. Select the first "N" candidates in the contest. (e.g. in a Vote for Two contest the first two candidates would be selected). *Expected:* The BMD advances to the first "N of M" contest. Once selected, the BMD displays or provides an

	indication of a vote for the first "N" candidates in the first "N of M" contest. *Actual:*
1050	Attempt to select the "N +1" candidate in the first "N of M" contest ensure the contest is the same contest as voted in step 1030. Observe the action of attempting to place an over vote. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1060	Use the designated method to advance the ballot to the first "Question" contest. Select the "Yes" option in the contest. *Expected:* The BMD advances to the first "Question" contest. Once selected, the BMD displays or provides an indication of a vote for the "Yes" option in the first "Question" contest. *Actual:*
1070	Attempt to select the "No" option in the first "Question" contest ensure the contest is the same contest as voted in step 1050. Observe the action of attempting to place an over vote. *Expected:* The BMD displays or provides an indication of an attempt to over vote. The BMD might disallow the selection and not display any communication. *Actual:*
1080	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method to mark the voted selections onto the paper ballot. Use the designated mark to cast the marked ballot on the precinct tabulation device. *Expected:* The ballot marking device advances to the "Ballot Review" screen and marks the selections. After review and ballot is cast successfully. *Actual:*
1090	Repeat steps 1000- 1070 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____

	Repeat 1050 _____ Repeat 1060 _____ Repeat 1070 _____ *Actual:*
1100	Disable the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*
1110	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The attempts to select more persons than the vote for and any question more than once are unsuccessful.	

Test Case Identifier: 10 – 25 P.S. § 3031.7(10) Ballot Review and Change (RegularADA)	
PA ST 25 P.S. § 3031.7 **Requirements:**	(*10) If it is of a type that registers the vote electronically, the voting system shall permit each voter to change his vote for any candidate or upon any question appearing on the official ballot up to the time that he takes the final step to register his vote and to have his vote computed.* *If it is of a type that uses paper ballots or ballot cards to register the vote and automatic tabulating equipment to compute such votes, the system shall provide that a voter who spoils his ballot may obtain another ballot; any ballot thus returned shall be immediately cancelled and at the close of the polls shall be enclosed in an envelope marked "Spoiled" which shall be sealed and returned to the county board.*
Test Objective: To determine if the voting system allows the voter to review the selections and change a vote selection before cast of the ballot.	**Test Configuration:** Ballot Marking Device (BDM) and precinct tabulation device configured as described for normal election day operation by Pennsylvania procedures and/or the device manufacturer.
Test Equipment:	None
Special Procedural Requirements:	None
Assumptions:	An election is loaded on the devices and the polls are open, ready for voting.

Step	Description
1000	On the BMD, activate a ballot for voting. *Expected:* The ballot is presented and vote selections can be input. *Actual:*
1010	Select the first candidate in the first all "1 of 1" contest excluding a straight party contest, the first "N" candidates in all "N of M" contests, and select the "Yes" option in all "Question" contests. *Expected:* The BMD allows for the navigation and the voting inputs to be selected as described above. *Actual:*
1020	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are indicated. *Expected:* The BMD advances to the "Ballot Review" screen. The vote selections can be verified. *Actual:*
1030	Use the designated method to retract to the first partisan "1 of 1" contest excluding the straight party contest.. *Expected:* The BMD navigates to the first partisan "1 of 1" contest excluding the straight party contest. *Actual:*

1040	Deselect the first candidate selection and select the second candidate. *Expected:* The BMD indicates the de-selection of the first candidate and the select of the second candidate. *Actual:*
1050	Use the designated method to advance to the first "Question" contest. De-select the "Yes" option and select the "No" option. *Expected:* The BMD navigates to the first "Question" contest and provides an indication of the de-selection of the "Yes" option and a selection of the "No" option. *Actual:*
1060	Use the designated method to advance the "Ballot Review". Observe the "Ballot Review" to see if the above selections are indicated. Use the designated method accept and mark the ballot. Then, on the precinct tabulation device, use the designated method to cast the voted selections. *Expected:* The BMD advances to the "Ballot Review" screen. After review, the ballot is accepted and is then cast successfully. *Actual:*
1070	Repeat steps 1000- 1060 from above using an ADA input device. *Expected:* Repeat 1000 _____ Repeat 1010 _____ Repeat 1020 _____ Repeat 1030 _____ Repeat 1040 _____ Repeat 1050 _____ Repeat 1060 _____ *Actual:*
1080	Disable voting on the BMD. Close the polls on the precinct tabulation device and print the closed polls report tape. *Expected:* The polls closed and a report is printed. *Actual:*

1090	Review the closed polls report to ensure all selections input above are recorded and reported correctly. *Expected:* The closed polls report presents the accumulated totals for the selections input above. *Actual:*
Criteria for Evaluation of the Test Results: The intended selections input above are recorded, stored, and reported as input by the tester. The voter input can be changed by navigating through the ballot after a ballot has been reviewed.	