

# An Open Letter to the Carroll County Board of Elections

## Carroll County Citizens for Voting Integrity

Thank you for allowing us the time to comment on the voting equipment in Carroll County. Our democracy depends on the reliability, accuracy, accessibility, and transparency of the voting systems we use to choose our representatives. It is our opinion that Carroll County will be best served by an optical scan system paired with disabled-accessible ballot marking devices. There are several good reasons to choose optical scanners over touchscreens, even those that have a voter-verified paper trail (VVPT). These include cost, reliability, and voter confidence.

First, optical scanners are a significantly less expensive voting system than touchscreens. We base this assertion on voter registration data from the Georgia State Board of Elections and an ES&S price sheet from the North Carolina Association of County Commissioners (NCACC).<sup>1</sup> **This should not be construed as an endorsement of ES&S.** However, this information allows us to make an apples-to-apples comparison of actual voting systems sold this year to a nearby state. This comparison shows that Carroll County could save \$317,170 in initial purchase costs by selecting precinct-based optical scanners combined with ballot markers. A cost projection indicates that Carroll County will save \$307,499 over five years by selecting an optical scan-based system<sup>2</sup>.

Second, optical scanners are the preferred voting system of the vast majority of independent computer scientists<sup>3</sup>. Additionally, optical scanners and ballot markers have the support of voters. The voters of Carroll County recognize that the latest technologies are not always the best. The question we should ask ourselves is not “Is it new?” but “Will it work?” In particular, independent disabled voters in have expressed a clear preference for the AutoMARK ballot marker over the available touchscreen systems. Problems with the AutoMARK in other jurisdictions have been due to a single wire that came loose during improper handling during delivery. This problem – which is trivial to detect and fix – should not be used by opponents of election integrity as an opportunity to stall on much-needed improvements to the integrity of elections in Georgia.

Finally, we encourage Carroll County to be part of the solution and not part of the problem. Twenty-seven states have passed election integrity reform bills that restore confidence to the voting process by combining paper-based voting systems with mandatory audits. It was Ronald Reagan who said “Trust, but verify.” While many of us trust the Secretary of State and the Boards of Elections to do their job with professionalism and honesty, as citizens we feel it is our duty to independently verify the integrity of our democracy.

You have an opportunity to move Georgia in the right direction. Please consider these facts when discussing proper voting systems with our state government.

Sincerely,

Carroll County Citizens for Voting Integrity

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<sup>1</sup>The NCACC data provides the uniform, state-wide prices of the hardware and software purchased by that state earlier this year. Since North Carolina is of comparable size and population to Georgia, we believe our State Board would be capable of negotiating a similar deal.

<sup>2</sup>A precinct-by-precinct cost breakdown is included as an appendix to this letter

<sup>3</sup>In 2004 the Association for Computing Machinery – one of the largest and most prestigious professional organizations for computer scientists – took a public policy position that supported strong engineering standards paired with voter-verified paper ballots. It was supported by over 95% of their members. See <https://www.myacm.org/opinion/poll.cfm>

## A Carroll Cost Comparison

Precinct	Voters	DRE		Optical Scan		Cost Savings
		Machines	Cost	Machines	Cost	
Agricultural Ed 714bs	757	1 Audio iVotronic(s) 2 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$10,985	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$1,040
Bethany 501	1,522	1 Audio iVotronic(s) 5 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$20,870	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$10,925
Bonner 714a3	1,930	1 Audio iVotronic(s) 6 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$24,165	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$14,220
Bowdon 1111	2,112	1 Audio iVotronic(s) 7 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$27,460	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$17,515
Bowdon Junction 1496	834	1 Audio iVotronic(s) 2 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$10,985	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$1,040
Burwell 1371	999	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Center Point 1152	1,113	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Clem 1483	1,670	1 Audio iVotronic(s) 5 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$20,870	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$10,925
County Admin B1 714a5	1,504	1 Audio iVotronic(s) 5 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$20,870	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$10,925
Emc 714bn	980	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Fairfield 1540	2,187	1 Audio iVotronic(s) 7 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$27,460	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$17,515
Hulett 1542	1,490	1 Audio iVotronic(s) 4 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$17,575	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$7,630
Kansas 1006	770	1 Audio iVotronic(s) 2 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$10,985	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$1,040

Precinct	Voters	DRE		Optical Scan		Cost Savings
		Machines	Cost	Machines	Cost	
Lakeshore 714a2	1,071	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Lowell 1163	988	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Mt Zion 1240	1,186	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
New Hope 716	833	1 Audio iVotronic(s) 2 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$10,985	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$1,040
Oak Grove 715	1,009	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Old Camp Church 714bw	1,614	1 Audio iVotronic(s) 5 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$20,870	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$10,925
Roopville 713	1,067	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Sandhill 1122	2,402	1 Audio iVotronic(s) 8 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$30,755	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$20,810
Tabernacle Chur 714a6	971	1 Audio iVotronic(s) 3 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$14,280	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$4,335
Temple 649	2,279	1 Audio iVotronic(s) 7 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$27,460	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$17,515
Temple City 650	1,860	1 Audio iVotronic(s) 6 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$24,165	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$14,220
Tyus 1533	1,243	1 Audio iVotronic(s) 4 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$17,575	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$7,630
V R County Nort 641	3,044	1 Audio iVotronic(s) 10 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$37,345	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$27,400

Precinct	Voters	DRE		Optical Scan		Cost Savings
		Machines	Cost	Machines	Cost	
V R County Sout 640	1,821	1 Audio iVotronic(s) 6 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$24,165	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$14,220
Victorious Blvr 714be	1,210	1 Audio iVotronic(s) 4 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$17,575	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$7,630
Villa Rica City 642	2,775	1 Audio iVotronic(s) 9 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$34,050	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$24,105
West Carrollton 714a1	1,602	1 Audio iVotronic(s) 5 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$20,870	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$10,925
West Ga College 714a4	1,882	1 Audio iVotronic(s) 6 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$24,165	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$14,220
Whitesburg 682	1,381	1 Audio iVotronic(s) 4 Plain iVotronic(s) 1 iVotronic Print Pack(s)	\$17,575	1 AutoMARK(s) 1 M100 Scanner(s)	\$9,945	\$7,630

Precinct	Voters	DRE		Optical Scan		Cost Savings
		Machines	Cost	Machines	Cost	
Software And Extras		1 iVotronic Supervisor Terminal 1 Software Suite (for DREs)	\$77,410	1 Software Suite (no DREs)	\$64,780	\$12,630
GRAND TOTALS	48,106	32 Audio iVotronic(s) 148 Plain iVotronic(s) 32 iVotronic Print Pack(s)	\$705,710	32 AutoMARK(s) 32 M100 Scanner(s)	\$383,020	\$322,690

Type of Product	Initial Costs	Support, Maintenance & Operations					Total Costs
		Year 1	Year 2	Year 3	Year 4	Year 5	
DRE	\$705,710	\$2,277	\$41,577	\$42,657	\$43,737	\$74,157	\$910,115
Optical Scan	\$383,020	\$19,049	\$48,269	\$48,941	\$49,645	\$54,925	\$603,849

## B Cost Data and Assumptions

- 2005 per-precinct registration data from the Georgia SOS:  
<http://www.sos.state.ga.us/elections/voter%5fregistration/county%5f%5fcounty%5f%5fgender.pdf>
- ES&S price sheet available at the NCACC web site:  
<http://www.ncacc.org/documents/equipmentpricing-ess.pdf>

<b>Voting Equipment and Software Licensing</b>	
Audio-Enabled DRE	\$3,395
Standard DRE	\$3,395
AutoMARK	\$4,950
M100 Scanner	\$4,995
Support Software (with DREs)	\$74,780
Support Software (no DREs)	\$64,780

<b>Auxillary Equipment</b>	
iVotronic Printer Pack (one per precinct)	\$1,000
iVotronic Support Equipment	\$2,630
VVPAT Paper (one roll)	\$5.75
DRE Battery	\$163
M100 Battery	\$37
AutoMARK Battery	\$105
Hardware, counties with less than 10000 registered voters	\$3,743
Hardware, counties with less than 50000 registered voters	\$7,866
Hardware, counties with less than 100000 registered voters	\$18,064
Hardware, counties with more than 100000 registered voters	\$25,213

<b>Maintenance Costs</b>	
Support Software (with DREs)	\$14,100
Support Software (no DREs)	\$12,100
DRE, Year 1	\$0
DRE, Year 2	\$140
DRE, Year 3	\$146
DRE, Year 4	\$152
DRE, Year 5	\$158
AutoMARK, Year 1	\$0
AutoMARK, Year 2	\$310
AutoMARK, Year 3	\$322
AutoMARK, Year 4	\$335
AutoMARK, Year 5	\$348
M100, Year 1	\$0
M100, Year 2	\$225
M100, Year 3	\$234
M100, Year 4	\$243
M100, Year 5	\$253

<b>Other Assumptions</b>	
Elections per year	2
Year at which all batteries need replacing	5
Maximum turnout	70%
Voters who vote on election day (not early or absentee)	70% of turnout
Percent of extra paper ballots/rolls printed/purchased	10%
Registered voters per DRE	300
Registered voters per scanner	5000
Average cost, optical scan ballot (based on Durham County data, 2002 – 2004)	\$0.18