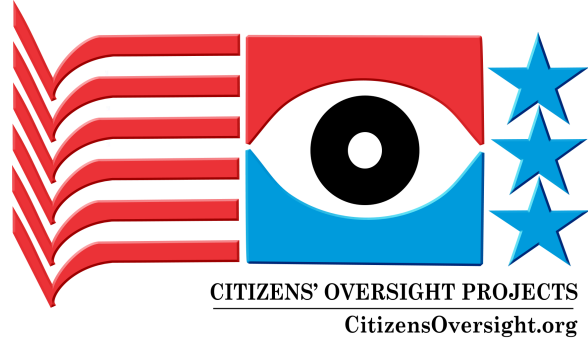Ray Lutz, Executive Director
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April 9, 2024

Brad Raffensberger
Georgia Secretary of State
214 State Capitol
Atlanta, Georgia 30334

404-656-2881
email: https://sos.ga.gov/form/contact-us

REF: M2011

RE: GA Ballot Image Audits including OCR of BMD ballots in light of HB 974.

Dear Secretary Raffensberger:

I hope this letter finds you well. I am writing to follow up on our previous correspondence regarding the auditing services offered to the Office of the Secretary of State and the state of Georgia.

As you may recall, we expressed our willingness to provide ballot image auditing (BIA) services in a letter dated January 23, 2024. We remain committed to assisting your office in ensuring the integrity and accuracy of Georgia's elections. For your convenience, we are attaching this letter with this correspondence.

In light of the recent developments concerning House Bill 974, particularly Section 6 which mandates the creation of a pilot program for auditing paper ballot images, we believe our expertise and experience is invaluable to the successful implementation of this program. Specifically, we are well-equipped to provide assistance with the verification of the human-readable text portion of the ballot using optical character recognition technology or other related

technology, as outlined in the bill, as well as audit all hand marked ballots using the images. We believe we are the only vendor that has demonstrated this capability.

We understand the importance of conducting thorough and impartial audits that inspire public confidence in the electoral process. Our team is prepared to work closely with your office to develop and execute an auditing program that meets the requirements set forth in House Bill 974. Furthermore, we are committed to ensuring that the auditing process is transparent, comprehensive, and completed in a timely manner.

Pilot Program: We previously demonstrated our AuditEngine service with our BIAs of Bartow, Fulton and DeKalb counties in the 2020 and 2022 primary (DeKalb) elections.

We believe there are a number of key questions we must address in this program:

1. **Non-QR Code Auditing --** We have already demonstrated our ability to perform Optical Character Recognition (OCR) of the voter-verifiable text. But the ballot style is also embedded in the QR Code. Knowing the expected contests can improve conversion accuracy, but with careful design of contest names and options, it may also be possible to determine the style using OCR as well. Yet, we believe it will be advisable to include a style designator on the ballot that we can OCR so we can both obtain higher accuracy and avoid using the QR Code. This issue will need to be explored to determine the error rate in these cases.

2. **Quick-turnaround** -- We found in our Maryland Pilot that it was completely feasible to obtain initial results within about 24 hours of getting the ballot images. To process the ballot images quickly, we must get, prior to the election, the exact text used on BMD and hand-marked ballots, as well as the PDF style masters so we could automatically generate the mapping of ovals on the ballot without needing OCR for that purpose.

3. **Scaling to 159 Counties** -- One of the more formidable challenges in GA is the large number of counties in the state. We believe we can handle the total number of voters -- perhaps about 5 million -- in our cloud solution that can operate up to 10,000 computers in parallel. But we

need to be able to easily handle the set-up and configuration without processing each county separately. If the state will be handling the configuration centrally, it may be feasible to handle the state with just a single configuration, treating each county as a separate district within the style space. However, it may be attractive to handle the state with about 18 set-ups, to reduce the overhead while requiring fewer bits.[1]

Data Security: We have recently developed improved data security for the files you will be providing to document the provenance of those files and avoid any accusations that the ballot images may be compromised. We hope we can work with you and NIST to standardize these procedures.

Please let us know if you would like to schedule a meeting to discuss this matter further or if you require any additional information from our end. We are eager to collaborate with your office and contribute to the successful implementation of the auditing program outlined in House Bill 974.

Thank you for considering our offer of assistance. We look forward to the opportunity to work together and uphold the integrity of Georgia's elections.

Sincerely,

Ray Lutz
Executive Director, CitizensOversight

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[1] In this proposal, each of the top four counties (Fulton, DeKalb, Gwinnett, and Cobb) which together include about 1/3 of the voters, would each be handled separately. Then the next 16 counties, which together include the next third of the electorate, would have another four setups, with about four counties in each one. The remaining 139 counties comprise the final third, and here we suggest 10 setups, to reduce the number of counties in each one to about 14, and requiring only four bits in the style descriptor. Of course, there are other factors, such as geographical location and grouping counties together that may impact the details in this approach, as it may be best to include a number of the smallest counties with larger adjacent counties. The set up of the election in each county could be about the same as it is now, except that the range of style designators would be constructed to not overlap among the counties in each group.