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February 9, 2021

Mr. Keith Ingram
Director of Elections
Texas Secretary of State
Elections Division
208 East 10th Street
Austin, Texas 78711

Re: Inspection of the Hart Intercivic Verity Voting 2.5 System conducted on January 4-8, 2021

Dear Mr. Ingram:

Pursuant to my appointment by the Texas Secretary of State as a voting systems examiner under TEXAS ELECTION CODE § 122.035, please allow this letter to serve as my report concerning the above referenced examination. Because of the current public health crisis, the statutory examiners and staff from the Secretary of State's office, examined the Hart Intercivic Verity Voting 2.5 voting system ("**Hart 2.5 System**") in small groups on separate days during the week of January 4, 2021, at the offices of the Secretary of State in Austin, Texas. All inspection proceedings were broadcast live so all inspectors not physically present could watch the proceedings. I physically attended the inspection conducted on January 6, 2021, along with Chuck Pinney from the Secretary of State's office.

Chuck and I inspected the above referenced software and equipment on January 6th. I watched the remainder of the inspection on other days via remote means. Prior to and after that inspection, I reviewed the written materials for the Hart 2.5 System. The physical inspection and review of written materials show Hart Intercivic's compliance with the relevant provisions of the TEXAS ELECTION CODE and Texas Administrative Code related to the requirements for election machines and software.

The Hart 2.5 System includes some material changes in the Hart Intercivic Verity Voting system that has limited similarities to the previous Hart system approved by the Secretary, including the Hart 2.5 System. The substantive changes from previous systems relates to an update to the use of a Windows 10 operating system, security enhancements and a new physical device called the Touch Writer Duo Go carrier for curbside voting without all of the previously necessary equipment required in earlier versions.

ACCESSIBILITY TESTING

On January 6, 2021, Chuck and I tested the physical equipment of the Hart 2.5 System for accessibility compliance with the applicable state laws and regulations. One issue arose with the audio portions associated the hardware in that it would not announce the actual contests or candidates. Officials from Hart reset the machine and the audio worked correctly after the restart. Chuck and I's testing showed that the Hart 2.5 System complied with the accessibility requirements of Texas law.

TESTING OF HARDWARE AND SOFTWARE

On the first day of the examination, Hart completed the loading and installation of the Hart 2.5 System. Also, representatives from the State of Idaho attended the remote viewing of the exam (and continued to do so throughout the week).

On the second day of the examination, Hart and officials from the Secretary of State performed the hash validation process. Based on recent exams and a decision by the Secretary's office and the examiners that the hash validation process is of critical importance to the integrity of the systems, extra attention and time was taken with the hash validation process. As with all other systems, the hash validation process had some minor issues and the direction on how to accomplish it were not as clear as one would hope. There were some technical questions about the process and issues were raised about the source of the "golden hashes" with which the current system was compared. It was not clear if the golden hashes were generated independently or came from some other source. While these issues should be addressed on an industry-wide basis, none of the issues suggested that the hash validation process was inaccurate or cause for major concern.

On the third day of the exam, (on which I was physically present) the vendor provided the examiners an overview of the 2.5 System. There was an initial discussion as to the new features of the new system. The examiners posed a variety of questions about the system, but all of the questions were resolved by the vendor. Later on the third day, Chuck and I tested each piece of equipment and software for security, functionality and accuracy. Chuck and I cast a script of ballots on each voting machine and paper ballots and cast vote records were fed into the optical scanners. The mock votes were tabulated and sorted with the new election software. The results of the tabulation matched the verified voting numbers from the Secretary's office. In addition, Hart and the examiners in attendance also reviewed the adjudication features of the System. The new Duo Go device was also inspected and used to cast a ballot.

On subsequent days, the other examiners also voted ballots and inspected the machines. Also, the audit logs for each machine and programs were provided to the examiners.

OBSERVATIONS

1. Each of the separate pieces of hardware and software examined met the listed requirements of the TEXAS ELECTION CODE and TEXAS ADMINISTRATIVE CODE.
2. The new features were generally improvements over past systems.
3. We specifically caused paper jams with the printers attached to some of the equipment. The printers and scanners properly dealt with these intentionally corrupted ballots.
4. There were no security issues or accuracy concerns raised during any of the testing.

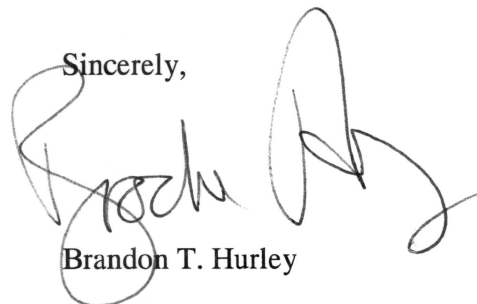
RECOMMENDATION

Based on the foregoing observations and my examination of the Hart 2.5 System, its accompanying literature and the representations made by Hart officials both in its literature and at the examination, I recommend that the Hart 2.5 System be certified as compliant with the requirements of the TEXAS ELECTION CODE and the TEXAS ADMINISTRATIVE CODE.

This report should not be construed as a tacit or implied comment on any of the technical aspects of the Hart 2.5 System except as expressly stated herein. In the event any of the equipment, software or security devices examined are altered, changed or decertified by any accrediting agency (other than a “minor modification qualified for administrative certification process” as that term is defined in § 81.65 of the Texas Administrative Code), this report should be considered withdrawn.

Thank you for the opportunity to serve as an examiner and participate in this important process that protects the integrity of Texas’ voting systems.

Sincerely,

A handwritten signature in black ink, appearing to read "Brandon T. Hurley", written in a cursive style. The signature is positioned above the printed name.

Brandon T. Hurley