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**Header** 2

**General Information**
[Contact](#)
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[Document Information](#)
**Procurement Folder:** 613105

**SO Doc Code:** CRFQ

**Procurement Type:** Central Master Agreement

**SO Dept:** 0702

**Vendor ID:** VS0000016276

**SO Doc ID:** TAX2000000003

**Legal Name:** HARRIS SYSTEMS USA INC

**Published Date:** 9/5/19

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**Status:** Closed

**Response Time:** 12:42

**Solicitation Description:** Addendum No.2 Valuation and Assessment Administration System

**Total of Header Attachments:** 2

**Total of All Attachments:** 2



Purchasing Division  
2019 Washington Street East  
Post Office Box 50130  
Charleston, WV 25305-0130

State of West Virginia  
Solicitation Response

Proc Folder : 613105

Solicitation Description : Addendum No.2 Valuation and Assessment Administration System

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation Response	Version
	2019-09-12 13:30:00	SR        0702   ESR09121900000001654	1

VENDOR

VS0000016276

HARRIS SYSTEMS USA INC

Solicitation Number:    CRFQ   0702        TAX20000000003

Total Bid :        \*\*\*\*\*                      Response Date:    2019-09-12                      Response Time:    12:42:13

Comments:

FOR INFORMATION CONTACT THE BUYER

Brittany E Ingraham  
(304) 558-2157  
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Signature on File

FEIN #

DATE

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Commodity Line 1 - Systems Integration Design	1.00000	LS	\$6,674,200.000000	\$6,674,200.00

Comm Code	Manufacturer	Specification	Model #
81111503			

**Extended Description :** System Integration Design as described in section 5.1.1 of the attached specifications.

**Comments:** Mobile is priced at our assumption of 148 mobile licenses. An increase in the number of mobile licenses will increase cost and decrease in mobile licenses will decrease cost.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Commodity Line 2 - System Support year 1	1.00000	YR	\$967,400.000000	\$967,400.00

Comm Code	Manufacturer	Specification	Model #
81111805			

**Extended Description :** System Support as described in section 5.1.2 of the attached specifications.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	System Support year 2	1.00000	YR	\$1,015,770.000000	\$1,015,770.00

Comm Code	Manufacturer	Specification	Model #
81111805			

**Extended Description :** System Support as described in section 5.1.2 of the attached specifications.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	System Support year 3	1.00000	YR	\$1,066,559.000000	\$1,066,559.00

Comm Code	Manufacturer	Specification	Model #
81111805			

**Extended Description :** System Support as described in section 5.1.2 of the attached specifications.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	System Support year 4	1.00000	YR	\$1,119,886.000000	\$1,119,886.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description : System Support as described in section 5.1.2 of the attached specifications.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	System Support year 5	1.00000	YR	\$1,175,881.000000	\$1,175,881.00

Comm Code	Manufacturer	Specification	Model #
81111805			

Extended Description : System Support as described in section 5.1.2 of the attached specifications.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
12	Customization of the System Software	1000.00000	HOURL	\$185,000.000000	*****

Comm Code	Manufacturer	Specification	Model #
43230000			

Extended Description : Customization of the System Software as described in section 5.1.3 of the attached specifications.

Comments: \$185 per hour



# HARRIS GOVERN

**State of West Virginia**

Request for Quotation (RFQ)

## **Valuation and Assessment Administration System**

CRFQ TAX2000000003

**Due: September 12, 2019**

**Submitted by:**

Harris Govern  
760 N. Watters Road  
Suite 100  
Allen, TX 75013  
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A Premiere Provider of  
Property Appraisal & Tax Software Solutions  
[www.harrisgovern.com](http://www.harrisgovern.com)

**ELECTRONIC VERSION**

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## **1. COVER LETTER**

September 12, 2019

State of West Virginia  
Property Tax Division  
Tax Division of Albert T. Summers Center  
1124 Smith Street  
Charleston, WC 25301

Purchasing Division,

Harris Govern, a division of Harris Computer Systems, appreciates the opportunity to provide a response ("Proposal", "Response") to the State of West Virginia's Request for Quotation ("RFQ") for Valuation and Assessment Administration System.

Let me thank you in advance for considering Harris Govern as a potential candidate for your Valuation and Assessment Administration System provider. We believe that a true partnership between the State of West Virginia and Harris Govern would be a mutually beneficial relationship. We believe that you will come away from reading this response with a good understanding of our RealWare software and of Harris Govern.

Sincerely,



Dean deVilleneuve  
Senior Executive Vice President



## **2. QUALIFICATIONS (SECTION 3 IN RFQ)**

### **3.1 Demonstrated Implementation Services Experience**

The Vendor must have completed by Bid Opening Date for this solicitation an implementation of an Appraisal/Assessment Valuation system for a State or local government. The software that was implemented during this engagement must currently be in use by that client. The purpose of this requirement is to ensure that Vendors possess the experience, knowledge, and lessons learned associated with large implementations that include multiple locations/offices/jurisdictions.

**Harris Govern Response:** Harris Govern meets this requirement.

### **3.2 Demonstrated Software Provider Experience**

The proposed system software must be currently in production in a public-sector environment which includes a state or local government.

**Harris Govern Response:** Harris Govern meets this requirement.

### **3.3 Vendor must provide any documentation requested by the State to assist in confirmation of compliance with provisions. References, documentation, or other information to confirm compliance with experience requirements may be requested after bid opening and prior to contract award.**

**Harris Govern Response:** Harris Govern will provide the requested information.

### **3. MANDATORY REQUIREMENTS (SECTION 5 IN RFQ)**

#### **5.1. Mandatory Contract Services Requirements and Deliverables:** Contract Services must meet or exceed the mandatory requirements listed below.

##### **5.1.1 Commodity Line 1 - System Integration Design**

- 5.1.1.1.** All phases of the project as described in this CRFQ, to include design, implementation, installation, conversion, testing, support and training shall be completed within thirty-six 36 months of the award date.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.1.1 Acceptance:** Acceptance shall be defined as successful demonstration and testing of all system requirements, including training, with the ability for all users to navigate and utilize the system to perform their defined roles. The Agency with the Vendor's Acceptance will issue a written letter and Change Order request to WV Purchasing Division as formal Acceptance of the system. Upon mutual agreement of Acceptance by both the Agency and the Vendor the Change Order issued by WV Purchasing Division will start the First Year's maintenance, support, warranty and by providing a signed/dated letter agreeing to the start date of the First Year's Maintenance and Support. These dates will be used for yearly maintenance, support/ warranty and hosting renewals, initiated by the Agency and issued by Purchasing Division.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.2.** The awarded Vendor shall inform the State Tax Department of the project progress during meetings held twice (2) monthly. While vendor is onsite, meetings will be held at the Albert T Summers Center located at 1124 smith Street, Charleston, WV 25301. When vendor is working remotely, meetings will be via conference call. A progress report shall be provided by the awarded vendor 48 hours prior to the meeting and to allow sufficient time for review prior to the meeting.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.3.** The Vendor must provide as part of their bid submission a list of requirements for **IaaS** purposes. The Vendor should include the minimum requirements for storage and computing resources required to: 1) operate a full production system at full capacity whereby back end resources are not a limiting factor in speed, system responsiveness, or

delays in user experience; and, 2) a standalone independent system for testing purposes. This testing system need not be as responsive as the production system and the vendor should explain any possible differences in the end users experience while operating in the testing system. These parameters will not be utilized as part of (bid evaluation. they will however be the standards used in the state's procurement of cloud hosting resources.

**Harris Govern Response:** Please see our server specifications below.

<b>Database Server</b>	<p><b>Recommended Specs:</b></p> <ul style="list-style-type: none"> <li>Windows Server 2016</li> <li>SQL Server Standard 2016 SP2 or higher</li> </ul> <hr/> <p><b>Database Server Specs</b></p> <p><b>Counties less than 22,000 parcels</b></p> <table> <tr> <td>Counties</td><td>31</td></tr> <tr> <td>vCores Per County</td><td>2</td></tr> <tr> <td>Memory Per County (GB)</td><td>4</td></tr> </table> <p><b>Counties between 22,000 and 42000 parcels</b></p> <table> <tr> <td>Counties</td><td>16</td></tr> <tr> <td>vCores Per County</td><td>4</td></tr> <tr> <td>Memory Per County (GB)</td><td>8</td></tr> </table> <p><b>Counties above 42000 parcels</b></p> <table> <tr> <td>Counties</td><td>9</td></tr> <tr> <td>vCores Per County</td><td>8</td></tr> <tr> <td>Memory Per County (GB)</td><td>12</td></tr> </table> <p><i>*includes State System</i></p> <p><b>Database storage</b></p> <p>It is anticipated that 1TB of disk storage will be needed per 500K parcels.</p> <p>SSD disk are recommend</p> <p>*Database storage should have a minimum IOP performance of 30K.</p> <p>*Storage throughput tends to be the limiting factor in performance. The jurisdiction's size and the amount of historical data retained may require higher IOPS. IOPS are affected by a combination of storage technology and setup as well as CPUs and memory.</p>	Counties	31	vCores Per County	2	Memory Per County (GB)	4	Counties	16	vCores Per County	4	Memory Per County (GB)	8	Counties	9	vCores Per County	8	Memory Per County (GB)	12
Counties	31																		
vCores Per County	2																		
Memory Per County (GB)	4																		
Counties	16																		
vCores Per County	4																		
Memory Per County (GB)	8																		
Counties	9																		
vCores Per County	8																		
Memory Per County (GB)	12																		

<b>Application Server</b>	<p><b>Recommended Specs:</b></p> <ul style="list-style-type: none"> <li>Windows Server 2016 with IIS</li> </ul> <hr/> <p><b>Application Server Specs</b></p> <p><b>Counties less than 22,000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p><b>Counties between 22,000 and 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p><b>Counties above 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p><i>*includes State System</i></p>
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Application and Database servers may be provisioned as individual virtual machine or grouped. Based on the information as of September 2019 Harris believes that the systems would be best configured as follows:

#### Production

- Database servers hosting no more than 10 counties databases
- Application servers hosting no more than 10 counties
- vCores and Memory may be balancing across these servers according to the recommended specs above while keeping in mind the different functions counties might be performing and their location to the datacenters.

#### Test

The test system can mirror the production setup with no more than a 50% reduction in hardware resources.

- 5.1.1.4.** The Tax Department estimates that the current system in production will require approximately 3.0 Terabytes for data storage and conversation purposes. The Vendor must provide a breakdown of the system requirements taking into account this requirement.

**Harris Govern Response:** To allow for historical converted data, current year data, and future growth Harris estimates that 1 to 1.5 Terabytes of storage will be needed per 500,000 parcels.

- 5.1.1.5.** The Vendor must provide an integrated system using the three (3) approaches to value for all properties. The three approaches are: cost, market, and income.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.6.** The Vendor must provide sketches for surface improvements, multiple year capacity, and on-line help.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.7.** The Vendor will be responsible for and must convert or provide replacement reports and forms for those listed in **Appendix A**. This is to include all reports or job tasks related to rollover of data from year to year.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.8.** The vendor must provide the ability for the user to request reports at the local level and allow the reports to be printed at the local level or to the mainframe printer at the data center in Charleston.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.9.** The Vendor must provide training for Information Technology and Property Tax Division staff during the first stage of the project to allow for State staff to fully participate in the implementation and design of the system. Training will take place at 1001 Lee Street East, Charleston WV, 25301 (or the current location of the main headquarters for the Department within the confines of the City of Charleston, Kanawha County, West Virginia). Approximately fifty (50) individuals will be in attendance. An agenda and all relevant training materials should be provided at the training location.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.10.** The Vendor must provide the initial training of State users prior to the training of the up to three test counties. This will include approximately 60 individuals. The vendor must provide a training manual to all participants which describes in detail the functionality of the system to include a description of all fields, keying instructions, reports, sales ratios, appraisal and assessment functions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.11.** It is anticipated that one test county will be located in the northern region of the state, one in the southern region of the state, and one in the

Kanawha, Putnam, Cabell area of the State. The training of the three test counties is to take place in the test county and is anticipated a total of two hundred (200) county individuals would be involved. The vendor is to provide a manual to each attendee describing the functionality of all aspects of the system as described in **Section 5.1.1.10** above. The vendor is to provide training that when completed will allow all users to fully access and use all aspects of the system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.12.** The system must be available to county and State users seven (7) days a week, twenty-four (24) hours a day. Any scheduled downtime required by the vendor for software updates or improvements must have a one (1) week notice in advance in writing and the approval of the West Virginia State Tax Department Property Tax and Information Technology Divisions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.13.** Vendor must provide a user's manual designed to explain the use of the system. The manual shall include screen shots and step-by-step procedures for viewing, updating the system and running reports and processes. The Vendor is to provide one (1) user manual for each of the fifty-five (55) counties and one (1) for the State Tax Department. A soft copy of all manuals and materials must also be provided.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement. The manual will be web-based and videos may be used in lieu of screenshots.

**5.1.1.13.1.** The system must provide for the storing of parcel related photos, scanned documents, Microsoft Word documents, forms and other similar or associated file types.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.13.2.** The system must fully allow the integration with third party GIS vendors, mapping vendors, aerial photography vendors, or other associated or similar vendors.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14. Confidentiality:** Each employee and/or subcontractor employee performing duties that in any manner involve handling or having access to confidential tax information, regardless of position held, shall sign both a Confidentiality Acknowledgement and a Certification of Disclosure and Awareness which shall be provided and retained by the WV State Tax Disclosure Officer prior to beginning work on the project, immediately after contract award. All data

involved in this project shall be considered confidential tax information and shall not be disclosed to any party. Any unauthorized use or disclosure of confidential tax information furnished pursuant to this Agreement, or the absence of adequate procedures for safeguarding the confidentiality of such tax information, constitute grounds for termination of this Agreement and possible Criminal/Civil Sanctions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14.1. Criminal/Civil Sanctions:** In accordance with W.Va. Code §11-10-5d, §11-1A-23, in the event of an unauthorized disclosure, employees shall report to Tax within 24 hours after identification of any possible, potential, or actual unauthorized disclosure or access of State or Federal confidential taxpayer information by calling Tax's Disclosure Officer and or Privacy Officer.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14.2. Inspections:** Vendors and/or contractors working on the project shall allow the West Virginia State Tax Department to send its officers or employees into their offices for inspection of any facilities or operations providing any work under this contract. Based on such inspection, specific measures may be required in cases where the vendor and/or contractors are found to be noncompliant with contract safeguards. The vendor must permit the Tax Department conduct these inspections no less than every twelve (12) months, or, as deemed necessary by Tax.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14.3. Annual Security Training:** Each employee and/or subcontractor performing duties that in any manner involve handling or having access to confidential tax information or state data will be required to participate in annual State/IRS Data Safeguard Training conducted by Tax and any additional training deemed necessary. This training shall occur before any employee and/or subcontractor obtains access to confidential tax information. In the event of non-- local employees and/or subcontractors, the WV State Tax Department may provide the relevant training materials to the vendor who shall be responsible for conducting the training as provided to its employees and subcontractors and returning the required documentation back to the WV State Tax Department.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.4. Audit and Accountability:** Audit and Accountability procedures must be developed, documented, and implemented as part of the project. Such audit and accountability controls include auditable events, content of audit records, audit storage capacity, audit review and timestamps at the operating system, database and application levels. The system must generate audit records for all security-relevant events, including all security and system administrator accesses and functionality performed.

Security-relevant events include the recording of unauthorized attempts and access. Within the application and database, at a minimum auditing must be enabled to the extent necessary to capture access, modification and deletion of data. The system shall alert the appropriate organizational officials in the event of an audit processing failure and protect the audit information and tools from unauthorized access, modification and deletion.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.5. Offshore Access:** Tax Department data **CANNOT** be accessed by agency employees, agents, representatives, or contractors located offshore (outside of the United States territories, embassies or military installations.) **Further, Tax Department data may not be received, processed, stored, transmitted, or disposed of by information technology systems located offshore.**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.6. Remote Access:** Vendors and/or subcontractors using remote access and/or VPN technologies must configure the technology that they are using for remote access so that it requires two factor authentication and that the technology may not be used from an offshore site.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.7. Encryption**

**5.1.1.14.7.1.** Vendor must provide Data Encryption in Transit. All Tax Department data must be encrypted when transmitted across networks. All mechanisms used to encrypt Tax Department data must be PIPS 140-2 compliant and operate utilizing the FIPS 140- 2 compliant module. This requirement must be included in the SLA along with a description of the encryption algorithm that will be used.



**Harris Govern Response:** Yes, Harris Govern meets this requirement. TLS with RSA as encryption for data encryption in transit.

**5.1.1.14.7.2.** Vendor must provide for data encryption including at rest. All mechanisms used to encrypt Tax Department data must be FIPS 140-2 compliant and operate utilizing the FIPS 140-2 compliant module. This requirement must be detailed in the SLA along with a description of the encryption algorithm that will be used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement. Triple DES is utilized for encryption at rest.

**5.1.1.14.7.3.** The Vendor must completely comply with Internal Revenue Service (IRS) Publication 1075 and the additional mandatory IRS safeguards listed on their website regarding tax information safeguards for protecting confidential tax information and project data. To meet functional and assurance requirements, the security features of the environment must provide for managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to tax information.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.15. Database, Data Management System and Application Requirements**

**5.1.1.15.1.** Vendor must list those items to be provided on the account record.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.2.** Vendor must include a data dictionary. The data dictionary shall include all names, definitions, and attributes about data elements/objects that are being used or captured in a database.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.3.** Vendor must provide the ability to match or add files across jurisdictions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.4.** Vendor must establish a uniform statewide relational database management system that has a web-based interface.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.5.** State data and each counties' data must be kept separate physically and/or logically from the other counties and State Tax information by the system having a separate but uniform database for each county or using views (security controls) to ensure that each county can only review and access its own data at the database levels and from within the application itself. State Tax employees shall have access to all county and state data. The method used to separate the data should be provided with a description of the controls.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.6.** Each parcel must have one, and only one, parcel record that contains the basic data used in land valuation and assessment notification.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.7.** During the project span, a nationally accepted motor vehicle valuation guide will be provided by the State Tax Department. The Vendor shall provide a process or procedure to be used for loading the data accurately into the system and a testing procedure or process to verify accuracy.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.8.** The real property data structure must, at a minimum include:

- A parcel component
- A residential component
- An industrial component
- A commercial component
- A farm component
- Must have the ability to capture any combination of the above components
- A sales file
- An income-expense file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.9.** Must have the ability to capture values from all valuation models.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.10.** The following items must be included in the parcel record:

- Parcel Identification Number
- Legal Description
- Site Address
- Owner's Name and Address
- Spouse's Name
- Tax Class
- Zoning
- Property Use Code
- Census Tract
- Neighborhood Identifier
- Land type and size
- Site characteristics (topography, utilities, water frontage, etc.)
- Building improvement data for main structures and other improvements
- Previous appraised and assessed values and previous value source
- Current appraised and assessed values and current value source
- Buyer's name
- Buyer's address
- Penalty and forfeiture information
- Lending institution identifier
- Building permit
- Homestead Information

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.11.** The parcel record must maintain the date, price and validation code of the three (3) most recent sales (if any) of the parcel, along with fields indicating whether the sales involved multiple parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16. Residential and commercial building records must contain different items and should be logically separate.**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.1.** The residential record must be in a standard format, contain one record per building and include those items commonly important in valuing residential improvements in West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.2.** Items must include use code, construction grade (at least six grades must be provided), square feet of primary living area, basement areas, garages, wall type(s), and fireplaces.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.3.** Records must be in a standard format; for example, fireplaces must always reside in the same field. This does not limit how a given item will be coded or measured. However, each field must stand on its own.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.4.** The commercial/industrial record must be in a standard format, contain one record per building, and include those items commonly important in the valuation of commercial/industrial improvements in West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.5.** Items must include use code, construction grade, wall type(s), wall height, number of units (for example, apartments), and gross area. The items must include those required to computerize the cost approach to value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17. The personal property file must have the following:**

**5.1.1.17.1.** Account files

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.2.** Separate individual owner file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.3.** Separate commercial and industrial owner file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.4.** Separate trending and depreciation file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.5.** Each account must have one, and only one, record that contains the basic data used in valuation and assessment notification. These items must include, but not limited to:

- Account Identification Number
- County Code
- District Code
- Site Address
- Owner's Name and Address
- Spouse's Name
- Tax Class
- North American Industry Classification System Code (NAICS)
- Property Use Code
- Items Owned and Year Acquired
- Original Acquisition Code-Square foot or real property-Previous appraised and assessed value an previous value source
- Current appraised and assessed value and current value source
- Penalty and forfeiture information
- Homestead information
- Telephone number
- Social Security number
- Tax Year
- Dog data

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.6.** The records must be in a standardized and consistent format with all county data having the same fields, formatting, and design elements. No particular format is required, only that all fifty-five (55) counties be of the same database structure. For example, the personal property records must be in a standard format and items such as "vehicle" must always be in the same

field, machinery and equipment must always reside in the same field, etc.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18. The natural resource file must include the following:**

**5.1.1.18.1. An Account file that identifies properties by type:**

- Coal
- Oil and Gas
- Manager Timber
- Other Minerals
- Sandstone
- Limestone
- Sand/Gravel
- Clay/Shale; Salt Brine
- Minerals as listed in WV Code 11-1c-10 (<http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfin?chap=11&art=1C&section=10#1C>)

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.2. Individual owner file**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.1.1. Producer file - Natural Resource Account Number**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.1.2. Map and Parcel number, Mineral Account Number**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.3. Each account must have one, and only one, record that contains the basic data used in valuation and assessment notification. These items must include, but are not limited to:**

- Account Identification Number
- Latitude
- Longitude
- Legal Description
- Site Address
- Owner's Name

- Owner's Address
- Tax Class
- Previous value and previous value source
- Current value and current value source
- Penalty and forfeiture information
- Active farm income
- Non-farm income
- Royalty income
- County Code
- District Code
- Contact person telephone number
- Well or lease name
- Producer's name
- Landbook acreage
- Leased acreage
- Percent ownership
- Number of wells
- Homestead information

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.4.** Vendor must provide for a coefficient file containing information necessary for the valuation of natural resources at the following levels:

- State
- Region
- County
- District
- Coal/Other Minerals (Tax Year Specific)
  - Seams
  - Aggregate Value for TCRIV Calculation
  - Barren Rate per resource
  - Density Rate per resource
  - Mined out rate per resource
  - Mine life rates for Deep Mines per resource
  - Mine life rates for Surface Mines per resource
  - Multipliers for Mine Life per resource, type and use type
  - Percentage RCVM to TCVM
  - Weight per year per resource
  - Royalty multiplier per resource, per type and use type
- Oil/Gas (Tax Year Specific)

- Formations
  - Expense Maximum per well status type
  - Expense Percent per well status type
  - Tolerance for link process for State
  - Complete and Incomplete Tolerance for County
  - Acreage allowed per well type before excess acreage charged
  - Well life
  - Year difference for initial production date
  - Acreage for plugged well
  - Well equipment or minimum value per well status type
  - Home use only value
  - MCF/BBL rate for DEP/industrial wells
  - Non-filer percentages for working interest and royalty/overriding royalty
  - Reserve rates per county per district
- Managed Timber Grades
  - The records must be in a standard format
  - Vendors should provide the layout or otherwise describe the proposed natural resource property record.
  - Vendor must provide the ability for the system to accept electronic returns for natural resource property.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.19.** There must be a separate sales file (or files) that include sales data and property characteristics as of the sale date.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.19.1.** To facilitate market and income analyses, there must be one and only one sale record per sale.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.19.2.** If there are multiple building records for a sale parcel, the data must be aggregated or "collapsed" to a single record. The Vendor must indicate how this will be accomplished.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



**5.1.1.20.** The Vendor should describe how data items can be added or redefined.

**Harris Govern Response:** For data fields that exist clients can rename the columns for display proposes, make it require, enforce input masks, and add drop downs. As part of the system there a six (6) open columns in each table for clients to have the ability to have their own custom data fields that also follow the previous statement. If neither of the previous options fulfill the need, the client can submit a change request where Harris Govern and the client will work together to design, approved and implement additional data storage needs.

**5.1.1.21.** The Vendor must provide for a separate income and expense file for the accumulation of income-expense valuation data, including key property characteristics current at the time the income data were obtained. The income and expense file can be an integrated part of the vendor's database.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.22.** The Vendor must implement this uniform property use code.

- **R - RESIDENTIAL** to indicate one to four family residential use.
- **A-APRATMENT** to indicate multi-family use, five or more families.
- **F-FARM** to indicate rural properties, generally defined by a minimum acreage requirement, and usually but not necessarily devoted to agriculture.
- **C-COMMERCIAL** to indicate properties devoted to trade, services, and recreational use.
- **I-INDUSTRIAL** to indicate properties devoted to the manufacturing and/or processing of products.
- **X-EXEMPT** to indicate non-taxable properties.
- **U-UTILITY** to indicate properties devoted to the production of public utility commodities or services under the control of governmental agencies such as Public Utility Commission.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.22.1.** The code must be assigned to each parcel and account and be carried on the real property parcel, building, sale records, personal property record, and natural resource record.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.22.2.** Vendors must assign unique account identifiers to all personal property accounts and to all-natural resource accounts.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.** The proposed system must have computerized perimeter sketching.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.1.** Users must be able to enter sketches on computer terminals and the computer should be able to draw the building, check closure, print the image on the property record card, and calculate and store building perimeter and area.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.2.** If the parcel is queried, the building perimeter sketch must be displayed on the screen.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.3.** Vendor should indicate what hardware is required to print the resulting graphics and the effective production rates for the proposed hardware.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.24.** The system must provide for the automation of building permit processing.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.25.** The system must provide the ability to retrieve records directly by entering the parcel number, account number, street address, owner's name, or buyer's name.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.26.** The system must provide to ability to automate land book creation and printing. Data included in the land books must be easily identifiable and separated physically or logically from other data within the system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.27.** Screen layouts must correspond to field data collection documents ("cards" for short).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.27.1.** The layout must flow and be able to move screen to screen, make intuitive use of menus and function keys, and the user must be able to print individual screens or a set of related screens on

command based upon current business processes and return layouts. Business process and form changes can be considered to accommodate system design, but this should be limited in nature.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.28. Processing**

The system must support on-line real time record updates and calculations, so that users can see additions or changes to the database, along with computer values, immediately. The system must support batch updating, so that a user can request certain time-consuming jobs to be processed in a batch mode.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.29.** The data management system must check keyed and imported data for validity and restrict the entry of invalid data, e.g. alphanumeric data in a numeric field or a construction class code of zero when valid codes range from 1 to 6.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.30.** The database management system must enforce referential integrity to ensure, for example, that no building records are orphaned by the deletion of a parcel record.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.31.** Data integrity must be protected by preventing the entry of duplicate parcels, record numbers, account numbers and the like.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.32.** The application must be password protected, and there must be a facility for restricting access to certain fields (e.g., estimated income data). Password complexity at a minimum shall require eight (8) characters, an alphanumeric requirement and a special character. The system must require that the password must be changed every thirty (30) calendar days. Default passwords that are created when an account is created must require the user to set a new password when the user account is logged into the first time. The system must maintain a password history of at least the last ten previously used passwords and not allow passwords to be re-used from that password history or as an alternative the system must integrate with active directory for this purpose.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.33.** The application must provide for unique non-sequential user names and passwords to log into the application. The system must maintain an audit log of successful, failed, and attempted logins to the system with timestamps.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.34.** Vendors should describe their security provisions and indicate which of them, if any, are inherent in ancillary software, such as the operating system and which of them are implemented in the vendor's proprietary software.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.35.** The system must provide an audit trail of record changes.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.36.** The system must preserve the history of records before and after updating, along with an indicator of the user and timestamp of change.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.37.** The system must include an account management module that allows the help desk to manage user accounts, password and application level security. Screen shots, reporting capability, the functionality that can be secured shall be included.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.38.** The data management system must be able to generate property record cards (or close substitutes for them) on request for all real property, personal property and natural resource property accounts.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.38.1.** When there are multiple buildings for a parcel, there must be one record "card" for each building (parcel level data need not be repeated).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.38.2.** Property record cards must show or indicate how values were calculated.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.1.** For the cost approach, this involves showing the building size, base rate, adjustments, replacement cost new, depreciation and net value must be displayed.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.2.** For the income approach, the following must be displayed: market rent per unit, number of units (e.g. apartment units or square feet of warehouse area), vacancy allowance, potential gross income, allowable expense ratio, net income, and net value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.3.** The market approach must be documented by showing the calculated value on a-per unit basis and listing any applicable comparable sales.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.4.** Users must be able to request that property records be printed by parcel range, use codes, or neighborhood, for example, all single-family residences in a given neighborhood or map or all actively mined coal parcels in a taxing district.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.5.** The system must provide for integrated tablet application for appraisal fieldwork. This function would provide the appraiser in the field to review and update parcel characteristics, including the sketch and upload all information directly to the system. This function does not exist in our current system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.39.** The system must allow for prior years data to be "locked" so that the historical data may be viewed, accessed, and reported on while prohibiting the historical records from being updated. The identification of when and what data is historical shall be configurable in a manner that a job or process can

be initiated to lock all prior year records.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.40. Valuation** - the system must have the ability to value the following:

**5.1.1.40.1. Real Property**

- Residential property including manufactured housing
- Commercial property
- Industrial property
- Farm property use value based on farm rental income
- Natural Resource property
- Active and reserves
- Oil & Gas- active and reserves
- Sand, gravel, etc. - active and reserves
- Managed Timberland - use value based on soil productivity

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.40.2. Personal Property**

- Tangible personal property
- Manufactured housing
- Automobiles, trucks, planes, boats, campers and other transport items, -low book value
- Machinery and equipment
- Furniture and fixtures
- Inventory
- Computer hardware and software
- Royalties and working interests for natural resource producers
- Buildings on leased land
- Chattels real
- Leasehold interests
- Pollution abatement equipment, 5% of original cost
- Salvage value, 5% of original costs
- Specialized tooling, 5% of original costs
- High technology/internet advertising servers, personal property, 5% of original costs

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41. Valuation of Surface Real Property** - the system must have the ability to value surface real property as follows:

**5.1.1.41.1. Land valuation**

**5.1.1.41.1.1.** The software must provide a table-driven land valuation system with percentage adjustments for site characteristics.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2. Land valuation tables**

**5.1.1.41.2.1.** The system must include a set of land valuation tables based on the average unit value method and the base lot method.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.2.** The tables must be indexed by neighborhood and land use code.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.3.** The user must be able to specify land valuation rates for the following units of comparison:

- Acre
- Square Foot
- Front Foot
- Parcel or Lot

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.4.** Appraisers must be able to select which valuation method to use for individual parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.** The system must support size and depth adjustments.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.1.** Size adjustment that can be built into square foot valuation tables.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.2.** Size adjustments that can stand as separate tables.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.3.** Depth adjustments for land appraised on a front foot basis should stand as a separate table.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3. Percentage adjustments for site characteristics**

**5.1.1.41.3.1.** Users must be able to specify percentage adjustments for site characteristics, such as topography, water frontage, view, excess traffic, and so forth.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.2.** These adjustments must be table-driven so that the user does not have to specify them for individual parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.3.** Users must be able to specify separate adjustment factors by neighborhood, for example, factor of 1.50 for lake frontage in one neighborhood and a factor of 1.70 in another neighborhood.



**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.4.** Users must have the ability to flag and retrieve adjustments for review by query routine or batch reports.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.5.** The system must have the ability to support manual appraisals.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.6.** When land is appraised manually, appraisers must have the ability to enter an "override" value that takes precedence over any table-computed value

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.7.** The system must have the ability to override land rates and adjustment factors on an individual parcel basis.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.4.** The proposed system must allow multiple land uses for a single parcel and to be separately coded and priced.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.5.** The proposed system must allow users the ability to calibrate land rates and adjustment factors.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.42. Cost Approach**

**5.1.1.42.1.** The system must contain a current cost module that is table-driven and customized for West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.2.** Once the cost module is completed the Vendor must indicate the source of the cost factors and how they should be updated by the user and provide documentation of their derivation.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.3.** The cost system must cover all common structures found in West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.4.** The system must operate in both batch and interactive mode.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.5.** Cost tables must handle common structure types with the ability to manually price unusual structures.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.6.** Costs must include all applicable direct and indirect costs according to commonly accepted industry standards and practices.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.7.** Residential and commercial pricing tables must start at a size of not less than 300 square feet.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.8.** The system must contain the ability to adjust for significant building characteristics and extra features, including, but not limited to, wall type, roof type, heating, cooling, fireplaces and swimming pools.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.9.** The cost system must recognize differences in construction costs per unit among buildings of various sizes and types. This can be done by varying base rates with size or through a separate adjustment table or formula.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.10.** Economy-of-scale factors must be centered on typical building sizes, so that no adjustment is required for buildings of standard size.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.11.** Height adjustments must be developed for commercial parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.12. Computerized pricing**

**5.1.1.42.12.1.** The cost system must be able to price commonly found structures including manufactured housing.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.12.2.** Tables must exist for the following:

- Base rates
- Percentage adjustments or factors for building features such as design, wall type, heating and cooling.
- Lump sum or dollar adjustment for extra features, such as fireplaces, Jacuzzis, and sheds.
- The user must be able to update these tables interactively.
- Lookup tables must be utilized so that new codes and features can be assigned by users based on instructions contained in the user documentation.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43. Calibrated cost tables**

**5.1.1.43.1.** The Vendor must provide updated statewide cost tables including appropriate modifiers for each county to account for any significant differences in construction costs within each county. This data can be procured. If procured, the vendor should provide the source of this information in their bid, or, if completed by the

vendor they must provide proof that the methodology employed by the vendor meets best practices and industry standards.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.2.** The cost tables must reflect the current market as of the time of system delivery defined as the initial launch of the first counties. The costs must be validated in and reflect the local market.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.3.** At the time of system delivery, the Vendor must describe the source of construction cost data and whether it is proprietary, developed from an analysis of local costs, or based on a commercial service, such as Marshall & Swift.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.4.** At the time of system delivery, the vendor must describe how cost data will be validated and adjusted to the local market.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.5.** At the time of system delivery vendor must present information on current fees for updating costs tables if a proprietary source of construction cost data is used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.6.** At the time of system delivery, the vendor must provide the cost manual or other documentation which describes how users can update cost schedules and test them for accuracy.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.7.** The vendor must provide an update to the current West Virginia Real Property Appraisal reflecting the appraisal, practices examples and procedures associated with the proposed system in addition to current construction cost schedules.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.** Depreciation tables must be provided that are based on age, structure type and construction quality.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.1.** Depreciation tables must be based on observed effective age, actual age, and remodel year.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.2.** The tables must be indexed by use class and construction grade.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.3.** The Vendor must provide multiple residential, multiple commercial, and industrial depreciation tables that recognize differences in market value within structure type, construction quality and age.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.** The Vendor must include the ability to appraise using the Income Approach.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.1.** The vendor must provide a facility for entering and analyzing income and expense data and building income-expense, gross-income-multiplier, and overall rate tables.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.1.1.** The vendor must provide a program for entering and analyzing income and expense questionnaires, including the computation of median market rents, vacancy ratios, and expense ratios.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.1.2.** The program must be part of the vendor's software.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.2.** Appraisers must have the ability to override income, expense and capitalization rates to recognize special features or conditions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.3.** Since some income properties cannot be calculated on a mass basis, the system must have the ability whereby the appraiser would enter the necessary data and assumptions, and the computer would calculate the value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.4.** Income value must be calculated at the parcel level.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.5.** Vendor must provide ability to merge income/expense and sales data.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.5.1.** The merged file, like the sales file, must contain one record per parcel.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.5.2.** The data for both sold and unsold parcels must be matched to the income and expense file.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.46. A Market Approach** (Improved Parcels) must be provided.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.46.1.** The system must provide the ability to maintain tables of market-derived per-unit values and adjustments and, optionally, to develop multiple regression models.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47. Value Reconciliation**

**5.1.1.47.1.** The system must produce values based on the cost, income and market approaches.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.2.** Appraisers must have the ability to select the value deemed most applicable or to assign an override value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.3.** Reports must summarize existing values and highlight any parcels for which values could not be computed.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.4.** The system must provide separate fields for values computed by the cost approach, market approach, gross income multiplier method and net income capitalization method.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.5.** Additional fields must be provided for an appraiser override value, an appeals board value and a court determined value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.6.** A value source code must specify which of these values to use for tax purposes.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.7.** A valuation comment field must be provided for appraisers to explain an override value (codes may be used for this purpose) or to enter other information.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.8.** Appraisers must not have to update value sources on an individual parcel basis except for cases where the default source is overridden.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.9.** The system must provide a value application report.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.48.** There must be an overall value summary report that must include, but not be limited to, the following for each use class, tax class or property type:

- The number of parcels

- Total value
- Average value per square foot (or other appropriate unit of comparison).
- Number of valid sales.
- Key sales ratio statistics (most importantly the median and coefficient of dispersion).
- For single family residential properties, the report must have the ability to be broken out by neighborhood.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.** There must be a value error report that identifies and lists such parcels for which applicable values could not be computed because of invalid or missing data.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.1.** The report must list the problem data or otherwise indicate why a value could not be computed.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.2.** The report must list parcels with extreme, unusual or inconsistent data, such as a single-family residence with fewer than (300) square feet or more basement area than main living area.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.3.** The system must supply sales lists for each of several major property types and a program for identifying the most comparable sales for a given subject parcel.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.4.** There must be a report that lists sales by parcel number, by parcel number stratified by land use code or major property group and tax class for a user selected sale date range.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.5.** The report must display these items:

- County
- District
- Neighborhood
- Tax Class
- Property Type
- Vacant or improved



- Previous year's value, source code and validity code
- Current year's value, source code and validity code
- Key land and improvement characteristics
- Sale date and price
- Reports must be generated for each county, district/corporation
- There must be a statewide report.
- For single family residential properties, there must be a program that finds and reports comparable sales, or comparable properties, for a given subject parcel.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.6.** The user must have the ability to query all valid sales based on any combination of attributes contained in the database.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.7.** The Vendor must provide documentation and instruction on operation of the comparable sales system, including how distance metrics are computed and how to change sale selection parameters, for example, variable weights and sale data ranges.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.** The sales record must contain a sales validation code indicating whether sales are valid indicators of market value or, if not, why not. The codes should be consistent with professional standards and State of West Virginia guidelines which include the following:

Valid Code	Description
0	Valid sale
1	Involved additional parcels
2	Not open market
3	Changes after sale
4	Related individual s or corporations
5	Liquidation/forced sale
6	Financial / land contract
7	Construction cost only
8	Included excessive personal property
9	Blank
10	Natural Resource Rights
11	Partial interest only
12	AG use or managed timber

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.1.** There must be a parameter-driven sales ratio program that displays traditional sales ratio studies by strata of the sales price. Statistics reported must include:

- Number of sales in the applicable time period
- Number of valid or usable sales
- Median, mean, and standard deviation
- Coefficient of dispersion
- Price related differential
- Whether improved or vacant
- Sale price
- Aggregate ratio
- Ratios which are calculated by excluding outliers with a median + or - twice the standard deviation.
- Ratios calculated by excluding State appraised property (industrial, natural resources).
- These statistics must be computed as defined in most recent IAAO Standard on Ratio Studies.
- Totals by category with or without farm and managed timberland sales.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.2.** Users must be able to obtain reports of results by major property group, use class and tax class as well as key subgroups of single-family residential properties, including neighborhoods.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.3.** Users must be able to specify parameters for sales included in the study, including assessment year, sale date range, sale price range and ratio range.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.** Users must be able to request an optional report listing all sales used in sales ratio calculations.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.1.** The report must be sorted to match the basic strata used in the sales ratio report.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.2.** Reported data must include parcel number, land use code, neighborhood, key property characteristics, sale date, sale price, adjusted sale price, tax class and sale ratio.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.3.** Within strata, sales must be sorted by sale ratio.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.5.** At the time of system delivery, the Vendor must describe any graphics capabilities that will be used in sales ratio analyses.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.** The system must compare percentages changes in assessed values for those properties that were sold in a defined period and those that did not sell during the defined period.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.1.** Reports that present only summary information for each stratum or group being analyzed (giving mean and median percentage changes, counts, and the results of the Mann-Whitney test).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.2.** Reports that present the preceding information plus a one-line characterization of each property (such as address, type codes, size and assessed value).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.3.** Reports that use multiple lines to describe the properties in greater detail.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.7.** At the time of system delivery, the Vendor must provide a user's manual documenting operation and use of the sales analysis and sales ratio study system. The awarded Vendor is to provide one (1) user manual for each of the fifty-five (55) counties and one (1) for the State Tax Department. A soft copy of all manuals and materials must also be provided.

**Harris Govern Response:** The user manual will be web-based.

#### **5.1.1.51. Personal Property Valuation**

**5.1.1.51.1.** The following personal property types must be valued:

- Manufactured housing
- Automobiles, trucks, aircraft, boats, campers and other transport items.
- Machinery and equipment
- Furniture and fixtures
- Inventory
- Computer hardware and software
- Overriding royalties and working interests for producers
- Buildings on leased land
- Chattels real
- Leasehold improvements
- Incomplete construction
- High technology and internet advertising servers and tangible personal property, pollution abatement equipment, tools, dies and molds - salvage value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.2.** The proposed system(s) must provide at least as much valuation flexibility as the current Personal Property system provides which includes:

- Ability to place owners' value
- Ability to place assessors' value
- Ability to use nationally accepted car guide

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.** The proposed system(s) must provide for the following valuation procedures.

**5.1.1.51.3.1.** Transportation equipment valuation system

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.1.1** The vehicle valuation system must provide for on-line interactive valuation using both the "VIN" number and "make- year-model" approach.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.1.2.** The system must provide a valuation module to value other transport equipment including, but not limited to, motorcycles, boats, airplanes, campers, recreational vehicles, and all-terrain vehicles.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.1.3.** The State will provide the valuation tables for cars, trucks, motorcycles, boats, recreational vehicles and all-terrain vehicles.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.2.** The system must allow depreciation and trending tables to value computer equipment, machinery, equipment, furniture and fixtures and leasehold improvements.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.3.** The system must provide tables to provide for current market values for manufactured housing.

**5.1.1.51.3.1.** The values for manufactured housing from the personal property module

and the real property module must arrive at the same values for the same property.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.51.3.2.** The values for additional items for manufactured housing such as skirts, underpinnings, decks and porches, must be the same whether the property is considered real or personal property.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

The system must provide the ability for a taxpayer to file online personal property returns for individual owners, owners of commercial businesses and owners of industrial property. This function does not exist in our current system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.52. Natural Resource Valuation**

- 5.1.1.52.1.** For each section the vendor must describe and provide samples of layouts, screens, reports, and any other items required in that section.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.52.2.** The system must provide the ability for taxpayers to file online for oil, gas, and coal natural resource property returns. This ability is currently contained in our existing natural resource appraisal/assessment system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.53. Coal**

- 5.1.1.53.1.** The vendor must integrate our current stand-alone Coal Valuation Model as an integrated module of the new valuation/assessment system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.53.1.1.** The coal valuation module must perform the following valuation assessment and GIS functions as contained in the current model and defined in WV Legislative Rule Title 110, II:

- Compute the active coal acre rate as defined in WV Legislative Rule 110-1 I, Appendix A, Formula 7
- Compute the active coal acre rate as defined in WV Legislative Rule 110-1I, appendix A, Formula 3
- Compute the value of permitted reserve coal by:
  - Integration of GIS data by Geocode to identify location.
  - Value by applying WV Legislative Rule 110-IJ, **Appendix A**, Formula 6
- Compute the value of reserve coal by:
  - Integration of GIS data by Geocode to identify location
  - Value reserve coal by applying WV Legislative Rule 110-1I, **Appendix A**, Formula 6.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.53.2.** Coal and other mined mineral types must be valued according to West Virginia Code I1-1c-10 and Legislative Regulations Title 110 Series 1I using the income approach for active and producing, market or income for reserves resulting in a value per seam per acre or per mineral type.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.53.2.1.** The user must be able to specify valuations for the following units of coal (by individual seam) and/or mineral type:

- Permitted including active producing and active reserve coal
- Reserves
- Mineable
- Un-mineable
- Mined out and/or barren

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.54. Gas and Oil Valuation**

**5.1.1.54.1.** Gas and oil property types must be valued according to West Virginia State Code 11-1c-10 and Legislative Regulations Title 110 Series 1J using the income approach for active and producing, market or income for reserves resulting in a value per acre.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.54.2.** The user must be able to specify valuations for the following units:

**5.1.1.54.2.1.** Producing Gas & Oil

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.55. Reserve Gas & Oil**

- Leased non-producing
- Non-leased/non- income producing

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.56. Managed Timberland**

Managed timberland property must be valued according to West Virginia Code 11-1c-11 and Legislative Regulations Title 110 Series IH by soil grade, by county, by region.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.57. Valuation reports must be available for the following:**

- State
- Region
- County
- District
- Seam/or other mineral type
- Formation type
- Type of mineral- coal, oil, gas or other
- Type of activity
- Permit number
- API well number
- Owner's name
- Producer's name
- Type of mine - deep or surface



- Type of well - oil, gas or salt brine

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### 5.1.1.58. Hardware and Software Backend Environment Requirements

The vendor is responsible for providing a detailed list for all hardware and software required to implement and support the system at the IaaS Cloud hosted provider managed by the State. A listing of the software, with pricing, required to run and support the application shall be included along with a description of its functionality within the scope of the project. Sufficient processing resource must be calculated to accommodate both a production system and a test system as detailed in **Section 5.1.1.66** below.

**Harris Govern Response:** Please see our hardware and software specifications below. Pricing for the software can be provided once the hosted provider and other items have been finalized.

Database Server	<b>Recommended Specs:</b>	
	<ul style="list-style-type: none"> <li>• Windows Server 2016</li> <li>• SQL Server Standard 2016 SP2 or higher</li> </ul>	
	<b>Database Server Specs</b>	
	<b>Counties less than 22,000 parcels</b>	
	Counties	31
	vCores Per County	2
	Memory Per County (GB)	4
	<b>Counties between 22,000 and 42000 parcels</b>	
	Counties	16
	vCores Per County	4
	Memory Per County (GB)	8
	<b>Counties above 42000 parcels</b>	
	Counties	9
	vCores Per County	8
	Memory Per County (GB)	12
	<i>*includes State System</i>	
	<b>Database storage</b>	
	It is anticipated that 1TB of disk storage will be needed per 500K parcels.	
	SSD disk are recommend	

	<p>*Database storage should have a minimum IOP performance of 30K</p> <p>*Storage throughput tends to be the limiting factor in performance. The jurisdiction's size and the amount of historical data retained may require higher IOPS. IOPS are affected by a combination of storage technology and setup as well as CPUs and memory.</p>
<b>Application Server</b>	<p><b>Recommended Specs:</b></p> <ul style="list-style-type: none"> <li>Windows Server 2016 with IIS</li> </ul> <p style="text-align: center;"><b>Application Server Specs</b></p> <hr/> <p style="text-align: center;"><b>Counties less than 22,000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p style="text-align: center;"><b>Counties between 22,000 and 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p style="text-align: center;"><b>Counties above 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p><i>*includes State System</i></p>

Application and Database servers may be provisioned as individual virtual machine or grouped. Based on the information as of September 2019 Harris believes that the systems would be best configured as follows:

#### Production

- Database servers hosting no more than 10 counties databases
- Application servers hosting no more than 10 counties
- vCores and Memory may be balancing across these servers according to the recommended specs above while keeping in mind the different functions counties might be performing and their location to the datacenters.

#### Test

The test system can mirror the production setup with no more than a 50% reduction in hardware resources.

#### **5.1.1.59. Client-side Hardware and Software Requirements**

Vendor will provide a complete description of the minimum and recommended hardware and software requirements that the State and Counties will need to access and use the system. PC and laptop operating system requirements, software requirements, processor information and RAM size shall be disclosed, in addition to any other mandatory or recommended requirements to fully access and use the system without a performance delay. Operating systems supported should be the two most current versions of Windows.

##### **Harris Govern Response:**

###### Minimum Specs:

- Windows 8
- 2 cores
- 8 GB memory
- 2 GB available disk space

###### Recommended Specs:

- Windows 10
- 4 cores
- 8 GB memory
- 4GB available disk space
- 2 Monitors

###### Software

- MS office
- Adobe Reader
- Apex for sketching
- SPSS for stats and modeling support

#### **5.1.1.60. Configuration Change Management & Version Control**

The Vendor shall provide a full description of the configuration change management system and controls for system processes and system design and change. The Vendor shall outline what version control is available in the system for reports and forms/screens.

**Harris Govern Response:** Harris Govern utilizes Microsoft Team Found Server and DevOps as the Version Control for all provided software. As defects and features are added every change that is commit to the code is tracked at the character level. Custom reports that clients create and edit on their environment are stored on the file system and can be backed up or have file versioning enabled, giving the ability to rollback undesirable changes to reports that users might make.

#### **5.1.1.61. Testing, Documentation, and Training**

**5.1.1.61.1.** System software must perform as required by the mandatory specifications in this CRFQ.

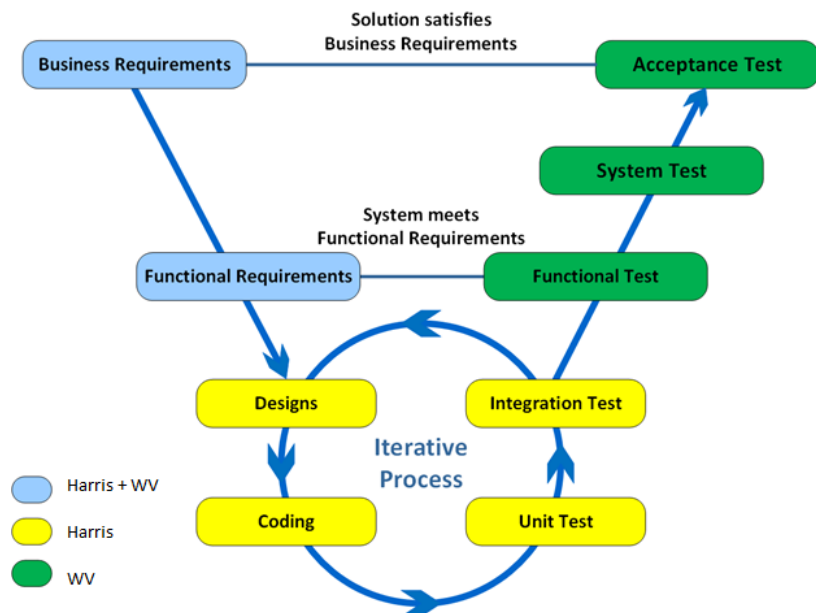
**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.61.2.** Vendors must submit a plan describing their standard software testing and change management procedures including samples of prior user acceptance testing protocols used in prior implementations of similar size and scope.

**Harris Govern Response:** Harris Govern employs four distinct types of testing: Unit, Functional, Integration, and Acceptance. This approach ensures the end solution provided by Harris satisfies the in-scope business requirements.

**Unit Testing:** When a software modification is committed to the Harris source code management system, business logic tests are executed as a “first line of defense.” Issues discovered will automatically notify the development team that an issue was identified, and a correction is required.

**Functional Testing:** As the Individual Software Deliverables, configuration elements, reports, interfaces, and other enhancements are unit tested and become ready, testing is performed by functional area or business category to ensure that the system satisfies these requirements completely. Harris Govern uses an Agile approach to develop and configure features which will result in a nearly continuous flow of features to the State for testing. State test results and feedback are quickly incorporated into feature revisions and returned to the State for testing until the feature is accepted.



**Integration Testing:** RealWare is installed in the State environment, backed by converted data, and interfaced with the in-scope external State systems and processes. A series of test cases are then performed to validate business processes from beginning to end involving both RealWare and other State systems required by the business process.

**Acceptance Testing:** The State will perform formal Acceptance Testing of Software Deliverables and the System as a whole. Acceptance Testing is based on test cases developed from business process Use Cases created during the solution design process by the State in collaboration with Harris. Harris Govern will assist the State with Acceptance Testing by providing guidance throughout the testing process and assistance with interpretation of test results. Various tools will be utilized during the acceptance testing process to manage test cases and defects. Software acceptance is based on its operation based on the detailed requirements that will be outlined in the Solution Report and Requirements Traceability Matrix. The Acceptance Testing process will also confirm whether the State's business requirements are satisfied as defined in the Requirements Traceability Matrix.

Harris Govern recognizes the possibility of identifying required change in scope during the Analysis, Development, and Testing stages of the implementation.

The type of change will dictate what resources are required to approve and sign-off on the change. The Harris Govern PM and the

State PM have authority to approve changes that do not affect payment milestones. Other changes will be brought to the Project Sponsors. The Project Sponsors are responsible for approval/rejection of change requests and for prioritization of approved changes.

**Change Management:**

The change management process will be used throughout the implementation process. As decisions are made, the PMs on each project team are responsible to disseminate the information to their stakeholders.

**1. Change Identification**

Changes can be identified in different ways, e.g., through conversations in a meeting, through email communication, etc. Once identified, the change should be documented on SharePoint for further review.

**2. Review Change Request and Feasibility**

This process allows the appropriate parties to review the change for need and feasibility. The change board will be included in all decisions that affect costs or scheduled payments or timeline changes. The project PMs will schedule a mutually agreeable time for the review and invite the appropriate parties for participation. The change review will result in a denial of the change or an approval to move forward with the change.

**3. Approve Change Order**

A formal change order will be generated by the Harris Govern PM. This form will detail the change and any cost or schedule impact. It will be signed by the County PM/Sponsors.

**4. Change Order Templates**

The change order includes the client name, date, change order number, change summary, reason for change, effect to cost/payments, effect on schedule/milestones, and other impacts and related details.

A template sample can be found on the following page.

**{CLIENT NAME}**  
**Change Order No. 001**

This Change Order entered into this \_\_\_\_ day of \_\_\_\_, 2018 (the "Effective Date") by and between **Harris Govern, an unincorporated division of Harris Local Government Solutions, Inc.** ("Harris Govern") and **{CLIENT NAME}** ("Licensee") hereby amends that certain Master License and Services Agreement and its attached Purchase Orders entered into by the parties hereto on {MSLA DATE} (collectively, the "Agreement"). Capitalized terms used but undefined in this Addendum shall have meanings assigned to them in the Agreement. The parties hereto agree that the following changes be made to the Agreement:

- Modification Description**

**Original Backup solution:**

Description	Quantity	Price

**New Backup Solution**

Description	Quantity	Price

**Reason for Change:**
- Milestone Changes**

**\$0.00**

IN WITNESS WHEREOF, the parties hereto have executed this Change Order as of the Effective Date.

**Harris Govern**

Address: 760 N Watters Road  
Suite 100  
Allen, TX 75013

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**{CLIENT NAME}**

Address: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**5.1.1.61.3.** Vendor will be required to provide training as outlined below to train all county and state staff end users and back end administrators, both program and Information Technology staff.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.61.3.1.** Methodology Vendor should bid to account for a regional training model dividing the state into regions based upon the West Virginia Division of Highways regional delineations found here: <https://transportation.wv.gov/highways/districts/Pages/default.aspx>. These trainings should have no more than thirty (30) individuals in a cohort for training purposes. Multiple cohorts may be required in each region. Vendor should provide length of time required to complete training of end users from each county. Generally, we expect this training to run for approximately five (5) days, starting on Monday at noon and running through Friday at noon to allow for

travel time to the destination training facility. Vendor must provide a list of technology resource required for these trainings. The Tax Department will facilitate securing the space required to host the training. The Vendor is permitted to propose a model requiring less time should they believe that is feasible.

**Harris Govern Response:** Harris Govern will provide five (5) days of training for each group.

All Harris Govern training efforts and content are designed to establish competency in County staff. Training for each county role will cover all types of interactions with the Harris Govern software that are necessary to execute the tasks identified for that role.

While traditional On-Site, instructor-led training remains a vital component of system adoption and knowledge transfer when implementing the System, remote and self-directed video learning will also be used. A detailed training plan will be developed in partnership between the State and Harris to ensure an optimal outcome. For each topic and stakeholder, Harris will recommend a best practice training approach which might include one or multiple delivery methods.

For all On-Site training sessions, the training facility requirements are as follows:

- A workstation per trainer is preferred, but 1 workstation per 2 trainers is acceptable
- Harris software and supporting software installed on all workstations
- Connectivity to the training database
- Access to electronic copies of on-line help and reference manuals
- Access to electronic copies of training materials;
- If necessary, printed hard copies of training materials
- Hard copies of training session agendas
- Projector
- Screen
- Internet and intranet connectivity for the instructor and trainees



Harris Govern and the State will agree to a training plan after kicking off the Project. This plan will be further modified as the Project progresses.

All users attending the On-Site, remote, or self-directed video learning sessions must have the following prerequisites:

- PC literacy and do not require basic PC skills training. If PC-related skill training is required, then the County will be responsible for providing such training prior to any Harris Govern training session.
- A good working navigational knowledge of the Windows operating environment prior to taking any training session. If navigational training is required, then the State will be responsible for providing such training prior to any training session.

It is also recommended for On-Site training that the facility prevents e-mail access and is located in an area isolated from potential operational interruptions.

**5.1.1.61.3.2.** A hybrid model that allows for web-based training with multiple users engaged to be combined with some number of in person trainings. This would be considered a true, "train the trainer" model.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.62. Software Ownership**

**5.1.1.62.1.** The Vendor will retain ownership of all application source code.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.62.2.** While the State will not own the application source code it must be granted the ability to view and request updates to the Vendor's system. The vendor must provide Application Program Interfaces (API) and Software Developer Kits (SKD) to allow the State to affect changes to the system as is required to meet future law, rule, or policy modifications, or, for the purposes of modifying processing parameters to meet

system processing demands.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.62.3.** The State wholly and solely owns all data contained in the system. The vendor, upon termination of any contract that results from this RFQ, must provide tools and support to extract said data in a format dictated by the State for the purposes of conversion to any future system utilized by the State.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.63. Performance Measures**

After the contract is awarded The Vendor shall outline what performance measures, they use to evaluate their system regarding system response and production support response times.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.64. Project Management**

The Tax Department may increase its staff in consequence of the undertakings described in the RFQ. However, Tax intends to rely on day- to-day administration of the contract through the project manager (PM), through whom the vendor will report. Ultimate authority, of course, will lie with the State. The State will assign an IT executive sponsor, a project manager who will coordinate the IT activities of the project with other State IT initiatives and be responsible for all IT technical decisions and IT aspects of the project.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.64.1.** Within four (4) weeks after the award of the contract the Vendor must have a formal project management methodology, entailing time and resource management using such techniques as Gantt charts, resource planning, leveling, and deployment, critical path management, and the like, embedded in a standard PC-based software package to be provided to the State.

**Harris Govern Response:** Yes, Harris Govern meets this

requirement.

**5.1.1.65. Quality Assurance**

Once the contract is awarded the Vendor must describe their quality assurance programs to the department contact for the Agency within 4 weeks.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.66. Testing System**

The vendor must establish and maintain a test system in order to test changes to system reports, forms/screens, components and or processes prior to implementation within the production environment. Change requests may also require direct updates to data and the test system needs to be available for testing data changes prior to implementation within the production environment. The test system should contain production data that is updated at least twice-a-month. The test system must encompass all system functionality including, but not limited to, any web-based functionality in place for electronic filing, etc. The test system must be available to State Tax Department users and the State IT staff for performing and testing any change request prior to a production implementation. The testing procedures must be outlined by the vendor. The State Tax Department users and the State IT staff must be trained on the procedures for testing and for final implementation of a change into the production system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.67. Major Non-Monetary Resource Requirements**

**5.1.1.67.1.** No later than two (2) weeks after the award of the contract the awarded Vendor must indicate their non-monetary resource requirements, such as work space, access to selected State and county personnel, etc.,

Person-hour scheduling and reaction time requirements for responsible personnel from the counties, State, Property Tax and the PM relating to the detailed design, specification, and acceptance testing of the software.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.68. Assessment Administration**

- 5.1.1.68.1.** Should have the ability to link proper tax class and accompanying tax rates to each account. For a description of tax classes, see **Appendix "B"**.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.2.** Should have the ability to calculate and maintain back tax amounts at correct tax class and rate for 5 previous years.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.3.** Should have the ability to establish a fractional assessed value at a percentage of appraised value. Currently 60% is to be used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.4.** Should have the ability to split values because of multiple owners for an individual account, double assessments for an individual account, and multiple tax classes for an individual account.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.5.** Should have the ability to give each county sheriff computer readable data for generation of tax tickets and statements.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.6.** Should have the ability to maintain penalty and forfeiture information or allow the information to be inputted manually or by and interface program.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.7.** Should have the ability to send "increase" letters to taxpayers based on selecting a percent increase from the previous tax year.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.8.** Should have the ability to handle foreign addresses.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.68.9.** Must have the ability to add barcodes to letters and reports to the sides of letters. Currently 2 of 5 interleaved barcodes are utilized by our printshop.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.68.10.** Should have the ability to track real property parcels and personal property accounts and items which are included in a Tax Increment Financing (TIF) District.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.68.11.** Should have the ability to maintain base year, assessed value, current assessed value and assessed value differences for those real property parcels and personal property accounts and items which are part of a TIF District.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.2. Commodity Line 2 - System Support**

**5.1.2.1.** The Vendor must provide initial support for the system for year one (1) beyond sign-off upon successful completion of system testing at Tax and in all counties, whichever is later. At the end of year one (1), year two (2) will be initiated by Change Order.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.2.2.** The Vendor must also include in their bid the cost of System Support optional Annual renewals for years 3, 4, and 5. These optional Annual renewals will be initiated by the Agency, agreed to by the Vendor and processed as a Change Order authorized by the West Virginia Purchasing Division.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.2.3.** Upon termination of this Agreement for any reason, the Vendor will provide to the State a complete copy of the data in a format required by the Department and agreed to by the Vendor, and the code set for those modules they have purchased. The copy of the data will be sent to the State along with a Letter of Transmittal that includes a signoff by the Director of Information Technology or their assignee, that the State approves the data received. The Vendor can also assist the State at the State's request in loading this data and code set on State supplied hardware at the Vendor's then prevailing Time and Material rates. Additionally, the Vendor will provide access to the data by the Department for

thirty (30) days after the date of termination and shall retain a copy of the data for ninety (90) days after the date of termination.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

### **5.1.3 Customization of the System**

- 5.1.3.1.** All customization of software required to meet the requirements of the Solicitation and the Agency, and to achieve Acceptance, shall be included in the Base bid.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.3.2.** Customization hours from the Vendor to be used by the Agency for making minor customizations at the hourly rate as listed on the Pricing Pages.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.3.3.** Should customization require hours from the Vendor, the Vendor shall be required to create a scope of work and a signed, dated quote for the actual cost of the work (with hours billed per the Unit Price on the Pricing Pages provided in wvOASIS, to be processed as a Change Order request for increasing the Contract amount. Note: only upon approval by the State Purchasing Division and the WV Attorney General's Office (as to form only) shall any work be undertaken on such a customization request. This scope of work should also include a timeline for deliverables, and notification of any potential downtime (including estimated dates and times of occurrence and duration) required for its implementation.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.3.4.** All (post-Acceptance) customization requiring hours from the Vendor shall include all installation, testing and post-installation defect correction.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



#### 4. REQUIRED FORMS

Please find our completed Purchasing Affidavit below.

STATE OF WEST VIRGINIA  
Purchasing Division  
**PURCHASING AFFIDAVIT**

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

**ALL CONTRACTS:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Harris Govern

Authorized Signature: [Signature] Date: 9/6/19

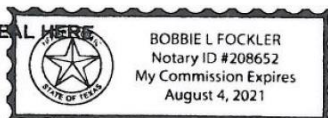
State of Texas

County of Collin, to-wit:

Taken, subscribed, and sworn to before me this 6th day of September, 2019.

My Commission expires 8/4, 2021

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]

Purchasing Affidavit (Revised 01/19/2018)

Based on the definition of "Business entity", Harris Govern does not need to complete this form as we are a publically traded company listed on the international stock exchange.

## West Virginia Ethics Commission



### Disclosure of Interested Parties to Contracts

Pursuant to W. Va. Code § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

*"Business entity"* means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

*"Interested party" or "Interested parties"* means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

*"State agency"* means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

*This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: [ethics@wv.gov](mailto:ethics@wv.gov); website: [www.ethics.wv.gov](http://www.ethics.wv.gov).*

*Revised June 8, 2018*



## 5. ADDENDUM ACKNOWLEDGEMENT FORM

Our completed Addendum Acknowledgement Form can be found below.

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CRFQ TAX20\*03**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

<input checked="" type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input checked="" type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

**Harris Govern**

Company



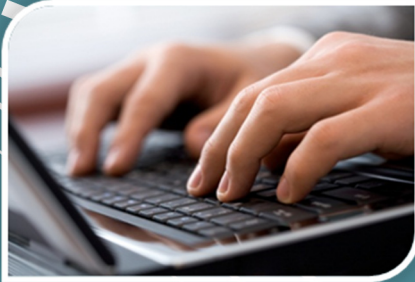
Robert Wood, VP of Sales and Marketing

Authorized Signature

**September 11, 2019**

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.  
Revised 6/8/2012



# HARRIS GOVERN

**State of West Virginia**

Request for Quotation (RFQ)

## **Valuation and Assessment Administration System**

CRFQ TAX2000000003

**Due: September 12, 2019**

**Submitted by:**

Harris Govern  
760 N. Watters Road  
Suite 100  
Allen, TX 75013  
Phone: (972) 265-7300  
Fax: (214) 722-0019

**Contact:** Chang Kim  
Regional Sales Manager  
[ckim@harriscomputer.com](mailto:ckim@harriscomputer.com)

A Premiere Provider of  
Property Appraisal & Tax Software Solutions  
[www.harrisgovern.com](http://www.harrisgovern.com)

**ELECTRONIC VERSION**

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## **1. COVER LETTER**

September 12, 2019

State of West Virginia  
Property Tax Division  
Tax Division of Albert T. Summers Center  
1124 Smith Street  
Charleston, WC 25301

Purchasing Division,

Harris Govern, a division of Harris Computer Systems, appreciates the opportunity to provide a response ("Proposal", "Response") to the State of West Virginia's Request for Quotation ("RFQ") for Valuation and Assessment Administration System.

Let me thank you in advance for considering Harris Govern as a potential candidate for your Valuation and Assessment Administration System provider. We believe that a true partnership between the State of West Virginia and Harris Govern would be a mutually beneficial relationship. We believe that you will come away from reading this response with a good understanding of our RealWare software and of Harris Govern.

Sincerely,



Dean deVilleneuve  
Senior Executive Vice President

## **2. QUALIFICATIONS (SECTION 3 IN RFQ)**

### **3.1 Demonstrated Implementation Services Experience**

The Vendor must have completed by Bid Opening Date for this solicitation an implementation of an Appraisal/Assessment Valuation system for a State or local government. The software that was implemented during this engagement must currently be in use by that client. The purpose of this requirement is to ensure that Vendors possess the experience, knowledge, and lessons learned associated with large implementations that include multiple locations/offices/jurisdictions.

**Harris Govern Response:** Harris Govern meets this requirement.

### **3.2 Demonstrated Software Provider Experience**

The proposed system software must be currently in production in a public-sector environment which includes a state or local government.

**Harris Govern Response:** Harris Govern meets this requirement.

### **3.3 Vendor must provide any documentation requested by the State to assist in confirmation of compliance with provisions. References, documentation, or other information to confirm compliance with experience requirements may be requested after bid opening and prior to contract award.**

**Harris Govern Response:** Harris Govern will provide the requested information.

### **3. MANDATORY REQUIREMENTS (SECTION 5 IN RFQ)**

#### **5.1. Mandatory Contract Services Requirements and Deliverables:** Contract Services must meet or exceed the mandatory requirements listed below.

##### **5.1.1 Commodity Line 1 - System Integration Design**

- 5.1.1.1.** All phases of the project as described in this CRFQ, to include design, implementation, installation, conversion, testing, support and training shall be completed within thirty-six 36 months of the award date.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.1.1 Acceptance:** Acceptance shall be defined as successful demonstration and testing of all system requirements, including training, with the ability for all users to navigate and utilize the system to perform their defined roles. The Agency with the Vendor's Acceptance will issue a written letter and Change Order request to WV Purchasing Division as formal Acceptance of the system. Upon mutual agreement of Acceptance by both the Agency and the Vendor the Change Order issued by WV Purchasing Division will start the First Year's maintenance, support, warranty and by providing a signed/dated letter agreeing to the start date of the First Year's Maintenance and Support. These dates will be used for yearly maintenance, support/ warranty and hosting renewals, initiated by the Agency and issued by Purchasing Division.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.2.** The awarded Vendor shall inform the State Tax Department of the project progress during meetings held twice (2) monthly. While vendor is onsite, meetings will be held at the Albert T Summers Center located at 1124 smith Street, Charleston, WV 25301. When vendor is working remotely, meetings will be via conference call. A progress report shall be provided by the awarded vendor 48 hours prior to the meeting and to allow sufficient time for review prior to the meeting.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.3.** The Vendor must provide as part of their bid submission a list of requirements for **IaaS** purposes. The Vendor should include the minimum requirements for storage and computing resources required to: 1) operate a full production system at full capacity whereby back end resources are not a limiting factor in speed, system responsiveness, or

delays in user experience; and, 2) a standalone independent system for testing purposes. This testing system need not be as responsive as the production system and the vendor should explain any possible differences in the end users experience while operating in the testing system. These parameters will not be utilized as part of (bid evaluation. they will however be the standards used in the state's procurement of cloud hosting resources.

**Harris Govern Response:** Please see our server specifications below.

<b>Database Server</b>	<p><b>Recommended Specs:</b></p> <ul style="list-style-type: none"> <li>• Windows Server 2016</li> <li>• SQL Server Standard 2016 SP2 or higher</li> </ul> <hr/> <p><b>Database Server Specs</b></p> <p><b>Counties less than 22,000 parcels</b></p> <table> <tr> <td>Counties</td><td>31</td></tr> <tr> <td>vCores Per County</td><td>2</td></tr> <tr> <td>Memory Per County (GB)</td><td>4</td></tr> </table> <p><b>Counties between 22,000 and 42000 parcels</b></p> <table> <tr> <td>Counties</td><td>16</td></tr> <tr> <td>vCores Per County</td><td>4</td></tr> <tr> <td>Memory Per County (GB)</td><td>8</td></tr> </table> <p><b>Counties above 42000 parcels</b></p> <table> <tr> <td>Counties</td><td>9</td></tr> <tr> <td>vCores Per County</td><td>8</td></tr> <tr> <td>Memory Per County (GB)</td><td>12</td></tr> </table> <p><i>*includes State System</i></p> <p><b>Database storage</b></p> <p>It is anticipated that 1TB of disk storage will be needed per 500K parcels.</p> <p>SSD disk are recommend</p> <p><i>*Database storage should have a minimum IOP performance of 30K.</i></p> <p><i>*Storage throughput tends to be the limiting factor in performance. The jurisdiction's size and the amount of historical data retained may require higher IOPS. IOPS are affected by a combination of storage technology and setup as well as CPUs and memory.</i></p>	Counties	31	vCores Per County	2	Memory Per County (GB)	4	Counties	16	vCores Per County	4	Memory Per County (GB)	8	Counties	9	vCores Per County	8	Memory Per County (GB)	12
Counties	31																		
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Counties	16																		
vCores Per County	4																		
Memory Per County (GB)	8																		
Counties	9																		
vCores Per County	8																		
Memory Per County (GB)	12																		



<b>Application Server</b>	<b>Recommended Specs:</b> <ul style="list-style-type: none"> <li>Windows Server 2016 with IIS</li> </ul> <hr/> <p style="text-align: center;"><b>Application Server Specs</b></p> <hr/> <p style="text-align: center;"><b>Counties less than 22,000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p style="text-align: center;"><b>Counties between 22,000 and 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p style="text-align: center;"><b>Counties above 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p><i>*includes State System</i></p>
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Application and Database servers may be provisioned as individual virtual machine or grouped. Based on the information as of September 2019 Harris believes that the systems would be best configured as follows:

#### Production

- Database servers hosting no more than 10 counties databases
- Application servers hosting no more than 10 counties
- vCores and Memory may be balancing across these servers according to the recommended specs above while keeping in mind the different functions counties might be performing and their location to the datacenters.

#### Test

The test system can mirror the production setup with no more than a 50% reduction in hardware resources.

- 5.1.1.4.** The Tax Department estimates that the current system in production will require approximately 3.0 Terabytes for data storage and conversation purposes. The Vendor must provide a breakdown of the system requirements taking into account this requirement.

**Harris Govern Response:** To allow for historical converted data, current year data, and future growth Harris estimates that 1 to 1.5 Terabytes of storage will be needed per 500,000 parcels.



- 5.1.1.5.** The Vendor must provide an integrated system using the three (3) approaches to value for all properties. The three approaches are: cost, market, and income.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.6.** The Vendor must provide sketches for surface improvements, multiple year capacity, and on-line help.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.7.** The Vendor will be responsible for and must convert or provide replacement reports and forms for those listed in **Appendix A**. This is to include all reports or job tasks related to rollover of data from year to year.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.8.** The vendor must provide the ability for the user to request reports at the local level and allow the reports to be printed at the local level or to the mainframe printer at the data center in Charleston.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.9.** The Vendor must provide training for Information Technology and Property Tax Division staff during the first stage of the project to allow for State staff to fully participate in the implementation and design of the system. Training will take place at 1001 Lee Street East, Charleston WV, 25301 (or the current location of the main headquarters for the Department within the confines of the City of Charleston, Kanawha County, West Virginia). Approximately fifty (50) individuals will be in attendance. An agenda and all relevant training materials should be provided at the training location.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement.

- 5.1.1.10.** The Vendor must provide the initial training of State users prior to the training of the up to three test counties. This will include approximately 60 individuals. The vendor must provide a training manual to all participants which describes in detail the functionality of the system to include a description of all fields, keying instructions, reports, sales ratios, appraisal and assessment functions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.11.** It is anticipated that one test county will be located in the northern region of the state, one in the southern region of the state, and one in the

Kanawha, Putnam, Cabell area of the State. The training of the three test counties is to take place in the test county and is anticipated a total of two hundred (200) county individuals would be involved. The vendor is to provide a manual to each attendee describing the functionality of all aspects of the system as described in **Section 5.1.1.10** above. The vendor is to provide training that when completed will allow all users to fully access and use all aspects of the system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.12.** The system must be available to county and State users seven (7) days a week, twenty-four (24) hours a day. Any scheduled downtime required by the vendor for software updates or improvements must have a one (1) week notice in advance in writing and the approval of the West Virginia State Tax Department Property Tax and Information Technology Divisions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.13.** Vendor must provide a user's manual designed to explain the use of the system. The manual shall include screen shots and step-by-step procedures for viewing, updating the system and running reports and processes. The Vendor is to provide one (1) user manual for each of the fifty-five (55) counties and one (1) for the State Tax Department. A soft copy of all manuals and materials must also be provided.

**Harris Govern Response:** Yes, Harris Govern will meet this requirement. The manual will be web-based and videos may be used in lieu of screenshots.

**5.1.1.13.1.** The system must provide for the storing of parcel related photos, scanned documents, Microsoft Word documents, forms and other similar or associated file types.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.13.2.** The system must fully allow the integration with third party GIS vendors, mapping vendors, aerial photography vendors, or other associated or similar vendors.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14. Confidentiality:** Each employee and/or subcontractor employee performing duties that in any manner involve handling or having access to confidential tax information, regardless of position held, shall sign both a Confidentiality Acknowledgement and a Certification of Disclosure and Awareness which shall be provided and retained by the WV State Tax Disclosure Officer prior to beginning work on the project, immediately after contract award. All data

involved in this project shall be considered confidential tax information and shall not be disclosed to any party. Any unauthorized use or disclosure of confidential tax information furnished pursuant to this Agreement, or the absence of adequate procedures for safeguarding the confidentiality of such tax information, constitute grounds for termination of this Agreement and possible Criminal/Civil Sanctions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14.1. Criminal/Civil Sanctions:** In accordance with W.Va. Code §11-10-5d, §11-1A-23, in the event of an unauthorized disclosure, employees shall report to Tax within 24 hours after identification of any possible, potential, or actual unauthorized disclosure or access of State or Federal confidential taxpayer information by calling Tax's Disclosure Officer and or Privacy Officer.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14.2. Inspections:** Vendors and/or contractors working on the project shall allow the West Virginia State Tax Department to send its officers or employees into their offices for inspection of any facilities or operations providing any work under this contract. Based on such inspection, specific measures may be required in cases where the vendor and/or contractors are found to be noncompliant with contract safeguards. The vendor must permit the Tax Department conduct these inspections no less than every twelve (12) months, or, as deemed necessary by Tax.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.14.3. Annual Security Training:** Each employee and/or subcontractor performing duties that in any manner involve handling or having access to confidential tax information or state data will be required to participate in annual State/IRS Data Safeguard Training conducted by Tax and any additional training deemed necessary. This training shall occur before any employee and/or subcontractor obtains access to confidential tax information. In the event of non-- local employees and/or subcontractors, the WV State Tax Department may provide the relevant training materials to the vendor who shall be responsible for conducting the training as provided to its employees and subcontractors and returning the required documentation back to the WV State Tax Department.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.4. Audit and Accountability:** Audit and Accountability procedures must be developed, documented, and implemented as part of the project. Such audit and accountability controls include auditable events, content of audit records, audit storage capacity, audit review and timestamps at the operating system, database and application levels. The system must generate audit records for all security-relevant events, including all security and system administrator accesses and functionality performed.

Security-relevant events include the recording of unauthorized attempts and access. Within the application and database, at a minimum auditing must be enabled to the extent necessary to capture access, modification and deletion of data. The system shall alert the appropriate organizational officials in the event of an audit processing failure and protect the audit information and tools from unauthorized access, modification and deletion.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.5. Offshore Access:** Tax Department data **CANNOT** be accessed by agency employees, agents, representatives, or contractors located offshore (outside of the United States territories, embassies or military installations.) **Further, Tax Department data may not be received, processed, stored, transmitted, or disposed of by information technology systems located offshore.**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.6. Remote Access:** Vendors and/or subcontractors using remote access and/or VPN technologies must configure the technology that they are using for remote access so that it requires two factor authentication and that the technology may not be used from an offshore site.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.14.7. Encryption**

**5.1.1.14.7.1.** Vendor must provide Data Encryption in Transit. All Tax Department data must be encrypted when transmitted across networks. All mechanisms used to encrypt Tax Department data must be PIPS 140-2 compliant and operate utilizing the FIPS 140- 2 compliant module. This requirement must be included in the SLA along with a description of the encryption algorithm that will be used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement. TLS with RSA as encryption for data encryption in transit.

**5.1.1.14.7.2.** Vendor must provide for data encryption including at rest. All mechanisms used to encrypt Tax Department data must be FIPS 140-2 compliant and operate utilizing the FIPS 140-2 compliant module. This requirement must be detailed in the SLA along with a description of the encryption algorithm that will be used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement. Triple DES is utilized for encryption at rest.

**5.1.1.14.7.3.** The Vendor must completely comply with Internal Revenue Service (IRS) Publication 1075 and the additional mandatory IRS safeguards listed on their website regarding tax information safeguards for protecting confidential tax information and project data. To meet functional and assurance requirements, the security features of the environment must provide for managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to tax information.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.15. Database, Data Management System and Application Requirements**

**5.1.1.15.1.** Vendor must list those items to be provided on the account record.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.2.** Vendor must include a data dictionary. The data dictionary shall include all names, definitions, and attributes about data elements/objects that are being used or captured in a database.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.3.** Vendor must provide the ability to match or add files across jurisdictions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.4.** Vendor must establish a uniform statewide relational database management system that has a web-based interface.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.5.** State data and each counties' data must be kept separate physically and/or logically from the other counties and State Tax information by the system having a separate but uniform database for each county or using views (security controls) to ensure that each county can only review and access its own data at the database levels and from within the application itself. State Tax employees shall have access to all county and state data. The method used to separate the data should be provided with a description of the controls.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.6.** Each parcel must have one, and only one, parcel record that contains the basic data used in land valuation and assessment notification.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.7.** During the project span, a nationally accepted motor vehicle valuation guide will be provided by the State Tax Department. The Vendor shall provide a process or procedure to be used for loading the data accurately into the system and a testing procedure or process to verify accuracy.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.8.** The real property data structure must, at a minimum include:

- A parcel component
- A residential component
- An industrial component
- A commercial component
- A farm component
- Must have the ability to capture any combination of the above components
- A sales file
- An income-expense file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.9.** Must have the ability to capture values from all valuation models.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.10.** The following items must be included in the parcel record:

- Parcel Identification Number
- Legal Description
- Site Address
- Owner's Name and Address
- Spouse's Name
- Tax Class
- Zoning
- Property Use Code
- Census Tract
- Neighborhood Identifier
- Land type and size
- Site characteristics (topography, utilities, water frontage, etc.)
- Building improvement data for main structures and other improvements
- Previous appraised and assessed values and previous value source
- Current appraised and assessed values and current value source
- Buyer's name
- Buyer's address
- Penalty and forfeiture information
- Lending institution identifier
- Building permit
- Homestead Information

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.15.11.** The parcel record must maintain the date, price and validation code of the three (3) most recent sales (if any) of the parcel, along with fields indicating whether the sales involved multiple parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16. Residential and commercial building records must contain different items and should be logically separate.**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.1.** The residential record must be in a standard format, contain one record per building and include those items commonly important in valuing residential improvements in West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.2.** Items must include use code, construction grade (at least six grades must be provided), square feet of primary living area, basement areas, garages, wall type(s), and fireplaces.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.3.** Records must be in a standard format; for example, fireplaces must always reside in the same field. This does not limit how a given item will be coded or measured. However, each field must stand on its own.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.4.** The commercial/industrial record must be in a standard format, contain one record per building, and include those items commonly important in the valuation of commercial/industrial improvements in West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.16.5.** Items must include use code, construction grade, wall type(s), wall height, number of units (for example, apartments), and gross area. The items must include those required to computerize the cost approach to value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17. The personal property file must have the following:**

**5.1.1.17.1.** Account files

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



**5.1.1.17.2.** Separate individual owner file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.3.** Separate commercial and industrial owner file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.4.** Separate trending and depreciation file

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.5.** Each account must have one, and only one, record that contains the basic data used in valuation and assessment notification. These items must include, but not limited to:

- Account Identification Number
- County Code
- District Code
- Site Address
- Owner's Name and Address
- Spouse's Name
- Tax Class
- North American Industry Classification System Code (NAICS)
- Property Use Code
- Items Owned and Year Acquired
- Original Acquisition Code-Square foot or real property-Previous appraised and assessed value an previous value source
- Current appraised and assessed value and current value source
- Penalty and forfeiture information
- Homestead information
- Telephone number
- Social Security number
- Tax Year
- Dog data

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.17.6.** The records must be in a standardized and consistent format with all county data having the same fields, formatting, and design elements. No particular format is required, only that all fifty-five (55) counties be of the same database structure. For example, the personal property records must be in a standard format and items such as "vehicle" must always be in the same

field, machinery and equipment must always reside in the same field, etc.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18. The natural resource file must include the following:**

**5.1.1.18.1. An Account file that identifies properties by type:**

- Coal
- Oil and Gas
- Manager Timber
- Other Minerals
- Sandstone
- Limestone
- Sand/Gravel
- Clay/Shale; Salt Brine
- Minerals as listed in WV Code 11-1c-10  
(<http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfm?chap=11&art=1C&section=10#1C>)

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.2. Individual owner file**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.1.1. Producer file - Natural Resource Account Number**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.1.2. Map and Parcel number, Mineral Account Number**

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.3. Each account must have one, and only one, record that contains the basic data used in valuation and assessment notification. These items must include, but are not limited to:**

- Account Identification Number
- Latitude
- Longitude
- Legal Description
- Site Address
- Owner's Name

- Owner's Address
- Tax Class
- Previous value and previous value source
- Current value and current value source
- Penalty and forfeiture information
- Active farm income
- Non-farm income
- Royalty income
- County Code
- District Code
- Contact person telephone number
- Well or lease name
- Producer's name
- Landbook acreage
- Leased acreage
- Percent ownership
- Number of wells
- Homestead information

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.18.4.** Vendor must provide for a coefficient file containing information necessary for the valuation of natural resources at the following levels:

- State
- Region
- County
- District
- Coal/Other Minerals (Tax Year Specific)
  - Seams
  - Aggregate Value for TCRIV Calculation
  - Barren Rate per resource
  - Density Rate per resource
  - Mined out rate per resource
  - Mine life rates for Deep Mines per resource
  - Mine life rates for Surface Mines per resource
  - Multipliers for Mine Life per resource, type and use type
  - Percentage RCVM to TCVM
  - Weight per year per resource
  - Royalty multiplier per resource, per type and use type
- Oil/Gas (Tax Year Specific)

- Formations
  - Expense Maximum per well status type
  - Expense Percent per well status type
  - Tolerance for link process for State
  - Complete and Incomplete Tolerance for County
  - Acreage allowed per well type before excess acreage charged
  - Well life
  - Year difference for initial production date
  - Acreage for plugged well
  - Well equipment or minimum value per well status type
  - Home use only value
  - MCF/BBL rate for DEP/industrial wells
  - Non-filer percentages for working interest and royalty/overriding royalty
  - Reserve rates per county per district
- Managed Timber Grades
  - The records must be in a standard format
  - Vendors should provide the layout or otherwise describe the proposed natural resource property record.
  - Vendor must provide the ability for the system to accept electronic returns for natural resource property.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.19.** There must be a separate sales file (or files) that include sales data and property characteristics as of the sale date.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.19.1.** To facilitate market and income analyses, there must be one and only one sale record per sale.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.19.2.** If there are multiple building records for a sale parcel, the data must be aggregated or "collapsed" to a single record. The Vendor must indicate how this will be accomplished.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.20.** The Vendor should describe how data items can be added or redefined.

**Harris Govern Response:** For data fields that exist clients can rename the columns for display proposes, make it require, enforce input masks, and add drop downs. As part of the system there a six (6) open columns in each table for clients to have the ability to have their own custom data fields that also follow the previous statement. If neither of the previous options fulfill the need, the client can submit a change request where Harris Govern and the client will work together to design, approved and implement additional data storage needs.

**5.1.1.21.** The Vendor must provide for a separate income and expense file for the accumulation of income-expense valuation data, including key property characteristics current at the time the income data were obtained. The income and expense file can be an integrated part of the vendor's database.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.22.** The Vendor must implement this uniform property use code.

- **R - RESIDENTIAL** to indicate one to four family residential use.
- **A-APRATMENT** to indicate multi-family use, five or more families.
- **F-FARM** to indicate rural properties, generally defined by a minimum acreage requirement, and usually but not necessarily devoted to agriculture.
- **C-COMMERCIAL** to indicate properties devoted to trade, services, and recreational use.
- **I-INDUSTRIAL** to indicate properties devoted to the manufacturing and/or processing of products.
- **X-EXEMPT** to indicate non-taxable properties.
- **U-UTILITY** to indicate properties devoted to the production of public utility commodities or services under the control of governmental agencies such as Public Utility Commission.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.22.1.** The code must be assigned to each parcel and account and be carried on the real property parcel, building, sale records, personal property record, and natural resource record.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.22.2.** Vendors must assign unique account identifiers to all personal property accounts and to all-natural resource accounts.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.** The proposed system must have computerized perimeter sketching.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.1.** Users must be able to enter sketches on computer terminals and the computer should be able to draw the building, check closure, print the image on the property record card, and calculate and store building perimeter and area.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.2.** If the parcel is queried, the building perimeter sketch must be displayed on the screen.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.23.3.** Vendor should indicate what hardware is required to print the resulting graphics and the effective production rates for the proposed hardware.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.24.** The system must provide for the automation of building permit processing.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.25.** The system must provide the ability to retrieve records directly by entering the parcel number, account number, street address, owner's name, or buyer's name.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.26.** The system must provide to ability to automate land book creation and printing. Data included in the land books must be easily identifiable and separated physically or logically from other data within the system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.27.** Screen layouts must correspond to field data collection documents ("cards" for short).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.27.1.** The layout must flow and be able to move screen to screen, make intuitive use of menus and function keys, and the user must be able to print individual screens or a set of related screens on

command based upon current business processes and return layouts. Business process and form changes can be considered to accommodate system design, but this should be limited in nature.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.28. Processing**

The system must support on-line real time record updates and calculations, so that users can see additions or changes to the database, along with computer values, immediately. The system must support batch updating, so that a user can request certain time-consuming jobs to be processed in a batch mode.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.29.** The data management system must check keyed and imported data for validity and restrict the entry of invalid data, e.g. alphanumeric data in a numeric field or a construction class code of zero when valid codes range from 1 to 6.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.30.** The database management system must enforce referential integrity to ensure, for example, that no building records are orphaned by the deletion of a parcel record.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.31.** Data integrity must be protected by preventing the entry of duplicate parcels, record numbers, account numbers and the like.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.32.** The application must be password protected, and there must be a facility for restricting access to certain fields (e.g., estimated income data). Password complexity at a minimum shall require eight (8) characters, an alphanumeric requirement and a special character. The system must require that the password must be changed every thirty (30) calendar days. Default passwords that are created when an account is created must require the user to set a new password when the user account is logged into the first time. The system must maintain a password history of at least the last ten previously used passwords and not allow passwords to be re-used from that password history or as an alternative the system must integrate with active directory for this purpose.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.33.** The application must provide for unique non-sequential user names and passwords to log into the application. The system must maintain an audit log of successful, failed, and attempted logins to the system with timestamps.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.34.** Vendors should describe their security provisions and indicate which of them, if any, are inherent in ancillary software, such as the operating system and which of them are implemented in the vendor's proprietary software.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.35.** The system must provide an audit trail of record changes.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.36.** The system must preserve the history of records before and after updating, along with an indicator of the user and timestamp of change.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.37.** The system must include an account management module that allows the help desk to manage user accounts, password and application level security. Screen shots, reporting capability, the functionality that can be secured shall be included.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.38.** The data management system must be able to generate property record cards (or close substitutes for them) on request for all real property, personal property and natural resource property accounts.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.38.1.** When there are multiple buildings for a parcel, there must be one record "card" for each building (parcel level data need not be repeated).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.38.2.** Property record cards must show or indicate how values were calculated.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



**5.1.1.38.2.1.** For the cost approach, this involves showing the building size, base rate, adjustments, replacement cost new, depreciation and net value must be displayed.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.2.** For the income approach, the following must be displayed: market rent per unit, number of units (e.g. apartment units or square feet of warehouse area), vacancy allowance, potential gross income, allowable expense ratio, net income, and net value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.3.** The market approach must be documented by showing the calculated value on a-per unit basis and listing any applicable comparable sales.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.4.** Users must be able to request that property records be printed by parcel range, use codes, or neighborhood, for example, all single-family residences in a given neighborhood or map or all actively mined coal parcels in a taxing district.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.38.2.5.** The system must provide for integrated tablet application for appraisal fieldwork. This function would provide the appraiser in the field to review and update parcel characteristics, including the sketch and upload all information directly to the system. This function does not exist in our current system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.39.** The system must allow for prior years data to be "locked" so that the historical data may be viewed, accessed, and reported on while prohibiting the historical records from being updated. The identification of when and what data is historical shall be configurable in a manner that a job or process can

be initiated to lock all prior year records.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.40. Valuation** - the system must have the ability to value the following:

**5.1.1.40.1. Real Property**

- Residential property including manufactured housing
- Commercial property
- Industrial property
- Farm property use value based on farm rental income
- Natural Resource property
- Active and reserves
- Oil & Gas- active and reserves
- Sand, gravel, etc. - active and reserves
- Managed Timberland - use value based on soil productivity

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.40.2. Personal Property**

- Tangible personal property
- Manufactured housing
- Automobiles, trucks, planes, boats, campers and other transport items, -low book value
- Machinery and equipment
- Furniture and fixtures
- Inventory
- Computer hardware and software
- Royalties and working interests for natural resource producers
- Buildings on leased land
- Chattels real
- Leasehold interests
- Pollution abatement equipment, 5% of original cost
- Salvage value, 5% of original costs
- Specialized tooling, 5% of original costs
- High technology/internet advertising servers, personal property, 5% of original costs

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41. Valuation of Surface Real Property** - the system must have the ability to value surface real property as follows:

**5.1.1.41.1. Land valuation**

**5.1.1.41.1.1.** The software must provide a table-driven land valuation system with percentage adjustments for site characteristics.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2. Land valuation tables**

**5.1.1.41.2.1.** The system must include a set of land valuation tables based on the average unit value method and the base lot method.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.2.** The tables must be indexed by neighborhood and land use code.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.3.** The user must be able to specify land valuation rates for the following units of comparison:

- Acre
- Square Foot
- Front Foot
- Parcel or Lot

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.4.** Appraisers must be able to select which valuation method to use for individual parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.** The system must support size and depth adjustments.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.1.** Size adjustment that can be built into square foot valuation tables.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.2.** Size adjustments that can stand as separate tables.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.2.5.3.** Depth adjustments for land appraised on a front foot basis should stand as a separate table.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3. Percentage adjustments for site characteristics**

**5.1.1.41.3.1.** Users must be able to specify percentage adjustments for site characteristics, such as topography, water frontage, view, excess traffic, and so forth.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.2.** These adjustments must be table-driven so that the user does not have to specify them for individual parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.3.** Users must be able to specify separate adjustment factors by neighborhood, for example, factor of 1.50 for lake frontage in one neighborhood and a factor of 1.70 in another neighborhood.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.4.** Users must have the ability to flag and retrieve adjustments for review by query routine or batch reports.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.5.** The system must have the ability to support manual appraisals.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.6.** When land is appraised manually, appraisers must have the ability to enter an "override" value that takes precedence over any table-computed value

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.3.7.** The system must have the ability to override land rates and adjustment factors on an individual parcel basis.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.4.** The proposed system must allow multiple land uses for a single parcel and to be separately coded and priced.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.41.5.** The proposed system must allow users the ability to calibrate land rates and adjustment factors.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.42. Cost Approach**

**5.1.1.42.1.** The system must contain a current cost module that is table-driven and customized for West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.2.** Once the cost module is completed the Vendor must indicate the source of the cost factors and how they should be updated by the user and provide documentation of their derivation.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.3.** The cost system must cover all common structures found in West Virginia.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.4.** The system must operate in both batch and interactive mode.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.5.** Cost tables must handle common structure types with the ability to manually price unusual structures.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.6.** Costs must include all applicable direct and indirect costs according to commonly accepted industry standards and practices.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.7.** Residential and commercial pricing tables must start at a size of not less than 300 square feet.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.8.** The system must contain the ability to adjust for significant building characteristics and extra features, including, but not limited to, wall type, roof type, heating, cooling, fireplaces and swimming pools.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.9.** The cost system must recognize differences in construction costs per unit among buildings of various sizes and types. This can be done by varying base rates with size or through a separate adjustment table or formula.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.10.** Economy-of-scale factors must be centered on typical building sizes, so that no adjustment is required for buildings of standard size.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.11.** Height adjustments must be developed for commercial parcels.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.12. Computerized pricing**

**5.1.1.42.12.1.** The cost system must be able to price commonly found structures including manufactured housing.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.42.12.2.** Tables must exist for the following:

- Base rates
- Percentage adjustments or factors for building features such as design, wall type, heating and cooling.
- Lump sum or dollar adjustment for extra features, such as fireplaces, Jacuzzis, and sheds.
- The user must be able to update these tables interactively.
- Lookup tables must be utilized so that new codes and features can be assigned by users based on instructions contained in the user documentation.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43. Calibrated cost tables**

**5.1.1.43.1.** The Vendor must provide updated statewide cost tables including appropriate modifiers for each county to account for any significant differences in construction costs within each county. This data can be procured. If procured, the vendor should provide the source of this information in their bid, or, if completed by the

vendor they must provide proof that the methodology employed by the vendor meets best practices and industry standards.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.2.** The cost tables must reflect the current market as of the time of system delivery defined as the initial launch of the first counties. The costs must be validated in and reflect the local market.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.3.** At the time of system delivery, the Vendor must describe the source of construction cost data and whether it is proprietary, developed from an analysis of local costs, or based on a commercial service, such as Marshall & Swift.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.4.** At the time of system delivery, the vendor must describe how cost data will be validated and adjusted to the local market.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.5.** At the time of system delivery vendor must present information on current fees for updating costs tables if a proprietary source of construction cost data is used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.6.** At the time of system delivery, the vendor must provide the cost manual or other documentation which describes how users can update cost schedules and test them for accuracy.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.43.7.** The vendor must provide an update to the current West Virginia Real Property Appraisal reflecting the appraisal, practices examples and procedures associated with the proposed system in addition to current construction cost schedules.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.** Depreciation tables must be provided that are based on age, structure type and construction quality.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



**5.1.1.44.1.** Depreciation tables must be based on observed effective age, actual age, and remodel year.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.2.** The tables must be indexed by use class and construction grade.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.44.3.** The Vendor must provide multiple residential, multiple commercial, and industrial depreciation tables that recognize differences in market value within structure type, construction quality and age.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.** The Vendor must include the ability to appraise using the Income Approach.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.1.** The vendor must provide a facility for entering and analyzing income and expense data and building income-expense, gross-income-multiplier, and overall rate tables.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.1.1.** The vendor must provide a program for entering and analyzing income and expense questionnaires, including the computation of median market rents, vacancy ratios, and expense ratios.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.1.2.** The program must be part of the vendor's software.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.2.** Appraisers must have the ability to override income, expense and capitalization rates to recognize special features or conditions.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.3.** Since some income properties cannot be calculated on a mass basis, the system must have the ability whereby the appraiser would enter the necessary data and assumptions, and the computer would calculate the value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.4.** Income value must be calculated at the parcel level.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.5.** Vendor must provide ability to merge income/expense and sales data.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.5.1.** The merged file, like the sales file, must contain one record per parcel.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.45.5.2.** The data for both sold and unsold parcels must be matched to the income and expense file.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.46. A Market Approach** (Improved Parcels) must be provided.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.46.1.** The system must provide the ability to maintain tables of market-derived per-unit values and adjustments and, optionally, to develop multiple regression models.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47. Value Reconciliation**

**5.1.1.47.1.** The system must produce values based on the cost, income and market approaches.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.2.** Appraisers must have the ability to select the value deemed most applicable or to assign an override value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.3.** Reports must summarize existing values and highlight any parcels for which values could not be computed.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.4.** The system must provide separate fields for values computed by the cost approach, market approach, gross income multiplier method and net income capitalization method.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.5.** Additional fields must be provided for an appraiser override value, an appeals board value and a court determined value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.6.** A value source code must specify which of these values to use for tax purposes.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.7.** A valuation comment field must be provided for appraisers to explain an override value (codes may be used for this purpose) or to enter other information.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.8.** Appraisers must not have to update value sources on an individual parcel basis except for cases where the default source is overridden.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.47.9.** The system must provide a value application report.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.48.** There must be an overall value summary report that must include, but not be limited to, the following for each use class, tax class or property type:

- The number of parcels

- Total value
- Average value per square foot (or other appropriate unit of comparison).
- Number of valid sales.
- Key sales ratio statistics (most importantly the median and coefficient of dispersion).
- For single family residential properties, the report must have the ability to be broken out by neighborhood.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.** There must be a value error report that identifies and lists such parcels for which applicable values could not be computed because of invalid or missing data.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.1.** The report must list the problem data or otherwise indicate why a value could not be computed.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.2.** The report must list parcels with extreme, unusual or inconsistent data, such as a single-family residence with fewer than (300) square feet or more basement area than main living area.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.3.** The system must supply sales lists for each of several major property types and a program for identifying the most comparable sales for a given subject parcel.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.4.** There must be a report that lists sales by parcel number, by parcel number stratified by land use code or major property group and tax class for a user selected sale date range.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.5.** The report must display these items:

- County
- District
- Neighborhood
- Tax Class
- Property Type
- Vacant or improved

- Previous year's value, source code and validity code
- Current year's value, source code and validity code
- Key land and improvement characteristics
- Sale date and price
- Reports must be generated for each county, district/corporation
- There must be a statewide report.
- For single family residential properties, there must be a program that finds and reports comparable sales, or comparable properties, for a given subject parcel.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.6.** The user must have the ability to query all valid sales based on any combination of attributes contained in the database.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.49.7.** The Vendor must provide documentation and instruction on operation of the comparable sales system, including how distance metrics are computed and how to change sale selection parameters, for example, variable weights and sale data ranges.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.** The sales record must contain a sales validation code indicating whether sales are valid indicators of market value or, if not, why not. The codes should be consistent with professional standards and State of West Virginia guidelines which include the following:

Valid Code	Description
0	Valid sale
1	Involved additional parcels
2	Not open market
3	Changes after sale
4	Related individual s or corporations
5	Liquidation/forced sale
6	Financial / land contract
7	Construction cost only
8	Included excessive personal property
9	Blank
10	Natural Resource Rights
11	Partial interest only
12	AG use or managed timber

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.1.** There must be a parameter-driven sales ratio program that displays traditional sales ratio studies by strata of the sales price. Statistics reported must include:

- Number of sales in the applicable time period
- Number of valid or usable sales
- Median, mean, and standard deviation
- Coefficient of dispersion
- Price related differential
- Whether improved or vacant
- Sale price
- Aggregate ratio
- Ratios which are calculated by excluding outliers with a median + or - twice the standard deviation.
- Ratios calculated by excluding State appraised property (industrial, natural resources).
- These statistics must be computed as defined in most recent IAAO Standard on Ratio Studies.
- Totals by category with or without farm and managed timberland sales.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.2.** Users must be able to obtain reports of results by major property group, use class and tax class as well as key subgroups of single-family residential properties, including neighborhoods.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.3.** Users must be able to specify parameters for sales included in the study, including assessment year, sale date range, sale price range and ratio range.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.** Users must be able to request an optional report listing all sales used in sales ratio calculations.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.1.** The report must be sorted to match the basic strata used in the sales ratio report.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.2.** Reported data must include parcel number, land use code, neighborhood, key property characteristics, sale date, sale price, adjusted sale price, tax class and sale ratio.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.4.3.** Within strata, sales must be sorted by sale ratio.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.5.** At the time of system delivery, the Vendor must describe any graphics capabilities that will be used in sales ratio analyses.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.** The system must compare percentages changes in assessed values for those properties that were sold in a defined period and those that did not sell during the defined period.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.1.** Reports that present only summary information for each stratum or group being analyzed (giving mean and median percentage changes, counts, and the results of the Mann-Whitney test).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.2.** Reports that present the preceding information plus a one-line characterization of each property (such as address, type codes, size and assessed value).

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.6.3.** Reports that use multiple lines to describe the properties in greater detail.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.50.7.** At the time of system delivery, the Vendor must provide a user's manual documenting operation and use of the sales analysis and sales ratio study system. The awarded Vendor is to provide one (1) user manual for each of the fifty-five (55) counties and one (1) for the State Tax Department. A soft copy of all manuals and materials must also be provided.

**Harris Govern Response:** The user manual will be web-based.

#### **5.1.1.51. Personal Property Valuation**

**5.1.1.51.1.** The following personal property types must be valued:

- Manufactured housing
- Automobiles, trucks, aircraft, boats, campers and other transport items.
- Machinery and equipment
- Furniture and fixtures
- Inventory
- Computer hardware and software
- Overriding royalties and working interests for producers
- Buildings on leased land
- Chattels real
- Leasehold improvements
- Incomplete construction
- High technology and internet advertising servers and tangible personal property, pollution abatement equipment, tools, dies and molds - salvage value.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.2.** The proposed system(s) must provide at least as much valuation flexibility as the current Personal Property system provides which includes:

- Ability to place owners' value
- Ability to place assessors' value
- Ability to use nationally accepted car guide

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



**5.1.1.51.3.** The proposed system(s) must provide for the following valuation procedures.

**5.1.1.51.3.1.** Transportation equipment valuation system

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.1.1** The vehicle valuation system must provide for on-line interactive valuation using both the "VIN" number and "make- year-model" approach.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.1.2.** The system must provide a valuation module to value other transport equipment including, but not limited to, motorcycles, boats, airplanes, campers, recreational vehicles, and all-terrain vehicles.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.1.3.** The State will provide the valuation tables for cars, trucks, motorcycles, boats, recreational vehicles and all-terrain vehicles.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.2.** The system must allow depreciation and trending tables to value computer equipment, machinery, equipment, furniture and fixtures and leasehold improvements.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.51.3.3.** The system must provide tables to provide for current market values for manufactured housing.

**5.1.1.51.3.1.** The values for manufactured housing from the personal property module

and the real property module must arrive at the same values for the same property.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.51.3.2.** The values for additional items for manufactured housing such as skirts, underpinnings, decks and porches, must be the same whether the property is considered real or personal property.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

The system must provide the ability for a taxpayer to file online personal property returns for individual owners, owners of commercial businesses and owners of industrial property. This function does not exist in our current system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.52. Natural Resource Valuation**

- 5.1.1.52.1.** For each section the vendor must describe and provide samples of layouts, screens, reports, and any other items required in that section.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.52.2.** The system must provide the ability for taxpayers to file online for oil, gas, and coal natural resource property returns. This ability is currently contained in our existing natural resource appraisal/assessment system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.53. Coal**

- 5.1.1.53.1.** The vendor must integrate our current stand-alone Coal Valuation Model as an integrated module of the new valuation/assessment system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.53.1.1.** The coal valuation module must perform the following valuation assessment and GIS functions as contained in the current model and defined in WV Legislative Rule Title 110, II:

- Compute the active coal acre rate as defined in WV Legislative Rule 110-1 I, Appendix A, Formula 7
- Compute the active coal acre rate as defined in WV Legislative Rule 110-1I, appendix A, Formula 3
- Compute the value of permitted reserve coal by:
  - Integration of GIS data by Geocode to identify location.
  - Value by applying WV Legislative Rule 110-1I, **Appendix A**, Formula 6
- Compute the value of reserve coal by:
  - Integration of GIS data by Geocode to identify location
  - Value reserve coal by applying WV Legislative Rule 110-1I, **Appendix A**, Formula 6.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.53.2.** Coal and other mined mineral types must be valued according to West Virginia Code 11-1c-10 and Legislative Regulations Title 110 Series 1I using the income approach for active and producing, market or income for reserves resulting in a value per seam per acre or per mineral type.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.53.2.1.** The user must be able to specify valuations for the following units of coal (by individual seam) and/or mineral type:

- Permitted including active producing and active reserve coal
- Reserves
- Mineable
- Un-mineable
- Mined out and/or barren

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.54. Gas and Oil Valuation**

**5.1.1.54.1.** Gas and oil property types must be valued according to West Virginia State Code 11-1c-10 and Legislative Regulations Title 110 Series 1J using the income approach for active and producing, market or income for reserves resulting in a value per acre.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.54.2.** The user must be able to specify valuations for the following units:

**5.1.1.54.2.1.** Producing Gas & Oil

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.55. Reserve Gas & Oil**

- Leased non-producing
- Non-leased/non- income producing

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.56. Managed Timberland**

Managed timberland property must be valued according to West Virginia Code 11-1c-11 and Legislative Regulations Title 110 Series IH by soil grade, by county, by region.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.57. Valuation reports must be available for the following:**

- State
- Region
- County
- District
- Seam/or other mineral type
- Formation type
- Type of mineral- coal, oil, gas or other
- Type of activity
- Permit number
- API well number
- Owner's name
- Producer's name
- Type of mine - deep or surface

- Type of well - oil, gas or salt brine

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### 5.1.1.58. Hardware and Software Backend Environment Requirements

The vendor is responsible for providing a detailed list for all hardware and software required to implement and support the system at the IaaS Cloud hosted provider managed by the State. A listing of the software, with pricing, required to run and support the application shall be included along with a description of its functionality within the scope of the project. Sufficient processing resource must be calculated to accommodate both a production system and a test system as detailed in **Section 5.1.1.66** below.

**Harris Govern Response:** Please see our hardware and software specifications below. Pricing for the software can be provided once the hosted provider and other items have been finalized.

Database Server	<b>Recommended Specs:</b>
	<ul style="list-style-type: none"> <li>• Windows Server 2016</li> <li>• SQL Server Standard 2016 SP2 or higher</li> </ul>
	<b>Database Server Specs</b>
	<b>Counties less than 22,000 parcels</b>
	Counties 31
	vCores Per County 2
	Memory Per County (GB) 4
	<b>Counties between 22,000 and 42000 parcels</b>
	Counties 16
	vCores Per County 4
	Memory Per County (GB) 8
	<b>Counties above 42000 parcels</b>
	Counties 9
	vCores Per County 8
	Memory Per County (GB) 12
	<i>*includes State System</i>
	<b>Database storage</b>
	It is anticipated that 1TB of disk storage will be needed per 500K parcels.
	SSD disk are recommend

	<p>*Database storage should have a minimum IOP performance of 30K</p> <p>*Storage throughput tends to be the limiting factor in performance. The jurisdiction's size and the amount of historical data retained may require higher IOPS. IOPS are affected by a combination of storage technology and setup as well as CPUs and memory.</p>
<b>Application Server</b>	<p><b>Recommended Specs:</b></p> <ul style="list-style-type: none"> <li>Windows Server 2016 with IIS</li> </ul> <p style="text-align: center;"><b>Application Server Specs</b></p> <hr/> <p style="text-align: center;"><b>Counties less than 22,000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p style="text-align: center;"><b>Counties between 22,000 and 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p style="text-align: center;"><b>Counties above 42000 parcels</b></p> <p>Counties vCores Per County Memory Per County (GB)</p> <p><i>*includes State System</i></p>

Application and Database servers may be provisioned as individual virtual machine or grouped. Based on the information as of September 2019 Harris believes that the systems would be best configured as follows:

#### Production

- Database servers hosting no more than 10 counties databases
- Application servers hosting no more than 10 counties
- vCores and Memory may be balancing across these servers according to the recommended specs above while keeping in mind the different functions counties might be performing and their location to the datacenters.

#### Test

The test system can mirror the production setup with no more than a 50% reduction in hardware resources.

#### **5.1.1.59. Client-side Hardware and Software Requirements**

Vendor will provide a complete description of the minimum and recommended hardware and software requirements that the State and Counties will need to access and use the system. PC and laptop operating system requirements, software requirements, processor information and RAM size shall be disclosed, in addition to any other mandatory or recommended requirements to fully access and use the system without a performance delay. Operating systems supported should be the two most current versions of Windows.

##### **Harris Govern Response:**

###### Minimum Specs:

- Windows 8
- 2 cores
- 8 GB memory
- 2 GB available disk space

###### Recommended Specs:

- Windows 10
- 4 cores
- 8 GB memory
- 4GB available disk space
- 2 Monitors

###### Software

- MS office
- Adobe Reader
- Apex for sketching
- SPSS for stats and modeling support

#### **5.1.1.60. Configuration Change Management & Version Control**

The Vendor shall provide a full description of the configuration change management system and controls for system processes and system design and change. The Vendor shall outline what version control is available in the system for reports and forms/screens.

**Harris Govern Response:** Harris Govern utilizes Microsoft Team Found Server and DevOps as the Version Control for all provided software. As defects and features are added every change that is commit to the code is tracked at the character level. Custom reports that clients create and edit on their environment are stored on the file system and can be backed up or have file versioning enabled, giving the ability to rollback undesirable changes to reports that users might make.

#### **5.1.1.61. Testing, Documentation, and Training**

**5.1.1.61.1.** System software must perform as required by the mandatory specifications in this CRFQ.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

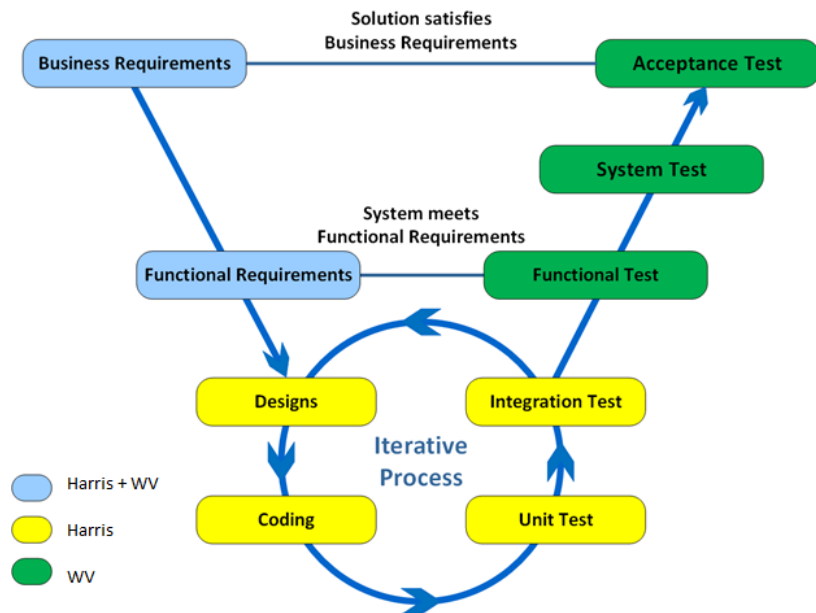
**5.1.1.61.2.** Vendors must submit a plan describing their standard software testing and change management procedures including samples of prior user acceptance testing protocols used in prior implementations of similar size and scope.

**Harris Govern Response:** Harris Govern employs four distinct types of testing: Unit, Functional, Integration, and Acceptance. This approach ensures the end solution provided by Harris satisfies the in-scope business requirements.

**Unit Testing:** When a software modification is committed to the Harris source code management system, business logic tests are executed as a “first line of defense.” Issues discovered will automatically notify the development team that an issue was identified, and a correction is required.

**Functional Testing:** As the Individual Software Deliverables, configuration elements, reports, interfaces, and other enhancements are unit tested and become ready, testing is performed by functional area or business category to ensure that the system satisfies these requirements completely. Harris Govern uses an Agile approach to develop and configure features which will result in a nearly continuous flow of features to the State for testing. State test results and feedback are quickly incorporated into feature revisions and returned to the State for testing until the feature is accepted.





**Integration Testing:** RealWare is installed in the State environment, backed by converted data, and interfaced with the in-scope external State systems and processes. A series of test cases are then performed to validate business processes from beginning to end involving both RealWare and other State systems required by the business process.

**Acceptance Testing:** The State will perform formal Acceptance Testing of Software Deliverables and the System as a whole. Acceptance Testing is based on test cases developed from business process Use Cases created during the solution design process by the State in collaboration with Harris. Harris Govern will assist the State with Acceptance Testing by providing guidance throughout the testing process and assistance with interpretation of test results. Various tools will be utilized during the acceptance testing process to manage test cases and defects. Software acceptance is based on its operation based on the detailed requirements that will be outlined in the Solution Report and Requirements Traceability Matrix. The Acceptance Testing process will also confirm whether the State's business requirements are satisfied as defined in the Requirements Traceability Matrix.

Harris Govern recognizes the possibility of identifying required change in scope during the Analysis, Development, and Testing stages of the implementation.

The type of change will dictate what resources are required to approve and sign-off on the change. The Harris Govern PM and the

State PM have authority to approve changes that do not affect payment milestones. Other changes will be brought to the Project Sponsors. The Project Sponsors are responsible for approval/rejection of change requests and for prioritization of approved changes.

**Change Management:**

The change management process will be used throughout the implementation process. As decisions are made, the PMs on each project team are responsible to disseminate the information to their stakeholders.

**1. Change Identification**

Changes can be identified in different ways, e.g., through conversations in a meeting, through email communication, etc. Once identified, the change should be documented on SharePoint for further review.

**2. Review Change Request and Feasibility**

This process allows the appropriate parties to review the change for need and feasibility. The change board will be included in all decisions that affect costs or scheduled payments or timeline changes. The project PMs will schedule a mutually agreeable time for the review and invite the appropriate parties for participation. The change review will result in a denial of the change or an approval to move forward with the change.

**3. Approve Change Order**

A formal change order will be generated by the Harris Govern PM. This form will detail the change and any cost or schedule impact. It will be signed by the County PM/Sponsors.

**4. Change Order Templates**

The change order includes the client name, date, change order number, change summary, reason for change, effect to cost/payments, effect on schedule/milestones, and other impacts and related details.

A template sample can be found on the following page.

**{CLIENT NAME}**  
**Change Order No. 001**

This Change Order entered into this \_\_\_\_ day of \_\_\_\_, 2018 (the "Effective Date") by and between **Harris Govern, an unincorporated division of Harris Local Government Solutions, Inc.** ("Harris Govern") and **{CLIENT NAME}** ("Licensee") hereby amends that certain Master License and Services Agreement and its attached Purchase Orders entered into by the parties hereto on {MSLA DATE} (collectively, the "Agreement"). Capitalized terms used but undefined in this Addendum shall have meanings assigned to them in the Agreement. The parties hereto agree that the following changes be made to the Agreement:

1. **Modification Description**

**Original Backup solution:**

Description	Quantity	Price

**New Backup Solution**

Description	Quantity	Price

**Reason for Change:**

2. **Milestone Changes** \$0.00

IN WITNESS WHEREOF, the parties hereto have executed this Change Order as of the Effective Date.

**Harris Govern**

Address: 760 N Watters Road  
Suite 100  
Allen, TX 75013

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**{CLIENT NAME}**

Address: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**5.1.1.61.3.** Vendor will be required to provide training as outlined below to train all county and state staff end users and back end administrators, both program and Information Technology staff.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.61.3.1.** Methodology Vendor should bid to account for a regional training model dividing the state into regions based upon the West Virginia Division of Highways regional delineations found here: <https://transportation.wv.gov/highways/districts/Pages/default.aspx>. These trainings should have no more than thirty (30) individuals in a cohort for training purposes. Multiple cohorts may be required in each region. Vendor should provide length of time required to complete training of end users from each county. Generally, we expect this training to run for approximately five (5) days, starting on Monday at noon and running through Friday at noon to allow for

travel time to the destination training facility. Vendor must provide a list of technology resource required for these trainings. The Tax Department will facilitate securing the space required to host the training. The Vendor is permitted to propose a model requiring less time should they believe that is feasible.

**Harris Govern Response:** Harris Govern will provide five (5) days of training for each group.

All Harris Govern training efforts and content are designed to establish competency in County staff. Training for each county role will cover all types of interactions with the Harris Govern software that are necessary to execute the tasks identified for that role.

While traditional On-Site, instructor-led training remains a vital component of system adoption and knowledge transfer when implementing the System, remote and self-directed video learning will also be used. A detailed training plan will be developed in partnership between the State and Harris to ensure an optimal outcome. For each topic and stakeholder, Harris will recommend a best practice training approach which might include one or multiple delivery methods.

For all On-Site training sessions, the training facility requirements are as follows:

- A workstation per trainer is preferred, but 1 workstation per 2 trainers is acceptable
- Harris software and supporting software installed on all workstations
- Connectivity to the training database
- Access to electronic copies of on-line help and reference manuals
- Access to electronic copies of training materials;
- If necessary, printed hard copies of training materials
- Hard copies of training session agendas
- Projector
- Screen
- Internet and intranet connectivity for the instructor and trainees

Harris Govern and the State will agree to a training plan after kicking off the Project. This plan will be further modified as the Project progresses.

All users attending the On-Site, remote, or self-directed video learning sessions must have the following prerequisites:

- PC literacy and do not require basic PC skills training. If PC-related skill training is required, then the County will be responsible for providing such training prior to any Harris Govern training session.
- A good working navigational knowledge of the Windows operating environment prior to taking any training session. If navigational training is required, then the State will be responsible for providing such training prior to any training session.

It is also recommended for On-Site training that the facility prevents e-mail access and is located in an area isolated from potential operational interruptions.

**5.1.1.61.3.2.** A hybrid model that allows for web-based training with multiple users engaged to be combined with some number of in person trainings. This would be considered a true, "train the trainer" model.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.62. Software Ownership**

**5.1.1.62.1.** The Vendor will retain ownership of all application source code.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.62.2.** While the State will not own the application source code it must be granted the ability to view and request updates to the Vendor's system. The vendor must provide Application Program Interfaces (API) and Software Developer Kits (SKD) to allow the State to affect changes to the system as is required to meet future law, rule, or policy modifications, or, for the purposes of modifying processing parameters to meet

system processing demands.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.62.3.** The State wholly and solely owns all data contained in the system. The vendor, upon termination of any contract that results from this RFQ, must provide tools and support to extract said data in a format dictated by the State for the purposes of conversion to any future system utilized by the State.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.63. Performance Measures**

After the contract is awarded The Vendor shall outline what performance measures, they use to evaluate their system regarding system response and production support response times.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.64. Project Management**

The Tax Department may increase its staff in consequence of the undertakings described in the RFQ. However, Tax intends to rely on day- to-day administration of the contract through the project manager (PM), through whom the vendor will report. Ultimate authority, of course, will lie with the State. The State will assign an IT executive sponsor, a project manager who will coordinate the IT activities of the project with other State IT initiatives and be responsible for all IT technical decisions and IT aspects of the project.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.64.1.** Within four (4) weeks after the award of the contract the Vendor must have a formal project management methodology, entailing time and resource management using such techniques as Gantt charts, resource planning, leveling, and deployment, critical path management, and the like, embedded in a standard PC-based software package to be provided to the State.

**Harris Govern Response:** Yes, Harris Govern meets this

requirement.

**5.1.1.65. Quality Assurance**

Once the contract is awarded the Vendor must describe their quality assurance programs to the department contact for the Agency within 4 weeks.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.66. Testing System**

The vendor must establish and maintain a test system in order to test changes to system reports, forms/screens, components and or processes prior to implementation within the production environment. Change requests may also require direct updates to data and the test system needs to be available for testing data changes prior to implementation within the production environment. The test system should contain production data that is updated at least twice-a-month. The test system must encompass all system functionality including, but not limited to, any web-based functionality in place for electronic filing, etc. The test system must be available to State Tax Department users and the State IT staff for performing and testing any change request prior to a production implementation. The testing procedures must be outlined by the vendor. The State Tax Department users and the State IT staff must be trained on the procedures for testing and for final implementation of a change into the production system.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.67. Major Non-Monetary Resource Requirements**

**5.1.1.67.1.** No later than two (2) weeks after the award of the contract the awarded Vendor must indicate their non-monetary resource requirements, such as work space, access to selected State and county personnel, etc.,

Person-hour scheduling and reaction time requirements for responsible personnel from the counties, State, Property Tax and the PM relating to the detailed design, specification, and acceptance testing of the software.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.1.68. Assessment Administration**

- 5.1.1.68.1.** Should have the ability to link proper tax class and accompanying tax rates to each account. For a description of tax classes, see **Appendix "B"**.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.2.** Should have the ability to calculate and maintain back tax amounts at correct tax class and rate for 5 previous years.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.3.** Should have the ability to establish a fractional assessed value at a percentage of appraised value. Currently 60% is to be used.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.4.** Should have the ability to split values because of multiple owners for an individual account, double assessments for an individual account, and multiple tax classes for an individual account.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.5.** Should have the ability to give each county sheriff computer readable data for generation of tax tickets and statements.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.6.** Should have the ability to maintain penalty and forfeiture information or allow the information to be inputted manually or by and interface program.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.7.** Should have the ability to send "increase" letters to taxpayers based on selecting a percent increase from the previous tax year.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.1.68.8.** Should have the ability to handle foreign addresses.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.



**5.1.1.68.9.** Must have the ability to add barcodes to letters and reports to the sides of letters. Currently 2 of 5 interleaved barcodes are utilized by our printshop.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.68.10.** Should have the ability to track real property parcels and personal property accounts and items which are included in a Tax Increment Financing (TIF) District.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.1.68.11.** Should have the ability to maintain base year, assessed value, current assessed value and assessed value differences for those real property parcels and personal property accounts and items which are part of a TIF District.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### **5.1.2. Commodity Line 2 - System Support**

**5.1.2.1.** The Vendor must provide initial support for the system for year one (1) beyond sign-off upon successful completion of system testing at Tax and in all counties, whichever is later. At the end of year one (1), year two (2) will be initiated by Change Order.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.2.2.** The Vendor must also include in their bid the cost of System Support optional Annual renewals for years 3, 4, and 5. These optional Annual renewals will be initiated by the Agency, agreed to by the Vendor and processed as a Change Order authorized by the West Virginia Purchasing Division.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

**5.1.2.3.** Upon termination of this Agreement for any reason, the Vendor will provide to the State a complete copy of the data in a format required by the Department and agreed to by the Vendor, and the code set for those modules they have purchased. The copy of the data will be sent to the State along with a Letter of Transmittal that includes a signoff by the Director of Information Technology or their assignee, that the State approves the data received. The Vendor can also assist the State at the State's request in loading this data and code set on State supplied hardware at the Vendor's then prevailing Time and Material rates. Additionally, the Vendor will provide access to the data by the Department for

thirty (30) days after the date of termination and shall retain a copy of the data for ninety (90) days after the date of termination.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

### **5.1.3 Customization of the System**

- 5.1.3.1.** All customization of software required to meet the requirements of the Solicitation and the Agency, and to achieve Acceptance, shall be included in the Base bid.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.3.2.** Customization hours from the Vendor to be used by the Agency for making minor customizations at the hourly rate as listed on the Pricing Pages.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.3.3.** Should customization require hours from the Vendor, the Vendor shall be required to create a scope of work and a signed, dated quote for the actual cost of the work (with hours billed per the Unit Price on the Pricing Pages provided in wvOASIS, to be processed as a Change Order request for increasing the Contract amount. Note: only upon approval by the State Purchasing Division and the WV Attorney General's Office (as to form only) shall any work be undertaken on such a customization request. This scope of work should also include a timeline for deliverables, and notification of any potential downtime (including estimated dates and times of occurrence and duration) required for its implementation.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

- 5.1.3.4.** All (post-Acceptance) customization requiring hours from the Vendor shall include all installation, testing and post-installation defect correction.

**Harris Govern Response:** Yes, Harris Govern meets this requirement.

#### 4. REQUIRED FORMS

Please find our completed Purchasing Affidavit below.

STATE OF WEST VIRGINIA  
Purchasing Division  
**PURCHASING AFFIDAVIT**

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

**ALL CONTRACTS:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Harris Govern

Authorized Signature: [Signature] Date: 9/6/19

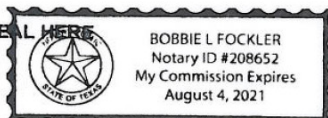
State of Texas

County of Collin, to-wit:

Taken, subscribed, and sworn to before me this 6th day of September, 2019.

My Commission expires 8/4, 2021

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]

Purchasing Affidavit (Revised 01/19/2018)

Based on the definition of "Business entity", Harris Govern does not need to complete this form as we are a publically traded company listed on the international stock exchange.

### West Virginia Ethics Commission



## Disclosure of Interested Parties to Contracts

Pursuant to W. Va. Code § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

*"Business entity"* means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

*"Interested party" or "Interested parties"* means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

*"State agency"* means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

*This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: [ethics@wv.gov](mailto:ethics@wv.gov); website: [www.ethics.wv.gov](http://www.ethics.wv.gov).*

*Revised June 8, 2018*



## 5. ADDENDUM ACKNOWLEDGEMENT FORM

Our completed Addendum Acknowledgement Form can be found below.

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CRFQ TAX20\*03**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

<input checked="" type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input checked="" type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

**Harris Govern**

Company



Robert Wood, VP of Sales and Marketing

Authorized Signature

**September 11, 2019**

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Revised 6/8/2012