Computer Hardware and Software Minimum Specifications:

The Contractor shall utilize the minimum technical specifications below in conjunction with the project specific special provisions and submit the vendor supplied information required by the special provisions. Actual types and number of required devices are listed in the project specific special provisions.

1. Multifunction Laser Printer/Copier/Scanner/Fax – Minimum Specification:

The following list of Multifunction Laser Printer/Copier/Scanner/Fax includes the only units that will be **approved** for use in the Field Offices. If you currently have a construction project that is scheduled to start, please ensure that the contractor only supplies one of these printers. No other printers will be approved or supported for new construction projects.

* **Approved Models:** B&W or Color
	+ - * SAVIN MP series
			* SAVIN IM series
		- All multifunction units must meet the following minimum specifications
			* Print speed – 20 ppm
			* Resolution – 1,200 x 1,200 dpi
			* Paper size
				+ Small and Medium Offices – Up to 216 mm x 355 mm (8.5 in x 14 in)
				+ Large and X-Large Offices – Up to 279 mm x 432 mm (11 in x 17in)
			* Print Drivers – Must support HP PCL6 and HP PCL5e
			* All printers/multifunction devices **shall be Network ready** (MIN 10/100 RJ45)
			* Network/OS – Windows 10/Windows Server 2016
			* Network Protocols - TCP/IP (IPv4, IPv6)
			* All printers/multifunction devices shall have a built-in **display window**.
			* Wireless/ePrinting are **not** allowed **nor** supported.
			* Recycled copiers or printers shall not be more than ten years old
1. Digital Camera – Minimum Specification:
	* Photo Quality/Zoom – 16 mega pixel, with 12x optical zoom
	* Features – Date/Time stamp
	* Connectivity – USB cable or memory card reader
	* Software – Must be compatible with Windows 10 Professional 64-bit
	* Power – Rechargeable battery and charger

The Contractor shall provide a compatible memory card with a minimum capacity of 32GB, for each camera.

1. Communications (Cell Phones):
	* Smart Phone:

# Smart phones shall be capable of making/receiving digital voice calls, call waiting, caller ID, voice mail access, and generating/receiving both text and multimedia messages.

* + - Hardware – Minimum Specification (Per Phone)
			* Operating System – Limited to either Android or Apple (latest version)
			* Wireless Technology – Phone shall be capable of connecting to a 4G LTE network
			* Calling/Data Packages – The Contractor shall provide a cell phone plan that provides unlimited talk time, unlimited texting, and unlimited data on the Verizon or AT&T 4G LTE networks (The cellular plan for the phones can be combined into one plan).
			* Camera – Minimum 12 Megapixels
			* Video Recording Resolution – 1920x1080 @ 30fps or greater
			* Total Memory – 32 GB minimum
			* Power Adapters – One (1) AC wall adapter and One (1) 12 Volt DC Auto adapter per phone
			* Protective Case – One (1) case that drop protection up to 5 feet and is capable of preventing water and dust intrusion.
	+ Flip Phone:
		- The Contractor shall provide rugged cell phones with unlimited nation-wide talk and text calling plans that operate on the Verizon or AT&T network and provide adequate data allotments for multimedia messages. The phones shall be capable of sending and receiving text and multimedia messages and shall include voice mail. Additional features beyond those described shall be at no additional cost to the Department. Accessories for each phone shall include holster, AC wall charger, DC auto charger, and extended life battery.
1. Conference Room Presentation Television (X-Large Offices):

The Contractor shall provide a large screen television, meeting the minimum specifications, when denoted in the Contract:

* Display Type – LED
* Display Resolution – 4K
* Screen Size – 70-inch or greater
* Connectivity – 3xHDMI (minimum) and Screen Mirroring Capable

Any hardware, cabling, display adapters, and documentation necessary to ensure proper equipment operability shall be included. The Contractor shall be responsible for the installation of the television in the field office and any wiring facilities required for operability. The installation method will consist of either wall mounting or media center furnishings meeting the weight capacity requirements of the television. The installation location and method will be as directed by the Engineer.

1. Field Office Wi-Fi Connection:

The contractor shall provide an internet connection to the field office for the duration of the project. A router shall be provided that can support the maximum number of concurrent users listed below. The router must be located within and able to provide an uninterrupted Wi-Fi signal throughout the field office. The internet service will be provided unlimited data and be for the sole use of CTDOT forces and others who may be engaged to augment CTDOT forces with relation to the Contract and be separate from that of any Contractor internet connection. Wireless signal repeaters shall be provided to boost the signal as needed. The contractor shall be responsible for setting up the service in the field office and configuring the router. The Contractor or the internet service provider will be required to set up the router as directed by the Department.

* Wireless Router – Minimum Specifications
* IEEE 802.11n or IEEE 801.11ac
* Dual Band (2.4GHz and 5GHz)
* Security - WPA-2 min.
* Broadband Speeds (Unlimited Data) – Minimum Specification
	+ Small and Medium Field Office (Est. 10 Users) – 25Mbps
	+ Large (Est. 20 Users) – 50Mbps
	+ X-Large (Est. 50 Users) – 100Mbps
1. Field Office Wi-Fi Printer:

The Contractor shall provide a printer meeting the minimum specifications. It shall be capable of printing from multiple devices connected through a wireless network. The Contractor shall be responsible for setting up and configuring the printer as directed by the Department. The Contractor shall provide the printer’s make/model information to the OOC Technology Coordinator for approval.

* Minimum Specifications
	+ Paper Size – Up to 216 mm x 355 mm (8.5 in x 14 in)
	+ Laser
	+ Wi-Fi Printing Function
	+ B&W and Color Printing
1. Smart Board (only applicable for Extra –large Office):

The Contractor shall provide a SMART Board Interactive Whiteboard System when denoted in the Contract. The Contractor shall contact the OOC Technology Coordinator to identify the desired model. Any hardware and documentation necessary to ensure proper equipment operability shall be included. The Contractor shall provide any additional adapters/cables needed to connect PCs and mobile devices to the SMART Board.

1. Video Projector (only applicable for Extra – Large Office):

The Contractor shall provide an HD Projector with a native resolution of 1920x1080 when denoted in the Contract. The Contractor shall submit the make/model information to the OOC Technology Coordinator for approval. Any hardware and documentation necessary to ensure proper equipment operability shall be included. The Contractor shall provide any additional adapters/cables needed to connect PCs and mobile devices to the projector.