

**CATEGORY 100**  
**PRELIMINARY**

**COMPUTER SYSTEM**

**DESCRIPTION.** Furnish **1** Desktop Computer(s) and **0** Laptop Computer(s).

**MATERIALS.** Not applicable.

**CONSTRUCTION.** The computer system shall be completely set up and ready for use on or before the day the Engineers office is to be occupied. When an Engineers office is not specified, the computer system shall be furnished complete and ready for use at least five days prior to beginning any work on the project.

**(a) General requirements.**

- (1) IBM compatible with an Intel or AMD processor.
- (2) Minimum hard drive storage of 80 GB (gigabyte).
- (3) One CD-RW drive [re-writable CD-ROM].
- (4) Operating System. Minimum Microsoft® Windows XP. All Microsoft Windows Critical Updates shall be installed before the computer system will be accepted.
- (5) Printer. B&W Laser Jet Printer with a minimum resolution of 1200 DPI (dots per in.), at least 8 MB of RAM, and a print speed of at least 15 PPM (pages per minute). Inkjets will not be accepted. **Regardless of the number or type of computers specified, only one printer is required.**
- (6) Software. All software shall be supplied on original disks with manuals and be retained in the construction field office or SHA facility for the duration of the Contract.
  - (a) Microsoft® Office 2007 Professional for Windows™ or later.
  - (b) Symantec® pcAnywhere32 for Windows™ version 12.0 or later.
  - (c) Antivirus software shall be installed and configured to perform an automatic update when the microcomputer system connects to the internet. Antivirus software approved for SHA web email: \*Norton, McAfee, Sophos, or ETrust.  
  
(\*Norton Internet Security includes both Antivirus and a Personal Firewall).
- (7) Internet Access. Provide unlimited internet service approved by the Engineer. Where available, provide internet high-speed service [DSL or cable]. With DSL or cable internet service, provide an external Router device and firewall software to protect the computer from security intrusions.

**(8) Accessories.**

- (a) When an Engineers Office is specified, provide a standard computer workstation with minimum desk space of 60 X 30 in. and a swivel type chair with padded armrests.
- (b) 8-1/2 X 11 in. xerographic paper as needed.
- (c) Toner or ink for the printer as needed.
- (d) Maintenance agreement to provide for possible down time.
- (e) Physical security system to deter theft of the computer and components.
- (f) Three 1GB USB Flash Drive storage devices.
- (g) Blank recordable CD-R media as needed.

**(b) Desktop specific requirements.**

- (1) Minimum processor speed of 3.0 GHz.
- (2) Minimum of 2 GB RAM (Random Access Memory).
- (3) Enhanced 101 key keyboard with wrist rest.
- (4) Super Video Graphics Accelerator (SVGA).
- (5) Mouse and mouse pad.
- (6) Flat-Panel LCD Monitor conforming to Energy Star requirements and with a screen size of at least 17 in.
- (7) Uninterruptible power supply (UPS).

**(c) Laptop specific requirements.**

- (1) Must meet military standard of durability MIL-STD 810G.
- (2) Minimum processor speed of 1.6 GHz.
- (3) Minimum 1 GB SDRAM
- (4) Minimum 14.1" 1024x768 (XGA) transmissive, daylight-readable or 500 cd/m2 LCD display.
- (5) Power Supply: Two Lithium Ion Battery Packs with overcharge protection, an AC Adaptor, and a vehicle DC Power Adaptor that operates the laptop and at the same time charges the laptop's internal battery.

(6) Carrying Case

(7) Printer. If an Engineers Office is not specified, furnish a printer as specified above.

(8) An internal wireless broadband card and broadband internet service.

**MEASUREMENT AND PAYMENT.** If an item for Engineers Office is not specified, the cost of the Computer System will be incidental to the payment for Maintenance of Traffic. In absence of either item, payment will be incidental to the other items specified in the Contract Documents.

If for any reason the system fails to operate, it shall be replaced or repaired within 48 hours.

When the computer system is no longer required, the Construction Management software system including original user/operator guide manuals, program disks, and all data files (including those stored on USB flash drives, CD-R's, etc.) will be removed by the Engineer and delivered to the District Engineer and become the property of the Administration. The remaining computer systems shall remain the property of the Contractor.