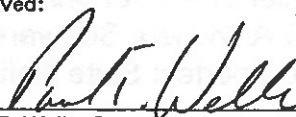


n-30-1-87728- SUPERSEDED BY E104-005 EFFECTIVE 9/9/04		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 97-009
Title: MICROCOMPUTER SYSTEM SPECIFICATION ITEM 15637.35 (ENGLISH) & 15637.35 M (METRIC)			
Distribution: ☐ Manufacturers (18) ☐ Surveyors (33) ☒ Main Office (30) ☒ Consultants (34) ☐ Local Govt. (31) ☒ Contractors (39) ☒ Regions/Agencies (32) ☐ ()		Approved:  P. T. Wells, Deputy Chief Engineer Construction Division Date <u>3/28/97</u>	

This Engineering Instruction supersedes EI 94-028.

The following item specifications will be effective with the letting date of 08/14/97 (PS&E: May 1, 1997).

ITEM 15637.35 MICROCOMPUTER SYSTEM
ITEM 15637.35 M MICROCOMPUTER SYSTEM (METRIC)

The specification for item 15637.34 MICROCOMPUTER SYSTEM (both English and Metric) is rescinded with the letting date 08/14/97.

Information pertinent to these items is as follows:

1. The estimated bid price for use with the Engineers Estimate is still \$6000.00.
2. The item specification warrant criteria for incorporation of this item into a capital construction contract has not been changed. The criteria remains as follows:
Engineers Estimate: > \$350,000
Project Duration: > 6 Months
Number of Items: > 30
3. The Basis of Payment remains "Each", with seventy percent of the price bid paid when the system has been installed and is operational; the balance of thirty percent will be paid at the final estimate.
4. The English and Metric versions of the item specification are identical in the actual requirements of the microcomputer system.
5. The item specifications will continue to be treated as a main office insert and inserted into the contract proposals by the Design Quality Assurance Bureau.

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The specification changes were made to supply construction field offices with equipment consistent with the Department's Field Office Automation Plan and current field staff responsibilities. The major changes include the following:

- Increased processor, processor speed, hard disk size and RAM
- Larger and higher resolution monitor
- Laser or Ink Jet printers
- PC-Anywhere Software
- Wordperfect Suite Software & Windows 95 operating system

Distribution of the actual item specifications, as an attachment to this EI, was made as follows:

- List 30: Recipients received 1 copy.
- List 32: Copies have been sent to the Regional Design Engineer, Regional Estimating Engineer, and Regional Construction Engineer.
- List 34: 1 copy each.
- List 39: 1 copy.

Copies of the item specifications may be requested from the Main Office Construction Division.

Questions should be directed to Anthony Torre, Construction Division, at (518) 457-2550.

15637.35 MICROCOMPUTER SYSTEM

Description. This work shall consist of providing a fully operational microcomputer system for the Engineer's field office. This item may be deleted from the Contract.

Materials. The system shall include the following components:
microcomputer (see Attachment 1); printer (see Attachment 2); software (see Attachment 3).

The Contractor may also be required to provide, install, and maintain various other microcomputer hardware components and software packages. Such additional items shall be incorporated by Order-on-Contract with compensation to be made in accordance with SS. 109-05. However, profit and overhead shall be computed at 5% instead of the 20% specified in SS. 109-05 B2(6).

Construction Details. The Contractor shall install, prior to the start of work, and maintain, a microcomputer system in the Engineer's field office. The Contractor shall make the system fully operational prior to the start of any contract work. The Contractor shall be responsible for all modifications to the Engineer's field office, such as, but not limited to, the office electrical system, and office telephone system, necessary to make it compatible with and capable of supporting the Microcomputer System. The system shall remain in service until the Engineer requests its removal in writing or the State relinquishes the Engineer's field office in which the system is installed. Data Diskettes and Diskette Storage Containers, as specified in Attachment 1 of this item specification, shall remain the property of the State.

The Contractor shall maintain all furnished equipment and software in good working condition and shall provide replacement due to breakdown, damage, or theft within ten working days.

All equipment and software furnished shall be subject to approval by the Engineer.

Method of Measurement. The microcomputer system will be measured on an "Each" pay unit basis.

Basis of Payment. The price bid for the microcomputer system(s) will include the cost of furnishing, installing, maintaining, and removing all equipment for the system(s).

Seventy percent of the price bid will be paid when the system has been installed and is operational; the balance of thirty percent will be paid at the final estimate.

April, 1997

ITEM 15637.35
EI 97-009

ATTACHMENT 1: MICROCOMPUTER SPECIFICATION

The Contractor shall provide the Engineer with one Personal Microcomputer that is 100% IBM compatible and which also meets the following specifications. A WINDOWS-95 environment (with ability to execute DOS programs) is required.

Specifications:

- A) A minimum of an 80-586, or Pentium, based Central Processor Unit (CPU) operating at a minimum clock speed of 166 MHZ with an internal hard disk having a formatted capacity of a minimum of 2000 Megabytes labeled C drive. The hard disk must operate at an average access time of <16 milliseconds. The hard disk must allow for direct microcomputer booting.
- B) A minimum of 16.0 Megabyte RAM (Random Access Memory) with 640k directly addressable, expandable to 32.0 Megabyte.
- C) One (1) 1440K, 3.50 inch internal disk drive, labeled A, w/controller card
- D) A minimum Eight-Speed (8X) CD-ROM Drive
- E) Parallel and Serial interface ports
- F) Battery operated clock and calendar functions
- G) A minimum resolution color graphic capabilities of (1024 X 768), with 1 Megabyte of video RAM
- H) Eighty (80) column display function
- I) Latest operations manual & diskettes
- J) Latest WINDOWS-95 Version system manual & diskettes. System configuration must allow for execution of DOS based programs.
- K) A two (2) Button Mouse
- L) Enhanced Keyboard with 101 Keys and number pad with key on-off indicator lights.

Additional Items:

- A) High Resolution (EVGA) color 15-inch (minimum) monitor with a maximum DOT Pitch of .28 supporting the required microcomputer graphic capabilities
- B) PHONE/LINE SURGE PROTECTOR, 15 amps, four outlets w/circuit breaker control and surge failure indicator light
- C) Clear plastic dust cover for microcomputer and a separate dust cover for the keyboard
- *D) 100 diskettes, which shall remain the property of the State, and are compatible with the specified disk drive
- *E) Diskette storage containers, 2-100 count & 5-10 count, which shall remain the property of the State.
- F) A 28800 Baud Fax/Modem meeting the following requirements:

Windows/DOS Environment Compatible
Hayes-compatible AT command set
Group III Fax compatible

- G) Fax/Modem/Phone automatic switch

*The Contractor shall replenish the items as required by the Engineer and be of a type, size and capacity acceptable to the Engineer.

ATTACHMENT 2: PRINTER SPECIFICATION

The Contractor shall provide the Engineer with a printer, which is totally compatible with the microcomputer, and software provided in Attachments 1 and 3 of this item specification. The printer must function in both a WINDOWS and DOS environment. Any necessary software shall be included.

Specifications:

- A) A Hewlett Packard Printer Control Language (HP PCL) Compatible Ink Jet or Laser Printer with a minimum letter quality mode of 4 ppm (pages per minute). A minimum 400 dot-per-inch (both horizontal and vertical) printing resolution for text and graphics. An Operator-Accessible Selector (control panel) with functions of paper feed/size, form feed function and other menu selections.
- B) A minimum paper tray capacity of 50 sheets
- C) Variable pitch characters per inch (both 10 and 12) with compressed print (17 cpi)
The internal typefaces shall offer both scalable and nonscalable fonts.
- D) Variable lines per inch (both 6 and 8)
- E) Interface cable (parallel port)
- F) Latest user manuals
- G) Clear plastic dust cover for printer
- H) Steel table-top printer stand
- *I) Two replacement toner/print cartridges
- *J) 2000 sheets of 20# bond weight, letter quality printer paper (8 1/2" x 11").
- *K) 500 laser printer mailing labels for use in the printer (1 1/2" x 4" label size)

*The Contractor shall replenish the items as required by the Engineer and be of a type acceptable to the Engineer.

ATTACHMENT 3: SOFTWARE SPECIFICATION

The Contractor shall provide the Engineer with the latest available WINDOWS-95 version of the following microcomputer software packages, which are totally compatible with the microcomputer and printer provided in Attachments 1 and 2 of this item specification. The software shall be loaded/installed on the microcomputer and be functioning properly.

- A) Windows-95
- B) Wordperfect Suite 7
- C) PC Anywhere 32 for Windows

It is the Contractor's responsibility to ensure that the Personal Microcomputer supplied also operates the following Software Applications:

- 1) NYSDOT's Computerized Engineer's Estimate System, CEES
- 2) NYSDOT's Automated Construction Engineering System, ACES
- 3) Bentley's Microstation 5.0

15637.35 M MICROCOMPUTER SYSTEM

Description. This work shall consist of providing a fully operational microcomputer system for the Engineer's field office. This item may be deleted from the Contract.

Materials. The system shall include the following components:
microcomputer (see Attachment 1); printer (see Attachment 2); software (see Attachment 3).

The Contractor may also be required to provide, install, and maintain various other microcomputer hardware components and software packages. Such additional items shall be incorporated by Order-on-Contract with compensation to be made in accordance with SS. 109-05. However, profit and overhead shall be computed at 5% instead of the 20% specified in SS. 109-05 B2(6).

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April, 1997

ITEM 15637.35 M
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- B) A minimum of 16.0 Megabyte RAM (Random Access Memory) with 640k directly addressable, expandable to 32.0 Megabyte.
- C) One (1) 1440K, 89 mm internal disk drive, labeled A, w/controller card
- D) A minimum Eight-Speed (8X) CD-ROM Drive
- E) Parallel and Serial interface ports
- F) Battery operated clock and calendar functions
- G) A minimum resolution color graphic capabilities of (1024 X 768), with 1 Megabyte of video RAM
- H) Eighty (80) column display function
- I) Latest operations manual & diskettes
- J) Latest WINDOWS-95 Version system manual & diskettes. System configuration must allow for execution of DOS based programs.
- K) A two (2) Button Mouse
- L) Enhanced Keyboard with 101 Keys and number pad with key on-off indicator lights.

Additional Items:

- A) High Resolution (EVGA) color 381 mm (minimum) monitor with a maximum DOT Pitch of .28 supporting the required microcomputer graphic capabilities
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- F) A 28800 Baud Fax/Modem meeting the following requirements:

Windows/DOS Environment Compatible
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Specifications:

- A) A Hewlett Packard Printer Control Language (HP PCL) Compatible Ink Jet or Laser Printer with a minimum letter quality mode of 4 ppm (pages per minute). A minimum 16 dot-per-millimeter (both horizontal and vertical) printing resolution for text and graphics. An Operator-Accessible Selector (control panel) with functions of paper feed/size, form feed function and other menu selections.
- B) A minimum paper tray capacity of 50 sheets
- C) Variable pitch characters per 25.4 millimeters (both 10 and 12) with compressed print (17)
The internal typefaces shall offer both scalable and nonscalable fonts.
- D) Variable lines per 25.4 millimeters (both 6 and 8)
- E) Interface cable (parallel port)
- F) Latest user manuals
- G) Clear plastic dust cover for printer
- H) Steel table-top printer stand
- *I) Two replacement toner/print cartridges
- *J) 2000 sheets of 75 grams per square meter bond weight, letter quality printer paper (216 mm x 279 mm).
- *K) 500 laser printer mailing labels for use in the printer (38 mm x 102 mm label size)

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The Contractor shall provide the Engineer with the latest available WINDOWS-95 version of the following microcomputer software packages, which are totally compatible with the microcomputer and printer provided in Attachments 1 and 2 of this item specification. The software shall be loaded/installed on the microcomputer and be functioning properly.

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