

The revised Specifications, as attached, includes upgraded computer requirements for the Construction Field Office and the Materials Field Laboratory. The revised text shall supersede the computer requirements described under the corresponding Subsections in the S196 ROAD1. This

1. Computer Requirements, Subsections 105.15 and 106.06

Subsections 105.15, 106.06, 107.05, 108.10, 617.05 and 617.17 of the 1996 Standard Specifications and Subsections 105.15, 106.06, 107.05, 108.10 and 110.01 of the 1989 Standard Specifications have been revised to incorporate the following entitled specification changes. The designers are directed to include these changes (shown in **bold** print for the 1996 Specs and in CAPS for the 1989 Specs on the attachment) as applicable, in all projects for which the final submission of Special Provisions have not been made as of September 30, 1997.

Subject: Revision to Subsections 105.15, 106.06, 107.05, 108.10, 617.05 and 617.17 of the 1996 Standard Specifications
Revision to Subsections 105.15, 106.06, 107.05, 108.10, and 110.01 of the 1989 Standard Specifications


Baseline Document Change

MEMORANDUM

September 19, 1997

BDC97S-025

Computer Requirements
State Tax Offset
Time is of the Essence
Nighttime Operation - Lighting



New Jersey Department of Transportation
Baseline Document Change

CHRISTINE TODD WHITMAN
Governor

Trenton, New Jersey 08625-0600

DEPARTMENT OF TRANSPORTATION
1035 Parkway Avenue
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State of New Jersey



JOHN J. HALEY JR.
Commissioner

PROCEDURE FOR DETERMINING THE TYPE OF FIELD OFFICE AND ADDITIONAL EQUIPMENT REQUIRED. (ADU 062785)

1. Construction Field Offices.

a. Type A.

(10) The Contractor shall provide the following items:

- (a) _____ electronic calculator(s), ten key, with trigonometric function capability and printout tape.
- (b) _____ electric typewriter(s), elite type, with 380-millimeter carriage.
- (c) _____ compact copying machine(s), plain paper, with A4, letter, and legal size capacity.
- (d) _____ fax machine(s) with a dedicated telephone line, built-in telephone, auto-dial, re-dial, and auto-receive features.

THE TYPE AND QUANTITY OF COMPUTER EQUIPMENT AND WHETHER PRIMAVERA WILL BE REQUIRED WILL BE DETERMINED AT FINAL SUBMISSION BY THE BUREAU OF CONSTRUCTION ENGINEERING.

THE SEVENTH PARAGRAPH OF THIS SUBHEADING IS CHANGED TO:

The office shall also be equipped with a microcomputer system compatible with the Department's "ACES" system. The microcomputer system shall include the following:

- (1) _____ base computer system(s) having at minimum:
 - (a) Pentium or Pentium Pro 150 MHZ, Intel processor or better, with a minimum of 32 MB RAM, 2 MB Video RAM, mouse, mouse pad, minimum 2.5 GB hard drive, one 8X CD-ROM or greater, and one 90-millimeter 1.44 MB floppy diskette drive installed as the "A" drive.
 - (b) 33.6k baud data/fax modem or faster. If internal, it shall be installed by the Contractor as COM:2. The modem must not utilize the Rockwell RPI Chip (e.g., US Robotics Courier V.Everything - 56K/33.6K/14.4K data/fax modem-V.34).
 - (c) Dedicated phone line to be used in conjunction with the microcomputer modem.
 - (d) 380-millimeter or larger Super VGA color monitor having a dot pitch of 0.28 or better, with anti-glare screen, and tilt/swivel capabilities.
 - (e) Internal Travan Tape Backup - 3.2 GB or larger with a compatible high speed controller card, backup software for MS-Windows and DOS, and ten formatted tapes/data cartridges corresponding to the tape drive size (e.g., H.P./Colorado T3000 - 3.2 GB TR-3, Seagate Tape-Stor 3200E - 3.2 GB, or Exabyte Eagle 96 - 3.2 GB).
 - (f) Uninterrupted power supply (UPS) - OMNI 450 or approved equal (e.g., APC-650 - American Power Corporation).
 - (g) Surge protector for the entire computer work station to be used in conjunction with the UPS (e.g., Zero Surge Power, Inc. - Point of Use - 2R-15 amp/120 volts).
 - (h) Static mat, floor type, 1.2 by 1.5 meters or larger with grounding capabilities.
 - (i) Computer work station, printer stand, and/or table having both appropriate surface and chair height.

(f) Five boxes of 90-millimeter floppy diskettes which match the drive

(k) One floppy diskette holder (holds 50, 90-millimeter diskettes), and dust

covers for PC unit, monitor, keyboard, and printer.

(l) One head cleaner kit for 90-millimeter diskette drive.

(1) Laser printer having HP PCL 5 emulation, with appropriate printer

cable and legal size tray (e.g., Lexmark, Optra E, HP - 5P, or HP - 5L).

(b) One printer toner cartridge every other month for the duration of the

construction project.

(c) One ten-ream carton of A4 paper (500 sheets per ream, weight: 75

kilograms per square meter, color: white, grain: long, for laser printers

and copiers) every three months for the duration of the construction

project.

(d) One ten-ream carton of legal size paper (500 sheets per ream, weight: 75

kilograms per square meter, color: white, grain: long, for laser printers

and copiers) every three months for the duration of the construction

project.

(e) MS-DOS, latest version.

(b) Microsoft Windows 95, latest version or Microsoft Windows for

Workgroups, Version 3.11 or higher.

(c) Microsoft Office Professional 95, latest version or compatible software

package. Software package should contain: word processor,

spreadsheet, and database.

(d) Norton Utilities for Windows, latest version or compatible software

package.

(e) Anti-Virus software, latest version with monthly updates (e.g., Norton's

Anti-Virus, McAfee, or Dr. Solomon's).

INSERT THE FOLLOWING ONLY IF USING PRIMAVERA.

(4) _____ base printer(s) having at minimum:

(a) Color Inkjet printer of current technology.

(b) Ink cartridges, one of each color, every other month for the duration of

the Project.

(c) One ten-ream carton of A4 paper (500 sheets per ream, weight: 75

kilograms per square meter, color: white, grain: long, for laser printers

and copiers) every three months for the duration of the Project.

(5) _____ Primavera Project Planner for Windows, latest version.

Hardware and software shall be acceptable to the Resident Engineer prior to

purchase/installation. All software shall be compatible with the computer's operating

system.

The microcomputer system shall be installed in the field office. At the time of

installation, the Contractor shall ensure that the system is fully operational and meets all

Department requirements. All software listed above shall be installed by the Contractor and

maintained in the field office. The Contractor shall configure the software to operate with the

hardware provided. Any accessories for the microcomputer shall be compatible with the

microcomputer.

The Contractor will not be permitted to use this microcomputer system at any time. It

is being supplied solely for the Department's use.

The Contractor shall forward all manuals, instructions, and literature received with the microcomputer system to the Resident Engineer. The Contractor is responsible for maintaining the microcomputer system in good working condition. Any part of the microcomputer system which becomes inoperable or defective, during the duration of the construction project, shall be replaced by the Contractor within 48 hours.

The microcomputer system, manuals, instructions, and literature shall be removed and retained by the Contractor when no longer required as determined by the Resident Engineer, except for the data cartridges and data diskettes, which will become the property of the State.

Superseded

SECTION 106 - CONTROL OF MATERIAL

106.06 Materials Field Laboratory.
1. Laboratory.

THE ENTIRE TEST OF SUBPARAGRAPH X IS CHANGED TO:

x. The microcomputer work station shall include the following:

- 1 Pentium or Pentium Pro 150 MHZ, Intel processor or better, with a minimum of 32 MB RAM, 2 MB Video RAM, mouse, mouse pad, minimum 2.5 GB hard drive, one 8X CD-ROM or greater, and one 90-millimeter 1.44 MB floppy diskette drive installed as the "A" drive.
- 1 33.6K baud data/fax modem or faster. If internal, it shall be installed by the Contractor as COM:2. The modem must not utilize the Rockwell RPI Chip (e.g., US Robotics Courier V.Everything - 56K/33.6K/14.4K data/fax modem-V.34).
- 1 Dedicated phone line to be used in conjunction with the microcomputer modem.
- 1 380-millimeter or larger Super VGA color monitor having a dot pitch of 0.28 or better, with anti-glare screen, and tilt/swivel capabilities.
- 1 Internal Travan Tape Backup - 3.2 GB or larger with a compatible high speed controller card, backup software for MS-Windows and DOS, and ten formatted tapes/data cartridges corresponding to the tape drive size (e.g., H.P./Colorado T3000 - 3.2 GB TR-3, Seagate Tape-Stor 3200E - 3.2 GB, or Exabyte Eagle 96 - 3.2 GB).
- 1 LaserJet printer having HP PCL 5 emulation, with appropriate printer cable and legal size tray (e.g., Lexmark, Opra E, HP - SP, or HP - SL).
- (2) Software.
 - 1 MS-DOS, latest version.
 - 1 Microsoft Windows 95, latest version or Microsoft Windows for Workgroups, Version 3.11 or higher.
 - 1 Microsoft Office Professional 95, latest version or compatible software package. Software package should contain: word processor, spreadsheet, and database.
 - 1 Norton Utilities for Windows, latest version or compatible software package.
 - 1 Anti-Virus software, latest version with monthly updates (e.g., Norton's Anti-Virus, McAfee, or Dr. Solomon's).
- (3) Accessories and Supplies.
 - 1 Uninterrupted power supply (UPS) - OMNI 450 or approved equal (e.g., APC-650 - American Power Corporation).
 - 1 Surge protector for the entire computer work station to be used in conjunction with the UPS (e.g., Zero Surge Power, Inc. - Point of Use - 2R-15 amp/120 volts).
 - 1 Static mat, floor type 1.2 by 1.5 meters or larger with grounding capabilities.
 - 1 Computer work station, printer stand, and/or table having both appropriate surface and chair height.
 - 5 Boxes of 90-millimeter floppy diskettes which match the drive density of the 1.44 MB diskette drive (ten per box).
 - 1 Floppy diskette holder (holds 50, 90-millimeter diskettes), and dust covers for PC unit, monitor, keyboard, and printer.
 - 1 Head cleaner kit for 90-millimeter diskette drive.

1 Printer toner cartridge every other month for the duration of the

1 Ten-ream carton of A4 paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of A4 paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

1 project.

1 Ten-ream carton of legal size paper (500 sheets per ream, weight: 75

1 kilograms per square meter, color: white, grain: long, for laser printers

1 and copiers) every three months for the duration of the construction

Hardware and software shall be acceptable to the Resident Engineer prior to purchase/installation. All software shall be compatible with the computer's operating system.

The microcomputer system shall be installed in the materials field laboratory. At the time of installation, the Contractor shall ensure that the system is fully operational and meets all Department requirements. All software listed above shall be installed by the Contractor and maintained in the materials field laboratory. The Contractor shall configure the software to operate with the hardware provided. Any accessories for the microcomputer shall be compatible with the microcomputer.

The Contractor will not be permitted to use this microcomputer system at any time. It is being supplied solely for the Department's use.

The Contractor shall forward all manuals, instructions, and literature received with the microcomputer system to the Materials Engineer. The Contractor is responsible for maintaining the microcomputer system in good working condition. Any part of the microcomputer system which becomes inoperable or defective, during the duration of the construction project, shall be replaced within 48 hours.

The microcomputer system, manuals, instructions, and literature shall be removed and retained by the Contractor when no longer required as determined by the Resident Engineer, except for the data cartridges and data diskettes, which will become the property of the State.

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.05 Permits, Licenses, and Taxes.
THE FOLLOWING IS ADDED TO THIS SUBSECTION:

Pursuant to PL 1995, c.159, and not withstanding any provisions of the law to the contrary, whenever any taxpayer, partnership, or S corporation under contract to provide goods or services or construction projects to the State of New Jersey or its agencies or instrumentalities, including the legislative and judicial branches of the State government, is entitled to payment for those goods or services at the same time a taxpayer, partnership, or shareholder of that entity is indebted for any State tax, the Director of the Division of Taxation will seek to set off so much of that payment as is necessary to satisfy the indebtedness. The amount set off shall not allow for the deduction of any expense or other deductions that might be attributable to the taxpayer, partner, or shareholder subject to set-off under this act.

The Director of the Division of Taxation will give notice of the set-off to the taxpayer, partner, or shareholder and will provide an opportunity for a hearing within 30 days of such notice under the procedures for protests established under R.S. 54:49-18. No request for conference, protest, or subsequent appeal to the tax court from any protest shall stay the collection of the indebtedness. Interest that may be payable by the State, pursuant to PL 1987, c.184 (C.52:32-32 *et seq.*), to the taxpayer shall be stayed.

Superseded

108.10 Time of Completion.
THE FIRST PARAGRAPH IS CHANGED TO:

The Contractor shall complete all or any portion of the Project called for under the Contract in all parts and requirements within the time or times for completion of the Contract set forth in the Special Provisions. Time is of the essence as to all time frames stated in the Contract Documents; therefore, all time frames shall be strictly enforced.

Superseded

SECTION 617 - TRAFFIC CONTROL

617.03 Traffic Control Devices.

2. Construction Barriers.

THE FOURTH PARAGRAPH IS CHANGED TO:

All construction barriers shall be provided with reflectors. The reflectors for precast concrete curb Types 1 and 4, and also for beam guide rail, shall consist of 150-millimeter wide by 300-millimeter high retroreflective sheeting, Type II or Type III-A, as specified in Subsection 916.04. The reflectors shall be mounted on a plastic or 2-millimeter aluminum support attached to the top of the construction barrier at 30-meter intervals, except that on curves with radii less than 580 meters, the interval shall be 15 meters. On the flared portion of the construction barrier, the reflectors shall be omitted when other traffic control devices are used to delineate travel paths.

3.

Illuminated Flashing Arrows. The solar powered arrow boards approved for use on projects are:

- a. Work area protection - Arrowmaster Model WAAW-15-SB
- b. Solar Technology Inc. - Silent Sentinel
- c. Tracon Industries Inc. - Model TCI-15S
- d. Protect-O-Flash Inc. - Model No. M-90 (LED bulbs only)
- e. TRACOM (Trailer Component Mfg., Inc.)

617.05 Nighttime Operations.

THE ENTIRE TEXT OF THIS SUBSECTION IS CHANGED TO:

All operations that are performed during the non-daylight hours shall be properly illuminated to allow for the complete performance and inspection of the work. This work shall consist of furnishing, installing, operating, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime construction operations, for the duration of nighttime work on the Contract. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise. Should the Contractor elect on its own to operate during these hours, the requirements of this Subsection shall apply and no additional compensation will be made. Before nighttime operations may begin, the Contractor shall demonstrate to the Engineer that its nighttime operation meets the light level requirements.

1. **Light Levels and Illumination Requirements.** A minimum of 50 lux shall be maintained throughout the entire area of operation. Area of operation is a work area that is a minimum of 20 meters ahead and behind the employee, where an employee is on or near the roadway. A minimum illumination level of 50 lux shall be provided during the setup and removal of lane or roadway closures installed in conjunction with nighttime construction operations.

Specific tasks should meet the minimum illumination levels shown in the following table:

Light meter readings shall be taken perpendicular to the roadway surface facing the light source.

* Both requirements of 50 lux and 100 lux for these operations must be met.

Minimum Illumination Level	Description of Tasks	Areas of Illumination
50 lux	Embankment, fill, and compaction Excavation - regular, lateral ditch, and channel Landscape, grassing, and sodding Maintenance of earthwork embankment Mechanical sweeping and cleaning Reworking shoulders Subgrade stabilization and construction	General illumination throughout area of operation
50 lux	Bituminous concrete milling * Bituminous concrete paving operation *	General illumination throughout area of operation Minimum of 60 m ahead and 60 m behind equipment
50 lux	Bituminous concrete roller operation *	General illumination throughout area of operation Minimum of 30 m ahead and 30 m behind equipment
100 lux	Barrier walls and traffic separators Base course construction Bituminous concrete milling * Bituminous concrete paving operation * Bituminous concrete roller operation * Bridge decks Bridge painting Concrete pavement Drainage structures, culverts, and storm sewers Guide rail and fencing Highway signs and permanent installation Removal of pavement Other concrete structures Painting stripes and pavement markers Pot hole filling Repair of concrete pavement Resetting guide rail and fencing Sidewalks Surface treatment Waterproofing and sealing Any other operation not listed in this table	General illumination of tasks and around equipment Minimum of 8 m ahead and 8 m behind equipment Illumination shall be provided on the sides of the equipment
200 lux	Crack filling, saw cutting, and sealing joints Electrical work Highway street lighting Traffic signals Intelligent transportation systems	Illumination on task

If the Contractor fails to meet minimum illumination levels at any time, the Contractor shall cease its nighttime operations until such time that required light levels are attained. The uniformity of illumination, defined as the ratio of the average illumination to the minimum illumination over the work areas, shall not exceed 5:1. Construction operations shall be deemed to include all work operations by the Contractor's personnel, including layout and measurements ahead of the actual work. Equipment, Materials and/or equipment shall be in good operating condition and in compliance with applicable OSHA, NEC, and NEMA codes.

The Contractor shall furnish, for use by the Engineer, two light meters capable of measuring the level of illumination in lux. These light meters shall be supplied to the Engineer for use as necessary to check the adequacy of illumination throughout the nighttime operations. The light meters will become the property of the Contractor after acceptance.

The Contractor shall provide suitable brackets and hardware to mount lighting fixtures and generators on machines and equipment. Mountings shall be designed so that lights can be aimed and positioned as necessary to reduce glare and to provide the required illumination. Mounting brackets and fixtures shall not interfere with the equipment operator or any overhead structures and shall provide for secure connection of the fixtures with minimum vibration.

Portable and trailer-mounted light towers shall be sturdy and free-standing without the aid of guy wires or bracing. Towers shall be capable of being moved as necessary to keep pace with the construction operation. Portable towers and trailers shall be positioned to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment.

Light towers mounted on paving and milling machines, rollers, and other paving equipment shall not exceed the height of vertical underclearances, such as trees, aerial utilities, or bridge underclearances. Lights shall be aimed and adjusted to provide uniform illumination with a uniformity ratio of 5:1. The hopper, auger, and screed areas of pavers shall be uniformly illuminated. The operator's controls on all machines shall be uniformly illuminated.

Conventional vehicle headlights shall not be permitted as the means of illumination while working. All moving equipment used for nighttime operations shall have a lighting system consisting of a minimum of two lights directed in each direction of travel of the equipment. The equipment shall also have a minimum of 0.05 square meter high intensity retroreflective sheeting toward the extremities of each side of the equipment. A minimum of 0.1 square meter of the sheeting shall be visible from each direction. All workers shall, during the hours of darkness, wear reflectorized garments as specified for traffic directors.

Existing street and highway lighting shall not eliminate the need for the Contractor to provide lighting. Consideration may be given to the amount of illumination provided by existing lights in determining the wattage and/or quantity of lights to be provided.

The Contractor shall provide sufficient fuel, spare lamps, generators, and qualified personnel to ensure that all required lights operate continuously during nighttime operations. Each generator shall have a fuel tank of sufficient capacity to permit operation of the lighting system for a minimum of 12 hours. In the event of any failure of the lighting system, the operation shall be discontinued until the required level of illumination is restored. Hydraulic generator systems shall be used in residential areas and areas designated to minimize noise pollution. If hydraulic generator systems are unavailable, other generator-powered systems may be used with the approval of the Engineer.

A supply of emergency flares shall be maintained by the Contractor for use in the event of emergency or unanticipated situations.

Glare Control. All lighting provided under this item shall be designed, installed, and operated to avoid glare that interferes with traffic on the roadway or that causes annoyance or discomfort for residences adjoining the roadway. The Contractor shall locate, aim, and adjust the lights to provide the required level of illumination and uniformity in the work area without the creation of objectionable glare. The Engineer shall be the sole judge of when glare is unacceptable, either for traffic or for adjoining residences. The Contractor shall provide screening such as shields, visors, or louvers on lights as necessary to reduce objectionable levels of glare.

3.

2.

617.17 Basis of Payment.
THE PAY ITEM "FLOOD LIGHTS FOR NIGHTTIME OPERATIONS" IS DELETED FROM THE LIST IN THE FIRST PARAGRAPH.

THE SECOND AND THIRD PARAGRAPHS ARE CHANGED TO:

No payment will be made to the Contractor for traffic safety services.
Payment for traffic control devices which are on a unit or linear meter basis will made at 50 percent of the Contract bid price upon delivery, placement, and approval with the balance prorated over the duration of the Contract.

Separate payment will not be made for relocating traffic control devices and the lighting systems used for nighttime operations as required or as directed, except for relocations of precast concrete curb construction barrier required by change of plan or because of a change in the staging of the project as directed by the Engineer. Payment for these approved relocations of precast concrete curb construction barrier will be made by Supplementary Agreement; however, if a Supplementary Agreement cannot be reached, payment will be made on a Force Account basis in accordance with Subsection 109.03. No separate payment for relocations of precast concrete curb construction barrier will be for additional relocations due to changes in staging of the Project or for relocations made for the Contractor's convenience.

THE FIFTH PARAGRAPH IS CHANGED TO:

Separate payment will not be made for lighting for nighttime operations, but all costs thereof shall be included in the prices bid for the various Pay Items scheduled in the Proposal.

Lines 1368 thru 1495 of S189 ROAD8 are changed to:

THE OFFICE SHALL ALSO BE EQUIPPED WITH A MICROCOMPUTER SYSTEM COMPATIBLE WITH THE DEPARTMENT'S "ACES" SYSTEM. THE MICROCOMPUTER SYSTEM SHALL INCLUDE THE FOLLOWING:

(1) _____ (A) PENTIUM OR PENTIUM PRO 150 MHZ, INTEL PROCESSOR OR BETTER, WITH A MINIMUM OF 32 MB RAM, 2 MB VIDEO RAM, MOUSE, MOUSE PAD, MINIMUM 2.5 GB HARD DRIVE, ONE 8X CD-ROM OR GREATER, AND ONE 90-MILLIMETER 1.44 MB FLOPPY DISKETTE DRIVE INSTALLED AS THE "A" DRIVE.

(B) 33.6K BAUD DATA/FAX MODEM OR FASTER. IF INTERNAL, IT SHALL BE INSTALLED BY THE CONTRACTOR AS COM.2. THE MODEM MUST NOT UTILIZE THE ROCKWELL RPI CHIP (E.G., US ROBOTICS COURIER V.EVERYTHING - 56K/33.6K/14.4K DATA/FAX MODEM-V.34).

(C) DEDICATED PHONE LINE TO BE USED IN CONNECTION WITH THE MICROCOMPUTER MODEM.

(D) 380-MILLIMETER OR LARGER SUPER VGA COLOR MONITOR HAVING A DOT PITCH OF 0.28 OR BETTER, WITH ANTI-GLARE SCREEN, AND TILT/SWIVEL CAPABILITIES.

(E) INTERNAL TRAVAN TAPE BACKUP - 3.2 GB OR LARGER WITH A COMPATIBLE HIGH SPEED CONTROLLER CARD, BACKUP SOFTWARE FOR MS-WINDOWS AND DOS, AND TEN FORMATTED TAPES/DATA CARTRIDGES CORRESPONDING TO THE TAPE DRIVE SIZE (E.G., H.P./COLORADO T3000 - 3.2 GB TR-3, SEAGATE TAPE-STOR 3200E - 3.2 GB, OR EXABYTE EAGLE 96 - 3.2 GB).

(F) UNINTERERRUPTED POWER SUPPLY (UPS) - OMNI 450 OR APPROVED EQUAL (E.G., APC-650 - AMERICAN POWER CORPORATION).

(G) SURGE PROTECTOR FOR THE ENTIRE COMPUTER WORK STATION TO BE USED IN CONJUNCTION WITH THE UPS (E.G., ZERO SURGE POWER, INC. - POINT OF USE - 2R-15 AMP/120 VOLTS).

(H) STATIC MAT, FLOOR TYPE, 1.2 BY 1.5 METERS OR LARGER WITH GROUNDCAPABILITIES.

(I) COMPUTER WORK STATION, PRINTER STAND, AND/OR TABLE HAVING BOTH APPROPRIATE SURFACE AND CHAIR HEIGHT.

(J) FIVE BOXES OF 90-MILLIMETER FLOPPY DISKETTES WHICH MATCH THE DRIVE DENSITY OF THE 1.44 MB DISKETTE DRIVE (TEN PER BOX).

(K) ONE FLOPPY DISKETTE HOLDER (HOLDS 50, 90-MILLIMETER DISKETTES), AND DUST COVERS FOR PC UNIT, MONITOR, KEYBOARD, AND PRINTER.

(L) ONE HEAD CLEANER KIT FOR 90-MILLIMETER DISKETTE DRIVE.

HARDWARE AND SOFTWARE SHALL BE ACCEPTABLE TO THE RESIDENT ENGINEER PRIOR TO PURCHASE/INSTALLATION. ALL SOFTWARE SHALL BE COMPATIBLE WITH THE COMPUTER'S OPERATING SYSTEM. THE MICROCOMPUTER SYSTEM SHALL BE INSTALLED IN THE FIELD OFFICE. AT THE TIME OF INSTALLATION, THE CONTRACTOR

- (5) _____ VERSION:
PRIMAVERA PROJECT PLANNER FOR WINDOWS, LATEST
THE DURATION OF THE PROJECT.
PRINTERS AND COPIERS) EVERY THREE MONTHS FOR
METER, COLOR: WHITE, GRAIN: LONG, FOR LASER
PER REAM, WEIGHT: 75 KILOGRAMS PER SQUARE
OTHER MONTH FOR THE DURATION OF THE PROJECT.
(C) ONE TEN-REAM CARTON OF A4 PAPER (500 SHEETS
(B) INK CARTRIDGES, ONE OF EACH COLOR, EVERY
(A) COLOR INKJET PRINTER OF CURRENT TECHNOLOGY.

(4) _____
BASE PRINTER(S) HAVING AT MINIMUM:
INSERT THE FOLLOWING ONLY IF USING PRIMAVERA.

- (3) _____
DISKETTES WITH DOCUMENTATION, INCLUDING:
MS-DOS, LATEST VERSION.
(A) MICROSOFT WINDOWS 95, LATEST VERSION OR
MICROSOFT WINDOWS FOR WORKGROUPS, VERSION
3.11 OR HIGHER.
(C) MICROSOFT OFFICE PROFESSIONAL 95, LATEST
VERSION OR COMPATIBLE SOFTWARE PACKAGE.
SOFTWARE PACKAGE SHOULD CONTAIN: WORD
PROCESSOR, SPREADSHEET, AND DATABASE.
(D) NORTON UTILITIES FOR WINDOWS, LATEST VERSION
OR COMPATIBLE SOFTWARE PACKAGE.
(E) ANTI-VIRUS SOFTWARE, LATEST VERSION WITH
MONTHLY UPDATES (E.G., NORTON'S ANTI-VIRUS,
MCAFFEE, OR DR. SOLOMON'S).

- (2) _____
BASE PRINTER(S) HAVING AT MINIMUM:
(A) LASER PRINTER HAVING HP PCL 5 EMULATION, WITH
APPROPRIATE PRINTER CABLE AND LEGAL SIZE
TRAY (E.G., LEXMARK, OPTRA E, HP - 5P, OR HP - 5L).
(B) ONE PRINTER TONER CARTRIDGE EVERY OTHER
MONTH FOR THE DURATION OF THE CONSTRUCTION
PROJECT.
(C) ONE TEN-REAM CARTON OF A4 PAPER (500 SHEETS
PER REAM, WEIGHT: 75 KILOGRAMS PER SQUARE
METER, COLOR: WHITE, GRAIN: LONG, FOR LASER
PRINTERS AND COPIERS) EVERY THREE MONTHS FOR
THE DURATION OF THE CONSTRUCTION PROJECT.
(D) ONE TEN-REAM CARTON OF LEGAL SIZE PAPER (500
SHEETS PER REAM, WEIGHT: 75 KILOGRAMS PER
SQUARE METER, COLOR: WHITE, GRAIN: LONG, FOR
LASER PRINTERS AND COPIERS) EVERY THREE
MONTHS FOR THE DURATION OF THE CONSTRUCTION
PROJECT.
(3) _____
SOFTWARE PACKAGE, ON CD-ROM OR 90-MILLIMETER
DISKETTES WITH DOCUMENTATION, INCLUDING:
(A) MS-DOS, LATEST VERSION.
(B) MICROSOFT WINDOWS 95, LATEST VERSION OR
MICROSOFT WINDOWS FOR WORKGROUPS, VERSION
3.11 OR HIGHER.
(C) MICROSOFT OFFICE PROFESSIONAL 95, LATEST
VERSION OR COMPATIBLE SOFTWARE PACKAGE.
SOFTWARE PACKAGE SHOULD CONTAIN: WORD
PROCESSOR, SPREADSHEET, AND DATABASE.
(D) NORTON UTILITIES FOR WINDOWS, LATEST VERSION
OR COMPATIBLE SOFTWARE PACKAGE.
(E) ANTI-VIRUS SOFTWARE, LATEST VERSION WITH
MONTHLY UPDATES (E.G., NORTON'S ANTI-VIRUS,
MCAFFEE, OR DR. SOLOMON'S).

SHALL ENSURE THAT THE SYSTEM IS FULLY OPERATIONAL AND MEETS ALL DEPARTMENT REQUIREMENTS. ALL SOFTWARE LISTED ABOVE SHALL BE INSTALLED BY THE CONTRACTOR AND MAINTAINED IN THE FIELD OFFICE. THE CONTRACTOR SHALL CONFIGURE THE SOFTWARE TO OPERATE WITH THE HARDWARE PROVIDED. ANY ACCESSORIES FOR THE MICROCOMPUTER SHALL BE COMPATIBLE WITH THE MICROCOMPUTER.

THE CONTRACTOR WILL NOT BE PERMITTED TO USE THIS MICROCOMPUTER SYSTEM AT ANY TIME. IT IS BEING SUPPLIED SOLELY FOR THE DEPARTMENT'S USE.

THE CONTRACTOR SHALL FORWARD ALL MANUALS, INSTRUCTIONS, AND LITERATURE RECEIVED WITH THE MICROCOMPUTER SYSTEM TO THE RESIDENT ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE MICROCOMPUTER SYSTEM IN GOOD WORKING CONDITION. ANY PART OF THE MICROCOMPUTER SYSTEM WHICH BECOMES INOPERABLE OR DEFECTIVE, DURING THE DURATION OF THE CONSTRUCTION PROJECT, SHALL BE REPLACED BY THE CONTRACTOR WITHIN 48 HOURS.

THE MICROCOMPUTER SYSTEM, MANUALS, INSTRUCTIONS, AND LITERATURE SHALL BE REMOVED AND RETAINED BY THE CONTRACTOR WHEN NO LONGER REQUIRED AS DETERMINED BY THE RESIDENT ENGINEER, EXCEPT FOR THE DATA CARTRIDGES AND DATA DISKETTES, WHICH WILL BECOME THE PROPERTY OF THE STATE.

106.06 MATERIALS FIELD LABORATORY

Lines 1647 thru 1734 of S189 ROAD8 are changed to:

THE MICROCOMPUTER WORK STATION SHALL INCLUDE THE FOLLOWING:

(1) HARDWARE.

- 1 PENTIUM OR PENTIUM PRO 150 MHZ, INTEL PROCESSOR OR BETTER, WITH A MINIMUM OF 32 MB RAM, 2 MB VIDEO RAM, MOUSE, MOUSE PAD, MINIMUM 2.5 GB HARD DRIVE, ONE 8X CD-ROM OR GREATER, AND ONE 90-MILLIMETER 1.44 MB FLOPPY DISKETTE DRIVE INSTALLED AS THE "A" DRIVE.
- 1 33.6K BAUD DATA/FAX MODEM OR FASTER. IF INTERNAL, IT SHALL BE INSTALLED BY THE CONTRACTOR AS COM:2. THE MODEM MUST NOT UTILIZE THE ROCKWELL RPI CHIP (E.G., US ROBOTICS COURIER EVERYTHING - 56K/33.6K/14.4K DATA/FAX MODEM-V.34).
- 1 DEDICATED PHONE LINE TO BE USED IN CONNECTION WITH THE MICROCOMPUTER MODEM.
- 1 380-MILLIMETER OR LARGER SUPER VGA COLOR MONITOR HAVING A DOT PITCH OF 0.28 OR BETTER, WITH ANTI-GLARE SCREEN, AND TILT/SWIVEL CAPABILITIES.
- 1 INTERNAL TRAVAN TAPE BACKUP - 3.2 GB OR LARGER WITH A COMPATIBLE HIGH SPEED CONTROLLER CARD, BACKUP SOFTWARE FOR MS-WINDOWS AND DOS, AND TEN FORMATTED TAPES/DATA CARTRIDGES CORRESPONDING TO THE

TAPE DRIVE SIZE (E.G., H.P./COLORADO T3000 - 3.2 GB, TR-3, SEAGATE TAPE-STOR 3200E - 3.2 GB, OR EXABYTE EAGLE 96 - 3.2 GB).
 1 LASERJET PRINTER HAVING HP PCL 5 EMULATION, WITH APPROPRIATE PRINTER CABLE AND LEGAL SIZE TRAY (E.G., LEXMARK, OPTRA E, HP - 5P, OR HP - 5L).

(2) SOFTWARE.

1 MS-DOS, LATEST VERSION.
 1 MICROSOFT WINDOWS 95, LATEST VERSION OR MICROSOFT WINDOWS FOR WORKGROUPS, VERSION 3.11 OR HIGHER.
 1 MICROSOFT OFFICE PROFESSIONAL 95, LATEST VERSION OR COMPATIBLE SOFTWARE PACKAGE.
 1 SOFTWARE PACKAGE SHOULD CONTAIN: WORD PROCESSOR, SPREADSHEET, AND DATABASE.
 1 NORTON UTILITIES FOR WINDOWS, LATEST VERSION OR COMPATIBLE SOFTWARE PACKAGE.
 1 ANTI-VIRUS SOFTWARE, LATEST VERSION WITH MONTHLY UPDATES (E.G., NORTON'S ANTI-VIRUS, MCAFFE, OR DR. SOLOMON'S).

(3) ACCESSORIES AND SUPPLIES.

1 UNINTERRUPTED POWER SUPPLY (UPS) - OMNI 450 OR APPROVED EQUAL (E.G., APC-650 - AMERICAN POWER CORPORATION).
 1 SURGE PROTECTOR FOR THE ENTIRE COMPUTER WORK STATION TO BE USED IN CONJUNCTION WITH THE UPS (E.G., ZERO SURGE POWER, INC. - POINT OF USE - 2R-15 AMP/120 VOLTS).
 1 STATIC MAT, FLOOR TYPE 1.2 BY 1.5 METERS OR LARGER WITH GROUNDING CAPABILITIES.
 1 COMPUTER WORK STATION, PRINTER STAND, AND/OR TABLE HAVING BOTH APPROPRIATE SURFACE AND CHAIR HEIGHT.
 5 BOXES OF 90-MILLIMETER FLOPPY DISKETTES WHICH MATCH THE DRIVE DENSITY OF THE 1.44 MB DISKETTE DRIVE (TEN PER BOX).
 1 FLOPPY DISKETTE HOLDER (HOLDS 50, 90-MILLIMETER DISKETTES), AND DUST COVERS FOR PC UNIT, MONITOR, KEYBOARD, AND PRINTER.
 1 HEAD CLEANER KIT FOR 90-MILLIMETER DISKETTE DRIVE.
 1 PRINTER TONER CARTRIDGE EVERY OTHER MONTH FOR THE DURATION OF THE CONSTRUCTION PROJECT.
 1 TEN-REAM CARTON OF A4 PAPER (500 SHEETS PER REAM, WEIGHT: 75 KILOGRAMS PER SQUARE METER, COLOR: WHITE, GRAIN: LONG, FOR LASER PRINTERS AND COPIERS) EVERY THREE MONTHS FOR THE DURATION OF THE CONSTRUCTION PROJECT.
 1 TEN-REAM CARTON OF LEGAL SIZE PAPER (500 SHEETS PER REAM, WEIGHT: 75 KILOGRAMS PER SQUARE METER, COLOR: WHITE, GRAIN: LONG, FOR LASER PRINTERS AND COPIERS) EVERY THREE MONTHS FOR THE DURATION OF THE CONSTRUCTION PROJECT.

MONTHS FOR THE DURATION OF THE CONSTRUCTION PROJECT.
1 ANTI-GLARE SCREEN.
HARDWARE AND SOFTWARE SHALL BE ACCEPTABLE TO THE RESIDENT ENGINEER PRIOR TO PURCHASE/INSTALLATION. ALL SOFTWARE SHALL BE COMPATIBLE WITH THE COMPUTER'S OPERATING SYSTEM.

THE MICROCOMPUTER SYSTEM SHALL BE INSTALLED IN THE MATERIALS FIELD LABORATORY. AT THE TIME OF INSTALLATION, THE CONTRACTOR SHALL ENSURE THAT THE SYSTEM IS FULLY OPERATIONAL AND MEETS ALL DEPARTMENT REQUIREMENTS. ALL SOFTWARE LISTED ABOVE SHALL BE INSTALLED BY THE CONTRACTOR AND MAINTAINED IN THE MATERIALS FIELD LABORATORY. THE CONTRACTOR SHALL CONFIGURE THE SOFTWARE TO OPERATE WITH THE HARDWARE PROVIDED. ANY ACCESSORIES FOR THE MICROCOMPUTER SHALL BE COMPATIBLE WITH THE MICROCOMPUTER.
THE CONTRACTOR WILL NOT BE PERMITTED TO USE THIS MICROCOMPUTER SYSTEM AT ANY TIME. IT IS BEING SUPPLIED SOLELY FOR THE DEPARTMENT'S USE.
THE CONTRACTOR SHALL FORWARD ALL MANUALS, INSTRUCTIONS, AND LITERATURE RECEIVED WITH THE MICROCOMPUTER SYSTEM TO THE MATERIALS ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE MICROCOMPUTER SYSTEM IN GOOD WORKING CONDITION. ANY PART OF THE MICROCOMPUTER SYSTEM WHICH BECOMES INOPERABLE OR DEFECTIVE, DURING THE DURATION OF THE CONSTRUCTION PROJECT, SHALL BE REPLACED WITHIN 48 HOURS.
THE MICROCOMPUTER SYSTEM, MANUALS, INSTRUCTIONS, AND LITERATURE SHALL BE REMOVED AND RETAINED BY THE CONTRACTOR WHEN NO LONGER REQUIRED AS DETERMINED BY THE RESIDENT ENGINEER, EXCEPT FOR THE DATA CARTRIDGES AND DATA DISKETTES, WHICH WILL BECOME THE PROPERTY OF THE STATE.

107.05 PERMITS LICENSES AND TAXES.

Insert the following after line 2197 of S189 ROAD8 :

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

PURSUANT TO PL 1995, C.159, AND NOT WITHSTANDING ANY PROVISIONS OF THE LAW TO THE CONTRARY, WHENEVER ANY TAXPAYER, PARTNERSHIP, OR CORPORATION UNDER CONTRACT TO PROVIDE GOODS OR SERVICES OR CONSTRUCTION PROJECTS TO THE STATE OF NEW JERSEY OR ITS AGENCIES OR INSTRUMENTALITIES, INCLUDING THE LEGISLATIVE AND JUDICIAL BRANCHES OF STATE GOVERNMENT, IS ENTITLED TO PAYMENT FOR THOSE GOODS OR SERVICES AT THE SAME TIME A TAXPAYER, PARTNERSHIP, OR SHAREHOLDER OF THAT ENTITY IS INDEBTED FOR ANY STATE TAX, THE DIRECTOR OF THE DIVISION OF TAXATION WILL SEEK TO SET OFF SO MUCH OF THAT PAYMENT AS IS NECESSARY TO SATISFY THE INDEBTEDNESS. THE AMOUNT SET OFF SHALL NOT ALLOW FOR THE DEDUCTION OF ANY EXPENSE OR OTHER DEDUCTIONS THAT MIGHT BE ATTRIBUTABLE TO THE TAXPAYER, PARTNER, OR SHAREHOLDER SUBJECT TO SET-OFF UNDER THIS ACT.
THE DIRECTOR OF THE DIVISION OF TAXATION WILL GIVE NOTICE OF THE SET-OFF TO THE TAXPAYER, PARTNER, OR SHAREHOLDER AND WILL PROVIDE AN OPPORTUNITY

FOR A HEARING WITHIN 30 DAYS OF SUCH NOTICE UNDER THE PROCEDURES FOR PROTESTS ESTABLISHED UNDER R.S. 54:49-18. NO REQUEST FOR CONFERENCE, PROTEST, OR SUBSEQUENT APPEAL TO THE TAX COURT FROM ANY PROTEST SHALL STAY THE COLLECTION OF THE INDEBTEDNESS. INTEREST THAT MAY BE PAYABLE BY THE STATE, PURSUANT TO PL 1987, C.184 (C.52:32-32 ET SEQ.), TO THE TAXPAYER SHALL BE STAYED.

108.10 TIME OF COMPLETION.

The following is added after line 2705 of S189 ROAD8:

THE FIRST PARAGRAPH IS CHANGED TO:

THE CONTRACTOR SHALL COMPLETE ALL OR ANY PORTION OF THE PROJECT CALLED FOR UNDER THE CONTRACT IN ALL PARTS AND REQUIREMENTS WITHIN THE TIME OR TIMES FOR COMPLETION OF THE CONTRACT SET FORTH IN THE SPECIAL PROVISIONS. TIME IS OF THE ESSENCE AS TO ALL TIME FRAMES STATED IN THE CONTRACT DOCUMENTS; THEREFORE, ALL TIME FRAMES SHALL BE STRICTLY ENFORCED.

SECTION 110 TRAFFIC CONTROL

Lines 3151 thru 3196 of S189 ROAD8 are changed to:

ALL OPERATIONS WHICH ARE PERFORMED DURING THE NON-DAYLIGHT HOURS SHALL BE PROPERLY ILLUMINATED TO ALLOW FOR THE COMPLETE PERFORMANCE AND INSPECTION OF THE WORK. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, OPERATING, MAINTAINING, MOVING AND REMOVING PORTABLE LIGHT TOWERS AND EQUIPMENT-MOUNTED LIGHTING FIXTURES FOR NIGHTTIME CONSTRUCTION OPERATIONS, FOR THE DURATION OF NIGHTTIME WORK ON THE CONTRACT. NIGHTTIME OPERATIONS CONSIST OF WORK SPECIFICALLY SCHEDULED TO OCCUR AFTER SUNSET AND BEFORE SUNRISE. SHOULD THE CONTRACTOR ELECT ON HIS OWN TO OPERATE DURING THESE HOURS, THESE SAME SPECIFICATIONS SHALL APPLY AND NO ADDITIONAL COMPENSATION WILL BE MADE. BEFORE NIGHTTIME OPERATIONS MAY BEGIN, THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT HIS NIGHTTIME OPERATION SHALL MEET THE LIGHT LEVEL REQUIREMENTS.

(A) LIGHT LEVELS AND ILLUMINATION REQUIREMENTS. A MINIMUM OF 5 FOOT CANDLES SHALL BE MAINTAINED THROUGHOUT THE ENTIRE AREA OF OPERATION. THE AREA OF OPERATION IS A WORK AREA THAT IS A MINIMUM OF 50 FEET AHEAD AND BEHIND THE EMPLOYEE, WHERE AN EMPLOYEE IS ON OR NEAR THE ROADWAY. A MINIMUM LEVEL OF 5 FOOT CANDLES SHALL BE PROVIDED DURING THE SETUP AND REMOVAL OF LANE OR ROADWAY CLOSURES IN CONJUNCTION WITH NIGHTTIME CONSTRUCTION OPERATIONS. SPECIFIC TASKS SHOULD MEET THE MINIMUM ILLUMINATION LEVELS SHOWN IN THE FOLLOWING TABLE:

MINIMUM ILLUMINATION LEVEL	DESCRIPTION OF TASKS	AREAS OF ILLUMINATION
	EMBANKMENT, FILL & COMPACTION EXCAVATION - REGULAR, LATERAL DITCH, CHANNEL	GENERAL

change requires Specification revisions only and shall be incorporated in all the projects which require Construction Field Office and/or a Materials Field Laboratory.

2. State Tax Offset, Subsection 107.05

Pursuant to Public Law, P.L. 1995, C. 159 and at the recommendation of the Deputy Attorney General, Subsection 107.05 has been revised as attached. The revised text shall be inserted after the title heading for Section 107 in the S196 ROAD1. This change requires a specification change only and shall be incorporated in all projects as stated above.

3. Time is of the Essence, Subsection 108.10

Pursuant to Deputy Attorney General's recommendation, the last sentence of the first paragraph of Subsection 108.10 has been revised as attached, to emphasize the importance of the time frames stated in the Special Provisions. This revised text which shall be inserted after the heading for Subsection 108.10 in the S196 ROAD1 shall be incorporated in all projects as stated above.

**4. Nighttime Operations - Lighting, Subsections 617.05 and 617.17 (for 1996 Specs.)
Subsection 110.01 (for 1989 Specs.)**

A joint FHWA/NJDOT task force on the above subject which included representatives from the State Police and DAG's offices has revised Subsection 617.05 in its entirety. The revised specification requires enhanced illumination of the work area at nighttime for an improved safety and quality inspection. The attached revised text shall be incorporated in all projects which require Nighttime Operations. The revised specification deletes the Pay Item "Flood Lights for Nighttime Operations." Therefore, the projects for which the Engineer's Estimate and the Proposal have been prepared, appropriate revisions must be incorporated in addition to the specification changes.


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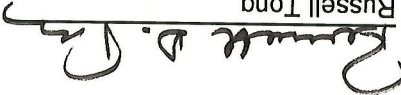
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Recommended by:


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Quality Management Services

Approved by:


Russell D. Tong
Assistant Commissioner
Capital Program Management

attachment

BS:DB:KS:cjw