

<p><i>New Jersey Department of Transportation</i> 1035 Parkway Avenue, PO Box 600, Trenton, New Jersey 08625-0600</p> <p><i>Baseline Document Change Announcement</i></p>	
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**Standard Input update
 Revisions to various Subsections**

BDC08S-02

February 17, 2009

SUBJECT: Revisions to various Subsections of the 2007 Standard Specifications and Standard Input.

REFERENCE: Revisions to CD-159-6, Standard Construction Details 2007-BDC08D-01, dated February 18, 2009

Various Subsections of the *2007 Standard Specifications or Standard Input* have been revised to correct minor errors ranging from typographical /punctuation / grammatical / referencing to some technical content. Also included are some revisions to clarify the intent. Section 654 regarding JCP&L is to be replaced in its entirety since the minor corrections are through out the section.

Revised Subsections in sequential order are as follows:

101.04, 102.02, 102.04, 104.03.04, 105.07.01, 107.04, 107.09, 107.11, 107.12.01, 108.02, 108.08, 108.19, 108.20, 152.03.01, 159.02.02, 159.03.02, 159.03.08, 159.04, 160.03.01, 160.03.02, 201.03.01, 202.02, 453.03.01, 502.03.03, 503.03.06, 506.03.06, 507.04, 511.02.01, 513.02.01, 513.03.01, 606.03.02, 610.04, 652.03.01, Section 654, 701.03.05, 701.03.07, 701.04, 704.03.01, 704.03.02, 704.03.03, 704.03.04, 704.03.05, 704.03.07, 811.03.01, 903.03.06, 904.01.02, 904.02.06, 905.01.05, 911.02.03, 914.04.01, 1001.04, & 1001.05

The revision to 610.04 must be read in conjunction with the referenced BDC announcement, BDC08D-01, dated February 18, 2009.

The following revisions have been incorporated in Standard Input, SI2007 as of February 17, 2009.

TABLE OF CONTENTS: 507.03.07 IS REVISED TO:
507.03.07 Concrete Bridge Approach.....202

101.04 INQUIRIES REGARDING THE PROJECT

1. Before Award of Contract.

THE FIRST PARAGRAPH IS CHANGED TO:

Submit inquiries and/or view other questions/answers by following the format prescribed on the project's electronic bidding web page.

102.02 BIDDER REGISTRATION AND DOWNLOADING OF THE PROPOSAL DOCUMENTS

THE LAST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Bidder shall not alter or in any way change the software.

102.04 EXAMINATION OF CONTRACT AND PROJECT LIMITS

1. Evaluation of Subsurface and Surface Conditions.

2*****2
COMPLETE AND INCLUDE INTERNATIONAL ROUGHNESS INDEX (IRI) VALUES OF THE EXISTING ROADWAY

SME CONTACT – PAVEMENT & DRAINAGE MANAGEMENT AND TECHNOLOGY

THE FOLLOWING IS ADDED:

International Roughness Index (IRI) values of the existing roadway			
Route	Mile Post		Existing IRI Value
	From	To	

This information is the latest available IRI data of the right most through lane from the Pavement Management Unit. The pavement information shown herein was obtained by the Department and is made available to the authorized users only that they may have access to the same information available to the Department. It is presented in good faith, but is not intended as a substitute for investigations, interpretation or judgment of such authorized users.

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104.03.04 Contractual Notice

THE SECOND PARAGRAPH IS CHANGED TO:

Immediately provide written notice to the RE of a circumstance that is believed to be a change to the Contract. If notice is not provided on Contractual Notice (Form DC-161), include the following in the initial written notice:

1. A statement that this is a notice of a change.
2. The date when the circumstances believed to be a change were discovered.
3. A detailed and specific statement describing the nature and circumstances of the change.
4. If the change will or could affect costs to the Department.
5. If the change will or could affect Contract Time as specified in 108.11.01.C.

In addition to the hard copy of the notice, email the notice to the RE. It is not necessary to attach listed documents to the email.

105.07.01 Working in the Vicinity of Utilities

B. Locating Existing Facilities.

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SELECT THE APPROPRIATE, TRAFFIC OPERATIONS OFFICES FROM #2 ABOVE WHEN MORE THAN FIBER OPTIC FACILITY EXISTS, AND THE OTHER RESPECTIVE ITS CONTACTS FOR WEIGH IN MOTION AND TRAFFIC VOLUME SYSTEMS CONTACT:

Bureau of Transportation Data Development
 PO Box 600
 Trenton, NJ 08625
 609-530-3522

FOR ROAD WEATHER INFORMATION SYSTEMS CONTACT:

Bureau of Maintenance Engineering & Support - Electrical Section
 PO Box 600

Trenton, NJ 08625
609-530-5728

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C. Protection of Utilities.

THE SECOND PARAGRAPH IS CHANGED TO:

Protect and support existing Department electrical and ITS facilities and ensure that there is no interruption of service. Use hand tools only while working within two feet of the fiber optic network. At least 30 days before beginning the work, submit a plan to the RE for approval showing the method of support and protection.

107.04 NEW JERSEY CONTRACTUAL LIABILITY ACT

THE FOURTH PARAGRAPH IS CHANGED TO:

For purposes of determining the date of “completion of the contract” pursuant to N.J.S.A. 59:13-5, “completion of the contract” occurs on the date that the Contractor provides written notice to the Department of Acceptance or conditional Acceptance of the Proposed Final Certificate or the 30th day after the Department issues the Proposed Final Certificate, whichever event occurs first.

107.09 INDEPENDENT CONTRACTOR

THE SECOND SENTENCE IS CHANGED TO:

It shall neither hold itself out as, nor claim to be, an officer or employee of the Department by reason hereof.

107.11 RISKS ASSUMED BY THE CONTRACTOR

1. Damage Caused by the Contractor.

THE FOLLOWING IS ADDED:

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FOR PROJECTS WITHIN THE LIMITS NOTED BELOW, THE DESIGNER SHALL INCLUDE THE FOLLOWING ADDITIONAL CLAUSE WITH THE RESPECTIVE LIMITS FOR THAT PROJECT. IF WORKING WITHIN THE VICINITY OF THE TURNPIKE, GARDEN STATE PARKWAY, OR ATLANTIC CITY PARKWAY, NOTE THOSE ALSO.

- RT 38 MP 0.5 TO 9.5
- RT 42 MP 6.3 TO 13.3
- RT 70 MP 0.0 TO 5.4
- I-80 MP 57.5 TO 68.3
- I-295 MP 40.6 TO 67.79
- I-95 MP 0.58 TO 8.77
- I-195 MP 0.00 TO 6.25

For any damages by the Contractor to the fiber optic network along Route _____, MP _____, also notify the Adesta Network Operations Center at 877-637-2344 within two hours. Only Adesta will be allowed to complete repairs on that respective section of the fiber optic network. Directly pay Adesta within 30 days from the receipt of Adesta’s invoice for such repairs, and provide the RE with a copy of the transmittal letter. If the Contractor does not make payment within 30 days, the Department may recover the costs incurred for repairs from the Contract.

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107.12.01 Satisfying the Notice Requirements

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

Upon request, provide the RE with 3 copies of all documentation submitted in support of the claim.

108.02 COMMENCEMENT OF WORK

THE SUBPART 4 IN THE FIRST PARAGRAPH IS CHANGED TO:

- 4. Progress schedule as specified in 153.03

108.08 LANE OCCUPANCY CHARGES

THE SECOND PARAGRAPH IS CHANGED TO:

The RE will keep record of each occurrence as well as the cumulative amount of time that a lane is kept closed beyond the lane closure schedule and provide the record to the Contractor. The Department will calculate the lane occupancy charge by multiplying the length of time of the delayed opening, in minutes, by the rate of \$10 per minute per lane, unless otherwise specified in the Special Provisions. The total amount per day for the lane occupancy charge that the Department will collect will not exceed \$10,000.00.

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INCLUDE APPROPRIATE LANE OCCUPANCY CHARGE INFORMATION.

SME CONTACT – VALUE MANAGEMENT

THE FOLLOWING IS ADDED:

The rate to calculate the Lane Occupancy Charge is as follows:

Description	Rate
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108.19 COMPLETION AND ACCEPTANCE

THE FOLLOWING IS ADDED:

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INCLUDE SPECIFICATION PRIOR TO THE FINAL DESIGN SUBMISSION FOR INCENTIVE PAYMENT. IF NO INCENTIVE PAYMENT FOR EARLY COMPLETION IS TO BE SPECIFIED INCLUDE THE FOLLOWING:

SME CONTACT – VALUE MANAGEMENT

No Incentive Payment for Early Completion is specified for this project.

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108.20 LIQUIDATED DAMAGES

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OBTAIN ROAD USER COST

SME CONTACT – VALUE MANAGEMENT

OBTAIN CONSTRUCTION ENGINEERING COST

SME CONTACT – CONSTRUCTION MANAGEMENT

SELECT APPROPRIATE CONDITION FROM THE FOLLOWING LIST

Liquidated damages are as follows:

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COMPLETE AND INCLUDE THE FOLLOWING. DELETE A, IF NOT APPLICABLE AND RENUMBER

A. For each day that the Contractor fails to complete the work as specified in Subpart A of Subsection 108.10 of these Special Provisions, for Interim Completion, the Department will assess liquidated damages in the amount of \$_____.
USE ONLY THE ROAD USER COST.

B. For each day that the Contractor fails to complete the work as specified in Subpart B of Subsection 108.10 of these Special Provisions, for Substantial Completion, the Department will assess liquidated damages in the amount of \$_____.
USE THE TOTAL COST OF THE ROAD USER AND CONSTRUCTION ENGINEERING COSTS.

C. For each day that the Contractor fails to achieve Completion as specified in Subpart C of Subsection 108.10 of these Special Provisions, the Department will assess liquidated damages in the amount of \$_____.

USE ONLY THE CONSTRUCTION ENGINEERING COST DIVIDED BY 2.

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THE FOLLOWING IS ADDED:

When the Contractor may be subjected to more than one rate of liquidated damages established in this Section, the Department will assess liquidated damages at the higher rate.

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152.03.01 Owner’s and Contractor’s Protective Liability Insurance

A. Policy Requirements.

THE FOURTH SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Ensure that policies are underwritten by companies with a current A.M. Best rating of A- with a Financial Size Category of VII or better.

B. Types

1. Comprehensive General Liability Insurance.

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IF JCP&L RELATED UTILITY WORK IS TO BE PERFORMED, ADD THE FOLLOWING:

THE FOLLOWING IS ADDED:

Ensure the policy names JCP&L, its officers, employees and agents as additional insured.

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2. Comprehensive Automobile Liability Insurance.

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IF JCP&L RELATED UTILITY WORK IS TO BE PERFORMED, ADD THE FOLLOWING:

THE FOLLOWING IS ADDED:

Ensure the policy names JCP&L, its officers, employees and agents as additional insured.

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5. Excess Liability Insurance.

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IF JCP&L RELATED UTILITY WORK IS TO BE PERFORMED, ADD THE FOLLOWING:

THE FOLLOWING IS ADDED:

Ensure the policy names JCP&L, its officers, employees and agents as additional insured.

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6. Marine Liability Insurance.

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IF JCP&L RELATED UTILITY WORK IS TO BE PERFORMED, ADD THE FOLLOWING:

THE FOLLOWING IS ADDED:

Ensure the policy names JCP&L, its officers, employees and agents as additional insured.

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159.02.02 Equipment

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INCLUDE THE FOLLOWING IF THE REMOTELY OPERATED PVMS OR PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY ARE NEEDED

SME CONTACT – TRAFFIC OPERATIONS

THE FOLLOWING IS ADDED TO THE LIST OF EQUIPMENT REFERENCES:

Portable Variable Message Sign w/Remote Communication.....	1001.04
Portable Trailer Mounted CCTV Camera Assembly.....	1001.05

159.03.02 Traffic Control Devices

INCLUDE THE FOLLOWING IF THE REMOTELY OPERATED PVMS OR PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY ARE NEEDED

SME CONTACT – TRAFFIC OPERATIONS

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

- 8. **Portable Variable Message Sign w/Remote Communication (PVMSRC).** Place the PVMSRC at the location directed by the RE. Ensure that a designated representative familiar with the operation and programming of the unit is available on the Project for On-Site Configuration. Only display messages authorized by the Department for the Project and make the signs available for use remotely from the Traffic Operation center (TOC) specified in 105.07.01.B. Repair or replace malfunctioning PVMSRC within 12 hours of notification by the RE.

Provide a broadband cellular telephone service plan with unlimited data service on an IP based packet network for the intended operational and functional requirements of the PVMSRC. Ensure that the PVMSRC has remote operation capability from the specified TOC using the Department’s current DMS control software at the time of deployment.

Provide for one week of testing by the TOC for remotely operating the PVMSRC before the start of construction operations that require lane or shoulder closures, or other impacts to traffic. At least 10 days before testing, submit to the RE for approval a plan for any work to be completed in the TOC. Submit a request to the RE at least 4 days in advance to access the TOC for any work.

- 9. **Portable Trailer Mounted CCTV Camera Assembly (PTMCCA).** Place the PTMCCA at the location directed by the RE. Ensure that a designated representative familiar with the operation and programming of the unit is available on the Project for initial installation. Repair or replace malfunctioning PTMCCA within 12 hours of notification by the RE. .

Provide a system that includes a robotic network camera remotely controllable, including Pan, Tilt and Zoom (PTZ), and viewable over the internet through a password protected website. Provide for internet access through the website hosted by EarthCam for Department cameras. No substitution is permitted. Provide broadband communication service and On-Site Camera Configuration for remote operation and control from the web site to the field site. Provide continuous viewable image at a minimum of 320H x 240V resolution and 1 frame per sec (fps) through the web site. If required by the Traffic Operation center (TOC) specified in 105.07.01.B, establish password level designations, camera presets, and camera image displays. Provide any incidental equipment or material required for successful remote operation and communications.

Provide for one week of testing by the TOC for remotely operating the PTMCCA before the start of construction operations that require lane or shoulder closures, or other impacts to traffic.

159.03.08 Traffic Direction

A. Flagger.

THE LAST SENTENCE IS CHANGED TO:

Ensure that the flagger is equipped with a STOP/SLOW paddle and follows MUTCD flagging procedures.

159.04 MEASUREMENT AND PAYMENT
THE FOLLOWING ITEMS ARE ADDED:

<i>Item</i>	<i>Pay Unit</i>
PORTABLE VARIABLE MESSAGE SIGN W/REMOTE COMMUNICATION	UNIT
PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY	UNIT

160.03.01 Fuel Price Adjustment

THROUGHOUT THIS SUBSECTION, TABLE 161.03.01-1 IS CHANGED TO TABLE 160.03.01-1

THE THIRD PARAGRAPH IS CHANGED TO:

If the as-built quantity of an Item listed in Table 160.03.01-1 differs from the sum of the quantities in the monthly Estimates, and the as-built quantity cannot be readily distributed among the months that the Item listed in Table 160.03.01-1 was constructed, then the Department will determine fuel price adjustment by distributing the difference in the same proportion as the Item’s monthly Estimate quantity is to the total of the Item’s monthly estimates.

THE 25 TH LINE IN THE TABLE 160.03.01-1 IS CHANGED TO:

HOT MIX ASPHALT ____ BASE COURSE 2.50 Gallons per Ton

160.03.02 Asphalt Price Adjustment

NOTE 1 OF THE THIRD PARAGRAPH IS CHANGED TO:

- The Department will determine the weight of asphalt binder for price adjustment by multiplying the percentage of new asphalt binder in the approved job mix formula by the weight of the item containing asphalt binder. If a Hot Mix Asphalt item has a payment unit other than ton, the Department will apply an appropriate conversion factor to determine the number of tons used.

201.03.01 Clearing Site

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IF JCP&L RELATED UTILITY WORK IS TO BE PERFORMED, ADD THE FOLLOWING:

THE FOLLOWING IS ADDED:

Remove trees and branches within 15 feet of the end of JCP&L pole cross arms. If the resulting tree is rendered hazardous, then remove the entire tree according to SECTION 802.

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202.02 MATERIALS

THE FIRST IN THE LIST IS CHANGED TO:

Coarse Aggregate (No. 57, or 67) 901.03

453.03.01 Full Depth Repair Using Concrete

C. Setting Forms, Joint Ties, and Dowels.

THE THIRD SENTENCE OF THE SEVENTH PARAGRAPH IS CHANGED TO:

Slowly withdraw the tube as the hole is filled.

502.03.03 Driving Piles

B. Methods of Driving.

THE FOLLOWING IS ADDED TO THE LAST PARAGRAPH:

- Cast-In-Place Piles.** Ensure that reinforcement steel is installed as specified in 504.03.01. Place concrete as specified in 504.03.02. Clean out open end piles to the elevation shown on Plans. Weld closure plates for closed-end pipe piles as shown on Plans.

503.03.06 Constructing Drilled Shafts

F. Constructing Using Casings.

2. Removable Casing.

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Do not expose the shaft concrete to salt water or moving water for 7 days.

506.03.06 Repair Galvanizing

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

If painting is directed, treat the galvanized surface according to the manufacturer’s recommendations, then apply the epoxy intermediate and urethane finish coats only.

507.04 MEASUREMENT AND PAYMENT

THE SECOND PARAGRAPH IS CHANGED TO:

The Department will make payment for reinforcement steel under REINFORCEMENT STEEL, REINFORCEMENT STEEL, EPOXY-COATED, and REINFORCEMENT STEEL, GALVANIZED as specified in 504.04.

511.02.01 Materials

14 TH ON THE LIST IS CHANGED TO:

Fiberglass Reinforced Plastic Lumber (FRPL)916.01

513.02.01 Materials

THE FOLLOWING IS ADDED:

For MSE Walls, use either Soil Aggregate, I-15 or Coarse Aggregate, No. 57. For Prefabricated Modular Retaining Walls and T-Wall, use either Soil Aggregate, I-9 or Coarse Aggregate, No. 57.

513.03.01 Proprietary Retaining Walls

F. Backfilling.

THE HEADING AND FIRST PARAGRAPH UNDER SUBPART (1) ARE CHANGED TO:

1. Soil Aggregate.

G. Compacting.

THE HEADING AND FIRST PARAGRAPH UNDER SUBPART (1) ARE CHANGED TO:

1. Soil Aggregate. With the exception of the 5-foot zone directly behind the units, compact soil aggregate with large, smooth drum, vibratory rollers using the density control method as specified in 203.03.02.D.

606.03.02 Concrete Sidewalks, Driveways, and Islands

H. Protection and Curing.

THE LAST SENTENCE IS CHANGED TO:

Ensure vehicles and other loads are not placed on sidewalks, islands, and driveways until the concrete has attained compressive strength of 3000 pounds per square inch, as determined from 2 concrete cylinders field cured according to AASHTO T 23.

610.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<i>Item</i>	<i>Pay Unit</i>
RPM, BI-DIRECTIONAL, WHITE LENS	UNIT

DIVISION 650 - UTILITIES

652.03.01 Sewer Pipe

F. Thrust Blocks.

THE THIRD SENTENCE IS CHANGED TO:

Ensure that thrust blocks do not come in contact with other utilities or structures without the approval of the RE.

1 *****1
INCLUDE THE FOLLOWING UPON ASSIGNING AN APPROPRIATE SECTION/SUBSECTION NUMBERS
IF JCP&L RELATED UTILITY WORK IS TO BE PERFORMED

THE FOLLOWING SECTION IS ADDED:

SECTION 65X – JCP&L FACILITY

65X.01 DESCRIPTION

This Section describes the requirements for installing, relocating and removing Jersey Central Power and Light (JCP&L) electric utility facilities including conduits, manholes, transformer vaults, handholes, and appurtenances and also includes the requirements for transferring electric services.

65X.02 MATERIALS

Except for the materials noted below, JCP&L will supply all materials necessary for the work at no cost to the Contractor. Provide JCP&L written notice 30 days in advance of when materials will be required. Ensure the electric subcontractor takes delivery of the materials from JCP&L’s storage facility within two weeks of the notice from JCP&L indicating that the material is available. Materials may be located at more than one JCP&L storage facility. If the electric subcontractor fails to take delivery, the material may not be available, and the electric subcontractor may be required to provide an additional request for materials. The Contractor is responsible for compensating the Department for any additional handling costs incurred by JCP&L resulting from the failure to take delivery within the time required.

The electric subcontractor is responsible for loading the material, delivering it to the job site, and all subsequent handling and delivery within the jobsite. Store and protect all materials received from JCP&L. Return and deliver all excess materials furnished by JCP&L to JCP&L’s storage facility. Obtain a receipt for all material received from JCP&L, maintain a documented inventory of materials used and obtain a receipt for all material returned to JCP&L.

Provide materials as specified:

Tack Coat 64-22: PG 64-22	902.01.01
Concrete	903.03
Curing Materials	903.10
Controlled Low Strength Material (CLSM).....	903.09
Hot Mix Asphalt (HMA).....	902.02
Sealer, Hot-Poured.....	914.02
Polymerized Joint Adhesive.....	914.03

65X.03 CONSTRUCTION

65X.03.01 Electric

A. Prequalification. Only a prequalified electric subcontractor, approved by JCP&L, may construct and relocate JCP&L electric facilities. The following is a list of electric subcontractors that have been previously approved by

JCP&L. This list is provided as information only, and is not an endorsement by the Department of any subcontractor. The Contractor is responsible for soliciting from a subcontractor that will be approved by JCP&L when preparing its Bid. Work restricted to the electric subcontractor does not preclude the Contractor from performing the work of layout, traffic control, sawcutting, pavement removal, temporary or final pavement restoration, and landscape restoration associated with the work of installing or relocating JCP&L electrical facilities.

Hawkeye, LLC
100 Marcus Blvd, suite 1
Hauppauge, NY 11788
Tel: 631-447-3100
Fax: 631-447-3830
Att: Mr. Charles Gravina - Mgr. Electric Operations
email: cgravina@hawkeyellc.com

Henkels & McCoy, Inc.
381 Cranberry Road
Farmingdale NJ 07727-3510
Tel: 732-919-7933
Fax: 732-919-7935
Att: Mr. Lou Ferenci ext. 103 or 104
Att: Mr. Bob Dougherty ext. 106
email: lferenci@henkels.com
email: rdougherty@henkels.com

JBL Electric Inc.
130 Furler Street
Totowa, NJ 07512
Tel: 973-774-4200
Fax: 973-237-0038
Att: Mr. Jim Leary - President
email: jleary@jblelectric.com

MYR (Harlan & The L.E. Myers Company)
1416 Trindle Road 3-A
Carlisle, PA 17015-
Tel: 717-243-4600
Fax: 717-243-3633
Att: Mr. Jon Arganbright
email: jarganbright@myrgroup.com

M.J. Electric, LLC
1047 Shoemaker Avenue
PO Box 310
Shoemakersville, PA 19555-0310
Tel: 610-562-7570 x 4802
Fax: 610-562-1375
Att: Mr. Mike Troutman
email: mtroutman@mjelectric.com

Asplundh
161 Second Street
Wilkes Barre, PA 18702-6934
Tel: 570-947-1101
Fax: 570-822-0770
Attn: Mr. Vincent Stanbro

email: v.stanbro@asplundh.com

Tri-M Group, LLC
 PO Box 69
 204 Gale Lane
 Kennett Square, PA 19348-0069
 Tel: 610-444-1001 ext 159
 Fax: 484-731-0209
 Attn: Mr. Ron Bauguess
 email: rbauguess@tri-mgroup.com

Approved for underground work only:
 J. Fletcher Creamer & Son, Inc.
 1701 E. Linden Avenue
 Linden, NJ 07036-1500
 Tel: 908-925-3200
 Fax: 908-925-3350
 Att: Mr. Ted Paliwoda
 email: tpaliwoda@jfcson.com

- B. Indemnification.** The Contractor agrees to indemnify and hold harmless JCP&L, its officers, employees and agents from liability and claims related to the work described under Section 654. This requirement does not establish JCP&L as a third party beneficiary; the provisions specified in Section 107.10 are unaltered.
- C. Scheduling of Work and Interruption to Utilities.** Provide the RE and the designated JCP&L representative with a detailed schedule of when the electric utility work will be performed. Indicate in the schedule for each activity the following information: the work locations; the number of crews; and whether the work will be performed during a day shift or night shift, or on weekends. Coordinate all electric utility work with the JCP&L representative, and notify the RE and the JCP&L representative at least two weeks prior to starting electric utility work. Do not interrupt existing electric service until approved by the JCP&L representative.
- Weather conditions may prevent connections to existing systems between June 1 and September 30. Do not perform work which will require electric transmission service interruptions from June 1 through September 30 without the approval of JCP&L. JCP&L may extend this period based on weather conditions and system demand. Notify JCP&L at least one month in advance of commencing conductor work.
- If service transfers are required, coordinate service transfers with the JCP&L representative. Notify the property owner and all tenants affected by service interruptions or transfers prior to making the service transfer. Minimize disruption to normal operations of existing facilities and minimize any interruption of electric service to JCP&L customers. Protect existing facilities during construction and installation of the service transfer.
- D. Quality Control and Quality Assurance.** Provide access to the work for the JCP&L representative at all times. Perform all electric utility work in a manner acceptable to the JCP&L representative. Perform all electric utility work in accordance with JCP&L standards and details.
- E. Safety.** Perform work in accordance with applicable OSHA regulations, N.J.S.A. 34:6-47 “High Voltage Proximity Act”, and JCP&L safety standards.
- F. Abandonment and Removal.** Prior to beginning work, review the condition of all existing electric utility facilities noted to be removed with the JCP&L representative. If the JCP&L representative designates the material to be salvaged, remove the material and deliver it to a JCP&L storage facility. Remove and dispose of all other electrical utility material designated for removal.
- G. Excavation.** When excavation is required in areas having existing pavement and sidewalk, sawcut to the full depth of the existing pavement and sidewalk. Excavate trenches for conduit, manholes and vaults and appurtenances. Provide vertical sides for excavations within the traveled way, shoulder, sidewalk areas, and where existing facilities require protection. Remove unstable material at the bottom of the excavation and backfill with granular material. Do not excavate trenches more than 300 feet in advance of installing conduit unless approved by the RE. Provide and maintain trench crossings where necessary to maintain access. Do not leave trenches open overnight unless protected by temporary fencing or steel plates. Remove and dispose of excess or unsuitable material as specified in 202.03.07.

- H. Backfill.** Backfill with suitable material in lifts not exceeding 6 inches thick, loose measurement. If the backfill is predominantly granular material, compact the backfill material with a vibratory plate compactor. For material that is not predominately granular, compact the backfill material with a vibratory rammer compactor. If it is not possible to compact the backfill material, the Contractor may backfill with CLSM with the approval of the JCP&L representative. If using CLSM, install as specified in 601.03.01.F.
- I. Restoration.** Restore areas disturbed in the performance of electrical utility relocations to its original condition. In areas that are disturbed for which the plans provide final grading, pavement or landscaping, provide temporary restoration to the satisfaction of the RE. If open-cut trenching across a road is required, restore the pavement with in-kind construction.
- J. Field Testing.** Perform a high-potential test (also known as a dielectric voltage withstand test) on all cables and splices prior to energizing. Testing must be performed by a person who is qualified to operate the test equipment, and is familiar with the cable system. Ensure that the cables are disconnected from non-cable systems equipment, and that adequate physical clearances are maintained between all cable ends, energized cables, and electrical grounds and all other equipment during the test. Prior to performing the test, verify that all taps or laterals in the circuit are cleared. In the event hot poured compound filled splices and terminations are involved, do not perform testing until they have cooled to ambient temperature. Set the relays in the high voltage direct current test equipment to operate between 5 and 25 milliamperes leakage. The shape of the leakage curve under constant voltage is more important than the absolute leakage current of a “go or no go” withstand test result. The field test voltage is related to the final factory applied dc potentials using a factor of 80 percent.

Ensure the high potential test is performed in the presence of the JCP&L representative. Apply a direct current field test voltage according to the following table:

Field Test Values				
Rated Voltage	dc Hi-Pot Test		dc Hi-Pot Test	
Phase to	(15 Minutes)			
Phase	Wall - mils	Kv	Wall - mils	kV
5000	90	25	115	35
8000	115	35	140	45
15000	175	55	220	65
25000	260	80	320	95
28000	280	85	345	100
35000	345	100	420	125
46000	445	130	580	170
69000	650	195	650	195

Note: If the leakage current quickly stabilizes, the duration may be reduced to 10 minutes.

After the voltage has been applied and the test level reached, record the leakage current at one-minute intervals. If the leakage current decreases or stays steady after it has leveled off, the cable is considered satisfactory. If the leakage current starts to increase, excluding momentary spurts due to supply-circuit disturbances, extend the test to see if the rising trend continues. At the conclusion of the test, discharge the circuit through the test set and voltmeter circuit. After the potential drops below 95% of the test value, ground the cable and discharge the circuit. Leave the grounds on all conductors for a minimum of four times as long as the test voltage was applied.

Remove and replace cables that fail to meet the requirements of the direct current field test. The Contractor is responsible for reimbursing the Department for any additional material costs incurred by the Department resulting from the failure to meet the requirements of the direct current field test.

- K. Energizing Lines.** Energize lines with the guidance of the JCP&L representative. Prior to energizing lines, submit a request to JCP&L. Switching orders may only originate from JCP&L employees. Submit a request for permission to energize transmission lines 10 days in advance of when the work will be performed. Request permission to energize distribution lines in a manner that will permit the JCP&L representative to submit a request to JCP&L’s Dispatch Office by noon the previous business day.

- L. **As-builts.** Upon completion of the work, submit to JCP&L as-built drawings in accordance with JCP&L standards. Prints of construction drawings, marked to show the final location, are acceptable. Provide a copy of the as-built drawings to the RE.

65X.04 MEASUREMENT AND PAYMENT

The Department will measure and make payment for Items as follows:

<i>Item</i>	<i>Pay Unit</i>
ELECTRICAL UTILITY RELOCATION, JCP&L	LUMP SUM

701.03.05 Rigid Nonmetallic Conduit

B. Installation.

THE LAST PARAGRAPH IS CHANGED TO:

Install true tape marked in 1 foot increments for the length of the rigid non-metallic conduit. Install a tracer wire continuously for the entire run of 1 of the conduits, including through the junction boxes mounted on the wall. Splice the tracer wire only in the junction boxes. Seal the rigid nonmetallic conduit with the tracer wire. If wire or cable is not scheduled to be installed within the next 6 months, cap and seal the other conduits leaving the true tape inside. Install marking tape in the trench above the conduit.

701.03.07 Flexible Nonmetallic Conduit

B. Installation.

THE SECOND PARAGRAPH IS CHANGED TO:

Cut flexible nonmetallic conduit according to manufacturer's recommendations.

THE LAST PARAGRAPH IS CHANGED TO:

Install true tape marked in 1 foot increments for the length of the flexible non-metallic conduit. Install a tracer wire continuously for the entire run of conduits, including through the junction boxes mounted on the wall. Splice the tracer wire only in the junction boxes. Seal the flexible nonmetallic conduit with the tracer wire. If wire or cable is not scheduled to be installed within the next 6 months, cap and seal the other conduits leaving the true tape inside. Install marking tape in the trench above the conduit.

701.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

If restoration of disturbed areas includes sidewalks, driveways and islands, the Department will make measurement and payment for sidewalks, driveways and islands as specified in 606.04.

704.03.01 General System (GS)

B. Installation.

6. Control Center System.

THE FOLLOWING IS ADDED:

Supply and install equipment, software, software revisions, firmware and miscellaneous wiring and cabling required for the turn key remote operation of ITS field devices by the Department from the designated Traffic Operation Center. Perform work as required to integrate the proposed systems into the various existing operating systems or subsystems used by the Department. Comply with building installation requirements, restrictions and security requirements in the performance of work. Submit a request for access to the RE at least 6 days in advance of work scheduled to be performed at a center.

C. Testing.

THE FIRST PARAGRAPH IS CHANGED TO:

Perform wiring and cable testing, as specified in 701.03.15.D, before performing any other testing. Complete the item, device and system testing as specified on the Department provided forms and instructions.

1. Device Testing.

b. Level B.

THE FIRST SENTENCE IS CHANGED TO:

Demonstrate that each device is fully operational from the designated control center to the work site with the original equipment manufacturer's software.

704.03.02 Camera Surveillance System (CSS)

B. Installation

1. Foundation CSS.

THE FOLLOWING IS ADDED:

Ensure that the anchor bolts are placed upon verification of the orientation of the lowering device to minimize the obstruction of desired camera view by the Camera Standard.

2. Camera Standard.

THE FOLLOWING IS ADDED:

At least 30 days before beginning construction, submit working drawings for approval that include structural calculations meeting the specified criteria. Ensure the calculations are signed and sealed by a Professional Engineer.

3. Camera.

THE FIRST PARAGRAPH IS CHANGED TO:

Mount the camera housing and camera according to the manufacturer's recommendation. Ensure that the camera's field of view is unobstructed. Perform tree trimming and site clearing to provide an unobstructed field of view as directed by the RE. Set up "On Screen Display" to indicate the quadrant views with directional titles (e.g. NB view, EB view, SB view, WB view) displayed in the bottom right corner of the screen for each camera. Leave the display blank for any quadrant not representing any highway view. For a camera with multiple highway views, include route and directional title (e.g. Rt 1 NB view). Also, establish a pan and tilt zones system and set up 4 presets for quick pan-tilt-zoom views prior to level B testing. At least 6 days prior to Level C testing, submit a request to the RE for the Department to integrate each camera into the Nextiva control software.

704.03.03 Fiber Optic Cable

C. Testing

THE LAST PARAGRAPH IS CHANGED TO:

After completion of Level 1 and 2 tests, perform network communication system testing and demonstrate that the communication system is fully operational to meet the material specifications and project requirements. Complete the testing as specified on the Department provided forms and instructions.

704.03.04 Controlled Traffic Signal System (CTSS)

C. Testing.

THE FIRST PARAGRAPH IS CHANGED TO:

Perform testing as specified in 704.03.01.C, except do not perform Level B Testing.

704.03.05 Travel Time Systems (TTS)

C. Testing.

THE FOLLOWING IS ADDED:

For TTS with transmit, both Level B and Level C Testing will be done with integration into TRANSCOM;s transmit software control system and the control center software management systems.

704.03.07 Dynamic Message System (DMS)

B. Installation.

5. DMS Sign Install and DMS Sign With Controller Install.

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 1 **VERIFY AND REVISE IF NECESSARY, THE 4 MONTH DELIVERY TIME AFTER THE AWARD TO APPROPRIATE TIME FRAME BASED ON THE STAGING PLAN TO PREVENT EARLY DELIVERIES OF DMS SIGNS AND ASSOCIATED STORAGE REQUIREMENTS.** 1

SME CONTACT – ITS ENGINEERING

THE FIRST PARAGRAPH IS CHANGED TO:

Submit working drawings that include sign mounting and lifting calculations, and controller installation requirements. Ensure the calculations are signed and sealed by a Professional Engineer. Within 25 days after execution of the Contract, provide the address of the location for the delivery of the specified DMS signs. Inspect and provide notice of acceptance as specified in 106.02. The Department will provide for delivery of the signs within 4 months of award of the Contract. Mount the sign on the standard, and make all wire and cable connections to the DMS sign controller according to the sign manufacturer’s recommendations. When required by the type of sign, securely bolt the controller to the foundation in a vertical position using stainless steel hardware. Seal the underground conduit entrance to the controller with a sealing compound. Coordinate with the manufacturer, and provide access and support, for any warranty work covered by the DMS material. Submit requests for warranty work in writing to the RE. Details of the warranty will be provided with each DMS material, and includes replacement of the unit if the manufacturer can not fix the problem within one week.

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C. Testing.

THE FOLLOWING IS ADDED:

For DMS specified for integration in Traffic Operations Center South, both Level B and Level C Testing will be done with integration into the Vanguard control software system.

811.03.01 Planting

E. Excavation for Plant Pits and Beds.

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Obtain RE approval before reusing topsoil from the excavated pits.

I. Watering.

THE FIRST PARAGRAPH IS CHANGED TO:

Water plants with sufficient frequency and quantity to ensure that the soil surrounding the root system remains moist but not saturated.

903.03.06 Tables

Table 903.03.06-2 Requirements for Structural Concrete Items

THE SEVENTH LINE UNDER CAST-IN-PLACE ITEMS IS CHANGED TO:

Table 903.03.06-2 Requirements for Structural Concrete Items				
	Concrete Class	Slump¹ (inches)	Percent Air Entrainment for Coarse Aggregate¹	
			No. 57 & No. 67	No. 8
Decks, Sidewalks, Curbs, Parapets, Concrete Patch	A	3 ± 1	6.0 + 1.5	7.0 ± 1.5

904.01.02 Fabrication

THE LAST SENTENCE OF PART 2 IS CHANGED TO:

If using SCC, minimize or eliminate the use of vibrators to prevent segregation.

904.02.06 Quality Control and Acceptance Requirements

STEP 2 IN THE THIRD PARAGRAPH IS CHANGED TO:

- 2. Dimensions not conforming to the tolerances specified in Table 904.02.02-1.

905.01.05 Dowels

THE ENTIRE SUBSECTION IS CHANGED TO:

Use plain reinforcement bars according to ASTM A 615, Grade 60. Galvanize according to ASTM A 123.

911.02.03 Non-Breakaway Sign Supports for Ground Mounted Signs

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Tie-wrap posts during shipment and handling to protect the finish.

914.04.01 Preformed Elastomeric (Compression Type)

B. Joint Sealer.

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

If splicing of a sealer is allowed, ensure that the sealer at the splice point has no significant misalignment at its sides or top and that misalignment at the bottom does not exceed half of the bottom wall thickness.

SECTION 1001 – TRAFFIC CONTROL EQUIPMENT

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INCLUDE THE FOLLOWING SUBSECTIONS IF ANY OF THESE ITEMS ARE REQUESTED BY TRAFFIC OPERATIONS

SME CONTACT – TRAFFIC OPERATIONS

THE FOLLOWING SUBSECTION IS ADDED:

1001.04 PORTABLE VARIABLE MESSAGE SIGN W/REMOTE OPERATION

Provide a portable variable message sign as described under 1001.02 equipped with the required broadband cellular modem.

1001.05 PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY

Provide a Portable Trailer Mounted CCTV Camera Assembly with the following:

A. Trailer Platform

- 1. Single Axle steel welded trailer with 2 inches adjustable ball hitch
- 2. Heavy-duty safety chains
- 3. Single drop torsion suspension or leaf springs
- 4. Self lubricating wheel spindles
- 5. Maximum size, including tongue, 14 feet long by 7 feet wide by 8 feet high
- 6. Maximum payload 3500 pounds
- 7. Tire size F7815 or F78-14ST with Tire Tools and a spare wheel mounted and locked on trailer
- 8. DOT approved lighting package to include electrical brake and marker lights with wire connections
- 9. Prime and paint customer’s choice of color
- 10. Fitted with manual telescoping outriggers with adjustable jacks sized to counter full mast extension

11. Four 3500 pounds, drop leg, top wind screw jacks
12. Custom fabricated mounts for all options installed
13. All equipment secured to prevent theft or separation from platform
14. Stainless steel hardware to prolong trailer life
15. 24/7 operation in all weather conditions
16. Wheel locks to secure trailer while deployed
17. Two locking NEMA-4 equipment boxes for electronic components and camera storage
18. One locking NEMA-4 equipment box for operational controls
19. Max trailer weight of 3500 pounds when fully configured
20. Wheels removable when trailer in deployed position
21. Operation manual

B. Mast

1. 150 pounds payload capacity
2. 29 feet to 32 feet of extension with capability to mount antenna at 20 feet, 25 feet or at the top, maximum nested length of mast is 10 feet - 3 to 9 sections
3. Un-guyed
4. Locking collars to allow the mast to remain extended indefinitely without air pressure
5. Anodized and sealed exterior aluminum surfaces for long life
6. Custom fabricated mount for cameras
7. Folds down during transport for better height clearance
8. Spiral conduit for cables
9. Compactly retractable when mast is nested into storage container at bottom of mast
10. Automatically hydraulic (pneumatic) operation or power winch with a safety brake

C. Electrical System

1. 12 VDC battery operated with multi crystal solar electric panel
2. Fuse panel to protect electronics
3. Four 110 watt solar panels on collapsible mounts
4. Charge controller that automatically switches charging sources
5. Isolated 12 VDC starting battery
6. Provisions for operation on auxiliary power (Electric, Gasoline or fuel generated power source) for deployment

D. Auxiliary Power Source

Auxiliary Power Source can either be gasoline or diesel operated power generator with a fuel tank capable of up to 72 hours operation without refueling. Ensure that the engine is shock mounted to reduce vibration and locked in a ventilated enclosure.

E. Inverter

1. To provide main power when (AC) power is not available
2. Battery charger
3. Install all cables in weather tight conduits with sealed connections to equipment boxes

F. Electronics

- 1. Cellular (CDMA), microwave, or 802.11 bandwidth option
- 2. Onboard Ethernet switch to connect cameras, bandwidth, and monitoring devices
- 3. Work lights in all cabinets
- 4. Remote trailer diagnostics (battery level, charging output, etc)

G. Camera and Software

Ensure that the camera has the following characteristics:

- 1. Weather resistant powder coated aluminum case with stainless steel hardware fittings
- 2. Impact resistant viewing window
- 3. Minimum resolution of NTSC 704 (H) x 480 (V)
- 4. Backlight compensation
- 5. Image stabilization
- 6. Light Sensitivity 0.02 lux NIR Mode
- 7. Auto Focus with Manual Focus capability
- 8. Auto White Balance with Manual White Balance capability
- 9. Motorized Zoom up to 16x optical, 10x digital
- 10. Motorized Pan-Tilt, pan 360°, tilt 180°
- 11. Thermostatically controlled heater and defroster -50° to 140°F operating range
- 12. Windshield wiper
- 13. 24/7 operation in all weather conditions
- 14. Time and date stamp
- 15. Max power consumption 70 VA

Ensure that the software includes:

- 1. Remote control of pan, tilt and zoom
- 2. Ability to display streaming video in MPEG format, motion-JPEG, and single snapshot JPEG images, remotely central selectable through software
- 3. Preset controls of pan/tilt/zoom combinations. All presets to be accessible from drop-down menu with descriptive name of preset. Set first 8 presets with quick-launch icons with graphical representation of the preset views.
- 4. Ability to display all the project's web cams in a single view screen
- 5. Display of local time and weather conditions including temperature and humidity.
- 6. Ability to save images to disk or e-mail images
- 7. Ability to view archived images via a graphical calendar control and to store archived images at least every five minutes.
- 8. Three levels of password protection admin, user & guest, individual user accounts
- 9. Remote camera diagnostics and "self-healing" automatic problem rectification
- 10. Ability to monitor and control the cameras from the web

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Implementation Code R (ROUTINE)

Changes must be implemented in all applicable Department projects scheduled for Final Design Submission at least one month after the date of the BDC announcement. This will allow designers to make necessary plan, specifications, and estimate/proposal changes without requiring the need for an addenda or postponement of advertisement or receipt of bids.

Recommended By:

ORIGINAL SIGNED

Walter McGrosky
Director,
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Approved By:

ORIGINAL SIGNED

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Assistant Commissioner,
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WM: KS: HP
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