

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 9

PROPOSAL

DATE AND TIME OF BID OPENING: December 9, 2015 AT 10:00 AM

CONTRACT ID: D9-WIRE/FIBER-16

WBS ELEMENT NO.: TBD

FEDERAL AID NO.: N/A

COUNTY: Davidson, Davie, Forsyth, Rowan and Stokes
Counties

TIP NO.: NA

MILES: NA MILES

ROUTE NO.: VARIOUS

LOCATION: DIVISION 9

★ **TYPE OF WORK:** DUAL AWARD - INSTALLATION OF TRAFFIC SIGNAL
EQUIPMENT AND FIBER-OPTIC COMMUNICATION
SYSTEMS ★

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

THIS IS A ROADWAY PROJECT.

BID BONDS ARE NOT REQUIRED.

NAME OF BIDDER

ADDRESS OF BIDDER

**PROPOSAL FOR THE CONSTRUCTION OF
CONTRACT No. D9-WIRE/FIBER-16 IN DAVIDSON, DAVIE, FORSYTH, ROWAN AND STOKES
COUNTIES, NORTH CAROLINA**

NOVEMBER 18, 2015

**DEPARTMENT OF TRANSPORTATION,
RALEIGH, NORTH CAROLINA**

The Bidder has carefully examined the location of the proposed work to be known as Contract No. **D9-WIRE/FIBER-16**; has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Department of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with *the 2012 Standard Specifications for Roads and Structures* by the dates(s) specified in the Project Special Provisions and in accordance with the requirements of the Engineer, and at the unit or lump sum prices, as the case may be, for the various items given on the sheets contained herein.

The Bidder shall provide and furnish all the materials, machinery, implements, appliances and tools, and perform the work and required labor to construct and complete State Highway Contract No. **D9-WIRE/FIBER-16** in **Davidson, Davie, Forsyth, Rowan and Stokes Counties**, for the unit or lump sum prices, as the case may be, bid by the Bidder in his bid and according to the proposal, plans, and specifications prepared by said Department, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

The published volume entitled *North Carolina Department of Transportation, Raleigh, Standard Specifications for Roads and Structures, January 2012* with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

If the proposal is accepted and the award is made, the contract is valid only when signed either by the Contract Officer or such other person as may be designated by the Secretary to sign for the Department of Transportation. The conditions and provisions herein cannot be changed except over the signature of the said Contract Officer or Division Engineer.

The quantities shown in the itemized proposal for the project are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

An increase or decrease in the quantity of an item will not be regarded as sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided for the contract.

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INSTRUCTIONS TO BIDDERS

PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE PREPARING AND SUBMITTING YOUR BID.

Bidders must attend a Mandatory Pre-Bid Conference on Wednesday, December 2, 2015 at 10:00 a.m. at NCDOT Division 9 Office at 375 Silas Creek Parkway, Winston-Salem, NC 27127.

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement shall cause the bid to be considered irregular and shall be grounds for rejection of the bid. NO BID BONDS REQUIRED.

1. The bid sheet furnished by NCDOT with the proposal shall be used and shall not be altered in any manner.
2. All entries on the bid sheet, including signatures, shall be written in ink.
3. The Bidder shall submit a unit price for every item on the bid form. The unit prices for the various contract items shall be written in figures. **** Unit bid prices must be limited to two (2) decimal places. ****
4. An amount bid shall be entered on the bid sheet for every item. The amount bid for each item shall be determined by multiplying each unit bid by the quantity for that item, and shall be written in figures in the "Amount Bid" column of the sheet.
5. The total amount bid shall be written in figures in the proper place on the bid sheet. The total amount shall be determined by adding the amounts bid for each item.
6. Changes in any entry shall be made by marking through the entry in ink and making the correct entry adjacent thereto in ink. A representative of the Bidder shall initial the change in ink. Do NOT use white-out.
7. The bid shall be properly executed. All bids shall show the following information:
 - a. Name of individual, firm, corporation, partnership, or joint venture submitting bid.
 - b. Name of individual or representative submitting bid and position or title.
 - c. Name, signature, and position or title of witness.
 - d. Federal Identification Number
 - e. Contractor's License Number
8. Bids submitted by corporations shall bear the seal of the corporation.
9. The bid shall not contain any unauthorized additions, deletions, or conditional bids.
10. The bidder shall not add any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
11. **THE ENTIRE PROPOSAL INCLUDING BID FORM AND MB/WB FORMS SHALL BE PLACED IN A SEALED ENVELOPE AND SHALL HAVE BEEN DELIVERED TO AND RECEIVED IN THE DIVISION OFFICE AT 375 SILAS CREEK PARKWAY, WINSTON-SALEM, NC 27127 BY 10:00 A.M. ON DECEMBER 9, 2015.**
12. The sealed bid must display the following statement on the front of the sealed envelope:

Name and Address of Company and:

“CONTRACT #D9-WIRE/FIBER-16 – INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT AND FIBER-OPTIC COMMUNICATION SYSTEMS IN DAVDSON, DAVIE, FORSYTH, ROWAN AND STOKES COUNTIES TO BE OPENED AT 10:00AM ON DECEMBER 9, 2015.”

13. If delivered by mail, the sealed envelope shall be placed in another sealed envelope and the outer envelope shall be addressed as follows:

**J. Brett Abernathy, PE, PLS
Division 9 Project Manager
N. C. Department of Transportation
375 Silas Creek Parkway
Winston-Salem, North Carolina 27127**

AWARD OF CONTRACT

The award of the contract, if it be awarded, will be made to the lowest 2 responsible Bidders. The lowest responsible Bidders will be notified that his bid has been accepted and that he has been awarded a contract. NCDOT reserves the right to reject any and all bids.

STANDARD PROVISIONS

MANDATORY PRE-BID CONFERENCE

Due to the nature of the work involved, the location of the project, the traffic control and for all prospective bidders to have an extensive knowledge of the project, a mandatory pre-bid conference will be held on **Wednesday, December 2, 2015 at 10:00am** for all interested parties at the Division 9 Office, located at 375 Silas Creek Parkway, Winston-Salem, NC 27127.

DESCRIPTION

This is a Dual Award Maintenance Contract for installation of Traffic Signal Equipment and Fiber-Optic Communication Systems. This will include work but not limited to: Messenger Cable, Conductor Cable, Rigid Conduit, Signal Heads, Controller Cabinets, Junction Boxes, and Subject to Emergency Callback on an "As Needed Basis". Furnish and install complete single mode fiber-optic communication system within NCDOT Division 9. These systems will include aerial and underground splice enclosures and delineator markers in accordance with the plans and/or specifications within Davidson, Davie, Forsyth, Rowan and Stokes Counties. Contractors will comply with all provisions included in section 1700 of the NCDOT Standard Specifications for Roads and Structures 2012.

GENERAL

The quantities shown in the itemized proposal for the contract are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

All work and materials shall be in accordance with the provisions of the General Guidelines of this contract, the Project Special Provisions, the 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures, the 2012 North Carolina Department of Transportation Roadway Standards Drawings, the current edition of the Manual of Uniform Traffic Control Devices (MUTCD) and the NC Supplement to the MUTCD. The Contractor shall keep himself fully informed of all Federal, State and local laws, ordinances, and regulations, and shall comply with the provisions of Section 107 of the Standard Specifications.

A copy of the 2012 NCDOT Standard Specifications for Roads and Structures and 2012 NCDOT Standard Drawings can be obtained by writing to:

**North Carolina Department of Transportation
Project Services Unit
1020 Birch Ridge Drive Room # 16
Raleigh, 27610
Telephone: (919) 250-4128**

or following the link to the current edition of the NCDOT:

"Standard Specifications for Roads and Structures 2012"

http://ncdot.org/doh/preconstruct/ps/specifications/specifications_provisions.html

and "Roadway Standard Drawings"

http://ncdot.org/doh/preconstruct/ps/std_draw/

TERM OF THE CONTRACT

This shall terminate December 31, 2016. At the option of the Department, this contract may be extended for two (2) additional periods of one (1) year each (maximum three (3) years total).

CPI (PRICE ADJUSTMENT)

The compensation payable to the contractor shall be fixed for the first twelve months of this contract. However, upon an application by the contract, or sixty (60) days prior to the end of each contract period, the renewal contract may be adjusted to reflect the adjustment in the Consumer Price Index for the previous twelve (12) month period as published by the US Bureau of Labor Statistics. If the amount of the requested adjustment is more than ten (10) percent, the Department of Transportation reserves the right to cancel this contract.

<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>

The CPI will be determined from a 12-month period. Example below:

Year	J	F	M	A	M	J	J	A	S	O	N	D
2009	211.1	212.2	212.7	213.2	213.8	215.7	215.3	215.8	215.9	216.2	216.3	215.9
2010	216.7	216.7	217.6	218.0	218.2	217.9	218.0	218.3	218.4	218.7	218.8	219.2
2011	220.2	221.3	223.4	224.9	225.9	225.7	225.9	226.6	226.9	226.4	226.2	225.7
2012	226.7	227.7	229.1	229.2	228.5	228.6	228.7	230.1	231.4			

CPI for current period	231.4
Less CPI for previous period	<u>226.9</u>
Equals index point change	4.5
Divided by previous period CPI	226.9
Equals	0.0198
Result multiplied by 100	<u>0.0198 x 100</u>
Equals percentage change	1.98 %

All line items in this contract (except asphalt items) will be adjusted by the calculated percentage at the time of renewal for CPI (Price Adjustment).

CONTRACT PAYMENT AND PERFORMANCE BOND:

A performance bond in the amount of one hundred percent (100%) of the contract amount, conditioned upon the faithful performance of the contract in accordance with specifications and conditions of the contract is required. Such bond shall be solely for the protection of the North Carolina Department of Transportation and the State of North Carolina.

A payment bond in the amount of one hundred percent (100%) of the contract amount, conditioned upon the prompt payment for all labor or materials for which the Contractor, or his subcontractors, is liable is required. The payment bond shall be solely for the protection of persons or firms furnishing materials or performing labor for this contract for which the Contractor is liable.

NOTE: Do not submit bonds with bid forms, hold until notified you are the lowest bidder!

The successful bidder, within fourteen (14) days after notice of award, shall provide the Department with a contract payment bond and a contract performance bond each in an amount equal to 100 percent of the amount of the contract.

CONTRACT TIME AND LIQUIDATED DAMAGES

The date of availability for this project is the day the purchase order is approved. It shall expire December 31, 2016. The Contractor may begin work prior to this date upon approval of the Engineer or his duly authorized representative. If such approval is given, and the Contractor begins work prior to the date of availability, the Department of Transportation will assume no responsibility for any delays caused prior to the date of availability by any reason whatsoever, and such delays, if any, will not constitute a valid reason for extending the completion date. No work will be permitted and no purchase order will be issued until all required bonds and prerequisite conditions and certifications have been satisfied.

All line items, except for item #51, work must be completed within fifteen (15) working days from the date of notification by the Engineer or his/her representative. If work is not completed within fifteen (15) working days from the date of notification by the Engineer, liquidated damages of two hundred and fifty dollars (\$250.00) per calendar day will be assessed. **For line item # 51, the liquidated damages of five hundred dollars (\$500.00) per hour or any part thereof will be assessed.**

Notification to any personnel of the company will be considered the date of notification. The Contractor may be required to work at multiple intersections during the same period. No extensions will be authorized except as authorized by Article 108-10 of the Standard Specifications.

TRAFFIC CONTROL AND WORK ZONE SAFETY

The Contractor shall maintain traffic during construction and provide, install, and maintain all traffic control devices in accordance with these project guidelines, the Project Special Provisions, North Carolina Department of Transportation Standard Specifications for Roads and Structures, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).

The Contractor shall utilize complete and proper traffic controls and traffic control devices during all operations. All traffic control and traffic control devices required for any operation shall be functional and in place prior to the commencement of that operation. Signs for temporary operations shall be removed during periods of inactivity. The Contractor is required to leave the project in a manner that will be safe to the traveling public and which will not impede motorists.

Flaggers stationed at each end of the work zone shall control traffic movements through lane closures on roads with two-way traffic. In situations where sight distance is limited, the Contractor shall provide additional means of controlling traffic, including, but not limited to, two-way radios, pilot vehicles or additional flaggers. Flaggers shall be competent personnel, adequately trained in flagging procedures, and furnished with proper safety devices and equipment, including, but not limited to, safety vests and stop/slow paddles.

All personnel when working in traffic areas or areas in close proximity to traffic shall wear an approved safety vest, or shirt or jacket which meets the color requirements of the Manual of Uniform Traffic Control Devices (MUTCD).

The Contractor shall comply with all applicable Federal, State, and local laws, ordinances, and regulations governing safety, health, and sanitation, and shall provide all safeguards, safety devices, and protective equipment, and shall take any other needed actions, on his own responsibility that are reasonably necessary to protect the life and health of employees on the job and the safety of the public, and to protect property in connection with the performance of the work covered by the contract.

Failure to comply with any of the requirements for safety and traffic control of this contract shall result in suspension of work as provided in sub-article 108-7(B) of the Standard Specifications.

No direct payment shall be made for traffic control and work zone safety items, as they shall be considered incidental to other contract items.

EXTENSION OF CONTRACT TIME

Failure on the part of the Contractor to furnish bonds or certifications or to satisfy preliminary requirements necessary to issue the purchase order will not constitute grounds for extension of the contract time. If the Contractor has fulfilled all preliminary requirements for the issuance of a purchase order, and the purchase order authorization is not available by the date of availability, the Contractor shall be granted an extension equal to the number of calendar days the purchase order authorization is delayed after the date of availability.

BIDS OVER LIMIT:

(01-30-14)

SPD 01-400

In accordance with GS 136-28.1(b), if the total bid amount of the contract exceeds \$2.5 million, the bid will not be considered for award.

NON-EXCLUSIVE CONTRACT:

(06-01-15)

SPD 01-750

The Department may, as it deems to be in the best interest of the State and the Department of Transportation, execute more than one contract based on this proposal. The Contractor(s) understands and agrees, by signature on the Purchase Order Contract Bid Proposal, that this agreement **does not** constitute an exclusive contract. If awarded, the contracts will be executed with the lowest responsible bidders. The Department of Transportation reserves the right to make multiple awards for the services provided by this contract. Furthermore, the Department reserves the right to reject all bids received.

AUTHORITY OF THE ENGINEER

The Engineer for this project shall be the Division Engineer, Division Nine, Division of Highways, North Carolina Department of Transportation, acting directly or through his/her duly authorized representatives.

The Engineer will decide all questions which may arise as to the quality and acceptability of work performed and as to the rate of progress of the work; all questions which may arise as to the interpretation of the contract; and all questions as to the acceptable fulfillment of the contract on the part of the Contractor. His decision shall be final and he shall have executive authority to enforce and make effective such decisions and orders as the Contractor fails to carry out promptly.

MATERIALS AND TESTING

The Contractor shall furnish the applicable certifications and documentation for all materials as required by the Standard Specifications. Material, which is not properly certified, will not be accepted.

INSPECTION

All work shall be subject to inspection by the Engineer at any time. Routinely, the Engineer will make periodic inspections of the completed work. It will be the responsibility of the Contractor to keep the Engineer informed of his proposed work plan and to submit written reports of work accomplished on a frequency to be determined by the Engineer.

SUPERVISION BY CONTRACTOR

At all times during the life of the project the Contractor shall provide one permanent employee who shall have the authority and capability for overall responsibility of the project and who shall be personally available at the work site within 24 hours' notice. Such employee shall be fully authorized to conduct all business with the subcontractors, to negotiate and execute all supplemental agreements, and to execute the orders or directions of the Engineer.

At all times that work is actually being performed, the Contractor shall have present on the project one competent individual who is authorized to act in a supervisory capacity over all work on the project, including work subcontracted. The individual who has been so authorized shall be experienced in the type of work being performed and shall be fully capable of managing, directing, and coordinating the work; of reading and thoroughly understanding the contract; and receiving and carrying out directions from the Engineer or his authorized representatives. He shall be an employee of the Contractor unless otherwise approved by the Engineer.

The Contractor may, at his option, designate one employee to meet the requirements of both positions. However, whenever the designated employee is absent from the work site, an authorized individual qualified to act in a supervisory capacity on the project shall be present.

SAFETY AND ACCIDENT PROTECTION

In accordance with Article 107-21 of the Standard Specifications, the Contractor shall comply with all applicable Federal, State, and local laws, ordinances, and regulations governing safety, health, and sanitation, and shall provide all safeguards, safety devices, and protective equipment, and shall take any other needed actions, on his own responsibility that are reasonably necessary to protect the life and health of employees on the job and the safety of the public, and to protect property in connection with the performance of the work covered by the contract.

SUBLETTING OF CONTRACT:

(11-18-2014)

108-6

SP1 G186

Revise the *2012 Standard Specifications* as follows:

Page 1-66, Article 108-6 Subletting of Contract, line 37, add the following as the second sentence of the first paragraph:

All requests to sublet work shall be submitted within 30 days of the date of availability or prior to expiration of 20% of the contract time, whichever date is later, unless otherwise approved by the Engineer.

Page 1-67, Article 108-6 Subletting of Contract, line 7, add the following as the second sentence of the fourth paragraph:

Purchasing materials for subcontractors is not included in the percentage of work required to be performed by the Contractor. If the Contractor sublets items of work but elects to purchase material for the subcontractor, the value of the material purchased will be included in the total dollar amount considered to have been sublet.

UTILITY CONFLICTS

It shall be the responsibility of the Contractor to contact all affected utility owners and determine the precise locations of all utilities prior to beginning construction. Utility owners shall be contacted per NC 811 Law prior to the commencement of operations. Special care shall be used in working around or near existing utilities, protecting them when necessary to provide uninterrupted service. In the event that any utility service is interrupted, the Contractor shall notify the utility owner immediately and shall cooperate with the owner, or his representative, in the restoration of service in the shortest time possible. Existing fire hydrants shall be kept accessible to fire departments at all times.

The Contractor shall adhere to all applicable regulations and follow accepted safety procedures when working in the vicinity of utilities in order to insure the safety of construction personnel and the public.

DEFAULT OF CONTRACT

The Department of Transportation shall have the right to declare a default of contract for breach by the Contractor of any material term or condition of the contract. Default of contract shall be in accordance with the terms, conditions and procedures of Article 108-9 of the Standard Specifications.

CLAIMS FOR ADDITIONAL COMPENSATION OR EXTENSION OF TIME

Any claims for additional compensation and/or extensions of the completion date shall be submitted to the Division Engineer with detailed justification within thirty (30) days after receipt of the final invoice payment. The failure of the Contractor to submit the claim(s) within thirty days shall be a bar to recovery.

POSTED WEIGHT LIMITS

The Contractor's attention is directed to the fact that many primary and secondary roads and bridges are posted with weight limits less than the legal limit. The Contractor will not be allowed to exceed the posted weight limits in transporting materials or equipment to the project. The Contractor should make a thorough examination of all maps and haul routes on this project.

BANKRUPTCY

The Department of Transportation, at its option, may terminate the contract upon filing by the Contractor of any petition for protection under the provisions of the Federal Bankruptcy Act.

PAYMENT AND RETAINAGE

The Contractor may submit a request for partial payment on a monthly basis, or other interval as approved by the Engineer. Compensation for all pay items shall be in accordance with the Standard Specifications. The amount of partial payments will be based on the work accomplished and accepted as the last day of the approved pay period.

Requests for payment can be made on the form furnished to the Contractor by the Department of Transportation. The form shall be completely and legibly filled out with all appropriate information supplied and shall be signed by an authorized representative of the Contractor.

If the request for payment is made by Contractor's Invoice, the Invoice shall be submitted to:

North Carolina Department of Transportation
Attention: John Paul Couch, P.E., Division Traffic Engineer
375 Silas Creek Parkway
Winston-Salem, NC 27127

All invoice items and unit costs shall correspond to contract pay items. In the event of error or discrepancy in items or unit costs, the Department may return the invoice to the contractor for correction.

Minority Business (MB) and Women's Business (WB) participation shall be listed in the appropriate spaces on all requests for payment. If there is no participation the word "None" or the figure "0" shall be entered. Form DBE-IS shall be submitted with all invoices.

CONTRACT WORK SCHEDULE:

The Contractor shall prepare and submit to the Engineer a proposed schedule of operations prior to beginning work on this project. The schedule should indicate the proposed chronological sequence of operations and may be revised within the limits of the contract with the approval of the Engineer.

The Contractor's operations are restricted to daylight hours. No work may be performed on Saturdays and Sundays and Legal State holidays, unless approved by the Engineer. Work shall only be performed when weather and visibility conditions allow safe operations. The Contractor shall not close lanes or restrict traffic between the hours of 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. on weekdays.

If work is required on the Interstate, the contractor will not close lanes or restrict traffic between the hours of 7:00 to 9:00 a.m. and 4:00 and 6:00 p.m. Monday through Thursday. There will be no lane closures on the Interstates on Fridays without written approval/permission from the Engineer. *These restrictions are not in reference to "Emergency Callback".

The Contractor's vehicles and equipment shall not be parked within the State Highway System right of way overnight or at other times when work has been suspended unless approved by the Engineer, and in no case within 30 feet of the edge of pavement. The Engineer may designate specific locations for parking equipment.

The Contractor shall temporarily remove his equipment from the travel way for emergency vehicles as directed by the Engineer.

PRECONSTRUCTION CONFERENCE

Immediately after receipt of notice of award, the Division Engineer and the Contractor will establish a mutually agreeable date on which the preconstruction conference will be held at the Division office. The Contractor's project superintendent, site foreman, and other individuals representing the Contractor who are knowledgeable of the Contractor's proposed progress schedule or who will be in charge of major items of the work shall attend the preconstruction conference.

PROJECT SPECIAL PROVISIONS**GENERAL****NO MAJOR CONTRACT ITEMS:**

(2-19-02) (Rev. 8-21-07)

104

SP1 G31

None of the items included in this contract will be major items.

NO SPECIALTY ITEMS:

(7-1-95)

108-6

SP1 G34

None of the items included in this contract will be specialty items (see Article 108-6 of the *2012 Standard Specifications*).

SCHEDULE OF ESTIMATED COMPLETION PROGRESS:

(7-15-08) (Rev. 5-19-15)

108-2

SP1 G58

The Contractor's attention is directed to the Standard Special Provision entitled *Availability of Funds Termination of Contracts* included elsewhere in this proposal. The Department of Transportation's schedule of estimated completion progress for this project as required by that Standard Special Provision is as follows:

2016	(7/01/15 - 6/30/16)	50 % of Total Amount Bid
2017	(7/01/16 - 6/30/17)	50 % of Total Amount Bid

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the *2012 Standard Specifications*. Any acceleration of the progress as shown by the Contractor's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE**(DIVISIONS):**

(10-16-07)(Rev. 12-17-13)

102-15(J)

SP1 G67

Description

The purpose of this Special Provision is to carry out the North Carolina Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with State funds.

Definitions

Additional MBE/WBE Subcontractors - Any MBE/WBE submitted at the time of bid that will not be used to meet either the MBE or WBE goal. No submittal of a Letter of Intent is required.

Committed MBE/WBE Subcontractor - Any MBE/WBE submitted at the time of bid that is being used to meet either the MBE or WBE goal by submission of a Letter of Intent. Or any MBE or WBE used as a replacement for a previously committed MBE or WBE firm.

Contract Goals Requirement - The approved MBE and WBE participation at time of award, but not greater than the advertised contract goals for each.

Goal Confirmation Letter - Written documentation from the Department to the bidder confirming the Contractor's approved, committed MBE and WBE participation along with a listing of the committed MBE and WBE firms.

Manufacturer - A firm that operates or maintains a factory or establishment that produces on the premises, the materials or supplies obtained by the Contractor.

MBE Goal - A portion of the total contract, expressed as a percentage, that is to be performed by committed MBE subcontractor(s).

Minority Business Enterprise (MBE) - A firm certified as a Disadvantaged Minority-Owned Business Enterprise through the North Carolina Unified Certification Program.

Regular Dealer - A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. A regular dealer engages in, as its principal business and in its own name, the purchase and sale or lease of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns and operates distribution equipment for the products. Brokers and packagers are not regarded as manufacturers or regular dealers within the meaning of this section.

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for MBE/WBE certification. The MBE/WBE program follows the same regulations as the federal Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26.

United States Department of Transportation (USDOT) - Federal agency responsible for issuing regulations (49 CFR Part 26) and official guidance for the DBE program.

WBE Goal - A portion of the total contract, expressed as a percentage, that is to be performed by committed WBE subcontractor(s).

Women Business Enterprise (WBE) - A firm certified as a Disadvantaged Women-Owned Business Enterprise through the North Carolina Unified Certification Program.

Forms and Websites Referenced in this Provision

Payment Tracking System - On-line system in which the Contractor enters the payments made to MBE and WBE subcontractors who have performed work on the project.
<https://apps.dot.state.nc.us/Vendor/PaymentTracking/>

DBE-IS Subcontractor Payment Information - Form for reporting the payments made to all MBE/WBE firms working on the project. This form is for paper bid projects only.
<http://www.ncdot.org/doh/forms/files/DBE-IS.xls>

RF-1 MBE/WBE Replacement Request Form - Form for replacing a committed MBE or WBE.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20MBE%20WBE%20Replacement%20Request%20Form.pdf>

SAF Subcontract Approval Form - Form required for approval to sublet the contract.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/Subcontract%20Approval%20Form%20Rev.%202012.zip>

JC-1 Joint Check Notification Form - Form and procedures for joint check notification. The form acts as a written joint check agreement among the parties providing full and prompt disclosure of the expected use of joint checks.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/Joint%20Check%20Notification%20Form.pdf>

Letter of Intent - Form signed by the Contractor and the MBE/WBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed MBE/WBE for the amount listed at the time of bid.
<http://connect.ncdot.gov/letting/LetCentral/Letter%20of%20Intent%20to%20Perform%20as%20a%20Subcontractor.pdf>

Listing of MBE and WBE Subcontractors Form - Form for entering MBE/WBE subcontractors on a project that will meet this MBE and WBE goals. This form is for paper bids only.
[http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20\(State\).docx](http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20(State).docx)

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where MBEs and WBEs quoted on the project. This sheet is submitted with good faith effort packages.
<http://connect.ncdot.gov/business/SmallBusiness/Documents/DBE%20Subcontractor%20Quote%20Comparison%20Example.xls>

MBE and WBE Goal

The following goals for participation by Minority Business Enterprises and Women Business Enterprises are established for this contract:

(A) Minority Business Enterprises **0 %**

- (1) *If the MBE goal is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that MBEs participate in at least the percent of the contract as set forth above as the MBE goal.
- (2) *If the MBE goal is zero*, the Contractor shall make an effort to recruit and use MBEs during the performance of the contract. Any MBE participation obtained shall be reported to the Department.

(B) Women Business Enterprises **0 %**

- (1) *If the WBE goal is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that WBEs participate in at least the percent of the contract as set forth above as the WBE goal.
- (2) *If the WBE goal is zero*, the Contractor shall make an effort to recruit and use WBEs during the performance of the contract. Any WBE participation obtained shall be reported to the Department.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as MBE and WBE certified shall be used to meet the MBE and WBE goals respectively. The Directory can be found at the following link. <https://partner.ncdot.gov/VendorDirectory/default.html>

The listing of an individual firm in the directory shall not be construed as an endorsement of the firm's capability to perform certain work.

Listing of MBE/WBE Subcontractors

At the time of bid, bidders shall submit all MBE and WBE participation that they anticipate to use during the life of the contract. Only those identified to meet the MBE goal and the WBE goal will be considered committed, even though the listing shall include both committed MBE/WBE subcontractors and additional MBE/WBE subcontractors. Any additional MBE/WBE subcontractor participation submitted at the time of bid will be used toward overall race-neutral goals. Only those firms with current MBE and WBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of MBE and WBE participation. The Contractor shall indicate the following required information:

- (A) *If either the MBE or WBE goal is more than zero,*
- (1) Bidders, at the time the bid proposal is submitted, shall submit a listing of MBE/WBE participation, including the names and addresses on *Listing of MBE and WBE Subcontractors* contained elsewhere in the contract documents in order for the bid to be considered responsive. Bidders shall indicate the total dollar value of the MBE and WBE participation for the contract.
 - (2) If bidders have no MBE or WBE participation, they shall indicate this on the *Listing of MBE and WBE Subcontractors* by entering the word “None” or the number “0.” This form shall be completed in its entirety. **Blank forms will not be deemed to represent zero participation.** Bids submitted that do not have MBE and WBE participation indicated on the appropriate form will not be read publicly during the opening of bids. The Department will not consider these bids for award and the proposal will be rejected.
 - (3) The bidder shall be responsible for ensuring that the MBE/WBE is certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that MBE’s or WBE’s participation will not count towards achieving the corresponding goal.
- (B) *If either the MBE or WBE goal is zero,* entries on the *Listing of MBE and WBE Subcontractors* are not required for the zero goal, however any MBE or WBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

MBE or WBE Prime Contractor

When a certified MBE or WBE firm bids on a contract that contains MBE and WBE goals, the firm is responsible for meeting the goals or making good faith efforts to meet the goals, just like any other bidder. In most cases, a MBE or WBE bidder on a contract will meet one of the goals by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the MBE or WBE bidder and any other similarly certified subcontractors will count toward the goal. The MBE or WBE bidder shall list itself along with any MBE or WBE subcontractors, if any, in order to receive credit toward the goals.

For example, on a proposed contract, the WBE goal is 10%, and the MBE goal is 8%. A WBE bidder puts in a bid where they will perform 40% of the contract work and have a WBE subcontractor which will perform another 5% of the work. Together the two WBE firms submit on the *Listing of MBE and WBE Subcontractors* a value of 45% of the contract which fulfills the WBE goal. The 8% MBE goal shall be obtained through MBE participation with MBE certified subcontractors or documented through a good faith effort. It should be noted that you cannot combine the two goals to meet an overall value. The two goals shall remain separate.

MBE/WBE prime contractors shall also follow Sections A or B listed under *Listing of MBE/WBE Subcontractors* just as a non-MBE/WBE bidder would.

Written Documentation – Letter of Intent

The bidder shall submit written documentation for each MBE/WBE that will be used to meet the MBE and WBE goals of the contract, indicating the bidder's commitment to use the MBE/WBE in the contract. This documentation shall be submitted on the Department's form titled *Letter of Intent*.

The documentation shall be received in the office of the Engineer no later than 12:00 noon of the sixth calendar day following opening of bids, unless the sixth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 12:00 noon on the next official state business day.

If the bidder fails to submit the Letter of Intent from each committed MBE and WBE to be used toward the MBE and WBE goals, or if the form is incomplete (i.e. both signatures are not present), the MBE/WBE participation will not count toward meeting the MBE/WBE goal. If the lack of this participation drops the commitment below either the MBE or WBE goal, the Contractor shall submit evidence of good faith efforts for the goal not met, completed in its entirety, to the Engineer no later than 12:00 noon of the eighth calendar day following opening of bids, unless the eighth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 12:00 noon on the next official state business day.

Submission of Good Faith Effort

If the bidder fails to meet or exceed either the MBE or the WBE goal, the apparent lowest responsive bidder shall submit to the Department documentation of adequate good faith efforts made to reach that specific goal(s).

One complete set and **3** copies of this information shall be received in the office of the Engineer no later than 12:00 noon of the sixth calendar day following opening of bids, unless the sixth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 12:00 noon on the next official state business day.

Note: Where the information submitted includes repetitious solicitation letters, it will be acceptable to submit a representative letter along with a distribution list of the firms that were solicited. Documentation of MBE/WBE quotations shall be a part of the good faith effort submittal. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Consideration of Good Faith Effort for Projects with MBE/WBE Goals More Than Zero

Adequate good faith efforts mean that the bidder took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness, could reasonably be

expected to obtain sufficient MBE/WBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought MBE/WBE participation. Mere *pro forma* efforts are not considered good faith efforts.

The Department will consider the quality, quantity, and intensity of the different kinds of efforts a bidder has made. Listed below are examples of the types of actions a bidder will take in making a good faith effort to meet the goals and are not intended to be exclusive or exhaustive, nor is it intended to be a mandatory checklist.

- (A) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising, written notices, use of verifiable electronic means through the use of the NCDOT Directory of Transportation Firms) the interest of all certified MBEs/WBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the MBEs/WBEs to respond to the solicitation. Solicitation shall provide the opportunity to MBEs/WBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the MBEs/WBEs are interested by taking appropriate steps to follow up initial solicitations.
- (B) Selecting portions of the work to be performed by MBEs/WBEs in order to increase the likelihood that the MBE and WBE goals will be achieved.
 - (1) Where appropriate, break out contract work items into economically feasible units to facilitate MBE/WBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - (2) Negotiate with subcontractors to assume part of the responsibility to meet the contract MBE/WBE goals when the work to be sublet includes potential for MBE/WBE participation (2nd and 3rd tier subcontractors).
- (C) Providing interested MBEs/WBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (D)
 - (1) Negotiating in good faith with interested MBEs/WBEs. It is the bidder's responsibility to make a portion of the work available to MBE/WBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/WBE subcontractors and suppliers, so as to facilitate MBE/WBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of MBEs/WBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for MBEs/WBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE/WBE subcontractors, and

would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using MBEs/WBEs is not in itself sufficient reason for a bidder's failure to meet the contract MBE or WBE goals, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidding contractors are not, however, required to accept higher quotes from MBEs/WBEs if the price difference is excessive or unreasonable.

- (E) Not rejecting MBEs/WBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associates and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (F) Making efforts to assist interested MBEs/WBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.
- (G) Making efforts to assist interested MBEs/WBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (H) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; Federal, State, and local minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of MBEs/WBEs. Contact within 7 days from the bid opening NCDOT's Business Development Manager in the Business Opportunity and Work Force Development Unit to give notification of the bidder's inability to get MBE or WBE quotes.
- (I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the MBE and WBE goal.

In addition, the Department may take into account the following:

- (1) Whether the bidder's documentation reflects a clear and realistic plan for achieving the MBE and WBE goals.
- (2) The bidders' past performance in meeting the MBE and WBE goals.
- (3) The performance of other bidders in meeting the MBE and WBE goals. For example, when the apparent successful bidder fails to meet the goals, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goals. If the apparent successful bidder fails to meet the MBE and WBE goals, but meets or exceeds the average MBE and WBE participation obtained by other bidders,

the Department may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

If the Department does not award the contract to the apparent lowest responsive bidder, the Department reserves the right to award the contract to the next lowest responsive bidder that can satisfy to the Department that the MBE and WBE goals can be met or that an adequate good faith effort has been made to meet the MBE and WBE goals.

Non-Good Faith Appeal

The Engineer will notify the contractor verbally and in writing of non-good faith. A contractor may appeal a determination of non-good faith made by the Goal Compliance Committee. If a contractor wishes to appeal the determination made by the Committee, they shall provide written notification to the Engineer. The appeal shall be made within 2 business days of notification of the determination of non-good faith.

Counting MBE/WBE Participation Toward Meeting MBE/WBE Goals

(A) Participation

The total dollar value of the participation by a committed MBE/WBE will be counted toward the contract goal requirements. The total dollar value of participation by a committed MBE/WBE will be based upon the value of work actually performed by the MBE/WBE and the actual payments to MBE/WBE firms by the Contractor.

(B) Joint Checks

Prior notification of joint check use shall be required when counting MBE/WBE participation for services or purchases that involves the use of a joint check. Notification shall be through submission of Form JC-1 (*Joint Check Notification Form*) and the use of joint checks shall be in accordance with the Department's Joint Check Procedures.

(C) Subcontracts (Non-Trucking)

A MBE/WBE may enter into subcontracts. Work that a MBE subcontracts to another MBE firm may be counted toward the MBE contract goal requirement. The same holds for work that a WBE subcontracts to another WBE firm. Work that a MBE subcontracts to a non-MBE firm does not count toward the MBE contract goal requirement. Again, the same holds true for the work that a WBE subcontracts to a non-WBE firm. If a MBE or WBE contractor or subcontractor subcontracts a significantly greater portion of the work of the contract than would be expected on the basis of standard industry practices, it shall be presumed that the MBE or WBE is not performing a commercially useful function. The MBE/WBE may present evidence to rebut this presumption to the Department. The Department's decision on the rebuttal of this presumption may be subject to review by the Office of Inspector General, NCDOT.

(D) Joint Venture

When a MBE or WBE performs as a participant in a joint venture, the Contractor may count toward its contract goal requirement a portion of the total value of participation with the MBE or WBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the MBE or WBE performs with its forces.

(E) Suppliers

A contractor may count toward its MBE or WBE requirement 60 percent of its expenditures for materials and supplies required to complete the contract and obtained from a MBE or WBE regular dealer and 100 percent of such expenditures from a MBE or WBE manufacturer.

(F) Manufacturers and Regular Dealers

A contractor may count toward its MBE or WBE requirement the following expenditures to MBE/WBE firms that are not manufacturers or regular dealers:

- (1) The fees or commissions charged by a MBE/WBE firm for providing a *bona fide* service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, provided the fees or commissions are determined to be reasonable and not excessive as compared with fees and commissions customarily allowed for similar services.
- (2) With respect to materials or supplies purchased from a MBE/WBE, which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site (but not the cost of the materials and supplies themselves), provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

Commercially Useful Function

(A) MBE/WBE Utilization

The Contractor may count toward its contract goal requirement only expenditures to MBEs and WBEs that perform a commercially useful function in the work of a contract. A MBE/WBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the MBE/WBE shall also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity,

ordering the material and installing (where applicable) and paying for the material itself. To determine whether a MBE/WBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the MBE/WBE credit claimed for its performance of the work, and any other relevant factors.

(B) MBE/WBE Utilization in Trucking

The following factors will be used to determine if a MBE or WBE trucking firm is performing a commercially useful function:

- (1) The MBE/WBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there shall not be a contrived arrangement for the purpose of meeting the MBE or WBE goal.
- (2) The MBE/WBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- (3) The MBE/WBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
- (4) The MBE may subcontract the work to another MBE firm, including an owner-operator who is certified as a MBE. The same holds true that a WBE may subcontract the work to another WBE firm, including an owner-operator who is certified as a WBE. When this occurs, the MBE or WBE who subcontracts work receives credit for the total value of the transportation services the subcontracted MBE or WBE provides on the contract. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the goal requirement. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified transportation service providers and there is no interest or availability, and they can get assistance from other certified providers, the Engineer will not hold the prime liable for meeting the goal.
- (5) The MBE/WBE may also subcontract the work to a non-MBE/WBE firm, including from an owner-operator. The MBE/WBE who subcontracts the work to a non-MBE/WBE is entitled to credit for the total value of transportation services provided by the non-MBE/WBE subcontractor not to exceed the value of transportation services provided by MBE/WBE-owned trucks on the contract. Additional participation by non-MBE/WBE subcontractors receives credit only for the fee or commission it receives as a result of the subcontract arrangement.

The value of services performed under subcontract agreements between the MBE/WBE and the Contractor will not count towards the MBE/WBE contract requirement.

- (6) A MBE/WBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the MBE/WBE has exclusive use of and control over the truck. This requirement does not preclude the leased truck from working for others during the term of the lease with the consent of the MBE/WBE, so long as the lease gives the MBE/WBE absolute priority for use of the leased truck. This type of lease may count toward the MBE/WBE's credit as long as the driver is under the MBE/WBE's payroll.
- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the MBE/WBE that they are subcontracted/leased to and their own company name if it is not identified on the truck itself. Magnetic door signs are not permitted.

MBE/WBE Replacement

When a Contractor has relied on a commitment to a MBE or WBE firm (or an approved substitute MBE or WBE firm) to meet all or part of a contract goal requirement, the contractor shall not terminate the MBE/WBE for convenience. This includes, but is not limited to, instances in which the Contractor seeks to perform the work of the terminated subcontractor with another MBE/WBE subcontractor, a non-MBE/WBE subcontractor, or with the Contractor's own forces or those of an affiliate. A MBE/WBE may only be terminated after receiving the Engineer's written approval based upon a finding of good cause for the termination.

All requests for replacement of a committed MBE/WBE firm shall be submitted to the Engineer for approval on Form RF-1 (*Replacement Request*). If the Contractor fails to follow this procedure, the Contractor may be disqualified from further bidding for a period of up to 6 months.

The Contractor shall comply with the following for replacement of a committed MBE/WBE:

(A) Performance Related Replacement

When a committed MBE is terminated for good cause as stated above, an additional MBE that was submitted at the time of bid may be used to fulfill the MBE commitment. The same holds true if a committed WBE is terminated for good cause, an additional WBE that was submitted at the time of bid may be used to fulfill the WBE goal. A good faith effort will only be required for removing a committed MBE/WBE if there were no additional MBEs/WBEs submitted at the time of bid to cover the same amount of work as the MBE/WBE that was terminated.

If a replacement MBE/WBE is not found that can perform at least the same amount of work as the terminated MBE/WBE, the Contractor shall submit a good faith effort

documenting the steps taken. Such documentation shall include, but not be limited to, the following:

- (1) Copies of written notification to MBEs/WBEs that their interest is solicited in contracting the work defaulted by the previous MBE/WBE or in subcontracting other items of work in the contract.
 - (2) Efforts to negotiate with MBEs/WBEs for specific subbids including, at a minimum:
 - (a) The names, addresses, and telephone numbers of MBEs/WBEs who were contacted.
 - (b) A description of the information provided to MBEs/WBEs regarding the plans and specifications for portions of the work to be performed.
 - (3) A list of reasons why MBE/WBE quotes were not accepted.
 - (4) Efforts made to assist the MBEs/WBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.
- (B) Decertification Replacement
- (1) When a committed MBE/WBE is decertified by the Department after the SAF (*Subcontract Approval Form*) has been received by the Department, the Department will not require the Contractor to solicit replacement MBE/WBE participation equal to the remaining work to be performed by the decertified firm. The participation equal to the remaining work performed by the decertified firm will count toward the contract goal requirement.
 - (2) When a committed MBE/WBE is decertified prior to the Department receiving the SAF (*Subcontract Approval Form*) for the named MBE/WBE firm, the Contractor shall take all necessary and reasonable steps to replace the MBE/WBE subcontractor with another similarly certified MBE/WBE subcontractor to perform at least the same amount of work to meet the MBE/WBE goal requirement. If a MBE/WBE firm is not found to do the same amount of work, a good faith effort must be submitted to NCDOT (see A herein for required documentation).

Changes in the Work

When the Engineer makes changes that result in the reduction or elimination of work to be performed by a committed MBE/WBE, the Contractor will not be required to seek additional participation. When the Engineer makes changes that result in additional work to be performed by a MBE/WBE based upon the Contractor's commitment, the MBE/WBE shall participate in additional work to the same extent as the MBE/WBE participated in the original contract work.

When the Engineer makes changes that result in extra work, which has more than a minimal impact on the contract amount, the Contractor shall seek additional participation by MBEs/WBEs unless otherwise approved by the Engineer.

When the Engineer makes changes that result in an alteration of plans or details of construction, and a portion or all of the work had been expected to be performed by a committed MBE/WBE, the Contractor shall seek participation by MBEs/WBEs unless otherwise approved by the Engineer.

When the Contractor requests changes in the work that result in the reduction or elimination of work that the Contractor committed to be performed by a MBE/WBE, the Contractor shall seek additional participation by MBEs/WBEs equal to the reduced MBE/WBE participation caused by the changes.

Reports and Documentation

A SAF (*Subcontract Approval Form*) shall be submitted for all work which is to be performed by a MBE/WBE subcontractor. The Department reserves the right to require copies of actual subcontract agreements involving MBE/WBE subcontractors.

When using transportation services to meet the contract commitment, the Contractor shall submit a proposed trucking plan in addition to the SAF. The plan shall be submitted prior to beginning construction on the project. The plan shall include the names of all trucking firms proposed for use, their certification type(s), the number of trucks owned by the firm, as well as the individual truck identification numbers, and the line item(s) being performed.

Within 30 calendar days of entering into an agreement with a MBE/WBE for materials, supplies or services, not otherwise documented by the SAF as specified above, the Contractor shall furnish the Engineer a copy of the agreement. The documentation shall also indicate the percentage (60% or 100%) of expenditures claimed for MBE/WBE credit.

Reporting Minority and Women Business Enterprise Participation

The Contractor shall provide the Engineer with an accounting of payments made to all MBE and WBE firms, including material suppliers and contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the Engineer for any given month by the end of the following month. Failure to submit this information accordingly may result in the following action:

- (A) Withholding of money due in the next partial pay estimate; or
- (B) Removal of an approved contractor from the prequalified bidders' list or the removal of other entities from the approved subcontractors list.

While each contractor (prime, subcontractor, 2nd tier subcontractor) is responsible for accurate accounting of payments to MBEs/WBEs, it shall be the prime contractor's responsibility to report all monthly and final payment information in the correct reporting manner.

Failure on the part of the Contractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from further bidding until the required information is submitted.

Failure on the part of any subcontractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from being approved for further work on future projects until the required information is submitted.

Contractors reporting transportation services provided by non-MBE/WBE lessees shall evaluate the value of services provided during the month of the reporting period only.

At any time, the Engineer can request written verification of subcontractor payments.

The Contractor shall report the accounting of payments on the Department's DBE-IS (*Subcontractor Payment Information*) with each invoice. Invoices will not be processed for payment until the DBE-IS is received.

Failure to Meet Contract Requirements

Failure to meet contract requirements in accordance with Subarticle 102-15(J) of the *2012 Standard Specifications* may be cause to disqualify the Contractor.

LOCATING EXISTING UNDERGROUND UTILITIES:

(3-20-12)

105

SP1 G115

Revise the *2012 Standard Specifications* as follows:

Page 1-43, Article 105-8, line 28, after the first sentence, add the following:

Identify excavation locations by means of pre-marking with white paint, flags, or stakes or provide a specific written description of the location in the locate request.

CONTRACTOR'S LICENSE REQUIREMENTS:

(7-1-95)

102-14

SP1 G88

If the successful bidder does not hold the proper license to perform any plumbing, heating, air conditioning, or electrical work in this contract, he will be required to sublet such work to a contractor properly licensed in accordance with *Article 2 of Chapter 87 of the General Statutes* (licensing of heating, plumbing, and air conditioning contractors) and *Article 4 of Chapter 87 of the General Statutes* (licensing of electrical contractors).

OUTSOURCING OUTSIDE THE USA:

(9-21-04) (Rev. 5-16-06)

SP1 G150

All work on consultant contracts, services contracts, and construction contracts shall be performed in the United States of America. No work shall be outsourced outside of the United States of America.

Outsourcing for the purpose of this provision is defined as the practice of subcontracting labor, work, services, staffing, or personnel to entities located outside of the United States.

The North Carolina Secretary of Transportation shall approve exceptions to this provision in writing.

GIFTS FROM VENDORS AND CONTRACTORS:

(12-15-09)

107-1

SP1 G152

By Executive Order 24, issued by Governor Perdue, and *N.C.G.S. § 133-32*, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e. Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who:

- (A) Have a contract with a governmental agency; or
- (B) Have performed under such a contract within the past year; or
- (C) Anticipate bidding on such a contract in the future.

For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and *N.C.G.S. § 133-32*.

Executive Order 24 also encouraged and invited other State Agencies to implement the requirements and prohibitions of the Executive Order to their agencies. Vendors and contractors should contact other State Agencies to determine if those agencies have adopted Executive Order 24.

LIABILITY INSURANCE:

(5-20-14)

SP1 G160

Revise the *2012 Standard Specifications* as follows:

Page 1-60, Article 107-15 LIABILITY INSURANCE, line 16, add the following as the second sentence of the third paragraph:

Prior to beginning services, all contractors shall provide proof of coverage issued by a workers' compensation insurance carrier, or a certificate of compliance issued by the Department of

Insurance for self-insured subcontractors, irrespective of whether having regularly in service fewer than three employees.

EMPLOYMENT:

(11-15-11) (Rev. 1-17-12)

108, 102

SP1 G184

Revise the *2012 Standard Specifications* as follows:

Page 1-20, Subarticle 102-15(O), delete and replace with the following:

(O) Failure to restrict a former Department employee as prohibited by Article 108-5.

Page 1-65, Article 108-5 Character of Workmen, Methods, and Equipment, line 32, delete all of line 32, the first sentence of the second paragraph and the first word of the second sentence of the second paragraph.

STATE HIGHWAY ADMINISTRATOR TITLE CHANGE:

(9-18-12)

SP1 G185

Revise the *2012 Standard Specifications* as follows:

Replace all references to “State Highway Administrator” with “Chief Engineer”.

PROJECT SPECIAL PROVISIONS**ROADWAY****MATERIALS:**

(2-21-12) (Rev. 10-20-15)

1000, 1002, 1005, 1018, 1024, 1050, 1056, 1074, 1078, 1080, 1081, 1086, 1084, 1087, 1092

SP10 R01

Revise the *2012 Standard Specifications* as follows:

Page 10-1, Article 1000-1, DESCRIPTION, lines 9-10, replace the last sentence of the first paragraph with the following:

Type IL, IP, IS or IT blended cement may be used instead of Portland cement.

Page 10-1, Article 1000-1, DESCRIPTION, line 14, add the following:

If any change is made to the mix design, submit a new mix design (with the exception of an approved pozzolan source change).

If any major change is made to the mix design, also submit new test results showing the mix design conforms to the criteria. Define a major change to the mix design as:

- (1) A source change in coarse aggregate, fine aggregate or cement.
- (2) A pozzolan class or type change (e.g. Class F fly ash to Class C fly ash).
- (3) A quantitative change in coarse aggregate (applies to an increase or decrease greater than 5%), fine aggregate (applies to an increase or decrease greater than 5%), water (applies to an increase only), cement (applies to a decrease only), or pozzolan (applies to an increase or decrease greater than 5%).

Use materials which do not produce a mottled appearance through rusting or other staining of the finished concrete surface.

Page 10-1, Article 1000-2, MATERIALS, line 16; Page 10-8, Subarticle 1000-7(A), Materials, line 8; and Page 10-18, Article 1002-2, MATERIALS, line 9, add the following to the table of item references:

Item	Section
Type IL Blended Cement	1024-1

Page 10-1, Subarticle 1000-3(A), Composition and Design, lines 25-27, replace the second paragraph with the following:

Fly ash may be substituted for cement in the mix design up to 30% at a rate of 1.0 lb of fly ash to each pound of cement replaced.

Page 10-2, Subarticle 1000-3(A), Composition and Design, lines 12-21, delete the third paragraph through the sixth paragraph beginning with “If any change is made to the mix design, submit...” through “...(applies to a decrease only).”

Page 10-5, Table 1000-1, REQUIREMENTS FOR CONCRETE, replace with the following:

TABLE 1000-1 REQUIREMENTS FOR CONCRETE											
Class of Concrete	Min. Comp. Strength at 28 days	Maximum Water-Cement Ratio				Consistency Max. Slump		Cement Content			
		Air-Entrained Concrete		Non Air-Entrained Concrete		Vibrated	Non-Vibrated	Vibrated		Non-Vibrated	
		Rounded Aggregate	Angular Aggregate	Rounded Aggregate	Angular Aggregate			Min.	Max.	Min.	Max.
Units	psi					inch	inch	lb/cy	lb/cy	lb/cy	lb/cy
AA	4,500	0.381	0.426	-	-	3.5	-	639	715	-	-
AA Slip Form	4,500	0.381	0.426	-	-	1.5	-	639	715	-	-
Drilled Pier	4,500	-	-	0.450	0.450	-	5-7 dry 7-9 wet	-	-	640	800
A	3,000	0.488	0.532	0.550	0.594	3.5	4	564	-	602	-
B	2,500	0.488	0.567	0.559	0.630	1.5 machine-placed 2.5 hand-placed	4	508	-	545	-
Sand Lightweight	4,500	-	0.420	-	-	4	-	715	-	-	-
Latex Modified	3,000 7 day	0.400	0.400	-	-	6	-	658	-	-	-
Flowable Fill excavatable	150 max. at 56 days	as needed	as needed	as needed	as needed	-	Flow-able	-	-	40	100
Flowable Fill non-excavatable	125	as needed	as needed	as needed	as needed	-	Flow-able	-	-	100	as needed
Pavement	4,500 design, field 650 flexural, design only	0.559	0.559	-	-	1.5 slip form 3.0 hand place	-	526	-	-	-
Precast	See Table 1077-1	as needed	as needed	-	-	6	as needed	as needed	as needed	as needed	as needed
Prestress	per contract	See Table 1078-1	See Table 1078-1	-	-	8	-	564	as needed	-	-

Page 10-6, Subarticle 1000-4(I), Use of Fly Ash, lines 36-2, replace the first paragraph with the following:

Fly ash may be substituted for cement in the mix design up to 30% at a rate of 1.0 lb of fly ash to each pound of cement replaced. Use Table 1000-1 to determine the maximum allowable water-cementitious material (cement + fly ash) ratio for the classes of concrete listed.

Page 10-7, Table 1000-3, MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO, delete the table.

Page 10-7, Article 1000-5, HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE, lines 30-31, delete the second sentence of the third paragraph.

Page 10-19, Article 1002-3, SHOTCRETE FOR TEMPORARY SUPPORT OF EXCAVATIONS, line 30, add the following at the end of Section 1002:

(H) Handling and Storing Test Panels

Notify the Area Materials Engineer when preconstruction or production test panels are made within 24 hours of shooting the panels. Field cure and protect test panels from damage in accordance with ASTM C1140 until the Department transports panels to the Materials and Tests Regional Laboratory for coring.

Page 10-23, Table 1005-1, AGGREGATE GRADATION-COARSE AGGREGATE, replace with the following:

TABLE 1005-1 AGGREGATE GRADATION - COARSE AGGREGATE													
Percentage of Total by Weight Passing													
Std. Size #	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#40	#200	Remarks
4	100	90-100	20-55	0-15	-	0-5	-	-	-	-	-	A	Asphalt Plant Mix
467M	100	95-100	-	35-70	-	0-30	0-5	-	-	-	-	A	Asphalt Plant Mix
5	-	100	90-100	20-55	0-10	0-5	-	-	-	-	-	A	AST, Sediment Control Stone
57	-	100	95-100	-	25-60	-	0-10	0-5	-	-	-	A	AST, Str. Concrete, Shoulder Drain, Sediment Control Stone
57M	-	100	95-100	-	25-45	-	0-10	0-5	-	-	-	A	AST, Concrete Pavement
6M	-	-	100	90-100	20-55	0-20	0-8	-	-	-	-	A	AST
67	-	-	100	90-100	-	20-55	0-10	0-5	-	-	-	A	AST, Str. Concrete, Asphalt Plant Mix
78M	-	-	-	100	98-100	75-100	20-45	0-15	-	-	-	A	Asphalt Plant Mix, AST, Str. Conc. Weep Hole Drains
14M	-	-	-	-	-	100	35-70	5-20	-	0-8	-	A	Asphalt Plant Mix, AST, Weep Hole Drains, Str. Concrete
9	-	-	-	-	-	100	85-100	10-40	-	0-10	-	A	AST
ABC	-	100	75-97	-	55-80	-	35-55	-	25-45	-	14-30	4-12 ^B	Aggregate Base Course, Aggregate Stabilization
ABC (M)	-	100	75-100	-	45-79	-	20-40	-	0-25	-	-	0-12 ^B	Maintenance Stabilization
Light-C weight	-	-	-	-	100	80-100	5-40	0-20	-	0-10	-	0-2.5	AST

- A. See Subarticle 1005-4(A).
- B. See Subarticle 1005-4(B).
- C. For Lightweight Aggregate used in Structural Concrete, see Subarticle 1014-2(E)(6).

Page 10-40, Tables 1018-1 and 1018-2, PIEDMONT, WESTERN AND COASTAL AREA CRITERIA FOR ACCEPTANCE OF BORROW MATERIAL, under second column in both tables, replace second row with the following:

Acceptable, but not to be used in the top 3 ft of embankment or backfill

Page 10-46, Article 1024-1, PORTLAND CEMENT, line 33, add the following as the ninth paragraph:

Use Type IL blended cement that meets AASHTO M 240, except that the limestone content is limited to between 5 and 12% by weight and the constituents shall be interground. Class F fly ash can replace a portion of Type IL blended cement and shall be replaced as outlined in Subarticle 1000-4(I) for Portland cement. For mixes that contain cement with alkali content between 0.6% and 1.0% and for mixes that contain a reactive aggregate documented by the Department, use a pozzolan in the amount shown in Table 1024-1.

Page 10-46, Table 1024-1, POZZOLANS FOR USE IN PORTLAND CEMENT CONCRETE, replace with the following:

Pozzolan	Rate
Class F Fly Ash	20% - 30% by weight of required cement content with 1.0 lb Class F fly ash per lb of cement replaced
Ground Granulated Blast Furnace Slag	35%-50% by weight of required cement content with 1.0 lb slag per lb of cement replaced
Microsilica	4%-8% by weight of required cement content with 1.0 lb microsilica per lb of cement replaced

Page 10-47, Subarticle 1024-3(B), Approved Sources, lines 16-18, replace the second sentence of the second paragraph with the following:

Tests shall be performed by AASHTO's designated National Transportation Product Evaluation Program (NTPEP) laboratory for concrete admixture testing.

Page 10-65, Article 1050-1, GENERAL, line 41, replace the first sentence with the following:

All fencing material and accessories shall meet Section 106.

Page 10-73, Article 1056-1, DESCRIPTION, lines 7-8, delete the first sentence of the second paragraph and replace with the following:

Use geotextile fabrics that are on the NCDOT Approved Products List.

Page 10-73, Article 1056-2, HANDLING AND STORING, line 17, replace "mechanically stabilized earth (MSE) wall faces" with "temporary wall faces".

Page 10-73, Article 1056-4, GEOTEXTILES, line 33, add the following after the first sentence in the second paragraph:

Geotextiles will be identified by the product name printed directly on the geotextile. When geotextiles are not marked with a product name or marked with only a manufacturing plant identification code, geotextiles will be identified by product labels attached to the geotextile wrapping. When identification is based on labels instead of markings, unwrap geotextiles just before use in the presence of the Engineer to confirm that the product labels on both ends of the outside of the geotextile outer wrapping match the labels affixed to both ends of the inside of the geotextile roll core. Partial geotextile roles without the product name printed on the geotextile or product labels affixed to the geotextile roll core may not be used.

Page 10-74, Table 1056-1, GEOTEXTILE REQUIREMENTS, replace with the following:

TABLE 1056-1 GEOTEXTILE REQUIREMENTS						
Property	Requirement					Test Method
	Type 1	Type 2	Type 3 ^A	Type 4	Type 5 ^B	
<i>Typical Application</i>	<i>Shoulder Drains</i>	<i>Under Rip Rap</i>	<i>Temporary Silt Fence</i>	<i>Soil Stabilization</i>	<i>Temporary Walls</i>	
Elongation (MD & CD)	≥ 50%	≥ 50%	≤ 25%	< 50%	< 50%	ASTM D4632
Grab Strength (MD & CD)	Table 1 ^D , Class 3	Table 1 ^D , Class 1	100 lb ^C	Table 1 ^D , Class 3	-	ASTM D4632
Tear Strength (MD & CD)			-			ASTM D4533
Puncture Strength			-			ASTM D6241
Ultimate Tensile Strength (MD & CD)	-	-	-	-	2,400 lb/ft ^C (unless required otherwise in the contract)	ASTM D4595
Permittivity	Table 2 ^D , 15% to 50% <i>in Situ</i> Soil Passing No. 200 ^E		Table 7 ^D	Table 5 ^D	0.20 sec ^{-1,C}	ASTM D4491
Apparent Opening Size					0.60 mm ^F	ASTM D4751
UV Stability (Retained Strength)					70% ^{C, G}	ASTM D4355

- A. Minimum roll width of 36" required.
- B. Minimum roll width of 13 ft required.
- C. MARV per Article 1056-3.
- D. AASHTO M 288.
- E. US Sieve No. per AASHTO M 92.
- F. Maximum average roll value.
- G. After 500 hours of exposure.

Page 10-74, Article 1056-5, GEOCOMPOSITES, lines 7-8, replace the first sentence with the following:

Provide geocomposite drain strips with a width of at least 12" and Type 1 geotextiles attached to drainage cores that meet Table 1056-2.

Page 10-115, Subarticle 1074-7(B), Gray Iron Castings, lines 10-11, replace the first two sentences with the following:

Supply gray iron castings meeting all facets of AASHTO M 306 excluding proof load. Proof load testing will only be required for new casting designs during the design process, and conformance to M306 loading (40,000 lbs.) will be required only when noted on the design documents.

Page 10-126, Table 1078-1, REQUIREMENTS FOR CONCRETE, replace with the following:

TABLE 1078-1 REQUIREMENTS FOR CONCRETE		
Property	28 Day Design Compressive Strength 6,000 psi or less	28 Day Design Compressive Strength greater than 6,000 psi
Maximum Water/Cementitious Material Ratio	0.45	0.40
Maximum Slump without HRWR	3.5"	3.5"
Maximum Slump with HRWR	8"	8"
Air Content (upon discharge into forms)	5 + 2%	5 + 2%

Page 10-151, Article 1080-4, INSPECTION AND SAMPLING, lines 18-22, replace (B), (C) and (D) with the following:

- (B) At least 3 panels prepared as specified in 5.5.10 of AASHTO M 300, Bullet Hole Immersion Test.
- (C) At least 3 panels of 4"x6"x1/4" for the Elcometer Adhesion Pull Off Test, ASTM D4541.
- (D) A certified test report from an approved independent testing laboratory for the Salt Fog Resistance Test, Cyclic Weathering Resistance Test, and Bullet Hole Immersion Test as specified in AASHTO M 300.
- (E) A certified test report from an approved independent testing laboratory that the product has been tested for slip coefficient and meets AASHTO M253, Class B.

Page 10-161, Subarticle 1081-1(A), Classifications, lines 29-33, delete first 3 sentences of the description for Type 2 and replace with the following:

Type 2 - A low-modulus, general-purpose adhesive used in epoxy mortar repairs. It may be used to patch spalled, cracked or broken concrete where vibration, shock or expansion and contraction are expected.

Page 10-162, Subarticle 1081-1(A), Classifications, lines 4-7, delete the second and third sentences of the description for Type 3A. **Lines 16-22,** delete Types 6A, 6B and 6C.

Page 10-162, Subarticle 1081-1(B), Requirements, lines 26-30, replace the second paragraph with the following:

For epoxy resin systems used for embedding dowel bars, threaded rods, rebar, anchor bolts and other fixtures in hardened concrete, the manufacturer shall submit test results showing that the bonding system will obtain 125% of the specified required yield strength of the fixture. Furnish certification that, for the particular bolt grade, diameter and embedment depth required, the anchor system will not fail by adhesive failure and that there is no movement of the anchor bolt. For certification and anchorage, use 3,000 psi as the minimum Portland cement concrete compressive strength used in this test. Use adhesives that meet Section 1081.

List the properties of the adhesive on the container and include density, minimum and maximum temperature application, setting time, shelf life, pot life, shear strength and compressive strength.

Page 10-163, Table 1081-1, PROPERTIES OF MIXED EPOXY RESIN SYSTEMS, replace with the following:

TABLE 1081-1 PROPERTIES OF MIXED EPOXY RESIN SYSTEMS							
Property	Type 1	Type 2	Type 3	Type 3A	Type 4A	Type 4B	Type 5
Viscosity-Poises at 77°F ± 2°F	Gel	10-30	25-75	Gel	40-150	40-150	1-6
Spindle No.	-	3	4	--	4	4	2
Speed (RPM)	-	20	20	--	10	10	50
Pot Life (Minutes)	20-50	30-60	20-50	5-50	40-80	40-80	20-60
Minimum Tensile Strength at 7 days (psi)	1,500	2,000	4,000	4,000	1,500	1,500	4,000
Tensile Elongation at 7 days (%)	30 min.	30 min.	2-5	2-5	5-15	5-15	2-5
Min. Compressive Strength of 2" mortar cubes at 24 hours	3,000 (Neat)	4,000-	6,000-	6,000 (Neat)	3,000	3,000	6,000
Min. Compressive Strength of 2" mortar cubes at 7 days	5,000 (Neat)	-	-	-	-	5,000	-
Maximum Water Absorption (%)	1.5	1.0	1.0	1.5	1.0	1.0	1.0
Min. Bond Strength Slant Shear Test at 14 days (psi)	1,500	1,500	2,000	2,000	1,500	1,500	1,500

Page 10-164, Subarticle 1081-1(E), Prequalification, lines 31-33, replace the second sentence of the first paragraph with the following:

Manufacturers choosing to supply material for Department jobs must submit an application through the Value Management Unit with the following information for each type and brand name:

Page 10-164, Subarticle 1081-1(E)(3), line 37, replace with the following:

(3) Type of the material in accordance with Articles 1081-1 and 1081-4,

Page 10-165, Subarticle 1081-1(E)(6), line 1, in the first sentence of the first paragraph replace “AASHTO M 237” with “the specifications”.

Page 10-165, Subarticle 1081-1(E), Prequalification, line 9-10, delete the second sentence of the last paragraph.

Page 10-165, Subarticle 1081-1(F), Acceptance, line 14, in the first sentence of the first paragraph replace “Type 1” with “Type 3”.

Page 10-169, Subarticle 1081-3(G), Anchor Bolt Adhesives, delete this subarticle.

Page 10-170, Article 1081-3, HOT BITUMEN, line 9, add the following at the end of Section 1081:

1081-4 EPOXY RESIN ADHESIVE FOR BONDING TRAFFIC MARKINGS

(A) General

This section covers epoxy resin adhesive for bonding traffic markers to pavement surfaces.

(B) Classification

The types of epoxies and their uses are as shown below:

Type I – Rapid Setting, High Viscosity, Epoxy Adhesive. This type of adhesive provides rapid adherence to traffic markers to the surface of pavement.

Type II – Standard Setting, High Viscosity, Epoxy Adhesive. This type of adhesive is recommended for adherence of traffic markers to pavement surfaces when rapid set is not required.

Type III – Rapid Setting, Low Viscosity, Water Resistant, Epoxy Adhesive. This type of rapid setting adhesive, due to its low viscosity, is appropriate only for use with embedded traffic markers.

Type IV – Standard Set Epoxy for Blade Deflecting-Type Plowable Markers.

(C) Requirements

Epoxies shall conform to the requirements set forth in AASHTO M 237.

(D) Prequalification

Refer to Subarticle 1081-1(E).

(E) Acceptance

Refer to Subarticle 1081-1(F).

Page 10-173, Article 1084-2, STEEL SHEET PILES, lines 37-38, replace first paragraph with the following:

Steel sheet piles detailed for permanent applications shall be hot rolled and meet ASTM A572 or ASTM A690 unless otherwise required by the plans. Steel sheet piles shall be coated as required

by the plans. Galvanized sheet piles shall be coated in accordance with Section 1076. Metallized sheet piles shall be metallized in accordance to the Project Special Provision “Thermal Sprayed Coatings (Metallization)” with an 8 mil, 99.9% aluminum alloy coating and a 0.5 mil seal coating. Any portion of the metallized sheet piling encased in concrete shall receive a barrier coat. The barrier coat shall be an approved waterborne coating with a low-viscosity which readily absorbs into the pores of the aluminum thermal sprayed coating. The waterborne coating shall be applied at a spreading rate that results in a theoretical 1.5 mil dry film thickness. The manufacturer shall issue a letter of certification that the resin chemistry of the waterborne coating is compatible with the 99.9% aluminum thermal sprayed alloy and suitable for tidal water applications.

Page 10-174, Subarticle 1086-1(B)(1), Epoxy, lines 18-24, replace with the following:

The epoxy shall meet Article 1081-4.

The 2 types of epoxy adhesive which may be used are Type I, Rapid Setting, and Type II, Standard Setting. Use Type II when the pavement temperature is above 60°F or per the manufacturer’s recommendations whichever is more stringent. Use Type I when the pavement temperature is between 50°F and 60°F or per the manufacturer’s recommendations whichever is more stringent. Epoxy adhesive Type I, Cold Set, may be used to attach temporary pavement markers to the pavement surface when the pavement temperature is between 32°F and 50°F or per the manufacturer’s recommendations whichever is more stringent.

Page 10-175, Subarticle 1086-2(E), Epoxy Adhesives, line 27, replace “Section 1081” with “Article 1081-4”.

Page 10-177, Subarticle 1086-3(E), Epoxy Adhesives, line 22, replace “Section 1081” with “Article 1081-4”.

Page 10-179, Subarticle 1087-4(A), Composition, lines 39-41, replace the third paragraph with the following:

All intermixed and drop-on glass beads shall not contain more than 75 ppm arsenic or 200 ppm lead.

Page 10-180, Subarticle 1087-4(B), Physical Characteristics, line 8, replace the second paragraph with the following:

All intermixed and drop-on glass beads shall comply with NCGS § 136-30.2 and 23 USC § 109(r).

Page 10-181, Subarticle 1087-7(A), Intermixed and Drop-on Glass Beads, line 24, add the following after the first paragraph:

Use X-ray Fluorescence for the normal sampling procedure for intermixed and drop-on beads, without crushing, to check for any levels of arsenic and lead. If any arsenic or lead is detected, the sample shall be crushed and repeat the test using X-ray Fluorescence. If the X-ray Fluorescence test shows more than a LOD of 5 ppm, test the beads using United States Environmental Protection Agency Method 6010B, 6010C or 3052 for no more than 75 ppm arsenic or 200 ppm lead.

GROUT PRODUCTION AND DELIVERY:

(3-17-15)

1003

SP10 R20

Revise the *2012 Standard Specifications* as follows:

Replace Section 1003 with the following:

**SECTION 1003
GROUT PRODUCTION AND DELIVERY**

1003-1 DESCRIPTION

This section addresses cement grout to be used for structures, foundations, retaining walls, concrete barriers, embankments, pavements and other applications in accordance with the contract. Produce non-metallic grout composed of Portland cement and water and at the Contractor's option or as required, aggregate and pozzolans. Include chemical admixtures as required or needed. Provide sand cement or neat cement grout as required. Define "sand cement grout" as grout with only fine aggregate and "neat cement grout" as grout without aggregate.

The types of grout with their typical uses are as shown below:

Type 1 – A cement grout with only a 3-day strength requirement and a fluid consistency that is typically used for filling subsurface voids.

Type 2 – A nonshrink grout with strength, height change and flow conforming to ASTM C1107 that is typically used for foundations, ground anchors and soil nails.

Type 3 – A nonshrink grout with high early strength and freeze-thaw durability requirements that is typically used in pile blockouts, grout pockets, shear keys, dowel holes and recesses for concrete barriers and structures.

Type 4 – A neat cement grout with low strength, a fluid consistency and high fly ash content that is typically used for slab jacking.

Type 5 – A low slump, low mobility sand cement grout with minimal strength that is typically used for compaction grouting.

1003-2 MATERIALS

Refer to Division 10.

Item	Section
Chemical Admixtures	1024-3
Fine Aggregate	1014-1
Fly Ash	1024-5
Ground Granulated Blast Furnace Slag	1024-6
Portland Cement	1024-1

Silica Fume
Water

1024-7
1024-4

Do not use grout that contains soluble chlorides or more than 1% soluble sulfate. At the Contractor's option, use an approved packaged grout instead of the materials above except for water. Use packaged grouts that are on the NCDOT Approved Products List.

Use admixtures for grout that are on the NCDOT Approved Products List or other admixtures in accordance with Subarticle 1024-3(E) except do not use concrete additives or unclassified or other admixtures in Type 4 or 5 grout. Use Class F fly ash for Type 4 grout and Type II Portland cement for Type 5 grout.

Use well graded rounded aggregate with a gradation, liquid limit (LL) and plasticity index (PI) that meet Table 1003-1 for Type 5 grout. Fly ash may be substituted for a portion of the fines in the aggregate. Do not use any other pozzolans in Type 5 grout.

TABLE 1003-1 AGGREGATE REQUIREMENTS FOR TYPE 5 GROUT			
Gradation		Maximum Liquid Limit	Maximum Plasticity Index
Sieve Designation per AASHTO M 92	Percentage Passing (% by weight)		
3/8"	100	N/A	N/A
No. 4	70 – 95		
No. 8	50 – 90		
No. 16	30 – 80		
No. 30	25 – 70		
No. 50	20 – 50		
No. 100	15 – 40		
No. 200	10 – 30	25	10

1003-3 COMPOSITION AND DESIGN

When using an approved packaged grout, a grout mix design submittal is not required. Otherwise, submit proposed grout mix designs for each grout mix to be used in the work. Mixes for all grout shall be designed by a Certified Concrete Mix Design Technician or an Engineer licensed by the State of North Carolina. Mix proportions shall be determined by a testing laboratory approved by the Department. Base grout mix designs on laboratory trial batches that meet Table 1003-2 and this section. With permission, the Contractor may use a quantity of chemical admixture within the range shown on the current list of approved admixtures maintained by the Materials and Tests Unit.

Submit grout mix designs in terms of saturated surface dry weights on Materials and Tests Form 312U at least 35 days before proposed use. Adjust batch proportions to compensate for surface moisture contained in the aggregates at the time of batching.

Changes in the saturated surface dry mix proportions will not be permitted unless revised grout mix designs have been submitted to the Engineer and approved.

Accompany Materials and Tests Form 312U with a listing of laboratory test results of compressive strength, density and flow or slump and if applicable, aggregate gradation, durability and height change. List the compressive strength of at least three 2" cubes at the age of 3 and 28 days.

The Engineer will review the grout mix design for compliance with the contract and notify the Contractor as to its acceptability. Do not use a grout mix until written notice has been received. Acceptance of the grout mix design or use of approved packaged grouts does not relieve the Contractor of his responsibility to furnish a product that meets the contract. Upon written request from the Contractor, a grout mix design accepted and used satisfactorily on any Department project may be accepted for use on other projects.

Perform laboratory tests in accordance with the following test procedures:

Property	Test Method
Aggregate Gradation ^A	AASHTO T 27
Compressive Strength	AASHTO T 106
Density (Unit Weight)	AASHTO T 121, AASHTO T 133 ^B , ANSI/API RP ^C 13B-1 ^B (Section 4, Mud Balance)
Durability	AASHTO T 161 ^D
Flow	ASTM C939 (Flow Cone)
Height Change	ASTM C1090 ^E
Slump	AASHTO T 119

A. Applicable to grout with aggregate.

B. Applicable to Neat Cement Grout.

C. American National Standards Institute/American Petroleum Institute Recommended Practice.

D. Procedure A (Rapid Freezing and Thawing in Water) required.

E. Moist room storage required.

1003-4 GROUT REQUIREMENTS

Provide grout types in accordance with the contract. Use grouts with properties that meet Table 1003-2. The compressive strength of the grout will be considered the average compressive strength test results of three 2" cubes at each age. Make cubes that meet AASHTO T 106 from the grout delivered for the work or mixed on-site. Make cubes at such frequencies as the Engineer may determine and cure them in accordance with AASHTO T 106.

Type of Grout	Minimum Compressive Strength at		Height Change at 28 days	Flow ^A /Slump ^B	Minimum Durability Factor
	3 days	28 days			
1	3,000 psi	–	–	10 – 30 sec	–
2	Table 1 ^C			Fluid Consistency ^C	–
3	5,000 psi	–	0 – 0.2%	Per Accepted Grout Mix Design/ Approved Packaged Grout	80
4 ^D	600 psi	1,500 psi	–	10 – 26 sec	–
5	–	500 psi	–	1 – 3"	–

A. Applicable to Type 1 through 4 grouts.

B. Applicable to Type 5 grout.

C. ASTM C1107.

D. Use Type 4 grout with proportions by volume of 1 part cement and 3 parts fly ash.

1003-5 TEMPERATURE REQUIREMENTS

When using an approved packaged grout, follow the manufacturer's instructions for grout and air temperature at the time of placement. Otherwise, the grout temperature at the time of placement shall be not less than 50°F nor more than 90°F. Do not place grout when the air temperature measured at the location of the grouting operation in the shade away from artificial heat is below 40°F.

1003-6 ELAPSED TIME FOR PLACING GROUT

Agitate grout continuously before placement. Regulate the delivery so the maximum interval between the placing of batches at the work site does not exceed 20 minutes. Place grout before exceeding the times in Table 1003-3. Measure the elapsed time as the time between adding the mixing water to the grout mix and placing the grout.

Air or Grout Temperature, Whichever is Higher	Maximum Elapsed Time	
	No Retarding Admixture Used	Retarding Admixture Used
90°F or above	30 minutes	1 hr. 15 minutes
80°F through 89°F	45 minutes	1 hr. 30 minutes
79°F or below	60 minutes	1 hr. 45 minutes

1003-7 MIXING AND DELIVERY

Use grout free of any lumps and undispersed cement. When using an approved packaged grout, mix grout in accordance with the manufacturer's instructions. Otherwise, comply with Articles 1000-8 through 1000-12 to the extent applicable for grout instead of concrete.

STANDARD SPECIAL PROVISION
AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS

(5-20-08)

Z-2

General Statute 143C-6-11. (h) Highway Appropriation is hereby incorporated verbatim in this contract as follows:

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in *General Statute 143C-6-11(c)*. Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project contracts shall contain a schedule of estimated completion progress, and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any transportation project contract, and any transportation project contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given a written notice of termination at least 60 days before completion of scheduled work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Subarticle 108-13(E) of the *2012 Standard Specifications*.

STANDARD SPECIAL PROVISION**ERRATA**

(1-17-12) (Rev. 04-21-15)

Z-4

Revise the 2012 *Standard Specifications* as follows:

Division 2

Page 2-7, line 31, Article 215-2 Construction Methods, replace “Article 107-26” with “Article 107-25”.

Page 2-17, Article 226-3, Measurement and Payment, line 2, delete “pipe culverts,”.

Page 2-20, Subarticle 230-4(B), Contractor Furnished Sources, change references as follows: **Line 1**, replace “(4) Buffer Zone” with “(c) Buffer Zone”; **Line 12**, replace “(5) Evaluation for Potential Wetlands and Endangered Species” with “(d) Evaluation for Potential Wetlands and Endangered Species”; and **Line 33**, replace “(6) Approval” with “(4) Approval”.

Division 3

Page 3-1, after line 15, Article 300-2 Materials, replace “1032-9(F)” with “1032-6(F)”.

Division 4

Page 4-77, line 27, Subarticle 452-3(C) Concrete Coping, replace “sheet pile” with “reinforcement”.

Division 6

Page 6-7, line 31, Article 609-3 Field Verification of Mixture and Job Mix Formula Adjustments, replace “30” with “45”.

Page 6-10, line 42, Subarticle 609-6(C)(2), replace “Subarticle 609-6(E)” with “Subarticle 609-6(D)”.

Page 6-11, Table 609-1 Control Limits, replace “Max. Spec. Limit” for the Target Source of $P_{0.075}/P_{be}$ Ratio with “1.0”.

Page 6-40, Article 650-2 Materials, replace “Subarticle 1012-1(F)” with “Subarticle 1012-1(E)”

Division 7

Page 7-1, Article 700-3, CONCRETE HAULING EQUIPMENT, line 33, replace “competition” with “completion”.

Division 8

Page 8-23, line 10, Article 838-2 Materials, replace “Portland Cement Concrete, Class B” with “Portland Cement Concrete, Class A”.

Division 10

Page 10-166, Article 1081-3 Hot Bitumen, replace “Table 1081-16” with “Table 1081-2”, replace “Table 1081-17” with “Table 1081-3”, and replace “Table 1081-18” with “Table 1081-4”.

Division 12

Page 12-7, Table 1205-3, add “FOR THERMOPLASTIC” to the end of the title.

Page 12-8, Subarticle 1205-5(B), line 13, replace “Table 1205-2” with “Table 1205-4”.

Page 12-8, Table 1205-4 and 1205-5, replace “THERMOPLASTIC” in the title of these tables with “POLYUREA”.

Page 12-9, Subarticle 1205-6(B), line 21, replace “Table 1205-4” with “Table 1205-6”.

Page 12-11, Subarticle 1205-8(C), line 25, replace “Table 1205-5” with “Table 1205-7”.

Division 15

Page 15-4, Subarticle 1505-3(F) Backfilling, line 26, replace “Subarticle 235-4(C)” with “Subarticle 235-3(C)”.

Page 15-6, Subarticle 1510-3(B), after line 21, replace the allowable leakage formula with the following: $W=LD\sqrt{P} \div 148,000$

Page 15-6, Subarticle 1510-3(B), line 32, delete “may be performed concurrently or” and replace with “shall be performed”.

Page 15-17, Subarticle 1540-3(E), line 27, delete “Type 1”.

Division 17

Page 17-26, line 42, Subarticle 1731-3(D) Termination and Splicing within Interconnect Center, delete this subarticle.

Revise the *2012 Roadway Standard Drawings* as follows:

1633.01 Sheet 1 of 1, English Standard Drawing for Matting Installation, replace “1633.01” with “1631.01”.

STANDARD SPECIAL PROVISION**PLANT AND PEST QUARANTINES****(Imported Fire Ant, Gypsy Moth, Witchweed, And Other Noxious Weeds)**

(3-18-03) (Rev. 10-15-13)

Z-04a

Within Quarantined Area

This project may be within a county regulated for plant and/or pests. If the project or any part of the Contractor's operations is located within a quarantined area, thoroughly clean all equipment prior to moving out of the quarantined area. Comply with federal/state regulations by obtaining a certificate or limited permit for any regulated article moving from the quarantined area.

Originating in a Quarantined County

Obtain a certificate or limited permit issued by the N.C. Department of Agriculture/United States Department of Agriculture. Have the certificate or limited permit accompany the article when it arrives at the project site.

Contact

Contact the N.C. Department of Agriculture/United States Department of Agriculture at 1-800-206-9333, 919-733-6932, or <http://www.ncagr.gov/plantind/> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include

1. Soil, sand, gravel, compost, peat, humus, muck, and decomposed manure, separately or with other articles. This includes movement of articles listed above that may be associated with cut/waste, ditch pulling, and shoulder cutting.
2. Plants with roots including grass sod.
3. Plant crowns and roots.
4. Bulbs, corms, rhizomes, and tubers of ornamental plants.
5. Hay, straw, fodder, and plant litter of any kind.
6. Clearing and grubbing debris.
7. Used agricultural cultivating and harvesting equipment.
8. Used earth-moving equipment.
9. Any other products, articles, or means of conveyance, of any character, if determined by an inspector to present a hazard of spreading imported fire ant, gypsy moth, witchweed or other noxious weeds.

STANDARD SPECIAL PROVISION**MINIMUM WAGES**

(7-21-09)

Z-5

FEDERAL: The Fair Labor Standards Act provides that with certain exceptions every employer shall pay wages at the rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

STATE: The North Carolina Minimum Wage Act provides that every employer shall pay to each of his employees, wages at a rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all skilled labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all intermediate labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all unskilled labor on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

This determination of the intent of the application of this act to the contract on this project is the responsibility of the Contractor.

The Contractor shall have no claim against the Department of Transportation for any changes in the minimum wage laws, Federal or State. It is the responsibility of the Contractor to keep fully informed of all Federal and State Laws affecting his contract.

STANDARD SPECIAL PROVISION**ON-THE-JOB TRAINING**

(10-16-07) (Rev. 4-21-15)

Z-10

Description

The North Carolina Department of Transportation will administer a custom version of the Federal On-the-Job Training (OJT) Program, commonly referred to as the Alternate OJT Program. All contractors (existing and newcomers) will be automatically placed in the Alternate Program. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level. Instead, these requirements will be applicable on an annual basis for each contractor administered by the OJT Program Manager.

On the Job Training shall meet the requirements of 23 CFR 230.107 (b), 23 USC – Section 140, this provision and the On-the-Job Training Program Manual.

The Alternate OJT Program will allow a contractor to train employees on Federal, State and privately funded projects located in North Carolina. However, priority shall be given to training employees on NCDOT Federal-Aid funded projects.

Minorities and Women

Developing, training and upgrading of minorities and women toward journeyman level status is a primary objective of this special training provision. Accordingly, the Contractor shall make every effort to enroll minority and women as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

Assigning Training Goals

The Department, through the OJT Program Manager, will assign training goals for a calendar year based on the contractors' past three years' activity and the contractors' anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible will be contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time the Contractor shall enter into an agreement with the Department to provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from 1 to 15 per contractor per calendar year. The Contractor shall sign an agreement to fulfill their annual goal for the year.\

Training Classifications

The Contractor shall provide on-the-job training aimed at developing full journeyman level workers in the construction craft/operator positions. Preference shall be given to providing training in the following skilled work classifications:

Equipment Operators	Office Engineers
Truck Drivers	Estimators
Carpenters	Iron / Reinforcing Steel Workers
Concrete Finishers	Mechanics
Pipe Layers	Welders

The Department has established common training classifications and their respective training requirements that may be used by the contractors. However, the classifications established are not all-inclusive. Where the training is oriented toward construction applications, training will be allowed in lower-level management positions such as office engineers and estimators. Contractors shall submit new classifications for specific job functions that their employees are performing. The Department will review and recommend for acceptance to FHWA the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and

The number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

The Contractor may allow trainees to be trained by a subcontractor provided that the Contractor retains primary responsibility for meeting the training and this provision is made applicable to the subcontract. However, only the Contractor will receive credit towards the annual goal for the trainee.

Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

Records and Reports

The Contractor shall maintain enrollment, monthly and completion reports documenting company compliance under these contract documents. These documents and any other information as requested shall be submitted to the OJT Program Manager.

Upon completion and graduation of the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

Trainee Interviews

All trainees enrolled in the program will receive an initial and Trainee/Post graduate interview conducted by the OJT program staff.

Trainee Wages

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

In no instance shall a trainee be paid less than the local minimum wage. The Contractor shall adhere to the minimum hourly wage rate that will satisfy both the NC Department of Labor (NCDOL) and the Department.

Achieving or Failing to Meet Training Goals

The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and who receives training for at least 50 percent of the specific program requirement. Trainees will be allowed to be transferred between projects if required by the Contractor's scheduled workload to meet training goals.

If a contractor fails to attain their training assignments for the calendar year, they may be taken off the NCDOT's Bidders List.

Measurement and Payment

No compensation will be made for providing required training in accordance with these contract documents.

SPECIAL PROVISIONS

GENERAL

The work covered in this provision will include the installation of both State furnished and Contractor provided materials that has been listed in the line item description section of this proposal. The Contractor shall be responsible for all State furnished material until such time as work is inspected and approved by the Department of Transportation.

All traffic control activities will be considered incidentals to the contract.

The contractor shall make all repairs to roads, shoulders, driveways, sidewalks, or other rights of way that area damaged due to work as part of this contract. These repairs shall result in equal or better than conditions that exist before work began. Any excavated areas shall be repaired by shaping, smoothing, seeding, and mulching. The repairs will be considered incidental to the contract and no additional compensation will be made.

At no expense to the NCDOT, the contractor shall be responsible for replacing any damaged sections of concrete sidewalk, with like kind, which is damaged by the contractor's equipment at the cost of the Contractor, materials and labor. This work shall be considered incidental to the contract..

OBTAINING AND STORING MATERIALS

All materials shall be provided by the Contractor unless otherwise noted. When noted "DOT Provided" the contractor shall obtain materials from the site listed below at a time mutually agreed upon by the contractor and the State:

Traffic Services Department
350 Craft Drive
Winston-Salem, North Carolina.
Telephone: (336) 896-2400

When the contractor obtains the material, the contractor and Division of Highways personnel shall jointly inventory the stated material to insure all items are accounted for. The contractor will then sign for all the stated materials and assume responsibility for those materials.

No direct payment will be made for inventory, storage, security and maintenance of state furnished materials.

ELECTRICAL REQUIREMENTS - GENERAL

The contractor shall have prior traffic signal construction experience which will enable him to properly install the signal with limited supervision.

All contractor supplied electrical materials and all work performed on the project shall meet the latest requirements of the national electrical code and all applicable local ordinances. The contractor shall comply with all applicable local ordinances and regulations prior to beginning any electrical work. He shall obtain all permits and licenses required by state and local agencies having jurisdiction over same. After completion of work, he shall have all systems inspected, and after receiving written approval by the electrical inspectors having jurisdiction in the locality, he shall furnish written certification to the engineer that the installation meets the approval of the electrical inspector(s).

Inspection by the licensed electrical inspector shall neither eliminate nor take the place of inspections by Division of Highway personnel to insure compliance with the plans and specifications.

The contractor shall be responsible for obtaining an electrical inspection for said work. The inspection fee will be paid by the contractor.

DISTANCE FROM UTILITIES

The contractor shall maintain minimum clearances from existing utilities having jurisdiction over same with the project limits. The actual elevations of the bottom of the signal heads are to conform to the requirements of the NCDOT Standard Specifications for Roads and Structures 2012, or as prescribed by the engineer or inspector.

SITE CLEAN-UP

The contractor shall clean the site of excess excavation, waste packing materials, wire and all other debris, which result from installing traffic signal hardware. At the end of each workday, the site shall be cleaned and cleared. The contractor will haul away any waste material to an approved public landfill.

CONFORMITY WITH THE PROVISIONS OF THIS CONTRACT

The presence of the engineer or an inspector at the work site shall in no way lessen the contractor's responsibility for conformity with the provisions of this contract. Should the engineer or inspector fail to point out work that does not conform with the plans and specifications, whether from lack of discovery or for any other reason, it shall in no way prevent later rejection or correction to the unsatisfactory work when discovered. The contractor shall have no claim for losses suffered due to any necessary removals or repairs resulting from unsatisfactory work.

The engineer or inspector shall have the authority to suspend the work wholly or in part by written order for such periods as he may deem necessary for any of the following reasons:

- Conditions considered unfavorable for the suitable prosecution of the work or the contractor's failure to correct conditions unsafe for workmen
- The general public or the contractor has not carried out orders given him by the engineer
- The contractor's failure to perform any provisions of the contract.

No extension of the completion date will be allowed for the above suspensions.

30-DAY OBSERVATION PERIOD AND FINAL ACCEPTANCE OF INSTALLATION

Upon completion of all construction of the signal installation as defined in the plans and special provisions for the project and after the traffic signal installation has been approved, inspected, the State will put the signal into permanent operation at which time a 30-day observation period shall begin.

The purpose of this observation period is to assess the adequacy of the installation and operation of the installation, completion and final acceptance of the signal shall be contingent upon successful completion of the observation period.

REPAIR OF DAMAGED SIGNAL EQUIPMENT

The contractor will repair, acceptable to the engineer, scratches, dents or other damage to the cabinet, signal heads and other signal material which occur while the cabinet, signal heads, etc. are his responsibility.

Paint repairs will be made as per Federal Standard 595, color chip I. D. No. 13538 as prescribed in the traffic signal specifications.

Repair of Damaged Signal Equipment is incidental to the work.

UNUSED MATERIALS

All unused materials furnished to the contractor by the State shall remain the property of the State, and shall be returned to the original point of delivery by the contractor at the completion of the project.

REMOVAL OF MATERIALS

All materials removed by the contractor shall be properly disposed of. There shall be no additional charges for this, as this is considered incidental to the contract. The State reserves the right to maintain any and or all materials it deems fit.

DAMAGE TO PRIVATE AND/OR PUBLIC PROPERTY

The contractor shall be responsible for any/all damage to private and/or public property resulting from this work. The Department of Transportation assumes no liability regarding injury and/or property damage resulting from work performed by the contractor.

CONDUIT

Refer to Section 1700 of the 2012 Standard Specifications.

MESSENGER CABLE**1710-1 DESCRIPTION**

Install the provided messenger cable (spanwire) with cable clamps, machine bolts, eyebolts, 3-bolt clamps, eye nuts, split-bolt connectors, and all necessary hardware.

1710-2 MATERIAL

Material, equipment, and hardware furnished under this section shall be pre-approved on the Department's QPL.

Refer to Article 1098-3 Messenger Cable.

1710-3 CONSTRUCTION METHODS

Install guy assemblies before installing messenger cable.

Use 3/8" messenger cable for spans supporting vehicle signal heads and/or signs.

Use 1/4" messenger cable for spans supporting only cables unless otherwise specified.

For messenger cable crossing over railroad tracks, provide a minimum of 27 ft of vertical clearance, unless otherwise specified.

For permanent installations, install messenger cable in continuous lengths with no splices except where an insulator is required. With prior approval, existing messenger for temporary installations may be extended instead of installing new messenger cable.

Tension messenger cable to eliminate appreciable sag and to match sag of surrounding utilities. Otherwise, allow 3% to 4% sag of the span length between poles.

For mid-run spans using wood poles, attach messenger cable to the pole with a 3-bolt cable clamp with J-hook consisting of 5/8" diameter machine bolts, J-hooks, washers and square nuts to attach messenger cable to wood poles. Provide machine bolts that are 3" longer than the pole diameter. For mid-run spans using metal or other Department-approved poles, attach messenger cable to the pole with a 3-bolt clamp with J-hook secured to the metal pole via a pole band clamp. Refer to Metal Pole Standard Drawing Sheet M6 found on the Department's website.

When terminating spans at wood poles, connect messenger cable to a deadend strandwise attached to the pole via a 5/8" diameter shoulder eye bolt or 5/8" diameter shoulder angle bolt with 5/8" eye nut as shown in Roadway Standard Drawings No. 1720.01. **** For this contract, the "One Bolt Method" of attachment is preferred.** When terminating spans at metal or other Department-approved poles, connect messenger cable to a deadend strandwise attached to the pole via a pole attachment clamp. Refer to Metal Pole Standard Drawing Sheet M6 as shown in the previous paragraph. Do not install more than one messenger cable and strandwise assembly to a single metal or other Department-approved pole attachment clamp. During installation, ensure that messenger cable is centered and directly aligned at the pole clamp's attachment point such that the cable does not exert forces on the sides of the clamp's attachment point.

Maintain electrical continuity at all splices.

(A) Messenger Cable for Signal Heads or Lead-In Cable

For messenger cable attached to joint use poles, install a new grounding system that complies with Article 1720-3 for bonding messenger cable. If a pole ground exists on the joint use pole, bond new pole grounding system to existing pole ground using #6 AWG minimum solid bare copper grounding wire terminated with split bolt connectors or parallel groove clamp at each end. If existing poles do not have a grounding system, install new grounding system that complies with Article 1720-3.

(B) Messenger Cable for Communications Cable

For messenger cable attached to joint use poles, bond messenger cable to existing pole ground at each end and at 1,300-ft intervals. Install bond using #6 AWG minimum solid bare copper grounding wire terminated with split bolt connectors or parallel groove clamp at each end. If existing poles do not have a grounding system, install new grounding system that complies with Article 1720-3.

(C) Messenger Cable for Multiple Cables

On multiple messenger cable arrangements, connect all messenger cable ends with #6 AWG minimum solid bare copper wire and bond with split bolt connectors or parallel groove clamp and terminate to pole ground.

1710-4 MEASUREMENT AND PAYMENT

Messenger Cable will be measured and paid as actual horizontal linear feet of messenger cable furnished, installed and accepted. Measurement will be point to point with no allowance for sag.

No measurement will be made of cable clamps, machine bolts, eye bolts, 3-bolt assemblies, eye nuts, split bolt connectors and pole grounding systems as these will be incidental to furnishing and installing messenger cable. *NOTE: This line item will also include attaching messenger cable on existing poles to existing anchors to serve as down guys.

(NCDOT TO PROVIDE MESSENGER CABLE AND STRANDVISES ONLY. ALL OTHER MATERIALS TO COMPLETE THIS WORK WILL BE PROVIDED BY THE CONTRACTOR)

Payment will be made under:

INSTALLATION OF MESSENGER CABLE	LINEAR
FOOT	
TENSION OF DOWN GUYS OR AERIAL SPANWIRE ON EXISTING INSTALLATIONS	EACH

REMOVAL OF MESSENGER CABLE

Removal of existing messenger cable includes proper disposal of messenger cable and hardware, if required. Do not reuse any removed messenger cable, junction boxes, pole attachment hardware or abandoned risers, unless otherwise specified. In the event that any of the removed messenger cable or pole attachment hardware is to be returned to the Engineer, it will be so noted.

Remove Existing Messenger Cable will be measured in horizontal linear feet of existing messenger cable removed and accepted. Payment will be in linear feet. Sag, vertical segments or spare segments of messenger cable will not be paid as these distances will be incidental to the removal of existing messenger cable.

No additional measurement will be made for multiple cables being removed from the same messenger cable. No payment will be made for cable that cannot be removed and is abandoned in place.

No measurement will be made of the removal of pole attachment hardware as these will be incidental to removing existing messenger cable hardware.

Payment will be made under:

Remove Existing Communications Cable Linear Foot Messenger Cable will be measured and paid as actual horizontal linear feet of messenger cable removed and accepted.

REMOVAL OF MESSENGER CABLE

LINEAR FOOT

OVERHEAD CONDUCTOR CABLE**1705 SIGNAL CABLE OVERHEAD CONDUCTOR CABLE**

Furnish and install signal cable in continuous lengths between signal controller cabinets and signal heads. Route signal cable to minimize the length of cable installed and the number of cables and conductors in each run. Pull ninety-six inches, (96") of additional signal cable into controller cabinets.

Wrap signal cable to messenger cable with at least 4 turns of wrapping tape spaced at intervals less than 15" or lash signal cable to messenger cable with one 360° spiral of lashing wire per 12".

Make electrical connections inside each signal head, signal controller cabinet and termination compartment in metal poles. Do not splice cable at any other point between signal heads and controller cabinet.

Coil sufficient signal cable beside each vehicle signal head to accommodate head shifts during various construction phases. For final signal head locations, coil 36" on each side of signal head if signal cable comes from both directions. If signal cable terminates at the signal head, coil 36" of signal cable on the same side as the cable run.

(CONTRACTOR TO PROVIDE ALL MATERIALS)

Payment will be made under:

INSTALL OF SIGNAL CABLE ONTO EXISTING MESSENGER CABLE

LINEAR FOOT

RISER ASSEMBLIES

1722-1 DESCRIPTION

Install riser assemblies with clamp-on, aluminum weatherheads or heat shrink tubing, galvanized pole attachment fittings and all necessary hardware.

1722-2 MATERIAL

Refer to Division 10.

Item Section

Grounding Electrodes 1091-6

Pole Line Hardware 1098-6

Rigid Metallic Conduit 1091-3

Wire 1091-2

Furnish equipment and hardware under this section that is pre-approved on the ITS and Signals QPL.

1722-3 CONSTRUCTION METHODS

Install risers with required weatherheads or heat shrink tubing on poles using pole attachment fittings. Maintain a 10" minimum and 18" maximum offset from signal messenger to the top of riser for all risers. On utility-owned poles, maintain a 40" offset from electrical utility's power conductors to top of riser and riser attachment fittings.

Use separate 1/2" riser with weatherhead for pedestrian pushbutton.

Use separate 1" riser with weatherhead for electrical service.

Use separate 2" riser with weatherhead for signal cables (bundled). Use separate 2" riser with weatherhead for the combination of all lead-in and twisted-pair communications cable. Install conduit on all risers for lead-in cable.

Install condulets on risers for lead-in cable, railroad preempt interconnection cables and signal pedestals.

Use separate 2" riser with heat shrink tubing for fiber-optic communications cables and coaxial cable. Install risers with heat shrink tubing so that cable can be installed without violating its minimum bending radius. Install cable so it does not share a riser with any other cable.

Bond new risers, a minimum of 10 ft above grade, to the pole ground using a #6 AWG minimum solid bare copper wire and an approved pipe clamp, a split bolt connector or parallel groove clamp. On pole mounted cabinets where the riser are connected to the cabinet, bond risers in the cabinet using ground bushings with a #6 AWG minimum solid bare copper wire to the cabinet ground bus.

If a pole ground exists on the joint use pole, bond new riser to existing pole ground using #6 AWG minimum solid bare copper wire terminated with split bolt connectors or parallel groove clamp.

If existing poles do not have a grounding system, install new grounding system that complies with Article 1720-3 for bonding messenger cable.

Transition from rigid galvanized steel risers to underground PVC conduits using an approved rigid galvanized steel sweeping elbow with PVC female adaptor.

1722-4 MEASUREMENT AND PAYMENT

Riser will be paid as the actual number of risers assemblies installed and accepted. No measurement will be made of weatherheads or pole attachment fittings as these will be incidental to furnishing and installing risers.

** Cable installed for all risers shall have a ten foot, (10') drip loop; five feet measured down from the messenger cable and five feet measured back up to the weatherhead. Payment for this shall be referred to their respective cable line items.

(NCDOT TO PROVIDE RISER, WEATHERHEAD, CONDULET & STRAPS)

Payment will be made under:

INSTALLATION OF RISER ASSEMBLY	EACH
REMOVAL OF RISER ASSEMBLY	EACH

PEDESTAL WITH FOUNDATION
PEDESTRIAN PUSHBUTTON POST
PEDESTRIAN PUSHBUTTON ASSEMBLY ON EXISTING POLE

1743-2 MATERIAL

Refer to Division 10.

Item Section

Grounding Electrodes 1091-6

Signal Pedestals 1098-14Wire 1091-2

Furnish material, equipment and hardware under this section that is pre-approved on the ITS and Signals QPL.

Pedestals are defined as follows:

- (A) Type I - Pedestrian Pushbutton Post
- (B) Type II - Normal-Duty Pedestal
- (C) Type III - Heavy-Duty Pedestal

1743-3 CONSTRUCTION METHODS

- (A) Type I Pedestrian Pushbutton Post

Install pushbutton post for mounting pedestrian pushbutton or an accessible pedestrian signal (APS) assembly (refer to Section 1705).

Install underground conduit for pushbutton lead-in cable in the pushbutton post's concrete foundation.

Attach or anchor pushbutton post to the top of foundation via a breakaway support in a vertical plumb orientation. Ensure post is of sufficient length to accommodate the pushbutton, accessible pedestrian signals and any associated pedestrian informational signing at the mounting heights shown in the plans or Roadway Standard Drawings No. 1705 and 1743.

(B) Type II and III Pedestals

Locate foundations, determine elevation and submit findings for normal-duty and heavy-duty pedestals. Obtain the Engineer's approval of foundation locations and elevations before constructing foundations.

Excavate in accordance with Section 410. If encountered, remove rock or boulders to a sufficient depth to obtain stability necessary to support the structure for design loads. Ensure ground is level before installing foundations.

Construct foundations in accordance with Section 825. Cast concrete for pole foundations against undisturbed soil unless otherwise permitted. Provide forms with chamfer strips that measure one inch along diagonal face at all corners above ground level. Do not install foundations over uncompacted fill or muck.

Install conduit in foundations.

Securely place, position and align anchor bolts symmetrically about the center of foundation.

Give exposed vertical concrete surfaces an ordinary surface finish. Give exposed horizontal surfaces a float finish.

Level tops of concrete foundations. Do not allow tops to exceed 4" above adjacent ground surface. Pour and finish foundation to a level that is flush with the surrounding sidewalk when possible.

Do not erect pedestals until concrete has attained a minimum compressive strength of 2,500 psi as determined by cylinder breaks.

Refer to Roadway Standard Drawings No. 1705 and 1743.

1743-4 MEASUREMENT AND PAYMENT

Type I Post with Foundation will be measured and paid as the actual number of pedestrian pushbutton posts wired, installed and accepted.

Type II Pedestal with Foundation will be measured and paid as the actual number of normal duty pedestals with foundations wired, installed and accepted.

Type III Pedestal with Foundation will be measured and paid as the actual number of heavy duty pedestals with foundations wired, installed and accepted.

* Pedestrian Assemblies

Install signs with mounting hardware immediately above pedestrian pushbuttons.

Mount the pushbutton or accessible pedestrian signal (APS) at a minimum height of 3.5 ft but no higher than 4.0 ft above the adjacent pedestrian travelway.

Connect each pushbutton with a separate run of lead-in cable between the pushbutton and the termination panel in the controller cabinet. Bond pushbutton housing and all metal components to cabinet ground using lead-in cable ground.

No measurement will be made for pedestal foundations grounding systems and any peripheral pedestal mounting hardware as these are incidental to installing pedestals.

(NCDOT TO PROVIDE BASE, ANCHOR BOLTS, PEDESTAL, PUSHBUTTON AND SIGN)

(CONTRACTOR TO PROVIDE ALL FOUNDATION MATERIALS) - AS NOTED ROADWAY STANDARD DRAWING NO. 1743.04

Payment will be made under:

INSTALL PEDESTAL WITH FOUNDATION	EACH
INSTALL PEDESTRIAN PUSHBUTTON POST W/PUSHBUTTON AND FOUNDATION	EACH
INSTALL PEDESTRIAN PUSHBUTTON ASSEMBLY ON EXISTING POLE	EACH

REMOVAL OF PEDESTAL WITH FOUNDATION

Removal of existing pedestal with foundation includes proper disposal of pedestal with foundation, if required. Do not reuse any hardware unless otherwise specified. In the event that any of the removed traffic signal or pedestal with foundation is to be returned to the Engineer, it will be so noted.

Payment will be made under:

REMOVAL OF PEDESTAL WITH FOUNDATION	EACH
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SECTION 1745

STATIC SIGN INSTALLED FOR TRAFFIC SIGNAL

1745-1 DESCRIPTION

Install signs for signals with cable hangers, rigid sign mounting brackets and all necessary hardware.

1745-3 CONSTRUCTION METHODS

For messenger cable mounting, install signs 6" minimum from signal heads.

For mast arm mounting, install attachment brackets to allow adjustment so signs:

- (A) Are aimed in required direction,
- (B) Are plumb as viewed from respective approaches,
- (C) May be tilted forward or backward as required, and
- (D) May be raised or lowered on mast arm throughout full length of sign.

1745-4 MEASUREMENT AND PAYMENT

Sign for Signals will be measured and paid as the actual number of signs for signals installed or relocated, regardless of mounting method, installed and accepted.

(NCDOT TO PROVIDE ALL MATERIAL)

Payment will be made under:

INSTALLATION OF STATIC SIGN FOR TRAFFIC SIGNAL

EACH

SECTION 1705

SIGNAL HEADS

1705-1 DESCRIPTION

Install vehicle and pedestrian LED signal heads, visors, interconnecting brackets, wire entrance fittings, mounting assemblies, signal cable, lashing wire, pedestrian pushbuttons (and associated lead-in cable), pedestrian signal signs, grounding systems and all necessary hardware.

1705-2 MATERIAL

Furnish material, equipment and hardware under this section that is pre-approved on the ITS and Signals QPL.

1705-3 CONSTRUCTION METHODS

(A) General

Bag new pedestrian and vehicle signal heads with burlap bags or bags made of non-ripping material specifically designed for covering signal heads until signal heads are placed in operation. Do not use trash bags of any type.

When a new signal heads are placed into operation, immediately bag and remove signals heads that are not to be reused.

Adjust each signal head vertically and horizontally so that light output will be of maximum effectiveness for traffic and pedestrians. Do not tilt signal heads forward.

Reposition signal heads as required for various construction phases.

(B)* Vehicle Signal Heads

Install vehicle signal heads such that the top of the signal housing located over any portion of a highway that can be used by motor vehicles is no more than 25.6 ft above the pavement.

Install vehicle signal heads such that the maximum mounting height to the top of the signal housing is as shown in Figure 1705-1 if the location is between 40 ft and 53 ft from the stop line.

Install vehicle signal heads such that the bottom of the signal housing and any related attachments to the signal head located over any portion of a highway that can be used by motor vehicles is at least 16.5 ft above the pavement directly below the signal head.

(1) Install vehicle signal heads such that the bottom of the signal housing (including brackets) of a signal head that is vertically arranged and not located over a roadway is as follows:

- (a) A minimum of 8 ft and a maximum of 19 ft above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.
- (b) A minimum of 8 ft and a maximum of 19 ft above the median island grade of a center median island if located on the near side of the intersection.

(2) Install vehicle signal heads such that the bottom of the signal housing (including brackets) of a signal head that is horizontally arranged and not located over a roadway is as follows:

- (a) A minimum of 8 ft and a maximum of 22 ft above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.
- (b) A minimum of 8 ft and a maximum 22ft above the median island grade of a center median island if located on the near side of the intersection.

Where vehicle signal heads are installed on messenger cable, install mounting hardware consisting of messenger cable hanger, balance adjuster, bottom cap, wire entrance fitting bracket and insulating bushings.

Where vehicle signal heads are installed on mast arms, install mounting hardware consisting of rigid vehicle signal head mounting brackets.

Wrap signal cable to messenger cable with at least 4 turns of wrapping tape spaced at intervals less than 15" or lash signal cable to messenger cable with one 360° spiral of lashing wire per 12".

(C)* Pedestrian Signal Heads

Mount pedestrian signal heads so the bottom of the signal housing, including brackets, is not less than 7 ft or more than 10 ft above sidewalk level. Position and adjust the heads to provide maximum visibility at the beginning of the controlled crosswalk. Ensure pedestrian signal heads and vehicular signal heads mounted on the same support are physically separated from each other.

(D)* Optically-Programmed Vehicle Signal Sections

Install vehicle signal heads with optically-programmed vehicle signal sections so that movement of the vehicle signals head is restricted. Tightly tether vehicle signal heads at the top and bottom when installed on messenger cable. Attach vehicle signal heads using a mounting-bracket assembly that locks the vehicle signal head into position from the back and restricts movement when installed on mast arms.

Lead-in Cable will be measured and paid in accordance with Section 1726.

No measurement will be made of signal head shifts as these are incidental to furnishing and installing signal heads. No measurement will be made for drip loops, coiled sections or lashing wire as these are incidental to furnishing and installing signal cable.

* LED BLACKOUT SIGNS

For this contract; Installation, Removal and Relocation of LED Blankout Signs shall be considered as a Vehicle Signal Head

(ALL VEHICLE SIGNAL, PEDESTRIAN SIGNAL HEADS, LED BLACKOUT SIGNS AND OPTICALLY-PROGRAMMED SECTIONS WILL BE PROVIDED BY NCDOT)

Payment will be made under:

ASSEMBLE AND INSTALL VEHICLE SIGNAL, PEDESTRIAN SIGNAL (HEAD) *	EACH
REMOVAL OF VEHICLE SIGNAL, PEDESTRIAN SIGNAL (HEAD) *	EACH
RELOCATION OF VEHICLE SIGNAL *	EACH
MODIFY OR REPLACE VEHICLE SIGNAL OR PEDESTRIAN SIGNAL HEAD INDICATION *	EACH

GROUNDING SYSTEM INSTALLATION

PSP-1: GROUNDING SYSTEM INSTALLATION

Grounding for each cabinet shall conform to the NCDOT 2012 Roadway Standard Drawings

Prior to installing the concrete foundation, the traffic signal cabinet grounding shall be tested. The grounding system resistance shall be considered to meet specifications if it measures @ twenty (20) OHMS or less. If the system resistance is greater than twenty (20) OHMS, the existing ground system should be augmented with additional ground rods. All underground bonding of grounding electrodes and conductors shall be by an exothermic welding process (Cadweld or equivalent).

(NCDOT TO PROVIDE ALL MATERIAL)

Payment will be made under:

GROUNDING SYSTEM INSTALLATION	EACH
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PSP-2: METER SERVICE

The contractor shall install a 220 V.A.C. meter service with disconnect switch and #8 service wire in one (1) inch rigid conduit, with approved NEC grounding. The service wire shall extend thirty inches (30") beyond the weatherhead for proper hook-up by the utility company. For service pole belonging to the State (non-joint use), the one inch (1") service conduit with weatherhead should be installed twenty four inches (24") below the top of the service pole or eighteen inches (18") if required to maintain the minimum of twenty four inches (24") above the top most eye bolt supporting the traffic signal span wire. On utility poles (joint-use), the one inches (1") service conduit shall extend a minimum of twenty four inches (24") above the top most eye bolt supporting the traffic signal span wire.

Where feasible, the one inch (1") service conduit should enter the bottom of the cabinet to the right and adjacent to all other conduits.

When the disconnect switch is mounted below the meter base, it shall be installed on the service pole a minimum forty-eight inches (48") above the natural ground line, measured from the bottom of the disconnect switch box.

When the disconnect switch is mounted beside the meter base, it shall be installed on the services pole sixty inches (60") above the natural ground line, measured from the bottom of the disconnect switch.

All conduit in meter service and controller cabinet is to have double lock nuts and ground bushing attached to each pipe. All conduit shall be supported by two-hole straps on 4' centers.

The Contractor shall furnish all metered or power service, with permits and inspections.

See 2012, Roadway Standard Drawings, 1700.01, Sheet 1 of 1 thru 1700.02 sheet 2 of 2 for Electrical Service Details.

(NCDOT TO PROVIDE ALL MATERIAL)

Payment will be made under:

METER SERVICE ASSEMBLY	EACH
REMOVAL OF METER SERVICE ASSEMBLY	EACH

BASE/POLE MOUNTED CABINETS

PSP-3, 4: CABINETS

All wires shall be pulled into cabinet(s) and have sufficient length for proper connection (approximately thirty inches (36”) for pole mount cabinets and ninety six inches (96”) for base mount cabinets). These wires shall be identified by labeling. Electrical connections in cabinet(s) will be done by the Contractor.

The contractor shall furnish and install a silicone base grout around the bottom edge of the base mount cabinet to prevent the seepage of water into the bottom of the cabinet.

Where feasible all cabinets shall be installed with the back of the cabinet facing the roadway. All cabinet locations shall be approved by the engineer or inspector. The Signal Inventory Number shall be stenciled on the front, back, or side of the cabinet that faces the approach roadway.

At the discretion of the Engineer, the Contractor shall complete the Field Wiring of the installed cabinet. This shall include, but not limited to any and all: Grounding, Electrical, Signal Head, Pedestrian Head, Flashing Beacon, Preemption and Vehicle Detection wiring that terminates inside the cabinet.

No measurement will be made of wiring as this is incidental to installing signal cabinet. No measurement will be made for additional work to modify any existing wiring or equipment inside the cabinet as these are incidental to installing the signal cabinets.

(NCDOT to Provide Signal Cabinet)

Payment will be made under:

INSTALLATION OF BASE MOUNTED CABINET	EACH
REMOVAL OF BASE MOUNTED CABINET	EACH
INSTALLATION OF POLE MOUNTED CABINET	EACH
REMOVAL OF POLE MOUNTED CABINET	EACH

PSP – COMPLETE FIELD WIRING OF EXISTING CABINET

At the discretion of the Engineer, the Contractor shall complete the Field Wiring of an EXISTING cabinet. This shall include, but not limited to any and all: Grounding, Electrical, Signal Head, Pedestrian Head, Flashing Beacon, Preemption and Vehicle Detection wiring that terminates inside the cabinet. Removal and disposal of any existing unneeded wiring inside the cabinet shall be considered incidental and not subject to payment.

(CONTRACTOR TO PROVIDE ALL MATERIALS)

Payment will be made under:

PSP COMPLETE FIELD WIRING OF EXISTING CABINET

EACH

1098-7 GUY ASSEMBLIES**PSP - INSTALLATION OF AN EIGHT-WAY ANCHOR**

Provide anchor assemblies with all miscellaneous hardware consisting of either expanding anchor with rod and tripeye attachment, screw anchor with extension rod and tripeye attachment, or expanding rock anchor with tripeye attachment. Ensure anchor assembly size is adequate for site conditions. Provide rods constructed of hot-dipped galvanized steel sized according to the soil bearing conditions in the area. Provide tripeye guy attachments constructed of hot-dipped galvanized steel. Anchor assemblies with double-strand eyes may be used in lieu of those with the tripeye feature when only one guy cable is to be attached. Ensure anchor assemblies are 7 feet minimum in length. For type of anchor assembly furnished, ensure the following:

- (A) Expanding anchor - provide steel construction with protective paint or heat shrink of 6 mil plastic to protect metal during shipping and storage.
- (B) Screw anchor - provide hot-dipped galvanized steel construction.
- (C) Expanding rock anchors - provide malleable iron and rust-resisting paint construction.

(CONTRACTOR TO PROVIDE ALL MATERIALS)

Payment will be made under:

PSP INSTALLATION OF AN EIGHT-WAY ANCHOR

EACH

PSP – INSTALL SIDEWALK GUY ASSEMBLY

The Contractor shall install sidewalk down guy.

See 2012, Roadway Standard Drawings 1721.01 Sheet 2 of 3 for details.

(NCDOT TO PROVIDE ALL MATERIAL)

Anchors shall be paid for separately under: "Installation of an Eight-Way Anchor"

Payment will be made under:

PSP INSTALL SIDEWALK GUY ASSEMBLY

EACH

PSP REMOVAL OF SIDEWALK GUY ASSEMBLY

EACH

PSP – RELOCATE AND REWIRE EXISTING PREEMPTIVE DEVICE

The Contractor shall relocate and rewire existing Out-of-Street devices (i.e., opticom receiver, microwave, etc.).

See Section 1700 (H) regarding work.

Relocation of existing device includes proper disposal hardware, if required. Do not reuse any pole attachment hardware or abandoned risers, unless otherwise specified. In the event that any of the removed attached hardware is to be returned to the Engineer, it will be so noted.

Relocation a device will be paid on a 'Per Each' basis.

No additional measurement will be made for reworking existing cables on the same messenger cable.

No measurement will be made of the removal of or the installation of any pole attachment hardware as these will be incidental to removing existing messenger cable hardware.

(NCDOT TO PROVIDE ALL MATERIALS)

Payment will be made under:

Relocate and Rewire Existing Opticom Receiver will be paid per each is relocated and accepted.

PSP RELOCATE AND REWIRE EXISTING OPTICOM RECEIVER

EACH

PSP – LABOR ASSISTANCE ON AN “AS NEEDED BASIS”

At the description of the Engineer, the Contractor may be directed to assist NCDOT personnel on an 'As Needed Basis'. This shall only be used when the Contractor is already working onsite and additional labor assistance is required that is not already covered under the previously noted line items. Said work shall be paid on a 'Per Hour' basis and shall include adequate personnel to safely and efficiently perform the work as directed by the Engineer.

Payment will be made under:

PSP LABOR ASSISTANCE ON AN 'AS NEEDED BASIS'

HOURLY

PSP – EMERGENCY CALLBACK FOR REPAIR OF TRAFFIC SIGNAL

EMERGENCY CALLBACK FOR REPAIR OF TRAFFIC SIGNAL**

**** BID SUBMITTAL FOR THIS LINE ITEM IS OPTIONAL AND WILL NOT BE CONSIDERED IN THE TABULATION OR AWARD PROCESS****

(D) Maintenance and Repair of Material

Furnish the Engineer with the name, office telephone number, cellular (mobile) telephone number and pager number of the employee who will be responsible for responding to emergency callback. He shall be responsible for maintenance and repair of equipment subject to emergency callback. This employee shall be the designee to respond onsite. *(When notified, the contractor's designated technician shall arrive onsite within four (4) hours. In the event that the NCDOT on-call technician is unable to verbally communicate with the contractor's designee within fifteen (15) minutes of notification, the contractor shall be assessed a one hundred dollar (\$100) penalty to be deducted from the next invoice. The contractor shall also be required to attend a meeting with the Division Traffic Engineer to discuss the occurrence. This onsite meeting shall be at the Division Nine Office and shall be within two*

business days of the event.) The contractor's technician shall repair all signal and communications related equipment to restore the intersection to 'normal operation'. Upon arrival to the intersection in question, the contractor shall document in the diary:

- Date and Time of arrival
- All signal, controller and conflict monitor indications both upon arrival, during repairs and upon completion of work
- The contractor shall also note; repairs, work performed and time left intersection

For all failures, malfunctions, or damages to equipment, begin necessary repairs within four hours of notification. Complete repairs within eight hours of notification. Comply with Section 150 for maintenance of traffic flow. The inability to contact the supervisory employee or prearranged alternate will not extend repair time requirements. Remove and replace all signal and communications related equipment that fails. The Department will loan out equipment to furnish the Contractor with traffic signal equipment to make emergency repairs. Both the contractor and the NCDOT signal technician will log all equipment transfers noting the time, date, item(s) and condition of each item both loaned out to and received back from contractor.

Except for damages and malfunctions caused by the Contractor's work activities, the Contractor will not be held responsible for pre-existing conditions reported to the Engineer before starting traffic signal work at the specific intersection. The Contractor will assume responsibility for all emergency services necessary once he has been notified and for all damages and malfunctions caused either directly or indirectly by the Contractor's work activities. In the event the Contractor fails to perform in accordance with the plans and Specifications within the time frame specified, the Department reserves the right to perform maintenance and emergency service necessary to ensure continuous traffic signal operation. Further, all expenses incurred by the Department in implementing this option will be deducted from payment due the Contractor, plus five hundred dollars (\$500) liquidated damage **per hour, or any portion thereof, until corrected.**

Payment will be made under:

EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION
CORPORATION

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating N.C.G.S. § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

Full name of Corporation

Address as prequalified

Attest _____
Secretary/Assistant Secretary
Select appropriate title

By _____
President/Vice President/Assistant Vice President
Select appropriate title

Print or type Signer's name

Print or type Signer's name

CORPORATE SEAL

AFFIDAVIT MUST BE NOTARIZED

NOTARY SEAL

Subscribed and sworn to before me this the

_____ day of _____, 20____

Signature of Notary Public

Of _____ County

State of _____

My Commission Expires _____

EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

PARTNERSHIP

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

_____ Full name of Partnership

_____ Address as prequalified

_____ By _____
Signature of Witness Signature of Partner

_____ Print or type Signer's name _____ Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this
the ____ day of _____, 20__

NOTARY SEAL

_____ Signature of Notary Public

Of _____ County

State of _____

My Commission Expires: _____

EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION
LIMITED LIABILITY COMPANY

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

Full Name of Firm

Address as Prequalified

Witness's Signature

Signature of
Member/Manager/Authorized Agent
Select appropriate title

Print or type Signer's name

Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

NOTARY SEAL

Subscribed and sworn to before me this the

_____ day of _____, 20____

Signature of Notary Public

Of _____ County

State of _____

My Commission Expires _____

**EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION
JOINT VENTURE (2) or (3)**

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating N.C.G.S. § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

Instructions: 2 Joint Venturers Fill in lines (1), (2) and (3) and execute. 3 Joint Venturers Fill in lines (1), (2), (3) and (4) and execute. On Line (1), fill in the name of the Joint Venture Company. On Line (2), fill in the name of one of the joint venturers and execute below in the appropriate manner. On Line (3), print or type the name of the other joint venturers and execute below in the appropriate manner. On Line (4), fill in the name of the third joint venturer, if applicable and execute below in the appropriate manner.

(1) _____
Name of Joint Venture

(2) _____
Name of Contractor

Address as prequalified
By

Signature of Witness or Attest		Signature of Contractor
Print or type Signer's name		Print or type Signer's name

If Corporation, affix Corporate Seal and

(3) _____
Name of Contractor

Address as prequalified

By

Signature of Witness or Attest		Signature of Contractor
Print or type Signer's name		Print or type Signer's name

If Corporation, affix Corporate Seal and

(4) _____
Name of Contractor (for 3 Joint Venture only)

Address as prequalified

By

Signature of Witness or Attest		Signature of Contractor
Print or type Signer's name		Print or type Signer's name

If Corporation, affix Corporate Seal
NOTARY SEAL
 Affidavit must be notarized for Line (2)
 Subscribed and sworn to before me this _____ day of _____ 20__

 Signature of Notary Public
 of _____ County
 State of _____
 My Commission Expires: _____

NOTARY SEAL
 Affidavit must be notarized for Line (3)
 Subscribed and sworn to before me this _____ day of _____ 20__

 Signature of Notary Public
 of _____ County
 State of _____
 My Commission Expires: _____

NOTARY SEAL
 Affidavit must be notarized for Line (4)
 Subscribed and sworn to before me this _____ day of _____ 20__

 Signature of Notary Public
 of _____ County
 State of _____
 My Commission Expires: _____

EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

Name of Contractor

_____ Individual Name

Trading and doing business as

_____ Full name of Firm

_____ Address as Prequalified

_____ Signature of Witness

_____ Signature of Contractor, Individually

_____ Print or type Signer's name

_____ Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

NOTARY SEAL

Subscribed and sworn to before me this the

_____ day of _____, 20____

_____ Signature of Notary Public

Of _____ County

State of _____

My Commission Expires _____

EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

INDIVIDUAL DOING BUSINESS IN HIS OWN NAME

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

Name of Contractor _____

Print or type individual name

Address as Prequalified

Signature of Contractor, Individually

Print or type Signer's name

Signature of Witness

Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

NOTARY SEAL

Subscribed and sworn to before me this the

_____ day of _____, 20____

Signature of Notary Public

Of _____ County

State of _____

My Commission Expires _____

DEBARMENT CERTIFICATION

Conditions for certification:

1. The prequalified bidder shall provide immediate written notice to the Department if at any time the bidder learns that his certification was erroneous when he submitted his debarment certification or explanation that is file with the Department, or has become erroneous because of changed circumstances.
2. The terms *covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded*, as used in this provision, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. A copy of the Federal Rules requiring this certification and detailing the definitions and coverages may be obtained from the Contract Officer of the Department.
3. The prequalified bidder agrees by submitting this form, that he will not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in NCDOT contracts, unless authorized by the Department.
4. For Federal Aid projects, the prequalified bidder further agrees that by submitting this form he will include the Federal-Aid Provision titled *Required Contract Provisions Federal-Aid Construction Contract (Form FHWA PR 1273)* provided by the Department, without subsequent modification, in all lower tier covered transactions.
5. The prequalified bidder may rely upon a certification of a participant in a lower tier covered transaction that he is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless he knows that the certification is erroneous. The bidder may decide the method and frequency by which he will determine the eligibility of his subcontractors.
6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this provision. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
7. Except as authorized in paragraph 6 herein, the Department may terminate any contract if the bidder knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available by the Federal Government.

DEBARMENT CERTIFICATION

The prequalified bidder certifies to the best of his knowledge and belief, that he and his principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements; or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph b. of this certification; and
- d. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- e. Will submit a revised Debarment Certification immediately if his status changes and will show in his bid proposal an explanation for the change in status.

If the prequalified bidder cannot certify that he is not debarred, he shall provide an explanation with this submittal. An explanation will not necessarily result in denial of participation in a contract.

Failure to submit a non-collusion affidavit and debarment certification will result in the prequalified bidder's bid being considered non-responsive.

Check here if an explanation is attached to this certification.

LISTING OF MBE & WBE SUBCONTRACTORS

FIRM NAME AND ADDRESS	MBE or WBE	ITEM NO.	ITEM DESCRIPTION	*AGREED UPON UNIT PRICE	**DOLLAR VOLUME OF ITEM
Xyz Truck Hauling Company 0000 Somewhere Street Winston-Salem, NC 27103 Mr/Ms XYZ (336) 222-3333	WB	3	Xyz Trucks Hauling Material Tandem Triaxle	\$65/hr \$68/hr \$75/hr	\$7,000.00
Xyz Company 0000 Pending Street Salisbury, NC 11111 Mr/Ms XYZ (704)444-6666	WB	5	XYZ Performing Same Type Of LF Work	\$50/LF	\$1,000.00
ABC Company 0000 Somewhere Street Lexington, NC 27292 Mr/Ms XYZ (336)555-6666	MB	7	ABC Structure Adjustment Concrete Asphalt	\$500/ea	\$12,000.00
CDF Company 0000 Somewhere Street Mocksville, NC 27103 Mr/Ms XYZ (336)333-4444	MB	15	CDF Whatever Material	\$85/TN	\$4,000.00
EXAMPLE TOTAL CONTRACT PRICE					\$400,000.00
Total Dollar Committed for MBE Subcontractor					\$16,000.00
MBE Percentage of Total Contract Bid Price					4%
Total Dollar Committed for WBE Subcontractor					\$8,000.00
WBE Percentage of Total Contract Bid Price					2%

This form **shall be** included with bid submittal. Failure to complete will result in nonresponsive bid and **shall** be rejected.

Field

Instructions

Subgrantee Letterhead / Name & Address Goes Here

Enter the name and address of the company, firm, governmental entity or subgrantee requesting payment from the North Carolina Department of Transportation

Submit with Invoice To:

Update this section with the name and address of the NCDOT representative that is responsible for processing payment requests for your contracts.

Firm Invoice No. Reference

Enter the invoice number that was submitted to NCDOT that corresponds with the payment information contained on this form.

NCDOT PO / Contract Number
WBS No. (State Project No.)

Enter the NCDOT Purchase Order or Contract number that corresponds with the information contained on this form.
Enter the NCDOT WBS element number assigned to this project.

Date of Invoice

Enter the date of the invoice that was submitted for payment.

Signed

Enter the name of the person responsible for the validity of the information contained on this form.

Invoice Line Item Reference

Enter the invoice line item or pay item that the DBE payment information is related to.

Payer Name
Payer Federal Tax Id

Enter the name of the company, firm, governmental entity or subgrantee that is responsible for paying the DBE subcontractor.
Enter the Federal Tax Identification number of the Payer (See Payer Name)

Subcontractor / Subconsultant/ Material Supplier Name

Enter the name of the DBE Subcontractor, Subconsultant or Material Supplier that is being paid for goods or services related to the NCDOT PO / Contract Number.

Subcontractor / Subconsultant/ Material Supplier Federal Tax Id
Amount Paid To Subcontractor / Subconsultant / Material Supplier

Enter the Federal Tax Identification number of the DBE Subcontractor, Subconsultant or Material Supplier that is being paid for goods or services related to the NCDOT PO / Contract Number.
Enter the amount paid to the DBE Subcontractor, Subconsultant or Material Supplier for the invoice referenced.

This Invoice
Date Paid To Subcontractor / Subconsultant / Material Supplier This Invoice

Enter the date that the Subcontractor / Subconsultant / Material Supplier was paid for the items referenced on the invoice.

Total Amount Paid to DBE Firms

Enter the total payments made to all DBE Subcontractor / Subconsultant / Material Supplier for the invoice referenced.

SUBSTITUTE FORM W-9

**VENDOR REGISTRATION FORM
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**

Pursuant to Internal Revenue Service (IRS) Regulations, vendors must furnish their Taxpayer Identification Number (TIN) to the State. If this number is not provided, you may be subject to a 20% withholding on each payment. To avoid this 20% withholding and to insure that accurate tax information is reported to the Internal Revenue Service and the State, please use this form to provide the requested information exactly as it appears on file with the IRS.

**INDIVIDUAL AND SOLE PROPRIETOR: ENTER NAME AS SHOWN ON SOCIAL SECURITY CARD
CORPORATION OR PARTNERSHIP : ENTER YOUR LEGAL BUSINESS NAME**

NAME: _____

MAILING ADDRESS: STREET/PO BOX: _____

CITY, STATE, ZIP: _____

DBA / TRADE NAME (IF APPLICABLE): _____

BUSINESS DESIGNATION: INDIVIDUAL (use Social Security No.) SOLE PROPRIETER (use SS No. or Fed ID No.)
 CORPORATION (use Federal ID No.) PARTNERSHIP (use Federal ID No.)
 ESTATE/TRUST (use Federal ID no.) STATE OR LOCAL GOVT. (use Federal ID No.)
 OTHER / SPECIFY _____

SOCIAL SECURITY NO. _____ - _____ - _____ (Social Security #)

OR

FED.EMPLOYER IDENTIFICATION NO. _____ - _____ - _____ (Employer Identification #)

COMPLETE THIS SECTION IF PAYMENTS ARE MADE TO AN ADDRESS OTHER THAN THE ONE LISTED ABOVE:

REMIT TO ADDRESS: STREET / PO BOX: _____

CITY, STATE, ZIP: _____

Participation in this section is voluntary. You are not required to complete this section to become a registered vendor. The information below will in no way affect the vendor registration process and its sole purpose is to collect statistical data on those vendors doing business with NCDOT. If you choose to participate, circle the answer that best fits your firm's group definition.

What is your firm's ethnicity? (Prefer Not To Answer, African American, Native American, Caucasian American, Asian American, Hispanic American, Asian-Indian American, Other: _____)

What is your firm's gender? (Prefer Not to Answer, Male, Female) **Disabled-Owned Business?** (Prefer Not to Answer, Yes, No)

IRS Certification

Under penalties of perjury, I certify that:

- 1. The number shown on this form is my correct taxpayer identification and
- 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the IRS that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- 3. I am a U.S. person (including a U.S. resident alien).

The IRS does not require your consent to any provision of this document other than the certifications required to avoid backup withholding. For complete certification instructions please see IRS FORM W-9 at <http://www.irs.gov/pub/irs-pdf/fw9.pdf>.

NAME (Print or Type)

TITLE (Print or Type)

SIGNATURE

DATE

PHONE NUMBER

To avoid payment delays, completed forms should be returned promptly to:

**NC Department of Transportation
Fiscal /Commercial Accounts
1514 Mail Service Center
Raleigh, North Carolina 27699-1514**

PHONE (919) 733-3624 FAX (919) 715-3700



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR

CONTRACT:

NAME OF BIDDER:

The undersigned intends to perform work in connection with the above contract upon execution of the bid and subsequent award of contract by the Board of Transportation as:

Name of MBE/WBE/DBE Subcontractor _____

Address _____

City _____ State _____ Zip _____

Please check all that apply:

Minority Business Enterprise (MBE) _____

Women Business Enterprise (WBE) _____

Disadvantaged Business Enterprise (DBE) _____

The MBE /WBE /DBE status of the above named subcontractor is certified by the North Carolina Department of Transportation. The above named subcontractor is prepared to perform the described work listed on the attached MBE/WBE/DBE Commitment Items sheet, in connection with the above contract upon execution of the bid and subsequent award of contract by the Board of Transportation. The above named subcontractor is prepared to perform the described work at the estimated Commitment Total for Subcontractor Price identified on the MBE/WBE/DBE Commitment Items sheet and amount indicated below.

Commitment Total based on estimated Unit Prices and Quantities on the "attached" MBE/WBE/DBE Commitment Items sheet. Amount \$ _____

The above named bidder and subcontractor mutually accepts the Commitment Total estimated for the Unit Prices and Quantities. This commitment total is based on estimated quantities only and most likely will vary up or down as the project is completed. Final compensation will be based on actual quantities of work performed and accepted during the pursuance of work. The above listed amount represents the entire dollar amount quoted based on these estimated quantities. No conversations, verbal agreements, and/or other forms of non-written representations shall serve to add, delete, or modify the terms as stated.

This document shall not serve in any manner as an actual subcontract between the two parties. A separate subcontractor agreement will describe in detail the contractual obligations of the bidder and the MBE/WBE/DBE subcontractor.

Affirmation

The above named MBE/ WBE/ DBE subcontractor affirms that it will perform the portion(s) of the contract for the estimated dollar value as stated above.

Name of MBE/ WBE/ DBE Subcontractor

Name of Bidder

Signature / Title

Signature / Title

Date

Date

Subcontract Approval Form (SAF)

1. Complete the "Subcontract Approval Form" (Form SAF) for the Subcontractor and the 2nd Tier Subcontractor on one form. Additional items of work can be entered on the "Subcontract Approval Form Attachment". If there is more than one 2nd Tier Subcontractor, the information should be listed on the "Subcontract Approval Form - Additional 2nd Tier" (SAF - Additional 2nd Tier).
2. Reporting Number is the Fiscal Vendor Number for Contractors and Subcontractors. This number can be found in the NCDOT Directory of Transportation Firms - Prequalified Bidders and Subcontractors. Use the following web address to access the list of Prequalified Bidders and Subcontractors.

<https://partner.ncdot.gov/VendorDirectory/default.html>

Enter the name of your subcontractor and hit "Submit". If the firm is prequalified to perform work for NCDOT, the firm's information will be shown on the screen. Click on the firm's name to access the Reporting Number.

3. If retainage is being withheld for the Subcontractor or 2nd Tier Subcontractor place an "X" in the box under the column titled "Retainage."
4. When the proposed Subcontractor or 2nd Tier Subcontractor is a certified DBE, MBE, or WBE Subcontractor, select the appropriate certification from the drop down list. When the proposed Subcontractor is not a certified DBE, MBE, or WBE subcontractor, select "NONE" from the drop down list.
5. **Partial Item of Work and Portion of Work**

Partial Item of Work is defined as a Subcontractor performing part of the work associated with a line item, such as hauling asphalt or tying steel. The partial item of work should be indicated by the symbol (♦). The work associated with the contract line item to be performed by the Subcontractor shall be identified.

Portion of Work is defined as a Subcontractor performing all the work associated with a line item, but only a portion of the contract quantity. An example is grading from Station 225+00 - L- to the end of the project. The portions of work should be indicated by the symbol (●). The physical limits of the sublet quantity shall be identified.

The Contractor may designate a subcontracted item of work as both a portion and a partial. (Example: Contractor is subcontracting hauling of unclassified excavation to multiple trucking contractors.) If the item of work is designated as both a portion and a partial the unit price shall be less than the contract unit price and the quantity shall be less than the contract quantity.

6. Sub or 2nd Tier - Designate if the work for the associated line item will be performed by a Subcontractor or a 2nd Tier Subcontractor. This must be completed to correctly calculate the Subcontract Amount.
7. Units of Measure (UOM) shown on the Subcontract Approval Form (SAF) shall be the same as those shown in the Department's contract. Any conversions that are necessary to satisfy this requirement shall be the responsibility of the Contractor. The Converted Price (CP) shall be denoted with an asterisk (*). (Examples of converting units of measure can be found in the HiCAMS User Guide, Chapter 2, Section 8A. Use the following link to view the examples.)

<https://connect.ncdot.gov/projects/construction/Pages/HiCAMS-Manual.aspx>

8. DBE/MBE/WBE Unit Price - This unit price should only be completed for DBE/MBE/WBE Subcontractors. Enter a DBE/MBE/WBE Unit Price for the items of work performed by any certified DBE/MBE/WBE. Use the chart below to determine if a DBE/MBE/WBE Unit Price shall be entered for the line item, based on the certification of the firm.

Subcontractor	2nd Tier	Enter DBE/MBE/WBE Unit Price For
Certified	None	Subcontractor
Certified	Certified	Subcontractor
None	Certified	2nd Tier

The DBE/MBE/WBE Unit Price must be the negotiated unit or lump sum price agreed upon between the Contractor and the Subcontractor, **unless the Contractor is entering a Converted Price**. Indicating a Converted Price acknowledges that the price shown is not the actual price, but an approximate value used for calculating the Sublet Amount as reasonably close as possible. It can be higher, lower or equal to the contract bid price.

9. DBE/MBE/WBE Sublet Amount is the DBE/MBE/WBE Unit Price multiplied by the Quantity. For committed firms, the DBE/MBE/WBE Sublet Amount shall be the same or higher than the amount listed in the contract.
10. Subcontract Unit Price - The Subcontract Unit Price must be the same as the contract unit price unless the Subcontractor is performing a partial item of work. When a partial item of work is sublet, the unit price must be less than the contract unit price. When only a portion of the quantity of an item is sublet, the unit price shall be the same as the contract unit price. If an item of work is designated as both a partial and a portion, refer to Item 5 of these instructions. A Subcontract Unit Price must be entered for every line item, including an item of work performed by a DBE/MBE/WBE Subcontractor.
11. The Total Subcontract Amount is the Subcontract Unit Price multiplied by the Quantity.
12. The Subcontract Amount is the amount subcontracted by the Contractor. The amount is used to determine the percent of work performed by the Prime Contractor. (Refer to Article 108-6 of the Standard Specifications for subletting percentages.) The Subcontract Amount is calculated by summing the Total Subcontract Amounts for the Subcontractor. Any items listed on the Attachment sheet for the Subcontractor is also included in the Subcontract Amount. The line items for 2nd Tier Subcontractor(s) are not included.
13. When any item requested to be sublet has been previously included in an approved subcontract, the following statement shall be included above the listing of these items: "The following items are being deleted from "Subcontract Request Number ____."
14. The Contractor, Subcontractor and 2nd Tier Subcontractor shall sign the original Subcontract Approval Form and the Contractor shall submit the form to the Resident Engineer.

Sublet Percentages

FOR USE BY NCDOT PERSONNEL (for non HiCAMS contracts)

The following is the process used to calculate the Sublet Percentages after the approval of each subcontract. The fields will not populate, this process should be hand calculated.

(1) Total Original Contract Amount _____	(5) Difference $\{1-(2+3)\}$ _____
(2) Specialty Items Sublet _____	(6) Percent by Prime $\{(1-4)/5\}$ _____
(3) Non-spec. Items Sublet to DBE/MBE/WBE _____	(7) Threshold Check $\{(1-4)/(1-2)\}$ _____
(4) Total Sublet (Grand Total) _____	

AWARD LIMITS ON MULTIPLE PROJECTS (Paper Bids):

(4-9-13)

It is the desire of the Proposer to be awarded contracts, the value of which will not exceed a total of \$_____, for those projects indicated below on which bids are being opened on the same date as shown in the Proposal Form. Individual projects shall be indicated by placing the project number and county in the appropriate place below. Projects not selected will not be subject to an award limit.

_____ (Project Number)	_____ (County)

*If a Proposer desires to limit the total amount of work awarded to him in this letting, he shall state such limit in the space provided above in the second line of this form.

It is agreed that in the event that I am (we are) the successful bidder on indicated projects, the total value of which is more that the above stipulated award limits, the Department will award me (us) projects from among those indicated which have a total value not exceeding the award limit and which will result in the best advantage to the Department.

**Signature of Authorized Person

**Only those persons authorized to sign bids in accordance with Subarticle 102-8(A)(8) of the *2012 Standard Specifications* shall be authorized to sign this form.

Execution of Contract

Contract No: D9-WIRE/FIBER-16

County: Davidson, Davie, Forsyth, Rowan, Stokes

ACCEPTED BY THE _____

Proposals Engineer

Date

EXECUTION OF CONTRACT AND BONDS
APPROVED AS TO FORM:

Division Engineer

Date

ADDENDA

ADDENDUM #1

I, _____ representing _____
(SIGNATURE)

Acknowledge receipt of Addendum #1.

ADDENDUM #2

I, _____ representing _____
(SIGNATURE)

Acknowledge receipt of Addendum #2.

ADDENDUM #3

I, _____ representing _____
(SIGNATURE)

Acknowledge receipt of Addendum #3.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
BID FORM

Work Order Number: D9-WIRE/FIBER-16

Project Description: This is a *Dual Award Maintenance Contract* for the Installation of Traffic Signal Equipment including but not limited to; Messenger Cable, Conductor Cable, Rigid Conduit, Signal Heads, Controller Cabinets, Junction Boxes, Sawcut Loops and Subject to Emergency Callback on an "As Needed Basis" for Davidson, Davie, Forsyth, Rowan and Stokes Counties.

Line Item	Section #	Description	Quantity	Unit	Unit Price	Amount Bid
1	SP	Installation of Messenger Cable	15,000	LF		
2	SP	Tension of Down Guys or Aerial Spanwire on Existing Installations	50	EA		
3	SP	Removal of Messenger Cable	10,000	LF		
4	1715	Unpaved Trenching	1,500	LF		
5	1715	Paved Trenching	75	LF		
6	1715	Directional Drilling	500	LF		
7	SP	Install of Signal Cable onto Existing Messenger Cable	30,000	LF		
8	1716	Installation of Standard Junction Box	50	EA		
9	1716	Installation of Oversized Junction Box	10	EA		
10	SP	Installation of Riser Assembly	100	EA		
11	SP	Removal of Riser Assembly	100	EA		
12	1726	Install 14-2 Lead-in Cable	30,000	LF		
13	1735	Cable Transfer	10	EA		
14	SP	Install Pedestal With Foundation	2	EA		
15	SP	Install Pedestrian Pushbutton Post w/Pushbutton and Foundation	2	EA		
16	SP	Install Pedestrian Pushbutton Assembly on Existing Pole	2	EA		
17	SP	Removal of Pedestal With Foundation	1	EA		
18	1745	Installation of Static Sign for Traffic Signal	10	EA		
19	SP	Assemble and Installation of Vehicle Signal, Pedestrian Signal (Head)	250	EA		
20	SP	Removal of Vehicle Signal, Pedestrian Signal (Head)	150	EA		
21	SP	Relocation of Vehicle Signal, LED Blackout Sign	10	EA		
22	SP	Modify or Replace Vehicle Signal or Pedestrian Signal Head Indication	50	EA		
23	1750	Signal Cabinet Foundation	10	EA		
24	SP	Grounding System Installation	10	EA		
25	SP	Meter Service Assembly	10	EA		
26	SP	Removal of Meter Service Assembly	10	EA		
27	SP	Installation of Base Mounted Cabinet	25	EA		
18	SP	Removal of Base Mounted Cabinet	20	EA		
29	SP	Installation of Pole Mounted Cabinet	2	EA		
30	SP	Removal of Pole Mounted Cabinet	2	EA		
31	PSP	Complete Field Wiring of Existing Cabinet	3	EA		
32	PSP	Provide and Install Eight Way Anchor	10	EA		
33	PSP	Install Sidewalk Guy Assembly	2	EA		
34	PSP	Removal of Sidewalk Guy Assembly	2	EA		
35	PSP	Relocate and Rewire Existing Preemptive Device	5	EA		
36	1705/1726	Unlash Existing Signal Cable from Messenger Cable	1,000	LF		
37	1715	Tracer Wire	500	LF		

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
BID FORM

Work Order Number: D9-WIRE/FIBER-16

Project Description: This is a ***Dual Award*** Maintenance Contract for the Installation of Traffic Signal Equipment including but not limited to; Messenger Cable, Conductor Cable, Rigid Conduit, Signal Heads, Controller Cabinets, Junction Boxes, Sawcut Loops and Subject to Emergency Callback on an "As Needed Basis" for Davidson, Davie, Forsyth, Rowan and Stokes Counties.

Line Item	Section #	Description	Quantity	Unit	Unit Price	Amount Bid
38	1722	Heat Shrink Tubing Retrofit Kit	10	EA		
39	1730	Communications Cable (SMFO)	15,000	LF		
40	1730	Communications Drop Cable	5,000	LF		
41	1731	Interconnect Center	10	EA		
42	1731	Splice Center Enclosure	5	EA		
43	1732	Fiber-Optic Transceiver-Drop and Repeat	5	EA		
44	1732	Fiber-Optic Transceiver-Self Healing Ring	5	EA		
45	1733	Delineator Marker	10	EA		
46	1734	Remove Existing Communication Cable	10	LF		
47	1735	Communication Cable Transfer	10	EA		
48	PSP	Fiber-Optic Splice Cabinet (Pole Mount)	3	EA		
49	PSP	Fiber-Optic Splice Cabinet (Base Mount)	3	EA		
50	PSP	Labor Assistance on an 'As Needed Basis'	30	HR		
TOTAL BID FOR PROJECT						

51**	PSP	Emergency Callback for Repair of Traffic Signal	2	EA		
------	-----	---	---	----	--	--

****Note:** This is an optional line item; (51) it shall be used at the discretion of the Division Traffic Engineer and ***not*** included in bid total.

CONTRACTOR _____

ADDRESS _____

Federal Identification Number _____

Contractor's License Number _____

Authorized Agent _____

Title _____

Signature _____

Date _____

Witness _____

Title _____

Signature _____

Date _____

THIS SECTION TO BE COMPLETED BY NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

This bid has been reviewed in accordance with Article 103-1 of the Standard Specifications for Roads and Structures, 2012.

Reviewed by _____

_____ (date)

Accepted by NCDOT _____

Engineer _____

_____ (date)

Reviewed by _____

_____ (date)

Accepted by NCDOT _____

Engineer _____

_____ (date)