

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

C203714

CONTRACT AND
CONTRACT BONDS

FOR CONTRACT NO. C203714

WBS 2016CPT.07.01.20011 STATE FUNDED

COUNTY OF ALAMANCE
THIS IS THE ROADWAY CONTRACT
ROUTE NUMBER _____ LENGTH 20.741 MILES
LOCATION 16 SECTIONS OF SECONDARY ROADS.

CONTRACTOR RILEY PAVING INC
ADDRESS P.O. BOX 10
CARTHAGE, NC 28327

BIDS OPENED JULY 21, 2015
CONTRACT EXECUTION 8/14/2015

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

DATE AND TIME OF BID OPENING: **JULY 21, 2015 AT 2:00 PM**

CONTRACT ID C203714
WBS 2016CPT.07.01.20011

FEDERAL-AID NO. STATE FUNDED
COUNTY ALAMANCE
T.I.P. NO.
MILES 20.741
ROUTE NO.
LOCATION 16 SECTIONS OF SECONDARY ROADS.

TYPE OF WORK WIDENING, MILLING, RESURFACING, AND SHOULDER RECONSTRUCTION.

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.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

**PROPOSAL FOR THE CONSTRUCTION OF
CONTRACT No. C203714 IN ALAMANCE COUNTY, NORTH CAROLINA**

Date _____ 20 _____

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

The Bidder has carefully examined the location of the proposed work to be known as Contract No. C203714; 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 bind upon his execution of the bid and subsequent award to him by the Board 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. C203714 in **Alamance County**, 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.

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.

Accompanying this bid is a bid bond secured by a corporate surety, or certified check payable to the order of the Department of Transportation, for five percent of the total bid price, which deposit is to be forfeited as liquidated damages in case this bid is accepted and the Bidder shall fail to provide the required payment and performance bonds with the Department of Transportation, under the condition of this proposal, within 14 calendar days after the written notice of award is received by him, as provided in the *Standard Specifications*; otherwise said deposit will be returned to the Bidder.



State Contract Officer

DocuSigned by:

Randy A. Garris

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6/12/2015

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PROJECT SPECIAL PROVISIONS**GENERAL****CONTRACT TIME AND LIQUIDATED DAMAGES:**

(7-1-95) (Rev. 12-18-07)

108

SP1 G10 A

The date of availability for this contract is **April 15, 2016**.

The completion date for this contract is **November 15, 2016**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **One Thousand Dollars (\$ 1,000.00)** per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES

(2-20-07)

SP1 G14 A

The Contractor shall complete the required work of installing, maintaining, and removing the traffic control devices for lane closures and restoring traffic to the existing traffic pattern. The Contractor shall not close or narrow a lane of traffic on **the following maps** during the following time restrictions:

DAY AND TIME RESTRICTIONS**MAPS 2 THRU 15****SUNSET SATURDAY TO 9:00 A.M. MONDAY****MAP 16****SUNSET SATURDAY TO SUNRISE MONDAY****MAP 1****MONDAY THRU THURSDAY SUNSET TO 9:00 A.M.
THURSDAY SUNSET THRU 9:00 MONDAY****MAP 2, 3, 4, 5, 8, 9, 10, 12, 13, 14 & 15****MONDAY THRU SATURDAY SUNSET TO 9:00 A.M.****MAP 6, 7, 11 & 16****MONDAY THRU SATURDAY SUNSET TO SUNRISE**

In addition, the Contractor shall not close or narrow a lane of traffic on **ANY MAP**, detain and/or alter the traffic flow on or during holidays, holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS

1. For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Engineer.
2. For **New Year's Day**, between the hours of **4:00 p.m.** December 31st and **9:00 a.m.** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **9:00 a.m.** the following Tuesday.
3. For **Easter**, between the hours of **4:00 p.m.** Thursday and **9:00 a.m.** Monday.
4. For **Memorial Day**, between the hours of **4:00 p.m.** Friday and **9:00 a.m.** Tuesday.
5. For **Independence Day**, between the hours of **4:00 p.m.** the day before Independence Day and **9:00 a.m.** the day after Independence Day.

If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **4:00 p.m.** the Thursday before Independence Day and **9:00 a.m.** the Tuesday after Independence Day.

6. For **Labor Day**, between the hours of **4:00 p.m.** Friday and **9:00 a.m.** Tuesday.
7. For **Thanksgiving Day**, between the hours of **4:00 p.m.** Tuesday and **9:00 a.m.** Monday.
8. For **Christmas**, between the hours of **4:00 p.m.** the Friday before the week of Christmas Day and **9:00 a.m.** the following Tuesday after the week of Christmas Day.

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures will not be required during these periods, unless otherwise directed by the Engineer.

When Holiday and Holiday Weekend Lane Closure Restrictions are no longer in effect, then the Day and Time Restrictions shall be in effect.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane closures according to the time restrictions stated above and place traffic in the existing traffic pattern.

The liquidated damages are **One Thousand Dollars (\$ 1,000.00)** per hour

INTERMEDIATE CONTRACT TIME NUMBER 2 AND LIQUIDATED DAMAGES

(5-21-13)

The Contractor shall complete the work required of **installing each new inductive loop after the removal of each existing loop by the milling, patching or resurfacing operations** and shall place and maintain traffic on same.

The date of availability for this intermediate contract time for each inductive loop installation will be **the date when the Contractor elects to disturb the existing inductive loop.**

The completion date for this intermediate contract time for each inductive loop installation will be **the date which is five (5) consecutive calendar days after the date of availability.**

The liquidated damages are **Five Hundred Dollars** (\$ 500.00) per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 3 AND LIQUIDATED DAMAGES:

(6-18-13)

108

SP1 G14 K

The Contractor shall complete the work required as shown on **Maps 4, 5, 12, 13, 14 & 16** and shall place and maintain traffic on same.

The date of availability for this intermediate contract time is **June 14, 2016.**

The completion date for this intermediate contract time is **August 19, 2016.**

The liquidated damages are **One Thousand Dollars (\$1,000.00)** per calendar day.

PROSECUTION OF WORK:

(7-1-95) (Rev. 8-21-12)

108

SP1 G15R

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance of the project. The Contractor will not be permitted to suspend his operations except for reasons beyond his control or except where the Engineer has authorized a suspension of the Contractor's operations in writing.

In the event that the Contractor's operations are suspended in violation of the above provisions, the sum of **\$ 1,000.00** will be charged the Contractor for each and every calendar day that such suspension takes place. The said amount is hereby agreed upon as liquidated damages due to extra engineering and maintenance costs and due to increased public hazard resulting from a suspension of the work. Liquidated damages chargeable due to suspension of the work will be additional to any liquidated damages that may become chargeable due to failure to complete the work on time.

RAILROAD GRADE CROSSING:

(7-1-95) (Rev. 1-15-13)

107-9

SP1 G17R

Provide at least 2 weeks advance notice to the railroad's local Roadmaster or Track Supervisor when the use of slow-moving or stopped equipment is required over at-grade railroad crossings.

MAJOR CONTRACT ITEMS:

(2-19-02)

104

SP1 G28

The following listed items are the major contract items for this contract (see Article 104-5 of the 2012 Standard Specifications):

| Line # | Description |
|---------------|---|
| 12 | Asphalt Concrete Surface Course, Type SF9.5A |
| 14 | Asphalt Surface Treatment, Mat Coat, #67 Stone |
| 15 | Asphalt Surface Treatment, Mat Coat, #78M Stone |
| 16 | Emulsion for Asphalt Surface Treatment |

SPECIALTY ITEMS:

(7-1-95)(Rev. 1-17-12)

108-6

SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the 2012 Standard Specifications).

| Line # | Description |
|---------------|-----------------------------|
| 22 thru 28 | Long-Life Pavement Markings |
| 30 thru 31 | Erosion Control |
| 32 thru 36 | Signals/ITS System |

FUEL PRICE ADJUSTMENT:

(11-15-05) (Rev. 2-18-14)

109-8

SP1 G43

Revise the 2012 Standard Specifications as follows:

Page 1-83, Article 109-8, Fuel Price Adjustments, add the following:

The base index price for DIESEL #2 FUEL is \$ **2.0345** per gallon. Where any of the following are included as pay items in the contract, they will be eligible for fuel price adjustment.

The pay items and the fuel factor used in calculating adjustments to be made will be as follows:

| Description | Units | Fuel Usage Factor Diesel |
|---|--------------|---------------------------------|
| Unclassified Excavation | Gal/CY | 0.29 |
| Borrow Excavation | Gal/CY | 0.29 |
| Class IV Subgrade Stabilization | Gal/Ton | 0.55 |
| Aggregate Base Course | Gal/Ton | 0.55 |
| Sub-Ballast | Gal/Ton | 0.55 |
| Asphalt Concrete Base Course, Type ____ | Gal/Ton | 2.90 |

| | | |
|---|---------|-------|
| Asphalt Concrete Intermediate Course, Type ____ | Gal/Ton | 2.90 |
| Asphalt Concrete Surface Course, Type ____ | Gal/Ton | 2.90 |
| Open-Graded Asphalt Friction Course | Gal/Ton | 2.90 |
| Permeable Asphalt Drainage Course, Type ____ | Gal/Ton | 2.90 |
| Sand Asphalt Surface Course, Type ____ | Gal/Ton | 2.90 |
| Aggregate for Cement Treated Base Course | Gal/Ton | 0.55 |
| Portland Cement for Cement Treated Base Course | Gal/Ton | 0.55 |
| __" Portland Cement Concrete Pavement | Gal/SY | 0.245 |
| Concrete Shoulders Adjacent to __" Pavement | Gal/SY | 0.245 |

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) | 49 % of Total Amount Bid |
| 2017 | (7/01/16 - 6/30/17) | 51 % 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:

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

102-15(J)

SP1 G66

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, unless the additional participation is used for banking purposes.

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 **4.0%**
- (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 4.0%

- (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 above the goal for which letters of intent are received will follow the banking guidelines found elsewhere in this provision. All other additional MBE/WBE subcontractor participation submitted at the time of bid will be used toward the Department's 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) Electronic Bids

Bidders shall submit a listing of MBE and WBE participation in the appropriate section of Expedite, the bidding software of Bid Express[®].

- (1) Submit the names and addresses of MBE and WBE firms identified to participate in the contract. If the bidder uses the updated listing of MBE and WBE firms shown in Expedite, the bidder may use the dropdown menu to access the name and address of the firms.

- (2) Submit the contract line numbers of work to be performed by each MBE and WBE firm. When no figures or firms are entered, the bidder will be considered to have no MBE or WBE participation.
 - (3) The bidder shall be responsible for ensuring that the MBE and WBE are 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 either the MBE or WBE goal.
- (B) Paper Bids
- (1) *If either the MBE or WBE goal is more than zero,*
 - (a) 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.
 - (b) 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.
 - (c) 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.
 - (2) *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 and B listed under *Listing of MBE and WBE Subcontractor* 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 State Contractor Utilization Engineer or at DBE@ncdot.gov no later than 12:00 noon of the sixth calendar day following opening of bids, unless the sixth day falls on an official state holiday. In that situation, it is due in the office of the State Contractor Utilization 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 State Contractor Utilization Engineer or DBE@ncdot.gov no later than 12:00 noon on the eighth calendar day following opening of bids, unless the eighth day falls on an official state holiday. In that situation, it is due in the office of the State Contractor Utilization 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).

A hard copy and an electronic copy of this information shall be received in the office of the State Contractor Utilization Engineer or at DBE@ncdot.gov no later than 12:00 noon of the sixth

calendar day following opening of bids unless the sixth day falls on an official state holiday. In that situation, it would be due in the office of the State Contractor Utilization Engineer the next official state business day. If the contractor cannot send the information electronically, then one complete set and 9 copies of this information shall be received under the same time constraints above.

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 the 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 State Contractor Utilization 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 State Contractual Services Engineer or at DBE@ncdot.gov. 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.

Banking MBE/WBE Credit

If the bid of the lowest responsive bidder exceeds \$500,000 and if the committed MBE/WBE participation submitted by Letter of Intent exceeds the algebraic sum of the MBE or WBE goal by \$1,000 or more, the excess will be placed on deposit by the Department for future use by the bidder. Separate accounts will be maintained for MBE and WBE participation and these may accumulate for a period not to exceed 24 months.

When the apparent lowest responsive bidder fails to submit sufficient participation by MBE firms to meet the contract goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the MBE goal as long as there are adequate funds available from the bidder's MBE bank account.

When the apparent lowest responsive bidder fails to submit sufficient participation by WBE firms to meet the contract goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the WBE goal as long as there are adequate funds available from the bidder's WBE bank account.

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 work on future DOT 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.

(A) Electronic Bids Reporting

The Contractor shall report the accounting of payments through the Department's Payment Tracking System.

(B) Paper Bids Reporting

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.

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).

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.

RESOURCE CONSERVATION AND ENV. SUSTAINABLE PRACTICES:

(5-21-13) (Rev. 5-19-15)

104-13

SP1 G118

In accordance with North Carolina Executive Order 156, NCGS 130A-309.14(3), and NCGS 136-28.8, it is the objective of the Department to aid in the reduction of materials that become a part of our solid waste stream, to divert materials from landfills, to find ways to recycle and reuse materials, to consider and minimize, where economically feasible, the

environmental impacts associated with agency land use and acquisition, construction, maintenance and facility management for the benefit of the Citizens of North Carolina.

To achieve the mission of reducing environmental impacts across the state, the Department is committed to supporting the efforts to initiate, develop and use products and construction methods that incorporate the use of recycled, solid waste products and environmentally sustainable practices in accordance with Article 104-13 of the *Standard Specifications*.

Report the quantities of reused or recycled materials either incorporated in the project or diverted from landfills and any practice that minimizes the environmental impact on the project annually on the Project Construction Reuse and Recycling Reporting Form. The Project Construction Reuse and Recycling Reporting Form and a location tool for local recycling facilities are available at:

<http://connect.ncdot.gov/resources/Environmental/Pages/North-Carolina-Recycling-Locations.aspx>.

Submit the Project Construction Reuse and Recycling Reporting Form by August 1 annually to valuemanagementunit@ncdot.gov. For questions regarding the form or reporting, please contact the State Value Management Engineer at 919-707-4810.

DOMESTIC STEEL:

(4-16-13)

106

SP1 G120

Revise the *2012 Standard Specifications* as follows:

Page 1-49, Subarticle 106-1(B) Domestic Steel, lines 2-7, replace the first paragraph with the following:

All steel and iron products that are permanently incorporated into this project shall be produced in the United States except minimal amounts of foreign steel and iron products may be used provided the combined material cost of the items involved does not exceed 0.1% of the total amount bid for the entire project or \$2,500, whichever is greater. If invoices showing the cost of the material are not provided, the amount of the bid item involving the foreign material will be used for calculations. This minimal amount of foreign produced steel and iron products permitted for use is not applicable to high strength fasteners. Domestically produced high strength fasteners are required.

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.

PROCEDURE FOR MONITORING BORROW PIT DISCHARGE:

(2-20-07) (Rev. 3-19-13)

105-16, 230, 801

SP1 G181

Water discharge from borrow pit sites shall not cause surface waters to exceed 50 NTUs (nephelometric turbidity unit) in streams not designated as trout waters and 10 NTUs in streams, lakes or reservoirs designated as trout waters. For lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTUs. If the turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased.

If during any operating day, the downstream water quality exceeds the standard, the Contractor shall do all of the following:

- (A) Either cease discharge or modify the discharge volume or turbidity levels to bring the downstream turbidity levels into compliance, or
- (B) Evaluate the upstream conditions to determine if the exceedance of the standard is due to natural background conditions. If the background turbidity measurements exceed the standard, operation of the pit and discharge can continue as long as the stream turbidity levels are not increased due to the discharge.
- (C) Measure and record the turbidity test results (time, date and sampler) at all defined sampling locations 30 minutes after startup and at a minimum, one additional sampling of all sampling locations during that 24-hour period in which the borrow pit is discharging.
- (D) Notify DWQ within 24 hours of any stream turbidity standard exceedances that are not brought into compliance.

During the Environmental Assessment required by Article 230-4 of the *2012 Standard Specifications*, the Contractor shall define the point at which the discharge enters into the State's surface waters and the appropriate sampling locations. Sampling locations shall include points upstream and downstream from the point at which the discharge enters these waters. Upstream sampling location shall be located so that it is not influenced by backwater conditions and represents natural background conditions. Downstream sampling location shall be located at the point where complete mixing of the discharge and receiving water has occurred.

The discharge shall be closely monitored when water from the dewatering activities is introduced into jurisdictional wetlands. Any time visible sedimentation (deposition of sediment) on the wetland surface is observed, the dewatering activity will be suspended until turbidity levels in the stilling basin can be reduced to a level where sediment deposition does not occur. Staining of wetland surfaces from suspended clay particles, occurring after evaporation or infiltration, does not constitute sedimentation. No activities shall occur in wetlands that adversely affect the functioning of a wetland. Visible sedimentation will be considered an indication of possible adverse impacts on wetland use.

The Engineer will perform independent turbidity tests on a random basis. These results will be maintained in a log within the project records. Records will include, at a minimum, turbidity test results, time, date and name of sampler. Should the Department's test results exceed those of the Contractor's test results, an immediate test shall be performed jointly with the results superseding the previous test results of both the Department and the Contractor.

The Contractor shall use the *NCDOT Turbidity Reduction Options for Borrow Pits Matrix*, available at http://www.ncdot.gov/doh/operations/dp_chief_eng/roadside/fieldops/downloads/Files/TurbidityReductionOptionSheet.pdf to plan, design, construct, and maintain BMPs to address water quality standards. Tier I Methods include stilling basins which are standard compensatory BMPs. Other Tier I methods are noncompensatory and shall be used when needed

to meet the stream turbidity standards. Tier II Methods are also noncompensatory and are options that may be needed for protection of rare or unique resources or where special environmental conditions exist at the site which have led to additional requirements being placed in the DWQ's 401 Certifications and approval letters, Isolated Wetland Permits, Riparian Buffer Authorization or a DOT Reclamation Plan's Environmental Assessment for the specific site. Should the Contractor exhaust all Tier I Methods on a site exclusive of rare or unique resources or special environmental conditions, Tier II Methods may be required by regulators on a case by case basis per supplemental agreement.

The Contractor may use cation exchange capacity (CEC) values from proposed site borings to plan and develop the bid for the project. CEC values exceeding 15 milliequivalents per 100 grams of soil may indicate a high potential for turbidity and should be avoided when dewatering into surface water is proposed.

No additional compensation for monitoring borrow pit discharge will be paid.

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".

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.

PROJECT SPECIAL PROVISIONS**ROADWAY****CONSTRUCTION SEQUENCE:**

(7-1-95) (Rev. 8-21-12)

560

SP1 R34R

Pave each section of roadway begun in a continuous operation. Do not begin work on another section of roadway unless satisfactory progress is being made toward completion of intersections and all other required incidental work by satisfactorily furnishing additional paving equipment and personnel, except for milling and patching operations.

SHOULDER RECONSTRUCTION PER SHOULDER MILE:

(1-18-00) (Rev. 8-21-12)

560

SP1 R07AR

Description

This work consists of reconstructing each shoulder (including median shoulders as applicable) in accordance with Standard Drawing No. 560.01 and 560.02 of the *2012 Roadway Standard Drawings* except that the rate of slope and width will be as shown on typical section, or to the existing shoulder point, whichever is nearer, as long as the desired typical is achieved, and when completed, seeding and mulching. This work shall be performed immediately after the resurfacing operations are complete as directed by the Engineer.

Materials

The Contractor shall furnish all earth material necessary for the construction of the shoulders in accordance with Section 1019 of the *2012 Standard Specifications*. All soil is subject to test and acceptance or rejection by the Engineer.

The Contractor will have the option of using Aggregate Shoulder Borrow (ASB) which meets the following gradation on map **12**.

| <u>Sieve</u> | <u>Percent Passing</u> |
|--------------|------------------------|
| 1 1/2" | 100 |
| 1/2" | 55 - 95 |
| #4 | 35 - 74 |

Construction Methods

Obtain material from within the project limits or approved borrow source. Prior to adding borrow material, the existing shoulder shall be scarified to provide the proper bond and shall be compacted to the satisfaction of the Engineer.

Any excess material generated by the shoulder reconstruction shall be disposed of by the Contractor in an approved disposal site.

Measurement and Payment

Shoulder Reconstruction will be measured and paid as the actual number of miles of shoulders that have been reconstructed. Measurement will be made along the surface of each shoulder to the nearest 0.01 of a mile. Such price will include disposing of any excess material in an approved disposal site, and for all labor, tools, equipment, and incidentals necessary to complete the work.

Borrow Excavation will be paid in accordance with Section 230 of the *2012 Standard Specifications* for earth material furnished by the Contractor. The requirements of Article 104-5 of the *2012 Standard Specifications* pertaining to revised contract prices for overrunning minor items will not apply to the item of *Borrow Excavation*. If ASB is used for borrow, a unit weight of 140 pounds per cubic foot will be used to convert the weight of ASB to cubic yards.

Incidental Stone Base will be measured and paid as provided in Article 545-6 of the *2012 Standard Specifications*. If ASB is used for Incidental Stone Base, payment will be made for borrow as referenced above.

Seeding and Mulching will be measured and paid as shown elsewhere in the contract documents. Where ASB is used, seeding and mulching will not be required.

Payment will be made under:

Pay Item

Shoulder Reconstruction
Borrow Excavation

Pay Unit

Shoulder Mile
Cubic Yard

INCIDENTAL STONE BASE:

(7-1-95) (Rev.8-21-12)

545

SP5 R28R

Description

Place incidental stone base on driveways, mailboxes, etc. immediately after paving and do not have the paving operations exceed stone base placement by more than one week without written permission of the Engineer.

Materials and Construction

Provide and place incidental stone base in accordance with Section 545 of the *2012 Standard Specifications*.

Measurement and Payment

Incidental Stone Base will be measured and paid in accordance with Article 545-6 of the *2012 Standard Specifications*.

ASPHALT PAVEMENTS - SUPERPAVE:

(6-19-12) (Rev. 4-21-15)

605, 609, 610, 650

SP6 R01

Revise the *2012 Standard Specifications* as follows:

Page 6-3, Article 605-7 APPLICATION RATES AND TEMPERATURES, replace this article, including Table 601-1, with the following:

Apply tack coat uniformly across the existing surface at target application rates shown in Table 605-1.

| Existing Surface | Target Rate (gal/sy) |
|----------------------------|----------------------|
| | Emulsified Asphalt |
| New Asphalt | 0.04 ± 0.01 |
| Oxidized or Milled Asphalt | 0.06 ± 0.01 |
| Concrete | 0.08 ± 0.01 |

Apply tack coat at a temperature within the ranges shown in Table 605-2. Tack coat shall not be overheated during storage, transport or at application.

| Asphalt Material | Temperature Range |
|----------------------------------|-------------------|
| Asphalt Binder, Grade PG 64-22 | 350 - 400°F |
| Emulsified Asphalt, Grade RS-1H | 130 - 160°F |
| Emulsified Asphalt, Grade CRS-1 | 130 - 160°F |
| Emulsified Asphalt, Grade CRS-1H | 130 - 160°F |
| Emulsified Asphalt, Grade HFMS-1 | 130 - 160°F |
| Emulsified Asphalt, Grade CRS-2 | 130 - 160°F |

Page 6-7, Article 609-3 FIELD VERIFICATION OF MIXTURE AND JOB MIX FORMULA ADJUSTMENTS, lines 35-37, delete the second sentence of the second paragraph.

Page 6-18, Article 610-1 DESCRIPTION, lines 40-41, delete the last sentence of the last paragraph.

Page 6-19, Subarticle 610-3(A) Mix Design-General, line 5, add the following as the first paragraph:

Warm mix asphalt (WMA) is allowed for use at the Contractor's option in accordance with the NCDOT Approved Products List for WMA Technologies available at:

<https://connect.ncdot.gov/resources/Materials/MaterialsResources/Warm%20Mix%20Asphalt%20Approved%20List.pdf>

Page 6-21, Subarticle 610-3(C) Job Mix Formula (JMF), replace Table 610-1 with the following:

| TABLE 610-1 DESIGN MIXING TEMPERATURE AT THE ASPHALT PLANT^A | | |
|---|--------------------------------|--------------------------------------|
| Binder Grade | HMA JMF Temperature | WMA JMF Temperature Range |
| PG 64-22 | 300°F | 225 - 275°F |
| PG 70-22 | 315°F | 240 - 290°F |
| PG 76-22 | 335°F | 260 - 310°F |

A. The mix temperature, when checked in the truck at the roadway, shall be within plus 15° and minus 25° of the temperature specified on the JMF.

Page 6-21, Subarticle 610-3(C) Job Mix Formula (JMF), lines 4-6, delete first sentence of the second paragraph. Line 7, in the second sentence of the second paragraph, replace “275°F” with “275°F or greater.”

Page 6-22, Article 610-4 WEATHER, TEMPERATURE AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES, lines 15-17, replace the second sentence of the first paragraph with the following:

Do not place asphalt material when the air or surface temperatures, measured at the location of the paving operation away from artificial heat, do not meet Table 610-5.

Page 6-23, Article 610-4 WEATHER, TEMPERATURE AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES, replace Table 610-5 with the following:

| TABLE 610-5 PLACEMENT TEMPERATURES FOR ASPHALT | |
|---|--|
| Asphalt Concrete Mix Type | Minimum Surface and Air Temperature |
| B25.0B, C | 35°F |
| I19.0B, C, D | 35°F |
| SF9.5A, S9.5B | 40°F ^A |
| S9.5C, S12.5C | 45°F ^A |
| S9.5D, S12.5D | 50°F |

A. For the final layer of surface mixes containing recycled asphalt shingles (RAS), the minimum surface and air temperature shall be 50°F.

Page 6-26, Article 610-7 HAULING OF ASPHALT MIXTURE, lines 22-23, in the fourth sentence of the first paragraph replace “so as to overlap the top of the truck bed and” with “to”.

Page 6-41, Subarticle 650-3(B) Mix Design Criteria, replace Table 650-1 with the following:

| TABLE 650-1 OGAFC GRADATION CRITERIA | | | |
|---|------------------|---------------------------|---------------------------|
| <i>Sieve Size (mm)</i> | <i>Type FC-1</i> | <i>Type FC-1 Modified</i> | <i>Type FC-2 Modified</i> |
| 19.0 | - | - | 100 |
| 12.5 | 100 | 100 | 80 - 100 |
| 9.50 | 75 - 100 | 75 - 100 | 55 - 80 |
| 4.75 | 25 - 45 | 25 - 45 | 15 - 30 |
| 2.36 | 5 - 15 | 5 - 15 | 5 - 15 |
| 0.075 | 1.0 - 3.0 | 1.0 - 3.0 | 2.0 - 4.0 |

SHOULDER WEDGE:

(9-20-11) (Rev. 8-21-12)

610

SP6 R03R

Revise the *2012 Standard Specifications* as follows:

Page 6-26, Article 610-8, add the following after line 43:

Attach a device, mounted on screed of paving equipment, capable of constructing a shoulder wedge with an angle of 30 degrees plus or minus 4 degrees along the outside edge of the roadway, measured from the horizontal plane in place after final compaction on the final surface course. Use an approved mechanical device which will form the asphalt mixture to produce a wedge with uniform texture, shape and density while automatically adjusting to varying heights.

Payment for use of this device will be incidental to the other pay items in the contract.

ASPHALT BINDER CONTENT OF ASPHALT PLANT MIXES:

(11-21-00) (Rev. 7-17-12)

609

SP6 R15

The approximate asphalt binder content of the asphalt concrete plant mixtures used on this project will be as follows:

| | | |
|--------------------------------------|---------------|------|
| Asphalt Concrete Base Course | Type B 25.0__ | 4.4% |
| Asphalt Concrete Intermediate Course | Type I 19.0__ | 4.8% |
| Asphalt Concrete Surface Course | Type S 4.75A | 6.8% |
| Asphalt Concrete Surface Course | Type SA-1 | 6.8% |
| Asphalt Concrete Surface Course | Type SF 9.5A | 6.7% |
| Asphalt Concrete Surface Course | Type S 9.5__ | 6.0% |
| Asphalt Concrete Surface Course | Type S 12.5__ | 5.6% |

The actual asphalt binder content will be established during construction by the Engineer within the limits established in the *2012 Standard Specifications*.

ASPHALT PLANT MIXTURES:

(7-1-95)

609

SP6 R20

Place asphalt concrete base course material in trench sections with asphalt pavement spreaders made for the purpose or with other equipment approved by the Engineer.

PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:

(11-21-00)

620

SP6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *2012 Standard Specifications*.

The base price index for asphalt binder for plant mix is **\$ 470.00** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **June 1, 2015**.

FINAL SURFACE TESTING NOT REQUIRED:

(5-18-04) (Rev. 5-15-12)

610

SP6 R45

Final surface testing is not required on this project.

ASPHALT SURFACE TREATMENT:

(04-21-15)

660

SP06 R054

Revise the *2012 Standard Specifications* as follows:

Page 6-48, Section 660 ASPHALT SURFACE TREATMENT, replace section with the following:

**SECTION 660
ASPHALT SURFACE TREATMENT**

660-1 DESCRIPTION

Perform the work covered by this section including, but not limited to, furnishing, hauling, spreading and rolling the emulsion and aggregate consisting of one or more applications of liquid asphalt material and one or more applications of aggregate cover coat material on a prepared surface; and maintaining and repairing the asphalt surface treatment (AST).

Schedule a pre-application meeting prior to installing the asphalt surface treatment including representatives from the Subcontractor, Project Engineer, Area Roadway Construction Engineer, and may include the State Pavement Construction Engineer and a representative from the Materials and Tests Unit.

660-2 MATERIALS

Refer to Division 10 of the *2012 Standard Specifications*.

Item**Section**

| Item | Section |
|--|----------------|
| Aggregates for Asphalt Surface Treatment | 1012-2 |
| Emulsified Asphalt, Grade CRS-2L | 1020-3 |
| Emulsified Asphalt, Grade CRS-2P | 1020-3 |
| Emulsified Asphalt, Grade CRS-1H | 1020-3 |
| Emulsified Asphalt, Grade CSS-1H | 1020-3 |
| Emulsified Asphalt, Grade CQS-1H | 1020-3 |
| Fine Aggregate | 1014 |
| Mineral Filler | 1012-1(D) |
| Water | 1024-4 |

Before any asphalt surface treatment is placed, obtain from the asphalt supplier and furnish to the Engineer a Certification of Compatibility of the emulsion with the aggregate proposed for use.

660-3 WEATHER AND SEASONAL LIMITATIONS

Do not place any asphalt surface treatment between October 15 and April 1, except for asphalt surface treatment that is to be overlaid immediately with asphalt plant mix.

Apply AST only when the surface to be treated is dry and when the air or surface temperatures, measured at the location of the AST operation away from artificial heat, is 50°F and rising.

When placing asphalt surface treatment that is to be immediately overlaid with asphalt plant mix, the seasonal and temperature limitations of Article 610-4 of the *2012 Standard Specifications* shall apply.

Do not apply asphalt material when the weather is foggy or rainy.

660-4 SURFACE PREPARATION

Clean the surface to be treated of all dust, dirt, clay, grass, sod and any other deleterious matter before application of the asphalt surface treatment.

660-5 ACCEPTANCE OF ASPHALT MATERIALS

The acceptance of asphalt materials will be in accordance with Article 1020-1 of the *2012 Standard Specifications*.

660-6 APPLICATION EQUIPMENT

Use asphalt application equipment that meets Article 600-5 of the *2012 Standard Specifications*.

Apply aggregate by the use of a self-propelled, pneumatic-tire aggregate spreader capable of maintaining a specified rate with a uniform application for the width of asphalt material being covered. Tailgate spreaders will not be permitted. Areas that are inaccessible to the aggregate spreader shall be covered by hand spreading or other acceptable methods.

660-7 APPLICATION OF EMULSION

The grades of emulsion shall be CRS-2L or CRS-2P.

The target rates of application and the temperature that the emulsion is to be applied shall be as shown in Table 660-1 or as directed by the Engineer

Base the required rates of application on the volume of material at the application temperature.

| Type of Coat | Layer | Aggregate Type | Aggregate Target Rate ^A (Lbs/Sy) | Emulsion Target Rate ^{B,C,D} (Gal/Sy) |
|---------------------|--------|----------------|--|---|
| Single Seal | Top | 78M | 18 | 0.35 |
| | | 5/16" LW | 10 | 0.32 |
| | | #9 | 10 | 0.32 |
| | | CA-9 LW | 10 | 0.35 |
| Double Seal | Top | 78M | 12 | 0.25 |
| | | 5/16" LW | 9 | 0.25 |
| | | #9 | 9 | 0.25 |
| | | CA-9 LW | 9 | 0.25 |
| | Bottom | #14 | 7 | 0.20 |
| | | 78M | 18 | 0.30 |
| Triple Seal | Top | 5/16" LW | 10 | 0.30 |
| | | 78M | 12 | 0.22 |
| | | 5/16" LW | 9 | 0.25 |
| | | #9 | 9 | 0.25 |
| | | CA-9 LW | 9 | 0.25 |
| | Middle | #14 | 7 | 0.20 |
| | | 78M | 15 | 0.24 |
| | Bottom | 5/16" LW | 9 | 0.25 |
| | | 78M | 18 | 0.30 |
| | | #67 | 30 | 0.32 |
| Mat and Single Seal | Top | 5/16" LW | 10 | 0.30 |
| | | 78M | 14 | 0.22 |
| | Mat | #67 | 38 | 0.32 |
| | | #57 | 40 | 0.35 |
| Mat and Double Seal | Top | 78M | 12 | 0.25 |
| | | 5/16" LW | 9 | 0.25 |
| | Middle | 78M | 16 | 0.25 |
| | Mat | #67 | 38 | 0.40 |
| Mat Coat | | 78M | 18 | 0.35 |
| | | #67 | 38 | 0.40 |

A. Aggregate Target Rates have +/- 1.0 lbs/sy tolerance limit.

B. Grade of Asphalt (emulsion) shall be CRS-2L or CRS-2P.

C. Emulsion Target Rates have +/- 0.03 gal/sy tolerance limit.

D. Application temperatures shall be 160-170°F.

660-8 APPLICATION OF AGGREGATES

The type and size of the aggregate shall be as shown in Table 660-1 for the mat coat or the type of seal coat to be constructed. The rate of application for mat and seal aggregates shall be within

the limits shown in Table 660-1. When directed, weigh a sufficient number of truckloads of aggregate before spreading to verify that the rate of application is within the required limits and use ASTM D5624 to determine rate of application.

660-9 CONSTRUCTION METHODS

For any type of AST work, demonstrate that all equipment has been calibrated in the presence of the Engineer with a minimum 100-foot test section. If the test section is not feasible, submit a calibration plan to the Engineer with detailed information on equipment and a designated area for calibration.

(A) Asphalt Seal Coat

Use the type of seal coat as required by the contract. Seal coat aggregates shall be drained of free moisture and dust free before use. Place the seal coat in full-lane widths.

Adjust the aggregate rates to provide a sufficient quantity of cover material to be spread over the surface of the seal coat preventing traffic damage, where it is necessary to permit traffic on sections of a completed seal coat.

Perform rolling of each layer immediately after the aggregate has been uniformly spread. Rolling will consist of at least 3 complete coverages with one pneumatic-tire roller followed by at least one complete coverage with a 5 to 8 ton steel-wheel roller. All roller coverages shall be completed within 5 minutes of the asphalt emulsion being placed. Do not allow crushing of the aggregate or picking up of the material by the rollers.

The use of a combination steel-wheel and pneumatic-tire roller will be permitted instead of the 5 to 8 ton steel-wheel roller.

After the aggregate is thoroughly seated, broom all excess aggregate off of the surface of the seal coat after 3 days but no more than 7 calendar days. Traffic may be permitted on the seal coat immediately after the rolling is complete.

Blotting sand may be required as directed by the Engineer and shall be applied in accordance with Section 818 of the *2012 Standard Specifications*.

The construction of the various types of seal coats will be in accordance with the following additional requirements:

(1) Single Seal

Apply emulsion to the existing surface followed immediately by an application of aggregate using Table 660-1 and requirements in the contract. Uniformly spread the full required amount of aggregate in one application and correct all non-uniform areas before rolling.

Immediately after the aggregate has been uniformly spread, perform rolling as previously described.

(2) Double Seal

Apply emulsion to the existing surface followed immediately by an application of aggregate using Table 660-1 and requirements in the contract ensuring each is uniformly placed over the existing surface and rolled as previously described.

Immediately after the first application of seal aggregate has been made uniform and rolled, apply the second application of the required amount of emulsion and seal coat aggregate and roll as previously described.

(3) Triple Seal

Follow the procedure outlined in Subarticle 660-9(A)(2) and apply emulsion and aggregate as a third layer and roll as previously described.

(4) Sand Seal

Place the fully required amount of asphalt material in one application and immediately cover with the seal coat aggregate. Uniformly spread the fully required amount of aggregate in one application and correct all non-uniform areas before rolling.

Immediately after the aggregate has been uniformly spread, perform rolling.

Broom excess aggregate material from the surface of the seal coat.

When the sand seal is to be constructed for temporary sealing purposes only and will not be used by traffic, use other grades of asphalt material meeting the requirements of Articles 1020-5 and 1020-6 of the *2012 Standard Specifications*.

(B) Asphalt Mat and Seal

Construct the seal coat in accordance with Subarticle 660-9(A) using the size aggregate required by the contract.

Construct the mat coat in accordance with Subarticle 660-9(C) using the type seal required by the contract.

(C) Asphalt Mat Coat for Soil Subgrade

The surface on which the mat coat is to be applied shall be approved by the Engineer before the mat coat emulsion is applied.

Place a string line guide for application equipment. Place the mat coat in full-lane widths.

Existing surface shall be damp prior to placement of the mat coat.

Immediately follow the application of emulsion with the spreading of the aggregate. No more than 5 minutes can elapse from the time the emulsion is applied and the rolling is completed when using CRS-2L or CRS-2P.

Mat coat aggregate shall be drained of free moisture and dust free before use. Spread the aggregate uniformly at the required rate and correct all non-uniform areas before rolling.

Roll immediately after the aggregate is uniformly spread. Rolling consists of at least 3 complete coverages with two 5 to 10 ton steel-wheel rollers. Continue rolling until the aggregate is thoroughly keyed into the emulsion. Do not allow crushing of the aggregate or picking up of the material by the rollers. A combination steel-wheel and pneumatic-tire roller will not be permitted. Use 2 individual steel-wheel rollers. The 3 coverages shall be completed within 5 minutes of the spraying of the emulsion.

At the discretion of the Engineer, at the beginning of each emulsion application, spread a paper over the end of the previously completed mat coat and begin the asphalt application on the paper. After application, remove and dispose of the paper.

After the aggregate is thoroughly seated, traffic may be permitted on the mat coat after the rolling is complete. No brooming shall be performed on the mat coat.

Correct defects or damage to the mat coat before the application of seal coat or plant mix overlay. The seal coat or plant mix may be applied the same day the mat coat is placed provided the mat coat has been satisfactorily applied and rolled.

(D) Asphalt Mat Coat for Pavement Surfaces

For mat coats with an asphalt overlay, construct the mat coat in accordance with Subarticle 660-9(C). The emulsion for the mat coat may be the same as the tack coat of the asphalt overlay with the application rate as specified in Table 605-1 *Application Rates for Tack Coat*.

For mat coats constructed on existing pavement surfaces, construct the mat coat in accordance with Subarticle 660-9(C) using the sized aggregate required by the contract and the application rates specified in Table 660-1.

(E) Fog Seal

Apply an emulsified asphalt and water mixture as an aggregate loss preventative or surface seal.

Use a base material from a CRS-1H, CSS-1H or CQS-1H emulsion in accordance with the requirements of Article 1020-3 of the *2012 Standard Specifications*. Emulsion will be diluted with water at a 1:1 ratio unless otherwise directed by the Engineer.

For emulsions containing modifiers other than those allowed in Article 1020-3, submit to the Engineer for approval. These emulsions with modifiers shall meet the requirements of Article 1020-3 and manufacturer specifications.

Provide a distributor for heating and uniformly applying the emulsion in accordance with the requirements of Article 600-5 of the *2012 Standard Specifications*. Provide a hand spray hose and nozzle to cover areas inaccessible to the spray bars.

The pavement surface must be clean and dry before applying the fog seal. Apply the mixture when the air temperature is 60°F and above. Do not apply asphalt material when the weather is foggy or rainy. The application temperature will be between 160°F and 170°F or per manufacturer's recommendations. Care is to be taken not to overlap the existing thermoplastic edgeline while spraying. The typical target application rate for diluted emulsions shall be 0.12 gal/sy +/- 0.03 gal/sy. The Engineer may request a test strip prior to construction to determine the application rate.

660-10 TEMPORARY TRAFFIC CONTROL (TTC)

All AST operations shall be conducted in daylight hours.

Provide temporary traffic control for the asphalt surface treatment operations in accordance with the contract and in accordance with the provision RWZ-1 TEMPORARY TRAFFIC CONTROL (TTC) found elsewhere in the proposal except the following sections do not apply:

TRAFFIC OPERATIONS, Drop-Off Requirements and Time Limitations.

TRAFFIC OPERATIONS, Project Requirements.

Install advance/general warning work zone signs according to the Detail Drawing titled Signing for Asphalt Surface Treatment when required by the plans.

660-11 WARRANTY

The Asphalt Surface Treatment (AST) shall be warranted by the project payment and performance bonds for a period of 12 months.

(A) Warranty Period

The Department will conduct an inspection of the work and provide written acceptance in accordance with Article 105-17 of the *2012 Standard Specifications*. Written acceptance of the work will constitute the start date for the 12 month AST warranty period.

(B) Situations Affecting the Warranty

During the warranty period, the Contractor will not be held responsible for distresses that are caused by factors not related to materials and workmanship. These include, but are not limited to, chemical and fuel spills, vehicle fires, base failures, and snow plows. Other factors considered to be beyond the control of the Contractor, which may contribute to pavement distress, will be considered by the Engineer on a case by case basis upon receipt of a written request from the Contractor. Maintaining traffic on the pavement surface prior to the Engineer's acceptance will not be a condition for voiding the warranty.

(C) Emergency Repairs

If, in the opinion of the Department, a pavement condition covered by the warranty requires immediate attention for the safety of the traveling public, the Contractor will be notified immediately. If the Contractor cannot perform the work in a timely manner, the Department may directly perform or have the corrective work performed by another entity at the Contractor's expense. Any emergency work performed will not alter the requirements, responsibilities, or obligations of the warranty.

(D) Warranty Performance Criteria

| Surface Defects | Severity | Extent (Per Lot) |
|----------------------------|--|--|
| Surface Patterns | Alternate lean and heavy lines streaking over the entire pavement surface. | Greater than 20% of a lot affected; distress spotted evenly over the lot or over localized areas within the lot. |
| Bleeding/ Flushing | Distinctive appearance (with excess asphalt binder already free). | Greater than 20% of the wheel tracks within a lot affected. |
| Loss of Cover Aggregate | Large patches of cover aggregate lost from the pavement surface. | Greater than 20% of a lot affected; distress spotted evenly over the lot or over localized areas within the lot. |

Lot - A 1,000-foot section of pavement or portion thereof, a lane width wide, on which AST is constructed on a single map.

The beginning point of the first lot will be the beginning point of each day's operation or the beginning of a map, whichever is applicable.

The Department will review the AST and advise the Contractor of any required corrective work in writing prior to expiration of the warranty period.

The Department will approve all materials and methods used in warranty work.

The Department will determine if warranty work performed by the Contractor meets the contract and provide written acceptance of the warranty work when complete.

The Chief Engineer will review any disputes for corrective work covered under the warranty.

660-12 MAINTENANCE AND PROTECTION

Maintain and protect the asphalt surface treatment until it is accepted by the Department. Make all necessary repairs in such a manner as to preserve the uniformity of the surface.

660-13 MEASUREMENT AND PAYMENT

Asphalt Surface Treatment: Single Seal, Double Seal, Triple Seal, Mat and Single Seal, Mat and Double Seal, Fog Seal, Sand Seal, and Mat Coat, No. _____ Stone. All AST will be measured and paid at the contract unit price per square yard. Payment at the above prices will be made for replacing any satisfactorily completed asphalt surface treatment when such replacement has been made necessary by defects in subgrade or base constructed by others.

Emulsion for Asphalt Surface Treatment will be measured and paid at the contract unit price per gallon, which price will be full compensation for all materials including modifiers and additives, tack coat, labor, tools, equipment, and all other incidentals necessary to complete the work.

Price adjustments herein shall apply concurrently; however, price adjustment will not apply in the event the material is rejected.

Furnishing and applying prime will be paid as provided in Article 600-9 of the *2012 Standard Specifications for Prime Coat*.

If included in the contract, furnishing and applying blotting sand will be paid as provided in Article 818-4 of the *2012 Standard Specifications for Blotting Sand*.

Adjustment for *Emulsion for AST* will be paid per the following formula:

$$A = B + ((D - C)/235)*0.65$$

Where:

A = Adjusted Contract Unit Price of *Emulsion for AST* per gallon

B = Contract Unit Price of *Emulsion for AST* per gallon

C = Base Price Index of PG 64-22 per ton

D = Monthly Average Terminal F.O.B. Selling Price for PG 64-22 per ton

See Price Adjustment - Asphalt Binder Special Provision found elsewhere in this proposal for the base price index of PG 64-22 per ton.

Payment will be made under:

Pay Item

Pay Unit

| | |
|---|-------------|
| Asphalt Surface Treatment, Single Seal | Square Yard |
| Asphalt Surface Treatment, Double Seal | Square Yard |
| Asphalt Surface Treatment, Triple Seal | Square Yard |
| Asphalt Surface Treatment, Mat and Single Seal | Square Yard |
| Asphalt Surface Treatment, Mat and Double Seal | Square Yard |
| Asphalt Surface Treatment, Fog Seal | Square Yard |
| Asphalt Surface Treatment, Sand Seal | Square Yard |
| Asphalt Surface Treatment, Mat Coat, No. __ Stone | Square Yard |
| Emulsion for Asphalt Surface Treatment | Gallon |

ASPHALT SURFACE TREATMENT SELECTION:

Division 7 (4-27-2015)

Revise **Table 660-1, MATERIAL APPLICATION RATES AND TEMPERATURES** as shown below:

| TABLE 660-1 | | | | |
|--|--------------|-----------------------|---|--|
| MATERIAL APPLICATION RATES AND TEMPERATURES | | | | |
| Type of Coat | Layer | Aggregate Type | Aggregate Target Rate^A (Lbs/Sy) | Emulsion Target Rate^{B,C,D} (Gal/Sy) |
| **Mat Coat | | 78M | 9 | 0.33 |
| | | #67 | 18 | 0.38 |

- A.** Aggregate Target Rates have +/- 1.0 lbs/sy tolerance limit.
- B.** Grade of Asphalt (emulsion) shall be CRS-2L or CRS-2P.
- C.** Emulsion Target Rates have +/- 0.03 gal/sy tolerance limit.
- D.** Application temperatures shall be 160-170°F.

The use of #78M Stone shall be required on maps 1, 4, 5, 6, 7, 8, 11, 12, 15 & 16.

The use of #67 Stone shall be required on maps 2, 3, 9, 10, 13 & 14.

RESURFACING EXISTING BRIDGES:

(7-1-95) (Rev. 8-21-12)

SP6 R61AR

The Contractor's attention is directed to the fact that he will be required to resurface **bridge Bridge # 60 on SR 1921 (Mebane Rodgers Road)**.

Place the surface so as to follow a grade line set by the Engineer with the minimum thickness as shown on the sketch herein or as directed by the Engineer. State Forces will make all necessary repairs to the bridge floors prior to the time that the Contractor places the proposed surfacing. Give the Engineer at least 15 days notice prior to the expected time to begin operations so that State Forces will have sufficient time to complete their work.

At all bridges that are not to be resurfaced, mill a taper into existing pavement for a length of 25 feet per inch of final surface. A temporary asphalt wedge will be required immediately after milling to ensure smooth travel if the final layer of surface course is not placed on the same day as milling.

RESURFACING EXISTING BRIDGES:

(3-20-12) (Rev. 8-21-12)

SP6 R61BR

The Contractor's attention is directed to the fact that he will be required to mill and resurface the following bridges on this project: **Bridge # 195 on SR 2304 (Handford Road), Bridge #28 on SR 1587 (Pagetown Road) and Bridge #178 on SR 1154 (Tucker Street).**

Place the surface so as to follow a grade line set by the Engineer with the minimum thickness as shown on the sketch herein or as directed by the Engineer. State Forces will make all necessary repairs to the bridge floors prior to the time that the Contractor places the proposed surfacing. Give the Engineer at least 15 days notice prior to the expected time to begin operations so that State Forces will have sufficient time to complete their work.

At all bridges that are not to be resurfaced, mill a taper into existing pavement for a length of 25 feet per inch of final surface. A temporary asphalt wedge will be required immediately after milling to ensure smooth travel if the final layer of surface course is not placed on the same day as milling.

PAVING INTERSECTIONS:

(7-1-95) (Rev. 8-21-12)

610

SP6 R67AR

Surface all unpaved intersections back from the edge of the pavement on the main line of the project at least 50 feet. The pavement placed in the intersection shall be of the same material and thickness placed on the main line of the project.

Resurface all paved intersections back to the ends of the radii, or as directed by the Engineer.

The base on the unpaved intersections will be placed and prepared for surfacing by State Forces.

Widen the pavement on curves as directed by the Engineer.

PAVEMENT WIDTH VARIES:

(7-1-95) (Rev. 8-21-12)

610

SP6 R76R

The Contractor's attention is directed to the fact that the existing pavement varies in width and the Contractor will be required to widen the pavement as directed by the Engineer in order to obtain a uniform edge of pavement.

TRENCHING FOR BASE COURSE:

5-26-09 (Rev. 3-13-2015)

Div 7 - DDC

Perform all trenching necessary to place the asphalt concrete base course widening in accordance with the typical sections, at locations shown on the sketch maps, and as directed by the Engineer.

Trenching shall be done with a milling machine. The trench shall be the width noted on the Typical Sections +/- 0.1'. If the trench excavation exceeds the 0.1' tolerance, the Contractor will be required to backfill the trench with approved earth material at no cost to the Department and retrench to the proper width.

Perform the trenching for the base course on the same day that the base course is to be placed. If the base course cannot be placed on the same day the trench section is excavated, backfill the trench with earth material and compact it to the satisfaction of the Engineer. Once the trench is open, perform backfilling and re-opening of the trench at no cost to the Department.

The Contractor will be restricted to widening one side of the project at a time unless otherwise permitted by the Engineer. In widening, operate equipment and conduct operations in the same direction as the flow of traffic.

Density tests may be taken every 2000 feet in the widened areas as directed by the Engineer. Shape and compact the subgrade in the widened areas to the satisfaction of the Engineer. Compact the asphalt concrete base course in the widened areas in accordance with the provisions of Article 610-9 of the *2012 Standard Specifications*.

The excavated material shall be placed directly into dump trucks & stock piled and/or hauled to an approved waste pit. Saw a neat edge and remove all asphalt and/or concrete driveways, and existing asphalt widening, as directed by the Engineer, to the width of the widening and dispose of any excavated concrete or asphalt materials. Properly reconnect driveways.

Upon completion of the paving operation, the Contractor shall backfill the trench to the satisfaction of the Engineer. Properly dispose of any excess material remaining after this operation.

No direct payment will be made for trenching, sawing, and removal of driveways, hauling, stockpiling or disposing of excavated material, backfilling trench, or removal of spoil material, as the cost of this work shall be included in the contract unit price per ton for *Asphalt Concrete Base Course, Type B25.0B*.

DETECTABLE WARNINGS TO RETROFIT EXISTING CURB RAMPS:

(10-21-03) (Rev. 8-16-11)

848

SP8 R125

Description

Construct detectable warnings consisting of raised truncated domes to retrofit existing curb ramps in accordance with the plan details, Section 848 of the *2012 Standard Specifications*, the requirements of the *28 CFR Part 36 ADA Standards for Accessible Design* and these provisions.

Materials

Detectable warning for retrofitting existing curb ramps shall consist of raised truncated domes. The description, size and spacing shall conform to Section 848 of the *2012 Standard Specifications*.

Use material for detectable warning systems as shown herein. Material and coating specifications must be stated in the Manufacturers Type 3 Certification and all Detectable Warning systems must be on the NCDOT Approved Products List.

Install detectable warnings created from one of the following materials: precast concrete blocks or bricks, clay paving brick, gray or ductile iron castings, mild steel, stainless steel, and engineered plastics, rubber or composite tile. Only one material type for detectable warning will be permitted per project, unless otherwise approved by the Engineer.

- (A) Detectable Warnings shall consist of a base with integrated raised truncated domes, and when constructed of precast concrete they shall conform to the material requirements of Article 848-2 of the *2012 Standard Specifications*.
- (B) Detectable Warnings shall consist of a base with integrated raised truncated domes, and may be comprised of other materials including, but not limited to, clay paving brick, gray iron or ductile iron castings, mild steel, stainless steel, and engineered plastics, rubber or composite tile, which are applied directly to the curb ramps by incorporating into or attaching to the existing ramp floor. The material shall have an integral color throughout the thickness of the material. The detectable warning shall include fasteners, anchors, or adhesives for attachment in the existing ramp and shall be furnished as a system from the manufacturer.

Prior to installation, the Contractor shall submit to the Engineer assembling instructions from the manufacturer for each type of system used in accordance with Article 105-2 of the *2012 Standard Specifications*. The system shall be furnished as a kit containing all consumable materials and consumable tools, required for the application. They shall be capable of being affixed to or anchored in the concrete curb ramp, including green concrete (concrete that has set but not appreciably hardened). The system shall be solvent free and contain no volatile organic compounds (VOC). The static coefficient of friction shall be 0.8 or greater when measured on top of the truncated domes and when measured between the domes in accordance with ASTM C1028 (dry and wet). The system shall be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to degradation by motor fuels, lubricants and antifreeze.

- (C) When steel or gray iron or ductile iron casting products are provided, only products that meet the requirements of Subarticle 106-1(B) of the *2012 Standard Specifications* may be used. Submit to the Engineer a Type 6 Certification, catalog cuts and installation procedures at least 30 days prior to installation for all.

Construction Methods

- (A) Prior to placing detectable warnings in existing concrete curb ramps, saw cut to the full depth of the concrete, for other material remove as necessary, and adjust the existing

subgrade to the proper grade and in accordance with Article 848-3 of the *2012 Standard Specifications*.

- (B) Install all detectable warning to retrofit existing curb ramps in accordance with the manufacturer's recommendations.

Measurement and Payment

Retrofit Existing Curb Ramps with detectable warnings constructed of any type material will be paid as the actual number of retrofitted curb ramps, completed and accepted. Such price and payment will be full compensation for excavating and backfilling; sawing, repairing and replacing portions of the existing curb ramp within the pay limits for retrofit shown on the detail; pavement repairs; furnishing and placing detectable warnings, construction joints and removing and disposing of portions of the existing curb ramp when required and for all materials, labor, equipment, tools and incidentals necessary to complete the work.

Payment will be made under:

| Pay Item | Pay Unit |
|-----------------------------|-----------------|
| Retrofit Existing Curb Ramp | Each |

ADJUSTMENT OF MANHOLES, METER BOXES, AND VALVE BOXES:

1/22/09 Div. 7

Utility adjustments on this project shall be made in accordance with Article 858-3 of the *2012 Standard Specifications* with the following exceptions and additions:

Cast iron or steel fittings will not be permitted for the adjustment of manholes, meter boxes, and valve boxes on this project.

Adjustment to manholes, meter boxes, and valve boxes on this project shall be made by the use of an approved Rapid Set Grout, Mortar, or Concrete that will take full set and become load bearing within sixty minutes of placement. The Resident Engineer will furnish a list of approved materials to the Contractor.

The Contractor shall replace worn/damaged manhole rings and covers, worn meter box frames and covers, and worn valve box frames and covers, as directed by the Engineer, with a new ring/frame and cover assembly. The Department or utility owner will furnish these assemblies at no cost to the Contractor.

In the event that no adjustment is required to a manhole, meter box or valve box, a bond breaker such as sand, paper, asphalt release agent or other approved material shall be used over the top of the manhole or valve. The work of applying the material and subsequent cleaning of the manhole or valve shall be incidental to paving operations and no additional compensation will be made.

Measurement and Payment

Measurement and payment will be in accordance with Section 858-4 of the *2012 Standard Specifications*.

MATERIALS:

(2-21-12) (Rev. 5-19-15)

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. |
| <i>Units</i> | <i>psi</i> | | | | | <i>inch</i> | <i>inch</i> | <i>lb/cy</i> | <i>lb/cy</i> | <i>lb/cy</i> | <i>lb/cy</i> |
| 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:

| TABLE 1024-1 POZZOLANS FOR USE IN PORTLAND CEMENT CONCRETE | |
|---|---|
| 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:

| 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.

Page 10-204, Table 1092-3 MINIMUM COEFFICIENT OF RETROREFLECTION FOR NC GRADE A, replace with the following:

| Observation Angle, degrees | Entrance Angle, degrees | White | Yellow | Green | Red | Blue | Fluorescent Yellow Green | Fluorescent Yellow |
|----------------------------|-------------------------|-------|--------|-------|-----|------|--------------------------|--------------------|
| 0.2 | -4.0 | 525 | 395 | 52 | 95 | 30 | 420 | 315 |
| 0.2 | 30.0 | 215 | 162 | 22 | 43 | 10 | 170 | 130 |
| 0.5 | -4.0 | 310 | 230 | 31 | 56 | 18 | 245 | 185 |
| 0.5 | 30.0 | 135 | 100 | 14 | 27 | 6 | 110 | 81 |
| 1.0 | -4.0 | 120 | 60 | 8 | 16 | 3.6 | 64 | 48 |
| 1.0 | 30.0 | 45 | 34 | 4.5 | 9 | 2 | 36 | 27 |

SHOULDER AND SLOPE BORROW:

(3-19-13)

1019

SP10 R10

Use soil in accordance with Section 1019 of the *2012 Standard Specifications*. Use soil consisting of loose, friable, sandy material with a PI greater than 6 and less than 25 and a pH ranging from 5.5 to 7.0.

Soil with a pH ranging from 4.0 to 5.5 will be accepted without further testing if additional limestone is provided in accordance with the application rates shown in Table 1019-1A. Soil type is identified during the soil analysis. Soils with a pH above 7.0 require acidic amendments to be added. Submit proposed acidic amendments to the Engineer for review and approval. Soils with a pH below 4.0 or that do not meet the PI requirements shall not be used.

| pH TEST RESULT | Sandy Soils Additional Rate (lbs. / Acre) | Silt Loam Soils Additional Rate (lbs. / Acre) | Clay Loam Soils Additional Rate (lbs. / Acre) |
|----------------|---|---|---|
| 4.0 - 4.4 | 1,000 | 4,000 | 6,000 |
| 4.5 - 4.9 | 500 | 3,000 | 5,000 |
| 5.0 - 5.4 | NA | 2,000 | 4,000 |

Note: Limestone application rates shown in this table are in addition to the standard rate of 4000 lbs. / acre required for seeding and mulching.

No direct payment will be made for providing additional lime or acidic amendments for Ph adjustment.

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 | 1024-7 |
| Water | 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.

| 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 | 25 | 10 |
| No. 200 | 10 – 30 | | |

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.

TRUCK MOUNTED CHANGEABLE MESSAGE SIGNS:

(8-21-12)

1101.02

SP11 R10

Revise the *2012 Roadway Standard Drawings* as follows:

Drawing No. 1101.02, Sheet 12, TEMPORARY LANE CLOSURES, replace General Note #11 with the following:

11- TRUCK MOUNTED CHANGEABLE MESSAGE SIGNS (TMCMS) USED ON SHADOW VEHICLES FOR "IN LANE" ACTIVITIES SHALL BE A MINIMUM OF 43" X 73". THE DISPLAY PANEL SHALL HAVE FULL MATRIX CAPABILITY WITH THE CAPABILITY TO PROVIDE 2 MESSAGE LINES WITH 7 CHARACTERS PER LINE WITH A MINIMUM CHARACTER HEIGHT OF 18". FOR ADDITIONAL MESSAGING, CONTACT THE WORK ZONE TRAFFIC CONTROL SECTION.

12- TMCMS USED FOR ADVANCED WARNING ON VEHICLES LOCATED ON THE SHOULDER MAY BE SMALLER THAN 43" X 73". THE DISPLAY PANEL SHALL HAVE THE CAPABILITY TO PROVIDE 2 MESSAGE LINES WITH 7 CHARACTERS PER LINE WITH A MINIMUM CHARACTER HEIGHT OF 18". FOR ADDITIONAL MESSAGING, CONTACT THE WORK ZONE TRAFFIC CONTROL SECTION.

Drawing No. 1101.02, Sheet 13, TEMPORARY LANE CLOSURES, replace General Note #12 with the following:

12- TRUCK MOUNTED CHANGEABLE MESSAGE SIGNS (TMCMS) USED ON SHADOW VEHICLES FOR "IN LANE" ACTIVITIES SHALL BE A MINIMUM OF 43" X 73". THE DISPLAY PANEL SHALL HAVE FULL MATRIX CAPABILITY WITH THE CAPABILITY TO PROVIDE 2 MESSAGE LINES WITH 7 CHARACTERS PER LINE WITH A MINIMUM CHARACTER HEIGHT OF 18". FOR ADDITIONAL MESSAGING, CONTACT THE WORK ZONE TRAFFIC CONTROL SECTION.

13- TMCMS USED FOR ADVANCED WARNING ON VEHICLES LOCATED ON THE SHOULDER MAY BE SMALLER THAN 43" X 73". THE DISPLAY PANEL SHALL HAVE THE CAPABILITY TO PROVIDE 2 MESSAGE LINES WITH 7 CHARACTERS PER LINE WITH A MINIMUM CHARACTER HEIGHT OF 18". FOR ADDITIONAL MESSAGING, CONTACT THE WORK ZONE TRAFFIC CONTROL SECTION.

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
NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY

(5-17-11)

Z-3

Seed shall be sampled and tested by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory. When said samples are collected, the vendor shall supply an independent laboratory report for each lot to be tested. Results from seed so sampled shall be final. Seed not meeting the specifications shall be rejected by the Department of Transportation and shall not be delivered to North Carolina Department of Transportation warehouses. If seed has been delivered it shall be available for pickup and replacement at the supplier's expense.

Any re-labeling required by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory, that would cause the label to reflect as otherwise specified herein shall be rejected by the North Carolina Department of Transportation.

Seed shall be free from seeds of the noxious weeds Johnsongrass, Balloonvine, Jimsonweed, Witchweed, Itchgrass, Serrated Tussock, Showy Crotalaria, Smooth Crotalaria, Sicklepod, Sandbur, Wild Onion, and Wild Garlic. Seed shall not be labeled with the above weed species on the seed analysis label. Tolerances as applied by the Association of Official Seed Analysts will NOT be allowed for the above noxious weeds except for Wild Onion and Wild Garlic.

Tolerances established by the Association of Official Seed Analysts will generally be recognized. However, for the purpose of figuring pure live seed, the found pure seed and found germination percentages as reported by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory will be used. Allowances, as established by the NCDOT, will be recognized for minimum pure live seed as listed on the following pages.

The specifications for restricted noxious weed seed refers to the number per pound as follows:

| <u>Restricted Noxious Weed</u> | <u>Limitations per Lb. Of Seed</u> | <u>Restricted Noxious Weed</u> | <u>Limitations per Lb. of Seed</u> |
|---------------------------------------|---|---------------------------------------|---|
| Blessed Thistle | 4 seeds | Cornflower (Ragged Robin) | 27 seeds |
| Cocklebur | 4 seeds | Texas Panicum | 27 seeds |
| Spurred Anoda | 4 seeds | Bracted Plantain | 54 seeds |
| Velvetleaf | 4 seeds | Buckhorn Plantain | 54 seeds |
| Morning-glory | 8 seeds | Broadleaf Dock | 54 seeds |
| Corn Cockle | 10 seeds | Curly Dock | 54 seeds |
| Wild Radish | 12 seeds | Dodder | 54 seeds |
| Purple Nutsedge | 27 seeds | Giant Foxtail | 54 seeds |
| Yellow Nutsedge | 27 seeds | Horsenettle | 54 seeds |
| Canada Thistle | 27 seeds | Quackgrass | 54 seeds |
| Field Bindweed | 27 seeds | Wild Mustard | 54 seeds |
| Hedge Bindweed | 27 seeds | | |

Seed of Pensacola Bahiagrass shall not contain more than 7% inert matter, Kentucky Bluegrass, Centipede and Fine or Hard Fescue shall not contain more than 5% inert matter whereas a maximum of 2% inert matter will be allowed on all other kinds of seed. In addition, all seed shall not contain more than 2% other crop seed nor more than 1% total weed seed. The germination rate as tested by the North Carolina Department of Agriculture shall not fall below 70%, which includes both dormant and hard seed. Seed shall be labeled with not more than 7%, 5% or 2% inert matter (according to above specifications), 2% other crop seed and 1% total weed seed.

Exceptions may be made for minimum pure live seed allowances when cases of seed variety shortages are verified. Pure live seed percentages will be applied in a verified shortage situation. Those purchase orders of deficient seed lots will be credited with the percentage that the seed is deficient.

FURTHER SPECIFICATIONS FOR EACH SEED GROUP ARE GIVEN BELOW:

Minimum 85% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 83% pure live seed will not be approved.

Sericea Lespedeza
Oats (seeds)

Minimum 80% pure live seed; maximum 1% total weed seed; maximum 2% total other crop; maximum 144 restricted noxious weed seed per pound. Seed less than 78% pure live seed will not be approved.

| | |
|--------------------------------------|----------------------------|
| Tall Fescue (all approved varieties) | Bermudagrass |
| Kobe Lespedeza | Browntop Millet |
| Korean Lespedeza | German Millet – Strain R |
| Weeping Lovegrass | Clover – Red/White/Crimson |
| Carpetgrass | |

Minimum 78% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 76% pure live seed will not be approved.

Common or Sweet Sundangrass

Minimum 76% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 74% pure live seed will not be approved.

Rye (grain; all varieties)
Kentucky Bluegrass (all approved varieties)
Hard Fescue (all approved varieties)
Shrub (bicolor) Lespedeza

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 noxious weed seed per pound. Seed less than 70% pure live seed will not be approved.

Centipedegrass
Crownvetch
Pensacola Bahiagrass
Creeping Red Fescue

Japanese Millet
Reed Canary Grass
Zoysia

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 5% inert matter; maximum 144 restricted noxious weed seed per pound.

Barnyard Grass
Big Bluestem
Little Bluestem
Bristly Locust
Birdsfoot Trefoil
Indiangrass
Orchardgrass
Switchgrass
Yellow Blossom Sweet Clover

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.

TC-1

WORK ZONE TRAFFIC CONTROL GENERAL REQUIREMENTS

TEMPORARY TRAFFIC CONTROL (TTC):

(7-16-13) (Rev. 7-15-14)

RWZ-1

DocuSigned by:
Steve Kite
E27CE30E1DFC442...

10/22/2014



Maintain traffic in accordance with Divisions 10, 11 and 12 of the *2012 Standard Specifications* and the following provisions:

Install Work Zone Advance Warning Signs in accordance with the detail drawing provided in these plans prior to beginning any other work. Use a lane closure or slow moving operation to complete the work, as necessary, unless otherwise indicated. Refer to Standard Drawing No. 1101.02, 1101.11, 1110.01, 1110.02, 1130.01, 1135.01 and 1180.01 of the *2012 Roadway Standard Drawings*. Use a moving operation only if the minimum speed maintained at all times is 3 mph with no stops that narrow or close a lane of travel. If the moving operation is progressing slower than 3 mph at any time, install a lane closure. Maintain the existing traffic pattern at all times, except in the immediate work zone where lane closures are allowed as determined by the Engineer.

Refer to attached details and Standard Drawing No. 1101.02, 1101.03, 1101.04, 1101.05, 1101.11, 1110.01, 1110.02, 1115.01, 1130.01, 1135.01, 1145.01, 1150.01, 1165.01, and 1180.01 of the *2012 Roadway Standard Drawings* when closing a lane of travel in a stationary work zone such as pavement patching resurfacing, or pavement marking removal. Properly ballasted cones and skinny drums may be used instead of drums. However, drums are required for the upstream taper portion of lane closures in all applications. The stationary work zone shall be a maximum of 1 mile in length at any given time on 2 Lane, 2 Way facilities unless otherwise approved by the Engineer. A pilot vehicle operation may be used in conjunction with flaggers and the appropriate pilot vehicle warning signing as directed by the Engineer. During periods of construction inactivity, return the traffic pattern to the existing alignment and remove or cover any work zone signs. When covering work zone signs, use an opaque material that prevents reading of the sign at night by a driver using high beam headlights. Use material, which does not damage the sign sheeting. Replace any obliterated markings as required by other sections of the *2012 Standard Specifications* and the Engineer.

When personnel and/or equipment are working on the shoulder adjacent to and within 5 feet of an open travel lane, close the nearest open travel lane using Standard Drawing No. 1101.02 of the *2012 Roadway Standard Drawings*. When personnel and/or equipment are working within a lane of travel of an undivided facility, close the lane according to the traffic control plans, *2012 Roadway Standard Drawings* or as directed by the Engineer. Conduct the work so that all

TC-2

personnel and/or equipment remain within the closed travel lane. Do not work simultaneously, on both sides of an open travel way, within the same location, on a two-lane, two-way road. Perform work only when weather and visibility conditions allow safe operations as directed by the Engineer.

When utilizing a slow-moving operation for such items as pavement marking and marker placement, as a minimum the slow moving operation caravan shall consist of the vehicles and devices shown on the Moving Operation Caravan Details according to Roadway Standard Drawing No. 1101.02, sheet 11 of the *2012 Roadway Standard Drawings*. Traffic cones may be used when necessary to provide additional protection of wet pavement markings. Ballast all traffic cones so they will not be blown over by traffic.

TRAFFIC OPERATIONS:

1) Drop-Off Requirements and Time Limitations:

Do not exceed a difference of 2 inches in elevation between open lanes of traffic for nominal lifts of 1.5 inches

During a resurfacing only operation, bring all newly resurfaced lanes to the same elevation within 72 hours for nominal lifts of 1.5 inches or less of asphalt course and by the end of each work day for nominal lifts of greater than 1.5 inches of asphalt course

Backfill at a 6:1 slope up to the edge and elevation of existing pavement in areas adjacent to an open travel lane that has an edge of pavement drop-off as follows:

- (A) Drop-off that exceeds 2 inches on roadways with posted speed limits of 45 mph or greater.
- (B) Drop-off that exceeds 3 inches on roadways with posted speed limits less than 45 mph.

For drop-offs that exceed the above requirements, backfill the unacceptable drop-off with suitable compacted material, as approved by the Engineer. The material, equipment and labor associated with this operation will be at no expense to the Department. This work is not considered part of shoulder reconstruction.

2) Project Requirements:

Failure to comply with the following requirements will result in a suspension of all other operations:

1. Before working on ANY MAP, the Contractor shall submit a written construction sequence for traffic control and construction lighting for ALL MAPS to the Engineer at the first pre-construction meeting and the sequence must be approved before closing a lane of traffic. The Contractor and Engineer will coordinate with the Traffic Management Unit at 919-773-2800 or Traffic Services for additional traffic control guidance, as necessary.

TC-3

2. Obtain written approval of the Engineer before working in more than one location or setting up additional lane closures. The maximum length of any one lane closure is 1 mile unless otherwise directed by the Engineer.
3. Contractor shall mill and pave lanes in an order such that water shall not accumulate.
4. Traffic Control for the milling and/or paving of ramps is to be done according to Standard Drawing Number 1101.02, Sheets 9 & 10 unless otherwise approved to be closed by the Engineer. If approved, Contractor will provide plans and devices for the detour at no additional cost to the department.
5. If lane closure restrictions apply, see Special Provision, "Intermediate Contract Times and Liquidated Damages".
6. If milled areas are not paved back within 72 hours, the Contractor is to furnish and install the following portable signs to warn drivers of the conditions. These are to include, but not limited to "Rough Road" (W8-8), "Uneven Lanes" (W8-11), and "Grooved Pavement" (W8-15) w/ Motorcycle Plaque mounted below. These are to be dual indicated on Multi-Lane Roadways with speed limits 45 mph and greater where lateral clearance can be obtained within the median areas. These portable signs are incidental to the other items of work included in the temporary traffic control (Lump Sum) pay item.

3) Work Zone Signing:

Description

Install advance/general warning work zone signs according to the Detail Drawing provided in these plans prior to beginning of work. Install and maintain signing in accordance with the attached drawings and Divisions 11 and 12 of the *2012 Standard Specifications*.

(A) Installation

All stationary Advance/General warning work zone signs require notification to existing Utility owners per Article 105-8 of the *2012 Standard Specifications* and Special Provision SP1 G115 within 3 to 12 full working days prior to installation.

Install all Advance/General warning work zone signs before beginning work on a particular map. If signs are installed more than seven (7) calendar days prior to the beginning of work on a particular map, cover the signs until the work begins. Install each work zone Advance/General warning sign separately and not on the same post or stand with any other sign except where an advisory speed plate or directional arrow is used.

All stationary signing is to be installed as shown on the detail drawing(s) unless otherwise directed by the Engineer. All sign locations to be verified by the Engineer prior to installation. Once the signs have been installed and accepted, any sign relocations requested by the Department will be compensated in accordance with Article 104-7. Any additional signs other than the ones shown in the drawing will be compensated in accordance with Article 104-7.

TC-4

No stationary -Y- Line advance warning signage is required unless there's more than 1,000 feet of resurfacing along the -Y- line. Whenever work proceeds through an intersection, portable signs shall be used for traffic control. There will be no direct compensation for any portable signing.

If there is a period of construction inactivity longer than 14 calendar days, remove or cover advance/general warning work zone signs. Uncover advance/general warning work zone signs no more than 7 calendar days before work resumes. All other operations may be suspended upon failure to comply with the above requirements. Such suspended operations would not be resumed until the above requirements are fulfilled.

(B) Sign Removal

All stationary work zone signs shall be removed once the project is substantially complete. The project is substantially complete when the resurfacing operations are completed and the shoulders are brought up to the same elevation as the proposed pavement and when pavement markings are installed. The pavement marking doesn't have to be the final marking material to be considered substantially complete. Any remaining punch list items are to be completed with portable work zone signing. There will be no compensation for any portable signing. Sign removal is a condition of final project acceptance.

(C) Lane Closure Work Zone Signs

Install any required lane closure signing needed during the life of the project in accordance with the Standard Drawing No. 1101.02, 1101.11 and 1110.02 of the *2012 Roadway Standard Drawings*. Any required portable signs for lane closures are compensated in the contract pay item for *Temporary Traffic Control*.

4) Measurement and Payment:

Temporary traffic control work, including, but not limited to installation and removal of portable signs, cones, drums, skinny drums, flaggers, AFAD's, changeable message boards, truck mounted attenuators, flashing arrow boards, and pilot vehicles will be paid at the contract lump sum price for *Temporary Traffic Control*. The *Temporary Traffic Control* pay item does not include work zone advance or general warning signs. Partial payments for *Temporary Traffic Control* will be made as follows: The cumulative total of the lump sum price for temporary traffic control will be equal to the percent complete (project) as calculated for each partial pay estimate. Additional flashing arrow boards and message boards beyond those shown in the contract, detail drawings or *Roadway Standard Drawings* required by the Engineer will be paid as extra work in accordance with Article 104-7 of the *Standard Specifications*.

The work of satisfactorily installing and removing work zone advance and/or general warning signs, including, but not limited to, furnishing, locating, installing, covering, uncovering and removing stationary signs will be measured for each required sign and paid at the contract price for *Work Zone Advance/General Warning Signing (SF)*. Payment for *Work Zone*

TC-5

Advance/General Warning Signing will be limited to a maximum of 90% of the total installed quantity. The remaining 10% will be paid once all signs have been removed.

The Lump Sum price for *Temporary Traffic Control* will include the work of four (4) flaggers per operation per map being utilized at the same time on any day. If a pilot vehicle is used for an operation, the Lump Sum Price for *Temporary Traffic Control* will include the work of five (5) flaggers. The operator of a pilot vehicle will be considered one of the five flaggers.

Any additional flagging beyond the “included” amount covered in the *Temporary Traffic Control* pay item will be considered supplemental flagging and compensated at a rate of \$20.00 per hour for each additional flagger as approved by the Engineer.

Payment will be made under:

| Pay Item | Pay Unit |
|---|-----------------|
| Temporary Traffic Control | Lump Sum |
| Work Zone Advance/General Warning Signing | Square Foot |

TC-6

RESURFACING OPERATIONS:

(7-15-14)

RWZ-2

Coordinate the installation of items required by the contract documents and resurfacing operations such that these operations are completed in the order as agreed upon with the Engineer at the first pre-construction meeting. Refer to the Provisions, Typicals and Details unless otherwise directed by the Engineer.

Notify the Engineer 15 consecutive calendar days before resurfacing a bridge or its approaches. Patch and make repairs to bridge surface and its approaches before resurfacing occurs. Coordinate all operations on the bridge and its approaches with the Engineer.

Notify the Engineer 48 hours before resurfacing the areas of existing pavement that require patching. Patch these areas before resurfacing occurs. Allow full depth asphalt patching to cool to the point of supporting traffic without displacement or rutting before reopening closed lane. Coordinate the resurfacing operations of the patched areas with the Engineer.

Notify the Engineer 48 hours before milling or resurfacing will interfere with the existing Signal Loops. Loops may need to be placed in milled surface before resurfacing occurs. Coordinate all signal loop operations with the Engineer.

For partial or wheel track milling operations on two-way, two-lane facilities, mill and pave back by the end of each work day. For Partial or wheel track milling operation on multi-lane facilities, the lane being milled may be left closed and paved back within 72 hours.

The following options are available during Resurfacing and milling operations on two-way, two-lane facilities when the entire roadway or entire lane is to be milled:

- (A) Mill a single lane and pave back by the end of each work day.
- (B) Mill the entire width of roadway and pave back within 72 hours.

The following options are available during Resurfacing and milling operations on multi-lane facilities when all lanes or a single lane in one direction are to be milled:

- (A) Mill a single lane and pave back by the end of each work day.
- (B) Mill the entire width of pavement for all lanes to be milled in any direction daily and pave back within 72 hours.

Slope the pavement at the beginning and ending of the daily milling operation as directed by the Engineer. Sweep and remove all milled material from the roadway as soon as the daily milling operation is completed. Continue milling operations until the particular section of roadway being milled is complete. Remove any existing pavement adjacent to the milled area that has been damaged and replace with patch material as directed by the Engineer.

Operate equipment and conduct operations in the same direction as the flow of traffic. Maintain vehicular access in accordance with Article 1101-05 of the *2012 Standard Specifications* using suitable backfill material approved by the Engineer.

TC-7

Provide appropriate lighting in accordance with Section 1413 of the *2012 Standard Specifications*.

Milled Rumble Strips:

When utilized, milled rumble strips shall be installed in accordance with the *2012 Standard Specifications* and the 2012 Roadway Standard Drawing 665.01.

TC-8

PAVEMENT MARKINGS AND MARKERS:

(7-15-14)

RWZ-3

Markings: All Facilities

Pavement markings shall be installed in accordance with Standard Drawings 1205.01 through 1205.13 of the *2012 Roadway Standard Drawings* and Section 1205 of the *2012 Standard Specifications* with the exception of the 15 day edge line replacement requirement for two-lane, two-way roadways as described in Subarticle 1205-3(D) of the *2012 Standard Specifications*. For all two-lane, two-way facilities, edge lines can be replaced within 30 calendar days after they have been obliterated.

Type 3 Cold Applied Plastic may be used in lieu of Type 2 Cold Applied Plastic. If Type 3 Cold Applied Plastic is used, it shall be paid for using the Type 2 Cold Applied Plastic pay item.

Unless otherwise specified, Heated-in-Place Thermoplastic may be used in lieu of Extruded Thermoplastic for stop bars, symbols, characters and diagonals. If Heated-in-Place Thermoplastic is used, it shall be paid for using the Extruded Thermoplastic pay item.

Unless otherwise specified, Heated-in-Place Thermoplastic may be used in lieu of Cold Applied Plastic for stop bars, symbols, characters and diagonals on asphalt or concrete roadways. If Heated-in-Place Thermoplastic is used, it shall be paid for using the Cold Applied Plastic pay item.

Markers: All Facilities

Remove existing pavement markers in preparation for paving. Repair any pavement damage due to existing pavement marker removal prior to the end of the work day. Dispose of existing pavement markers as directed by the Engineer. No direct payment will be made for this work as it will be incidental to the paving operation.

Install permanent pavement markers within 60 calendar days after completing the resurfacing on each map. Pavement markers shall be installed in accordance with Standard Drawing 1205.12 and Standard Drawings 1250.01 through 1253.01 of the *2012 Roadway Standard Drawings* and Sections 1250 through 1253 of the *2012 Standard Specifications*.

Markings and Markers: All Facilities

Review and record the existing pavement markings and markers before resurfacing. Re-establish the new pavement markings and markers using the record of existing markings in conjunction with the *2012 Roadway Standard Drawings* unless otherwise directed by the engineer. Have existing or proposed "passing zones" reviewed by the engineer before installation. Submit the record of the existing pavement markings seven calendar days before the obliteration of any pavement markings.

Mainline pavement shall not be left milled, unmarked or uneven at the end of a paving season. If the Contractor begins any map and does not complete within the seasonal restrictions,

TC-9

including placement of final pavement markings or permanent markers, the Contractor shall be responsible for, at his expense, Paint in accordance with Article 1205-08 and Temporary Markers in accordance with Section 1251 of the *2012 Standard Specifications*.

EC-1

STABILIZATION REQUIREMENTS:

(5-1-15)

S-1

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective August 3, 2011 issued by the North Carolina Department of Environment and Natural Resources Division of Water Quality. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:

- Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
- Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
- Slopes 4:1 or flatter

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

SEEDING AND MULCHING:

(East)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

| March 1 - August 31 | | September 1 - February 28 | |
|----------------------------|-----------------------|----------------------------------|-------------------------|
| 50# | Tall Fescue | 50# | Tall Fescue |
| 10# | Centipede | 10# | Centipede |
| 25# | Bermudagrass (hulled) | 35# | Bermudagrass (unhulled) |
| 500# | Fertilizer | 500# | Fertilizer |
| 4000# | Limestone | 4000# | Limestone |

Waste and Borrow Locations

| March 1 - August 31 | | September 1 - February 28 | |
|----------------------------|-----------------------|----------------------------------|-------------------------|
| 75# | Tall Fescue | 75# | Tall Fescue |
| 25# | Bermudagrass (hulled) | 35# | Bermudagrass (unhulled) |
| 500# | Fertilizer | 500# | Fertilizer |
| 4000# | Limestone | 4000# | Limestone |

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

EC-2

Approved Tall Fescue Cultivars

| | | | |
|----------------------------|-----------------|-----------------|--------------------|
| 06 Dust | Escalade | Justice | Scorpion |
| 2 nd Millennium | Essential | Kalahari | Serengeti |
| 3 rd Millennium | Evergreen 2 | Kentucky 31* | Shelby |
| Apache III | Falcon IV | Kitty Hawk 2000 | Sheridan |
| Avenger | Falcon NG | Legitimate | Signia |
| Barlexas | Falcon V | Lexington | Silver Hawk |
| Barlexas II | Faith | LSD | Sliverstar |
| Bar Fa | Fat Cat | Magellan | Shenandoah Elite |
| Barrera | Festnova | Matador | Sidewinder |
| Barrington | Fidelity | Millennium SRP | Skyline |
| Barrobusto | Finelawn Elite | Monet | Solara |
| Barvado | Finelawn Xpress | Mustang 4 | Southern Choice II |
| Biltmore | Finesse II | Ninja 2 | Speedway |
| Bingo | Firebird | Ol' Glory | Spyder LS |
| Bizem | Firecracker LS | Olympic Gold | Sunset Gold |
| Blackwatch | Firenza | Padre | Taccoa |
| Blade Runner II | Five Point | Patagonia | Tanzania |
| Bonsai | Focus | Pedigree | Trio |
| Braveheart | Forte | Picasso | Tahoe II |
| Bravo | Garrison | Piedmont | Talladega |
| Bullseye | Gazelle II | Plantation | Tarheel |
| Cannavaro | Gold Medallion | Proseeds 5301 | Terrano |
| Catalyst | Grande 3 | Prospect | Titan ltd |
| Cayenne | Greenbrooks | Pure Gold | Titanium LS |
| Cessane Rz | Greenkeeper | Quest | Tracer |
| Chipper | Gremlin | Raptor II | Traverse SRP |
| Cochise IV | Greystone | Rebel Exeda | Tulsa Time |
| Constitution | Guardian 21 | Rebel Sentry | Turbo |
| Corgi | Guardian 41 | Rebel IV | Turbo RZ |
| Corona | Hemi | Regiment II | Tuxedo RZ |
| Coyote | Honky Tonk | Regenerate | Ultimate |
| Darlington | Hot Rod | Rendition | Venture |
| Davinci | Hunter | Rhambler 2 SRP | Umbrella |
| Desire | Inferno | Rembrandt | Van Gogh |
| Dominion | Innovator | Reunion | Watchdog |
| Dynamic | Integrity | Riverside | Wolfpack II |
| Dynasty | Jaguar 3 | RNP | Xtremegreen |
| Endeavor | Jamboree | Rocket | |

***Note: Kentucky 31 will no longer be an approved NCDOT Tall Fescue Cultivar after December 31, 2015.**

EC-3

On cut and fill slopes 2:1 or steeper Centipede shall be applied at the rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

EC-4

RESIDENTIAL SEEDING - LAWN TYPE APPEARANCE:

SPI 16-1

All areas adjacent to lawns must be hand finished as directed to give a lawn type appearance. Remove all trash, debris, and stones $\frac{3}{4}$ " and larger in diameter or other obstructions that could interfere with providing a smooth lawn type appearance. These areas shall be reseeded to match their original vegetative conditions, unless directed otherwise by the Field Operations Engineer.

Payment for the above work will be made at the unit price bid per acre for *Residential Seeding*.

County : Alamance

| Line # | Item Number | Sec # | Description | Quantity | Unit Cost | Amount |
|----------------------|--------------|-------|--|---------------|-----------|--------|
| ROADWAY ITEMS | | | | | | |
| 0001 | 0000100000-N | 800 | MOBILIZATION | Lump Sum | L.S. | |
| 0002 | 0106000000-E | 230 | BORROW EXCAVATION | 20 CY | | |
| 0003 | 1220000000-E | 545 | INCIDENTAL STONE BASE | 1,351 TON | | |
| 0004 | 1245000000-E | SP | SHOULDER RECONSTRUCTION | 2.24 SMI | | |
| 0005 | 1297000000-E | 607 | MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/2") | 836 SY | | |
| 0006 | 1297000000-E | 607 | MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/4") | 364 SY | | |
| 0007 | 1308000000-E | 607 | MILLING ASPHALT PAVEMENT, **** TO ***** (0" TO 1-1/2") | 1,921 SY | | |
| 0008 | 1308000000-E | 607 | MILLING ASPHALT PAVEMENT, **** TO ***** (0" TO 1-1/4") | 551 SY | | |
| 0009 | 1330000000-E | 607 | INCIDENTAL MILLING | 4,358 SY | | |
| 0010 | 1489000000-E | 610 | ASPHALT CONC BASE COURSE, TYPE B25.0B | 1,197 TON | | |
| 0011 | 1519000000-E | 610 | ASPHALT CONC SURFACE COURSE, TYPE S9.5B | 3,929 TON | | |
| 0012 | 1525000000-E | 610 | ASPHALT CONC SURFACE COURSE, TYPE SF9.5A | 17,590 TON | | |
| 0013 | 1575000000-E | 620 | ASPHALT BINDER FOR PLANT MIX | 1,466 TON | | |
| 0014 | 1775500000-E | SP | ASPHALT SURFACE TREATMENT, MAT COAT, **** STONE (67) | 124,131 SY | | |
| 0015 | 1775500000-E | SP | ASPHALT SURFACE TREATMENT, MAT COAT, **** STONE (78M) | 136,617 SY | | |
| 0016 | 1838000000-E | SP | EMULSION FOR ASPHALT SURFACE TREATMENT | 91,768 GAL | | |

County : Alamance

| Line # | Item Number | Sec # | Description | Quantity | Unit Cost | Amount |
|--------|--------------|-------|--|---------------|-----------|--------|
| 0017 | 2600000000-N | SP | RETROFIT EXISTING CURB RAMP | 2 EA | | |
| 0018 | 2830000000-N | 858 | ADJUSTMENT OF MANHOLES | 20 EA | | |
| 0019 | 2845000000-N | 858 | ADJUSTMENT OF METER BOXES OR VALVE BOXES | 20 EA | | |
| 0020 | 4413000000-E | SP | WORK ZONE ADVANCE/GENERAL WARNING SIGNING | 2,327 SF | | |
| 0021 | 4457000000-N | SP | TEMPORARY TRAFFIC CONTROL | Lump Sum | L.S. | |
| 0022 | 4685000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS) | 108,395 LF | | |
| 0023 | 4686000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS) | 104,657 LF | | |
| 0024 | 4690000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS) | 1,098 LF | | |
| 0025 | 4695000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS) | 1,220 LF | | |
| 0026 | 4710000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS) | 540 LF | | |
| 0027 | 4721000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS) | 28 EA | | |
| 0028 | 4725000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) | 37 EA | | |
| 0029 | 4810000000-E | 1205 | PAINT PAVEMENT MARKING LINES (4") | 391,393 LF | | |
| 0030 | 6084000000-E | 1660 | SEEDING & MULCHING | 0.41 ACR | | |
| 0031 | 6110000000-E | SP | RESIDENTIAL SEEDING | 0.41 ACR | | |
| 0032 | 7300000000-E | 1715 | UNPAVED TRENCHING (*****) (1, 2") | 245 LF | | |
| 0033 | 7324000000-N | 1716 | JUNCTION BOX (STANDARD SIZE) | 2 EA | | |
| 0034 | 7420000000-E | 1722 | 2" RISER WITH WEATHERHEAD | 2 EA | | |

County : Alamance

| Line # | Item Number | Sec # | Description | Quantity | Unit Cost | Amount |
|--------|--------------|-------|--------------------------------|----------|-----------|--------|
| 0035 | 7444000000-E | 1725 | INDUCTIVE LOOP SAWCUT | 2,360 | | |
| | | | | LF | | |
| ----- | | | | | | |
| 0036 | 7456000000-E | 1726 | LEAD-IN CABLE (***** (14-2) | 640 | | |
| | | | | LF | | |
| ----- | | | | | | |

0905/Jun03/Q999090.06/D124613100000/E36

Total Amount Of Bid For Entire Project :

Vendor 1 of 4: RILEY PAVING INC (3419)
Call Order 013 (Proposal: C203714)

Bid Information

Proposal County: ALAMANCE

Vendor Address: P.O. Box 10
Carthage , North Carolina , 28327

Signature Check: James_L_Riley_Jr._3419

Time Bid Received: July 21, 2015 01:12 PM

Amendment Count: 0

Bid Checksum: A7E12118

Bid Total: \$2,096,115.24

Items Total: \$2,096,115.24

Time Total: \$0.00

Bidding Errors:

None.

MBE GOAL SET 4.0

MBE GOAL MET 4.0

WBE GOAL SET 4.0

WBE GOAL MET 4.0

Vendor 1 of 4: RILEY PAVING INC (3419)
Call Order 013 (Proposal: C203714)

Bid Bond Information

| | |
|-----------------------------|---|
| Projects: | Bond Maximum: |
| Counties: | State of Incorporation: |
| Bond ID: SNC15451353 | Agency Execution Date: 7/14/2015 11 |
| Paid by Check: No | Surety Name: surety2000 |
| Bond Percent: 5% | Bond Agency Name: Hartford Fire Insurance Company |

Bidder 1 of 4

Vendor 3419's Bid Information for Call 013, Letting L150721, 07/21/15

Riley Paving, Inc. (3419)
 Call Order 013 (Proposal ID C203714)

LIST OF MBE PARTICIPANTS

| VENDOR NUMBER | DBE NAME ADDRESS | WORK CODE TYPE OF WORK | CERT TYPE AMOUNT | |
|---------------|---|------------------------|--------------------|-----------|
| 9602 MB | CAROLINA TRANSPORT OF GREENSBOR 347 SOUTH CHERRY STREET , KERNERSVILLE, NC 27284 | | Sub 19,058.00 | Committed |
| 9602 MB | CAROLINA TRANSPORT OF GREENSBOR 347 SOUTH CHERRY STREET , KERNERSVILLE, NC 27284 | | Sub 8,259.12 | Committed |
| 8851 MB | EDDIE M GUTIERREZ DBA QUALITY T P.O. BOX 848 , HAW RIVER, NC 27258 | | Sub 56,800.00 | Committed |
| | | | TOTAL: \$84,117.12 | |
| | | | 4.01% | |

Vendor 3419's Bid Information for Call 013, Letting L150721, 07/21/15

Riley Paving, Inc. (3419)
 Call Order 013 (Proposal ID C203714)

LIST OF WBE PARTICIPANTS

| VENDOR NUMBER | DBE NAME ADDRESS | WORK CODE TYPE OF WORK | CERT TYPE AMOUNT | |
|---------------|--|------------------------|--------------------|-----------|
| 3765 WB | STAY ALERT SAFETY SERVICES INC POST OFFICE BOX 467 , KERNERSVILLE, NC 27285 | | Sub 7,981.61 | Committed |
| 3346 WB | LINEBERRY, INC. POST OFFICE BOX 307 , CLIMAX, NC 27233 | | Sub 5,781.00 | Committed |
| 12843 WB | PAMELA STALEY GUNTER DBA GUNTER 2512 WOODFIELD DRIVE , SOPHIA, NC 27350 | | Sub 49,600.00 | Committed |
| 10186 WB | SLM CONSTRUCTION, INC. 513 WHITE SMITH ROAD , PITTSBORO, NC 27312 | | Sub 20,850.00 | Committed |
| | | | TOTAL: \$84,212.61 | |
| | | | 4.02% | |

Vendor 3419's Bid Information for Call 013, Letting L150721, 07/21/15

Riley Paving, Inc. (3419)
 Call Order 013 (Proposal ID C203714)

Miscellaneous Data Info - Contractor Responses:
 =====

NON-COLLUSION AND DEBARMENT CERTIFICATION

Explanation of the prospective bidder that is unable to certify to any of the statements in this certification:

Explanation:
 NOT ANSWERED
 NOT ANSWERED
 NOT ANSWERED
 NOT ANSWERED

AWARD LIMITS ON MULTIPLE PROJECTS

Bidder 1 of 4

By answering YES to this statement, the bidder acknowledges that they are using the award limits on multiple projects. No

It is the desire of the Bidder to be awarded contracts, the value of which will not exceed a total of NOT ANSWERED for those projects indicated herein, for which bids will be opened on (MM/DD/YY)

The Award Limits shall apply to the following projects:

| Contract Number | County |
|-----------------|--------|
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |

Bid Bond Data Info - Contractor Responses:

=====

BondID: SNC15451353
 Surety Registry Agency: surety2000
 Verified?: Yes
 Surety Agency: Hartford Fire Insurance Company
 Bond Execution Date: 7/14/2015 11
 Bond Amount: \$104,805.76 (Five Percent of Bid)

Contract ID: C203714 Project(s): STATE FUNDED

Letting Date: 07-21-15 Call Order: 013

Bidder: 3419 - Riley Paving, Inc.

| Line No. | Item Description | Approx. Quantity and Units | Unit Price Dollars Cts | Bid Amount Dollars Ct |
|----------------------------|---|----------------------------|--------------------------|-------------------------|
| Section 0001 ROADWAY ITEMS | | | | |
| Alt Group | | | | |
| 0001 | 0000100000-N MOBILIZATION | LUMP | LUMP | 15,000.00 |
| 0002 | 0106000000-E BORROW EXCAVATION | 20.000 CY | 18.00000 | 360.00 |
| 0003 | 1220000000-E INCIDENTAL STONE BASE | 1,351.000 TON | 25.00000 | 33,775.00 |
| 0004 | 1245000000-E SHOULDER RECONSTRUCTION | 2.240 SMI | 1,600.00000 | 3,584.00 |
| 0005 | 1297000000-E MILLING ASPHALT PAVEMENT, ***"DEPTH (1-1/2") | 836.000 SY | 4.95000 | 4,138.20 |
| 0006 | 1297000000-E MILLING ASPHALT PAVEMENT, ***"DEPTH (1-1/4") | 364.000 SY | 4.20000 | 1,528.80 |
| 0007 | 1308000000-E MILLING ASPHALT PAVEMENT, ***"TO *****" (0" TO 1-1/2") | 1,921.000 SY | 3.00000 | 5,763.00 |
| 0008 | 1308000000-E MILLING ASPHALT PAVEMENT, ***"TO *****" (0" TO 1-1/4") | 551.000 SY | 4.25000 | 2,341.75 |
| 0009 | 1330000000-E INCIDENTAL MILLING | 4,358.000 SY | 4.25000 | 18,521.50 |
| 0010 | 1489000000-E ASPHALT CONC BASE COURSE, TYPE B25.0B | 1,197.000 TON | 37.00000 | 44,289.00 |
| 0011 | 1519000000-E ASPHALT CONC SURFACE COURSE, TYPE S9.5B | 3,929.000 TON | 36.25000 | 142,426.25 |

Dept of Transportation

Revised:

Contract ID: C203714

Project(s): STATE FUNDED

Letting Date: 07-21-15 Call Order: 013

Bidder: 3419 - Riley Paving, Inc.

| Line No. | Item Description | Approx. Quantity and Units | Unit Price Dollars Cts | Bid Amount Dollars Ct |
|----------|---|----------------------------|--------------------------|-------------------------|
| 0012 | 1525000000-E ASPHALT CONC SURFACE COURSE, TYPE SF9.5A | 17,590.000 TON | 36.20000 | 636,758.00 |
| 0013 | 1575000000-E ASPHALT BINDER FOR PLANT MIX | 1,466.000 TON | 495.00000 | 725,670.00 |
| 0014 | 1775500000-E ASPHALT SURFACE TREATMENT, MATCOAT, #*** STONE (67) | 124,131.000 SY | 0.39000 | 48,411.09 |
| 0015 | 1775500000-E ASPHALT SURFACE TREATMENT, MATCOAT, #*** STONE (78M) | 136,617.000 SY | 0.34000 | 46,449.78 |
| 0016 | 1838000000-E EMULSION FOR ASPHALT SURFACE TREATMENT | 91,768.000 GAL | 1.70000 | 156,005.60 |
| 0017 | 2600000000-N RETROFIT EXISTING CURB RAMP | 2.000 EA | 525.00000 | 1,050.00 |
| 0018 | 2830000000-N ADJUSTMENT OF MANHOLES | 20.000 EA | 510.00000 | 10,200.00 |
| 0019 | 2845000000-N ADJUSTMENT OF METER BOXES OR VALVE BOXES | 20.000 EA | 480.00000 | 9,600.00 |
| 0020 | 4413000000-E WORK ZONE ADVANCE/GENERAL WARNING SIGNING | 2,327.000 SF | 3.43000 | 7,981.61 |
| 0021 | 4457000000-N TEMPORARY TRAFFIC CONTROL | LUMP | LUMP | 5,000.00 |
| 0022 | 4685000000-E THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS) | 108,395.000 LF | 0.44000 | 47,693.80 |
| 0023 | 4686000000-E THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS) | 104,657.000 LF | 0.57000 | 59,654.49 |

Dept of Transportation

Revised:

Contract ID: C203714

Project(s): STATE FUNDED

Letting Date: 07-21-15 Call Order: 013

Bidder: 3419 - Riley Paving, Inc.

| Line No. | Item Description | Approx. Quantity and Units | Unit Price Dollars Cts | Bid Amount Dollars Ct |
|----------|--|----------------------------|--------------------------|-------------------------|
| 0024 | 4690000000-E THERMOPLAST IC PAVEMENT MARKING LINES (6", 120 MILS) | 1,098.000 LF | 2.25000 | 2,470.50 |
| 0025 | 4695000000-E THERMOPLAST IC PAVEMENT MARKING LINES (8", 90 MILS) | 1,220.000 LF | 2.50000 | 3,050.00 |
| 0026 | 4710000000-E THERMOPLAST IC PAVEMENT MARKING LINES (24", 120 MILS) | 540.000 LF | 6.50000 | 3,510.00 |
| 0027 | 4721000000-E THERMOPLAST IC PAVEMENT MARKING CHARACTER (120 MILS) | 28.000 EA | 100.00000 | 2,800.00 |
| 0028 | 4725000000-E THERMOPLAST IC PAVEMENT MARKING SYMBOL (90 MILS) | 37.000 EA | 100.00000 | 3,700.00 |
| 0029 | 4810000000-E PAINT PAVEMENT MARKING LINES (4") | 391,393.000 LF | 0.09000 | 35,225.37 |
| 0030 | 6084000000-E SEEDING & MULCHING | 0.410 ACR | 6,900.00000 | 2,829.00 |
| 0031 | 6110000000-E RESIDENTIAL SEEDING | 0.410 ACR | 7,200.00000 | 2,952.00 |
| 0032 | 7300000000-E UNPAVED TRENCHING (*****) (1, 2") | 245.000 LF | 4.50000 | 1,102.50 |
| 0033 | 7324000000-N JUNCTION BOX (STANDARD SIZE) | 2.000 EA | 145.00000 | 290.00 |
| 0034 | 7420000000-E 2" RISER WITH WEATHERHEAD | 2.000 EA | 185.00000 | 370.00 |

Contract ID: C203714

Project(s): STATE FUNDED

Letting Date: 07-21-15 Call Order: 013

Bidder: 3419 - Riley Paving, Inc.

| Line No. | Item Description | Approx. Quantity and Units | Unit Price Dollars Cts | Bid Amount Dollars Ct |
|--------------------|------------------------------------|----------------------------|--------------------------|-------------------------|
| 0035 | 7444000000-E INDUCTIVE LOOP SAWCUT | 2,360.000 | 4.65000 | 10,974.00 |
| | | LF | | |
| 0036 | 7456000000-E LEAD-IN CABLE (*****) | 640.000 | 1.00000 | 640.00 |
| | (14-2) | LF | | |
| Section 0001 Total | | | | 2,096,115.24 |
| Bid Total | | | | 2,096,115.24 |

NON-COLLUSION AND DEBARMENT CERTIFICATION

The bidder certifies 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 this bid, 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, submitting this electronic bid constitutes the bidder's certification of Status under penalty of perjury under the laws of the United States and in accordance with the Debarment Certification on file with the Department.

By submitting this bid, the 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.

Where the prospective bidder is unable to certify to any of the statements in this certification, the bidder shall submit an explanation in the blanks provided herein. The explanation will not necessarily result in denial of participation in a contract.

Explanation:
NOT ANSWERED
NOT ANSWERED
NOT ANSWERED
NOT ANSWERED

If the prequalified bidder's status changes, he shall immediately submit a new fully executed non-collusion affidavit and debarment certification with an explanation of the change to the Contract Office prior to submitting the bid.

Failure to furnish a certification or an explanation will be grounds for rejection of a bid

AWARD LIMITS ON MULTIPLE PROJECTS

By answering YES to this statement, the bidder acknowledges that they are using the award limits on multiple projects. No

A bidder who desires to bid on more than one project on which bids are to be opened on the same date, and who also desires to avoid receiving an award of more projects than he is equipped to handle, may bid on any number of projects but may limit the total amount of work awarded to him on selected projects by completing the AWARD LIMITS ON MULTIPLE PROJECTS.

The Award Limits on Multiple Projects must be filled in on each project bid for which the Bidder desires protection.

It is the desire of the Bidder to be awarded contracts, the value of which will not exceed a total of NOT ANSWERED for those projects indicated herein, for which bids will be opened on (MM/DD/YY)

The Award Limits shall apply to the following projects:

| Contract Number | County |
|-----------------|--------|
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |
| NOT ANSWERED | |

It is agreed that if I am (we are) the low Bidder(s) on indicated projects, the total value of which is more than the above stipulated award limits, the Board of Transportation will award me (us) projects from among those indicated that have a total value not to exceed the award limit and will result in the lowest total bids to the Department of Transportation.

PROPOSAL: C203714
 LETTING: L150721 CALL: 013
 VENDOR: 3419 Riley Paving, Inc.

| LINE NO. | ITEM NO. | ITEM DESC. | UNIT TYPE | SUBCONTRACTOR QUANTITY | SUBCONTRACTOR UNIT PRICE | EXTENDED AMOUNT |
|--|--------------|--------------|-----------|------------------------|--------------------------|----------------------------|
| ----- | | | | | | |
| MBE SUBCONTRACTOR: 9602 CAROLINA TRANSPORT OF GREENSBORO INC | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0013 | 1575000000-E | ASP FOR PLAN | TON | 1466.000 | 13.00000 | 19058.00 |
| MBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 19,058.00 Committed |
| ----- | | | | | | |
| MBE SUBCONTRACTOR: 9602 CAROLINA TRANSPORT OF GREENSBORO INC | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0016 | 1838000000-E | EMULSION FOR | GAL | 91768.000 | 0.09000 | 8259.12 |
| MBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 8,259.12 Committed |
| ----- | | | | | | |
| MBE SUBCONTRACTOR: 8851 EDDIE M GUTIERREZ DBA QUALITY TURF | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0012 | 1525000000-E | ASP CONC SUR | TON | 7100.000 | 8.00000 | 56800.00 |
| MBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 56,800.00 Committed |
| ----- | | | | | | |
| TOTAL MBE COMMITMENT FOR VENDOR: | | | | Entered: | 4.01% or | 84117.12 |
| | | | | Required: | 4.00% or | 83844.61 |
| | | | | | | <GOAL MET> |

PROPOSAL: C203714
LETTING: L150721 CALL: 013
VENDOR: 3419 Riley Paving, Inc.

| LINE NO. | ITEM NO. | ITEM DESC. | UNIT TYPE | SUBCONTRACTOR QUANTITY | SUBCONTRACTOR UNIT PRICE | EXTENDED AMOUNT |
|--|--------------|------------------|-----------|------------------------|--------------------------|----------------------------|
| ----- | | | | | | |
| WBE SUBCONTRACTOR: 3765 STAY ALERT SAFETY SERVICES INC | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0020 | 4413000000-E | WORK ZONE AD SF | | 2327.000 | 3.43000 | 7981.61 |
| WBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 7,981.61 Committed |
| WBE SUBCONTRACTOR: 3346 LINEBERRY, INC. | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0030 | 6084000000-E | SEEDING AND ACR | | 0.410 | 6900.00000 | 2829.00 |
| 0031 | 6110000000-E | RESIDENTIAL ACR | | 0.410 | 7200.00000 | 2952.00 |
| WBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 5,781.00 Committed |
| WBE SUBCONTRACTOR: 12843 PAMELA STALEY GUNTER DBA GUNTER TRUCKING CO | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0012 | 1525000000-E | ASP CONC SUR TON | | 4000.000 | 8.00000 | 32000.00 |
| 0011 | 1519000000-E | ASP CONC SUR TON | | 2200.000 | 8.00000 | 17600.00 |
| WBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 49,600.00 Committed |
| WBE SUBCONTRACTOR: 10186 SLM CONSTRUCTION, INC. | | | | | | |
| Will Use Quote: Yes | | | | | | |
| 0017 | 2600000000-N | RETROFIT EXT EA | | 2.000 | 525.00000 | 1050.00 |
| 0018 | 2830000000-N | ADJ MANHOLES EA | | 20.000 | 510.00000 | 10200.00 |
| 0019 | 2845000000-N | ADJ METER OR EA | | 20.000 | 480.00000 | 9600.00 |
| WBE COMMITMENT TOTAL FOR SUBCONTRACTOR: | | | | | | 20,850.00 Committed |
| TOTAL WBE COMMITMENT FOR VENDOR: | | | | Entered: | 4.02% or | 84212.61 |
| | | | | Required: | 4.00% or | 83844.61 |
| | | | | | <GOAL MET> | |

THIS PROPOSAL CONTAINS THE FOLLOWING ERRORS/WARNINGS (IF ANY)

This Bid contains 0 amendment files

Electronic Bid Submission

By submitting this bid electronically, I hereby acknowledge that all requirements included in the hard copy proposal, addendum, amendments, plans, standard specifications, supplemental specifications and special provisions are part of the bid and contract. Further, I acknowledge that I have read, understand, accept, acknowledge and agree to comply with all statements in this electronic bid.

I Hereby certify that I have the authority to submit this bid.

Signature

Agency

Date

Contract Item Sheets For C203714

| Line # | ItemNumber | Sec # | Description | Quantity Unit | Unit Bid Price | Amount Bid |
|----------------------|--------------|-------|--|----------------|----------------|------------|
| ROADWAY ITEMS | | | | | | |
| 0001 | 0000100000-N | 800 | MOBILIZATION | Lump Sum LS | 15,000.00 | 15,000.00 |
| 0002 | 0106000000-E | 230 | BORROW EXCAVATION | 20 CY | 18.00 | 360.00 |
| 0003 | 1220000000-E | 545 | INCIDENTAL STONE BASE | 1,351 TON | 25.00 | 33,775.00 |
| 0004 | 1245000000-E | SP | SHOULDER RECONSTRUCTION | 2.24 SMI | 1,600.00 | 3,584.00 |
| 0005 | 1297000000-E | 607 | MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/2") | 836 SY | 4.95 | 4,138.20 |
| 0006 | 1297000000-E | 607 | MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/4") | 364 SY | 4.20 | 1,528.80 |
| 0007 | 1308000000-E | 607 | MILLING ASPHALT PAVEMENT, **** TO ***** (0" TO 1-1/2") | 1,921 SY | 3.00 | 5,763.00 |
| 0008 | 1308000000-E | 607 | MILLING ASPHALT PAVEMENT, **** TO ***** (0" TO 1-1/4") | 551 SY | 4.25 | 2,341.75 |
| 0009 | 1330000000-E | 607 | INCIDENTAL MILLING | 4,358 SY | 4.25 | 18,521.50 |
| 0010 | 1489000000-E | 610 | ASPHALT CONC BASE COURSE, TYPE B25.0B | 1,197 TON | 37.00 | 44,289.00 |
| 0011 | 1519000000-E | 610 | ASPHALT CONC SURFACE COURSE, TYPE S9.5B | 3,929 TON | 36.25 | 142,426.25 |
| 0012 | 1525000000-E | 610 | ASPHALT CONC SURFACE COURSE, TYPE SF9.5A | 17,590 TON | 36.20 | 636,758.00 |
| 0013 | 1575000000-E | 620 | ASPHALT BINDER FOR PLANT MIX | 1,466 TON | 495.00 | 725,670.00 |
| 0014 | 1775500000-E | SP | ASPHALT SURFACE TREATMENT, MAT COAT, **** STONE (67) | 124,131 SY | 0.39 | 48,411.09 |
| 0015 | 1775500000-E | SP | ASPHALT SURFACE TREATMENT, MAT COAT, **** STONE (78M) | 136,617 SY | 0.34 | 46,449.78 |
| 0016 | 1838000000-E | SP | EMULSION FOR ASPHALT SURFACE TREATMENT | 91,768 GAL | 1.70 | 156,005.60 |
| 0017 | 2600000000-N | SP | RETROFIT EXISTING CURB RAMP | 2 EA | 525.00 | 1,050.00 |

| Line # | ItemNumber | Sec # | Description | Quantity Unit | Unit Bid Price | Amount Bid |
|--------|--------------|-------|--|----------------|----------------|------------|
| 0018 | 2830000000-N | 858 | ADJUSTMENT OF MANHOLES | 20 EA | 510.00 | 10,200.00 |
| 0019 | 2845000000-N | 858 | ADJUSTMENT OF METER BOXES OR VALVE BOXES | 20 EA | 480.00 | 9,600.00 |
| 0020 | 4413000000-E | SP | WORK ZONE ADVANCE/GENERAL WARNING SIGNING | 2,327 SF | 3.43 | 7,981.61 |
| 0021 | 4457000000-N | SP | TEMPORARY TRAFFIC CONTROL | Lump Sum LS | 5,000.00 | 5,000.00 |
| 0022 | 4685000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS) | 108,395 LF | 0.44 | 47,693.80 |
| 0023 | 4686000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS) | 104,657 LF | 0.57 | 59,654.49 |
| 0024 | 4690000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS) | 1,098 LF | 2.25 | 2,470.50 |
| 0025 | 4695000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS) | 1,220 LF | 2.50 | 3,050.00 |
| 0026 | 4710000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS) | 540 LF | 6.50 | 3,510.00 |
| 0027 | 4721000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS) | 28 EA | 100.00 | 2,800.00 |
| 0028 | 4725000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) | 37 EA | 100.00 | 3,700.00 |
| 0029 | 4810000000-E | 1205 | PAINT PAVEMENT MARKING LINES (4") | 391,393 LF | 0.09 | 35,225.37 |
| 0030 | 6084000000-E | 1660 | SEEDING & MULCHING | 0.41 ACR | 6,900.00 | 2,829.00 |
| 0031 | 6110000000-E | SP | RESIDENTIAL SEEDING | 0.41 ACR | 7,200.00 | 2,952.00 |
| 0032 | 7300000000-E | 1715 | UNPAVED TRENCHING (*****) (1, 2") | 245 LF | 4.50 | 1,102.50 |
| 0033 | 7324000000-N | 1716 | JUNCTION BOX (STANDARD SIZE) | 2 EA | 145.00 | 290.00 |
| 0034 | 7420000000-E | 1722 | 2" RISER WITH WEATHERHEAD | 2 EA | 185.00 | 370.00 |
| 0035 | 7444000000-E | 1725 | INDUCTIVE LOOP SAWCUT | 2,360 LF | 4.65 | 10,974.00 |

Contract Item Sheets For C203714

| Line # | ItemNumber | Sec # | Description | Quantity | Unit | Unit Bid Price | Amount Bid |
|--------|--------------|-------|--------------------------------|----------|------|----------------|------------|
| 0036 | 7456000000-E | 1726 | LEAD-IN CABLE (***** (14-2) | 640 | LF | 1.00 | 640.00 |

TOTAL AMOUNT OF BID FOR ENTIRE PROJECT

\$2,096,115.24

0812/Aug03/Q999090.06/D124613100000/E36

Contract No. C203714
County Alamance

Rev. 5-19-11

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

CORPORATION

The Contractor being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee 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 this Contract, that the Contractor has not been convicted of violating N.C.G.S. § 133-24 within the last three years, and that the Contractor intends to do the work with its own bonafide employees or subcontractors and did not bid for the benefit of another contractor.

By submitting this Execution of Contract, Non-Collusion Affidavit and Debarment Certification, the Contractor is certifying his 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

Riley Paving Inc

Full name of Corporation

P. O. Box 10 --Carthage, NC 28327

Address as Prequalified

Attest

Debbie Riley
Secretary/Assistant Secretary
Select appropriate title

By

J. L. Riley, Jr.
President/Vice President/Assistant Vice President
Select appropriate title

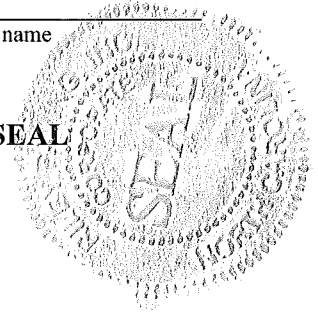
Debbie Riley

Print or type Signer's name

J. L. Riley, Jr.

Print or type Signer's name

CORPORATE SEAL



AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this the

13th day of August 2015.

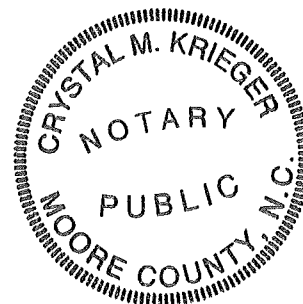
Crystal M. Krieger
Signature of Notary Public

NOTARY SEAL

of Moore County

State of North Carolina

My Commission Expires: Aug. 10, 2018



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 filed 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.

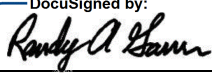
Failure to submit a non-collusion affidavit and debarment certification will result in the prequalified bidder's bid being considered non-responsive.

Check here if an explanation is attached to this certification.

Contract No. C203714

County (ies): Alamance

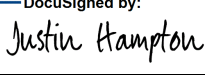
ACCEPTED BY THE
DEPARTMENT OF TRANSPORTATION

DocuSigned by:

A7079FC22A0B478
Contract Officer

8/14/2015

Date

Execution of Contract and Bonds
Approved as to Form:

DocuSigned by:

F23E75DCE8CEB439...
Attorney General

8/14/2015

Date

Signature Sheet (Bid - Acceptance by Department)

Bond No. 22BCSHD3892

Contract No. C203714
County Alamance

Rev 5-17-11

CONTRACT PAYMENT BOND

Date of Payment Bond Execution August 3, 2015

Name of Principal Contractor Riley Paving, Inc.

Name of Surety: Hartford Fire Insurance Company

Name of Contracting Body: **North Carolina Department of Transportation**
Raleigh, North Carolina

Amount of Bond: (\$2,096,115.24) Two Million Ninety Six Thousand One Hundred Fifteen Dollars and 24/100

Contract ID No.: C203714

County Name: Alamance

KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL CONTRACTOR (hereafter, PRINCIPAL) and SURETY above named, are held and firmly bound unto the above named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the Contracting Body, numbered as shown above and hereto attached:

NOW THEREFORE, if the principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Contract No. C203714
County Alamance

Rev 5-17-11

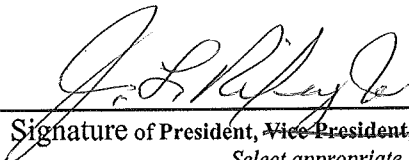
CONTRACT PAYMENT BOND

CORPORATION

SIGNATURE OF CONTRACTOR (Principal)

Riley Paving, Inc.
Full name of Corporation


P.O. Box 10, Carthage, NC 28327
Address as prequalified

By 
Signature of President, ~~Vice President, Assistant Vice President~~
Select appropriate title

J. L. Riley, Jr
Print or type Signer's name

Affix Corporate Seal



Attest 
Signature of Secretary, ~~Assistant Secretary~~
Select appropriate title

Debbie Riley
Print or type Signer's name

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD
Bond T-4
One Hartford Plaza
Hartford, Connecticut 06155
call: 888-266-3488 or fax: 860-757-5835)

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Code: SurePath

- Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint

Angela D. Ramsey of Charlotte, NC

their true and lawful Attorney-in-Fact, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge the following bond, undertaking, contract or written instrument:

Bond No. 22BCSHD3892 on behalf of Riley Paving, Inc.

naming

North Carolina Department of Transportation as Obligee in the amount of See Bond Form on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on August 1, 2009, the Companies have caused these presents to be signed by its Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Wesley W. Cowling

Wesley W. Cowling, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Vice President

STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

On this 12th day of July, 2012, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Kathleen T. Maynard

Kathleen T. Maynard
Notary Public

My Commission Expires July 31, 2016

I, the undersigned, Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of August 3, 2015
Signed and sealed at the City of Hartford.



Gary W. Stumper

Gary W. Stumper, Vice President

Contract No. C203714
County Alamance

CONTRACT PERFORMANCE BOND

Date of Performance Bond Execution: August 3, 2015
Name of Principal Contractor: Riley Paving, Inc.
Name of Surety: Hartford Fire Insurance Company
Name of Contracting Body: **North Carolina Department of Transportation**
Raleigh, North Carolina
Amount of Bond: (\$2,096,115.24) Two Million Ninety Six Thousand One Hundred Fifteen Dollars and 24/100
Contract ID No.: C203714
County Name: Alamance

KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL CONTRACTOR (hereafter, PRINCIPAL) and SURETY above named, are held and firmly bound unto the above named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the Contracting Body, numbered as shown above and hereto attached:

NOW THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Contract No. C203714
County Alamance

Rev 5-17-11

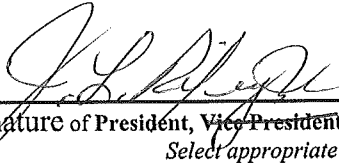
CONTRACT PERFORMANCE BOND

CORPORATION

SIGNATURE OF CONTRACTOR (Principal)

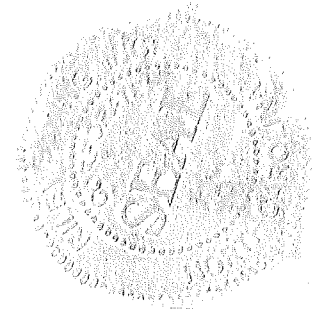
Riley Paving, Inc.
Full name of Corporation

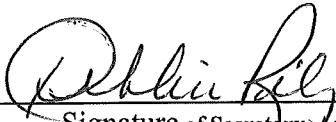
P.O. Box 10, Carthage, NC 28327
Address as prequalified

✓ By 
Signature of President, ~~Vice President~~, Assistant ~~Vice President~~
Select appropriate title

J.L. Riley, Jr
Print or type Signer's name

Affix Corporate Seal



Attest 
Signature of Secretary, ~~Assistant Secretary~~
Select appropriate title

Debbie Riley
Print or type Signer's name

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD
Bond T-4
One Hartford Plaza
Hartford, Connecticut 06155
call: 888-266-3488 or fax: 860-757-5835)

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- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint

Angela D. Ramsey of Charlotte, NC

their true and lawful Attorney-in-Fact, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge the following bond, undertaking, contract or written instrument:

Bond No. 22BCSHD3892 on behalf of Riley Paving, Inc.

naming

North Carolina Department of Transportation

as Obligee in the amount of See Bond Form

on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on August 1, 2009, the Companies have caused these presents to be signed by its Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Wesley W. Cowling

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M. Ross Fisher

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STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

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CERTIFICATE

Kathleen T. Maynard

Kathleen T. Maynard
Notary Public

My Commission Expires July 31, 2016

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Signed and sealed at the City of Hartford.



Gary W. Stumper

Gary W. Stumper, Vice President