STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

DIVISION FIVE

CONTRACT PROPOSAL
SMALL BUSINESS ENTERPRISE

WBS:	**Various**
ROUTES:	**Various**
COUNTY:	**Durham, Franklin, Granville, Person, Vance, Wake, Warren**
DESCRIPTION:	**Division Five Annual Needs for Concrete and Asphalt Repairs on Various Roads**
BID OPENING:	**Wednesday, March 27, 2013 at 2:00 pm**

NAME OF BIDDER N.C. CONTRACTOR'S LICENSE NUMBER

ADDRESS OF BIDDER

RETURN BIDS TO:

DIVISION ENGINEER
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2612 NORTH DUKE STREET
DURHAM, NC 27704

ATTENTION: Michael J. Kneis, PE

INSTRUCTIONS TO BIDDERS

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

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement shall cause the bid to be considered irregular and shall be grounds for rejection of the bid. Bidders must be prequalified for the type of work they wish to perform prior to submitting a bid.

1. The bid sheet furnished by NCDOT with the proposal shall be used and shall not be altered in any manner. **DO NOT SEPARATE THE BID SHEET FROM THE PROPOSAL!**
2. All entries on the bid sheet, including signatures, shall be written in ink.
3. The Bidder shall submit a unit price for every item on the bid form. The unit prices for the various contract items shall be written in figures.
4. An amount bid shall be entered on the bid sheet for every item. The amount bid for each item shall be determined by multiplying each unit bid by the quantity for that item, and shall be written in figures in the "Amount Bid" column of the sheet.
5. The total amount bid shall be written in figures in the proper place on the bid sheet. The total amount shall be determined by adding the amounts bid for each item.
6. Changes in any entry shall be made by marking through the entry in ink and making the correct entry adjacent thereto in ink. A representative of the Bidder shall initial the change in ink.
7. The bid shall be properly executed. All bids shall show the following information:
   a. Name of individual, firm, corporation, partnership, or joint venture submitting bid.
   b. Name of individual or representative submitting bid and position or title.
   c. Name, signature, and position or title of witness.
   d. Federal Identification Number (or Social Security Number of Individual)
   e. Contractor's License Number (if Applicable)
8. Bids submitted by corporations shall bear the seal of the corporation.
9. The bid shall not contain any unauthorized additions, deletions, or conditional bids.
10. The bidder shall not add any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
11. **THE PROPOSAL WITH THE BID SHEET STILL ATTACHED SHALL BE PLACED IN A SEALED ENVELOPE AND SHALL HAVE BEEN DELIVERED TO AND RECEIVED IN THE DIVISION ENGINEER'S OFFICE AT 2612 North Duke Street Durham, NC 27704 BY 2:00 p.m. on Wednesday, March 27, 2013.**
12. The sealed bid must display the following statement on the front of the sealed envelope:

    Quotation for Annual Needs Concrete and Asphalt Roadway Repairs to be opened at 2:00 p.m. on Wednesday, March 27, 2013.

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

    Division Engineer
    North Carolina Department of Transportation
    ATTENTION: Michael J. Kneis, PE
    2612 North Duke Street
    Durham, NC 27704

AWARD OF CONTRACT

The award of the contract, if it be awarded, will be made to the lowest responsible Bidder in accordance with Section 102 *(excluding 102-10)* of the Standard Specifications for Roads and Structures 2012. The lowest responsible will be notified that his bid has been accepted and that he has been awarded the contract. NCDOT reserves the right to reject all bids.

PURCHASE ORDER CONTRACT

Standard Provisions

GENERAL

This contract is for annual needs for concrete and asphalt repairs on various roadways in Division 5. The Contractor will be responsible for repairs and traffic control as directed by the Engineer.

All work and materials shall be in accordance with the provisions of the General Guidelines of this contract, the Project Special Provisions, the North Carolina Department of Transportation Standard Specifications for Roads and Structures 2012, the North Carolina Department of Transportation 2012 Roadway Standards Drawings, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD), with the exception that bid bonds are *not* required.

The quantities stated in the Bid Form are estimates and are not guaranteed.

The Contractor shall keep himself fully informed of all Federal, State and local laws, ordinances, and regulations, and shall comply with the provisions of Section 107 of the Standard Specifications.

This contract shall be bid by certified small business contractors only who are prequalified for the type of work they wish to perform.

SMALL BUSINESS ENTERPRISE PROGRAM

To be eligible to bid on a project advertised under the Small Business Enterprise (SBE) Program, a business must have an annual gross income of $1,500,000 or less, excluding materials. Bidders must be certified as an SBE contractor prior to bidding on an SBE project. Certification requirements may be found at: **http://www.ncdot.org/business/ocs/sbe/.** SBE contracts are limited to $500,000 per year.

CONTRACT TIME AND LIQUIDATED DAMAGES

The date of availability for this project is April 15, 2013. The Contractor may **NOT** begin work prior to this date. If the Contractor begins work prior to the date of availability, the Department of Transportation will assume no responsibility for any delays caused prior to the date of availability by any reason whatsoever, and such delays, if any, will not constitute a valid reason for extending the completion date.

No work will be permitted and no purchase order will be issued until all required bonds and prerequisite conditions and certifications have been satisfied.

The completion date for this project is April 14, 2014 or at the limit of $500,000 dollars per year. The Contractor shall submit his bid for one year.

TERM OF THE CONTRACT

The Contractor shall submit his bid for one year. At the option of the Department, this contract may be extended for two (2) additional periods of one (1) year each (maximum of three years total). The year for the renewal periods shall begin April 15 and end April 14 of the next year. No changes in the terms, conditions, etc. of this contract will be made when an extension to the contract is implemented. The Engineer will notify the Contractor in writing by February 1 if the contract may be extended. The Contractor must notify the Engineer in writing by February 15 of his acceptance or rejection of this offer. Failure on the part of the Contractor to reply will be received as a rejection of contract extension.

INTERMEDIATE CONTRACT TIME NUMBER (1) AND LIQUIDATED DAMAGES

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 ALL ROUTES EXCEPT INTERSTATE AND TOLL FACILITIES** during the following time restrictions or as directed by the Engineer:

ALL ROUTES EXCEPT INTERSTATE AND TOLL FACILITIES

MONDAY THRU FRIDAY 6:00 A.M. TO 9:00 A.M.
MONDAY THRU FRIDAY 4:00 P.M. TO 7:00 P.M.

In addition, the Contractor shall not close or narrow a lane of traffic or shoulder on **ALL ROUTES EXCEPT INTERSTATE AND TOLL FACILITIES**, 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:

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 p.m.** December 31st and **9 a.m.** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **9 a.m.** the following Tuesday.

3. For **Easter**, between the hours of **4 p.m.** Thursday and **9 a.m.** Monday.

4. For **Memorial Day**, between the hours of **4 p.m.** Friday and **9 a.m.** Tuesday.

5. For **Independence Day**, between the hours of **4 p.m.** the day before Independence Day and **9 a.m.** the day after Independence Day.

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

6. For **Labor Day**, between the hours of **4 p.m.** Friday and **9 a.m.** Tuesday.

7. For **Thanksgiving Day**, between the hours of **4 p.m.** Tuesday and **9 a.m.** Monday.

8. For **Christmas**, between the hours of **4 p.m.** the Friday before the week of Christmas Day and **9 a.m.** the following Tuesday after the week of Christmas Day.

9. For events that are significant traffic generators from one (1) hour before the event to one (1) hour after the end of the event, as directed by the Engineer.

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 are not required during these periods, unless otherwise directed by the Engineer.

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 herein and place traffic in the existing pattern.

If NCDOT elects to provide work zone traffic control through the use of their own forces or with the use of Contract forces, the concrete work should not prevent the NCDOT and/or their Contractor from removing the lane closures. Liquidated damages will be assessed if the concrete operation prevents the NCDOT and/or their Contractor from clearing the lanes and placing traffic in the existing traffic pattern.

The liquidated damages are **Two Hundred Fifty Dollars ($ 250.00)** per fifteen minutes or portion thereof.

INTERMEDIATE CONTRACT TIME NUMBER (2) AND LIQUIDATED DAMAGES

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 INTERSTATE OR TOLL FACILTIES** during the following time restrictions or as directed by the Engineer:

INTERSTATE OR TOLL FACILITIES

MONDAY THRU SUNDAY 6:00 A.M. TO 9:00 P.M.

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

INTERSTATE OR TOLL FACILITIES

MONDAY THRU FRIDAY 6:00 A.M. TO 9:00 A.M.
MONDAY THRU FRIDAY 4:00 P.M. TO 7:00 P.M.

In addition, the Contractor shall not close or narrow a lane of traffic on **INTERSTATE AND TOLL FACILITIES** 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 **6:00 a.m.** December 31st and **9:00 p.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 **6:00 a.m.** Thursday and **9:00 p.m.** Monday.

4. For **Memorial Day**, between the hours of **6:00 a.m.** Friday and **9:00 p.m.** Tuesday.

5. For **Independence Day**, between the hours of **6:00 a.m.** the day before Independence Day and **9:00 p.m.** the day after Independence Day.

   If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **6:00 a.m.** the Thursday before Independence Day and **9:00 p.m.** the Tuesday after Independence Day.

6. For **Labor Day**, between the hours of **6:00 a.m.** Friday and **9:00 p.m.** Tuesday.

7. For **Thanksgiving Day**, between the hours of **6:00 a.m.** Tuesday and **9:00 p.m.** Monday.

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

9. For events that are significant traffic generators from one (1) hour before the event to one (1) hour after the end of the event, as directed by the Engineer.

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

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 above.

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.

If NCDOT elects to provide work zone traffic control through the use of their own forces or with the use of Contract forces, the concrete work should not prevent the NCDOT and/or their Contractor from removing the lane closures. Liquidated damages will be assessed if the concrete operation prevents the NCDOT and/or their Contractor from clearing the lanes and placing traffic in the existing traffic pattern.

The liquidated damages are **One Thousand Dollars ($1,000.00)** per **fifteen** minutes or portion thereof.

INTERMEDIATE CONTRACT TIME (3) AND LIQUIDATED DAMAGES

The Contractor, as directed by the Engineer, shall perform repairs at the specified location.

The time of availability for this intermediate contract time will be the **day** and **time** that the Contractor receives notification to perform the work.

At the time the Division makes a request for repair work, the Contractor will have a maximum of **14 days** to mobilize necessary resources and begin repair work at the site. If this requirement is not met, the Contractor will be subject to liquidated damages as specified in this contract proposal.

Liquidated damages for this contract are Two Hundred Fifty Dollars ($250.00) per calendar day for failure to begin concrete and/or asphalt repair work within fourteen (14) days from the time of notification.

INTERMEDIATE CONTRACT TIME NUMBER (4) AND LIQUIDATED DAMAGES

The Contractor, as directed by the Engineer, shall perform repairs on an **emergency** basis at the specified location.

The time of availability for this intermediate contract time will be the **day** and **time** that the Contractor receives notification to perform the work.

At the time the Division makes an **emergency** request for repair work, the Contractor will have a maximum of **24 hours** to mobilize necessary resources and begin repair work at the site. If this requirement is not met, the Contractor will be subject to liquidated damages as specified in this contract proposal.

Liquidated damages for this contract are Four Hundred Dollars ($400.00) per calendar day for failure to begin concrete and/or asphalt repair work within twenty four (24) hours from the time of emergency notification.

AUTHORITY OF THE ENGINEER

The Engineer for this project shall be the Division Engineer, Division 5, Division of Highways, North Carolina Department of Transportation, acting directly or through his duly authorized representatives.

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

TRAFFIC CONTROL AND WORK ZONE SAFETY

The Contractor shall maintain traffic during construction and provide, install, and maintain all traffic control devices in accordance with these project guidelines, the Project Traffic Control Plans, the Project Special Provisions, North Carolina Department of Transportation Standard Specifications for Roads and Structures 2012, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).

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

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

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

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

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

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

Payment will be made for the signing and traffic control item(s) that have been included in the contract. No direct payment will be made for providing other signing and traffic control item(s), as the cost of same will be considered incidental to the work being paid for under those various signing and traffic control item(s) that have been included unless stated otherwise.

SAFETY VESTS

All Contractors' personnel, all subcontractors and their personnel, and any material suppliers and their personnel must wear an OSHA approved reflective vest or outer garment at all times while on the project.

PROSECUTION AND PROGRESS

The Contractor shall pursue the work diligently with workmen in sufficient numbers, abilities, and supervision, and with equipment, materials, and methods of construction as may be required to complete the work described in the contract by the completion date and in accordance with Section 108 of the Standard Specifications

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

MATERIALS AND TESTING

The Engineer reserves the right to perform all sampling and testing in accordance with Section 106 of the Standard Specifications and the Department's "Materials and Test Manual." However, the Engineer may reduce the frequency of sampling and testing where he deems it appropriate for the project under construction.

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

Delivery tickets for all asphalt material shall be furnished in accordance with Section 106-7 of the Standard Specifications and shall include the following information:

1. NCDOT Work Order Number
2. Date
3. Time issued
4. Type of Material
5. Gross weight
6. Tare Weight
7. Net weight of material
8. Plant Location
9. Truck Number
10. Contractor's name
11. Public weighmaster's stamp or number
12. Public weighmaster's signature or initials in ink
13. Job mix formula number (if for asphalt plant mix)
14. Asphalt Plant Certification Number (if for asphalt plant mix)

SUPERVISION BY CONTRACTOR

At all times during the life of the project the Contractor shall provide one permanent employee who shall have the authority and capability for overall responsibility of the project and who shall be personally available at the work site within 24 hours notice. Such employee shall be fully

authorized to conduct all business with the subcontractors, to negotiate and execute all supplemental agreements, and to execute the orders or directions of the Engineer.

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

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

CONTRACT PAYMENT AND PERFORMANCE BOND

Due to the nature of this project, no performance or payments bonds will be required.

LIABILITY INSURANCE

The Contractor shall provide liability insurance conforming to the requirements of Article of 107-15 of the Standard Specifications.

WORKERS' COMPENSATION INSURANCE

Pursuant to N.C.G.S. § 97-19, all contractors of the Department of Transportation are required, prior to beginning services, to show 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 stating that it has complied with N.C.G.S. § 97-93 irrespective of whether subcontractors have regularly in service fewer than three employees in the same business within the State of North Carolina, and subcontractors shall be hereinafter liable under the Workers' Compensation Act for payment of compensation and other benefits to its employees for any injury or death due to an accident arising out of and in the course of performance of the work insured by the subcontractor.

SUBLETTING OF CONTRACT

The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of this contract or any portion thereof; or his right, title, or interest therein; without written consent of the Engineer. Subletting of this contract or any portion of the contract shall conform to the requirements of Article of 108-6 of the Standard Specifications

DEFAULT OF CONTRACT

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

BANKRUPTCY

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

DEBARMENT STATEMENT

The Contractor certifies and understands that by his/her signature on the Bid Form that he/she and the contracting firm he/she represents has not been banned, debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency.

PROMPT PAYMENT

Prompt Payment of Monies Due Subcontractors, Second Tier Subcontractors and Material Suppliers

Contractors at all levels, prime, subcontractor, or second tier contractor, shall within seven calendar days of receipt of monies, resulting from work performed on the project or services rendered, pay subcontractors, second tier subcontractors, or material suppliers, as appropriate. This seven-day period begins upon knowledgeable receipt by the contracting firm obligated to make a subsequent periodic payment or final payment. These prompt payment requirements will be met if each firm mails the payment to the next level firm by evidence of postmark within the seven-day period.

This provision for prompt payment shall be incorporated into each subcontract or second tier subcontract issued for work performed on the project or for services provided. Failure of any entity to make prompt payment as defined herein may result in (1) withholding of money due to that entity in the next partial payment until such assurances are made satisfactory to this provision; or (2) removal of an approved contractor from the pre-qualified bidders list or the removal of other entities from the approved subcontractors list.

PAYMENT AND RETAINAGE

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

Requests for payment shall be made by Contractor's Invoice. All invoice items and unit costs shall correspond to contract pay items. In the event of error or discrepancy in items or unit costs, the Department may return the invoice to the contractor for correction. The invoice shall be completely and legibly filled out with all appropriate information and shall be signed by an authorized representative of the Contractor.

All requests for payment shall be submitted to the Division Freeway Manager's Office.

Division Freeway Manager
N.C. Department of Transportation
1553 Mail Service Center (Mail)
Raleigh, NC 27699-1533
1636 Gold Star Drive (Delivery)
Raleigh, NC 27607

Due to the nature of the contract, no retainage will be withheld. However, the Department reserves the right to withhold payment for a specific location until after successful completion of the work as verified by the final inspection of that location.

DRIVEWAYS AND PRIVATE PROPERTY

The Contractor shall maintain access to driveways for all residents and property owners throughout the life of the project.

The Contractor shall not perform work for private citizens or agencies in conjunction with this project or within the project limits of this contract. Any driveway paved by a Contractor which ties into a NCDOT system road being paved by the Contractor must be paved either prior to the road paving project or after its completion.

POSTED WEIGHT LIMITS

The Contractor's attention is directed to the fact that many Primary and Secondary Roads and bridges are posted with weight limits less the legal limit. Do not exceed the posted weight limits in transporting material and/or equipment to the projects, unless otherwise indicated below. Make a thorough examination of all projects and haul routes and adjust accordingly. At the Engineer's discretion haul routes may be changed if excessive damage occurs to the routes while operations are in place.

GIFTS FROM VENDORS AND CONTRACTORS:

(12-15-09) 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:

(1) have a contract with a governmental agency; or
(2) have performed under such a contract within the past year; or
(3) 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 *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.

EMPLOYMENT

(11-15-11) (Rev. 1-17-12) 108, 102 RG184

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”.

MATERIALS

(2-21-12) (Rev. 3-19-13) 1000, 1005, 1078, 1080, 1081, 1087, 1092 SP10 R01

Revise the *2012 Standard Specifications* as follows:

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

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

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 Aggre-gate	Rounded Aggregate	Angular Aggre-gate			Min.	Max.	Min.	Max.
Units	*psi*					*inch*	*inch*	*lb/cy*	*lb/cy*	*lb/cy*	*lb/cy*
AA	4,500	0.381	0.426	-	-	3.5	-	639	715	-	-
AA Slip Form	4,500	0.381	0.426	-	-	1.5	-	639	715	-	-
Drilled Pier	4,500	-	-	0.450	0.450	-	5-7 dry 7-9 wet	-	-	640	800
A	3,000	0.488	0.532	0.550	0.594	3.5	4	564	-	602	-
B	2,500	0.488	0.567	0.559	0.630	2.5	4	508	-	545	-
B Slip Formed	2,500	0.488	0.567	-	-	1.5	-	508	-	-	-
Sand Light-weight	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 10-23, Table 1005-1, AGGREGATE GRADATION-COARSE AGGREGATE, replace with the following:

TABLE 1005-1
AGGREGATE GRADATION - COARSE AGGREGATE

Std. Size #	Percentage of Total by Weight Passing										Remarks
	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#40	#200	
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-weight[C]	-	-	-	-	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 10-126, 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 10-162, Subarticle 1081-1(A) Classifications, lines 4-7, delete the second and third sentences of the description for Type 3A.

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

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, Subarticle 1092-2(A) Performance and Test Requirements, replace **Table 1092-3 Minimum Coefficient of Retroreflection for NC Grade A** with the following:

TABLE 1092-3
MINIMUM COEFFICIENT OF RETROREFLECTION FOR NC GRADE A
(Candelas Per Lux Per Square Meter)

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

SPECIAL PROVISIONS

NOTIFICATION OF WORK

The NCDOT will notify the Contractor of each location on the state highway system where concrete and/or asphalt repair or replacement work is to be performed. The Contractor will be notified of work needed at the various locations by the Engineer or his representative by telephone, fax or e-mail.

The contractor shall only perform concrete and/or asphalt repair work as directed by the Engineer.

INSPECTION

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

TOLL FACILITY REIMBURSEMENT

The Contractor, as directed by the Engineer, may have to perform concrete and/or joint repair work on toll facilities. **The Contractor will be responsible for paying the applicable tolls. The Department will not reimburse the Contractor for tolls paid during performance of the repair work and the cost shall be considered incidental to the contract bid items.**

TOLL TRAFFIC COORDINATION

The Contractor shall notify the NCTA and the Traffic Management Center (TMC) at least 24 hours in advance of any traffic control installation. The TMC can be notified by phone at 919-825-2700, or by email at ncta_tmc@ncdot.gov. The Contractor shall also contact the TMC with any updates or changes to traffic control during activities, including completion of work.

NO MAJOR CONTRACT ITEMS

(2-19-02) (Rev. 8-21-07) 104 SP1 G31

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

NO SPECIALTY ITEMS

(7-1-95) 108-6 SP1 G34

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

INCIDENTAL ITEMS

All items necessary to complete the work other than those listed on the "Bid Form" will be considered incidental in nature and no further compensation will be made. Any work performed in an unsatisfactory manner could be basis for cancellation of the contract.

Any damage caused by the Contractor to adjacent structures, shoulders, medians, paved areas, or other facilities shall be repaired or replaced by the Contractor to the satisfaction of the Engineer at no cost to the Department.

All work performed by the Contractor shall be in compliance with the Standard Specifications and workmanship and appearance shall be accomplished to the satisfaction of the Engineer.

MOBILIZATION

Locations of concrete repair and/or asphalt repair work shall be designated by the Engineer. The Contractor shall be notified of needed repairs by the Engineer and shall begin work within 14 calendar days after notification or as determined by the Engineer. Failure to respond within the time frame will result in non-payment of this item and the Contractor will be subject to liquidated damages as specified in this contract proposal. Pavement Repairs on sections of roadway at various locations will be designated. Payment for mobilization will only be made when the Contractor mobilizes or remobilizes (Hauling Equipment) to another separate location as approved by the Engineer. Payment will be made for each occurrence of mobilization as follows:

Payment will be made under:

Pay Item	**Pay Unit**
Mobilization	Each

24 HOUR EMERGENCY MOBILIZATION

The Contractor, as directed by the Engineer, may have to perform concrete repair and/or joint work on an emergency basis. This work may be required to be performed on weekends and holidays, as directed by the Engineer. This line item is to compensate the Contractor for the quick response and completion within twenty four (24 hours) of the emergency concrete and/or asphalt repair work. Any work associated with the emergency concrete and/or asphalt repair will be paid for by items that have been included in the contract. Failure to respond within the time frame will result in non-payment of this item and the Contractor will be subject to liquidated damages as specified in this contract proposal.

Payment will be made under:

Pay Item	**Pay Unit**
24 Hour Emergency Mobilization	Each

SEALING EXISTING PAVEMENT CRACKS (POLYMER PATCH)

Description

The Contractor shall prepare and clean the cracks in failing concrete and shall place Polypatch, Fibrescreed, Fibrecrete or like material, in areas designated by the Engineer. **Proper placement shall be performed as described by the manufacturer and material shall be approved by the Engineer prior to placement. For any material to be placed, the Contractor shall provide five (5) copies of the manufacturer's installation instructions to the Engineer. A pre-installation meeting with field personnel may be required by the Engineer prior to the initial installation of each material.**

All materials received shall be delivered unopened in their original containers bearing the manufacturer's label, specifying date of manufacture, batch number, trade name brand, and quantity.

Sufficient material to perform the entire crack or spall repair application shall be in storage at the site or at the Contractors facility prior to any field preparation, so that there will be no delay in procuring the material for each day's application.

Stored materials may be inspected prior to their use and shall meet the requirements of these Special Provisions at the time of use.

Any material which is rejected because of failure to meet the required tests or material that has been damaged so as to cause rejections, shall be immediately replaced by the Contractor at no additional cost to the Department.

Each shipment of Polypatch, Fibrescreed, Fibrecrete or like material that meets the Specifications shall be accompanied by Material Safety Data Sheets (MSDS) and a Certificate of Compliance certifying that the materials conform to the requirements of these Special Provisions.

Materials Requirements

All materials shall meet the specifications as approved by the Engineer prior to use.

Material Data:

Specific Gravity	1.8
Application Temperature (degrees)	350ºF to 392ºF
Application Thickness	400 mils plus
Curing Time	10 – 40 minutes
Shelf Life	unlimited
Flash Point	446ºF

Construction Methods

The Contractor shall prepare areas by removing any loose debris by using a pavement breaker, by using a mechanical planer, and other methods as directed by the Engineer. When using a planer, the surface shall be milled out to a width and depth required to reach sound concrete and as directed by

the Engineer. The milling should be done such that square edges are created. The recess shall then be cleaned and dried using **hot compressed moisture and oil free air** to thoroughly prepare the surface, removing all debris and loose material. Use a concentrated hot air jet that is a minimum of 3000ºF in temperature and that has a minimum air jet force of 3000 feet per second of blasting. Polypatch, Fibrescreed, Fibrecrete or like material shall be immediately poured or screeded to fill the recess. While the compound is still in a workable state, a preheated high P.S.V. aggregate shall be applied and then compacted to ensure that the finished repair is flush with the surrounding surface.

When repairing pot holes deeper than 2", that are not adjacent to or spanning the edge of pavement joints or cracks, the Contractor shall include 1/2 - 1" sized washed aggregate at the rate of no more than 50% of volume as directed by the Engineer. Then complete repair as previously stated.

Measurement and Payment

Sealing Existing Pavement Cracks and Spalls, Polymer Patch will be measured and paid for as the actual number of pounds of material that has satisfactorily been used to seal pavement cracks in the designated highway.

Any material that has been spilled, used in excessive overbanding, wasted, misapplied, or unsatisfactorily used in any way will be deducted in determining quantities for payment. The Engineer will determine the quantity, if any, to be deducted. The Engineer's decision on the quantity to be deducted will be final and binding. The above price and payment will be full compensation for all work required to seal the pavement cracks including but not limited to furnishing, hauling, loading and unloading, and storage of all sealant materials; cleaning and preparation of cracks to be sealed; application of sealant material in the prepared cracks; any clean-up; and any incidentals necessary to satisfactorily complete the work.

Payment will be made under:

Pay Item	**Pay Unit**
Sealing Existing Pavement Cracks and Spalls, Polymer Patch	Pound

PATCHING CONCRETE PAVEMENT SPALLS

Description:

The work covered by this provision consists of the partial and full depth patching of spalls in existing Portland cement concrete pavement by sawing and removing the broken, damaged or disintegrated concrete pavement from the spalled areas of the pavement surface and patching the areas with approved patching materials at locations as directed by the Engineer in accordance with this provision.

Alternate methods and materials for patching concrete spalls may be submitted by the Contractor for approval by the Engineer.

Materials:

The pavement shall not be opened to traffic until concrete is appropriately cured, per manufacturer's recommendations.

The Contractor may at his option use any approved material from the following list or an approved equal as per the Engineer:

Product ID	Plant ID	Manufacturer / Distributor	Approval Responsibility	Group	Category	Brand	Status
NP10-5148	OT1205	Polyset Company	Elastomeric Concrete	Elastomeric Concrete	Ply-Krete 2615	PCX-40-16B	Approved
NP11-5705	OT1203	Chase Construction Products	Elastomeric Concrete	Elastomeric Concrete	Ecrete 57N		Approved
NP12-6011		Polyset Co., Inc.	Elastomeric Concrete	Elastomeric Concrete	Ply-Krete 2620 Grey Elastomeric Concrete	Ply-Krete 2620	Approved
NP12-6162		Marketing Associates, Inc	Elastomeric Concrete	Elastomeric Concrete	Texacrete-R	N/A	Approved

The material shall be mixed and installed, handled and stored, and cured in accordance with the manufacturer's instructions.

Methods of Construction:

When the Contractor is working under a lane closure, concrete patching operations shall be conducted in one lane at a time or as directed by the Engineer. The work shall be accomplished with other operations in progress within the same area.

The surface within the repair areas shall be cleaned so as to be free of oil, dust, dirt, deteriorated concrete and other contaminates immediately before placement of the epoxy and patching material.

Epoxy shall be applied to the vertical and flat surface of the cleaned spall areas prior to placing concrete.

Measurement and Payment:

The quantity of patching concrete pavement spalls to be paid for will be the actual number of square feet of existing concrete which has been patched and accepted. The actual length and width of each completed patch will be measured along the surface of the patch.

The quantity of patching concrete pavement spalls, measured as provided above, will be paid for at the contract unit price per square foot "Patching Concrete Pavement Spalls". The above prices and payments will be full compensation for all work covered by this provision for furnishing all labor, materials, tools, equipment and incidentals for doing all work involved in sawing concrete pavement, removing deteriorated concrete, cleaning surfaces, epoxying, furnishing, placing, finishing, and curing concrete patch.

Payment will be made under:

Pay Item	**Pay Unit**
Patching Concrete Pavement Spalls	Square Foot

REMOVAL OF EXISTING CONCRETE PAVEMENT SLABS

Description:

The work covered by these provisions consists of removing existing concrete pavement slabs or partial slabs in accordance with the detail in the plans at locations as directed by the Engineer. The slab removal shall be performed in a manner to minimize damage to the adjacent slabs and underlying base material.

Materials:

Select Material, Class IV……..Section 1016
Geotextile for Soil Stabilization, Type 4……Section 1056

Construction:

The extent of slab removal shall be as directed by the Engineer, but in no case shall the minimum length of partial slabs, measured parallel to the centerline be less than 10 feet. Also with a partial slab removal, a minimum length of 10 feet of the existing slab shall be retained; otherwise, the entire slab shall be removed.

The slab or partial slab to be removed shall be sawed full depth on its sides adjacent to existing slabs, including existing transverse and longitudinal joints where applicable. When necessary to prevent shoulder damage, an additional cut shall be made in the adjacent shoulder joint. The defective slab shall be removed in a minimum of three (3) sections, with the middle section removed first in a manner to minimize damage of the adjacent slabs.

All existing unitube material, existing joint material, and debris shall be removed from the existing transverse and longitudinal joints, which are exposed by the slab removal before the slab is replaced. The existing plant mix material or existing ABC under the slab shall be removed as part of the slab removal. All loose underlying base material, earth material and/or subseal grout shall be undercut to sound well compacted base. This material will be considered undercut excavation.

The Contractor shall place Soil Stabilization Fabric and Select Material, Class IV in undercut areas. Where the required thickness of Select Material, Class IV is 12” or less, the material may be spread and compacted in one layer. Where the required compacted thickness is more than 12”, spread the material in 2 or more approximately equal layers. Compact select material to 92% of AASHTO T180 as modified by the Department or to the highest density that can be reasonably obtained.

The Contractor shall place B25.0B or ABC (to match existing conditions) and high early strength concrete pavement or asphalt base course in areas where the slab was removed, as directed by the Engineer. If using concrete pavement, join the proposed concrete pavement to the existing concrete pavement in accordance with Standard Drawing No. 700.05.

The Contractor may develop and submit an alternate method of slab removal for approval by the Engineer, which satisfactorily avoids damage to the adjacent slabs and underlying base material.

Method of Measurement:

The quantity of pavement removal, full slab or partial slab, will be the actual number of square yards removed and disposed of. The quantity will be determined by actual surface measurement of pavement prior to its removal.

Basis of Payment

The quantity of pavement removal (including concrete slab and plant mix or ABC) measured as provided above will be paid for at the contract unit price per square yard for "Removal of Existing Concrete Pavement Slabs."

Select Material, Class IV will be measured and paid for at the contract unit price per ton and will be the actual number of tons of select material that has been incorporated into the completed and accepted work. The material will be measured by being weighed in trucks on certified platform scales or other certified weighing devices.

Geotextile for Soil Stabilization will be measured and paid for in accordance with Section 270 of the Standard Specifications.

Undercut excavation will be measured and paid for in accordance with Section 225 of the Standard Specifications.

The Portland Cement Concrete Pavement Through Lanes (With Dowels) will be measured and paid for in accordance with Section 710 of the Standard Specifications.

The Asphalt Concrete Base Course, Type B25.0B will be paid as the actual number of tons of asphalt plant mix, complete in place. The asphalt plant mixed material will be measured by being weighed in trucks on certified platform scales or other certified weighing devices.

The Aggregate Base Course will be measured and paid for in accordance with Section 520 of the Standard Specifications.

This price and payment will be full compensation for all work covered by this provision for furnishing all labor, materials, tools, equipment, sawing, removal and satisfactory disposal of the concrete, any underlying base material and/or subseal grout as directed.

Payment will be made under:

Pay Item	**Pay Unit**
Removal of Existing Concrete Pavement Slabs	Square Yard
Undercut Excavation	Cubic Yard
Geotextile for Soil Stabilization	Square Yard
Select Material, Class IV	Ton
Portland Cement Concrete Pavement Through Lanes (with Dowels)	Square Yard
Asphalt Base Course, Type B25.0B	Ton
Aggregate Base Course	Ton

TYING PROPOSED CONCRETE PAVEMENT TO EXISTING CONCRETE PAVEMENT

Tie proposed concrete pavement on this project to existing concrete pavement using existing dowels. If the existing dowels are damaged, replace them in accordance with the following provision:

A) Drill holes in the existing concrete pavement 1/8" greater than the diameter of the dowel bar. After drilling, blow the hole out with air and allow to dry.
B) Next, place the cement grout or epoxy resin in the back of the dowel hole. The placement of grout can be achieved by using a flexible tube with a long nose that places the material in the back of the dowel hole; the placement of epoxy-type materials can be achieved by using a cartridge with a long nozzle that dispenses the material to the rear of the dowel hole.
C) Insert the dowel into the hole with a slight twisting motion so that the material in the back of the hole is forced up and around the dowel bar to ensure a uniform coating of the anchoring material over the dowel bar.
D) Place a thin nylon or plastic grout retention disk of at least 1/16" thickness manufactured to slip tightly over the dowel and against the slab face to prevent the anchoring material from flowing out of the hole, and to create an effective face at the entrance of the dowel hole.

No direct payment will be made for this work as such work will be included in the contract unit price for the concrete pavement being constructed.

SEALING EXISTING PAVEMENT CRACKS

The work covered by this provision consists of sealing existing longitudinal and transverse pavement cracks with Sealant Type 2, PS/AR (hot-poured rubber asphalt) at locations as directed by the Engineer. All existing pavement cracks will be cleaned using a hot compressed air lance and sealed with hot-poured rubber asphalt per Section 657 of the Standard Specifications dated January, 2012.

The Sealant Type 2, PS/AR (hot-poured rubber asphalt) shall meet the requirements of Article 1028-2 of the Standard Specifications.

For cracks and joints open ¾" or larger the Contractor should install a backer rod prior to sealing with hot-poured rubber asphalt. The backer rod should be installed as soon as possible after airblasting, should be compatible with the sealant material in use and approved by the sealant manufacturer and should be about 25 percent larger in diameter than the joint width. The backer rod should be installed to the proper depth, with no gaps and stretched as little as possible to reduce the likelihood of shrinkage.

Sealing Existing Pavement Cracks and Joints (Without Router or Diamond Saw) and *Sealing Existing Pavement Cracks and Joints (With Router or Diamond Saw)* will be paid for at the contract unit price per pound. The amount of sealant material to be paid for will be the actual number of pounds of material that have been satisfactorily used to seal pavement cracks in the designated highway. Any material that has been spilled, used in excessive overbanding, wasted, misapplied, or unsatisfactorily used in any way will be deducted in determining quantities for payment. The Engineer will determine the quantity, if any, to be deducted. The Engineer's decision on the quantity to be deducted will be final and binding. The above price will be full compensation for all

work required to seal the pavement cracks including but not limited to furnishing, hauling, loading and unloading, and storage of all sealant materials; cleaning and preparation of cracks to be sealed; application of sealant material in the prepared cracks; any clean up; and any incidentals necessary to satisfactorily complete the work.

Backer Rod will be paid for at the contract unit price per linear foot. The amount of backer rod to be paid for will be the actual number of linear feet of backer rod that have been satisfactorily placed prior to sealing pavement cracks in the designated highway. The above price will be full compensation for all work required to install the backer rod including but not limited to furnishing, hauling, loading and unloading, and storage of materials; cleaning and preparation of cracks prior to installing backer rod; installation of backer rod material in the prepared cracks; any clean up; and any incidentals necessary to satisfactorily complete the work.

Pay Item	**Pay Unit**
Sealing Existing Pavement Cracks and Joints (Without Router or Diamond Saw)	Pound
Sealing Existing Pavement Cracks and Joints (With Router or Diamond Saw)	Pound
Backer Rod	Linear Foot

HDPF SLAB LEVELING

The Contractor shall prepare concrete to be leveled by profiling existing pavement and determining where the pavement needs to be raised. A series of 5/8" holes shall be drilled into the pavement 6-8 foot O.C. (exact location and spacing to be determined in the field). The expanding HDPF material shall then be injected under the slab. The amount of rise shall be controlled by regulating the rate of HDPF injected. Injection holes shall be sealed with non-expansive cementitious grout once leveling is complete.

Measurement

The polyurethane material shall be paid for by the pound, which will include furnishing and injecting material.

Triple Verification of Actual Pounds pumped will be accomplished as follows:

1. **A conversion from pump counter to pounds will be provided with a manufacturer's certification of the accurate conversion factor.**
2. **Load cells with printers to verify weights before and after pumping with time date stamp, start weight, and end weight.**
3. **A visual measurement conversion on the actual totes/barrels of pounds per inches pumped.**

Basis of Payment

The quantity of material to be paid for shall be the quantity actual used, based on the contract unit price shown on the bid form. Only those items shown on the bid sheet shall be paid for directly. All other labor, tool, equipment, and incidentals necessary for the completion of the project shall be considered incidental to the contract bid items. Payment shall be made as follows:

Payment will be made under:

Pay Item	**Pay Unit**
HDPF Slab Leveling	Pound

HDPF (HIGH DENSITY POLYURETHANE FOAM) PROCESSES

Material

The medium used for slab leveling shall be a blown high-density polyurethane. The material shall be hydrophobic.

The high-density, closed cell, polyurethane system shall exhibit the following physical characteristics and properties:

DENSITY, Lbs/Ft	COMPRESSIVE STRENGTH
ASTM 1622	ASTM 1621
3.0	40 psi
3.5	50 psi
4.0	60 psi
6.0	1100 psi

The polyurethane foam system will have a free rise density of 3.0 – 4.2 lbs/ft, with a minimum compressive strength of 40 psi. The expansion of the polyurethane foam under pressure increases the foam density above the original free rise density value. The compressive strength is a function of density of the tested material; therefore the foam produced during the lifting process will normally have a higher compressive strength than foam produced without restriction (free rise).

Equipment

A listing of lifting and under sealing equipment shall be submitted to the Engineering Department for review. The minimum list of equipment required shall be as listed below. The listing is a minimum and shall not preclude the use of additional equipment.

A. A pneumatic drill and an electric drill capable of drilling 5/8" - 3/4" dia. holes.
B. A dynamic penetrometer.
C. A truck-mounted pumping unit capable of injecting the high-density polyurethane formulation below the concrete slab or asphalt pavement into the sub-surface soils. This pumping unit will be capable of controlling the rate of rise of the pavement and densifying the sub-surface soils.
D. A laser leveling unit to ensure that the concrete slab or asphalt pavement is raised to the required elevation.

Construction Methods

Final elevations shall be within 1/4" of the elevations proposed by profile, to the extent permitted by the structure, existing construction and site conditions. A tight string line may be used to monitor and verify elevations for slab lengths of 50 foot or less. For longer sections, a laser level will be used to monitor and verify elevations. Elevations can also be verified by flooding the area to confirm that the paving has been realigned properly.

The Contractor shall be responsible for any pavement blowouts or excessive pavement lifting which may result from process and shall repair the damaged area to the satisfaction of the Engineer without additional cost.

The HDPF shall reach 90% of the full compressive strength in 15 minutes after injection.

TRAFFIC CONTROL

The Contractor shall maintain traffic, provide traffic control and conduct all phases of his work in accordance with Section 1101 of the Standard Specifications, the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), the North Carolina Supplement to the MUTCD and per direction of the Engineer.

All traffic control items required to be installed for **four (4) hours or less** will be paid for at an **hourly rate**. Any traffic control installation required to remain in place **greater than four (4) hours** will be paid for at a **daily rate**. Time measurement will begin at the time agreed upon to start the lane closure installation or the actual time installation begins, whichever is later. Payment will continue from that point until closure has been removed and facility is clear of all devices and **may include shifts, as directed by the Engineer**. The Contractor shall begin removal of the traffic control items upon notification of the Engineer. Any delays in removal by the Contractor shall not constitute an obligation for additional payment by the Department.

Payment for "Work Zone Traffic Control" items shall include all cones, drums, signing and incidentals included to install and remove the lane closure. Pay limits are from the **beginning of the lane closure taper** to the **end of the lane closure taper**.

Items **not** included in "Work Zone Traffic Control" pay item are Flashing Arrow Panels, Changeable Message Signs, Truck Mounted Attenuators, Tower Lights or Flaggers. These items will be paid for separately as needed. They may be used in combination with "Work Zone Traffic Control" or items may be used alone depending on the needs of the Department.

Payment will be made under:

Pay Item	**Pay Unit**
Work Zone Traffic Control, ½ mile or less	Day
Work Zone Traffic Control, ½ mile or less	Hour
Work Zone Traffic Control, Greater than ½ mile	Day
Work Zone Traffic Control, Greater than ½ mile	Hour
Flashing Arrow Panel, Type C	Day
Flashing Arrow Panel, Type C	Hour
Changeable Message Sign	Day
Changeable Message Sign	Hour
Truck Mounted Attenuator	Day
Truck Mounted Attenuator	Hour
Flagger	Day
Flagger	Hour
Tower Light	Day

LAW ENFORCEMENT

2-19-09 SPI

Description

Furnish Law Enforcement Officers and marked Law Enforcement vehicles to direct traffic in accordance with the contract.

Construction Methods

Use uniformed Law Enforcement Officers and marked Law Enforcement vehicles equipped with blue lights mounted on top of the vehicle, and Law Enforcement vehicle emblems to direct or control traffic as required by the plans or by the Engineer.

Measurement and Payment

Law Enforcement will be measured and paid for in the actual number of hours that each Law Enforcement Officer is provided during the life of the project as approved by the Engineer. There will be no direct payment for marked Law Enforcement vehicles as they are considered incidental to the pay item.

Payment will be made under:

Pay Item	Pay Unit
Law Enforcement	Hour

ERRATA

(1-17-12) (Rev. 9-18-12) 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 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 10

Page 10-74, Table 1056-1 Geotextile Requirements, replace "50%" for the UV Stability (Retained Strength) of Type 5 geotextiles with "70%".

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

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".

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.

NON COLLUSION AFFIDAVIT

(To Be Executed and Returned with Quotation)

The person executing this bid solemnly swears (or affirms) that neither he, nor any official, agent, or employee of the bidder has entered into any agreement, restraint of free competitive bidding in connection with this bid.

NAME OF CONTRACTOR_____

SIGNATURE OF CONTRACTOR_____

NOTE – AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to me this the _____ NOTARY SEAL
Day of _____ 20 ____ .

_____
(SIGNATURE OF NOTARY PUBLIC)

Of County.

State of _____ .

My Commission Expires: _____ .

North Carolina Department of Transportation
PURCHASE ORDER CONTRACT BID FORM

Work Order: Various
Description: Division Five Annual Needs for Concrete and Asphalt Repairs on Roadways
County: Durham, Franklin, Granville, Person, Vance, Wake, Warren

ITEM	SECT	DESCRIPTION	QTY	UNIT	UNIT PRICE ($)	AMOUNT BID ($)
1	SP	MOBILIZATION	20	EA		
2	SP	24 HOUR EMERGENCY MOBILIZATION	5	EA		
3	SP	SEALING EXISTING PAVEMENT CRACKS AND SPALLS, POLYMER PATCH	50,000	LB		
4	SP	PATCHING CONCRETE PAVEMENT SPALLS	300	SF		
5	SP	REMOVAL OF EXISTING CONCRETE PAVEMENT SLABS	100	SY		
6	SP	UNDERCUT EXCAVATION	33	CY		
7	SP	GEOTEXTILE FOR SOIL STABILIZATION	100	SY		
8	SP	SELECT MATERIAL, CLASS IV	66	TON		
9	SP	PORTLAND CEMENT CONCRETE PAVEMENT THROUGH LANES (WITH DOWELS)	25	SY		
10	SP	ASPHALT BASE COURSE, TYPE B25.0B	56	TON		
11	SP	AGGREGATE BASE COURSE	5	TON		
12	SP	SEALING EXISTING PAVEMENT CRACKS AND JOINTS (WITHOUT ROUTER OR DIAMOND SAW)	4,000	LB		
13	SP	SEALING EXISTING PAVEMENT CRACKS AND JOINTS (WITH ROUTER OR DIAMOND SAW)	6,000	LB		
14	SP	BACKER ROD	15,000	LF		
15	SP	HDPF SLAB LEVELING	10,000	LB		
16	SP	WORK ZONE TRAFFIC CONTROL, 1/2 MILE OR LESS	10	DAY		
17	SP	WORK ZONE TRAFFIC CONTROL, 1/2 MILE OR LESS	10	HR		
18	SP	WORK ZONE TRAFFIC CONTROL, GREATER THAN 1/2 MILE	15	DAY		
19	SP	WORK ZONE TRAFFIC CONTROL, GREATER THAN 1/2 MILE	10	HR		
20	SP	FLASHING ARROW PANEL, TYPE C	15	DAY		
21	SP	FLASHING ARROW PANEL, TYPE C	15	HR		
22	SP	CHANGEABLE MESSAGE SIGN	15	DAY		
23	SP	CHANGEABLE MESSAGE SIGN	15	HR		
24	SP	TRUCK MOUNTED ATTENUATOR	15	DAY		
25	SP	TRUCK MOUNTED ATTENUATOR	15	HR		
26	SP	FLAGGER	5	DAY		
27	SP	FLAGGER	10	HR		
28	SP	TOWER LIGHT	15	DAY		
29	SP	LAW ENFORCEMENT	32	HR		

TOTAL BID FOR PROJECT: _____

CONTRACTOR _____

ADDRESS _____

FEDERAL I.D. NO. _____ CONTRACTOR LICENSE NO. _____

AUTHORIZED AGENT _____ TITLE _____

SIGNATURE _____ DATE _____

WITNESS _____ TITLE _____

SIGNATURE _____ DATE _____

CORPORATE SEAL