

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 7

## PROPOSAL

**DATE AND TIME OF BID OPENING: NOVEMBER 18, 2021, AT 2:00 P.M.**

**CONTRACT ID: DG00546**

**WBS ELEMENT NO.: 17BP.7. R.126**

**COUNTY: ROCKINGHAM**

**MILES: 0.161**

**LOCATION.: BRIDGE # 106 ON SR 1902 (DIBRELL ROAD) OVER  
WOLF ISLAND CREEK**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE**

**NOTICE:**

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

**THIS IS A STRUCTURE PROJECT.**

**BID BONDS ARE REQUIRED.**

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**NAME OF BIDDER**

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**ADDRESS OF BIDDER**

**PROPOSAL FOR THE CONSTRUCTION OF  
CONTRACT No. DG00546 IN ROCKINGHAM 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. **DG00546**; has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Department of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with *the 2018 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. **DG00546** in **Rockingham 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 2018* with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

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

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

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

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.

**VOLUNTARY PRE-BID CONFERENCE:**

In order for all prospective bidders to have an extensive knowledge of the Division 7 bridge projects, it is encouraged and recommended, that all prospective bidders attend a **voluntary** pre-bid conference on **27 October 2021 at 10:00 AM**.

Division 7 Office  
Large Conference Room  
1584 Yanceyville Street  
Greensboro, NC 27405

For any questions pertaining to this pre-bid conference or Microsoft Teams invitation, please contact Patty Eason, PE, at 336-487-0000.

The pre-bid conference will include a discussion of the plans, contract pay items, special provisions, etc. Discussions will also include contract times and associated ICTs to address recent supplier delays, the Division's response to those delays and the intent to reduce impacts to residents and traffic at the bridge locations.

Attendance at this voluntary pre-bid conference is NOT mandatory and will not preclude potential bidders from submitting a bid and be considered for award. The contractors attending this pre-bid conference are limited to one (1) participant at the in-person meeting.

All guidelines contained in Governor Cooper's latest COVID-19 Executive Order must be followed. The contractor may have additional individuals attend the meeting via Microsoft Teams [Click here to join the meeting](#) or the conference call number of **919-733-2511**.

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**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 may cause the bid to be considered irregular and may be grounds for rejection of the bid.**

For preparing and submitting the bid electronically, refer to Article 102-8(B) of the *2018 Standard Specifications*.

Bidders that bid electronically on Raleigh Central-Let projects will need a separate Digital Signature from the approved electronic bidding provider for Division Contracts.

**ELECTRONIC ON-LINE BID:**

1. Download entire proposal from Connect NCDOT website. Download the electronic submittal file from the approved electronic bidding provider website.
2. Prepare and submit the electronic submittal file using the approved electronic bidding provider software.
3. Electronic bidding software necessary for electronic bid preparation may be downloaded from the Connect NCDOT website at: <https://connect.ncdot.gov/letting/Pages/Electronic-Bidding.aspx> or from the approved electronic bidding provider website.
4. **Questions shall be emailed to Jennifer Sour at [jsour@ncdot.gov](mailto:jsour@ncdot.gov) prior to the bid opening. Contact with any other NCDOT personnel concerning this project is strictly prohibited and will result in bids being considered non-responsive.**

**PROJECT SPECIAL PROVISIONS- GENERAL****DIVISION LET CONTRACT PREQUALIFICATION:**

(07-01-14)(12-1-16)

SPD 01-410

Any firm that wishes to bid as a prime contractor shall be prequalified as a Bidder or PO Prime Contractor prior to submitting a bid. Information regarding prequalification can be found at: <https://connect.ncdot.gov/business/Prequal/Pages/default.aspx>.

Prior to performing the work, the prime contractor and/or subcontractor(s) shall be prequalified in the work code(s) which are identified as work items in the prime contractor's construction progress schedule that they will complete themselves. Any contractor identified as working outside their expertise may be considered in default of contract.

**BOND REQUIREMENTS:**

(06-01-16)

102-8, 102-10

SPD 01-420A

A Bid Bond is required in accordance with Article 102-10 of the *2018 Standard Specifications for Roads and Structures*.

Contract Payment and Performance Bonds are required in accordance with Article 103-7 of the *2018 Standard Specifications for Roads and Structures*.

**CONTRACT TIME AND LIQUIDATED DAMAGES:**

(12-20-16)

108

SP1 G07 B

The date of availability for this contract is the date the Contractor begins work but not before **December 1, 2022** or later than **March 1, 2022**, except that work in jurisdictional waters and wetlands shall not begin until a meeting between NCDOT, Regulatory Agencies, and the Contractor is held as stipulated in the permits contained elsewhere in this proposal. This delay in availability has been considered in determining the contract time for this project.

The completion date for this contract is the date that is **One Hundred and Eighty (180)** consecutive calendar days after completion of Intermediate Contract Time 1.

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 **Two Hundred Dollars (\$ 200.00)** per calendar day. These liquidated damages will not be cumulative with any liquidated damages which may become chargeable under Intermediate Contract Time Number 1. At the preconstruction conference he shall notify the Engineer in writing at least (30) days prior to the revised date.

**INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES:**

(7-1-95) (Rev. 2-21-12)

108

SP1 G13 A

Except for that work required under the Project Special Provisions entitled *Planting, Reforestation* and/or *Permanent Vegetation Establishment*, included elsewhere in this proposal, the Contractor will be required to complete all work included in this contract and shall place and maintain traffic on same.

The date of availability for this intermediate contract time is the date of availability of the contract.

The completion date for this intermediate contract time is the date which is **Two Hundred and Seventy (270)** consecutive calendar days from the start of work.

The liquidated damages for this intermediate contract time are **One Thousand One Hundred Dollars (\$1100.00)** per calendar day.

Upon apparent completion of all the work required to be completed by this intermediate date, a final inspection will be held in accordance with Article 105-17 and upon acceptance, the Department will assume responsibility for the maintenance of all work except *Planting, Reforestation* and/or *Permanent Vegetation Establishment*. The Contractor will be responsible for and shall make corrections of all damages to the completed roadway caused by his planting operations, whether occurring prior to or after placing traffic through the project.

**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 **\$ (1100.00)** 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.

**PERMANENT VEGETATION ESTABLISHMENT:**

(2-16-12) (Rev. 10-15-13)

104

SP1 G16

Establish a permanent stand of the vegetation mixture shown in the contract. During the period between initial vegetation planting and final project acceptance, perform all work necessary to establish permanent vegetation on all erodible areas within the project limits, as well as, in borrow and waste pits. This work shall include erosion control device maintenance and installation, repair seeding and mulching, supplemental seeding and mulching, mowing, and fertilizer topdressing, as directed. All work shall be performed in accordance with the applicable section of the *2018 Standard Specifications*. All work required for initial vegetation

planting shall be performed as a part of the work necessary for the completion and acceptance of the Intermediate Contract Time (ICT). Between the time of ICT and Final Project acceptance, or otherwise referred to as the vegetation establishment period, the Department will be responsible for preparing the required National Pollutant Discharge Elimination System (NPDES) inspection records.

Once the Engineer has determined that the permanent vegetation establishment requirement has been achieved at an 80% vegetation density (the amount of established vegetation per given area to stabilize the soil) and no erodible areas exist within the project limits, the Contractor will be notified to remove the remaining erosion control devices that are no longer needed. The Contractor will be responsible for, and shall correct any areas disturbed by operations performed in permanent vegetation establishment and the removal of temporary erosion control measures, whether occurring prior to or after placing traffic on the project.

Payment for *Response for Erosion Control, Seeding and Mulching, Repair Seeding, Supplemental Seeding, Mowing, Fertilizer Topdressing, Silt Excavation, and Stone for Erosion Control* will be made at contract unit prices for the affected items. Work required that is not represented by contract line items will be paid in accordance with Articles 104-7 or 104-3 of the *2018 Standard Specifications*. No additional compensation will be made for maintenance and removal of temporary erosion control items.

**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 *2018 Standard Specifications*).

**FUEL PRICE ADJUSTMENT:**

(11-15-05) (Rev. 7-20-21)

109-8

SP1 G43

Revise the *2018 Standard Specifications* as follows:

**Page 1-87, Article 109-8, Fuel Price Adjustments**, add the following:

The base index price for DIESEL #2 FUEL is \$ **2.3102** 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 | 0.90 or 2.90             |
| Asphalt Concrete Intermediate Course, Type _____ | Gal/Ton | 0.90 or 2.90             |
| Asphalt Concrete Surface Course, Type _____      | Gal/Ton | 0.90 or 2.90             |
| Open-Graded Asphalt Friction Course              | Gal/Ton | 0.90 or 2.90             |
| Permeable Asphalt Drainage Course, Type _____    | Gal/Ton | 0.90 or 2.90             |
| Sand Asphalt Surface Course, Type _____          | Gal/Ton | 0.90 or 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                    |

For the asphalt items noted in the chart as eligible for fuel adjustments, the bidder may include the *Fuel Usage Factor Adjustment Form* with their bid submission if they elect to use the fuel usage factor. The *Fuel Usage Factor Adjustment Form* is found at the following link:

<https://connect.ncdot.gov/letting/LetCentral/Fuel%20Usage%20Factor%20Adjustment%20Form.pdf>

Select either 2.90 Gal/Ton fuel factor or 0.90 Gal/Ton fuel factor for each asphalt line item on the *Fuel Usage Factor Adjustment Form*. The selected fuel factor for each asphalt item will remain in effect for the duration of the contract.

Failure to complete the *Fuel Usage Factor Adjustment Form* will result in using 2.90 gallons per ton as the Fuel Usage Factor for Diesel for the asphalt items noted above. The contractor will not be permitted to change the Fuel Usage Factor after the bids are submitted.

#### **SCHEDULE OF ESTIMATED COMPLETION PROGRESS:**

(7-15-08) (Rev. 5-13-19)

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:

|      | <b><u>Fiscal Year</u></b> | <b><u>Progress (% of Dollar Value)</u></b> |
|------|---------------------------|--------------------------------------------|
| 2022 | (7/01/21 - 6/30/22)       | <b>10%</b> of Total Amount Bid             |
| 2023 | (7/01/22 - 6/30/23)       | <b>90%</b> of Total Amount Bid             |

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the *2018 Standard Specifications*. Any acceleration of the progress as shown by the Contractor's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

## **MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE**

### **(DIVISIONS):**

(10-16-07)(Rev. 8-17-21)

102-15(J)

SP1 G67

### **Description**

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

### **Definitions**

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

*Combined MBE/WBE Goal*: A portion of the total contract, expressed as a percentage that is to be performed by committed MBE/WBE subcontractors.

*Committed MBE/WBE Subcontractor* - Any MBE/WBE submitted at the time of bid that is being used to meet the Combined MBE / 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 Goal Requirement* - The approved participation at time of award, but not greater than the advertised Combined MBE/WBE contract goal.

*Goal Confirmation Letter* - Written documentation from the Department to the bidder confirming the Contractor's approved, committed 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 Participation (Anticipated)* - A portion of the total contract, expressed as a percentage that is anticipated 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.

*Replacement / Substitution* – A full or partial reduction in the amount of work subcontracted to a committed (or an approved substitute) MBE/WBE firm.

*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 Participation (Anticipated)* - A portion of the total contract, expressed as a percentage that is anticipated 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.  
<https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf>

*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 estimated amount (based on quantities and unit prices) 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 the Combined MBE/WBE goal. 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>

### **Combined MBE/WBE Goal**

The Combined MBE/WBE Goal for this project is **4.0%**

The Combined Goal was established utilizing the following anticipated participation for Minority Business Enterprises and Women Business Enterprises:

**(A) Minority Business Enterprises 2.0 %**

- (1) *If the anticipated MBE participation 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.
- (2) *If the anticipated MBE participation 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 2.0 %**

- (1) *If the anticipated WBE participation 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.
- (2) *If the anticipated WBE participation 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.

The Bidder is required to submit only participation to meet the Combined MBE/WBE Goal. The Combined Goal may be met by submitting all MBE participation, all WBE participation, or a combination of MBE and WBE participation.

### **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 Combined MBE / WBE goal. The Directory can be found at the following link.

<https://www.ebs.nc.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 Combined MBE/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 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 the electronic submittal file.

- (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 the electronic submittal file, 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 the Combined MBE/WBE goal.

(B) Paper Bids

- (1) *If the Combined MBE/ 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 Combined MBE/WBE goal.
- (2) *If the Combined MBE/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 a Combined MBE/WBE Goal, the firm is responsible for meeting the goal or making good faith efforts to meet the goal, just like any other bidder. In most cases, a MBE or WBE bidder on a contract will meet the Combined MBE/WBE goal 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.

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

**Written Documentation – Letter of Intent**

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

The documentation shall be received in the office of the Engineer no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. 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 Combined MBE/WBE goal, or if the form is incomplete (i.e. both signatures are not present), the MBE/WBE participation will not count toward meeting the Combined MBE/WBE goal. If the lack of this participation drops the commitment below the Combined MBE/WBE goal, the Contractor shall submit evidence of good faith efforts for the goal not met, completed in its entirety, to the Engineer no later than 2:00 p.m. of the eighth calendar day following opening of bids, unless the eighth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

**Banking MBE/WBE Credit**

If the committed MBE/WBE participation submitted exceeds the algebraic sum of the Combined MBE/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 and WBE firms to meet the advertised goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the Combined MBE/WBE goal as long as there are adequate funds available from the bidder's MBE and WBE bank accounts.

**Submission of Good Faith Effort**

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

One complete set and 5 copies of this information shall be received in the office of the Engineer no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

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

### **Consideration of Good Faith Effort for Projects with a Combined MBE/WBE Goal 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 that are also prequalified subcontractors. 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 Combined MBE/WBE goal 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 advertised goal when the work to be sublet includes potential for MBE/WBE participation (2<sup>nd</sup> and 3<sup>rd</sup> tier subcontractors).
- (C) Providing interested certified MBEs/WBEs that are also prequalified subcontractors 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 the advertised goal 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 advertised goal, 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 Opportunity and Work Force Development Unit at [BOWD@ncdot.gov](mailto:BOWD@ncdot.gov) 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 advertised 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 Combined MBE/WBE goal.
- (2) The bidders' past performance in meeting the contract goal.
- (3) The performance of other bidders in meeting the advertised goal. For example, when the apparent successful bidder fails to meet the goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the advertised goal, 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 Combined MBE/WBE goal can be met or that an adequate good faith effort has been made to meet the advertised goal.

### **Non-Good Faith Appeal**

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

### **Counting MBE/WBE Participation Toward Meeting the Combined MBE/WBE Goal**

#### **(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 anticipated MBE participation. The same holds for work that a WBE subcontracts to another WBE firm. Work that a MBE/WBE subcontracts to a non-MBE/WBE firm does not count toward the contract goal requirement. 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 MBE or WBE participation breakdown. 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 firms and there is no interest or availability, and they can get assistance from other certified firms, the Engineer will not hold the prime responsible for meeting the individual MBE or WBE breakdown. 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.

(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 /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 /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. If it is determined that a MBE or WBE is not performing a Commercially Useful Function, the contractor may present evidence to rebut this presumption to the Department.

#### **(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 Combined MBE/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 participation breakdown. 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 responsible for meeting the individual MBE or WBE participation breakdown.

- (5) The MBE/WBE may also subcontract the work to a non-MBE/WBE firm, including from an owner-operator. The MBE/WBE who subcontracts the work to a non-MBE/WBE is entitled to credit for the total value of transportation services provided by the non-MBE/WBE subcontractor not to exceed the value of transportation services provided by MBE/WBE-owned trucks on the contract. Additional participation by non-MBE/WBE subcontractors receives credit only for the fee or commission it receives as a result of the subcontract arrangement. The value of services performed under subcontract agreements between the MBE/WBE and the Contractor will not count towards the MBE/WBE contract requirement.
- (6) A MBE/WBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the MBE/WBE has exclusive use of and control over the truck. This requirement does not preclude the leased truck from working for others during the term of the lease with the consent of the MBE/WBE, so long as the lease gives the MBE/WBE absolute priority for use of the leased truck. This type of lease may count toward the MBE/WBE's credit as long as the driver is under the MBE/WBE's payroll.
- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the MBE/WBE that they are subcontracted/leased to and their own company name if it is not identified on the truck itself. Magnetic door signs are not permitted.

### **MBE/WBE Replacement**

When a Contractor has relied on a commitment to a MBE or WBE subcontractor (or an approved substitute MBE or WBE subcontractor) to meet all or part of a contract goal requirement, the contractor shall not terminate the MBE/WBE subcontractor 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.

The Contractor must give notice in writing both by certified mail and email to the MBE/WBE subcontractor, with a copy to the Engineer of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor must give the MBE/WBE subcontractor five (5) business days to respond to the Contractor's Notice of Intent to Request Termination and/or

Substitution. If the MBE/WBE subcontractor objects to the intended termination/substitution, the MBE/WBE, within five (5) business days must advise the Contractor and the Department of the reasons why the action should not be approved. The five-day notice period shall begin on the next business day after written notice is provided to the MBE/WBE subcontractor.

A committed MBE/WBE subcontractor may only be terminated after receiving the Department's written approval based upon a finding of good cause for the proposed termination and/or substitution. For purposes of this section, good cause shall include the following circumstances:

- (a) The listed MBE/WBE subcontractor fails or refuses to execute a written contract;
- (b) The listed MBE/WBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the MBE/WBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (c) The listed MBE/WBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- (d) The listed MBE/WBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (e) The listed MBE/WBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215 and 1,200 or applicable state law;
- (f) The listed MBE/WBE subcontractor is not a responsible contractor;
- (g) The listed MBE/WBE voluntarily withdraws from the project and provides written notice of withdrawal;
- (h) The listed MBE/WBE is ineligible to receive MBE/WBE credit for the type of work required;
- (i) A MBE/WBE owner dies or becomes disabled with the result that the listed MBE/WBE contractor is unable to complete its work on the contract;
- (j) Other documented good cause that compels the termination of the MBE/WBE subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a MBE/WBE it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the MBE/WBE contractor was engaged or so that the prime contractor can substitute another MBE/WBE or non-MBE/WBE contractor after contract award.

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

(A) Performance Related Replacement

When a committed MBE/WBE is terminated for good cause as stated above, an additional MBE/WBE that was submitted at the time of bid may be used to fulfill the MBE/WBE commitment to meet the Combined MBE/WBE Goal. A good faith effort will only be required for removing a committed MBE/WBE if there were no additional MBE/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 MBE/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 MBE/WBEs for specific subbids including, at a minimum:
  - (a) The names, addresses, and telephone numbers of MBE/WBEs who were contacted.
  - (b) A description of the information provided to MBE/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 MBE/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 MBE/WBE subcontractor to perform at least the same amount of work to meet the Combined 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).
- (3) Exception: If the MBE/WBE's ineligibility is caused solely by its having exceeded the size standard during the performance of the contract, 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 and overall goal.

All requests for replacement of a committed MBE/WBE firm shall be submitted to the Engineer for approval on Form RF-1 (*DBE 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.

### **Changes in the Work**

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

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

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

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

### **Reports and Documentation**

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

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

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

**Reporting Minority and Women Business Enterprise Participation**

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

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

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

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

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

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

At any time, the Engineer can request written verification of subcontractor payments. The Contractor shall report the accounting of payments through the Department's DBE Payment Tracking System.

**Failure to Meet Contract Requirements**

Failure to meet contract requirements in accordance with Subarticle 102-15(J) of the *2018 Standard Specifications* may be cause to disqualify the Contractor.

**RESTRICTIONS ON ITS EQUIPMENT AND SERVICES:**

(11-17-20)

SP01-G090

All telecommunications, video or other ITS equipment or services installed or utilized on this project must be in conformance with UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS FOR FEDERAL AWARDS **2 CFR, § 200.216**  
**Prohibition on certain telecommunications and video surveillance services or equipment.**

**USE OF UNMANNED AIRCRAFT SYSTEM (UAS):**

(8-20-19)

SP1 G092

The Contractor shall adhere to all Federal, State and Local regulations and guidelines for the use of Unmanned Aircraft Systems (UAS). This includes but is not limited to US 14 CFR Part 107 *Small UAS Rule*, NC GS 15A-300.2 *Regulation of launch and recovery sites*, NC GS 63-95 *Training required for the operation of unmanned aircraft systems*, NC GS 63-96 *Permit required for commercial operation of unmanned aircraft system*, and NCDOT UAS Policy. The required operator certifications include possessing a current Federal Aviation Administration (FAA) Remote Pilot Certificate, a NC UAS Operator Permit as well as operating a UAS registered with the FAA.

Prior to beginning operations, the Contractor shall complete the NCDOT UAS – Flight Operation Approval Form and submit it to the Engineer for approval. All UAS operations shall be approved by the Engineer prior to beginning the operations.

All contractors or subcontractors operating UAS shall have UAS specific general liability insurance to cover all operations under this contract.

The use of UAS is at the Contractor's discretion. No measurement or payment will be made for the use of UAS. In the event that the Department directs the Contractor to utilize UAS, payment will be in accordance with Article 104-7 Extra Work.

**EQUIPMENT IDLING GUIDELINES:**

(1-19-21)

107

SP1 G096

Exercise reduced fuel consumption and reduced equipment emissions during the construction of all work associated with this contract. Employees engaged in the construction of this project should turn off vehicles when stopped for more than thirty (30) minutes and off-highway equipment should idle no longer than fifteen (15) consecutive minutes.

These guidelines for turning off vehicles and equipment when idling do not apply to:

1. Idling when queuing.
2. Idling to verify the vehicle is in safe operating condition.
3. Idling for testing, servicing, repairing or diagnostic purposes.
4. Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane, mixing concrete, etc.).
5. Idling required to bring the machine system to operating temperature.
6. Emergency vehicles, utility company, construction, and maintenance vehicles where the engines must run to perform needed work.
7. Idling to ensure safe operation of the vehicle.
8. Idling when the propulsion engine is providing auxiliary power for other than heating or air conditioning. (such as hydraulic systems for pavers)
9. When specific traffic, safety, or emergency situations arise.
10. If the ambient temperature is less than 32 degrees Fahrenheit. Limited idling to provide for the safety of vehicle occupants (e.g. to run the heater).

11. If the ambient temperature is greater than 90 degrees Fahrenheit. Limited idling to provide for the safety of vehicle occupants of off-highway equipment (e.g. to run the air conditioning) no more than 30 minutes.
12. Diesel powered vehicles may idle for up to 30 minutes to minimize restart problems.

Any vehicle, truck, or equipment in which the primary source of fuel is natural gas or electricity is exempt from the idling limitations set forth in this special provision.

**SUBSURFACE INFORMATION:**

(7-1-95)

450

SP1 G112 B

Subsurface information is available on the structure portion of this project only.

**ELECTRONIC BIDDING:**

(2-19-19)

101, 102, 103

SP1 G140

Revise the *2018 Standard Specifications* as follows:

**Page 1-4, Article 101-3, DEFINITIONS, BID (OR PROPOSAL) *Electronic Bid*, line 1**, replace “Bid Express®” with “the approved electronic bidding provider”.

**Page 1-15, Subarticle 102-8(B), Electronic Bids, lines 39-40**, replace “to Bid Express®” with “via the approved electronic bidding provider”.

**Page 1-15, Subarticle 102-8(B)(1), Electronic Bids, line 41**, delete “from Bid Express®”

**Page 1-17, Subarticle 102-9(C)(2), Electronic Bids, line 21**, replace “Bid Express® miscellaneous folder within the .ebs” with “electronic submittal”.

**Page 1-29, Subarticle 103-4(C)(2), Electronic Bids, line 32**, replace “.ebs miscellaneous data file of Expedite” with “electronic submittal file”

**TWELVE MONTH GUARANTEE:**

(7-15-03)

108

SP1 G145

- (A) The Contractor shall guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to the Department. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Department, and/or for use in excess of the design.
- (B) Where items of equipment or material carry a manufacturer’s guarantee for any period in excess of twelve months, then the manufacturer’s guarantee shall apply for that particular piece of equipment or material. The Department’s first remedy shall be through the manufacturer although the Contractor is responsible for invoking the warranted repair work with the manufacturer. The Contractor’s responsibility shall be limited to the term of the



manufacturer's guarantee. NCDOT would be afforded the same warranty as provided by the Manufacturer.

This guarantee provision shall be invoked only for major components of work in which the Contractor would be wholly responsible for under the terms of the contract. Examples would include pavement structures, bridge components, and sign structures. This provision will not be used as a mechanism to force the Contractor to return to the project to make repairs or perform additional work that the Department would normally compensate the Contractor for. In addition, routine maintenance activities (i.e. mowing grass, debris removal, ruts in earth shoulders,) are not parts of this guarantee.

Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project.

To ensure uniform application statewide the Division Engineer will forward details regarding the circumstances surrounding any proposed guarantee repairs to the Chief Engineer for review and approval prior to the work being performed.

#### **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.

#### **EROSION AND SEDIMENT CONTROL/STORMWATER CERTIFICATION:**

(1-16-07) (Rev 12-15-20)

105-16, 225-2, 16

SP1 G180

##### **General**

Schedule and conduct construction activities in a manner that will minimize soil erosion and the resulting sedimentation and turbidity of surface waters. Comply with the requirements herein regardless of whether or not a National Pollution discharge Elimination System (NPDES) permit for the work is required.

Establish a chain of responsibility for operations and subcontractors' operations to ensure that the *Erosion and Sediment Control/Stormwater Pollution Prevention Plan* is implemented and maintained over the life of the contract.

- (A) *Certified Supervisor* - Provide a certified Erosion and Sediment Control/Stormwater Supervisor to manage the Contractor and subcontractor operations, insure compliance with

Federal, State and Local ordinances and regulations, and manage the Quality Control Program.

- (B) *Certified Foreman* - Provide a certified, trained foreman for each construction operation that increases the potential for soil erosion or the possible sedimentation and turbidity of surface waters.
- (C) *Certified Installer* - Provide a certified installer to install or direct the installation for erosion or sediment/stormwater control practices.
- (D) *Certified Designer* - Provide a certified designer for the design of the erosion and sediment control/stormwater component of reclamation plans and, if applicable, for the design of the project erosion and sediment control/stormwater plan.

### **Roles and Responsibilities**

- (A) *Certified Erosion and Sediment Control/Stormwater Supervisor* - The Certified Supervisor shall be Level II and responsible for ensuring the erosion and sediment control/stormwater plan is adequately implemented and maintained on the project and for conducting the quality control program. The Certified Supervisor shall be on the project within 24 hours notice from initial exposure of an erodible surface to the project's final acceptance. Perform the following duties:
  - (1) **Manage Operations** - Coordinate and schedule the work of subcontractors so that erosion and sediment control/stormwater measures are fully executed for each operation and in a timely manner over the duration of the contract.
    - (a) Oversee the work of subcontractors so that appropriate erosion and sediment control/stormwater preventive measures are conformed to at each stage of the work.
    - (b) Prepare the required National Pollutant Discharge Elimination System (NPDES) Inspection Record and submit to the Engineer.
    - (c) Attend all weekly or monthly construction meetings to discuss the findings of the NPDES inspection and other related issues.
    - (d) Implement the erosion and sediment control/stormwater site plans requested.
    - (e) Provide any needed erosion and sediment control/stormwater practices for the Contractor's temporary work not shown on the plans, such as, but not limited to work platforms, temporary construction, pumping operations, plant and storage yards, and cofferdams.
    - (f) Acquire applicable permits and comply with requirements for borrow pits, dewatering, and any temporary work conducted by the Contractor in jurisdictional areas.
    - (g) Conduct all erosion and sediment control/stormwater work in a timely and workmanlike manner.

- (h) Fully perform and install erosion and sediment control/stormwater work prior to any suspension of the work.
  - (i) Coordinate with Department, Federal, State and Local Regulatory agencies on resolution of erosion and sediment control/stormwater issues due to the Contractor's operations.
  - (j) Ensure that proper cleanup occurs from vehicle tracking on paved surfaces or any location where sediment leaves the Right-of-Way.
  - (k) Have available a set of erosion and sediment control/stormwater plans that are initialed and include the installation date of Best Management Practices. These practices shall include temporary and permanent groundcover and be properly updated to reflect necessary plan and field changes for use and review by Department personnel as well as regulatory agencies.
- (2) Requirements set forth under the NPDES Permit - The Department's NPDES Stormwater permit (NCS000250) outlines certain objectives and management measures pertaining to construction activities. The permit references *NCG010000, General Permit to Discharge Stormwater* under the NPDES, and states that the Department shall incorporate the applicable requirements into its delegated Erosion and Sediment Control Program for construction activities disturbing one or more acres of land. The Department further incorporates these requirements on all contracted bridge and culvert work at jurisdictional waters, regardless of size. Some of the requirements are, but are not limited to:
- (a) Control project site waste to prevent contamination of surface or ground waters of the state, i.e. from equipment operation/maintenance, construction materials, concrete washout, chemicals, litter, fuels, lubricants, coolants, hydraulic fluids, any other petroleum products, and sanitary waste.
  - (b) Inspect erosion and sediment control/stormwater devices and stormwater discharge outfalls at least once every 7 calendar days and within 24 hours after a rainfall event equal to or greater than 1.0 inch that occurs within a 24 hour period. Additional monitoring may be required at the discretion of Division of Water Resources personnel if the receiving stream is 303(d) listed for turbidity and the project has had documented problems managing turbidity.
  - (c) Maintain an onsite rain gauge or use the Department's Multi-Sensor Precipitation Estimate website to maintain a daily record of rainfall amounts and dates.
  - (d) Maintain erosion and sediment control/stormwater inspection records for review by Department and Regulatory personnel upon request.
  - (e) Implement approved reclamation plans on all borrow pits, waste sites and staging areas.
  - (f) Maintain a log of turbidity test results as outlined in the Department's Procedure for Monitoring Borrow Pit Discharge.
  - (g) Provide secondary containment for bulk storage of liquid materials.
  - (h) Provide training for employees concerning general erosion and sediment control/stormwater awareness, the Department's NPDES Stormwater

Permit NCS000250 requirements, and the applicable requirements of the *General Permit, NCG010000*.

- (i) Report violations of the NPDES permit to the Engineer immediately who will notify the Division of Water Quality Regional Office within 24 hours of becoming aware of the violation.
- (3) Quality Control Program - Maintain a quality control program to control erosion, prevent sedimentation and follow provisions/conditions of permits. The quality control program shall:
- (a) Follow permit requirements related to the Contractor and subcontractors' construction activities.
  - (b) Ensure that all operators and subcontractors on site have the proper erosion and sediment control/stormwater certification.
  - (c) Notify the Engineer when the required certified erosion and sediment control/stormwater personnel are not available on the job site when needed.
  - (d) Conduct the inspections required by the NPDES permit.
  - (e) Take corrective actions in the proper timeframe as required by the NPDES permit for problem areas identified during the NPDES inspections.
  - (f) Incorporate erosion control into the work in a timely manner and stabilize disturbed areas with mulch/seed or vegetative cover on a section-by-section basis.
  - (g) Use flocculants approved by state regulatory authorities where appropriate and where required for turbidity and sedimentation reduction.
  - (h) Ensure proper installation and maintenance of temporary erosion and sediment control devices.
  - (i) Remove temporary erosion or sediment control devices when they are no longer necessary as agreed upon by the Engineer.
  - (j) The Contractor's quality control and inspection procedures shall be subject to review by the Engineer. Maintain NPDES inspection records and make records available at all times for verification by the Engineer.
- (B) *Certified Foreman* - At least one Certified Foreman shall be onsite for each type of work listed herein during the respective construction activities to control erosion, prevent sedimentation and follow permit provisions:
- (1) Foreman in charge of grading activities
  - (2) Foreman in charge of bridge or culvert construction over jurisdictional areas
  - (3) Foreman in charge of utility activities

The Contractor may request to use the same person as the Level II Supervisor and Level II Foreman. This person shall be onsite whenever construction activities as described above are taking place. This request shall be approved by the Engineer prior to work beginning.

The Contractor may request to name a single Level II Foreman to oversee multiple construction activities on small bridge or culvert replacement projects. This request shall be approved by the Engineer prior to work beginning.

- (C) *Certified Installers* - Provide at least one onsite, Level I Certified Installer for each of the following erosion and sediment control/stormwater crew:

- (1) Seeding and Mulching
- (2) Temporary Seeding
- (3) Temporary Mulching
- (4) Sodding
- (5) Silt fence or other perimeter erosion/sediment control device installations
- (6) Erosion control blanket installation
- (7) Hydraulic tackifier installation
- (8) Turbidity curtain installation
- (9) Rock ditch check/sediment dam installation
- (10) Ditch liner/matting installation
- (11) Inlet protection
- (12) Riprap placement
- (13) Stormwater BMP installations (such as but not limited to level spreaders, retention/detention devices)
- (14) Pipe installations within jurisdictional areas

If a Level I *Certified Installer* is not onsite, the Contractor may substitute a Level II Foreman for a Level I Installer, provided the Level II Foreman is not tasked to another crew requiring Level II Foreman oversight.

- (D) *Certified Designer* - Include the certification number of the Level III Certified Designer on the erosion and sediment control/stormwater component of all reclamation plans and if applicable, the certification number of the Level III Certified Designer on the design of the project erosion and sediment control/stormwater plan.

### **Preconstruction Meeting**

Furnish the names of the *Certified Erosion and Sediment Control/Stormwater Supervisor*, *Certified Foremen*, *Certified Installers* and *Certified Designer* and notify the Engineer of changes in certified personnel over the life of the contract within 2 days of change.

### **Ethical Responsibility**

Any company performing work for the North Carolina Department of Transportation has the ethical responsibility to fully disclose any reprimand or dismissal of an employee resulting from improper testing or falsification of records.

**Revocation or Suspension of Certification**

Upon recommendation of the Chief Engineer to the certification entity, certification for *Supervisor*, *Certified Foremen*, *Certified Installers* and *Certified Designer* may be revoked or suspended with the issuance of an *Immediate Corrective Action (ICA)*, *Notice of Violation (NOV)*, or *Cease and Desist Order* for erosion and sediment control/stormwater related issues.

The Chief Engineer may recommend suspension or permanent revocation of certification due to the following:

- (A) Failure to adequately perform the duties as defined within this certification provision.
- (B) Issuance of an ICA, NOV, or Cease and Desist Order.
- (C) Failure to fully perform environmental commitments as detailed within the permit conditions and specifications.
- (D) Demonstration of erroneous documentation or reporting techniques.
- (E) Cheating or copying another candidate's work on an examination.
- (F) Intentional falsification of records.
- (G) Directing a subordinate under direct or indirect supervision to perform any of the above actions.
- (H) Dismissal from a company for any of the above reasons.
- (I) Suspension or revocation of one's certification by another entity.

Suspension or revocation of a certification will be sent by certified mail to the certificant and the Corporate Head of the company that employs the certificant.

A certificant has the right to appeal any adverse action which results in suspension or permanent revocation of certification by responding, in writing, to the Chief Engineer within 10 calendar days after receiving notice of the proposed adverse action.

Chief Engineer  
1536 Mail Service Center  
Raleigh, NC 27699-1536

Failure to appeal within 10 calendar days will result in the proposed adverse action becoming effective on the date specified on the certified notice. Failure to appeal within the time specified will result in a waiver of all future appeal rights regarding the adverse action taken. The certificant will not be allowed to perform duties associated with the certification during the appeal process.

The Chief Engineer will hear the appeal and make a decision within 7 days of hearing the appeal. Decision of the Chief Engineer will be final and will be made in writing to the certificant.

If a certification is temporarily suspended, the certificant shall pass any applicable written examination and any proficiency examination, at the conclusion of the specified suspension period, prior to having the certification reinstated.

**Measurement and Payment**

*Certified Erosion and Sediment Control/Stormwater Supervisor, Certified Foremen, Certified Installers and Certified Designer* will be incidental to the project for which no direct compensation will be made.

**PROCEDURE FOR MONITORING BORROW PIT DISCHARGE:**

(2-20-07) (Rev. 4-5-19)

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 *2018 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 <https://connect.ncdot.gov/resources/roadside/FieldOperationsDocuments/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.



**PROJECT SPECIAL PROVISIONS ROADWAY****CLEARING AND GRUBBING - METHOD II:**

(9-17-02) (Rev.8-18-15)

200

SP2 R02A

Perform clearing on this project to the limits established by Method “II” shown on Standard Drawing No. 200.02 of the *2018 Roadway Standard Drawings*. Conventional clearing methods may be used except where permit drawings or conditions have been included in the proposal which require certain areas to be cleared by hand methods.

**BURNING RESTRICTIONS:**

(7-1-95)

200, 210, 215

SP2 R05

Open burning is not permitted on any portion of the right-of-way limits established for this project. Do not burn the clearing, grubbing or demolition debris designated for disposal and generated from the project at locations within the project limits, off the project limits or at any waste or borrow sites in this county. Dispose of the clearing, grubbing and demolition debris by means other than burning, according to state or local rules and regulations.

**BRIDGE APPROACH FILLS:**

(10-19-10) (Rev. 1-16-18)

422

SP4 R02A

**Description**

Bridge approach fills consist of backfilling behind bridge end bents with select material or aggregate to support all or portions of bridge approach slabs. Install drains to drain water from bridge approach fills and geotextiles to separate approach fills from embankment fills, ABC and natural ground as required. For bridge approach fills behind end bents with mechanically stabilized earth (MSE) abutment walls, reinforce bridge approach fills with MSE wall reinforcement connected to end bent caps. Construct bridge approach fills in accordance with the contract, accepted submittals and 2018 Roadway Standard Drawing Nos. 422.01 or 422.02 or Roadway Detail Drawing No. 422D10.

Define bridge approach fill types as follows:

*Approach Fills* – Bridge approach fills in accordance with 2018 Roadway Standard Drawing Nos. 422.01 or 422.02 or Roadway Detail Drawing No. 422D10;

*Standard Approach Fill* – Type I Standard Bridge Approach Fill in accordance with 2018 Roadway Standard Drawing No. 422.01;

*Modified Approach Fill* – Type II Modified Bridge Approach Fill in accordance with 2018 Roadway Standard Drawing No. 422.02 and

*Reinforced Approach Fill* – Type III Reinforced Bridge Approach Fill in accordance with Roadway Detail Drawing No. 422D10.

## Materials

Refer to Division 10 of the *2018 Standard Specifications*.

| Item                          | Section |
|-------------------------------|---------|
| Geotextiles, Type 1           | 1056    |
| Portland Cement Concrete      | 1000    |
| Select Materials              | 1016    |
| Subsurface Drainage Materials | 1044    |

Provide Type 1 geotextile for separation geotextiles and Class B concrete for outlet pads. Use Class V or Class VI select material for standard and modified approach fills. For an approach fill behind a bridge end bent with an MSE abutment wall, backfill the reinforced approach fill with the same aggregate type approved for the reinforced zone in the accepted MSE wall submittal. For MSE wall aggregate, reinforcement and connector materials, see the *Mechanically Stabilized Earth Retaining Walls* provision. Provide PVC pipes, fittings and outlet pipes for subsurface drainage materials. For PVC drain pipes, use pipes with perforations that meet AASHTO M 278.

## Construction Methods

Excavate as necessary for approach fills in accordance with the contract. Notify the Engineer when foundation excavation is complete. Do not place separation geotextiles or aggregate until approach fill dimensions and foundation material are approved.

For reinforced approach fills, cast MSE wall reinforcement or connectors into end bent cap backwalls within 3" of locations shown in the accepted MSE wall submittals. Install MSE wall reinforcement with the orientation, dimensions and number of layers shown in the accepted MSE wall submittals. If a reinforced approach fill is designed with geogrid reinforcement embedded in an end bent cap, cut geogrids to the required lengths and after securing ends of geogrids in place, reroll and rewrap portions of geogrids not embedded in the cap to protect geogrids from damage. Before placing aggregate, pull geosynthetic reinforcement taut so that it is in tension and free of kinks, folds, wrinkles or creases.

Attach separation geotextiles to end bent cap backwalls and wing walls with adhesives, tapes or other approved methods. Overlap adjacent separation geotextiles at least 18" with seams oriented parallel to the roadway centerline. Hold geotextiles in place with wire staples or anchor pins as needed. Contact the Engineer when existing or future obstructions such as foundations, pavements, pipes, inlets or utilities will interfere with separation geotextiles or MSE wall reinforcement.

Install continuous perforated PVC drain pipes with perforations pointing down in accordance with 2018 Roadway Standard Drawing Nos. 422.01 or 422.02. Connect drain pipes to outlet pipes just beyond wing walls. Connect PVC pipes, fittings and outlet pipes with solvent cement in accordance with Article 815-3 of the *2018 Standard Specifications* and place outlet pads in accordance with 2018 Roadway Standard Drawing No. 815.03.

Install drain pipes so water drains towards outlets. If the groundwater elevation is above drain pipe elevations, raise drains up to maintain positive drainage towards outlets. Place pipe sleeves in or under wing walls so water drains towards outlets. Use sleeves that can withstand wing wall loads.

Place select material or aggregate in 8" to 10" thick lifts. Compact fine aggregate for reinforced approach fills in accordance with Subarticle 235-3(C) of the *2018 Standard Specifications* except compact fine aggregate to a density of at least 98%. Compact select material for standard or modified approach fills and coarse aggregate for reinforced approach fills with a vibratory compactor to the satisfaction of the Engineer. Do not displace or damage geosynthetics, MSE wall reinforcement or drains when placing and compacting select material or aggregate. End dumping directly on geosynthetics is not permitted. Do not operate heavy equipment on geosynthetics or drain pipes until they are covered with at least 8" of select material or aggregate. Replace any damaged geosynthetics or drains to the satisfaction of the Engineer. When approach fills extend beyond bridge approach slabs, wrap separation geotextiles over select material or aggregate as shown in 2018 Roadway Standard Drawing No. 422.01 or 2018 Roadway Detail Drawing No. 422D10.

### Measurement and Payment

*Type II Modified Approach Fill, Station \_\_\_\_* will be paid at the contract lump sum price. The lump sum price for each approach fill will be full compensation for providing labor, tools, equipment and approach fill materials, excavating, backfilling, hauling and removing excavated materials, installing geotextiles and drains, compacting backfill and supplying select material, aggregate, separation geotextiles, drain pipes, pipe sleeves, outlet pipes and pads and any incidentals necessary to construct approach fills behind bridge end bents.

Payment will be made under:

#### Pay Item

Type II Modified Approach Fill, Station \_\_\_\_

#### Pay Unit

Lump Sum

#### **PILES:**

(10-19-21)

450

SP4 R05

Revise the *2018 Standard Specifications* as follows:

**Page 4-65, Article 450-1 DESCRIPTION, lines 14-16**, replace the third paragraph with the following:

The estimated pile lengths shown in the plans are sufficient for the minimum required pile embedment or penetration and are estimates of the pile lengths needed for required driving resistance. Use estimated pile lengths for pile order lengths for prestressed concrete production piles or the Engineer will provide pile order lengths based on testing prestressed concrete piles with the pile driving analyzer (PDA). For bridges with staged construction and pile order lengths based on testing prestressed concrete piles with the PDA, order lengths for latter stages will not be

provided until pile driving for previous stage of construction is complete.

**Page 4-66, Article 450-3(C) Pile Accessories, line 14**, insert the following as the second, third and fourth sentence of the first paragraph:

Steel pile points for steel pipe piles include pipe pile cutting shoes and conical points. Use "inside fit" pipe pile cutting shoes, i.e., cutting shoes with an outside diameter equal to the pipe pile diameter. Use pipe pile plates with a diameter equal to the pipe pile diameter.

**Page 4-66, Article 450-3(D) Driven Piles, lines 37-39**, replace the fourth paragraph with the following:

Redrive piles raised or moved laterally due to driving adjacent piles. For initial drive of prestressed concrete piles below a depth of 10 ft or 20% of pile length, whichever is greater, drive each pile continuously except to pause driving for one hour or less to change pile cushions and remove templates. Design and construct templates so prestressed concrete piles can be driven to pile cut-off without exceeding the one-hour time limit. When a prestressed concrete pile attains the required resistance and pile embedment or penetration, do not drive the pile any further to avoid cutting off the pile. If a prestressed concrete pile does not have the minimum required driving resistance when the pile head is 1 ft above pile cut-off, stop driving the pile.

**Page 4-68, Article 450-3(D)(3) Required Driving Resistance, lines 10-11**, replace the second paragraph with the following:

Stop driving piles if "refusal" is reached. Refusal occurs at 240 blows per foot (20 blows per inch) or any equivalent set (maximum set of 1/2 inch in 10 blows) with the required stroke as per the pile driving criteria.

**Page 4-68, Article 450-3(D)(4) Restriking and Redriving Piles, lines 13-15**, replace the first sentence of the first paragraph with the following:

If piles do not attain the required resistance with the estimated or order lengths, the Engineer may require the Contractor to stop driving piles, wait and restrike or redrive piles to attain the required resistance.

**Page 4-69, Article 450-3(F) Pile Driving Analyzer, lines 16-18**, replace the second sentence of the second paragraph with the following:

Provide piles for PDA testing with lengths shown in the plans.

**Page 4-71, Article 450-4 MEASUREMENT AND PAYMENT, lines 27-28**, replace the second sentence of the third paragraph with the following:

Steel piles will be measured as the pile length before installation minus any pile cut-offs.

Prestressed concrete piles will be measured as the pile length before installation.

**Page 4-71, Article 450-4 MEASUREMENT AND PAYMENT, lines 40-45**, replace the fifth paragraph with the following:

After steel piles attain the required resistance and pile penetration and at the Contractor's option, drive piles to grade instead of cutting off steel piles provided the remaining portions of piles do not exceed 5 ft and steel piles can be driven without damage or exceeding the maximum blow count or refusal. When this occurs, the additional pile length driven will be measured and paid at the contract unit prices for \_\_\_\_ *Steel Piles* and \_\_\_\_ *Galvanized Steel Piles*.

**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 *2018 Standard Specifications*.

The base price index for asphalt binder for plant mix is **\$ 502.73** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **October 1, 2021**.

**FINAL SURFACE TESTING NOT REQUIRED:**

(5-18-04) (Rev. 2-16-16)

610

SP6 R45

Final surface testing is not required on this project in accordance with Section 610-13, *Final Surface Testing and Acceptance*.

**ASPHALT CONCRETE PLANT MIX PAVEMENTS:**

(2-20-18) (Rev.1-15-19)

610, 1012

SP6 R65

Revise the *2018 Standard Specifications* as follows:

**Page 6-14, Table 609-3, LIMITS OF PRECISION FOR TEST RESULTS**, replace with the following:

| <b>TABLE 609-3<br/>LIMITS OF PRECISION FOR TEST RESULTS</b> |                            |
|-------------------------------------------------------------|----------------------------|
| <b>Mix Property</b>                                         | <b>Limits of Precision</b> |
| 25.0 mm sieve (Base Mix)                                    | ± 10.0%                    |
| 19.0 mm sieve (Base Mix)                                    | ± 10.0%                    |
| 12.5 mm sieve (Intermediate & Type P-57)                    | ± 6.0%                     |
| 9.5 mm sieve (Surface Mix)                                  | ± 5.0%                     |
| 4.75 mm sieve (Surface Mix)                                 | ± 5.0%                     |
| 2.36 mm sieve (All Mixes, except S4.75A)                    | ± 5.0%                     |

|                                                                  |                       |
|------------------------------------------------------------------|-----------------------|
| 1.18 mm sieve (S4.75A)                                           | ± 5.0%                |
| 0.075 mm sieve (All Mixes)                                       | ± 2.0%                |
| Asphalt Binder Content                                           | ± 0.5%                |
| Maximum Specific Gravity ( $G_{mm}$ )                            | ± 0.020               |
| Bulk Specific Gravity ( $G_{mb}$ )                               | ± 0.030               |
| TSR                                                              | ± 15.0%               |
| QA retest of prepared QC Gyratory Compacted Volumetric Specimens | ± 0.015               |
| Retest of QC Core Sample                                         | ± 1.2% (% Compaction) |
| Comparison QA Core Sample                                        | ± 2.0% (% Compaction) |
| QA Verification Core Sample                                      | ± 2.0% (% Compaction) |
| Density Gauge Comparison of QC Test                              | ± 2.0% (% Compaction) |
| QA Density Gauge Verification Test                               | ± 2.0% (% Compaction) |

**Page 6-17, Table 610-1, MIXING TEMPERATURE AT THE ASPHALT PLANT**, replace with the following:

| <b>TABLE 610-1</b>                             |                        |
|------------------------------------------------|------------------------|
| <b>MIXING TEMPERATURE AT THE ASPHALT PLANT</b> |                        |
| <b>Binder Grade</b>                            | <b>JMF Temperature</b> |
| PG 58-28; PG 64-22                             | 250 - 290°F            |
| PG 76-22                                       | 300 - 325°F            |

**Page 6-17, Subarticle 610-3(C), Job Mix Formula (JMF), lines 38-39**, delete the fourth paragraph.

**Page 6-18, Subarticle 610-3(C), Job Mix Formula (JMF), line 12**, replace “SF9.5A” with “S9.5B”.

**Page 6-18, Table 610-3, MIX DESIGN CRITERIA**, replace with the following:

| TABLE 610-3<br>MIX DESIGN CRITERIA |                                                              |                       |                      |                  |                              |                                    |           |         |                                        |
|------------------------------------|--------------------------------------------------------------|-----------------------|----------------------|------------------|------------------------------|------------------------------------|-----------|---------|----------------------------------------|
| Mix<br>Type                        | Design<br>ESALs<br>millions <sup>A</sup>                     | Binder<br>PG<br>Grade | Compaction<br>Levels |                  | Max.<br>Rut<br>Depth<br>(mm) | Volumetric Properties <sup>B</sup> |           |         |                                        |
|                                    |                                                              |                       | G <sub>mm</sub> @    |                  |                              | VMA                                | VTM       | VFA     | %G <sub>mm</sub><br>@ N <sub>ini</sub> |
|                                    |                                                              |                       | N <sub>ini</sub>     | N <sub>des</sub> |                              |                                    |           |         |                                        |
| S4.75A                             | < 1                                                          | 64 - 22               | 6                    | 50               | 11.5                         | 16.0                               | 4.0 - 6.0 | 65 - 80 | ≤ 91.5                                 |
| S9.5B                              | 0 - 3                                                        | 64 - 22               | 6                    | 50               | 9.5                          | 16.0                               | 3.0 - 5.0 | 70 - 80 | ≤ 91.5                                 |
| S9.5C                              | 3 - 30                                                       | 64 - 22               | 7                    | 65               | 6.5                          | 15.5                               | 3.0 - 5.0 | 65 - 78 | ≤ 90.5                                 |
| S9.5D                              | > 30                                                         | 76 - 22               | 8                    | 100              | 4.5                          | 15.5                               | 3.0 - 5.0 | 65 - 78 | ≤ 90.0                                 |
| I19.0C                             | ALL                                                          | 64 - 22               | 7                    | 65               | -                            | 13.5                               | 3.0 - 5.0 | 65 - 78 | ≤ 90.5                                 |
| B25.0C                             | ALL                                                          | 64 - 22               | 7                    | 65               | -                            | 12.5                               | 3.0 - 5.0 | 65 - 78 | ≤ 90.5                                 |
|                                    | Design Parameter                                             |                       |                      |                  |                              | Design Criteria                    |           |         |                                        |
| All Mix<br>Types                   | Dust to Binder Ratio (P <sub>0.075</sub> / P <sub>be</sub> ) |                       |                      |                  |                              | 0.6 - 1.4 <sup>C</sup>             |           |         |                                        |
|                                    | Tensile Strength Ratio (TSR) <sup>D</sup>                    |                       |                      |                  |                              | 85% Min. <sup>E</sup>              |           |         |                                        |

- A. Based on 20 year design traffic.
- B. Volumetric Properties based on specimens compacted to  $N_{des}$  as modified by the Department.
- C. Dust to Binder Ratio ( $P_{0.075} / P_{be}$ ) for Type S4.75A is 1.0 - 2.0.
- D. NCDOT-T-283 (No Freeze-Thaw cycle required).
- E. TSR for Type S4.75A & B25.0C mixes is 80% minimum.

**Page 6-19, Table 610-5, BINDER GRADE REQUIREMENTS (BASED ON RBR%),** replace with the following:

**TABLE 610-5  
BINDER GRADE REQUIREMENTS (BASED ON RBR%)**

| Mix Type                                   | %RBR $\leq$ 20%       | 21% $\leq$ %RBR $\leq$ 30% | %RBR $\geq$ 30% |
|--------------------------------------------|-----------------------|----------------------------|-----------------|
| S4.75A, S9.5B,<br>S9.5C, I19.0C,<br>B25.0C | PG 64-22              | PG 64-22 <sup>A</sup>      | PG-58-28        |
| S9.5D, OGFC                                | PG 76-22 <sup>B</sup> | n/a                        | n/a             |

- A. If the mix contains any amount of RAS, the virgin binder shall be PG 58-28.
- B. Maximum Recycled Binder Replacement (%RBR) is 18% for mixes using PG 76-22 binder.

**Page 6-20, Table 610-6, PLACEMENT TEMPERATURES FOR ASPHALT,** replace with the following:

| <b>TABLE 610-6<br/>PLACEMENT TEMPERATURES FOR ASPHALT</b> |                                     |
|-----------------------------------------------------------|-------------------------------------|
| Asphalt Concrete Mix Type                                 | Minimum Surface and Air Temperature |
| B25.0C                                                    | 35°F                                |
| I19.0C                                                    | 35°F                                |
| S4.75A, S9.5B, S9.5C                                      | 40°F <sup>A</sup>                   |
| S9.5D                                                     | 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 6-21, Article 610-8, SPREADING AND FINISHING, lines 34-35,** delete the second sentence and replace with the following:

Use an MTV for all surface mix regardless of binder grade on Interstate, US Routes, and NC Routes (primary routes) that have 4 or more lanes and median divided.

**Page 6-21, Article 610-8, SPREADING AND FINISHING, lines 36-38,** delete the fourth sentence and replace with the following:

Use MTV for all ramps, loops, Y-line that have 4 or more lanes and are median divided, full width acceleration lanes, full width deceleration lanes, and full width turn lanes that are greater than 1000 feet in length.

**Page 6-23, Table 610-7, DENSITY REQUIREMENTS,** replace with the following:

| <b>TABLE 610-7<br/>DENSITY REQUIREMENTS</b> |                                                                |
|---------------------------------------------|----------------------------------------------------------------|
| <b>Mix Type</b>                             | <b>Minimum % G<sub>mm</sub><br/>(Maximum Specific Gravity)</b> |
| S4.75A                                      | 85.0 <sup>A</sup>                                              |
| S9.5B                                       | 90.0                                                           |
| S9.5C, S9.5D, I19.0C, B25.0C                | 92.0                                                           |

A. Compaction to the above specified density will be required when the S4.75A mix is applied at a rate of 100 lbs/sy or higher.

**Page 6-24, Article 610-13, FINAL SURFACE TESTING, lines 35-36,** delete the second sentence and replace with the following:

Final surface testing is not required on ramps, loops and turn lanes.

**Page 6-26, Subarticle 610-13(A)(1), Acceptance for New Construction, lines 29-30,** delete the second sentence and replace with the following:

Areas excluded from testing by the profiler may be tested using a 10-foot straightedge in accordance with Article 610-12.

**Page 6-27, Subarticle 610-13(B), Option 2- North Carolina Hearne Straightedge, lines 41-46,** delete the eighth and ninth sentence of this paragraph and replace with the following:

Take profiles over the entire length of the final surface travel lane pavement exclusive of structures, approach slabs, paved shoulders, tapers, or other irregular shaped areas of pavement, unless otherwise approved by the Engineer. Test in accordance with this provision all mainline travel lanes, full width acceleration or deceleration lanes and collector lanes.

**Page 6-28, Subarticle 610-13(B), Option 2- North Carolina Hearne Straightedge, lines 1-2,** delete these two lines.

**Page 6-32, Article 610-16 MEASUREMENT AND PAYMENT,** replace with the following:

| <b>Pay Item</b>                                   | <b>Pay Unit</b> |
|---------------------------------------------------|-----------------|
| Asphalt Concrete Base Course, Type B25.0C         | Ton             |
| Asphalt Concrete Intermediate Course, Type I19.0C | Ton             |
| Asphalt Concrete Surface Course, Type S4.75A      | Ton             |
| Asphalt Concrete Surface Course, Type S9.5B       | Ton             |
| Asphalt Concrete Surface Course, Type S9.5C       | Ton             |
| Asphalt Concrete Surface Course, Type S9.5D       | Ton             |



Page 10-30, Table 1012-1, AGGREGATE CONSENSUS PROPERTIES, replace with the following:

**TABLE 1012-1  
AGGREGATE CONSENSUS PROPERTIES<sup>A</sup>**

| <b>Mix Type</b>       | <b>Coarse Aggregate Angularity<sup>B</sup></b> | <b>Fine Aggregate Angularity % Minimum</b> | <b>Sand Equivalent % Minimum</b> | <b>Flat and Elongated 5 : 1 Ratio % Maximum</b> |
|-----------------------|------------------------------------------------|--------------------------------------------|----------------------------------|-------------------------------------------------|
| <i>Test Method</i>    | <i>ASTM D5821</i>                              | <i>AASHTO T 304</i>                        | <i>AASHTO T 176</i>              | <i>ASTM D4791</i>                               |
| S4.75A; S9.5B         | 75 / -                                         | 40                                         | 40                               | -                                               |
| S9.5C; I19.0C; B25.0C | 95 / 90                                        | 45                                         | 45                               | 10                                              |
| S9.5D                 | 100 / 100                                      | 45                                         | 50                               | 10                                              |
| OGFC                  | 100 / 100                                      | 45                                         | 45                               | 10                                              |
| UBWC                  | 100 / 85                                       | 45                                         | 45                               | 10                                              |

A. Requirements apply to the design aggregate blend.

B. 95 / 90 denotes that 95% of the coarse aggregate has one fractured face and 90% has 2 or more fractured faces.

### **AUTOMATED MACHINE GUIDANCE**

(1-2-11)

801

SP8 R01

#### **General**

This Special Provision contains requirements to be followed if the Contractor elects to use Global Positioning System (GPS) machine control grading and shall be used in conjunction with Section 801 of the *Standard Specifications*. The use of this technology is referenced as Automated Machine Guidance (AMG).

All equipment using AMG shall be able to generate end results that meet the *Standard Specifications*. Perform test sections for each type of work to be completed with AMG to demonstrate that the system has the capability to achieve acceptable results. If acceptable results cannot be achieved, conform to the requirements for conventional stakeout.

The Contractor shall be responsible for all errors resulting from the use of AMG and shall correct deficiencies to the satisfaction of the Engineer at no cost to the Department.

#### **Submittals**

If the Contractor elects to use AMG, a Digital Terrain Model (DTM) of the design surface and all intermediate surfaces shall be developed and submitted to the Engineer for review.

At least 90 days prior to beginning grading operations, the Contractor shall submit to the Engineer an AMG work plan to include, but not limited to, proposed equipment, control software manufacturer and version, types of work to be completed using AMG, project site calibration report, repetitive calibration methods for construction equipment and rover units to be used for the duration of the project, and local GPS base station to be used for broadcasting differential correction data to rover units (this may include the NC Network RTK). All surveys must be tied to existing project control as established by NCDOT.

### **Inspection**

The Engineer will perform quality assurance checks of all work associated with AMG. If it is determined that work is not being performed in a manner that will assure accurate results, the Engineer may require corrective action at no cost to the Department.

The Contractor shall provide the Engineer with one GPS rover unit for use during the duration of the contract. The rover will be loaded with the same model that is used with the AMG and have the same capability as rover units used by the Contractor. The rover will be kept in the possession of the Engineer and will be returned to the Contractor upon completion of the contract. Any maintenance or repairs required for the rover will be the responsibility of the Contractor. Formal training of at least 8 hours shall be provided to the Engineer by the Contractor on the use of the proposed AMG system.

### **Subgrade and Base Controls**

If the Contractor elects to use AMG for fine grading and placement of base or other roadway materials, the GPS shall be supplemented with a laser or robotic total station. Include details of the proposed system in the AMG work plan. In addition, the following requirements apply for the use of AMG for subgrade and base construction.

Provide control points at intervals along the project not to exceed 1,000 feet. The horizontal position of these points shall be determined by static GPS sessions or by traverse connection from the original base line control points. The elevation of these control points shall be established using differential leveling from project benchmarks, forming closed loops where practical. A copy of all new control point information shall be provided to the Engineer prior to construction activities.

Provide control points and conventional survey grade stakes at 500 foot intervals and at critical points such as, but not limited to, PCs, PTs, superelevation transition points, and other critical points as requested by the Engineer.

Provide hubs at the top of the finished subgrade at all hinge points on the cross section at 500 foot intervals. These hubs shall be established using conventional survey methods for use by the Engineer to check the accuracy of construction.

**Measurement and Payment**

No direct payment will be made for work required to utilize this provision. All work will be considered incidental to various grading operations.

**GUARDRAIL END UNITS, TYPE - TL-3:**

(4-20-04) (Rev. 7-1-17)

862

SP8 R65

**Description**

Furnish and install guardrail end units in accordance with the details in the plans, the applicable requirements of Section 862 of the *2018 Standard Specifications*, and at locations shown in the plans.

**Materials**

Furnish guardrail end units listed on the NCDOT [Approved Products List](https://apps.dot.state.nc.us/vendor/approvedproducts/) at <https://apps.dot.state.nc.us/vendor/approvedproducts/> or approved equal.

Prior to installation the Contractor shall submit to the Engineer:

- (A) FHWA acceptance letter for each guardrail end unit certifying it meets the requirements of the AASHTO Manual for Assessing Safety Hardware, Test Level 3, in accordance with Article 106-2 of the *2018 Standard Specifications*.
- (B) Certified working drawings and assembling instructions from the manufacturer for each guardrail end unit in accordance with Article 105-2 of the *2018 Standard Specifications*.

No modifications shall be made to the guardrail end unit without the express written permission from the manufacturer. Perform installation in accordance with the details in the plans, and details and assembling instructions furnished by the manufacturer.

**Construction Methods**

Guardrail end delineation is required on all approach and trailing end sections for both temporary and permanent installations. Guardrail end delineation consists of yellow reflective sheeting applied to the entire end section of the guardrail in accordance with Article 1088-3 of the *2018 Standard Specifications* and is incidental to the cost of the guardrail end unit.

**Measurement and Payment**

Measurement and payment will be made in accordance with Article 862-6 of the *2018 Standard Specifications*.

Payment will be made under:

**Pay Item**

Guardrail End Units, Type TL-3

**Pay Unit**

Each

**PORTLAND CEMENT CONCRETE PRODUCTION AND DELIVERY:**

(9-15-20)

1000, 1014, 1024

SP10 R01

Revise the 2018 *Standard Specifications* as follows:

**Page 10-6, Table 1000-1, REQUIREMENTS FOR CONCRETE**, replace with the following:

| <b>TABLE 1000-1<br/>REQUIREMENTS FOR CONCRETE</b> |                                      |                            |                   |                            |                   |                                                    |                        |                |              |              |              |
|---------------------------------------------------|--------------------------------------|----------------------------|-------------------|----------------------------|-------------------|----------------------------------------------------|------------------------|----------------|--------------|--------------|--------------|
| Class of Concrete                                 | Min. Compressive Strength at 28 days | Maximum Water-Cement Ratio |                   |                            |                   | Consistency Maximum 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                                                | 4500                                 | 0.381                      | 0.426             | ---                        | ---               | 3.5 <sup>A</sup>                                   | ---                    | 639            | 715          | ---          | ---          |
| AA Slip Form                                      | 4500                                 | 0.381                      | 0.426             | ---                        | ---               | 1.5                                                | ---                    | 639            | 715          | ---          | ---          |
| Drilled Pier                                      | 4500                                 | ---                        | ---               | 0.450                      | 0.450             | ---                                                | 5 – 7 dry<br>7 – 9 wet | ---            | ---          | 640          | 800          |
| A                                                 | 3000                                 | 0.488                      | 0.532             | 0.550                      | 0.594             | 3.5 <sup>A</sup>                                   | 4.0                    | 564            | ---          | 602          | ---          |
| B                                                 | 2500                                 | 0.488                      | 0.567             | 0.559                      | 0.630             | 1.5 machine placed<br>2.5 <sup>A</sup> hand placed | 4.0                    | 508            | ---          | 545          | ---          |
| Sand Light-weight                                 | 4500                                 | ---                        | 0.420             | ---                        | ---               | 4.0 <sup>A</sup>                                   | ---                    | 715            | ---          | ---          | ---          |
| Latex Modified                                    | 3000 (at 7 days)                     | 0.400                      | 0.400             | ---                        | ---               | 6.0                                                | ---                    | 658            | ---          | ---          | ---          |
| Flowable Fill excavatable                         | 150 max. (at 56 days)                | as needed                  | as needed         | as needed                  | as needed         | ---                                                | Flowable               | ---            | ---          | 40           | 100          |
| Flowable Fill non-excavatable                     | 125                                  | as needed                  | as needed         | as needed                  | as needed         | ---                                                | Flowable               | ---            | ---          | 100          | as needed    |

|             |                                                                    |                     |                     |     |     |                                               |           |           |           |           |           |
|-------------|--------------------------------------------------------------------|---------------------|---------------------|-----|-----|-----------------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Pavement    | 4500<br>Design,<br>field<br><br>650<br>flexural,<br>design<br>only | 0.559               | 0.559               | --- | --- | 1.5<br>slip form<br><br>3.0<br>hand<br>placed | ---       | 526       | ---       | ---       | ---       |
| Precast     | See<br>Table<br>1077-1                                             | as needed           | as needed           | --- | --- | 6.0                                           | as needed | as needed | as needed | as needed | as needed |
| Prestressed | per<br>contract                                                    | See Table<br>1078-1 | See Table<br>1078-1 | --- | --- | 8.0                                           | ---       | 564       | as needed | ---       | ---       |

- A. The slump may be increased to 6 inches, provided the increase in slump is achieved by adding a chemical admixture conforming to Section 1024-3. In no case shall the water-cement ratio on the approved design be exceeded. Concrete exhibiting segregation and/or excessive bleeding will be rejected. Utilizing an Admixture to modify slump does not relinquish the contractor's responsibility to ensure the final product quality and overall configuration meets design specifications. Caution should be taken when placing these modified mixes on steep grades to prevent unintended changes to the set slope.

#### **THERMOPLASTIC PAVEMENT MARKING MATERIAL – COLOR TESTING:**

3-19-19

1087

SP10 R05

Revise the *2018 Standard Specifications* as follows:

**Pages 10-183 and 10-184, Subarticle 1087-7(D)(1)(b) Yellow**, lines 9-11, delete and replace with the following:

Obtain Color Values Y,x,y per ASTM E1349 using C/2° illuminant/observer.  
Results shall be  $Y \geq 45\%$ , and x,y shall fall within PR#1 chart chromaticity limits.

#### **MATERIALS FOR PORTLAND CEMENT CONCRETE:**

(9-15-20)

1000, 1024

SP10 R24

Revise the *2018 Standard Specifications* as follows:

**Page 10-52, Article 1024-4, WATER, lines 3-6**, delete and replace with the following: Test water from wells at all locations. Test public water supplies from all out of state locations and in the following counties: Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrell and Washington unless the Engineer waives the testing requirements.

**Page 10-52, Table 1024-2, PHYSICAL PROPERTIES OF WATER**, replace with the following:

| Property                                                               | Requirement                                   | Test Method  |
|------------------------------------------------------------------------|-----------------------------------------------|--------------|
| Compression Strength,<br>minimum percent of control at<br>3 and 7 days | 90%                                           | ASTM C1602   |
| Time of set, deviation from<br>control                                 | From 1:00 hr.<br>earlier to 1:30 hr.<br>later | ASTM C1602   |
| pH                                                                     | 4.5 to 8.5                                    | ASTM D1293 * |
| Chloride Ion Content, Max.                                             | 250 ppm                                       | ASTM D512 *  |
| Total Solids Content<br>(Residue), Max.                                | 1,000 ppm                                     | SM 2540B *   |
| Resistivity, Min.                                                      | 0.500 kohm-cm                                 | ASTM D1125 * |

\*Denotes an alternate method is acceptable. Test method used shall be referenced in the test report.

### **EXTRUDED THERMOPLASTIC PAVEMENT MARKING THICKNESS:**

3-19-19

1205

SP12 R05

Revise the *2018 Standard Specifications* as follows:

**Page 12-6, Subarticle 1205-4(A)(1) General, lines 5-8,** delete the second sentence and replace with the following:

Use application equipment that provides multiple width settings ranging from 4 inches to 12 inches and multiple thickness settings to achieve a minimum pavement marking thickness of 0.090 inch above the surface of the pavement.

**Page 12-7, Table 1205-3, THICKNESS REQUIREMENTS FOR THERMOPLASTIC,** replace with the following:

| TABLE 1205-3<br>MINIMUM THICKNESS REQUIREMENTS FOR THERMOPLASTIC |                                                                                                                                                                   |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thickness                                                        | Location                                                                                                                                                          |
| 240 mils                                                         | In-lane and shoulder-transverse pavement markings (rumble strips). May be placed in 2 passes.                                                                     |
| 90 mils                                                          | Center lines, skip lines, transverse bands, mini-skip lines, characters, bike lane symbols, crosswalk lines, edge lines, gore lines, diagonals, and arrow symbols |

**STANDARD SPECIAL PROVISIONS****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(D) of the *2018 Standard Specifications*.

**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, Sickledrop, 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)  
Kobe Lespedeza  
Korean Lespedeza  
Weeping Lovegrass  
Carpetgrass

Bermudagrass  
Browntop Millet  
German Millet – Strain R  
Clover – Red/White/Crimson

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  
Little Bluestem  
Birdsfoot Trefoil  
Orchardgrass  
Yellow Blossom Sweet Clover

Big Bluestem  
Bristly Locust  
Indiangrass  
Switchgrass

## **ERRATA**

(10-16-18) (Rev.2-16-21)

Z-4

Revise the *2018 Standard Specifications* as follows:

**Division 6**

**Page 6-7, Article 609-1 DESCRIPTION, line 29,** replace article number “609-10” with “609-9”.

**Division 7**

**Page 7-27, Article 725-1 MEASUREMENT AND PAYMENT, line 4,** replace article number “725-1” with “724-4”.

**Page 7-28, Article 725-1 MEASUREMENT AND PAYMENT, line 10,** replace article number “725-1” with “725-3”.

**Division 10**

**Page 10-78, Article 1056-4 GEOTEXTILES, TABLE 1056-1, Permittivity, Type 2,** replace “Table 6<sup>D</sup>” with “Table 7<sup>D</sup>” and **Permittivity, Type 3<sup>B</sup>,** replace “Table 7<sup>D</sup>” with “Table 8<sup>D</sup>”.

**Page 10-121, Article 1076-7, REPAIR OF GALVANIZING, line 8,** replace article number “1080-9” with “1080-7”.

**Page 10-162, Article 1080-50 PAINT FOR VERTICAL MARKERS, line 1,** replace article number “1080-50” with “1080-10”.

**Page 10-162, Article 1080-61 EPOXY RESIN FOR REINFORCING STEEL, line 5,** replace article number “1080-61” with “1080-11”.

**Page 10-162, Article 1080-72 ABRASIVE MATERIALS FOR BLAST CLEANING STEEL, line 22,** replace article number “1080-72” with “1080-12”.

**Page 10-163, Article 1080-83 FIELD PERFORMANCE AND SERVICES, line 25,** replace article number “1080-83” with “1080-13”.

**Division 17**

**Page 17-15, Article 1715-4 MEASUREMENT AND PAYMENT, lines 42-44,** replace the second sentence with the following:

An example is an installation of a single 1.25 inch HDPE conduit would be paid as:

Directional Drill (1)(1.25”) Linear Foot

**PLANT AND PEST QUARANTINES**

**(Imported Fire Ant, Gypsy Moth, Witchweed, Emerald Ash Borer, Guava Root Knot Nematode, And Other Noxious Weeds)**

(3-18-03) (Rev. 5-21-19)

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, 919-707-3730, or <https://www.ncagr.gov/plantindustry/Plant/quaran/table2.htm> 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, emerald ash borer, guava root knot nematode, or other noxious weeds.

**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.

**TITLE VI AND NONDISCRIMINATION:**

(6-28-77)(Rev 6/19/2018)

Z-6

Revise the *2018 Standard Specifications* as follows:

Replace Article 103-4(B) with the following:

The North Carolina Department of Transportation is committed to carrying out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts.

The provisions of this section related to United States Department of Transportation (US DOT) Order 1050.2A, Title 49 Code of Federal Regulations (CFR) part 21, 23 United States Code (U.S.C.) 140 and 23 CFR part 200 (or 49 CFR 303, 49 U.S.C. 5332 or 49 U.S.C. 47123) are applicable to all North Carolina Department of Transportation (NCDOT) contracts and to all related subcontracts, material supply, engineering, architectural and other service contracts, regardless of dollar amount. Any Federal provision that is specifically required not specifically set forth is hereby incorporated by reference.

**(1) Title VI Assurances (USDOT Order 1050.2A, Appendix A)**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

**(a) Compliance with Regulations**

The contractor (hereinafter includes consultants) shall comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

**(b) Nondiscrimination**

The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

**(c) Solicitations for Subcontractors, Including Procurements of Materials and Equipment**

In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

(d) Information and Reports

The contractor shall provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor shall so certify to the Recipient or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.

(e) Sanctions for Noncompliance:

In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it and/or the FHWA may determine to be appropriate, including, but not limited to:

(i) Withholding payments to the contractor under the contract until the contractor complies; and/or

(ii) Cancelling, terminating, or suspending a contract, in whole or in part.

(f) Incorporation of Provisions

The contractor shall include the provisions of paragraphs (a) through (f) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor shall take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(2) **Title VI Nondiscrimination Program (23 CFR 200.5(p))**

The North Carolina Department of Transportation (NCDOT) has assured the USDOT that, as a condition to receiving federal financial assistance, NCDOT will comply with Title VI of the Civil Rights Act of 1964 and all requirements imposed by Title 49 CFR part 21 and related nondiscrimination authorities to ensure that no person shall, on the ground of race, color, national origin, limited English proficiency, sex, age, or disability (including religion/creed or income-level, where applicable), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any programs, activities, or services conducted or funded by NCDOT. Contractors and other organizations under contract or agreement with NCDOT must also comply with Title VI and related authorities, therefore:

(a) During the performance of this contract or agreement, contractors (e.g., subcontractors, consultants, vendors, prime contractors) are responsible for complying with NCDOT's

Title VI Program. Contractors are not required to prepare or submit Title VI Programs. To comply with this section, the prime contractor shall:

1. Post NCDOT's Notice of Nondiscrimination and the Contractor's own Equal Employment Opportunity (EEO) Policy in conspicuous locations accessible to all employees, applicants and subcontractors on the jobsite.
  2. Physically incorporate the required Title VI clauses into all subcontracts on federally-assisted and state-funded NCDOT projects, and ensure inclusion by subcontractors into all lower-tier subcontracts.
  3. Required Solicitation Language. The Contractor shall include the following notification in all solicitations for bids and requests for work or material, regardless of funding source:

“The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award. In accordance with other related nondiscrimination authorities, bidders and contractors will also not be discriminated against on the grounds of sex, age, disability, low-income level, creed/religion, or limited English proficiency in consideration for an award.”
  4. Physically incorporate the FHWA-1273, in its entirety, into all subcontracts and subsequent lower tier subcontracts on Federal-aid highway construction contracts only.
  5. Provide language assistance services (i.e., written translation and oral interpretation), free of charge, to LEP employees and applicants. Contact NCDOT OCR for further assistance, if needed.
  6. For assistance with these Title VI requirements, contact the NCDOT Title VI Nondiscrimination Program at 1-800-522-0453.
- (b) Subrecipients (e.g. cities, counties, LGAs, planning organizations) may be required to prepare and submit a Title VI Plan to NCDOT, including Title VI Assurances and/or agreements. Subrecipients must also ensure compliance by their contractors and subrecipients with Title VI. (23 CFR 200.9(b)(7))
- (c) If reviewed or investigated by NCDOT, the contractor or subrecipient agrees to take affirmative action to correct any deficiencies found within a reasonable time period, not to exceed 90 calendar days, unless additional time is granted by NCDOT. (23 CFR 200.9(b)(15))
- (d) The Contractor is responsible for notifying subcontractors of NCDOT's External Discrimination Complaints Process.
1. Applicability

Title VI and related laws protect participants and beneficiaries (e.g., members of the public and contractors) from discrimination by NCDOT employees, subrecipients and contractors, regardless of funding source.

2. Eligibility

Any person—or class of persons—who believes he/she has been subjected to discrimination based on race, color, national origin, Limited English Proficiency (LEP), sex, age, or disability (and religion in the context of employment, aviation, or transit) may file a written complaint. The law also prohibits intimidation or retaliation of any sort.

3. Time Limits and Filing Options

Complaints may be filed by the affected individual(s) or a representative and must be filed no later than 180 calendar days after the following:

- (i) The date of the alleged act of discrimination; or
- (ii) The date when the person(s) became aware of the alleged discrimination; or
- (iii) Where there has been a continuing course of conduct, the date on which that conduct was discontinued or the latest instance of the conduct.

Title VI and related discrimination complaints may be submitted to the following entities:

- North Carolina Department of Transportation, Office of Civil Rights, Title VI Program, 1511 Mail Service Center, Raleigh, NC 27699-1511; toll free 1-800-522-0453
- Federal Highway Administration, North Carolina Division Office, 310 New Bern Avenue, Suite 410, Raleigh, NC 27601, 919-747-7010
- US Department of Transportation, Departmental Office of Civil Rights, External Civil Rights Programs Division, 1200 New Jersey Avenue, SE, Washington, DC 20590; 202-366-4070

4. Format for Complaints

Complaints must be in writing and signed by the complainant(s) or a representative, and include the complainant's name, address, and telephone number. Complaints received by fax or e-mail will be acknowledged and processed. Allegations received by telephone will be reduced to writing and provided to the complainant for confirmation or revision before processing. Complaints will be accepted in other languages, including Braille.

5. Discrimination Complaint Form

Contact NCDOT Civil Rights to receive a full copy of the Discrimination Complaint Form and procedures.

6. Complaint Basis

Allegations must be based on issues involving race, color, national origin (LEP), sex, age, disability, or religion (in the context of employment, aviation or transit). "Basis" refers to the complainant's membership in a protected group category.

**TABLE 103-1  
COMPLAINT BASIS**

| Protected Categories                                                                                                            | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Examples                                                                                                               | Applicable Nondiscrimination Authorities                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Race and Ethnicity                                                                                                              | An individual belonging to one of the accepted racial groups; or the perception, based usually on physical characteristics that a person is a member of a racial group                                                                                                                                                                                                                                                                                                                                                     | Black/African American, Hispanic/Latino, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, White | Title VI of the Civil Rights Act of 1964; 49 CFR Part 21; 23 CFR 200; 49 U.S.C. 5332(b); 49 U.S.C. 47123. <i>(Executive Order 13166)</i>   |
| Color                                                                                                                           | Color of skin, including shade of skin within a racial group                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Black, White, brown, yellow, etc.                                                                                      |                                                                                                                                            |
| National Origin <i>(Limited English Proficiency)</i>                                                                            | Place of birth. Citizenship is not a factor. <i>(Discrimination based on language or a person's accent is also covered)</i>                                                                                                                                                                                                                                                                                                                                                                                                | Mexican, Cuban, Japanese, Vietnamese, Chinese                                                                          |                                                                                                                                            |
| Sex                                                                                                                             | Gender. The sex of an individual.<br><i>Note:</i> Sex under this program does not include sexual orientation.                                                                                                                                                                                                                                                                                                                                                                                                              | Women and Men                                                                                                          | 1973 Federal-Aid Highway Act; 49 U.S.C. 5332(b); 49 U.S.C. 47123.                                                                          |
| Age                                                                                                                             | Persons of any age                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 21-year-old person                                                                                                     | Age Discrimination Act of 1975 49 U.S.C. 5332(b); 49 U.S.C. 47123.                                                                         |
| Disability                                                                                                                      | Physical or mental impairment, permanent or temporary, or perceived.                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Blind, alcoholic, para-amputee, epileptic, diabetic, arthritic                                                         | Section 504 of the Rehabilitation Act of 1973; Americans with Disabilities Act of 1990                                                     |
| Religion (in the context of employment) <i>(Religion/ Creed in all aspects of any aviation or transit-related construction)</i> | An individual belonging to a religious group; or the perception, based on distinguishable characteristics that a person is a member of a religious group. In practice, actions taken as a result of the moral and ethical beliefs as to what is right and wrong, which are sincerely held with the strength of traditional religious views. <i>Note:</i> Does not have to be associated with a recognized religious group or church; if an individual sincerely holds to the belief, it is a protected religious practice. | Muslim, Christian, Sikh, Hindu, etc.                                                                                   | Title VII of the Civil Rights Act of 1964; 23 CFR 230; FHWA-1273 Required Contract Provisions. <i>(49 U.S.C. 5332(b); 49 U.S.C. 47123)</i> |

**(3) Pertinent Nondiscrimination Authorities**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

- (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.



- (b) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
  - (c) Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
  - (d) Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability) and 49 CFR Part 27;
  - (e) The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
  - (f) Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
  - (g) The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
  - (h) Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
  - (i) The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
  - (j) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
  - (k) Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
  - (l) Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).
  - (m) Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e et seq., Pub. L. 88-352), (prohibits employment discrimination on the basis of race, color, religion, sex, or national origin).
- (4) **Additional Title VI Assurances**
- \*\*The following Title VI Assurances (Appendices B, C and D) shall apply, as applicable*
- (a) **Clauses for Deeds Transferring United States Property (1050.2A, Appendix B)**  
The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4.

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the North Carolina Department of Transportation (NCDOT) will accept title to the lands and maintain the project constructed thereon in accordance with the North Carolina General Assembly, the Regulations for the Administration of the Federal-Aid Highway Program, and the policies and procedures prescribed by the Federal Highway Administration of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the NCDOT all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto the North Carolina Department of Transportation (NCDOT) and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the NCDOT, its successors and assigns.

The NCDOT, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]\* (2) that the NCDOT will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned nondiscrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].\*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

(b) Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program (1050.2A, Appendix C)

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(a):

1. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:
  - (i.) In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
2. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued. \*
3. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. \*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

(c) Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program (1050.2A, Appendix D)

The following clauses will be included in deeds, licenses, permits, or similar instruments/ agreements entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(b):

1. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
  2. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, the NCDOT will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued. \*
  3. With respect to deeds, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. \*
- (\*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

### **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.

**PROJECT SPECIAL PROVISION- PERMITS**

(10-18-95) (Rev. 3-21-17)

Z-1

The Contractor's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

| <b><u>PERMIT</u></b>                                     | <b><u>AUTHORITY GRANTING THE PERMIT</u></b>                          |
|----------------------------------------------------------|----------------------------------------------------------------------|
| Dredge and Fill and/or<br>Work in Navigable Waters (404) | U. S. Army Corps of Engineers                                        |
| Water Quality (401)                                      | Division of Environmental Management, DEQ<br>State of North Carolina |
| CCPCUA                                                   | Division of Water Resources, DEQ<br>State of North Carolina          |

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by \* are the responsibility of the Department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-13 of the *2018 Standard Specifications* and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

**Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the restricted waters, wetlands or buffer zones, provided that activities outside those areas is done in such a manner as to not affect the restricted waters, wetlands or buffer zones.**



## NCDOT MINIMUM CRITERIA DETERMINATION CHECKLIST

**STIP Project No.:** N/A (formerly B-5355)

**State Project No.:** 17BP.7.R.126

**Project Location:** The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 106 over Wolf Island Creek on SR 1902 (Dibrell Road) in Rockingham County (**Figure 1**).

**Project Description:** The purpose of the proposed project is to replace Rockingham County Bridge No. 106 over Wolf Island Creek on SR 1902 (Dibrell Road), which is structurally deficient. Bridge No. 106 is 180 feet long. The replacement structure will be a four-span, 24-inch cored slab, approximately 240 feet long with 4-foot deep caps providing a minimum 27-foot, 10-inch clear roadway width. The proposed bridge will include two 10-foot travel lanes with 3-foot 11-inch offsets. A temporary causeway will be constructed on the north side of the bridge to access the bents during construction. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately one-foot higher than the existing structure.

The approach roadway will extend approximately 206 feet from the north end of the new bridge and 402 feet from the south end of the new bridge. The approaches will be widened to include a 28-foot pavement width providing two 10-foot lanes with 4-foot shoulders. The roadway will be designed as a Local Collector using Sub-Regional Tier Guidelines with a 55 miles per hour design speed.

Traffic will be detoured offsite during construction (**Figure 2**) while Bridge No. 106 is replaced on the existing alignment (**Figure 3**). The offsite detour for this project will include SR 2708 (Service Road), SR 1767 (Mayfield Road), and NC 700. Up to a 12-month duration of construction is expected on this project.

**Purpose and Need:** NCDOT Bridge Management Unit records indicate Bridge No. 106 has a sufficiency rating of 46.95 out of a possible 100 for a new structure.

The bridge is considered structurally deficient due to a substandard substructure and superstructure rating of 4 out of 9, according to Federal Highway Administration (FHWA) standards.

Bridge No. 106 is a six-span structure with reinforced concrete caps on timber piles (#1-5 crutches: precast prestressed concrete cap and steel piles). The posted weight limit on the bridge is 29 tons for single vehicles and 32 tons for trucks, tractors, and semitrailers. The bridge deck is situated approximately 18 feet above the creek bed.

Bridge No. 106 was built in 1962. The bridge deck has longitudinal and transverse cracking on the asphalt surface. Superstructure components have cracking, delamination and spalling with exposed rusted rebar midspan and at end bents.

**Anticipated Permit or Consultation Requirements:** A Nationwide Permit (NWP) 14 has been authorized for this project by the U.S. Army Corps of Engineers. In addition, a 401 Water Quality Certification (WQC) from the N.C. Division of Water Resources has been authorized.

**Special Project Information:**

**Estimated Cost (based on 2021 prices):**

Construction Cost - \$1,885,000

**Estimated Traffic:**

Year 2012 - 150 vehicles per day

Year 2025 - 300 vehicles per

**Cultural Resources:**

**Historic Architecture** - A review of the State Historic Preservation Office data and relevant background reports was undertaken by NCDOT and reveals no identified historic sites in the Area of Potential Effects (APE). Rockingham County ConnectGIS website reveals one (1) property in the APE contains a residential structure which was constructed in 2003 and is not eligible for National Register listing. No survey is required. Additional coordination with the NCDOT Environmental Analysis Unit confirmed that the No Survey Required Form is still valid. A copy of this correspondence is included in **Appendix B**.

**Archaeology** - An archaeological survey and evaluation was conducted and no archaeological sites were located within the project's APE. No further archaeological investigations are needed for this project. Additional coordination with the NCDOT Environmental Analysis Unit confirmed that the No Sites Present Form is still valid. A copy of this correspondence is included in **Appendix B**.

**Pedestrian, Bicycle, and Greenway Accommodations:** The Rockingham County Comprehensive Transportation Plan (CTP) does not indicate a designated bicycle route, nor a pedestrian route, on this section of SR 1902 (Dibrell Road). Sidewalks do not exist on the existing bridge and there is no indication of pedestrian usage on or near the bridge. The Rockingham County Pathways Plan does not indicate any existing or proposed multi-use trails near the project study area.

**Design Information:** There are no design exceptions required for the proposed project.

**Environmental Considerations:** Aquatic surveys were conducted for the federally endangered species, Roanoke Logperch (*Percina rex*), James Spiny mussel (*Parvaspina collina*), Atlantic Pigtoe, and Green Floater listed by the U.S. Fish and Wildlife Service as potentially occurring in streams in Rockingham County.

While habitat conditions were relatively poor in the reach, and the species was not found, Roanoke Logperch is known from Wolf Island Creek downstream of the project. As

such, the presence of the species cannot be completely discounted, the biological conclusion for the Roanoke Logperch is May Affect, Not Likely to Adversely Affect.

Although no mussels were detected during the survey, the records for the mussel species occur well downstream of the project area. As no live individuals were found, impacts to freshwater mussel fauna are unlikely to occur in the study area, the biological conclusion for the James Spiny mussel is No Effect.

While the Atlantic Pigtoe and Green Floater are not currently federally protected, if the species were to receive federal protection, the appropriate biological conclusion for the Atlantic Pigtoe and Green Floater is No Effect.

**Agency Comments and Local Coordination:** NCDOT has sought input from the following agencies as a part of the project development: U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service (USFWS), N.C. Division of Water Resources, N.C. Wildlife Resources Commission (NCWRC), Piedmont Triad Rural Planning Organization, Rockingham County, Rockingham County Schools, and Rockingham County EMS. Agency comments are included in **Appendix B**.

The NCWRC noted the potential for Roanoke logperch (*Percina rex*) to be found at the site and requested that NCDOT coordinate with the NCWRC and USFWS in conducting a survey to determine the presence or absence of this species.

Rockingham County School TIMS Coordinator noted that closing the bridge for up to a year would have a moderate impact on the two buses that make a total of four trips across the bridge on a school day. A turnaround on each side of the bridge was requested because it would be too far for the students to walk for a bus stop if the stop was at each end of SR 1902 (Dibrell Road).

**Public Involvement:** A letter was sent to all property owners directly affected by this project. No comments were received.

#### **PART A: MINIMUM CRITERIA**

- |                                                                                                                                                                        | YES                                 | NO                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|
| 1. Is the proposed project listed as a type and class of activity allowed under the Minimum Criteria Rule in which environmental documentation is <u>not</u> required? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If "yes", under which category?

Category #9 - Reconstruction of existing crossroad or railroad separations and existing stream crossings, including, but not limited to, pipes, culverts, and bridges.

**PART B: MINIMUM CRITERIA EXCEPTIONS*****Items 2-4 to be completed by the Project Manager*****YES NO**

- |    |                                                                                                                                                                                                                  |                          |                                     |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|
| 2. | Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality impacts?                                                                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. | Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact to human health or the environment?                                                      | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. | Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications, that an uncommon concern for its environmental effects has been expressed to the Department? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

***Items 5-8 to be completed by Division Environmental Officer***

- |    |                                                                                                                                                                                                                                                                   |                          |                                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|
| 5. | Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. | Will the proposed activity endanger the existence of a species on the Department of Interior's threatened and endangered species list?                                                                                                                            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. | Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or groundwater impacts?                                                                                                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. | Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits of shellfish, finfish, wildlife, or their natural habitats?                                                                                             | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

*If any questions 2 through 8 are answered "yes," the proposed project may not qualify as a Minimum Criteria project. A state Environmental Assessment (EA) may be required. For assistance, contact the Environmental Policy Unit at (919) 707-6253 or [EPU@ncdot.gov](mailto:EPU@ncdot.gov)*

**PART C: COMPLIANCE WITH STATE AND FEDERAL REGULATIONS*****Items 9-12 to be completed by Division Environmental Officer*****YES NO**

- |     |                                                                                                                                                                        |                                     |                                     |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 9.  | Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action?                                               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. | Does the action require the placement of temporary or permanent fill in waters of the United States?                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 11. | Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. | Is the proposed action located in an Area of Environmental Concern, as defined in the Coastal Area Management Act?                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Items 13-15 to be completed by the Project Manager**

13. Does the project require stream relocation or channel changes? ☐ ☒

**Cultural Resources**

14. Will the project have an “effect” on a property or site listed on the National Register of Historic Places? ☐ ☒
15. Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas? ☐ ☒

*Questions in Part “C” are designed to assist the Project Manager and the Division Environmental Officer in determining whether a permit or consultation with a state or federal resource agency may be required. If any questions in Part “C” are answered “yes,” follow the appropriate permitting procedures prior to beginning project construction.*

**Response to Question 10:** The stream and wetland impacts associated with this bridge replacement project are presented below. Water resources in the study area are part of the Roanoke River basin [U.S. Geological Survey (USGS) Hydrologic Unit 03010103]. Two perennial streams, Wolf Island Creek and an unnamed tributary to Wolf Island Creek (Stream SA), were identified within the study area (**Figures 4-6**). Wolf Island Creek carries a best usage classification of “C” by the N.C. Division of Water Resources. Four wetlands were identified within the study area. All wetlands occur within the floodplain of Wolf Island Creek.

**Stream Impacts in the Roanoke River Basin**

| Site                         | Impact (linear feet)                |
|------------------------------|-------------------------------------|
| 1                            | Permanent (bank stabilization): 100 |
|                              | Temporary (bank stabilization): 20  |
|                              | Temporary (causeway): 53            |
| 3                            | Permanent (bank stabilization): 180 |
|                              | Temporary (bank stabilization): 10  |
| <b>TOTAL STREAM IMPACTS:</b> | <b>363 linear feet</b>              |

**Wetland Impacts in the Roanoke River Basin (Riverine)**

| Site                          | Impact (acre)              |
|-------------------------------|----------------------------|
| 2                             | Mechanized Clearing: 0.003 |
| <b>TOTAL WETLAND IMPACTS:</b> | <b>0.003 acres</b>         |

The amount of water resource impacts within the study area, described above, represents the maximum extent of potential fill in Waters of the United States.

Prepared By:

DocuSigned by:  
*Aileen S. Mayhew*  
B8BA757910214D2...

Aileen S. Mayhew, P.E.  
Mott MacDonald

Date: 8/17/2021

Approved By:

DocuSigned by:  
*Jerry Parker*  
D4E87B071D1946B...

Jerry Parker  
NCDOT Division 7 Environmental Officer

Date: 8/17/2021

DocuSigned by:  
*Tim Powers*  
97EAB36E970245Z...

Tim Powers, P.E.  
NCDOT Division 7 Bridge Program Manager

Date: 8/17/2021

**Project Commitments**

**Rockingham County  
Bridge No. 106 over Wolf Island Creek  
on SR 1902 (Dibrell Road)  
WBS No. 17BP.7.R.126**

**Division 7 Construction - Offsite Detour**

Rockingham County School Transportation will be contacted at (336) 634-3275 and Rockingham County EMS will be contacted at (336) 634-3000 at least one month prior to bridge closure to make necessary temporary reassignments.

**Hydraulics Unit - FEMA Coordination**

The NCDOT Hydraulics Unit will coordinate with the N.C. Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

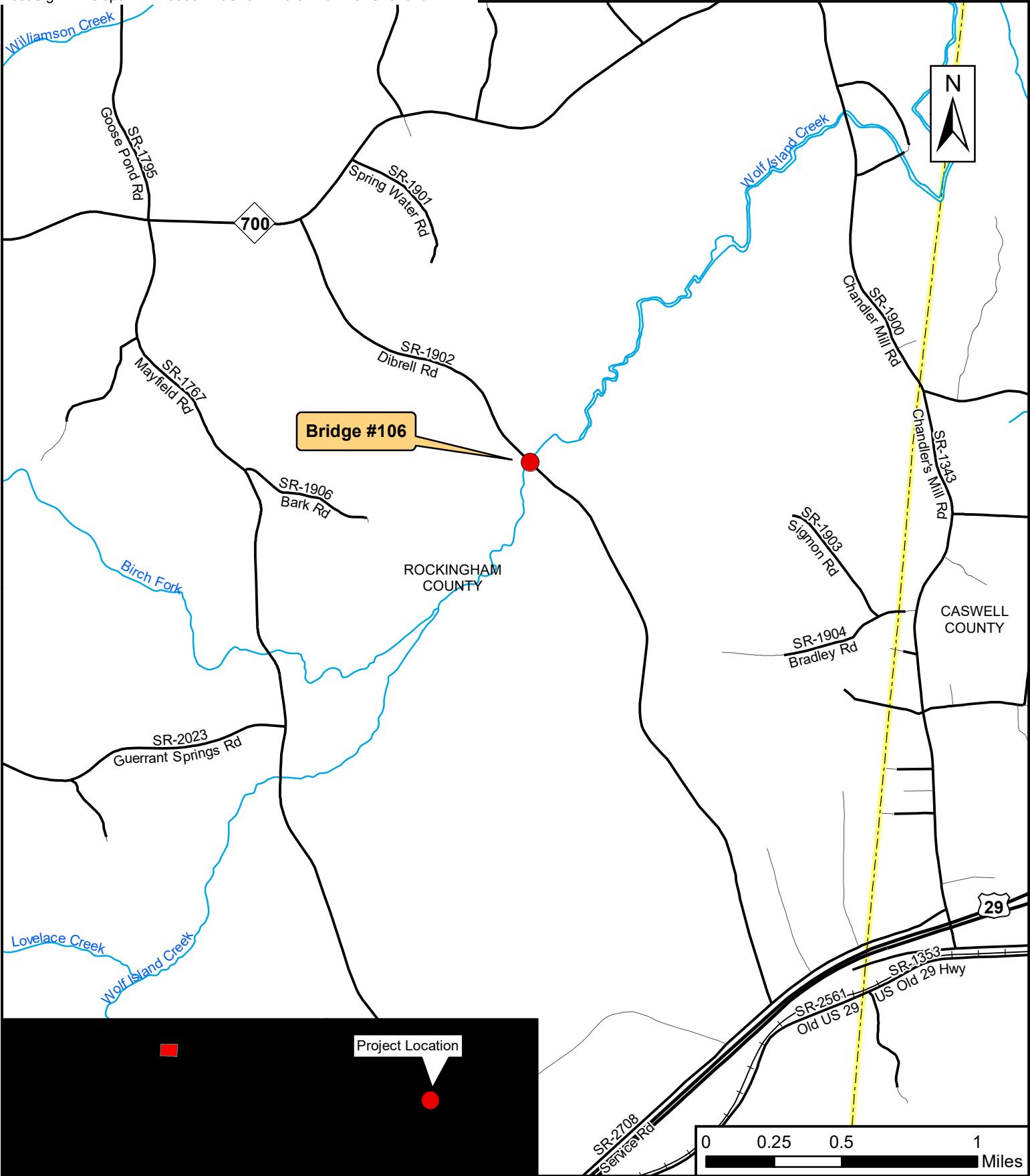
**Hydraulics Unit / Division 7 Construction - FEMA**

This project involves construction on or adjacent to a FEMA-regulated stream. Therefore, the Division Resident Engineer shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction.

# **APPENDIX A**

## **Figures**





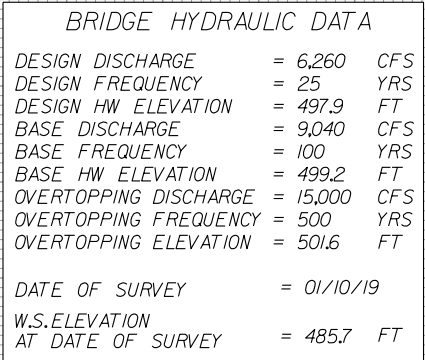
North Carolina Department of Transportation  
Division of Highways

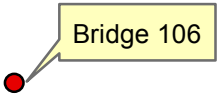
17BP.7.R.126  
Replace Bridge No. 106 over  
Wolf Island Creek on SR 1902 (Dibrell Road)

Rockingham County

|                  |
|------------------|
| Project Location |
| Figure 1         |

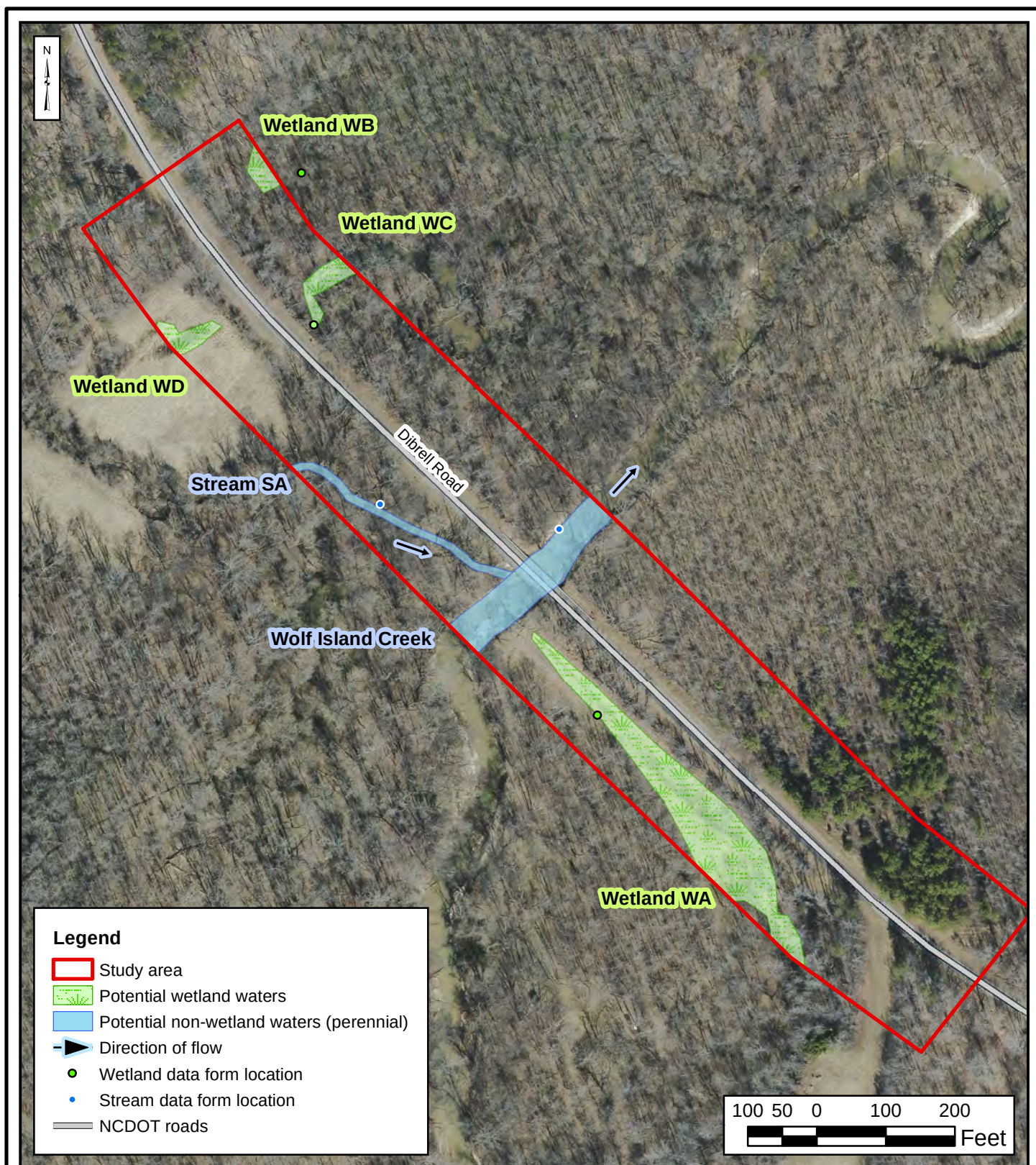






| Map Location                                                                                                                                                                                                          | Soils Map                                                                                                                                                                                                                                                                           | Figure 4 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| An inset map showing four counties: ROCKINGHAM, CASWELL, GUILFORD, and ALAMANCE. A red dot is located in the ROCKINGHAM county area. <div>ROCKINGHAM</div> <div>CASWELL</div> <div>GUILFORD</div> <div>ALAMANCE</div> | <div>NCDOT Bridge # 106 over<br/>Wolf Island Creek<br/>Dibrell Road, Pelham, NC<br/>Rockingham County</div> <div>Rockingham County Soil Survey, 1992<br/>Soil Sheet 6<br/>December 2017<br/>1 inch = 1,000 feet</div> A north arrow pointing upwards, with the letter "N" above it. |          |





Prepared for:



Project:

WBS 17BP.7.R.126

Replace Bridge No. 106 on  
Dibreil Road  
over Wolf Island Creek

Rockingham County, NC

Title:

Potential  
Jurisdictional  
Areas

Drawn by:

AEK

Date:

Dec 2018

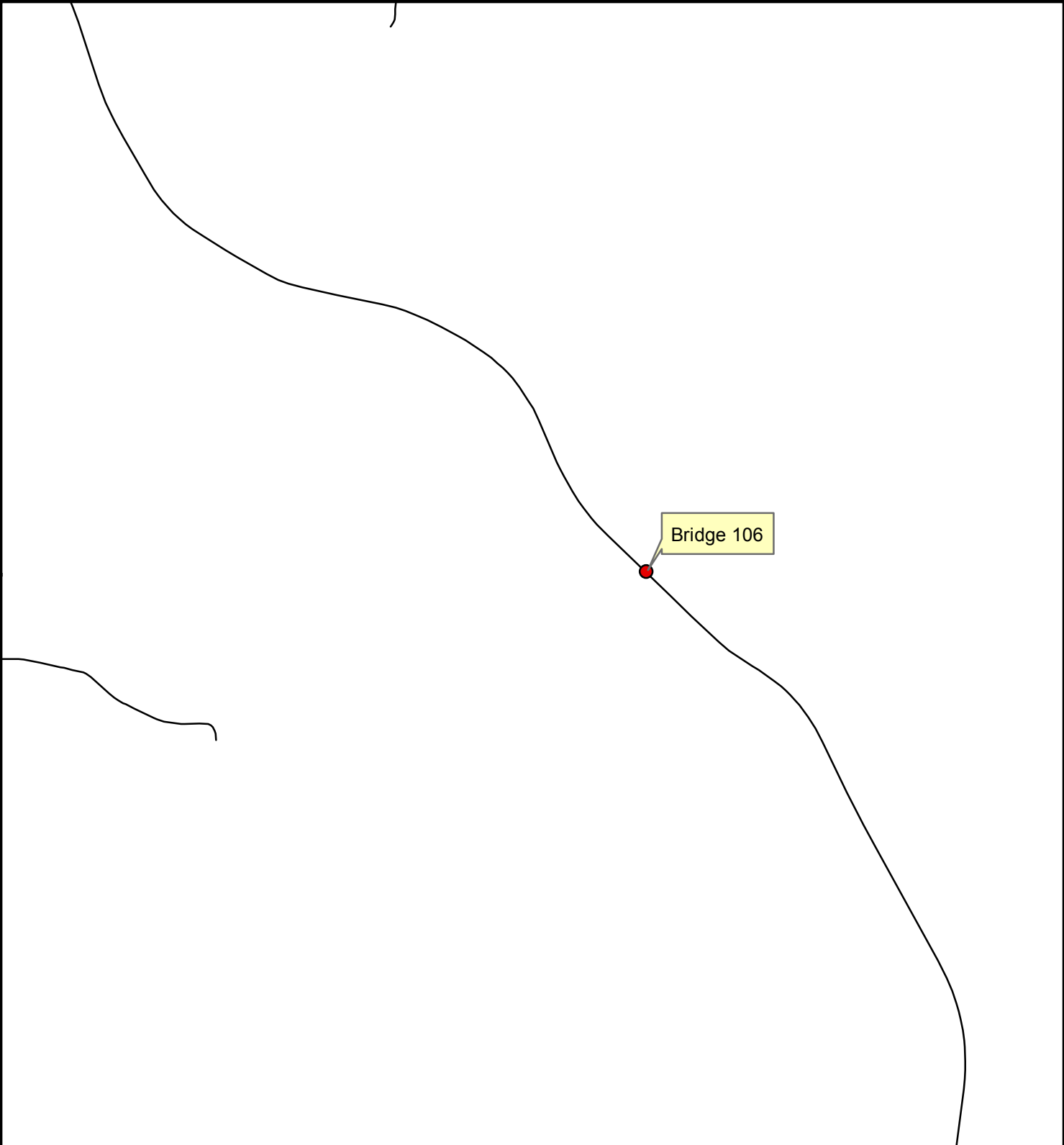
Scale:

1:2400

Project No.: 18-007.04

**FIGURE**  
**5**

Background Imagery: 2014 aerial photography provided by the NC OneMap Program  
(online, supported by the N.C. Geographic Information Coordination Council).



| Map Location                                                                                                                                                  | USGS Map                                                                                                                                                                                                                                                               | Figure 6 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| An inset map showing four counties: ROCKINGHAM, CASWELL, GUILFORD, and ALAMANCE. A red dot is located in the ROCKINGHAM county, near the border with CASWELL. | <p>NCDOT Bridge # 106 over<br/>Wolf Island Creek<br/>Dibrell Road, Pelham, NC<br/>Rockingham County</p> <p>USGS Topography, 2016<br/>Ruffin, NC Quadrangle<br/>December 2017<br/>1 inch = 1,000 feet</p> A north arrow pointing upwards, with the letter 'N' above it. |          |

# **APPENDIX B**

## **Reference Letters**



15-02-0028



## HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

### PROJECT INFORMATION

|                                                                                                              |                                                                     |                        |                                                                            |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------|
| <b>Project No:</b>                                                                                           | B-5355                                                              | <b>County:</b>         | Rockingham                                                                 |
| <b>WBS No.:</b>                                                                                              | 46069.1.1                                                           | <b>Document Type:</b>  | PCE                                                                        |
| <b>Fed. Aid No:</b>                                                                                          |                                                                     | <b>Funding:</b>        | <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal |
| <b>Federal Permit(s):</b>                                                                                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>Permit Type(s):</b> | unknown                                                                    |
| <b><u>Project Description:</u></b><br>Replace Bridge No. 106 on SR 1902 (Dibrell Rd) over Wolf Island Creek. |                                                                     |                        |                                                                            |

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**Description of review activities, results, and conclusions:**

On February 18, 2015 a search of NC HPOWEB GIS Service map reveals no identified historic sites in the Area of Potential Effects (APE). Rockingham County ConnectGIS website reveals that one property in the APE contains a residential structure which was constructed in 2003 and is not eligible for National Register listing. No survey is required.

**Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:**

Using HPO GIS website and the Rockingham County GIS website provides reliable information regarding the structures in the APE. These utilities are considered valid for the purposes of determining the likelihood of historic resources being present.

### SUPPORT DOCUMENTATION

☒ Map(s)   ☐ Previous Survey Info.   ☒ Photos   ☐ Correspondence   ☒ Design Plans

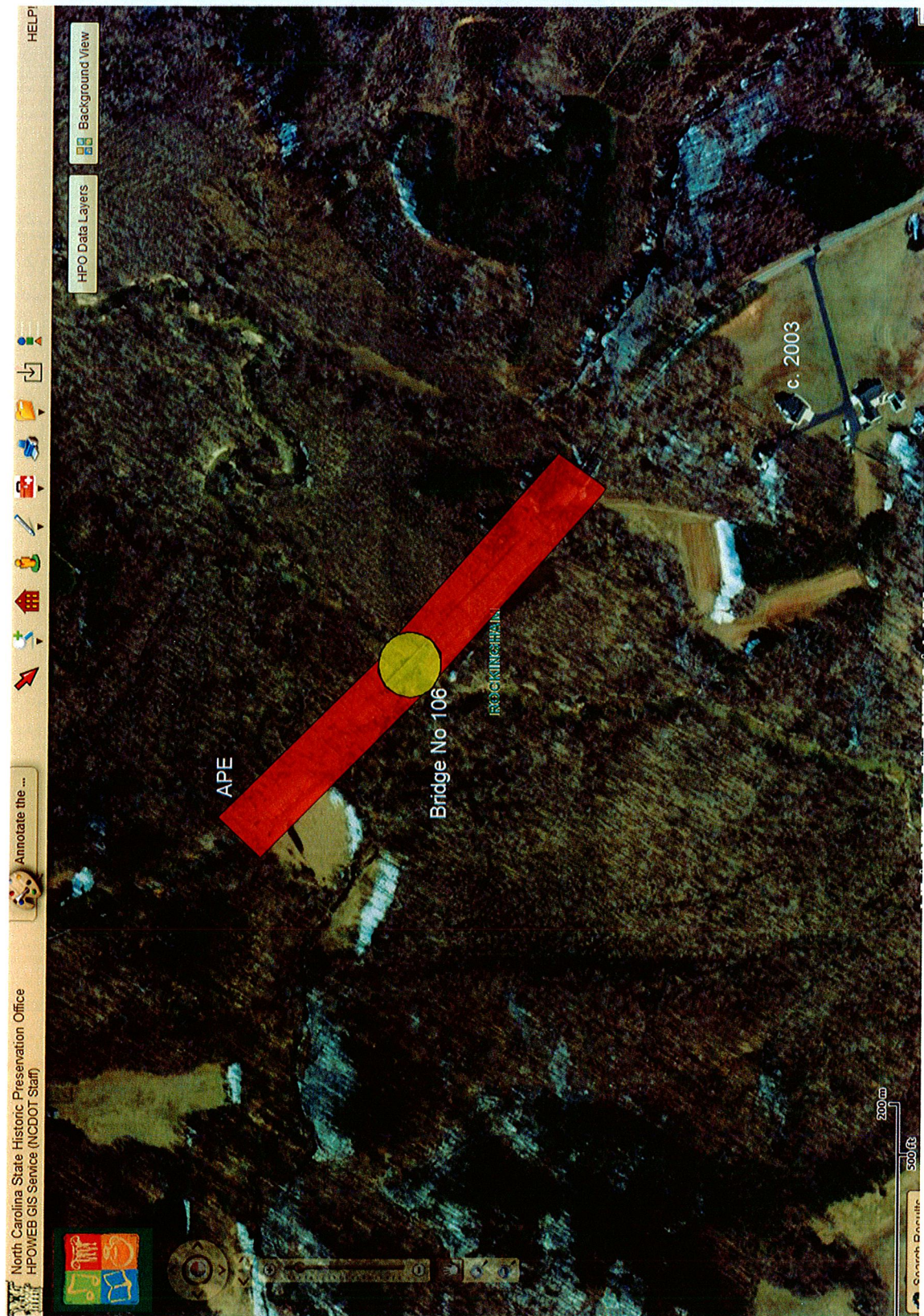
### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

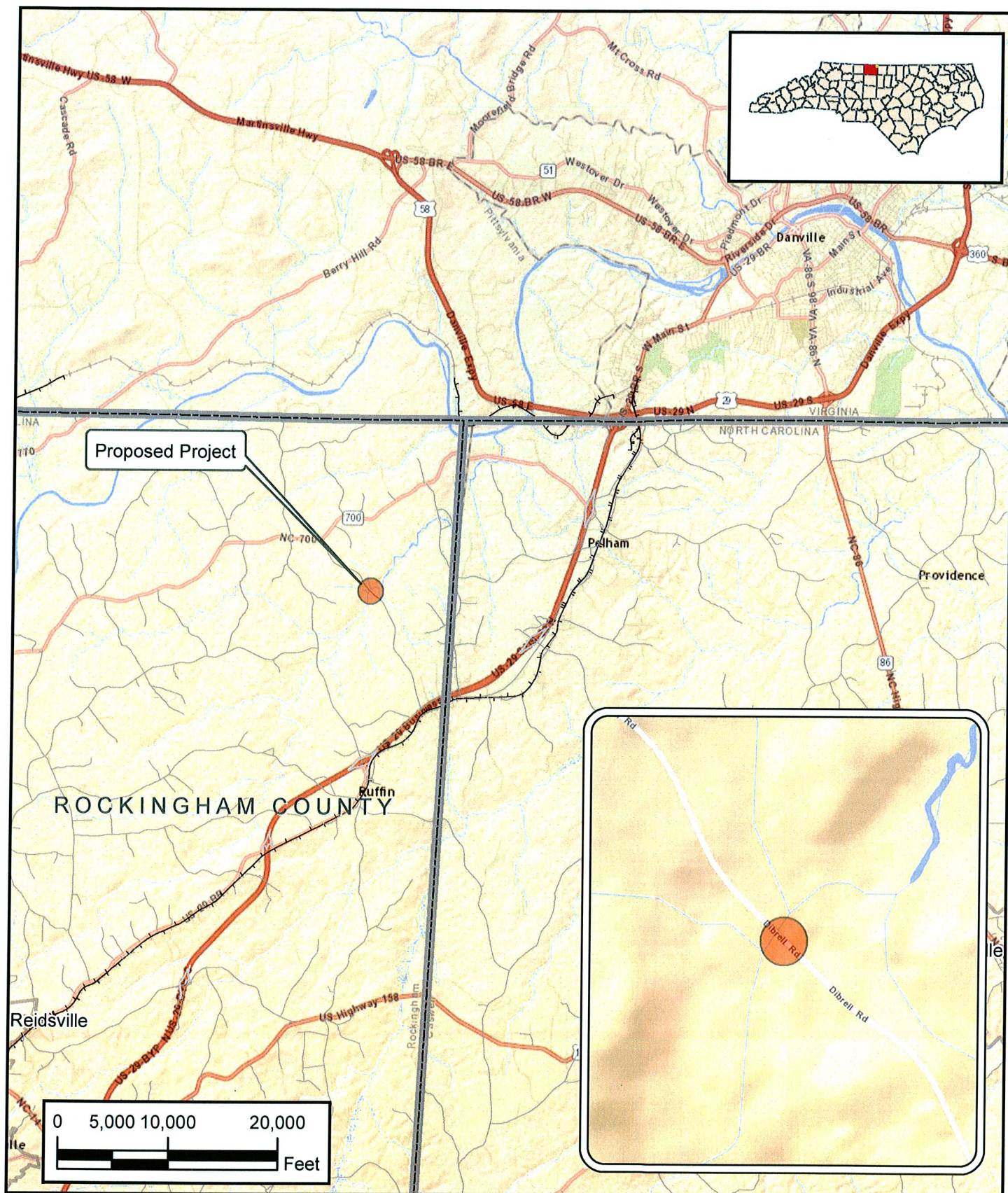
*Shelby Leap*  
\_\_\_\_\_  
NCDOT Architectural Historian

*Feb 18, 2015*  
\_\_\_\_\_  
Date









NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

**VICINITY MAP**  
**BRIDGE REPLACEMENT**  
**BRIDGE NO 106 OVER**  
**WOLF ISLAND CREEK**  
ROCKINGHAM COUNTY  
TIP PROJECT B-5355



County: ROCKINGHAM

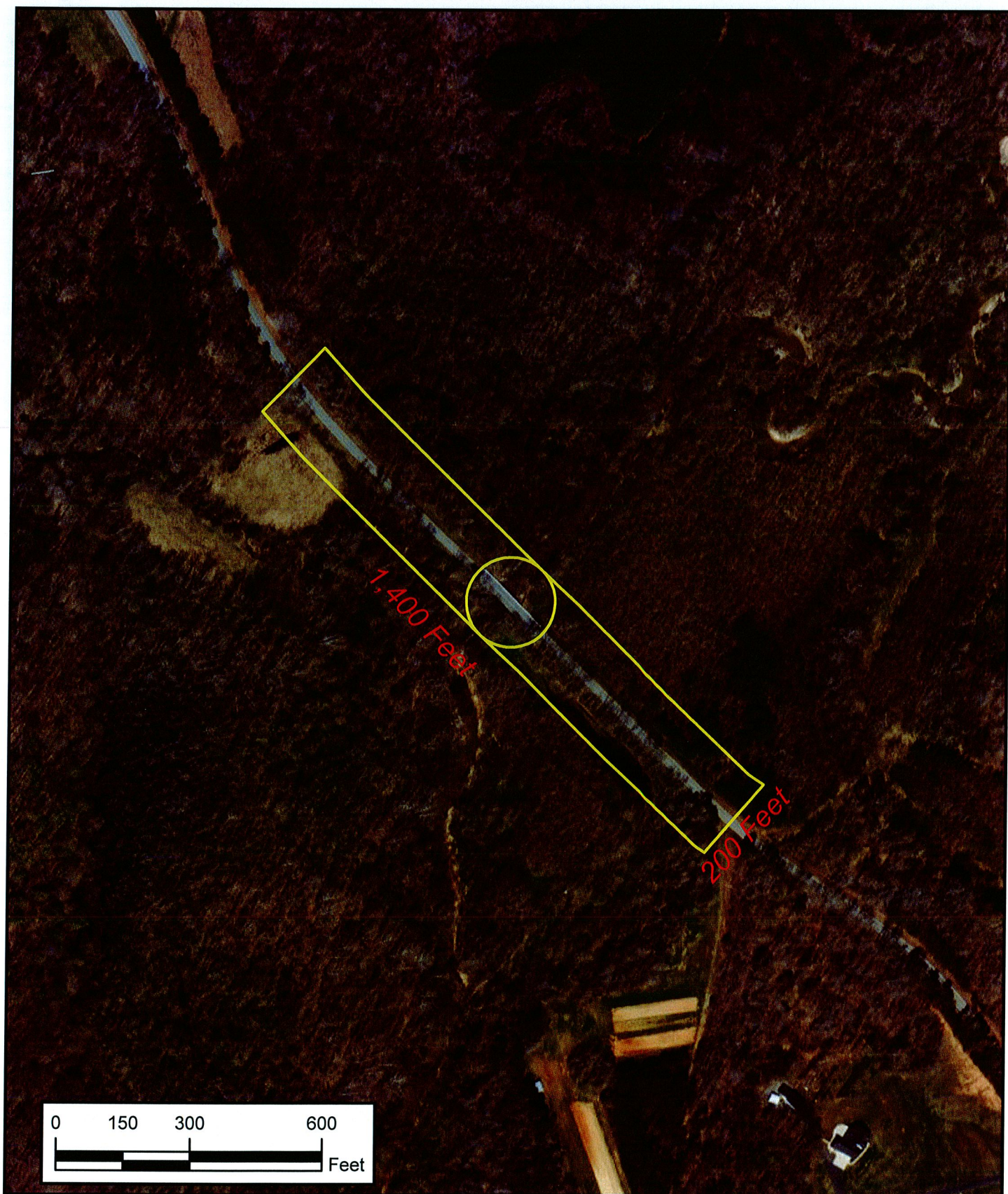
Div: 7 TIP# B-5355

WBS: 46069.1.1

Date: DEC 2014

**Figure**  
**1**





NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS UNIT

**STUDY AREA MAP**  
**BRIDGE REPLACEMENT**  
**BRIDGE NO 106 OVER**  
**WOLF ISLAND CREEK**  
ROCKINGHAM COUNTY  
TIP PROJECT B-5355



County: ROCKINGHAM

Div: 7 TIP# B-5355

WBS: 46069.1.1

Date: DEC 2014

**Figure**  
**2**



---

Subject: FW: [17BP.7.R.125 and 17BP.7.R.126] Historic Architecture Reports- Follow up

---

From: Reap, Shelby L <[sreap@ncdot.gov](mailto:sreap@ncdot.gov)>  
Sent: Thursday, March 28, 2019 10:06 AM  
To: Sentilles, Alexandria <[Alexandria.Sentilles@mottmac.com](mailto:Alexandria.Sentilles@mottmac.com)>  
Cc: Powers, Tim <[tpowers@ncdot.gov](mailto:tpowers@ncdot.gov)>; Jordan, Tim <[Tim.Jordan@mottmac.com](mailto:Tim.Jordan@mottmac.com)>; Mayhew, Aileen <[Aileen.Mayhew@mottmac.com](mailto:Aileen.Mayhew@mottmac.com)>; Gallas, Rebecca <[Rebecca.Gallas@mottmac.com](mailto:Rebecca.Gallas@mottmac.com)>  
Subject: RE: [17BP.7.R.125 and 17BP.7.R.126] Historic Architecture Reports- Follow up

Yes, those No Survey calls are still valid.

Shelby

---

From: Sentilles, Alexandria <[Alexandria.Sentilles@mottmac.com](mailto:Alexandria.Sentilles@mottmac.com)>  
Sent: Thursday, March 28, 2019 10:01 AM  
To: Reap, Shelby L <[sreap@ncdot.gov](mailto:sreap@ncdot.gov)>  
Cc: Powers, Tim <[tpowers@ncdot.gov](mailto:tpowers@ncdot.gov)>; Jordan, Tim <[Tim.Jordan@mottmac.com](mailto:Tim.Jordan@mottmac.com)>; Mayhew, Aileen <[Aileen.Mayhew@mottmac.com](mailto:Aileen.Mayhew@mottmac.com)>; Gallas, Rebecca <[Rebecca.Gallas@mottmac.com](mailto:Rebecca.Gallas@mottmac.com)>  
Subject: [External] [17BP.7.R.125 and 17BP.7.R.126] Historic Architecture Reports- Follow up

Good morning Ms. Reap,

I am working on the Minimum Criteria Determination Checklist for the following bridge projects (listed below). Several years ago you performed historic architecture reviews for these projects and I'm emailing today to see if these reports are acceptable or if you think we need to request updated reviews.

| Project No.           | County     | Project Description                                                       | Original Report Date | Tracking No. |
|-----------------------|------------|---------------------------------------------------------------------------|----------------------|--------------|
| 17BP.7.R.125 (B-5357) | Rockingham | Replace Bridge No. 78 over Rock Creek on S.R. 2715 (Hampton Road)         | February 18, 2015    | 15-02-0027   |
| 17BP.7.R.126 (B-5355) | Rockingham | Replace Bridge No. 106 over Wolf Island Creek on S.R. 1902 (Dibrell Road) | February 18, 2015    | 15-02-0028   |

Attached for your review are the historic architecture reports and current study area shapefiles for the respective projects. Please note, the attached study area shapefiles are slightly different from the study areas used in the original historic architecture reports.

If you have any questions, please feel free to contact me. Thanks!

Best,  
Alexandria

**Alexandria Sentilles**  
Environmental Planner



**NO NATIONAL REGISTER OF HISTORIC PLACES  
ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES  
PRESENT FORM**



This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

**PROJECT INFORMATION**

Project No: **B-5355** County: **Rockingham**  
 WBS No: **46069.1.1** Document: **PCE or CE**  
 F.A. No: **NA** Funding: ☒ State ☐ Federal

Federal Permit Required? ☐ Yes ☐ No Permit Type: **NA**

**Project Description:**

NCDOT is proposing to replace Bridge No. 106 on SR 1902 (Dibrell Road) over Wolf Island Creek in Rockingham County, North Carolina. The proposed project approximately 1,400 feet (426.72 meters) long (centered on the mid-point of the existing bridge). The proposed ROW is approximately 200 feet (60.96 meters) wide. The Area of Potential Effects (APE) for archaeology encompasses approximately 6.43 acres (2.6 hectares).

**SUMMARY OF ARCHAEOLOGICAL FINDINGS**

An archaeological survey and evaluation of the proposed replacement of Bridge No. 106 on SR 1902 (Dibrell Road) over Wolf Island Creek in Rockingham County was conducted on February 25, 2016 by Terri Russ and Kevin Murphrey of Environmental Services, Inc. (ESI). As a result of the investigations, no archaeological sites were located within the project's APE. No further archaeological investigations are needed for this project. I concur with this recommendation as the proposed bridge replacement project will not impact significant archaeological resources. If the project expands and impacts subsurface areas beyond the defined APE, further archaeological consultations will be necessary.

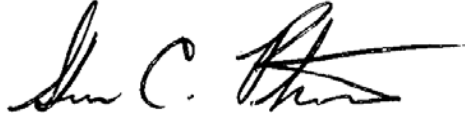
***The North Carolina Department of Transportation (NCDOT) Archaeology Group reviewed the subject project and determined:***

- ☒ There are no National Register listed or eligible ARCHAEOLOGICAL SITES present within the project's area of potential effects. (Attach any notes or documents as needed)
- ☐ No subsurface archaeological investigations were required for this project.
- ☒ Subsurface investigations did not reveal the presence of any archaeological resources.
- ☐ Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- ☒ All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

**Brief description of review activities, results of review, and conclusions:**  
See below.

**SUPPORT DOCUMENTATION**

See attached: ☐ Map(s) ☐ Previous Survey Info ☐ Photos ☐ Correspondence  
Signed:



March 29, 2016

**NCDOT ARCHAEOLOGIST**

**Date**

## Bridge 106 AR15-02-0028

An archaeological survey and evaluation of the proposed replacement of Bridge No. 106 on SR 1902 (Dibrell Road) over Wolf Island Creek in Rockingham County, North Carolina was conducted on February 25, 2016 by Terri Russ and Kevin Murphrey of Environmental Services, Inc. (**Figures 1 and 2**). The proposed project approximately 1,400 feet (426.72 meters) long (centered on the mid-point of the existing bridge). The proposed ROW is approximately 200 feet (60.96 meters) wide. The Area of Potential Effects (APE) for archaeology encompasses approximately 6.43 acres (2.6 hectares).

## Background Summary

A map review and site file search conducted by NCDOT at the Office of State Archaeology (OSA) on March 5, 2015 revealed that no comprehensive archaeological survey of this bridge has been conducted, and no previously recorded sites have been documented within the project's proposed APE. A search of the North Carolina State Historic Preservation Office online database (HPOWEB GIS Service) revealed no previously recorded historic architectural resources located within the APE that have the potential to yield intact archaeological deposits.

Topographic maps, aerial photography, United States Department of Agriculture (USDA) soil survey maps, and historic maps were examined for information on natural or cultural factors that might have affected site locations or preservation. The ca. 1910–1919 Rural Delivery Route map and 1926 Soil Survey appear to generally show the current bridge location and road alignment (**Figures 3 and 4**). The 1938 Rockingham County road map appears to show two branches of Wolf Island Creek crossed by the bridge; however, this may be the result of a map scale issue rather than an alternate bridge alignment (**Figure 5**). The 1971 topographic quadrangle appears to show the current road and bridge alignment (**Figure 6**).

## Environmental Setting

The APE is located within the Piedmont physiographic region and consists of the floodplain and adjacent terraces of Wolf Island Creek. Dibrell Road (SR 1902) crosses Wolf Island Creek roughly northwest to southeast. Stony Creek drains northeast into the Dan River.

Map units (soil series) are named for the major soil or soils within the unit, but may have minor inclusions of other soils (NRCS 2015). The majority of the APE is mapped as Codorus loam, a frequently flooded, somewhat poorly drained soil series encountered on floodplains (**Table 1**). The soils along the terrace edges on either end of the APE are mapped as Fairview-Poplar Forest complex soils, a moderately eroded, well drained soil complex encountered on hillslopes. A small portion of the steeply sloping northwestern edge of the APE is mapped as Rhodhiss sandy loam.

**Table 1: Project Area Soils.**

| Soil Name                                   | Code | Slope  | Drainage        | Landform             |
|---------------------------------------------|------|--------|-----------------|----------------------|
| Codorus loam, freq. flooded                 | CsA  | 0–2%   | Somewhat Poorly | Floodplains          |
| Fairview-Poplar Forest Complex, mod. eroded | FrD2 | 8–15%  | Well            | Hillslopes on Ridges |
| Rhodhiss sandy loam                         | RnE  | 15–30% | Well            | Hillslopes on Ridges |

The current archaeological investigation included pedestrian (visual) inspection and shovel testing at 15-meter intervals within the APE. Photographs of the project area are shown as **Figures 7–16**. A systematic visual inspection of the APE was undertaken to search for surface artifacts, above-ground

resources, or other signs of cultural activity. A total of 28 shovel tests were excavated during the current investigation (see **Figure 2** for shovel test locations). The APE was divided into four quadrants (e.g., northeast, southeast) based roughly on their locations relative to the bridge. Each quadrant of the APE is described below.

#### *Northwest Quadrant*

The northwest quadrant of the APE consisted of a low, saturated area adjacent to the existing, elevated road bed (see **Figures 7–8**). A visual inspection of this quadrant and vicinity revealed several hunting stands, deer carcasses, and ATV trails; no historic surface artifacts or structural remains were noted. Thirteen shovel tests were placed in this portion of the APE (STs 1–13); all of these encountered wet soils or standing water.

#### *Southwest Quadrant*

The southwest quadrant of the APE consisted of a fallow field and wooded area (see **Figures 9–10**). Like the northwest quadrant, the majority of this area exhibited standing water or saturated soils. A tributary runs parallel to the road and drains into of Wolf Island Creek near the bridge crossing. Of the 14 shovel tests placed within this portion of the APE (STs 14–27), all were located within the floodplain of Wolf Island Creek. Ten shovel tests (STs 14, 16–18, 20, 23–27) were not excavated do to disturbance, hydric soils, or standing water. Excavated shovel tests revealed up to 45 centimeters of brown silty loam over wet reddish brown silty clay loam. No artifacts or cultural materials were recovered during shovel testing in this quadrant of the project's APE.

#### *Northeast Quadrant*

The northeast quadrant of the project area consisted of a gently sloping wooded area (see **Figures 11–12**). Shovel tests excavated in the southernmost portion of this quadrant of the APE (STs 28–31, 40–41) revealed up to 25 centimeters of brown silty loam over strong brown clay subsoil. Shovel testing closer to the creek (STs 32–39) revealed somewhat disturbed soils, with up to 30 centimeters of reddish brown and strong brown mottled sandy clay loam and gravel over reddish brown sandy clay loam or reddish brown wet clay loam. These disturbed soils are likely associated with the construction and elevation of the adjacent roadbed. No artifacts or cultural materials were recovered during shovel testing in this quadrant of the APE.

#### *Southeast Quadrant*

The majority of the southeast quadrant of the APE was located within the floodplain of Wolf Island Creek (see **Figures 13–14**). The easternmost portion of this quadrant was located along the side slope of a wooded terrace. Shovel testing in this area (STs 42–45) revealed 10 centimeters of brown loam over strong brown loamy clay. No artifacts or cultural materials were recovered from the shovel tests. The remaining portion of this quadrant of the APE was located within an inundated grassy field. No shovel tests were excavated in this area due to standing water. Pedestrian inspection of this portion of the project area revealed no surface signs of cultural activity or structural remains.

Excavated shovel tests measured 30 centimeters in diameter and were excavated to sterile subsoil, hydric/saturated soils, the water table, or 75 centimeters below surface (whichever was encountered first). All soils were excavated by natural levels (soil strata) and screened through a 0.25-inch hardware mesh. No artifacts were recovered from any of the shovel tests.

Based on the results of the background research and field investigations, no archaeological resources are located within the APE for Bridge No. 106 in Rockingham County. It is recommended that this project



be allowed to proceed without concern for impacts to significant cultural resources. Should the boundary of the proposed APE be expanded or moved, additional archaeological investigations may be necessary, as determined in consultation with the NCDOT and/or SHPO per the Programmatic Agreement.

### REFERENCES CITED

National Geographic Society/ESRI

2011 *Ruffin, North Carolina*. I-cubed Seamless USGS Quadrangle.

Natural Resources Conservation Service (NRCS)

2015 *Rockingham County, North Carolina Soil Survey*. Natural Resources Conservation Service, United States Department of Agriculture Web Soil Survey.  
<http://websoilsurvey.nrcs.usda.gov/> accessed 2 February 2016.

North Carolina State Highway and Public Works Commission

1938 *Rockingham County Highway Map*. On file, North Carolina State Archives, Raleigh.  
<http://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/1690/rec/24> accessed 2 February 2016.

United States Bureau of Chemistry and Soils: North Carolina Department of Agriculture

1926 *Soil Survey of Rockingham County, N.C.* On file, North Carolina State Archives, Raleigh.  
<http://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/1800/rec/21> accessed 2 February 2016.

United States Geological Survey (USGS)

1971 *Ruffin, North, N.C.*, 7.5-minute topographic quadrangle map. Historical Topographic Map Collection. <http://historicalmaps.arcgis.com/usgs/> accessed 1 February 2016.

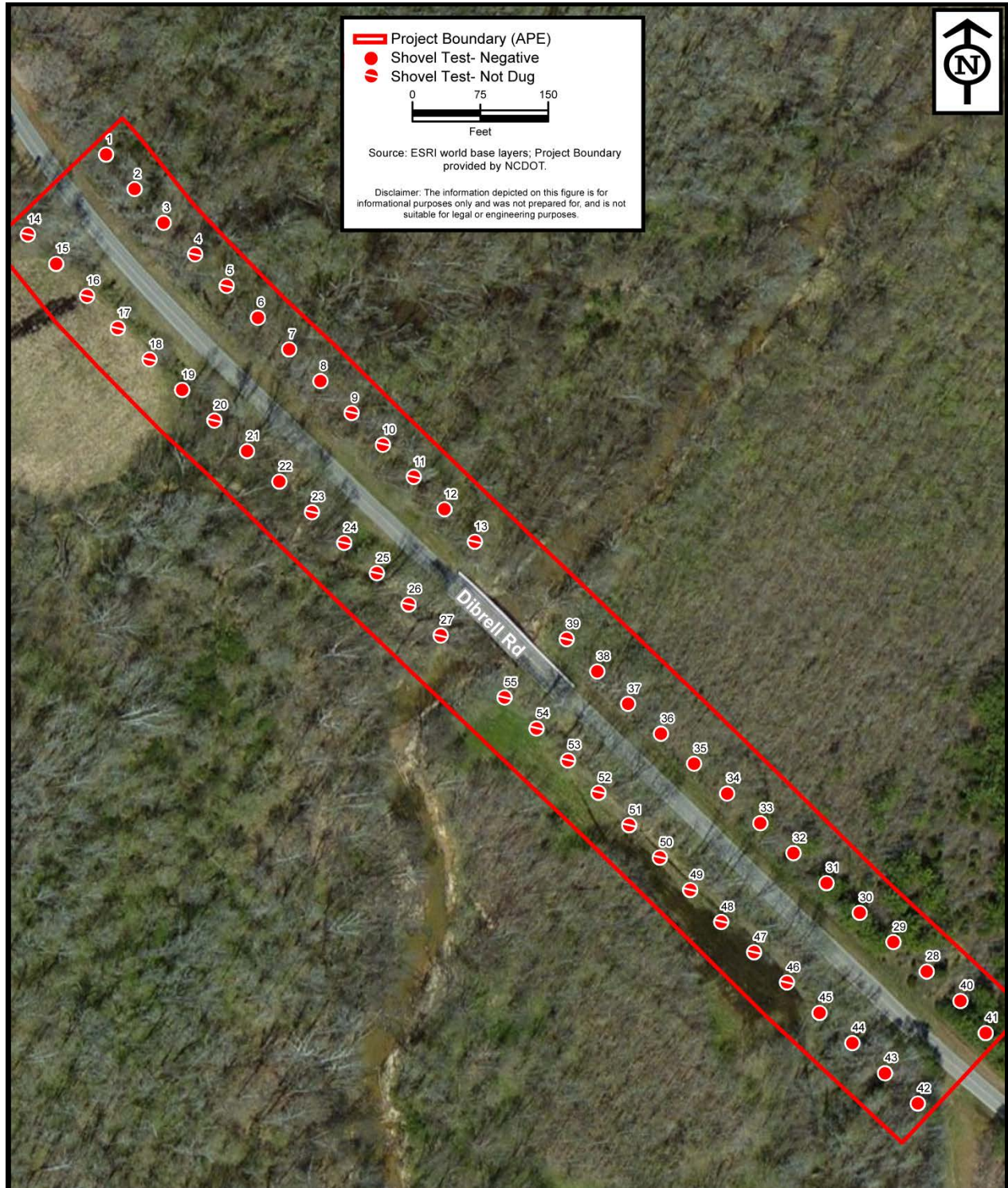
United States Post Office Department

1919 *Rural Delivery Routes, Rockingham County, N.C., circa 1910s*. On file, North Carolina State Archives, Raleigh. <http://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/929/rec/14> accessed 1 February 2016.



**Figure 1. Project Location (Ruffin, NC USGS 7.5-Minute Topographic Quadrangle)**



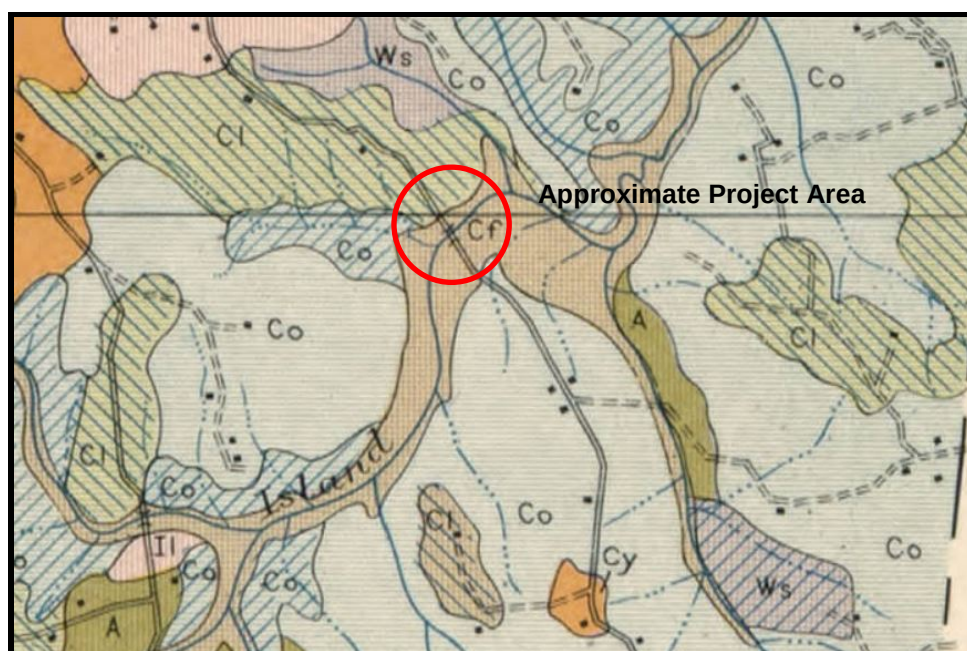


**Figure 2. Bridge No. 106 APE and Shovel Test Locations**

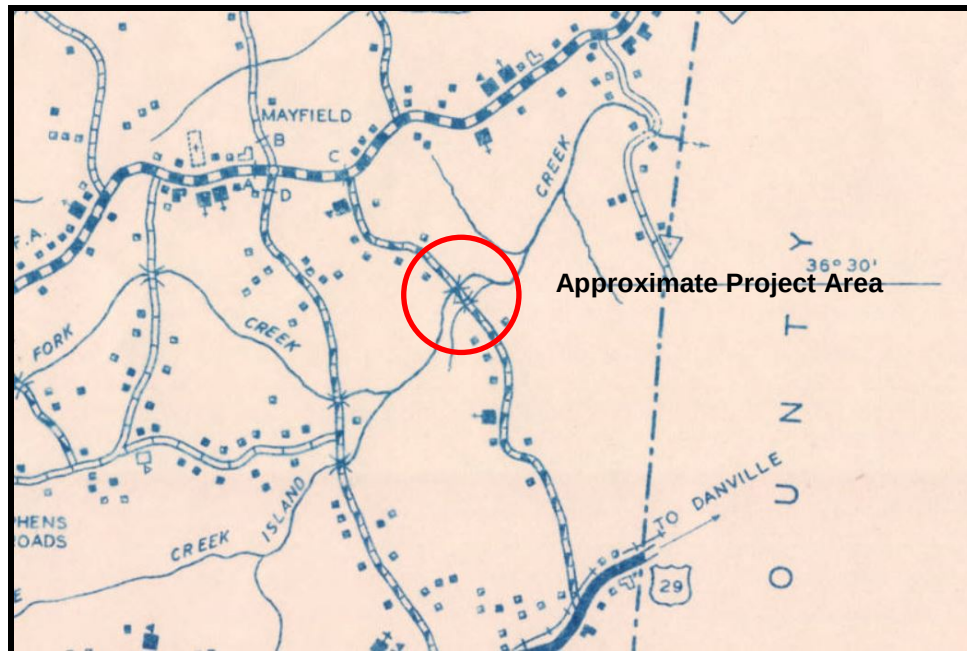




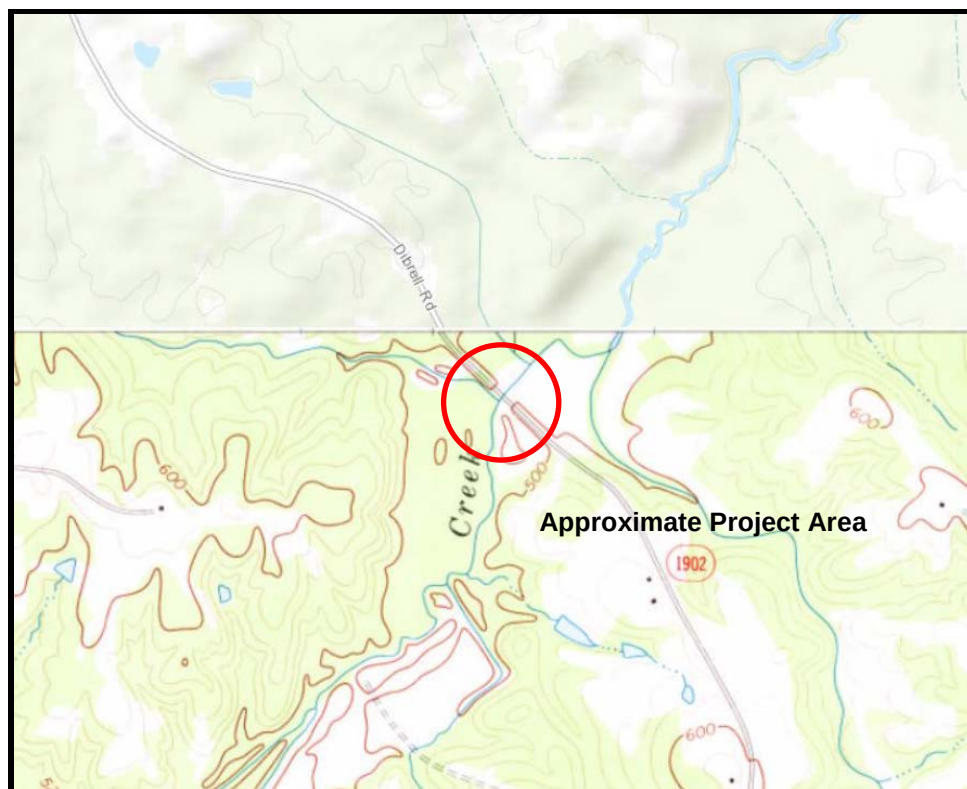
**Figure 3. ca. 1910–1919 Rural Delivery Map of Rockingham County**



**Figure 4. 1926 Soils Map of Rockingham County**



**Figure 5. 1938 Rockingham County Highway Map**



**Figure 6. 1971 USGS Topographic Quadrangle**





**Figure 7. Northwest Quadrant of APE, facing Southeast from ST 4**



**Figure 8. Northwest Quadrant of APE, facing South from ST 10**





**Figure 9. Southwest Quadrant of APE, facing South towards ST 18**



**Figure 10. Southwest Quadrant of APE, facing West from ST 16**





**Figure 11. Northeast Quadrant of APE, facing Southeast**



**Figure 12. Northeast Quadrant of APE, facing North from Existing Road**





**Figure 13. Southeast Quadrant of APE, facing Northwest from ST 16**



**Figure 14. Upland Portion of Southeast Quadrant of APE, facing Northwest**





**Figure 15. Bridge No. 106, facing Southeast**



**Figure 16. Bridge No. 106, facing Northwest**

Aileen Mayhew

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Subject: FW: [External] RE: FW: [17BP.7.R.125 and 17BP.7.R.126] Archaeology Reports- Follow up  
Attachments: 17BP.7.R.126 Review Area.jpg

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From: Petersen, Shane C <scpetersen@ncdot.gov>  
Sent: Tuesday, January 26, 2021 11:06 PM  
Subject: RE: RE: FW: [17BP.7.R.125 and 17BP.7.R.126] Archaeology Reports- Follow up

With regards to 17BP.7.R.126 (B-5355) the replacement of Bridge No. 106 on SR 1902 (Dibrell Road) over Wolf Island Creek in Rockingham County, I believe the project is still covered by the previous PA forms.

I've attached an image of the designs you sent in comparison to the original APE surveyed in February 2016 by Environmental Services, Inc. (ESI) on behalf of NCDOT. As noted on the No National Register of Historic Places Eligible or Listed Archaeological Sites Present or Affected form (dated March 29, 2016), the original 6.43-acre APE was surveyed through the placement of 28 subsurface tests at 15-meter intervals parallel the highway on each side. No NRHP-eligible archaeological resources were identified within the original APE. As illustrated on the attached map, the current drawings associated with the project do not appear to indicate any earth-disturbing activities outside the previously surveyed area.

It is worth noting that Rockingham County falls within the areas of interest to the Catawba Indian Nation and the Monacan Indian Nation. You should consult with the lead federal agency regarding coordination with those tribal entities.

If you have any questions or concerns, or if I can provide any further assistance, please let me know.

**Shane C. Petersen**  
Archaeologist II  
Environmental Analysis Unit  
North Carolina Department of Transportation

919 707 6083 office  
919 740 3668 mobile  
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Raleigh, North Carolina 27699-1598



*Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.*









## ☒ North Carolina Wildlife Resources Commission ☒

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Gordon Myers, Executive Director

July 30, 2019

### **M E M O R A N D U M**

**TO:** Aileen Mayhew, PE  
Project Manager  
Mott MacDonald

**FROM:** Travis Wilson, Highway Project Coordinator  
Habitat Conservation Program

**SUBJECT:** Division 7 Bridge Replacements

Biologists with the N. C. Wildlife Resources Commission (NCWRC) have reviewed the information provided and have the following preliminary comments on the subject project. Our comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Our standard recommendations for bridge replacement projects of this scope are as follows:

1. We generally prefer spanning structures. Spanning structures usually do not require work within the stream and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allows for human and wildlife passage beneath the structure, does not block fish passage, and does not block navigation by canoeists and boaters.
2. Bridge deck drains should not discharge directly into the stream.
3. Live concrete should not be allowed to contact the water in or entering into the stream.
4. If possible, bridge supports (bents) should not be placed in the stream.
5. If temporary access roads or detours are constructed, they should be removed back to original ground elevations immediately upon the completion of the project. Disturbed areas should be

seeded or mulched to stabilize the soil and native tree species should be planted with a spacing of not more than 10'x10'. If possible, when using temporary structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact, allows the area to revegetate naturally and minimizes disturbed soil.

6. A clear bank (riprap free) area of at least 10 feet should remain on each side of the stream underneath the bridge.

7. In trout waters, the N.C. Wildlife Resources Commission reviews all U.S. Army Corps of Engineers nationwide and general '404' permits. We have the option of requesting additional measures to protect trout and trout habitat and we can recommend that the project require an individual '404' permit.

8. In streams that contain threatened or endangered species, NCDOT biologist should be notified. Special measures to protect these sensitive species may be required. NCDOT should also contact the U.S. Fish and Wildlife Service for information on requirements of the Endangered Species Act as it relates to the project.

9. In streams that are used by anadromous fish, the NCDOT official policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997)" should be followed.

10. Sedimentation and erosion control measures sufficient to protect aquatic resources must be implemented prior to any ground disturbing activities. Structures should be maintained regularly, especially following rainfall events.

11. Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of ground disturbing activities to provide long-term erosion control.

12. All work in or adjacent to stream waters should be conducted in a dry work area. Sandbags, rock berms, cofferdams, or other diversion structures should be used where possible to prevent excavation in flowing water.

13. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams.

14. Only clean, sediment-free rock should be used as temporary fill (causeways), and should be removed without excessive disturbance of the natural stream bottom when construction is completed.

15. During subsurface investigations, equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

If corrugated metal pipe arches, reinforced concrete pipes, or concrete box culverts are used:

1. The culvert must be designed to allow for aquatic life and fish passage. Generally, the culvert or pipe invert should be buried at least 1 foot below the natural streambed (measured from the natural thalweg depth). If multiple barrels are required, barrels other than the base flow barrel(s) should be placed on or near stream bankfull or floodplain bench elevation (similar to Lyonsfield design). These should be reconnected to floodplain benches as appropriate. This may be accomplished by utilizing sills on the upstream and downstream ends to restrict or divert flow to the base flow barrel(s). Silled barrels should be filled with sediment so as not to entrap wildlife or support mosquito breeding conditions. Sufficient water depth should be provided in the base flow barrel(s) during low flows to accommodate fish movement. If culverts are longer than 40-50 linear feet, alternating or notched baffles should be installed in a manner that mimics existing stream pattern. This should enhance aquatic life passage: 1) by depositing sediments in the barrel, 2) by maintaining channel depth and flow regimes, and 3) by providing resting places for fish and other aquatic organisms. In essence, base flow barrel(s) should provide a continuum of water depth and channel width without substantial modifications of velocity.
2. If multiple pipes or cells are used, at least one pipe or box should be designed to remain dry during normal flows to allow for wildlife passage.
3. Culverts or pipes should be situated along the existing channel alignment whenever possible to avoid channel realignment. Widening the stream channel must be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
4. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be professionally designed, sized, and installed.

In most cases, we prefer the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed down to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. If the area reclaimed was previously wetlands, NCDOT should restore the area to wetlands. If successful, the site may be utilized as mitigation for the subject project or other projects in the watershed.

Project specific comments:

- Replacement of Bridge # 78 over Rock Creek on SR 2715 in Rockingham County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 106 over Wolf Island Creek on SR 1902 in Rockingham County: The potential exists for Roanoke logperch (*Percina rex*: state E, federal E) to be found at this site. NCDOT should coordinate with NCWRC and USFWS in conducting a survey to determine the presence or absence of this species. We recommend replacing this bridge with a bridge. Standard recommendations apply.



- Replacement of Bridge # 67 over West Fork Deep River on SR 1523 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 25 over Polecat Creek on SR 1105 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 117 over Country Line Creek on SR 1780 in Caswell County: This portion of Country Line Creek is designated as Significant Aquatic Habitat by the NC Natural Heritage Program. Our records also indicate the potential for listed species to be present within the project area, including: Triangle floater (*Alasmidonta undulata*: state T) and Creeper (*Strophitus undulatus*: state T). NCDOT should follow the Design Standards for Sensitive Watersheds during the design and construction of this project. We recommend replacing this bridge with a bridge. Caswell Game Land is located within the project study area. Gatewood Road dead ends just beyond this bridge in the game land NCDOT will need to continue coordination with WRC to avoid impacts to the game land as well as retain access during construction.
- Replacement of Bridge # 85 over Reedy Fork on SR 1858 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 86 over Beaver Creek on SR 1858 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 167 over South Buffalo Creek on SR 4763 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 183 over Prong Haw River on SR 2710 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.
- Replacement of Bridge # 205 over Rock Creek on SR 2752 in Guilford County: NCDOT should replace this bridge with a bridge, standard recommendations apply.

If you need further assistance or information on NCWRC concerns regarding bridge replacements, please contact me at (919) 707-0370. Thank you for the opportunity to review and comment on this project.

ROY COOPER

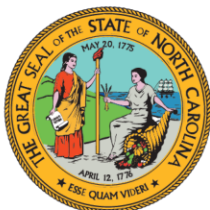
Governor

MICHAEL S. REGAN

Secretary

LINDA CULPEPPER

Director

NORTH CAROLINA  
Environmental Quality

July 30, 2019

**MEMORANDUM**

To: Aileen Mayhew, Project Manager

From: April Norton, Division of Water Resources, Transportation Permitting Branch

Subject: Comments for the proposed bridge replacement projects in Division 7.

A request for comments was dated and received June 18, 2019 for the subject project. Preliminary analysis of the project reveals the potential for impacts to streams in the project area. More specifically, potential impacts to:

Table 1. Proposed bridge replacement projects.

| Project No.  | County     | Project Description                            | Replacement Structure                       | Latitude  | Longitude  |
|--------------|------------|------------------------------------------------|---------------------------------------------|-----------|------------|
| 17BP.7.R.125 | Rockingham | Bridge 78 over Rock Creek on SR 2715           | Bridge                                      | 36.476908 | -79.675205 |
| 17BP.7.R.126 | Rockingham | Bridge 106 over Wolf Island Creek on SR 1902   | Bridge                                      | 36.498513 | -79.541836 |
| 17BP.7.R.127 | Guilford   | Bridge 67 over West Fork Deep River on SR 1523 | Bridge                                      | 36.000737 | -79.973488 |
| 17BP.7.R.128 | Guilford   | Bridge 25 over Polecat Creek on SR 1105        | Bridge                                      | 35.953506 | -79.811723 |
| 17BP.7.R.130 | Caswell    | Bridge 117 over County Line on SR 1780         | Remove existing bridge; construct connector | 36.403306 | -79.299189 |
| 17BP.7.R.131 | Guilford   | Bridge 85 over Reedy Fork on SR 1858           | Bridge                                      | 36.133549 | -80.014205 |
| 17BP.7.R.132 | Guilford   | Bridge 85 over Beaver Creek on SR 1858         | Bridge                                      | 36.144466 | -80.012742 |
| 17BP.7.R.133 | Guilford   | Bridge 167 over South Buffalo Creek on SR 4763 | Bridge                                      | 36.089645 | -79.688015 |
| 17BP.7.R.134 | Guilford   | Bridge 183 over Haw River on SR 2710           | Culvert                                     | 36.233299 | -79.56103  |
| 17BP.7.R.135 | Guilford   | Bridge 205 over Rock Creek on Sr 2752          | Bridge                                      | 36.094244 | -79.598504 |



Table 2. Potential stream impacts in reference to the above potential bridge projects.

| Stream Name          | River Basin / Sub-Basin | Stream Classifications | Stream Index Number |
|----------------------|-------------------------|------------------------|---------------------|
| Rock Creek           | Roanoke/ROA03           | C                      | 22-43               |
| Wolf Island Creek    | Roanoke/ROA03           | C                      | 22-48               |
| West Fork Deep River | Cape Fear/CPF08         | WS-IV                  | 17-3-(1.5)          |
| Polecat Creek        | Cape Fear/CPF09         | WS-III                 | 17-11-(1)           |
| County Line Creek    | Roanoke/ROA04           | C                      | 22-56-(3.7)         |
| Reedy Fork           | Cape Fear/CPF02         | WS-III; NSW            | 16-11-(1)           |
| Beaver Creek         | Cape Fear/CPF02         | WS-III; NSW            | 16-11-2             |
| South Buffalo Creek  | Cape Fear/CPF02         | WS-V; NSW              | 16-11-14-2          |
| Haw River            | Cape Fear/CPF02         | WS-IV; NSW             | 16-(6.5)            |
| Rock Creek           | Cape Fear/CPF03         | WS-IV; NSW             | 16-19-3.5-(1)       |

Further investigations at a higher resolution should be undertaken to verify the presence of additional streams and/or jurisdictional wetlands in the area. If any jurisdictional areas are identified, the Division of Water Resources requests that the following environmental issues for the proposed project are considered:

#### Project Specific Comments:

1. Portions of the projects are located within the Jordan and Randleman River Buffer Basin. Riparian buffer impacts shall be avoided and minimized to the greatest extent possible pursuant to 15A NCAC 2B .0267. New development activities located in the protected 50-foot wide riparian areas within the basin shall be limited to “uses” identified within and constructed in accordance with 15A NCAC .02B .0295. Buffer mitigation may be required for buffer impacts resulting from activities classified as “allowable with mitigation” within the “Table of Uses” section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the North Carolina Division of Mitigation Services, must be provided to the NCDWR prior to approval of the Water Quality Certification. Buffer mitigation may be required for buffer impacts resulting from activities classified as “allowable with mitigation” within the “Table of Uses” section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, coordinated with the North Carolina Division of Mitigation Services, must be provided to the NCDWR prior to approval of the Water Quality Certification.

#### General Project Comments:

1. The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.
2. Environmental impact statement alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Tool box manual*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.
3. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission’s Rules (15A NCAC 2H.0506[h]), mitigation will be required for impacts of greater

than 1 acre to wetlands. If mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. North Carolina Division of Mitigation Services may be available for assistance with wetland mitigation.

4. In accordance with the Environmental Management Commission's Rules (15A NCAC 2H.0506[h]), mitigation will be required for impacts of greater than 300 linear feet to any perennial stream. If mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The North Carolina Division of Mitigation Services may be available for assistance with stream mitigation.
5. Future documentation, including the 401 Water Quality Certification Application, shall continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.
6. The NCDWR is very concerned with sediment and erosion impacts that could result from this project. The NCDOT shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.
7. An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis shall conform to the NC Division of Water Resource Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.
8. The NCDOT is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, and rip rap to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.
9. Where streams must be crossed, the NCDWR prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts should be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, the NCDOT should not install the bridge bents in the creek, to the maximum extent practicable.
10. Whenever possible, the NCDWR prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) should not be placed in the stream when possible.
11. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual for approved measures.
12. Sediment and erosion control measures should not be placed in wetlands or streams.
13. Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas will need to be presented in the 401 Water Quality Certification and could precipitate compensatory mitigation.
14. The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater shall not be permitted to discharge directly into streams or surface waters.
15. Based on the information presented in the document, the magnitude of impacts to wetlands and streams may require an application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection of water quality to ensure that water quality standards are met, and no wetland or stream uses are lost. Final permit authorization will require

the submittal of a formal application by the NCDOT and written concurrence from the NCDWR. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.

16. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
17. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species shall be planted. When using temporary structures, the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.
18. Unless otherwise authorized, placement of culverts and other structures in waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required.
19. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
20. If foundation test borings are necessary; it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3883/Nationwide Permit No. 6 for Survey Activities.
21. Sediment and erosion control measures sufficient enough to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.
22. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of the NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
23. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.
24. Heavy equipment should be operated from the bank rather than in stream channels to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment shall be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.
25. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

26. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

Thank you for requesting our input. The issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met, and designated uses are not degraded or lost. If you have any questions or require additional information, please contact April Norton at [april.norton@ncdenr.gov](mailto:april.norton@ncdenr.gov).

Electronic copy only distribution:

David Bailey, US Army Corps of Engineers, Raleigh Field Office

File Copy



## NCFMP and NCDOT MOA Project Review

### PROJECT INFORMATION

|                    |                    |                       |                     |
|--------------------|--------------------|-----------------------|---------------------|
| Project TIP:       | B-5355_780106      | Stream Name:          | Wolf Island Creek   |
| Sch Let Date:      | 7/2/2020           | Route Number:         | SR 1902             |
| CLOMR Case Number: | N/A                | Road Name on Panel:   | Dibrell Rd.         |
| Municipality:      | N/A                | Effective FIS Date:   | 9/28/2007           |
| County:            | Rockingham         | Panel Number:         | 8040,8020,8928,8948 |
| CID Number:        | 370350             | Panel Effective Date: | 9/28/2007           |
| Project Engineer:  | Galen Cail, PE     | Bounding Stations:    | 35021/28697         |
| Project Reviewer:  | Matthew Dudley, PE |                       |                     |

### MODEL STATUS

|                                                  |               |
|--------------------------------------------------|---------------|
| Type of Study (detailed, limited, redelineated): | Limited       |
| Effective Model on File?                         | YES           |
| Effective Model Format (HEC-RAS, HEC2, Other):   | HEC-RAS 4.1.0 |
| Proposed Model Format (HEC-RAS, HEC2, Other):    | HEC-RAS 4.1.0 |

### PROJECT SPECIFIC NOTES (pre-model review)

This project has a maximum decrease of 1.3-ft and will be submitted as a MOA type 2b. Please note that there is an increase of 0.3-ft at the downstream internal bridge section for the structure at 30410.

### REVIEW COMMENTS:

1. Please consider updating encroachment method to Method 1 in all plans to ensure consistent encroachment placement through all plans.  
Encroachment stations were hard coded into the encroachment editor and changed to method 1 for all plans.  
Additional Comment: There may have been an error in transferring values as some encroachment stations have changed from the prior submittal and there are now unallowable surcharges. For example, the left encroachment at river station 91930 in the Revised plan changed from 214.6 to 505.81 and the surcharges upstream are now above 3'.  
The following locations in the Corrected Effective plan were revised: 30410 BR U, 30457.35, 31994, 33333, 33892, 35021, 36012, 37034, and 37715.  
The following locations in the Revised plan were revised: 31994, 33333, 33892, 35021, 36012, 37715, 84657, 86676, 91930.  
Encroachment stations are allowed to be edited within the project area between the Corrected Effective and Revised plans, but must result in surcharges less than 1.0 and greater than 0.0.  
Please review and confirm if the revisions were intentional. If so, please revise to achieve allowable surcharges.  
There erroneous revisions to the revised plan encroachments were corrected.

Additional Comment: Encroachment corrections were verified in the revised plan. However, encroachment station changes exist between the Duplicate Effective and Corrected Effective plans outside of the noted project area. While most of these differences can be accounted for due to rounding differences (less than 0.1-ft); at RS 83155, RS 84002, and RS 89960 there are larger differences. Please maintain effective encroachment station placement in the Corrected Effective and Revised plans for all sections outside of the project area.

Duplicate Effective encroachment methodology revised. DE, CE and REV plans look to be maintained outside of project area. Comparison table revised.

Verified. No action needed.

#### **MINOR COMMENTS**

1. Please consider adding FIRM Panels 8020, 8928, and 8948 to the FEMA Coordination Form in order to reflect where there will be changes.

Panels 8020, 8928, and 8948 were added to the FEMA Coordination Form

Verified. No action needed.

2. Please verify Project TIP, the project was submitted/assigned as B-5355 but all documentation refers to SF-780106.

SF-780106 is the correct project ID

Verified. No action needed.

3. Only three plan files Duplicate Effective, Corrected Effective and Revised conditions are required for a MOA review. Our review of your submittal revealed that the HEC-RAS model has an extra plan "LDS\_Wolf\_Island\_Crk." Please consider removing this plan file. Please also consider removing the extra flow file "LDS\_Wolf\_Island\_Crk" associated with this extra plan.

"LDS\_Wolf\_Island\_Crk" plan and steady flow file have been deleted

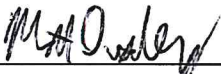
Verified. No action needed.

#### **NOTES FOR NCFMP**

None

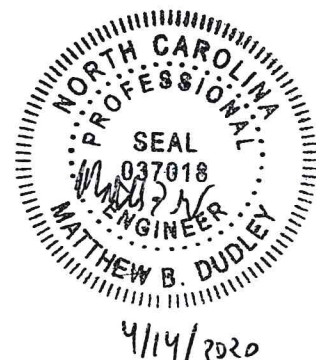
#### **FINAL DETERMINATION:**

This project is recommended for approval as a type 2b project.

  
\_\_\_\_\_  
Matthew B. Dudley, PE, CFM  
ESP – Project Manager

4/14/2020

Date



**U.S. ARMY CORPS OF ENGINEERS**  
**WILMINGTON DISTRICT**

Action Id. SAW-2019-01242 County: Rockingham U.S.G.S. Quad: NC-Ruffin

**GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION**

Permittee: NCDOT Division 7  
Attn: Wright Archer III, PE  
Address: PO Box 14996  
Greensboro, NC 27415

Size (acres) ~4 Nearest Town Ruffin  
Nearest Waterway Wolf Island Creek River Basin Roanoke  
USGS HUC 03010103 Coordinates 36.498441, -79.541754

Location description: The project area is located at NCDOT Bridge 106 over Wolf Island Creek on SR 1902 (Dibrell Road), near Ruffin, in Rockingham County, North Carolina.

Description of projects area and activity: This verification authorizes the discharge of clean fill material associated with replacing an existing bridge (Bridge 106 on SR 1902) in place. The project includes permanent impacts to 0.046 acre (280 linear feet) of stream channel (bank stabilization – no permanent loss) and 0.003 acre of riparian non-riverine wetlands (mechanized clearing), and temporary impacts to 0.030 acre (83 linear feet) of stream channel for construction access and dewatering including a temporary work causeway.

Applicable Law(s): ☒ Section 404 (Clean Water Act, 33 USC 1344)  
☐ Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number and/or Nationwide Permit Number: NWP 14 Linear Transportation Projects  
***SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND/OR SPECIAL CONDITIONS***

**Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the enclosed Conditions, your application signed and dated 4/30/2021, and the enclosed plans, Surface Water Impacts Permit, Permit Drawing Sheets 1 through 6, received via email on 4/30/2021. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.**

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management.

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact David E. Bailey at (919) 554-4884 X 30 or David.E.Bailey2@usace.army.mil.

Corps Regulatory Official:  Date: 2021.06.01 11:35:00  
-04'00' Date: 6/1/2021

Expiration Date of Verification: 03/18/2022

**SPECIAL CONDITIONS**

- 1. The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (PBO) titled, "NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8", dated November 6, 2020, contains agreed upon conservation measures for the NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. Your authorization under this Department of the Army permit is conditional upon your compliance with all applicable agreed upon conservation measures in the PBO, which are incorporated by reference in this permit. Failure to comply with the applicable these conservation measures would constitute non-compliance with your Department of the Army permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.**

Corps Regulatory Official:  Date: 2021.06.01  
11:34:40 -04'00' Date: **6/1/2021**

Expiration Date of Verification: **03/18/2022**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Copy furnished:

Jerry Parker, NCDOT, P.O. Box 14996, Greensboro, NC. 27415-4996

Ryan Conchilla, NCDEQ-DWR, 1617 Mail Service Center, Raleigh, NC 27699-1617





## North Carolina Department of Transportation

Highway Stormwater Program  
STORMWATER MANAGEMENT PLAN  
FOR NCDOT PROJECTS

(Version 2.07; Released October 2016)

WBS Element: 17BP.7.R.126 TIP No.: B-5355 County(ies): ROCKINGHAM Page 1 of 1

## General Project Information

|                                 |          |                                       |  |                    |                        |                                  |                                       |                |  |
|---------------------------------|----------|---------------------------------------|--|--------------------|------------------------|----------------------------------|---------------------------------------|----------------|--|
| WBS Element:                    |          | 17BP.7.R.126                          |  | TIP Number: B-5355 |                        | Project Type: Bridge Replacement |                                       | Date: 3/1/2021 |  |
| NCDOT Contact:                  |          | Galen Cail                            |  |                    | Contractor / Designer: |                                  | David Holmes                          |                |  |
|                                 | Address: | 1020 Birch Ridge<br>Raleigh, NC 27610 |  |                    |                        | Address:                         | 1020 Birch Ridge<br>Raleigh, NC 27610 |                |  |
|                                 | Phone:   | (919) 707-6711                        |  |                    |                        | Phone:                           | (919) 707-6715                        |                |  |
|                                 | Email:   | gcail@ncdot.gov                       |  |                    |                        | Email:                           | dkholmes@ncdot.gov                    |                |  |
| City/Town:                      |          |                                       |  |                    | County(ies):           |                                  | ROCKINGHAM                            |                |  |
| River Basin(s):                 |          | Roanoke                               |  |                    |                        | CAMA County?                     |                                       | No             |  |
| Wetlands within Project Limits? |          | Yes                                   |  |                    |                        |                                  |                                       |                |  |

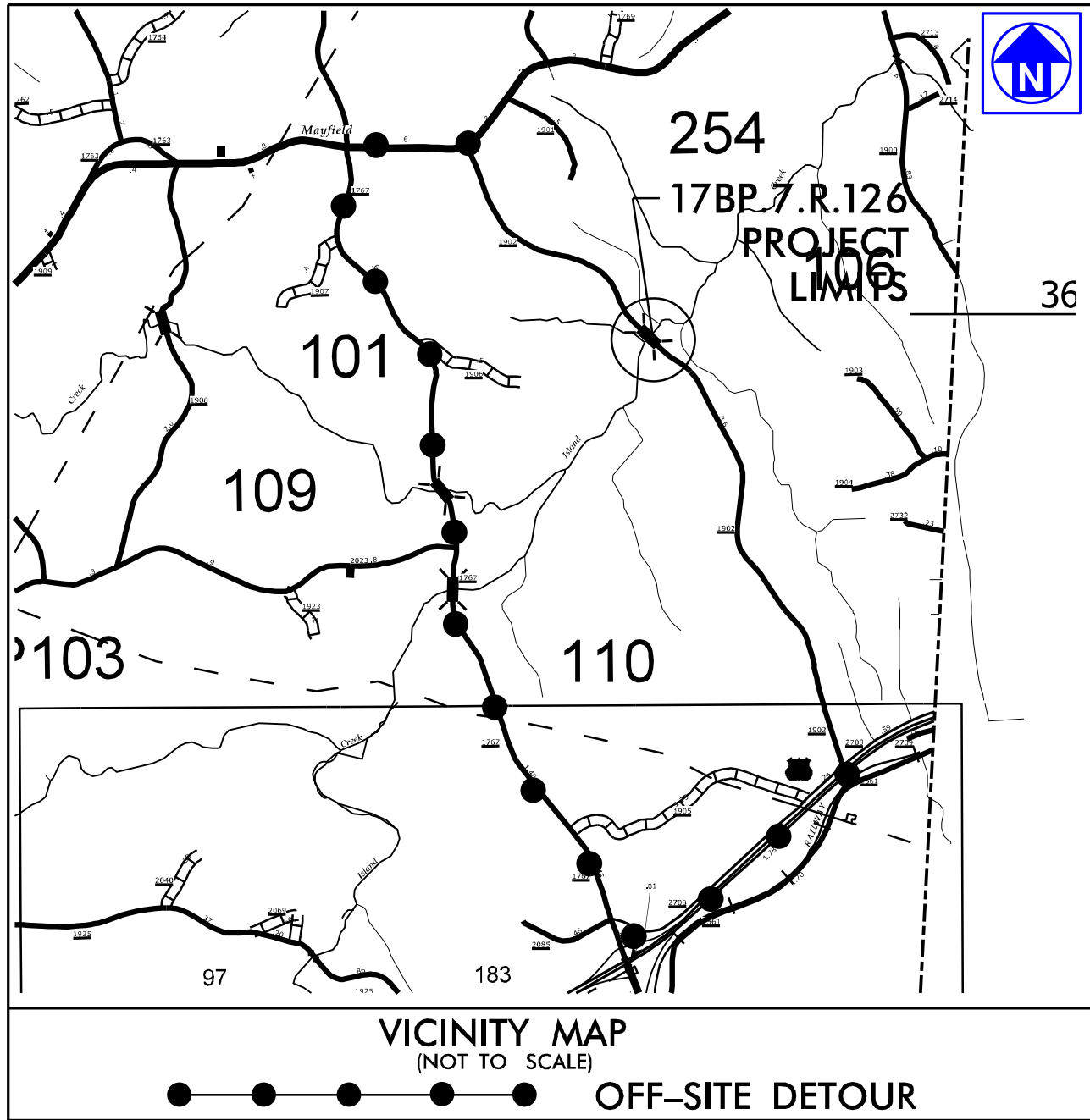
## Project Description

|                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |       |                   |           |     |       |      |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------|-------------------|-----------|-----|-------|------|
| Project Length (lin. miles or feet):                                                 | 612'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Surrounding Land Use: | RURAL |                   |           |     |       |      |
|                                                                                      | Proposed Project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |       | Existing Site     |           |     |       |      |
| Project Built-Up Area (ac.)                                                          | 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ac.                   | 0.5   |                   | ac.       |     |       |      |
| Typical Cross Section Description:                                                   | 0.02 Normal Crown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |       | 0.02 Normal Crown |           |     |       |      |
| Annual Avg Daily Traffic (veh/hr/day):                                               | Design/Future:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 300                   | Year: | 2025              | Existing: | 150 | Year: | 2012 |
| General Project Narrative:<br>(Description of Minimization of Water Quality Impacts) | Bridge 780106 is located on SR 1902 in Rockingham County. The existing crossing over Wolf Island Creek on SR 1902 (Dibrell Rd.) is a six span bridge (6 @ 30', total length 180') with reinforced concrete caps on timber piles (#1-5 crutches: ppc cap & steel piles), and sits at a 90 degree skew. The proposed structure is a four span, 4 @ 60' 24" Cored slab, with a 240' total length. This new bridge will sit at a 90 degree skew on 4.0' high end bent caps, with 42" high concrete bridge barrier rail. The bridge opening will increase from 1406 sq. ft. to 2262 sq. ft. Stream banks will be armored with class II rip rap for bank stabilization. The existing stable ditches will be maintained. Proposed cut ditch south east of the bridge carries 1 cfs of roadside drainage along the fill slope parallel to an adjacent wetland. Construction of the ditch will cause a minimal amount of mechanized clearing in the wetland. Maximum 2:1 side slopes will be utalized. The proposed project drainage systems include 1 outlet pipe northwest of the bridge. The syster outlet discharges 0.9 cfs into the overbank. Deck drains will be utalized in overbanks only, including proposed rip rap swale under deck drains. |                       |       |                   |           |     |       |      |

## Waterbody Information

|                                                                  |  |                   |                              |                                                                  |         |                         |  |                                                                                                      |  |    |  |
|------------------------------------------------------------------|--|-------------------|------------------------------|------------------------------------------------------------------|---------|-------------------------|--|------------------------------------------------------------------------------------------------------|--|----|--|
| Surface Water Body (1):                                          |  | Wolf Island Creek |                              | NCDWR Stream Index No.:                                          |         | 22-48                   |  |                                                                                                      |  |    |  |
| NCDWR Surface Water Classification for Water Body                |  |                   | Primary Classification:      |                                                                  | Class C |                         |  |                                                                                                      |  |    |  |
|                                                                  |  |                   | Supplemental Classification: |                                                                  |         |                         |  |                                                                                                      |  |    |  |
| Other Stream Classification:                                     |  | None              |                              |                                                                  |         |                         |  |                                                                                                      |  |    |  |
| Impairments:                                                     |  | None              |                              |                                                                  |         |                         |  |                                                                                                      |  |    |  |
| Aquatic T&E Species?                                             |  | No                |                              | Comments:                                                        |         |                         |  |                                                                                                      |  |    |  |
| NRTR Stream ID:                                                  |  |                   |                              |                                                                  |         | Buffer Rules in Effect: |  | N/A                                                                                                  |  |    |  |
| Project Includes Bridge Spanning Water Body?                     |  | Yes               |                              | Deck Drains Discharge Over Buffer?                               |         | No                      |  | Dissipator Pads Provided in Buffer?                                                                  |  | No |  |
| Deck Drains Discharge Over Water Body?                           |  | No                |                              | (If yes, provide justification in the General Project Narrative) |         |                         |  | (If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative) |  |    |  |
| (If yes, provide justification in the General Project Narrative) |  |                   |                              |                                                                  |         |                         |  |                                                                                                      |  |    |  |

CONTRACT: TIP PROJECT: 17BP.7.R.126



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**ROCKINGHAM COUNTY**

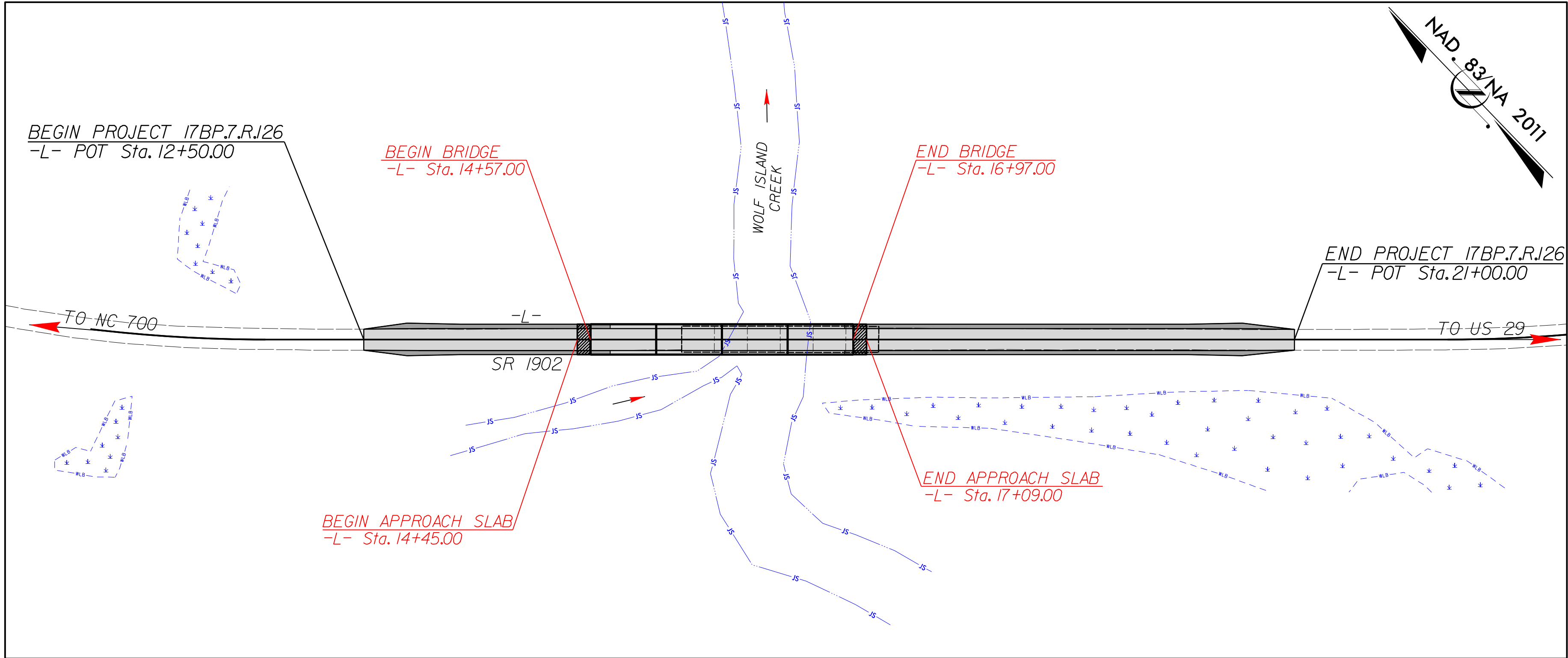
LOCATION: BRIDGE NO. 106 OVER WOLF ISLAND CREEK ON SR 1902 (DIBRELL ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

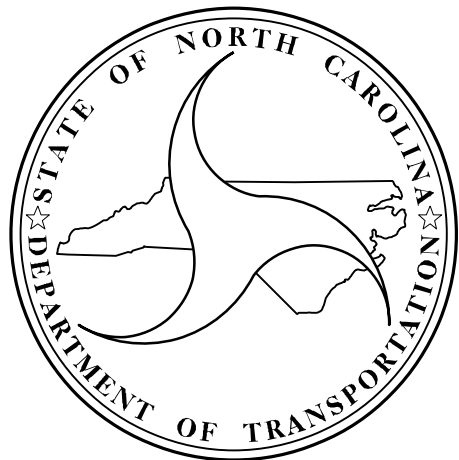
90% PLANS

WETLAND AND SURFACE WATER IMPACTS PERMIT

| STATE             | STATE PROJECT REFERENCE NO. | SHEET NO.   | TOTAL SHEETS |
|-------------------|-----------------------------|-------------|--------------|
| N.C.              | 17BP.7.R.126                | 1           |              |
| STATE PROJECT NO. | F.A. PROJ. NO.              | DESCRIPTION |              |
|                   |                             |             |              |
|                   |                             |             |              |
|                   |                             |             |              |
|                   |                             |             |              |
|                   |                             |             |              |



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2012 = 150  
ADT 2025 = 300

V = 55 MPH

SUB REGIONAL TIER  
LOCAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT = 0.115 MILES

LENGTH STRUCTURE TIP PROJECT = 0.046 MILES

TOTAL LENGTH TIP PROJECT = 0.161 MILES

Prepared In the Office of Matt MacDonald for

DIVISION 7

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

LETTING DATE:

TIM JORDAN, PE  
PROJECT ENGINEER

GALEN CAIL, PE  
HYDRAULICS ENGINEER

NCDOT CONTACT:

TIM POWERS, PE  
DIVISION BRIDGE  
PROGRAM MANAGER

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.  
HYDRAULICS ENGINEER

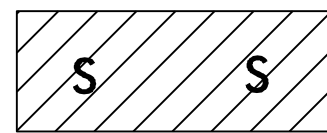
SIGNATURE: P.E.

PLANS PREPARED BY:

M M  
MOTT  
MACDONALD  
PO Box 700  
Fuquay-Varina, NC 27526  
(919) 552-2253  
(919) 552-2254 (Fax)  
www.mottmac.com

LICENSE NO. F-0669

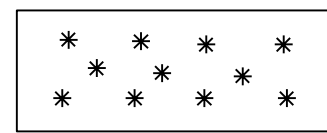




DENOTES IMPACTS IN  
SURFACE WATER



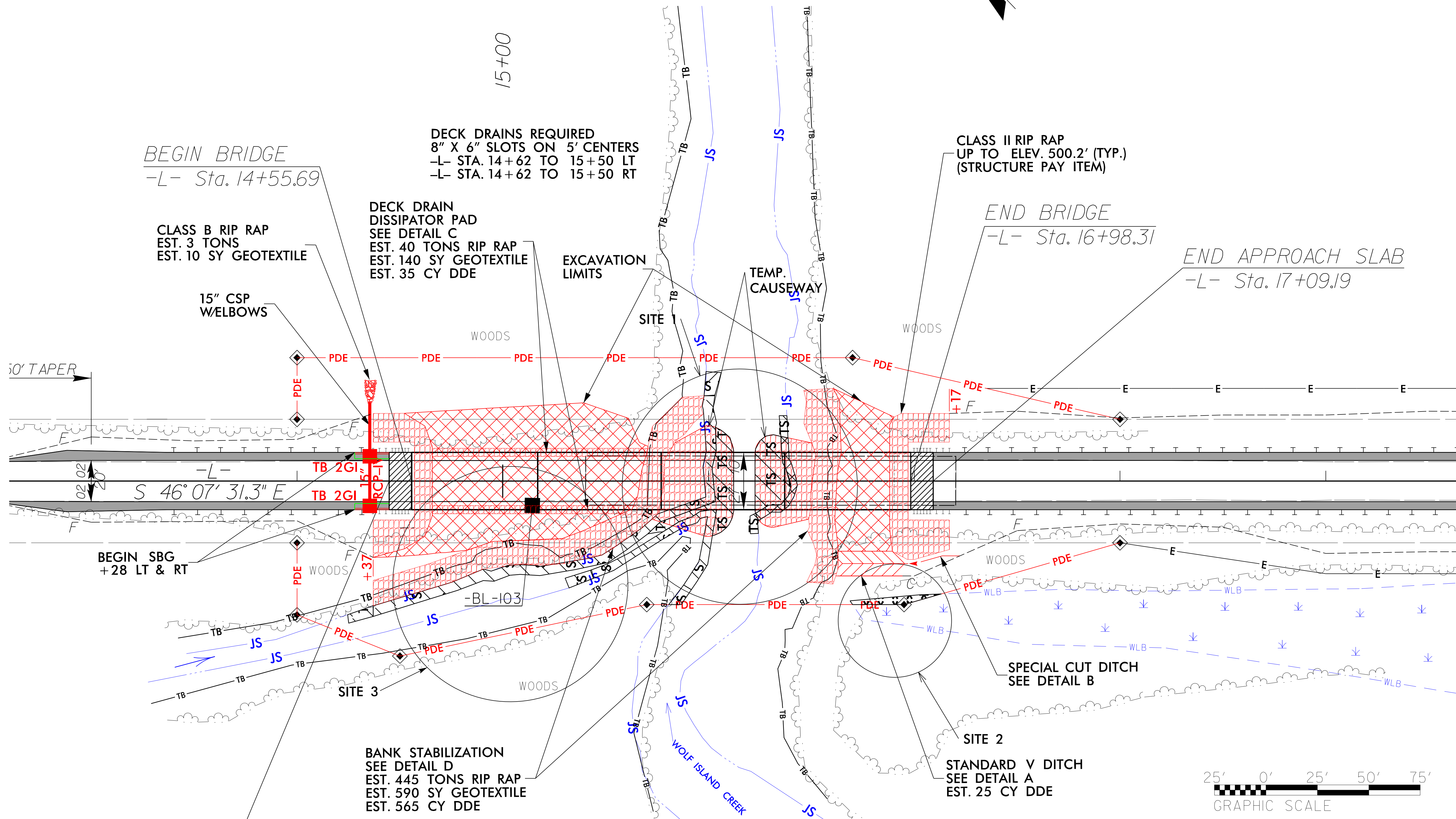
DENOTES TEMPORARY  
IMPACTS IN SURFACE WATER



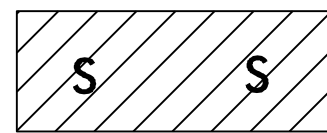
DENOTES MECHANIZED  
CLEARING

PERMIT DRAWING  
SHEET 2 OF 6

| PROJECT REFERENCE                                                        |  | SHEET NO.                                                                                          |
|--------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------|
| 17BP.7.R.126 – ROCKINGHAM 106                                            |  |                                                                                                    |
| ROADWAY DESIGN<br>ENGINEER                                               |  | HYDRAULICS<br>ENGINEER                                                                             |
| MOTT MACDONALD I & E, LLC<br>LICENSE NO. F-0669                          |  | MOTT MACDONALD I & E, LLC<br>LICENSE NO. F-0669                                                    |
| <b>DOCUMENT NOT CONSIDERED FINAL<br/>UNLESS ALL SIGNATURES COMPLETED</b> |  |                                                                                                    |
| Prepared in the<br>Office of:                                            |  | <b>M</b><br><b>M</b><br>PO Box 700<br>Fuquay-Yarino, NC 27526<br>MOTT<br>MACDONALD www.mottmcc.com |



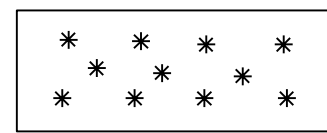




DENOTES IMPACTS IN  
SURFACE WATER



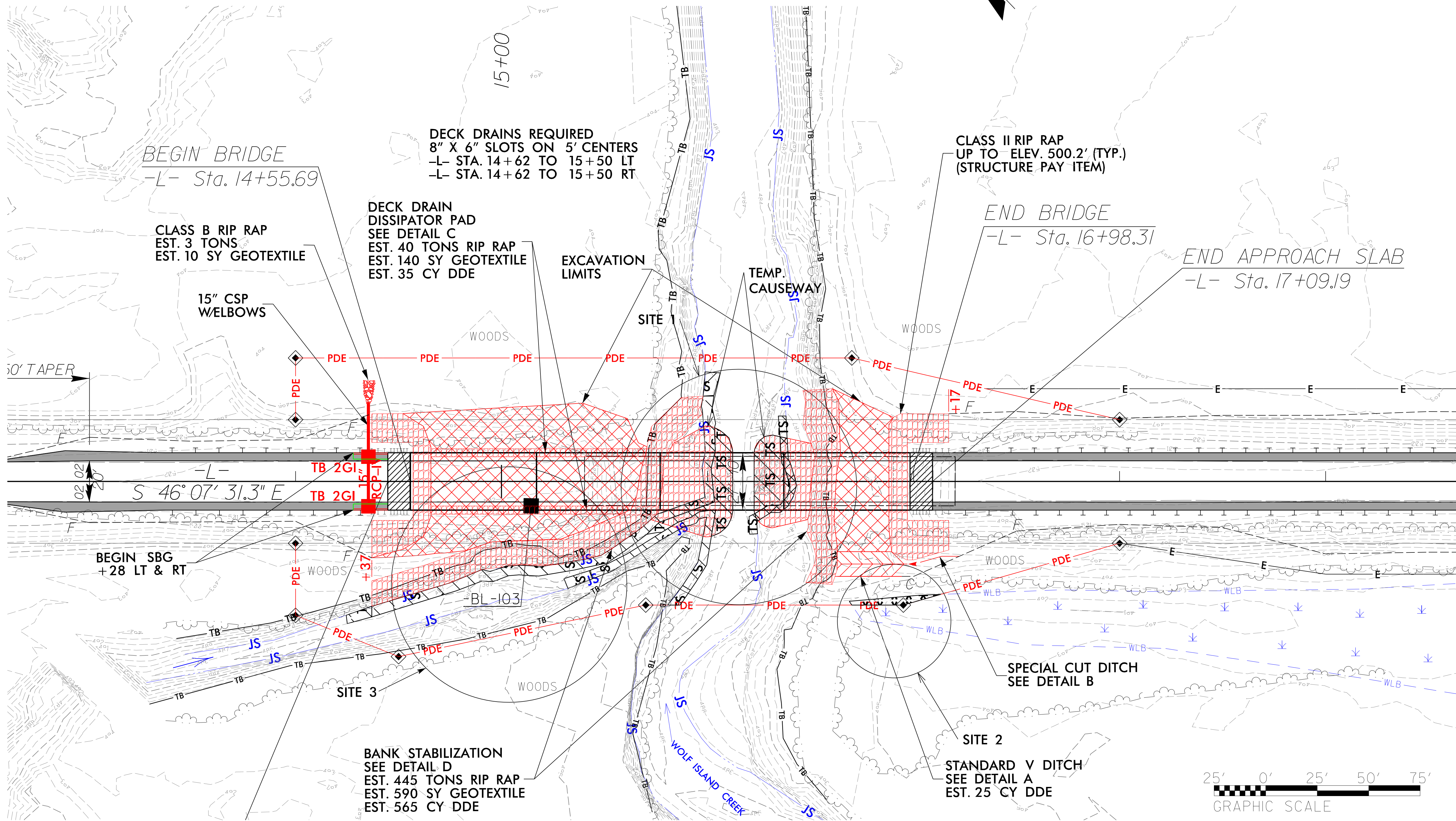
DENOTES TEMPORARY  
IMPACTS IN SURFACE WATER



DENOTES MECHANIZED  
CLEARING

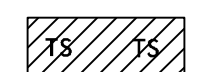
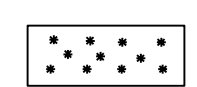
PERMIT DRAWING  
SHEET 3 OF 6

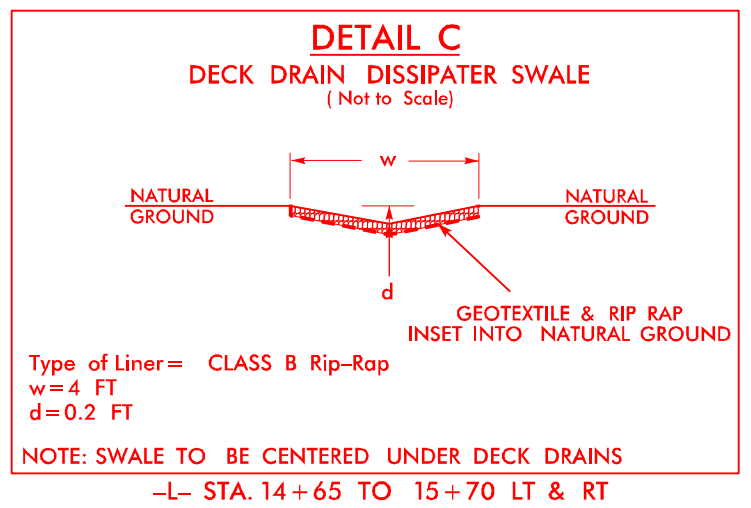
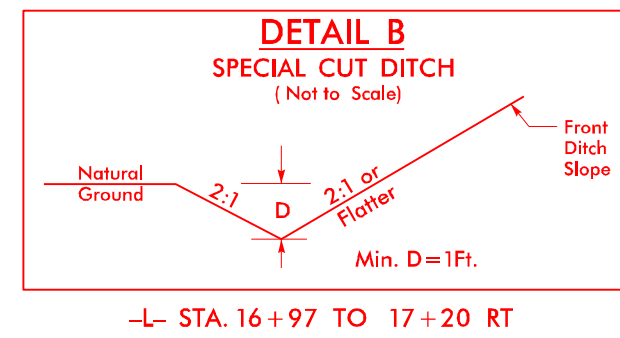
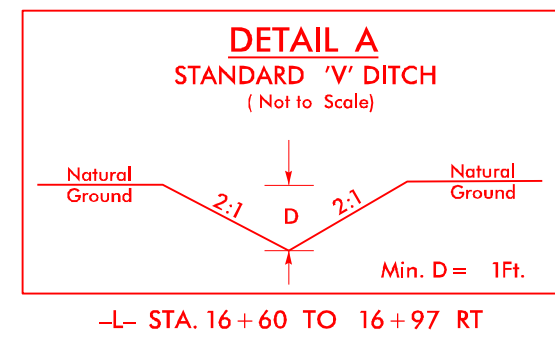
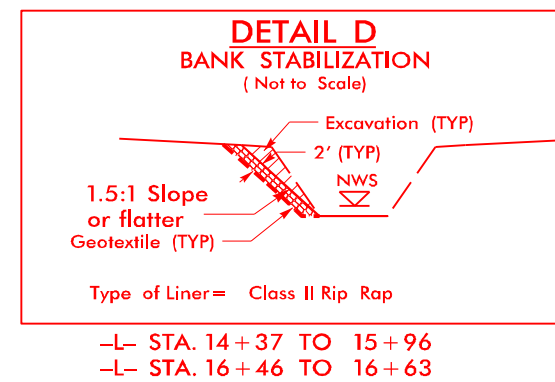
| PROJECT REFERENCE                                                |                        | SHEET NO.                                                 |
|------------------------------------------------------------------|------------------------|-----------------------------------------------------------|
| 17BP.7.R.126 - ROCKINGHAM 106                                    |                        |                                                           |
| ROADWAY DESIGN<br>ENGINEER                                       | HYDRAULICS<br>ENGINEER |                                                           |
| MOTT MACDONALD I & E, LLC<br>LICENSE NO. F-0669                  |                        | MOTT MACDONALD I & E, LLC<br>LICENSE NO. F-0669           |
| DOCUMENT NOT CONSIDERED FINAL<br>UNLESS ALL SIGNATURES COMPLETED |                        |                                                           |
| Prepared in the<br>Office of:                                    |                        | M<br>MOTT<br>MACDONALD                                    |
|                                                                  |                        | PO Box 700<br>Furquay-Yarima, NC 27526<br>www.mottmac.com |



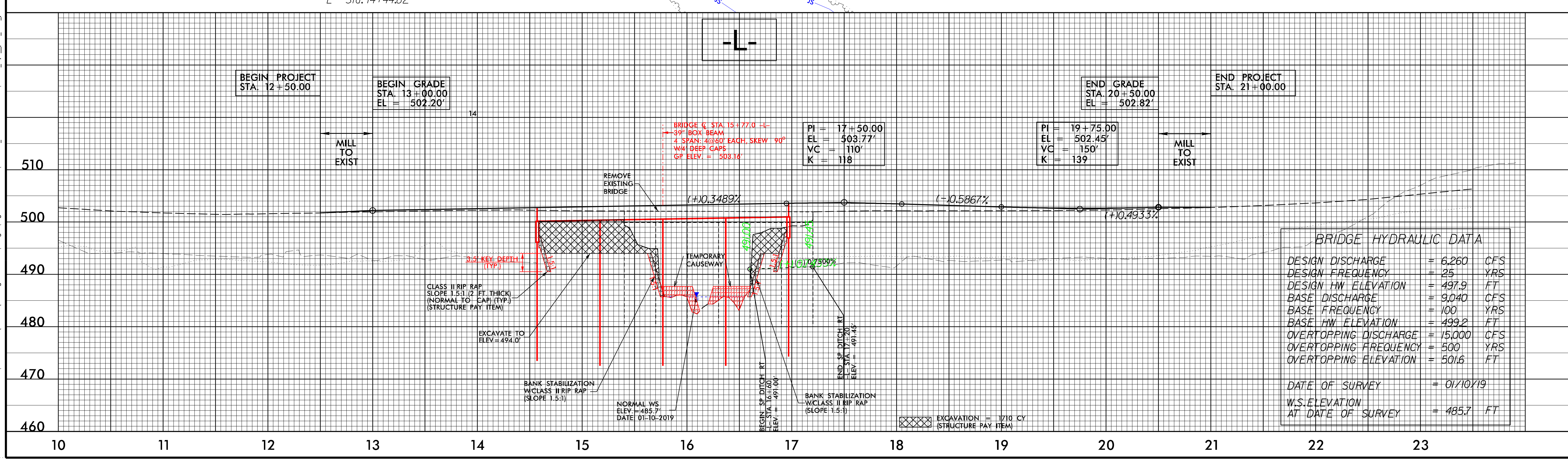
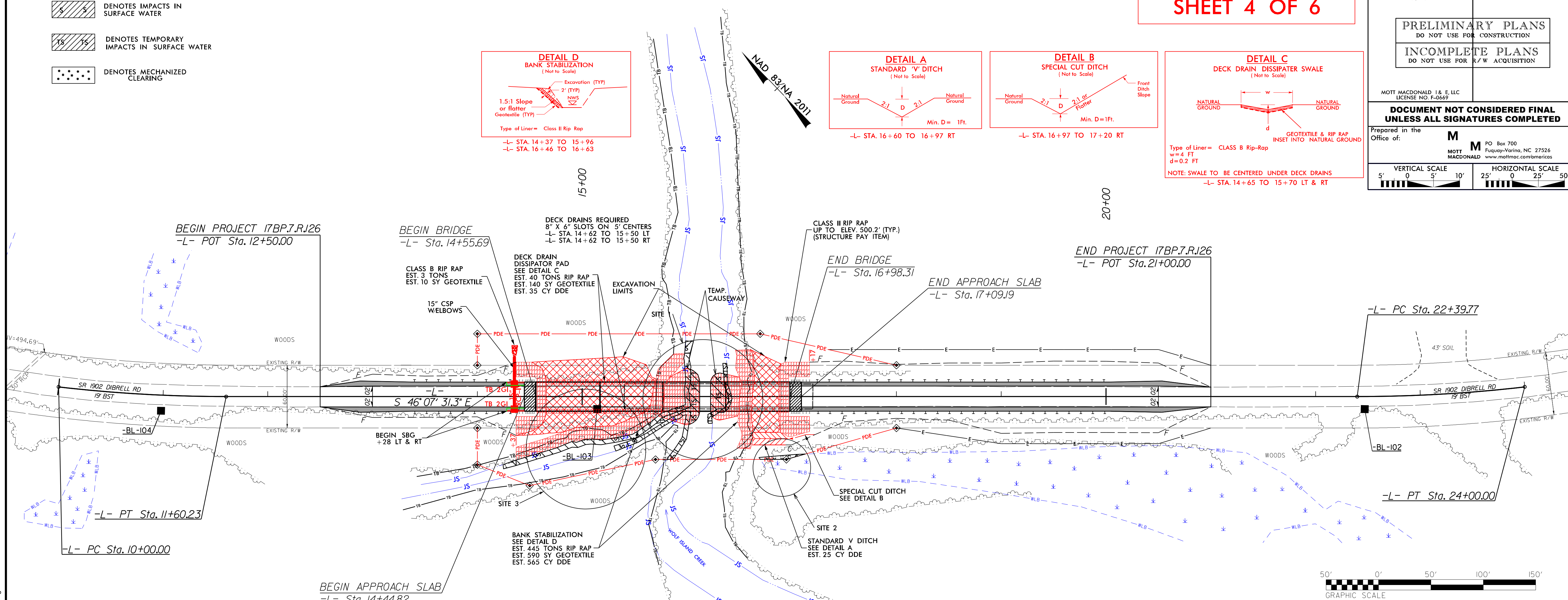


PERMIT DRAWING  
SHEET 4 OF 6

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING



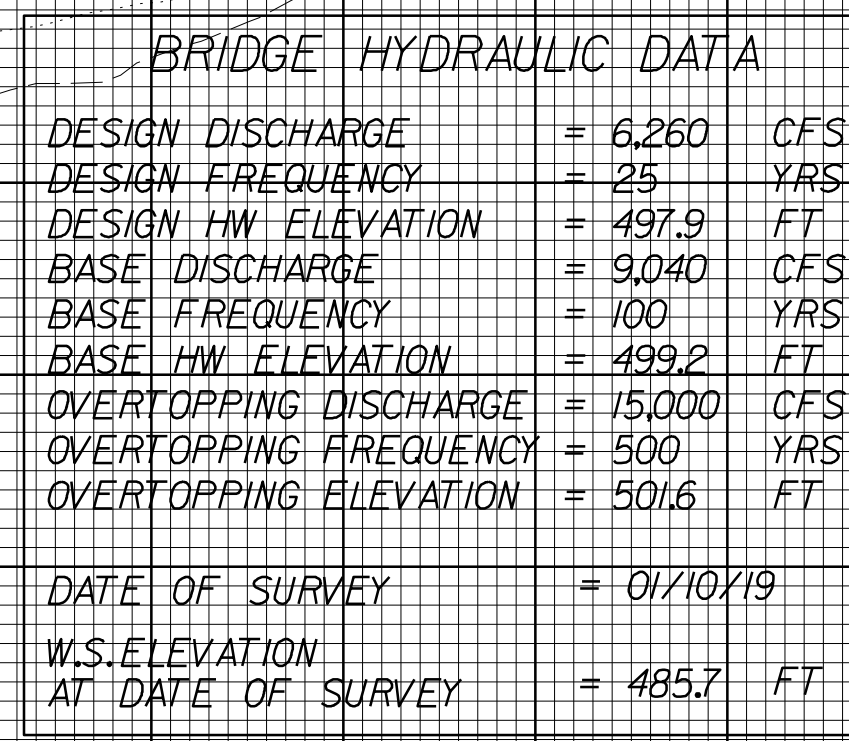
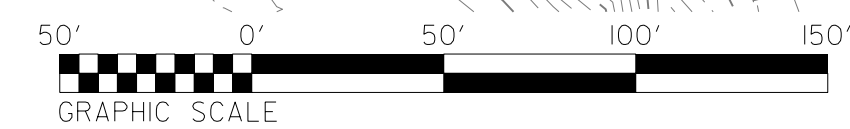
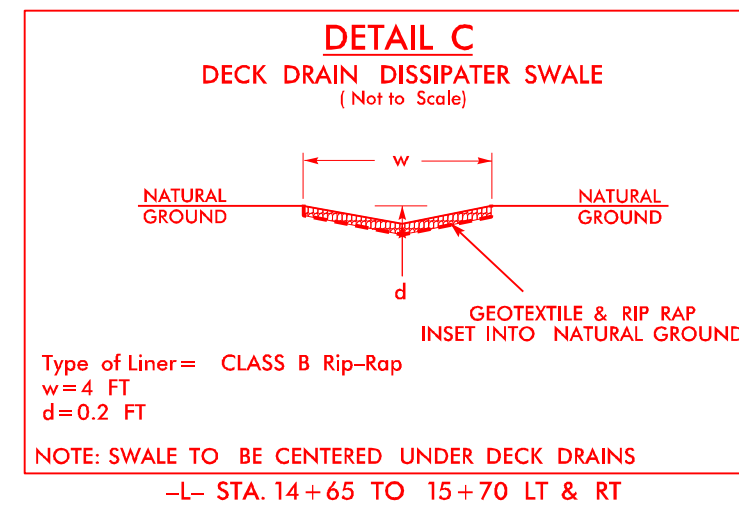
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|------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------|--|
| PROJECT REFERENCE                                                                                                            |                        | SHEET NO.                          |  |
| 17BP.7.R.126 - ROCKINGHAM 106                                                                                                |                        |                                    |  |
| ROADWAY DESIGN<br>ENGINEER                                                                                                   | HYDRAULICS<br>ENGINEER |                                    |  |
| PRELIMINARY PLANS<br>DO NOT USE FOR CONSTRUCTION                                                                             |                        |                                    |  |
| INCOMPLETE PLANS<br>DO NOT USE FOR R/W ACQUISITION                                                                           |                        |                                    |  |
| MOTT MACDONALD 1 & E, LLC<br>LICENSE NO. P-0667                                                                              |                        |                                    |  |
| DOCUMENT NOT CONSIDERED FINAL<br>UNLESS ALL SIGNATURES COMPLETED                                                             |                        |                                    |  |
| Prepared in the Office of:<br><b>M</b><br>MOTT MACDONALD<br>PO Box 700<br>Fayetteville, NC 27526<br>www.mottmac.com/americas |                        |                                    |  |
| VERTICAL SCALE<br>5' 0' 5' 10'                                                                                               |                        | HORIZONTAL SCALE<br>25' 0' 25' 50' |  |



2/25/2021  
dkhaines  
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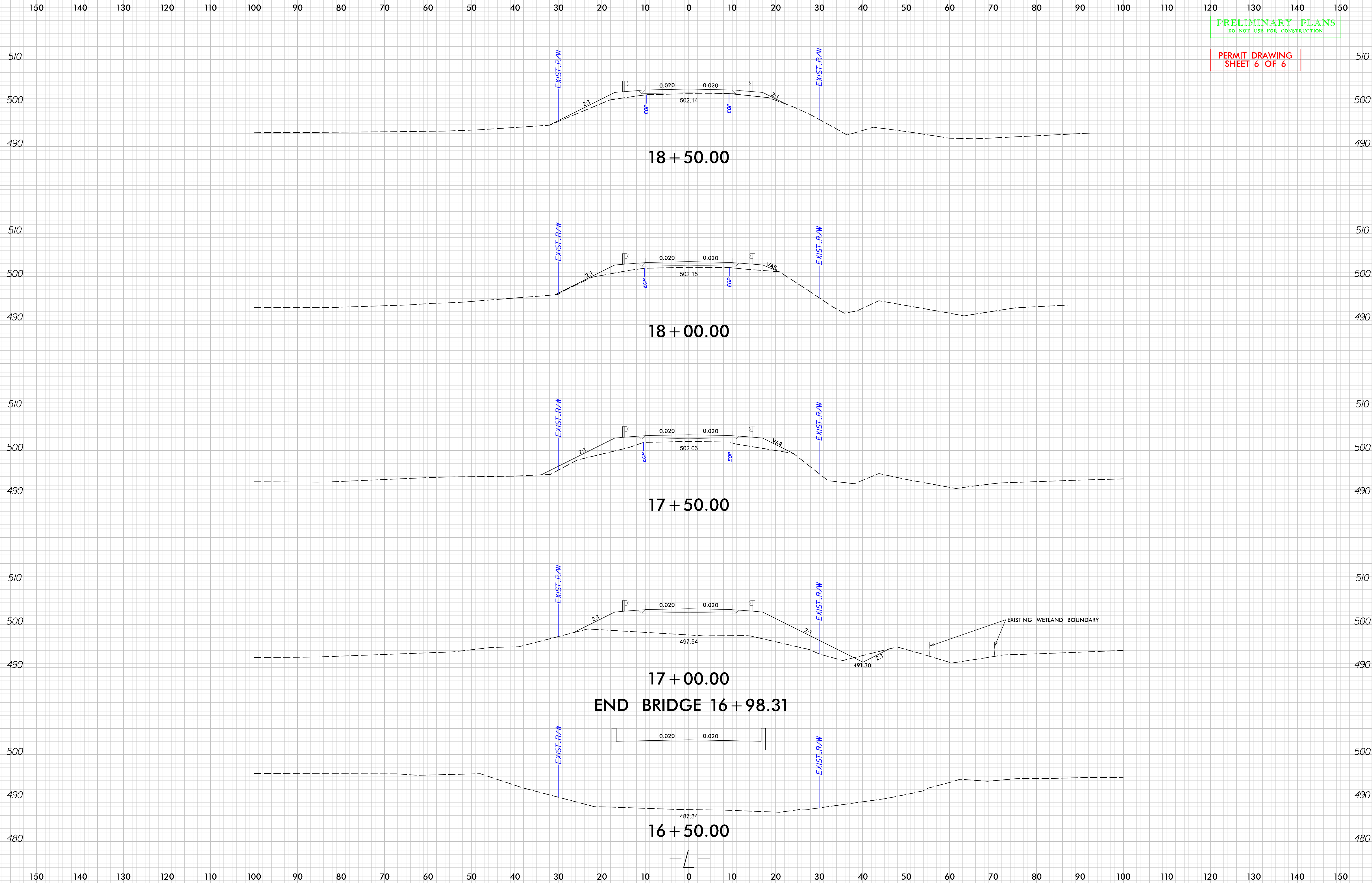


|                                                                                                                                                               |  |                                                                                                                                                                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| PROJECT REFERENCE                                                                                                                                             |  | SHEET NO.                                                                                                                                                                                       |  |
| 17BP.7.R.126 – ROCKINGHAM 106                                                                                                                                 |  |                                                                                                                                                                                                 |  |
| ROADWAY DESIGN<br>ENGINEER                                                                                                                                    |  | HYDRAULICS<br>ENGINEER                                                                                                                                                                          |  |
| <div style="border: 1px solid black; padding: 10px; text-align: center;"><b>PRELIMINARY PLANS</b><br/>DO NOT USE FOR CONSTRUCTION</div>                       |  |                                                                                                                                                                                                 |  |
| <div style="border: 1px solid black; padding: 10px; text-align: center;"><b>INCOMPLETE PLANS</b><br/>DO NOT USE FOR R/W ACQUISITION</div>                     |  |                                                                                                                                                                                                 |  |
| MOTT MACDONALD I & E LLC<br>LICENSE NO. F-0686                                                                                                                |  |                                                                                                                                                                                                 |  |
| <b>DOCUMENT NOT CONSIDERED FINAL<br/>UNLESS ALL SIGNATURES COMPLETED</b>                                                                                      |  |                                                                                                                                                                                                 |  |
| Prepared in the<br>Office of:                                                                                                                                 |  | <div style="text-align: center;"><b>M</b><br/>PO Box 700<br/>Fuquay-Varina, NC 27526<br/><b>MOTT MACDONALD</b><br/><a href="http://www.mottmac.com/americas">www.mottmac.com/americas</a></div> |  |
| <div style="text-align: center;"><b>VERTICAL SCALE</b><br/>5' 0 10'</div>  |  | <div style="text-align: center;"><b>HORIZONTAL SCALE</b><br/>25' 0 25' 50'</div>                             |  |



2/25/2021  
dkh0lmes  
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| WETLAND AND SURFACE WATER IMPACTS SUMMARY |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|-------------------------------------------|----------------------|------------------------------|---------------------------------|-----------------------------|-----------------------------|--------------------------------------|--------------------------------|---------------------------|-----------------------|-----------------------------------------|-------------------------------------|----------------------------|
| Site No.                                  | Station (From/To)    | Structure Size / Type        | WETLAND IMPACTS                 |                             |                             |                                      |                                | SURFACE WATER IMPACTS     |                       |                                         |                                     |                            |
|                                           |                      |                              | Permanent Fill In Wetlands (ac) | Temp. Fill In Wetlands (ac) | Excavation in Wetlands (ac) | Mechanized Clearing in Wetlands (ac) | Hand Clearing in Wetlands (ac) | Permanent SW impacts (ac) | Temp. SW impacts (ac) | Existing Channel Impacts Permanent (ft) | Existing Channel Impacts Temp. (ft) | Natural Stream Design (ft) |
| 1                                         | 15+80 - 16+43 -L-    | Bank Stabilization           |                                 |                             |                             |                                      |                                | 0.016                     | 0.005                 | 100                                     | 20                                  |                            |
| 1                                         | 15+97 - 16+43 -L-    | Temporary Causeway           |                                 |                             |                             |                                      |                                |                           | 0.023                 |                                         | 53                                  |                            |
| 2                                         | 16+60 - 17+20 -L- RT | Cut Ditch / Standard V Ditch |                                 |                             |                             | 0.003                                |                                |                           |                       |                                         |                                     |                            |
| 3                                         | 14+32 - 16+04 -L- RT | Bank Stabilization           |                                 |                             |                             |                                      |                                | 0.030                     | 0.002                 | 180                                     | 10                                  |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
|                                           |                      |                              |                                 |                             |                             |                                      |                                |                           |                       |                                         |                                     |                            |
| TOTALS:                                   |                      |                              |                                 |                             | 0.000                       | 0.003                                |                                | 0.046                     | 0.030                 | 280                                     | 83                                  |                            |

NOTES:  
 Site 1 --> Wolf Island Creek  
 Site 3 --> Tributary to Wolf Island Creek

Length of temp causeway impacts are within length of permanent impacts along Wolf Island Creek.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 3/1/2021  
 Rockingham County  
 Brg# 106  
 17BP.7.R.126  
 SHEET 1 OF 1



Action ID Number: SAW-2019-01242

County: Rockingham

Permittee: NCDOT Division 7 (Attn: Wright Archer III, PE)

Project Name: NCDOT / Bridge 106 / SR 1902 / Dibrell Road / Rockingham County

Date Verification Issued: 6/1/2021

Project Manager: David E. Bailey

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS  
WILMINGTON DISTRICT  
Attn: David E. Bailey  
Raleigh Regulatory Office  
U.S Army Corps of Engineers  
3331 Heritage Trade Drive, Suite 105  
Wake Forest, North Carolina 27587  
or  
David.E.Bailey2@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

---

Signature of Permittee

---

Date

## A. Determination of Jurisdiction:

1. ☒ There are waters, including wetlands, on the above described project area, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore, this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
2. ☐ There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
3. ☐ There are waters within the above described project area that are subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
4. ☐ A jurisdiction determination was not completed with this request. Therefore, this is not an appealable action. However, you may request an approved JD, which is an appealable action, by contacting the Corps for further instruction.
5. ☐ The aquatic resources within the above described project area have been identified under a previous action. Please reference the approved jurisdictional determination issued . Action ID: SAW- .

**B. Basis For Jurisdictional Determination:** See attached Preliminary Jurisdictional Determination Form.

## C. Remarks:

## D. Attention USDA Program Participants

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

## E. Appeals Information for Approved Jurisdiction Determinations (as indicated in A2 and A3 above).

If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers  
South Atlantic Division  
Attn: Mr. Philip A. Shannin  
Administrative Appeal Review Officer  
60 Forsyth Street SW, Floor M9  
Atlanta, Georgia 30303-8803

**AND**  
[PHILIP.A.SHANNIN@USACE.ARMY.MIL](mailto:PHILIP.A.SHANNIN@USACE.ARMY.MIL)

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by N/A.

**It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.**

Corps Regulatory Official: \_\_\_\_\_



**David E. Bailey**

Date: 2021.06.01 11:33:41  
-04'00'

Date of JD: **June 1, 2021**

Expiration Date of JD: **N/A**

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: **NCDOT Division 7**

File Number: **SAW-2019-01242**

Date: **6/1/2021**

Attached is:

See Section below

|                                     |                                                                    |   |
|-------------------------------------|--------------------------------------------------------------------|---|
| <input type="checkbox"/>            | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | A |
| <input type="checkbox"/>            | PROFFERED PERMIT (Standard Permit or Letter of permission)         | B |
| <input type="checkbox"/>            | PERMIT DENIAL                                                      | C |
| <input type="checkbox"/>            | APPROVED JURISDICTIONAL DETERMINATION                              | D |
| <input checked="" type="checkbox"/> | PRELIMINARY JURISDICTIONAL DETERMINATION                           | E |

**SECTION I -** The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx> or Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

**District Engineer, Wilmington Regulatory Division,  
Attn: David E. Bailey  
69 Darlington Avenue  
Wilmington, North Carolina 28403**

If you only have questions regarding the appeal process you may also contact:

**MR. PHILIP A. SHANNIN  
ADMINISTRATIVE APPEAL REVIEW OFFICER  
CESAD-PDS-O  
60 FORSYTH STREET SOUTHWEST, FLOOR M9  
ATLANTA, GEORGIA 30303-8803**

PHONE: (404) 562-5136; FAX (404) 562-5138  
EMAIL: [PHILIP.A.SHANNIN@USACE.ARMY.MIL](mailto:PHILIP.A.SHANNIN@USACE.ARMY.MIL)

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

|                                           |       |                   |
|-------------------------------------------|-------|-------------------|
| _____<br>Signature of appellant or agent. | Date: | Telephone number: |
|-------------------------------------------|-------|-------------------|

**For appeals on Initial Proffered Permits send this form to:**

**District Engineer, Wilmington Regulatory Division, Attn: David E. Bailey, 69 Darlington Avenue, Wilmington, North Carolina 28403**

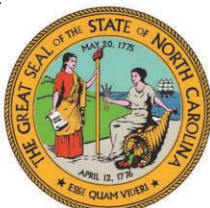
**For Permit denials, Proffered Permits and approved Jurisdictional Determinations send this form to:**

**Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Phillip Shannin,  
Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801  
Phone: (404) 562-5137**

ROY COOPER  
Governor

JOHN NICHOLSON  
Interim Secretary

S. DANIEL SMITH  
Director



NORTH CAROLINA  
Environmental Quality

June 21, 2021  
Rockingham County  
NCDWR Project No. 20210465  
Bridge 106 on Dibrell Road  
WBS No. 17BP.7.R.126

### APPROVAL of 401 WATER QUALITY CERTIFICATION with ADDITIONAL CONDITIONS

Mr. Jerry Parker, Environmental Officer  
NCDOT, Division 7  
1584 Yanceyville Street  
Greensboro, NC 27415

Dear Mr. Parker:

You have our approval, in accordance with the conditions listed below, for the following impacts to replace Bridge 106 on Dibrell Road (SR 1902) over Wolf Island Creek with a new bridge.

#### Stream Impacts in the Roanoke River Basin

| Site          | Permanent Fill in Perennial Stream (linear ft) | Temporary Fill in Perennial Stream (linear ft) |           | Total Stream Impact (linear ft) | Stream Impacts Requiring Mitigation (linear ft) |
|---------------|------------------------------------------------|------------------------------------------------|-----------|---------------------------------|-------------------------------------------------|
|               | Bank Stabilization                             | Stabilization                                  | Causeway  |                                 |                                                 |
| 1             | 100                                            | 20                                             | 53        | 173                             | -                                               |
| 3             | 180                                            | 10                                             | -         | 190                             | -                                               |
| <b>Totals</b> | <b>280</b>                                     | <b>30</b>                                      | <b>53</b> | <b>363</b>                      | <b>-</b>                                        |

**Total Stream Impacts: 363 linear feet**

#### Wetland Impacts in the Roanoke River Basin (Riverine).

| Site          | Fill (ac)  | Excavation (ac) | Hand Clearing (ac) | Mechanized Clearing (ac) | Wetland Impacts Requiring Mitigation (ac) |
|---------------|------------|-----------------|--------------------|--------------------------|-------------------------------------------|
| 2             | 0.0        | 0.0             | 0.0                | 0.003                    | -                                         |
| <b>Totals</b> | <b>0.0</b> | <b>0.0</b>      | <b>0.0</b>         | <b>0.003</b>             | <b>-</b>                                  |

**Total wetland impact for project: 0.003 acres**

The project shall be constructed in accordance with your application dated received April 30, 2021. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 4135. This certification corresponds to the Corps Nationwide Permit 14. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the



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512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617  
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accompanying 404 permit.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to perennial streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification(s) and any additional conditions listed below.

### Condition(s) of Certification:

#### Project Specific Conditions

1. Bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
2. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. 15A NCAC 02H .0506(b)(2)
3. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge or discharged to overbank areas and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS000250, please refer to the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]

#### General Conditions

1. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
2. Placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether a permit modification will be required. [15A NCAC 02H.0506(b)(2)]
3. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
4. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
5. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
6. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]



7. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]
8. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]
9. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
10. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
11. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
12. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
14. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
15. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
16. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
17. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
18. Upon completion of the project (including any impacts at associated borrow or waste sites), NCDOT project engineer (or appointee) shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
19. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]
20. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:



- a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

21. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings  
6714 Mail Service Center  
Raleigh, NC 27699-6714  
Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Bill F. Lane, General Counsel  
Department of Environmental Quality  
1601 Mail Service Center

This letter completes the review of the Division of Water Resources under Section 401 of the Clean Water Act. If you have any questions, please contact Dave Wanucha at (336) 403-5655 or [dave.wanucha@ncdenr.gov](mailto:dave.wanucha@ncdenr.gov).

Sincerely,  
DocuSigned by:  
  
S 9C9886312DCD474...  
Division of Water Resources

Electronic copy only distribution:

David Bailey, US Army Corps of Engineers, Raleigh Field Office  
Gary Jordan, US Fish and Wildlife Service  
Travis Wilson, NC Wildlife Resources Commission  
File Copy

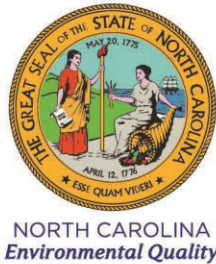


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919.707.9000

ROY COOPER  
Governor

JOHN NICHOLSON  
Interim Secretary

S. DANIEL SMITH  
Director



NCDWR Project No.: \_\_\_\_\_ County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: \_\_\_\_\_

### Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, **or** the project engineer. It is not necessary to send certificates from all of these.

### Applicant's Certification

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Agent's Certification

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Engineer's Certification

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature \_\_\_\_\_ Registration No. \_\_\_\_\_  
Date \_\_\_\_\_



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**Erosion Control  
Project Special Provisions**

Coir Fiber Mat

Coir Fiber Wattles with PAM

Concrete Washout Structure

Impervious Dike

Minimize Removal of Vegetation

Response for Erosion Control

Safety Fence and Jurisdictional Flagging

Seeding and Mulching: West

Seeding and Mulching Native Grass: West

Stockpile Areas and Haul Roads

Waste Areas and Borrow Sources



## EC - 2

### **COIR FIBER MAT:**

#### **Description**

Furnish material, install and maintain coir fiber mat in locations shown on the plans or in locations as directed. Work includes providing all materials, excavating and backfilling, and placing and securing coir fiber mat with stakes, steel reinforcement bars or staples as directed.

#### **Materials**

| <b>Item</b>    | <b>Section</b> |
|----------------|----------------|
| Coir Fiber Mat | 1060-14        |

Anchors: Stakes, reinforcement bars, or staples shall be used as anchors.

#### Wooden Stakes:

Provide hardwood stakes 12"- 24" long with a 2" x 2" nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving through the coir fiber mat and down into the underlying soil. The other end of the stake needs to have a 1"- 2" long head at the top with a 1"- 2" notch following to catch and secure the coir fiber mat.

#### Steel Reinforcement Bars:

Provide uncoated #10 steel reinforcement bars 24" nominal length. The bars shall have a 4" diameter bend at one end with a 4" straight section at the tip to catch and secure the coir fiber mat.

#### Staples:

Provide staples made of 0.125" diameter new steel wire formed into a *u* shape not less than 12" in length with a throat of 1" in width.

#### **Construction Methods**

Place the coir fiber mat immediately upon final grading. Provide a smooth soil surface free from stones, clods, or debris that will prevent the contact of the mat with the soil. Unroll the mat and apply without stretching such that it will lie smoothly but loosely on the soil surface.

For stream relocation applications, take care to preserve the required line, grade, and cross section of the area covered. Bury the top slope end of each piece of mat in a narrow trench at least 6 in. deep and tamp firmly. Where one roll of matting ends and a second roll begins, overlap the end of the upper roll over the buried end of the second roll so there is a 6 in. overlap. Construct check trenches at least 12 in. deep every 50 ft. longitudinally along the edges of the mat or as directed. Fold over and bury mat to the full depth of the trench, close and tamp firmly. Overlap mat at least 6 in. where 2 or more widths of mat are installed side by side.

## EC - 3

Place anchors across the mat at the ends approximately 1 ft. apart. Place anchors along the outer edges and down the center of the mat 3 ft. apart.

Adjustments in the trenching or anchoring requirements to fit individual site conditions may be required.

### **Measurement and Payment**

*Coir Fiber Mat* will be measured and paid for as the actual number of square yards measured along the surface of the ground over which coir fiber mat is installed and accepted.

No measurement will be made for anchor items.

Payment will be made under:

| <b>Pay Item</b> | <b>Pay Unit</b> |
|-----------------|-----------------|
| Coir Fiber Mat  | Square Yard     |

## EC - 4

### **COIR FIBER WATTLES WITH POLYACRYLAMIDE (PAM):**

#### **Description**

Coir Fiber Wattles are tubular products consisting of coir fibers (coconut fibers) encased in coir fiber netting. Coir Fiber Wattles are used on slopes or channels to intercept runoff and act as a velocity break. Coir Fiber Wattles are to be placed at locations shown on the plans or as directed. Installation shall follow the detail provided in the plans and as directed. Work includes furnishing materials, installation of coir fiber wattles, matting installation, PAM application, and removing wattles.

#### **Materials**

Coir Fiber Wattle shall meet the following specifications:

|                            |                                |
|----------------------------|--------------------------------|
| 100% Coir (Coconut) Fibers |                                |
| Minimum Diameter           | 12 in.                         |
| Minimum Density            | 3.5 lb/ft <sup>3</sup> +/- 10% |
| Net Material               | Coir Fiber                     |
| Net Openings               | 2 in. x 2 in.                  |
| Net Strength               | 90 lbs.                        |
| Minimum Weight             | 2.6 lbs./ft. +/- 10%           |

Anchors: Stakes shall be used as anchors.

#### Wooden Stakes:

Provide hardwood stakes a minimum of 2-ft. long with a 2 in. x 2 in. nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving down into the underlying soil.

Matting shall meet the requirements of Article 1060-8 of the *Standard Specifications*, or shall meet specifications provided elsewhere in this contract.

Provide staples made of 0.125" diameter new steel wire formed into a *u* shape not less than 12" in length with a throat of 1" in width.

Polyacrylamide (PAM) shall be applied in powder form and shall be anionic or neutrally charged. Soil samples shall be obtained in areas where the wattles will be placed, and from offsite material used to construct the roadway, and analyzed for the appropriate PAM flocculant to be utilized with each wattle. The PAM product used shall be listed on the North Carolina Department of Environmental Quality Division of Water Resources web site as an approved PAM product for use in North Carolina.

## Construction Methods

Coir Fiber Wattles shall be secured to the soil by wire staples approximately every 1 linear foot and at the end of each section of wattle. A minimum of 4 stakes shall be installed on the downstream side of the wattle with a maximum spacing of 2 linear feet along the wattle, and according to the detail. Install a minimum of 2 stakes on the upstream side of the wattle according to the detail provided in the plans. Stakes shall be driven into the ground a minimum of 10 in. with no more than 2 in. projecting from the top of the wattle. Drive stakes at an angle according to the detail provided in the plans.

Only install coir fiber wattle(s) to a height in ditch so flow will not wash around wattle and scour ditch slopes and according to the detail provided in the plans and as directed. Overlap adjoining sections of wattles a minimum of 6 in.

Installation of matting shall be in accordance with the detail provided in the plans, and in accordance with Article 1631-3 of the *Standard Specifications*, or in accordance with specifications provided elsewhere in this contract.

Apply PAM over the lower center portion of the coir fiber wattle where the water is going to flow over at a rate of 2 ounces per wattle, and 1 ounce of PAM on matting on each side of the wattle. PAM applications shall be done during construction activities after every rainfall event that is equal to or exceeds 0.50 in.

The Contractor shall maintain the coir fiber wattles until the project is accepted or until the wattles are removed, and shall remove and dispose of silt accumulations at the wattles when so directed in accordance with the requirements of Section 1630 of the *Standard Specifications*.

## Measurement and Payment

*Coir Fiber Wattles* will be measured and paid for by the actual number of linear feet of wattles which are installed and accepted. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the *Coir Fiber Wattles*.

Matting will be measured and paid for in accordance with Article 1631-4 of the *Standard Specifications*, or in accordance with specifications provided elsewhere in this contract.

*Polyacrylamide(PAM)* will be measured and paid for by the actual weight in pounds of PAM applied to the coir fiber wattles. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to apply the *Polyacrylamide(PAM)*.

Payment will be made under:

### Pay Item

Polyacrylamide(PAM)

### Pay Unit

Pound

## EC - 6

Coir Fiber Wattle

Linear Foot



## **CONCRETE WASHOUT STRUCTURE:**

(12-10-20)

### **Description**

Concrete washout structures are enclosures above or below grade to contain concrete waste water and associated concrete mix from washing out ready-mix trucks, drums, pumps, or other equipment. Concrete washouts must collect and retain all the concrete washout water and solids, so that this material does not migrate to surface waters or into the ground water. These enclosures are not intended for concrete waste not associated with wash out operations.

The concrete washout structure may include constructed devices above or below ground and or commercially available devices designed specifically to capture concrete wash water.

### **Materials**

| <b>Item</b>          | <b>Section</b> |
|----------------------|----------------|
| Temporary Silt Fence | 1605           |

*Safety Fence* shall meet the specifications as provided elsewhere in this contract.

Geomembrane basin liner shall meet the following minimum physical properties for low permeability; it shall consist of a polypropylene or polyethylene 10 mil thick geomembrane. If the minimum setback dimensions can be achieved the liner is not required. (5 feet above groundwater, 50 feet from top of bank of perennial stream, other surface water body, or wetland.)

### **Construction Methods**

Build an enclosed earthen berm or excavate to form an enclosure in accordance with the details and as directed.

Install temporary silt fence around the perimeter of the enclosure in accordance with the details and as directed if structure is not located in an area where existing erosion and sedimentation control devices are capable to containing any loss of sediment.

Post a sign with the words "Concrete Washout" in close proximity of the concrete washout area, so it is clearly visible to site personnel. Install safety fence as directed for visibility to construction traffic.

The construction details for the above grade and below grade concrete washout structures can be found on the following web page link:

<https://connect.ncdot.gov/resources/roadside/SoilWaterDocuments/ConcreteWashoutStructuredetail.pdf>

## EC - 8

Alternate details for accommodating concrete washout may be submitted for review and approval.

The alternate details shall include the method used to retain and dispose of the concrete waste water within the project limits and in accordance with the minimum setback requirements. (5 feet above groundwater, 50 feet from top of bank of perennial stream, other surface water body, or wetland.)

### **Maintenance and Removal**

Maintain the concrete washout structure(s) to provide adequate holding capacity plus a minimum freeboard of 12 inches. Remove and dispose of hardened concrete and return the structure to a functional condition after reaching 75% capacity.

Inspect concrete washout structures for damage and maintain for effectiveness.

Remove the concrete washout structures and sign upon project completion. Grade the earth material to match the existing contours and permanently seed and mulch area.

### **Measurement and Payment**

*Concrete Washout Structure* will be paid for per each enclosure installed in accordance with the details. If alternate details or commercially available devices are approved, then those devices will also be paid for per each approved and installed device.

*Temporary Silt Fence* will be measured and paid for in accordance with Article 1605-5 of the *Standard Specifications*.

*Safety Fence* shall be measured and paid for as provided elsewhere in this contract.

No measurement will be made for other items or for over excavation or stockpiling.

Payment will be made under:

| <b>Pay Item</b>            | <b>Pay Unit</b> |
|----------------------------|-----------------|
| Concrete Washout Structure | Each            |

## EC - 9

### **IMPERVIOUS DIKE:**

#### **Description**

This work consists of furnishing, installing, maintaining, and removing an *Impervious Dike* for the purpose of diverting normal stream flow around the construction site. The Contractor shall construct an impervious dike in such a manner approved by the Engineer. The impervious dike shall not permit seepage of water into the construction site or contribute to siltation of the stream. The impervious dike shall be constructed of an acceptable material in the locations noted on the plans or as directed.

#### **Materials**

Acceptable materials shall include but not be limited to sheet piles, sandbags, and/or the placement of an acceptable size stone lined with polypropylene or other impervious geotextile.

Earth material shall not be used to construct an impervious dike when it is in direct contact with the stream unless vegetation can be established before contact with the stream takes place.

#### **Measurement and Payment**

*Impervious Dike* will be measured and paid as the actual number of linear feet of impervious dike(s) constructed, measured in place from end to end of each separate installation that has been completed and accepted. Such price and payment will be full compensation for all work including but not limited to furnishing materials, construction, maintenance, and removal of the impervious dike.

Payment will be made under:

#### **Pay Item**

Impervious Dike

#### **Pay Unit**

Linear Foot

## EC - 10

### **MINIMIZE REMOVAL OF VEGETATION:**

The Contractor shall minimize removal of vegetation within project limits to the maximum extent practicable. Vegetation along stream banks and adjacent to other jurisdictional resources outside the construction limits shall only be removed upon approval of Engineer. No additional payment will be made for this minimization work.

# EC- 11

## **RESPONSE FOR EROSION CONTROL:**

### **Description**

Furnish the labor, materials, tools and equipment necessary to move personnel, equipment, and supplies to the project necessary for the pursuit of any or all of the following work as shown herein, by an approved subcontractor.

| <b>Section</b> | <b>Erosion Control Item</b>      | <b>Unit</b> |
|----------------|----------------------------------|-------------|
| 1605           | Temporary Silt Fence             | LF          |
| 1606           | Special Sediment Control Fence   | LF/TON      |
| 1615           | Temporary Mulching               | ACR         |
| 1620           | Seed - Temporary Seeding         | LB          |
| 1620           | Fertilizer - Temporary Seeding   | TN          |
| 1631           | Matting for Erosion Control      | SY          |
| SP             | Coir Fiber Mat                   | SY          |
| 1640           | Coir Fiber Baffles               | LF          |
| SP             | Permanent Soil Reinforcement Mat | SY          |
| 1660           | Seeding and Mulching             | ACR         |
| 1661           | Seed - Repair Seeding            | LB          |
| 1661           | Fertilizer - Repair Seeding      | TON         |
| 1662           | Seed - Supplemental Seeding      | LB          |
| 1665           | Fertilizer Topdressing           | TON         |
| SP             | Safety/Highly Visible Fencing    | LF          |
| SP             | Response for Erosion Control     | EA          |

### **Construction Methods**

Provide an approved subcontractor who performs an erosion control action as described in the NPDES Inspection Form SPPP30. Each erosion control action may include one or more of the above work items.

### **Measurement and Payment**

*Response for Erosion Control* will be measured and paid for by counting the actual number of times the subcontractor moves onto the project, including borrow and waste sites, and satisfactorily completes an erosion control action described in Form 1675. The provisions of Article 104-5 of the *Standard Specifications* will not apply to this item of work.



EC - 12

Payment will be made under:

| Pay Item                     | Pay Unit |
|------------------------------|----------|
| Response for Erosion Control | Each     |

## **SAFETY FENCE AND JURISDICTIONAL FLAGGING:**

### **Description**

*Safety Fence* shall consist of furnishing materials, installing and maintaining polyethylene or polypropylene fence along the outside riparian buffer, wetland, or water boundary, or other boundaries located within the construction corridor to mark the areas that have been approved to infringe within the buffer, wetland, endangered vegetation, culturally sensitive areas or water. The fence shall be installed prior to any land disturbing activities.

Interior boundaries for jurisdictional areas noted above shall be delineated by stakes and highly visible flagging.

Jurisdictional boundaries at staging areas, waste sites, or borrow pits, whether considered outside or interior boundaries shall be delineated by stakes and highly visible flagging.

### **Materials**

#### **(A) Safety Fencing**

Polyethylene or polypropylene fence shall be a highly visible preconstructed safety fence approved by the Engineer. The fence material shall have an ultraviolet coating.

Either wood posts or steel posts may be used. Wood posts shall be hardwood with a wedge or pencil tip at one end, and shall be at least 5 ft. in length with a minimum nominal 2" x 2" cross section. Steel posts shall be at least 5 ft. in length, and have a minimum weight of 0.85 lb/ft of length.

#### **(B) Boundary Flagging**

Wooden stakes shall be 4 feet in length with a minimum nominal 3/4" x 1-3/4" cross section. The flagging shall be at least 1" in width. The flagging material shall be vinyl and shall be orange in color and highly visible.

### **Construction Methods**

No additional clearing and grubbing is anticipated for the installation of this fence. The fence shall be erected to conform to the general contour of the ground.

#### **(A) Safety Fencing**

Posts shall be set at a maximum spacing of 10 ft., maintained in a vertical position and hand set or set with a post driver. Posts shall be installed a minimum of 2 ft. into the ground. If hand set, all backfill material shall be thoroughly tamped. Wood posts may be sharpened to a dull point if power driven. Posts damaged by power driving shall be removed and replaced prior to final

acceptance. The tops of all wood posts shall be cut at a 30-degree angle. The wood posts may, at the option of the Contractor, be cut at this angle either before or after the posts are erected.

The fence geotextile shall be attached to the wood posts with one 2" galvanized wire staple across each cable or to the steel posts with wire or other acceptable means.

Place construction stakes to establish the location of the safety fence in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for the staking of the safety fence. All stakeouts for safety fence shall be considered incidental to the work being paid for as "Construction Surveying", except that where there is no pay item for construction surveying, all safety fence stakeout will be performed by state forces.

The Contractor shall be required to maintain the safety fence in a satisfactory condition for the duration of the project as determined by the Engineer.

### (B) Boundary Flagging

Boundary flagging delineation of interior boundaries shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Interior boundaries may be staked on a tangent that runs parallel to buffer but must not encroach on the buffer at any location. Interior boundaries of hand clearing shall be identified with a different colored flagging to distinguish it from mechanized clearing.

Boundary flagging delineation of interior boundaries will be placed in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for delineation of the interior boundaries. This delineation will be considered incidental to the work being paid for as *Construction Surveying*, except that where there is no pay item or construction surveying the cost of boundary flagging delineation shall be included in the unit prices bid for the various items in the contract. Installation for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Additional flagging may be placed on overhanging vegetation to enhance visibility but does not substitute for installation of stakes.

Installation of boundary flagging for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall be performed in accordance with Subarticle 230-4(B)(5) or Subarticle 802-2(F) of the *Standard Specifications*. No direct pay will be made for this delineation, as the cost of same shall be included in the unit prices bid for the various items in the contract.

The Contractor shall be required to maintain alternative stakes and highly visible flagging in a satisfactory condition for the duration of the project as determined by the Engineer.

### **Measurement and Payment**

## EC - 15

*Safety Fence* will be measured and paid as the actual number of linear feet of polyethylene or polypropylene fence installed in place and accepted. Such payment will be full compensation including but not limited to furnishing and installing fence geotextile with necessary posts and post bracing, staples, tie wires, tools, equipment and incidentals necessary to complete this work.

Payment will be made under:

| <b>Pay Item</b> | <b>Pay Unit</b> |
|-----------------|-----------------|
| Safety Fence    | Linear Foot     |

# EC - 16

## **STABILIZATION REQUIREMENTS:**

(3-11-2016)

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective April 1, 2019 issued by the North Carolina Department of Environmental Quality Division of Water Resources. 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:**

**(West)**

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.

### Shoulder and Median Areas

#### **August 1 - June 1**

|       |                    |
|-------|--------------------|
| 20#   | Kentucky Bluegrass |
| 75#   | Hard Fescue        |
| 25#   | Rye Grain          |
| 500#  | Fertilizer         |
| 4000# | Limestone          |

#### **May 1 - September 1**

|       |                           |
|-------|---------------------------|
| 20#   | Kentucky Bluegrass        |
| 75#   | Hard Fescue               |
| 10#   | German or Browntop Millet |
| 500#  | Fertilizer                |
| 4000# | Limestone                 |

### Areas Beyond the Mowing Pattern, Waste and Borrow Areas:

#### **August 1 - June 1**

|       |                    |
|-------|--------------------|
| 100#  | Tall Fescue        |
| 15#   | Kentucky Bluegrass |
| 30#   | Hard Fescue        |
| 25#   | Rye Grain          |
| 500#  | Fertilizer         |
| 4000# | Limestone          |

#### **May 1 - September 1**

|       |                           |
|-------|---------------------------|
| 100#  | Tall Fescue               |
| 15#   | Kentucky Bluegrass        |
| 30#   | Hard Fescue               |
| 10#   | German or Browntop Millet |
| 500#  | Fertilizer                |
| 4000# | Limestone                 |

### Approved Tall Fescue Cultivars



## EC - 17

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

### Approved Kentucky Bluegrass Cultivars:

|          |             |           |              |
|----------|-------------|-----------|--------------|
| 4-Season | Blue Velvet | Gladstone | Quantum Leap |
| Alexa II | Blueberry   | Granite   | Rambo        |
| America  | Boomerang   | Hampton   | Rhapsody     |
| Apollo   | Brilliant   | Harmonie  | Rhythm       |

## EC - 18

|               |             |               |               |
|---------------|-------------|---------------|---------------|
| Arcadia       | Cabernet    | Impact        | Rita          |
| Aries         | Champagne   | Jefferson     | Royce         |
| Armada        | Champlain   | Juliet        | Rubicon       |
| Arrow         | Chicago II  | Jump Start    | Rugby II      |
| Arrowhead     | Corsair     | Keeneland     | Shiraz        |
| Aura          | Courtyard   | Langara       | Showcase      |
| Avid          | Delight     | Liberator     | Skye          |
| Award         | Diva        | Madison       | Solar Eclipse |
| Awesome       | Dynamo      | Mercury       | Sonoma        |
| Bandera       | Eagleton    | Midnight      | Sorbonne      |
| Barduke       | Emblem      | Midnight II   | Starburst     |
| Barnique      | Empire      | Moon Shadow   | Sudden Impact |
| Baroness      | Envicta     | Moonlight SLT | Total Eclipse |
| Barrister     | Everest     | Mystere       | Touche        |
| Barvette HGT  | Everglade   | Nu Destiny    | Tsunami       |
| Bedazzled     | Excursion   | NuChicago     | Unique        |
| Belissimo     | Freedom II  | NuGlade       | Valor         |
| Bewitched     | Freedom III | Odyssey       | Voyager II    |
| Beyond        | Front Page  | Perfection    | Washington    |
| Blacksburg II | Futurity    | Pinot         | Zinfandel     |
| Blackstone    | Gaelic      | Princeton 105 |               |
| Blue Note     | Ginney II   | Prosperity    |               |

### Approved Hard Fescue Cultivars:

|             |           |            |            |
|-------------|-----------|------------|------------|
| Aurora II   | Eureka II | Oxford     | Scaldis II |
| Aurora Gold | Firefly   | Reliant II | Spartan II |
| Berkshire   | Granite   | Reliant IV | Stonehenge |
| Bighorn GT  | Heron     | Rescue 911 |            |
| Chariot     | Nordic    | Rhino      |            |

On cut and fill slopes 2:1 or steeper add 20# Sericea Lespedeza 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.

### **TEMPORARY SEEDING:**

Fertilizer shall be the same analysis as specified for *Seeding and Mulching* and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. German Millet, or Browntop Millet shall be used in summer months and rye grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

### **FERTILIZER TOPDRESSING:**

## EC - 19

Fertilizer used for topdressing shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed.

### **SUPPLEMENTAL SEEDING:**

The kinds of seed and proportions shall be the same as specified for *Seeding and Mulching*, and the rate of application may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

### **MOWING:**

The minimum mowing height on this project shall be six inches.

## EC - 20

### Native Grass Seeding And Mulching

(West)

Native Grass Seeding and Mulching shall be performed on the disturbed areas of wetlands and riparian areas, and adjacent to Stream Relocation and/or trout stream construction within a 50 foot zone on both sides of the stream or depression, measured from top of stream bank or center of depression. The stream bank of the stream relocation shall be seeded by a method that does not alter the typical cross section of the stream bank. Native Grass Seeding and Mulching shall also be performed in the permanent soil reinforcement mat section of preformed scour holes, and in other areas as directed.

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.

#### August 1 - June 1

|       |                     |
|-------|---------------------|
| 18#   | Creeping Red Fescue |
| 8#    | Big Bluestem        |
| 6#    | Indiangrass         |
| 4#    | Switchgrass         |
| 35#   | Rye Grain           |
| 500#  | Fertilizer          |
| 4000# | Limestone           |

#### May 1 – September 1

|       |                           |
|-------|---------------------------|
| 18#   | Creeping Red Fescue       |
| 8#    | Big Bluestem              |
| 6#    | Indiangrass               |
| 4#    | Switchgrass               |
| 25#   | German or Browntop Millet |
| 500#  | Fertilizer                |
| 4000# | Limestone                 |

#### Approved Creeping Red Fescue Cultivars:

Aberdeen

Boreal

Epic

Cindy Lou

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.

Native Grass Seeding and Mulching shall be performed in accordance with Section 1660 of the *Standard Specifications* and vegetative cover sufficient to restrain erosion shall be installed immediately following grade establishment.

### Measurement and Payment

Native Grass *Seeding and Mulching* will be measured and paid for in accordance with Article 1660-8 of the *Standard Specifications*.

### **STOCKPILE AREAS:**

The Contractor shall install and maintain erosion control devices sufficient to contain sediment around any erodible material stockpile areas as directed.

### **ACCESS AND HAUL ROADS:**

At the end of each working day, the Contractor shall install or re-establish temporary diversions or earth berms across access/haul roads to direct runoff into sediment devices. Silt fence sections that are temporarily removed shall be reinstalled across access/haul roads at the end of each working day.

### **WASTE AND BORROW SOURCES:**

Payment for temporary erosion control measures, except those made necessary by the Contractor's own negligence or for his own convenience, will be paid for at the appropriate contract unit price for the devices or measures utilized in borrow sources and waste areas.

No additional payment will be made for erosion control devices or permanent seeding and mulching in any commercial borrow or waste pit. All erosion and sediment control practices that may be required on a commercial borrow or waste site will be done at the Contractor's expense.

All offsite Staging Areas, Borrow and Waste sites shall be in accordance with "Borrow and Waste Site Reclamation Procedures for Contracted Projects" located at:

<https://connect.ncdot.gov/resources/roadside/FieldOperationsDocuments/ContractedReclamationProcedures.pdf>

All forms and documents referenced in the "Borrow and Waste Site Reclamation Procedures for Contracted Projects" shall be included with the reclamation plans for offsite staging areas, and borrow and waste sites.



ST-1

Project 17BP.7.R.126

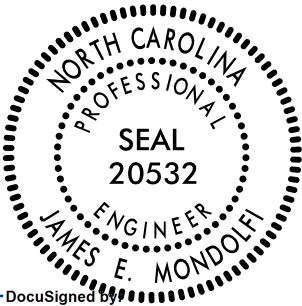
Rockingham County

Project Special Provisions

Structure

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# ST-2

## **Project Special Provisions** **Structure**

### **FALSEWORK AND FORMWORK**

**(4-5-12)**

#### **1.0 DESCRIPTION**

Use this Special Provision as a guide to develop temporary works submittals required by the Standard Specifications or other provisions; no additional submittals are required herein. Such temporary works include, but are not limited to, falsework and formwork.

Falsework is any temporary construction used to support the permanent structure until it becomes self-supporting. Formwork is the temporary structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Access scaffolding is a temporary structure that functions as a work platform that supports construction personnel, materials, and tools, but is not intended to support the structure. Scaffolding systems that are used to temporarily support permanent structures (as opposed to functioning as work platforms) are considered to be falsework under the definitions given. Shoring is a component of falsework such as horizontal, vertical, or inclined support members. Where the term “temporary works” is used, it includes all of the temporary facilities used in bridge construction that do not become part of the permanent structure.

Design and construct safe and adequate temporary works that will support all loads imposed and provide the necessary rigidity to achieve the lines and grades shown on the plans in the final structure.

#### **2.0 MATERIALS**

Select materials suitable for temporary works; however, select materials that also ensure the safety and quality required by the design assumptions. The Engineer has authority to reject material on the basis of its condition, inappropriate use, safety, or nonconformance with the plans. Clearly identify allowable loads or stresses for all materials or manufactured devices on the plans. Revise the plan and notify the Engineer if any change to materials or material strengths is required.

## ST-3

### 3.0 DESIGN REQUIREMENTS

#### A. Working Drawings

Provide working drawings for items as specified in the contract, or as required by the Engineer, with design calculations and supporting data in sufficient detail to permit a structural and safety review of the proposed design of the temporary work.

On the drawings, show all information necessary to allow the design of any component to be checked independently as determined by the Engineer.

When concrete placement is involved, include data such as the drawings of proposed sequence, rate of placement, direction of placement, and location of all construction joints. Submit the number of copies as called for by the contract.

When required, have the drawings and calculations prepared under the guidance of, and sealed by, a North Carolina Registered Professional Engineer who is knowledgeable in temporary works design.

If requested by the Engineer, submit with the working drawings manufacturer's catalog data listing the weight of all construction equipment that will be supported on the temporary work. Show anticipated total settlements and/or deflections of falsework and forms on the working drawings. Include falsework footing settlements, joint take-up, and deflection of beams or girders.

As an option for the Contractor, overhang falsework hangers may be uniformly spaced, at a maximum of 36 inches, provided the following conditions are met:

| Member Type (PCG) | Member Depth, (inches) | Max. Overhang Width, (inches) | Max. Slab Edge Thickness, (inches) | Max. Screed Wheel Weight, (lbs.) | Bracket Min. Vertical Leg Extension, (inches) |
|-------------------|------------------------|-------------------------------|------------------------------------|----------------------------------|-----------------------------------------------|
| II                | 36                     | 39                            | 14                                 | 2000                             | 26                                            |
| III               | 45                     | 42                            | 14                                 | 2000                             | 35                                            |
| IV                | 54                     | 45                            | 14                                 | 2000                             | 44                                            |
| MBT               | 63                     | 51                            | 12                                 | 2000                             | 50                                            |
| MBT               | 72                     | 55                            | 12                                 | 1700                             | 48                                            |

Overhang width is measured from the centerline of the girder to the edge of the deck slab.

For Type II, III & IV prestressed concrete girders (PCG), 45-degree cast-in-place half hangers and rods must have a minimum safe working load of 6,000 lbs.

For MBT prestressed concrete girders, 45-degree angle holes for falsework hanger rods shall be cast through the girder top flange and located, measuring along the top of the member, 1'-2 ½" from the edge of the top flange. Hanger hardware and rods must have a minimum safe working load of 6,000 lbs.

## ST-4

The overhang bracket provided for the diagonal leg shall have a minimum safe working load of 3,750 lbs. The vertical leg of the bracket shall extend to the point that the heel bears on the girder bottom flange, no closer than 4 inches from the bottom of the member. However, for 72-inch members, the heel of the bracket shall bear on the web, near the bottom flange transition.

Provide adequate overhang falsework and determine the appropriate adjustments for deck geometry, equipment, casting procedures and casting conditions.

If the optional overhang falsework spacing is used, indicate this on the falsework submittal and advise the girder producer of the proposed details. Failure to notify the Engineer of hanger type and hanger spacing on prestressed concrete girder casting drawings may delay the approval of those drawings.

Falsework hangers that support concentrated loads and are installed at the edge of thin top flange concrete girders (such as bulb tee girders) shall be spaced so as not to exceed 75% of the manufacturer's stated safe working load. Use of dual leg hangers (such as Meadow Burke HF-42 and HF-43) are not allowed on concrete girders with thin top flanges. Design the falsework and forms supporting deck slabs and overhangs on girder bridges so that there will be no differential settlement between the girders and the deck forms during placement of deck concrete.

When staged construction of the bridge deck is required, detail falsework and forms for screed and fluid concrete loads to be independent of any previous deck pour components when the mid-span girder deflection due to deck weight is greater than  $\frac{3}{4}$ ".

Note on the working drawings any anchorages, connectors, inserts, steel sleeves or other such devices used as part of the falsework or formwork that remains in the permanent structure. If the plan notes indicate that the structure contains the necessary corrosion protection required for a Corrosive Site, epoxy coat, galvanize or metalize these devices. Electroplating will not be allowed. Any coating required by the Engineer will be considered incidental to the various pay items requiring temporary works.

Design falsework and formwork requiring submittals in accordance with the 1995 AASHTO *Guide Design Specifications for Bridge Temporary Works* except as noted herein.

## ST-5

### 1. Wind Loads

Table 2.2 of Article 2.2.5.1 is modified to include wind velocities up to 110 mph. In addition, Table 2.2A is included to provide the maximum wind speeds by county in North Carolina.

**Table 2.2 - Wind Pressure Values**

| Height Zone<br>feet above ground | Pressure, lb/ft <sup>2</sup> for Indicated Wind Velocity, mph |    |    |     |     |
|----------------------------------|---------------------------------------------------------------|----|----|-----|-----|
|                                  | 70                                                            | 80 | 90 | 100 | 110 |
| 0 to 30                          | 15                                                            | 20 | 25 | 30  | 35  |
| 30 to 50                         | 20                                                            | 25 | 30 | 35  | 40  |
| 50 to 100                        | 25                                                            | 30 | 35 | 40  | 45  |
| over 100                         | 30                                                            | 35 | 40 | 45  | 50  |

### 2. Time of Removal

The following requirements replace those of Article 3.4.8.2.

Do not remove forms until the concrete has attained strengths required in Article 420-16 of the Standard Specifications and these Special Provisions.

Do not remove forms until the concrete has sufficient strength to prevent damage to the surface.

# ST-6

**Table 2.2A - Steady State Maximum Wind Speeds by Counties in North Carolina**

| COUNTY     | 25 YR<br>(mph) | COUNTY      | 25 YR<br>(mph) | COUNTY       | 25 YR<br>(mph) |
|------------|----------------|-------------|----------------|--------------|----------------|
| Alamance   | 70             | Franklin    | 70             | Pamlico      | 100            |
| Alexander  | 70             | Gaston      | 70             | Pasquotank   | 100            |
| Alleghany  | 70             | Gates       | 90             | Pender       | 100            |
| Anson      | 70             | Graham      | 80             | Perquimans   | 100            |
| Ashe       | 70             | Granville   | 70             | Person       | 70             |
| Avery      | 70             | Greene      | 80             | Pitt         | 90             |
| Beaufort   | 100            | Guilford    | 70             | Polk         | 80             |
| Bertie     | 90             | Halifax     | 80             | Randolph     | 70             |
| Bladen     | 90             | Harnett     | 70             | Richmond     | 70             |
| Brunswick  | 100            | Haywood     | 80             | Robeson      | 80             |
| Buncombe   | 80             | Henderson   | 80             | Rockingham   | 70             |
| Burke      | 70             | Hertford    | 90             | Rowan        | 70             |
| Cabarrus   | 70             | Hoke        | 70             | Rutherford   | 70             |
| Caldwell   | 70             | Hyde        | 110            | Sampson      | 90             |
| Camden     | 100            | Iredell     | 70             | Scotland     | 70             |
| Carteret   | 110            | Jackson     | 80             | Stanley      | 70             |
| Caswell    | 70             | Johnston    | 80             | Stokes       | 70             |
| Catawba    | 70             | Jones       | 100            | Surry        | 70             |
| Cherokee   | 80             | Lee         | 70             | Swain        | 80             |
| Chatham    | 70             | Lenoir      | 90             | Transylvania | 80             |
| Chowan     | 90             | Lincoln     | 70             | Tyrell       | 100            |
| Clay       | 80             | Macon       | 80             | Union        | 70             |
| Cleveland  | 70             | Madison     | 80             | Vance        | 70             |
| Columbus   | 90             | Martin      | 90             | Wake         | 70             |
| Craven     | 100            | McDowell    | 70             | Warren       | 70             |
| Cumberland | 80             | Mecklenburg | 70             | Washington   | 100            |
| Currituck  | 100            | Mitchell    | 70             | Watauga      | 70             |
| Dare       | 110            | Montgomery  | 70             | Wayne        | 80             |
| Davidson   | 70             | Moore       | 70             | Wilkes       | 70             |
| Davie      | 70             | Nash        | 80             | Wilson       | 80             |
| Duplin     | 90             | New Hanover | 100            | Yadkin       | 70             |
| Durham     | 70             | Northampton | 80             | Yancey       | 70             |
| Edgecombe  | 80             | Onslow      | 100            |              |                |
| Forsyth    | 70             | Orange      | 70             |              |                |

# ST-7



## ST-7

### B. Review and Approval

The Engineer is responsible for the review and approval of temporary works' drawings.

Submit the working drawings sufficiently in advance of proposed use to allow for their review, revision (if needed), and approval without delay to the work.

The time period for review of the working drawings does not begin until complete drawings and design calculations, when required, are received by the Engineer.

Do not start construction of any temporary work for which working drawings are required until the drawings have been approved. Such approval does not relieve the Contractor of the responsibility for the accuracy and adequacy of the working drawings.

### 4.0 CONSTRUCTION REQUIREMENTS

All requirements of Section 420 of the Standard Specifications apply.

Construct temporary works in conformance with the approved working drawings. Ensure that the quality of materials and workmanship employed is consistent with that assumed in the design of the temporary works. Do not weld falsework members to any portion of the permanent structure unless approved. Show any welding to the permanent structure on the approved construction drawings.

Provide tell-tales attached to the forms and extending to the ground, or other means, for accurate measurement of falsework settlement. Make sure that the anticipated compressive settlement and/or deflection of falsework does not exceed 1 inch. For cast-in-place concrete structures, make sure that the calculated deflection of falsework flexural members does not exceed 1/240 of their span regardless of whether or not the deflection is compensated by camber strips.

### A. Maintenance and Inspection

Inspect and maintain the temporary work in an acceptable condition throughout the period of its use. Certify that the manufactured devices have been maintained in a condition to allow them to safely carry their rated loads. Clearly mark each piece so that its capacity can be readily determined at the job site.

Perform an in-depth inspection of an applicable portion(s) of the temporary works, in the presence of the Engineer, not more than 24 hours prior to the beginning of each concrete placement. Inspect other temporary works at least once a month to ensure that they are functioning properly. Have a North Carolina Registered Professional Engineer inspect the cofferdams, shoring, sheathing, support of excavation structures, and support systems for load tests prior to loading.

## ST-8

### B. Foundations

Determine the safe bearing capacity of the foundation material on which the supports for temporary works rest. If required by the Engineer, conduct load tests to verify proposed bearing capacity values that are marginal or in other high-risk situations.

The use of the foundation support values shown on the contract plans of the permanent structure is permitted if the foundations are on the same level and on the same soil as those of the permanent structure.

Allow for adequate site drainage or soil protection to prevent soil saturation and washout of the soil supporting the temporary works supports.

If piles are used, the estimation of capacities and later confirmation during construction using standard procedures based on the driving characteristics of the pile is permitted. If preferred, use load tests to confirm the estimated capacities; or, if required by the Engineer conduct load tests to verify bearing capacity values that are marginal or in other high risk situations.

The Engineer reviews and approves the proposed pile and soil bearing capacities.

### 5.0 REMOVAL

Unless otherwise permitted, remove and keep all temporary works upon completion of the work. Do not disturb or otherwise damage the finished work.

Remove temporary works in conformance with the contract documents. Remove them in such a manner as to permit the structure to uniformly and gradually take the stresses due to its own weight.

### 6.0 METHOD OF MEASUREMENT

Unless otherwise specified, temporary works will not be directly measured.

### 7.0 BASIS OF PAYMENT

Payment at the contract unit prices for the various pay items requiring temporary works will be full compensation for the above falsework and formwork.

# ST-9

## **SUBMITTAL OF WORKING DRAWINGS**

**(1-29-21)**

### **1. GENERAL**

Submit working drawings in accordance with Article 105-2 of the *Standard Specifications* and this provision. For this provision, “submittals” refers to only those listed in this provision. The list of submittals contained herein does not represent a list of required submittals for the project. Submittals are only necessary for those items as required by the contract. Make submittals that are not specifically noted in this provision directly to the Engineer. Either the Structures Management Unit or the Geotechnical Engineering Unit or both units will jointly review submittals.

If a submittal contains variations from plan details or specifications or significantly affects project cost, field construction or operations, discuss the submittal with and submit all copies to the Engineer. State the reason for the proposed variation in the submittal. To minimize review time, make sure all submittals are complete when initially submitted. Provide a contact name and information with each submittal. Direct any questions regarding submittal requirements to the Engineer, Structures Management Unit contacts or the Geotechnical Engineering Unit contacts noted below.

In order to facilitate in-plant inspection by NCDOT and approval of working drawings, provide the name, address and telephone number of the facility where fabrication will actually be done if different than shown on the title block of the submitted working drawings. This includes, but is not limited to, precast concrete items, prestressed concrete items and fabricated steel or aluminum items.

### **2. ADDRESSES AND CONTACTS**

For submittals to the Structures Management Unit, use the following addresses:

**Via US mail:**

Mr. B. C. Hanks, P. E.  
State Structures Engineer  
North Carolina Department  
of Transportation  
Structures Management Unit  
1581 Mail Service Center  
Raleigh, NC 27699-1581  
  
Attention: Mr. J. L. Bolden, P. E.

**Via other delivery service:**

Mr. B. C. Hanks, P. E.  
State Structures Engineer  
North Carolina Department  
of Transportation  
Structures Management Unit  
1000 Birch Ridge Drive  
Raleigh, NC 27610  
  
Attention: Mr. J. L. Bolden, P. E.

Submittals may also be made via email.

## ST-10

Send submittals to:

[jlbolden@ncdot.gov](mailto:jlbolden@ncdot.gov) (James Bolden)

Send an additional e-copy of the submittal to the following address:

[eomile@ncdot.gov](mailto:eomile@ncdot.gov) (Emmanuel Omile)

[mrorie@ncdot.gov](mailto:mrorie@ncdot.gov) (Madonna Rorie)

For submittals to the Geotechnical Engineering Unit, use the following addresses:

For projects in Divisions 1-7, use the following Eastern Regional Office address:

Via US mail:

Mr. David Hering, L. G., P. E.  
Eastern Regional Geotechnical  
Manager  
North Carolina Department  
of Transportation  
Geotechnical Engineering Unit  
Eastern Regional Office  
1570 Mail Service Center  
Raleigh, NC 27699-1570

Via other delivery service:

Mr. David Hering, L. G., P. E.  
Eastern Regional Geotechnical  
Manager  
North Carolina Department  
of Transportation  
Geotechnical Engineering Unit  
Eastern Regional Office  
3301 Jones Sausage Road, Suite 100  
Garner, NC 27529

Via Email: [EastGeotechnicalSubmittal@ncdot.gov](mailto:EastGeotechnicalSubmittal@ncdot.gov)

For projects in Divisions 8-14, use the following Western Regional Office address:

Via US mail or other delivery service:

Mr. Eric Williams, P. E.  
Western Regional Geotechnical  
Manager  
North Carolina Department  
of Transportation  
Geotechnical Engineering Unit  
Western Regional Office  
5253 Z Max Boulevard  
Harrisburg, NC 28075

Via Email: [WestGeotechnicalSubmittal@ncdot.gov](mailto:WestGeotechnicalSubmittal@ncdot.gov)

The status of the review of structure-related submittals sent to the Structures Management Unit can be viewed from the Unit's website, via the "Drawing Submittal Status" link.

The status of the review of geotechnical-related submittals sent to the Geotechnical Engineering Unit can be viewed from the Unit's website, via the "Geotechnical Construction Submittals" link.

# ST-11

Direct any questions concerning submittal review status, review comments or drawing markups to the following contacts:

Primary Structures Contact: James Bolden (919) 707 – 6408  
(919) 250 – 4082 facsimile  
[jlbolden@ncdot.gov](mailto:jlbolden@ncdot.gov)

Secondary Structures Contacts: Emmanuel Omile (919) 707 – 6451  
Madonna Rorie (919) 707 – 6508

Eastern Regional Geotechnical Contact (Divisions 1-7):  
David Hering (919) 662 – 4710  
[dthering@ncdot.gov](mailto:dthering@ncdot.gov)

Western Regional Geotechnical Contact (Divisions 8-14):  
Eric Williams (704) 455 – 8902  
[ewilliams3@ncdot.gov](mailto:ewilliams3@ncdot.gov)

## 3. SUBMITTAL COPIES

Furnish one complete copy of each submittal, including all attachments, to the Engineer. At the same time, submit the number of hard copies shown below of the same complete submittal directly to the Structures Management Unit and/or the Geotechnical Engineering Unit.

The first table below covers “Structure Submittals”. The Engineer will receive review comments and drawing markups for these submittals from the Structures Management Unit. The second table in this section covers “Geotechnical Submittals”. The Engineer will receive review comments and drawing markups for these submittals from the Geotechnical Engineering Unit.

Unless otherwise required, submit one set of supporting calculations to either the Structures Management Unit or the Geotechnical Engineering Unit unless both units require submittal copies in which case submit a set of supporting calculations to each unit. Provide additional copies of any submittal as directed.

### STRUCTURE SUBMITTALS

| Submittal              | Copies<br>Required by<br>Structures<br>Management<br>Unit | Copies<br>Required by<br>Geotechnical<br>Engineering<br>Unit | Contract Reference<br>Requiring Submittal <sup>1</sup> |
|------------------------|-----------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------|
| Arch Culvert Falsework | 5                                                         | 0                                                            | Plan Note, SN Sheet &<br>“Falsework and Formwork”      |

## ST-12

|                                                                            |           |   |                                                                                             |
|----------------------------------------------------------------------------|-----------|---|---------------------------------------------------------------------------------------------|
| Box Culvert Falsework <sup>7</sup>                                         | 5         | 0 | Plan Note, SN Sheet &<br>“Falsework and Formwork”                                           |
| Cofferdams                                                                 | 6         | 2 | Article 410-4                                                                               |
| Foam Joint Seals <sup>6</sup>                                              | 9         | 0 | “Foam Joint Seals”                                                                          |
| Expansion Joint Seals<br>(hold down plate type with base<br>angle)         | 9         | 0 | “Expansion Joint Seals”                                                                     |
| Expansion Joint Seals<br>(modular)                                         | 2, then 9 | 0 | “Modular Expansion Joint<br>Seals”                                                          |
| Expansion Joint Seals<br>(strip seals)                                     | 9         | 0 | “Strip Seals”                                                                               |
| Falsework & Forms <sup>2</sup><br>(substructure)                           | 8         | 0 | Article 420-3 & “Falsework<br>and Formwork”                                                 |
| Falsework & Forms<br>(superstructure)                                      | 8         | 0 | Article 420-3 & “Falsework<br>and Formwork”                                                 |
| Girder Erection over Railroad                                              | 5         | 0 | Railroad Provisions                                                                         |
| Maintenance and Protection of<br>Traffic Beneath Proposed<br>Structure     | 8         | 0 | “Maintenance and<br>Protection of Traffic<br>Beneath Proposed Structure<br>at Station ____” |
| Metal Bridge Railing                                                       | 8         | 0 | Plan Note                                                                                   |
| Metal Stay-in-Place Forms                                                  | 8         | 0 | Article 420-3                                                                               |
| Metalwork for Elastomeric<br>Bearings <sup>4,5</sup>                       | 7         | 0 | Article 1072-8                                                                              |
| Miscellaneous Metalwork <sup>4,5</sup>                                     | 7         | 0 | Article 1072-8                                                                              |
| Disc Bearings <sup>4</sup>                                                 | 8         | 0 | “Disc Bearings”                                                                             |
| Overhead and Digital Message<br>Signs (DMS) (metalwork and<br>foundations) | 13        | 0 | Applicable Provisions                                                                       |
| Placement of Equipment on<br>Structures (cranes, etc.)                     | 7         | 0 | Article 420-20                                                                              |



## ST-13

|                                                                                  |                           |   |                                                                                                            |
|----------------------------------------------------------------------------------|---------------------------|---|------------------------------------------------------------------------------------------------------------|
| Precast Concrete Box Culverts                                                    | 2, then<br>1 reproducible | 0 | “Optional Precast Reinforced Concrete Box Culvert at Station ____”                                         |
| Prestressed Concrete Cored Slab<br>(detensioning sequences) <sup>3</sup>         | 6                         | 0 | Article 1078-11                                                                                            |
| Prestressed Concrete Deck Panels                                                 | 6 and<br>1 reproducible   | 0 | Article 420-3                                                                                              |
| Prestressed Concrete Girder<br>(strand elongation and<br>detensioning sequences) | 6                         | 0 | Articles 1078-8 and 1078-11                                                                                |
| Removal of Existing Structure over<br>Railroad                                   | 5                         | 0 | Railroad Provisions                                                                                        |
| Revised Bridge Deck Plans<br>(adaptation to prestressed deck<br>panels)          | 2, then<br>1 reproducible | 0 | Article 420-3                                                                                              |
| Revised Bridge Deck Plans<br>(adaptation to modular<br>expansion joint seals)    | 2, then<br>1 reproducible | 0 | “Modular Expansion Joint Seals”                                                                            |
| Sound Barrier Wall (precast<br>items)                                            | 10                        | 0 | Article 1077-2 &<br>“Sound Barrier Wall”                                                                   |
| Sound Barrier Wall Steel<br>Fabrication Plans <sup>5</sup>                       | 7                         | 0 | Article 1072-8 &<br>“Sound Barrier Wall”                                                                   |
| Structural Steel <sup>4</sup>                                                    | 2, then 7                 | 0 | Article 1072-8                                                                                             |
| Temporary Detour Structures                                                      | 10                        | 2 | Article 400-3 &<br>“Construction,<br>Maintenance and Removal<br>of Temporary Structure at<br>Station ____” |
| TFE Expansion Bearings <sup>4</sup>                                              | 8                         | 0 | Article 1072-8                                                                                             |

### FOOTNOTES

- References are provided to help locate the part of the contract where the submittals are required. References in quotes refer to the provision by that name. Articles refer to the *Standard Specifications*.
- Submittals for these items are necessary only when required by a note on plans.
- Submittals for these items may not be required. A list of pre-approved sequences is available from the producer or the Materials & Tests Unit.
- The fabricator may submit these items directly to the Structures Management Unit.

## ST-14

5. The two sets of preliminary submittals required by Article 1072-8 of the *Standard Specifications* are not required for these items.
6. Submittals for Fabrication Drawings are not required. Submittals for Catalogue Cuts of Proposed Material are required. See Section 5.A of the referenced provision.
7. Submittals are necessary only when the top slab thickness is 18" or greater.

### GEOTECHNICAL SUBMITTALS

| Submittal                                          | Copies<br>Required by<br>Geotechnical<br>Engineering<br>Unit | Copies<br>Required by<br>Structures<br>Management<br>Unit | Contract Reference<br>Requiring Submittal <sup>1</sup>  |
|----------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------|
| Drilled Pier Construction Plans <sup>2</sup>       | 1                                                            | 0                                                         | Subarticle 411-3(A)                                     |
| Crosshole Sonic Logging (CSL) Reports <sup>2</sup> | 1                                                            | 0                                                         | Subarticle 411-5(A)(2)                                  |
| Pile Driving Equipment Data Forms <sup>2,3</sup>   | 1                                                            | 0                                                         | Subarticle 450-3(D)(2)                                  |
| Pile Driving Analyzer (PDA) Reports <sup>2</sup>   | 1                                                            | 0                                                         | Subarticle 450-3(F)(3)                                  |
| Retaining Walls <sup>4</sup>                       | 1 drawings,<br>1 calculations                                | 2 drawings                                                | Applicable Provisions                                   |
| Temporary Shoring <sup>4</sup>                     | 1 drawings,<br>1 calculations                                | 2 drawings                                                | "Temporary Shoring" &<br>"Temporary Soil Nail<br>Walls" |

#### FOOTNOTES

1. References are provided to help locate the part of the contract where the submittals are required. References in quotes refer to the provision by that name. Subarticles refer to the *Standard Specifications*.
2. Submit one hard copy of submittal to the Engineer. Submit a second copy of submittal electronically (PDF via email), US mail or other delivery service to the appropriate Geotechnical Engineering Unit regional office. Electronic submission is preferred.
3. The Pile Driving Equipment Data Form is available from:  
[https://connect.ncdot.gov/resources/Geological/Pages/Geotech\\_Forms\\_Details.aspx](https://connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx)  
 See second page of form for submittal instructions.
4. Electronic copy of submittal is required. See referenced provision.

# ST-15

## **CRANE SAFETY**

**(6-20-19)**

Comply with the manufacturer specifications and limitations applicable to the operation of any and all cranes and derricks. Prime contractors, sub-contractors, and fully operated rental companies shall comply with the current Occupational Safety and Health Administration (OSHA) regulations.

Submit all items listed below to the Engineer prior to beginning crane operations. Changes in personnel or equipment must be reported to the Engineer and all applicable items listed below must be updated and submitted prior to continuing with crane operations.

### **CRANE SAFETY SUBMITTAL LIST**

**Competent Person:** Provide the name and qualifications of the “Competent Person” responsible for crane safety and lifting operations. The named competent person will have the responsibility and authority to stop any work activity due to safety concerns.

**Riggers:** Provide the qualifications and experience of the persons responsible for rigging operations. Qualifications and experience should include, but not be limited to, weight calculations, center of gravity determinations, selection and inspection of sling and rigging equipment, and safe rigging practices.

**Crane Inspections:** Inspection records for all cranes shall be current and readily accessible for review upon request.

**Certifications:** Crane operators shall be certified by the National Commission for the Certification of Crane Operators (NCCCO) or the National Center for Construction Education and Research (NCCER). Other approved nationally accredited programs will be considered upon request. In addition, crane operators shall have a current CDL medical card. Submit a list of crane operator(s) and include current certification for each type of crane operated (small hydraulic, large hydraulic, small lattice, large lattice) and medical evaluations for each operator.

# ST-16

## **GROUT FOR STRUCTURES**

(12-1-17)

### **1.0 DESCRIPTION**

This special provision addresses grout for use in pile blockouts, grout pockets, shear keys, dowel holes and recesses for structures. This provision does not apply to grout placed in post-tensioning ducts for bridge beams, girders, decks, end bent caps, or bent caps. Mix and place grout in accordance with the manufacturer's recommendations, the applicable sections of the Standard Specifications and this provision.

### **2.0 MATERIAL REQUIREMENTS**

Unless otherwise noted on the plans, use a Type 3 Grout in accordance with Section 1003 of the Standard Specifications.

Initial setting time shall not be less than 10 minutes when tested in accordance with ASTM C266.

Construction loading and traffic loading shall not be allowed until the 3 day compressive strength is achieved.

### **3.0 SAMPLING AND PLACEMENT**

Place and maintain components in final position until grout placement is complete and accepted. Concrete surfaces to receive grout shall be free of defective concrete, laitance, oil, grease and other foreign matter. Saturate concrete surfaces with clean water and remove excess water prior to placing grout.

### **4.0 BASIS OF PAYMENT**

No separate payment will be made for "Grout for Structures". The cost of the material, equipment, labor, placement, and any incidentals necessary to complete the work shall be considered incidental to the structure item requiring grout.

# ST-17

## **ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES**

(12-30-15)

### **1.0 INSPECTION FOR ASBESTOS CONTAINING MATERIAL**

Prior to conducting bridge demolition or renovation activities, the Contractor shall thoroughly inspect the bridge or affected components for the presence of asbestos containing material (ACM) using a firm prequalified by NCDOT to perform asbestos surveys. The inspection must be performed by a N.C. accredited asbestos inspector with experience inspecting bridges or other industrial structures. The N.C. accredited asbestos inspector must conduct a thorough inspection, identifying all asbestos-containing material as require by the

Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants (NESHAP) Code of Federal Regulations (CFR) 40 CFR, Part 61, Subpart M.

The Contractor shall submit an inspection report to the Engineer, which at a minimum must include information required in 40 CFR 763.85 (a)(4) vi)(A)-(E), as well as a project location map, photos of existing structure, the date of inspection and the name, N.C. accreditation number, and signature of the N.C. accredited asbestos inspector who performed the inspection and completed the report. The cover sheet of the report shall include project identification information. Place the following notes on the cover sheet of the report and check the appropriate box:

☐ ACM was found  
☐ ACM was not found

### **2.0 REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL**

If ACM is found, notify the Engineer. Compensation for removal and disposal of ACM is considered extra work in accordance with Article 104-7 of the Standard Specifications.

An Asbestos Removal Permit must be obtained from the Health Hazards Control Unit (HHCU) of the N.C. Department of Health & Human Services, Division of Public Health, if more than 35 cubic feet, 160 square feet, or 260 linear feet of regulated ACM (RACM) is to be removed from a structure and this work must be completed by a contractor prequalified by NCDOT to perform asbestos abatement. RACM is defined in 40 CFR, Part 61, Subpart M. Note: 40 CFR 763.85 (a)(4) vi)(D) defines ACM as surfacing, TSI and Miscellaneous which does not meet the NESHAP RACM.

## ST-18

### 3.0 DEMOLITION NOTIFICATION

Even if no ACM is found (or if quantities are less than those required for a permit), a Demolition Notification (DHHS-3768) must be submitted to the HHCUC. Notifications and Asbestos Permit applications require an original signature and must be submitted to the HHCUC 10 working days prior to beginning demolition activities. The 10 working day period starts based on the post-marked date or date of hand delivery. Demolition that does not begin as originally notified requires submission of a separate revision form HHCUC 3768-R to HHCUC. Reference the North Carolina Administrative Code, Chapter 10A, Subchapter 41C, Article .0605 for directives on revision submissions.

#### Contact Information

Health Hazards Control Unit (HHCUC)  
N.C. Department of Health and Human Services  
1912 Mail Service Center  
Raleigh, NC 27699-1912  
Telephone: (919) 707-5950  
Fax: (919) 870-4808

### 4.0 SPECIAL CONSIDERATIONS

Buncombe, Forsyth, and Mecklenburg counties also have asbestos permitting and NESHAP requirements must be followed. For projects involving permitted RACM removals, both the applicable county and the state (HHCUC) must be notified.

For demolitions with no RACM, only the local environmental agencies must be notified. Contact information is as follows:

#### Buncombe County

WNC Regional Air Pollution Control Agency  
49 Mt. Carmel Road  
Asheville, NC 28806  
(828) 250-6777

#### Forsyth County

Environmental Affairs Department  
537 N. Spruce Street  
Winston-Salem, NC 27101  
(336) 703-2440

#### Mecklenburg County

Land Use and Environmental Services Agency  
Mecklenburg Air Quality  
700 N. Tryon Street  
Charlotte, NC 28202  
(704) 336-5430



## ST-19

### 5.0 ADDITIONAL INFORMATION

Additional information may be found on N.C. asbestos rules, regulations, procedures and N.C. accredited inspectors, as well as associated forms for demolition notifications and asbestos permit applications at the N.C. Asbestos Hazard Management Program website:

[www.epi.state.nc.us/epi/asbestos/ahmp.html](http://www.epi.state.nc.us/epi/asbestos/ahmp.html)

### 6.0 BASIS OF PAYMENT

Payment for the work required in this provision will be at the lump sum contract unit price for “Asbestos Assessment”. Such payment will be full compensation for all asbestos inspections, reports, permitting and notifications.

## ST-20

### **CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 15+77.00 -L-**

(12-12-13)

#### **GENERAL**

Construct, maintain, and remove the temporary access required to provide the working area necessary for construction of the new bridge, construction of the temporary detour structure, or for the removal of an existing bridge, as applicable. Temporary access may involve the use of a rock causeway [workpad], a work bridge, or other methods; however, all types of temporary access are required to meet the requirements of all permits, the Standard Specifications, and this Special Provision.

#### **TEMPORARY ROCK CAUSEWAY [WORKPAD]**

At the contractor's option, construction of a temporary rock causeway [workpad] within the limits shown on the plans is permitted. Build the causeway [workpad] with Class II riprap topped by a layer of Class B riprap or as otherwise designated on the plans or approved by the Engineer. If desired, recycle the Class II riprap used in the causeway [workpad] for placement in the final riprap slope protection as directed by the Engineer. No payment will be made for recycled riprap as this material is considered incidental to the causeway [workpad] placement and removal. If this option is exercised, no adjustment in contract bid price will be allowed due to an underrun in the quantity of "Rip Rap Class II (2'-0" Thick)".

Completely remove all causeway [workpad] material including pipes and return the entire causeway [workpad] footprint to the original contours and elevations within 90 days of the completion of the deck slab or as otherwise required by permits.

For sites affected by moratoriums or restrictions on in-stream work: Do not construct or remove causeway [workpad] during the moratorium period shown on the permit. If the completion of the deck slab falls within the prohibitive dates for causeway [workpad] construction or removal, begin causeway [workpad] removal immediately following the prohibitive dates.

#### **TEMPORARY WORK BRIDGE**

At the contractor's option, construction of a temporary work bridge in lieu of the causeway(s) [workpad] is acceptable, provided the temporary work bridge satisfies all permits. Submit details of the temporary work bridge to the Engineer prior to constructing the work bridge to ensure conformance with the plans and all permits. Completely remove the temporary bridge prior to final acceptance or as otherwise required by the permits.

#### **BASIS OF PAYMENT**

The lump sum price bid for "Construction, Maintenance and Removal of Temporary Access at Station 15+77.00 -L-" will be full compensation for the above work, or other methods of access, including all material, pipes, work bridge components, equipment, tools, labor, disposal, and incidentals necessary to complete the work.

**LISTING OF MBE/WBE SUBCONTRACTORS**

Sheet

of

| Firm Name and Address | Circle One | Item No. | Item Description | * Agreed upon Unit Price | ** Dollar Volume of Item |
|-----------------------|------------|----------|------------------|--------------------------|--------------------------|
| <b>Name</b>           | MBE        |          |                  |                          |                          |
| Address               | WBE        |          |                  |                          |                          |
| <b>Name</b>           | MBE        |          |                  |                          |                          |
| Address               | WBE        |          |                  |                          |                          |
| <b>Name</b>           | MBE        |          |                  |                          |                          |
| Address               | WBE        |          |                  |                          |                          |
| <b>Name</b>           | MBE        |          |                  |                          |                          |
| Address               | WBE        |          |                  |                          |                          |
| <b>Name</b>           | MBE        |          |                  |                          |                          |
| Address               | WBE        |          |                  |                          |                          |
| <b>Name</b>           | MBE        |          |                  |                          |                          |
| Address               | WBE        |          |                  |                          |                          |

\* The Dollar Volume shown in this column shall be the Actual Price Agreed Upon by the Prime Contractor and the MBE/WBE subcontractor, and these prices will be used to determine the percentage of the MBE/WBE participation in the contract.

\*\* Dollar Volume of MBE/WBE Subcontractor Percentage of Total Contract Bid Price:

*If firm is a Material Supplier Only, show Dollar Volume as 60% of Agreed Upon Amount from Letter of Intent.*

*If firm is a Manufacturer, show Dollar Volume as 100% of Agreed Upon Amount from Letter of Intent.*

**LISTING OF MBE/WBE SUBCONTRACTORS**

|                            |                |          | Sheet of         |                          |                          |
|----------------------------|----------------|----------|------------------|--------------------------|--------------------------|
| Firm Name and Address      | Circle One     | Item No. | Item Description | * Agreed upon Unit Price | ** Dollar Volume of Item |
| <b>Name</b><br><br>Address | MBE<br><br>WBE |          |                  |                          |                          |
| <b>Name</b><br><br>Address | MBE<br><br>WBE |          |                  |                          |                          |
| <b>Name</b><br><br>Address | MBE<br><br>WBE |          |                  |                          |                          |
| <b>Name</b><br><br>Address | MBE<br><br>WBE |          |                  |                          |                          |
| <b>Name</b><br><br>Address | MBE<br><br>WBE |          |                  |                          |                          |

**\*\* Dollar Volume of MBE Subcontractor \$ \_\_\_\_\_**

**MBE Percentage of Total Contract Bid Price \_\_\_\_\_ %**

**\*\* Dollar Volume of WBE Subcontractor \$ \_\_\_\_\_**

**WBE Percentage of Total Contract Bid Price \_\_\_\_\_ %**

**\*The Dollar Volume shown in this column shall be the Actual Price Agreed Upon by the Prime Contractor and the MBE/WBE subcontractor, and these prices will be used to determine the percentage of the MBE/WBE participation in the contract.**

**\*\* Dollar Volume of MBE/WBE Subcontractor Percentage of Total Contract Bid Price.**

**If firm is a Material Supplier Only, show Dollar Volume as 60% of Agreed Upon Amount from Letter of Intent.**

**If firm is a Manufacturer, show Dollar Volume as 100% of Agreed Upon Amount from Letter of Intent.**

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

**BID BOND**

Principal:

---

Name of Principal Contractor

Surety:

---

Name of Surety

Contract Number:

**DG00546**

County:

**Rockingham**

Date of Bid:

KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL CONTRACTOR (hereafter, PRINCIPAL) and SURETY above named, are held and firmly bound unto the Department of Transportation in the full and just sum of five (5) percent of the total amount bid by the Principal for the project 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.

NOW, THEREFORE, the condition of this obligation is: the Principal shall not withdraw its bid within sixty (60) days after the opening of the bids, or within such other time period as may be provided in the proposal, and if the Board of Transportation shall award a contract to the Principal, the Principal shall, within fourteen (14) calendar days after written notice of award is received by him, provide bonds with good and sufficient surety, as required for the faithful performance of the contract and for the protection of all persons supplying labor, material, and equipment for the prosecution of the work. In the event the Principal requests permission to withdraw his bid due to mistake in accordance with the provisions of Article 103-3 of the *Standard Specifications for Roads and Structures*, the conditions and obligations of this Bid Bond shall remain in full force and effect until the Department of Transportation makes a final determination to either allow the bid to be withdrawn or to proceed with award of the contract. In the event a determination is made to award the contract, the Principal shall have fourteen (14) calendar days to comply with the requirements set forth above. In the event the Principal withdraws its bid after bids are opened except as provided in Article 103-3, or after award of the contract has been made fails to execute such additional documents as may be required and to provide the required bonds within the time period specified above, then the amount of the bid bond shall be immediately paid to the Department of Transportation as liquidated damages.

IN TESTIMONY WHEREOF, the Principal and Surety have caused these presents to be duly signed and sealed.

This the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

---

Surety

By

---

General Agent or Attorney-in-Fact Signature*Seal of Surety*

---

Print or type Signer's Name

**BID BOND**

**CORPORATION**

SIGNATURE OF CONTRACTOR (Principal)

---

Full name of Corporation

---

Address as prequalified

By 

---

Signature of **President, Vice President, Assistant Vice President**  
*Select appropriate title*

---

Print or type Signer's name

*Affix Corporate Seal*

Attest

---

Signature of **Secretary, Assistant Secretary**  
*Select appropriate title*

---

Print or type Signer's name



**BID BOND**

**LIMITED LIABILITY COMPANY**

SIGNATURE OF CONTRACTOR (Principal)

Name of Contractor

\_\_\_\_\_

Full name of Firm

\_\_\_\_\_

Address as prequalified

**Signature of Member/  
Manager/Authorized Agent**

\_\_\_\_\_

Individually

\_\_\_\_\_

Print or type Signer's name

**BID BOND**

**INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME**

SIGNATURE OF CONTRACTOR (Principal)

Name of Contractor

\_\_\_\_\_  
Individual Name

Trading and doing business as

\_\_\_\_\_  
Full name of Firm

\_\_\_\_\_  
Address as prequalified

Signature of Contractor

\_\_\_\_\_  
Individually

\_\_\_\_\_  
Print or type Signer's name

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Print or type Signer's name

**BID BOND**

**INDIVIDUAL DOING BUSINESS IN HIS OWN NAME**

SIGNATURE OF CONTRACTOR (Principal)

Name of Contractor

\_\_\_\_\_  
Print or type Individual Name

\_\_\_\_\_  
Address as prequalified

Signature of Contractor

\_\_\_\_\_  
Individually

\_\_\_\_\_  
Print or type Signer's name

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Print or type Signer's name

**BID BOND**

**PARTNERSHIP**

SIGNATURE OF CONTRACTOR (Principal)

---

Full name of Partnership

---

Address as prequalified

By 

---

Signature of Partner

---

Print or type Signer's name

---

Signature of Witness

---

Print or type Signer's name

**BID BOND**  
**JOINT VENTURE (2 or 3)**  
SIGNATURE OF CONTRACTORS (Principal)

Instructions to Bidders: **2 Joint Ventures**, Fill in lines (1), (2) and (3) and execute. **3 Joint Venturers** Fill in lines (1), (2), (3), (4) and execute. Line (1), print or type the name of Joint Venture. On line (2), print or type the name of one of the joint venturers and execute below in the appropriate manner required by Article 102-8 of the *Specifications*. On Line (3), print or type the name of second joint venturer and execute below in the appropriate manner required by said article of the Specifications. On Line (4), print or type the name of the third joint venturer, if applicable and execute below in the appropriate manner required by said article of the Specifications. This form of execution must be strictly followed.

(1) \_\_\_\_\_  
Name of Joint Venture

(2) \_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Address as prequalified

\_\_\_\_\_  
Signature of Witness or Attest

By

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Print or type Signer's name

\_\_\_\_\_  
Print or type Signer's name

*If Corporation, affix Corporate Seal*

and

(3) \_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Address as prequalified

\_\_\_\_\_  
Signature of Witness or Attest

By

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Print or type Signer's name

\_\_\_\_\_  
Print or type Signer's name

*If Corporation, affix Corporate Seal*

and

(4) \_\_\_\_\_  
Name of Contractor *(for 3 Joint Venture only)*

\_\_\_\_\_  
Address as prequalified

\_\_\_\_\_  
Signature of Witness or Attest

By

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Print or type Signer's name

\_\_\_\_\_  
Print or type Signer's name

*If Corporation, affix Corporate Seal*

**ADDENDA**

ADDENDUM #1

I, \_\_\_\_\_  
(SIGNATURE)

representing \_\_\_\_\_

Acknowledge receipt of Addendum #1.

ADDENDUM #2

I, \_\_\_\_\_  
(SIGNATURE)

representing \_\_\_\_\_

Acknowledge receipt of Addendum #2.

ADDENDUM #3

I, \_\_\_\_\_  
(SIGNATURE)

representing \_\_\_\_\_

Acknowledge receipt of Addendum #3.



County : Rockingham

## ITEMIZED PROPOSAL FOR CONTRACT NO. DG00546

| Line #        | Item Number  | Sec # | Description                                                           | Quantity   | Unit Cost | Amount |
|---------------|--------------|-------|-----------------------------------------------------------------------|------------|-----------|--------|
| ROADWAY ITEMS |              |       |                                                                       |            |           |        |
| 0001          | 0000100000-N | 800   | MOBILIZATION                                                          | Lump Sum   | L.S.      |        |
| 0002          | 0000400000-N | 801   | CONSTRUCTION SURVEYING                                                | Lump Sum   | L.S.      |        |
| 0003          | 0030000000-N | SP    | TYPE II MODIFIED APPROACH<br>FILL, STATION *****<br>STA. 15+77.00 -L- | Lump Sum   | L.S.      |        |
| 0004          | 0043000000-N | 226   | GRADING                                                               | Lump Sum   | L.S.      |        |
| 0005          | 0134000000-E | 240   | DRAINAGE DITCH EXCAVATION                                             | 625<br>CY  |           |        |
| 0006          | 0318000000-E | 300   | FOUNDATION CONDITIONING MATE-<br>RIAL, MINOR STRUCTURES               | 5<br>TON   |           |        |
| 0007          | 0320000000-E | 300   | FOUNDATION CONDITIONING GEO-<br>TEXTILE                               | 20<br>SY   |           |        |
| 0008          | 0448200000-E | 310   | 15" RC PIPE CULVERTS, CLASS IV                                        | 20<br>LF   |           |        |
| 0009          | 0582000000-E | 310   | 15" CS PIPE CULVERTS, 0.064"<br>THICK                                 | 24<br>LF   |           |        |
| 0010          | 0636000000-E | 310   | *** CS PIPE ELBOWS, *****<br>THICK<br>15", 0.064"                     | 2<br>EA    |           |        |
| 0011          | 1220000000-E | 545   | INCIDENTAL STONE BASE                                                 | 25<br>TON  |           |        |
| 0012          | 1330000000-E | 607   | INCIDENTAL MILLING                                                    | 225<br>SY  |           |        |
| 0013          | 1491000000-E | 610   | ASPHALT CONC BASE COURSE, TYPE<br>B25.0C                              | 205<br>TON |           |        |
| 0014          | 1503000000-E | 610   | ASPHALT CONC INTERMEDIATE<br>COURSE, TYPE I19.0C                      | 280<br>TON |           |        |
| 0015          | 1523000000-E | 610   | ASPHALT CONC SURFACE COURSE,<br>TYPE S9.5C                            | 650<br>TON |           |        |
| 0016          | 1575000000-E | 620   | ASPHALT BINDER FOR PLANT MIX                                          | 65<br>TON  |           |        |
| 0017          | 1693000000-E | 654   | ASPHALT PLANT MIX, PAVEMENT<br>REPAIR                                 | 15<br>TON  |           |        |
| 0018          | 2286000000-N | 840   | MASONRY DRAINAGE STRUCTURES                                           | 2<br>EA    |           |        |

County : Rockingham

ITEMIZED PROPOSAL FOR CONTRACT NO. DG00546

| Line # | Item Number  | Sec # | Description                                           | Quantity    | Unit Cost | Amount |
|--------|--------------|-------|-------------------------------------------------------|-------------|-----------|--------|
| 0019   | 2367000000-N | 840   | FRAME WITH TWO GRATES, STD<br>840.29                  | 2<br>EA     |           |        |
| 0020   | 2556000000-E | 846   | SHOULDER BERM GUTTER                                  | 40<br>LF    |           |        |
| 0021   | 3030000000-E | 862   | STEEL BEAM GUARDRAIL                                  | 775<br>LF   |           |        |
| 0022   | 3150000000-N | 862   | ADDITIONAL GUARDRAIL POSTS                            | 5<br>EA     |           |        |
| 0023   | 3215000000-N | SP    | GUARDRAIL ANCHOR UNITS, TYPE<br>III                   | 4<br>EA     |           |        |
| 0024   | 3287000000-N | SP    | GUARDRAIL END UNITS, TYPE TL-3                        | 4<br>EA     |           |        |
| 0025   | 3635000000-E | 876   | RIP RAP, CLASS II                                     | 445<br>TON  |           |        |
| 0026   | 3649000000-E | 876   | RIP RAP, CLASS B                                      | 43<br>TON   |           |        |
| 0027   | 3656000000-E | 876   | GEOTEXTILE FOR DRAINAGE                               | 1,940<br>SY |           |        |
| 0028   | 4400000000-E | 1110  | WORK ZONE SIGNS (STATIONARY)                          | 360<br>SF   |           |        |
| 0029   | 4410000000-E | 1110  | WORK ZONE SIGNS (BARRICADE<br>MOUNTED)                | 94<br>SF    |           |        |
| 0030   | 4445000000-E | 1145  | BARRICADES (TYPE III)                                 | 80<br>LF    |           |        |
| 0031   | 4685000000-E | 1205  | THERMOPLASTIC PAVEMENT MARKING<br>LINES (4", 90 MILS) | 3,400<br>LF |           |        |
| 0032   | 6000000000-E | 1605  | TEMPORARY SILT FENCE                                  | 1,835<br>LF |           |        |
| 0033   | 6006000000-E | 1610  | STONE FOR EROSION CONTROL,<br>CLASS A                 | 65<br>TON   |           |        |
| 0034   | 6009000000-E | 1610  | STONE FOR EROSION CONTROL,<br>CLASS B                 | 35<br>TON   |           |        |
| 0035   | 6012000000-E | 1610  | SEDIMENT CONTROL STONE                                | 450<br>TON  |           |        |
| 0036   | 6015000000-E | 1615  | TEMPORARY MULCHING                                    | 0.5<br>ACR  |           |        |
| 0037   | 6018000000-E | 1620  | SEED FOR TEMPORARY SEEDING                            | 100<br>LB   |           |        |

County : Rockingham

ITEMIZED PROPOSAL FOR CONTRACT NO. DG00546

| Line # | Item Number  | Sec # | Description                           | Quantity    | Unit Cost | Amount |
|--------|--------------|-------|---------------------------------------|-------------|-----------|--------|
| 0038   | 6021000000-E | 1620  | FERTILIZER FOR TEMPORARY SEED-<br>ING | 0.5<br>TON  |           |        |
| 0039   | 6024000000-E | 1622  | TEMPORARY SLOPE DRAINS                | 200<br>LF   |           |        |
| 0040   | 6029000000-E | SP    | SAFETY FENCE                          | 200<br>LF   |           |        |
| 0041   | 6030000000-E | 1630  | SILT EXCAVATION                       | 70<br>CY    |           |        |
| 0042   | 6036000000-E | 1631  | MATTING FOR EROSION CONTROL           | 1,285<br>SY |           |        |
| 0043   | 6037000000-E | SP    | COIR FIBER MAT                        | 520<br>SY   |           |        |
| 0044   | 6042000000-E | 1632  | 1/4" HARDWARE CLOTH                   | 490<br>LF   |           |        |
| 0045   | 6070000000-N | 1639  | SPECIAL STILLING BASINS               | 18<br>EA    |           |        |
| 0046   | 6071012000-E | SP    | COIR FIBER WATTLE                     | 30<br>LF    |           |        |
| 0047   | 6071020000-E | SP    | POLYACRYLAMIDE (PAM)                  | 5<br>LB     |           |        |
| 0048   | 6084000000-E | 1660  | SEEDING & MULCHING                    | 0.5<br>ACR  |           |        |
| 0049   | 6087000000-E | 1660  | MOWING                                | 0.5<br>ACR  |           |        |
| 0050   | 6090000000-E | 1661  | SEED FOR REPAIR SEEDING               | 50<br>LB    |           |        |
| 0051   | 6093000000-E | 1661  | FERTILIZER FOR REPAIR SEEDING         | 0.25<br>TON |           |        |
| 0052   | 6096000000-E | 1662  | SEED FOR SUPPLEMENTAL SEEDING         | 50<br>LB    |           |        |
| 0053   | 6108000000-E | 1665  | FERTILIZER TOPDRESSING                | 0.5<br>TON  |           |        |
| 0054   | 6111000000-E | SP    | IMPERVIOUS DIKE                       | 360<br>LF   |           |        |
| 0055   | 6114500000-N | 1667  | SPECIALIZED HAND MOWING               | 10<br>MHR   |           |        |
| 0056   | 6117000000-N | SP    | RESPONSE FOR EROSION CONTROL          | 13<br>EA    |           |        |
| 0057   | 6117500000-N | SP    | CONCRETE WASHOUT STRUCTURE            | 2<br>EA     |           |        |

County : Rockingham

ITEMIZED PROPOSAL FOR CONTRACT NO. DG00546

| Line #                 | Item Number  | Sec # | Description                                                                                 | Quantity     | Unit Cost | Amount |
|------------------------|--------------|-------|---------------------------------------------------------------------------------------------|--------------|-----------|--------|
| <b>STRUCTURE ITEMS</b> |              |       |                                                                                             |              |           |        |
| 0058                   | 8017000000-N | SP    | CONSTRUCTION, MAINTENANCE, &<br>REMOVAL OF TEMP ACCESS AT STA<br>*****<br>STA. 15+77.00 -L- | Lump Sum     | L.S.      |        |
| 0059                   | 8021000000-N | SP    | REMOVAL OF EXISTING STRUCTURE<br>AT STATION *****<br>STA. 15+77.00 -L-                      | Lump Sum     | L.S.      |        |
| 0060                   | 8065000000-N | SP    | ASBESTOS ASSESSMENT                                                                         | Lump Sum     | L.S.      |        |
| 0061                   | 8105520000-E | 411   | 3'-0" DIA DRILLED PIERS IN<br>SOIL                                                          | 289<br>LF    |           |        |
| 0062                   | 8105620000-E | 411   | 3'-0" DIA DRILLED PIERS NOT IN<br>SOIL                                                      | 70<br>LF     |           |        |
| 0063                   | 8111200000-E | 411   | PERMANENT STEEL CASING FOR<br>3'-0" DIA DRILLED PIER                                        | 124.8<br>LF  |           |        |
| 0064                   | 8112730000-N | 450   | PDA TESTING                                                                                 | 1<br>EA      |           |        |
| 0065                   | 8113000000-N | 411   | SID INSPECTIONS                                                                             | 3<br>EA      |           |        |
| 0066                   | 8115000000-N | 411   | CSL TESTING                                                                                 | 3<br>EA      |           |        |
| 0067                   | 8121000000-N | 412   | UNCLASSIFIED STRUCTURE EXCAVA-<br>TION AT STATION *****<br>STA. 15+77.00 -L-                | Lump Sum     | L.S.      |        |
| 0068                   | 8182000000-E | 420   | CLASS A CONCRETE (BRIDGE)                                                                   | 91.4<br>CY   |           |        |
| 0069                   | 8210000000-N | 422   | BRIDGE APPROACH SLABS, STATION<br>*****<br>STA. 15+77.00 -L-                                | Lump Sum     | L.S.      |        |
| 0070                   | 8217000000-E | 425   | REINFORCING STEEL (BRIDGE)                                                                  | 42,236<br>LB |           |        |
| 0071                   | 8238000000-E | 425   | SPIRAL COLUMN REINFORCING<br>STEEL (BRIDGE)                                                 | 7,719<br>LB  |           |        |
| 0072                   | 8328200000-E | 450   | PILE DRIVING EQUIPMENT SETUP<br>FOR *** STEEL PILES<br>HP 12X53                             | 10<br>EA     |           |        |
| 0073                   | 8364000000-E | 450   | HP12X53 STEEL PILES                                                                         | 301<br>LF    |           |        |
| 0074                   | 8505000000-E | 460   | VERTICAL CONCRETE BARRIER RAIL                                                              | 481<br>LF    |           |        |

County : Rockingham

ITEMIZED PROPOSAL FOR CONTRACT NO. DG00546

| Line #                                 | Item Number  | Sec # | Description                                 | Quantity    | Unit Cost | Amount |
|----------------------------------------|--------------|-------|---------------------------------------------|-------------|-----------|--------|
| 0075                                   | 8608000000-E | 876   | RIP RAP CLASS II (2'-0" THICK)              | 253<br>TON  |           |        |
| 0076                                   | 8622000000-E | 876   | GEOTEXTILE FOR DRAINAGE                     | 282<br>SY   |           |        |
| 0077                                   | 8657000000-N | 430   | ELASTOMERIC BEARINGS                        | Lump Sum    | L.S.      |        |
| 0078                                   | 8753100000-E | 430   | 3'-0" X 2'-9" PRESTRESSED CONC<br>BOX BEAMS | 2,400<br>LF |           |        |
| 1652/Oct12/Q69419.95/D392698102000/E78 |              |       |                                             |             |           |        |
|                                        |              |       | Total Amount Of Bid For Entire Project :    |             |           |        |

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

The prequalified bidder 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 any bid or contract, that the prequalified bidder has not been convicted of violating *N.C.G.S. §133-24* within the last three years, and that the prequalified bidder intends to do the work with his own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the Contractor is attesting 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 PREQUALIFIED BIDDER**

---

Full name of Corporation

---

Address as Prequalified

Attest \_\_\_\_\_ By \_\_\_\_\_  
Secretary/Assistant Secretary President/Vice President/Assistant Vice President  
(Select appropriate title) (Select appropriate title)

---

Print or type Signer's name

---

Print or type Signer's name

**CORPORATE SEAL**

**NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION**  
**PARTNERSHIP**

The prequalified bidder, 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 any bid or contract, that the prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the Contractor is attesting 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 PREQUALIFIED BIDDER**

---

Full Name of  
Partnership

---

Address as  
Prequalified

---

Signature of Witness

---

Signature of Partner

---

Print or Type Signer's Name

---

Print or Type Signer's Name



**NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN  
CERTIFICATION****LIMITED LIABILITY COMPANY**

The prequalified bidder, 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 any bid or contract, that the prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the Contractor is attesting 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 PREQUALIFIED BIDDER**

---

Full Name of Firm

---

Address as Prequalified

---

Signature of Witness

---

Signature of Member/Manager/Authorized Agent  
(Select appropriate Title)

---

Print or Type Signer's Name

---

Print or Type Signer's Name

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

The prequalified bidder, 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 any bid or contract, that the prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the Contractor is attesting 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 PREQUALIFIED BIDDER**

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

|     |                                                                                                                                                                                                                                                               |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) | Name of Joint Venture                                                                                                                                                                                                                                         |
| (2) | Name of Contractor                                                                                                                                                                                                                                            |
|     | Address as Prequalified                                                                                                                                                                                                                                       |
|     | BY                                                                                                                                                                                                                                                            |
|     | <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Signature of Witness or Attest</div> <div style="width: 10%;"></div> <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Signature of Contractor</div>  |
|     | <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Print or Type Signer's Name</div> <div style="width: 10%;"></div> <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Print or Type Signer's Name</div> |
|     | <div style="width: 45%;"><i>If Corporation, affix Corporate Seal</i></div> <div style="width: 10%; text-align: center;">AND</div> <div style="width: 45%;"></div>                                                                                             |
| (3) | Name of Contractor                                                                                                                                                                                                                                            |
|     | Address as Prequalified                                                                                                                                                                                                                                       |
|     | BY                                                                                                                                                                                                                                                            |
|     | <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Signature of Witness or Attest</div> <div style="width: 10%;"></div> <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Signature of Contractor</div>  |
|     | <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Print or Type Signer's Name</div> <div style="width: 10%;"></div> <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Print or Type Signer's Name</div> |
|     | <div style="width: 45%;"><i>If Corporation, affix Corporate Seal</i></div> <div style="width: 10%; text-align: center;">AND</div> <div style="width: 45%;"></div>                                                                                             |
| (4) | Name of Contractor                                                                                                                                                                                                                                            |
|     | Address as Prequalified                                                                                                                                                                                                                                       |
|     | BY                                                                                                                                                                                                                                                            |
|     | <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Signature of Witness or Attest</div> <div style="width: 10%;"></div> <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Signature of Contractor</div>  |
|     | <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Print or Type Signer's Name</div> <div style="width: 10%;"></div> <div style="width: 45%; border-bottom: 1px solid black; text-align: center;">Print or Type Signer's Name</div> |
|     | <div style="width: 45%;"><i>If Corporation, affix Corporate Seal</i></div> <div style="width: 10%;"></div> <div style="width: 45%;"></div>                                                                                                                    |

**NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN  
CERTIFICATION**

**INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME**

The prequalified bidder, 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 any bid or contract, that the prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the Contractor is attesting 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 PREQUALIFIED BIDDER**

Name of Prequalified Bidder

\_\_\_\_\_  
Individual Name

Trading and Doing Business As

\_\_\_\_\_  
Full name of Firm

\_\_\_\_\_  
Address as Prequalified

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Signature of Prequalified Bidder, Individual

\_\_\_\_\_  
Print or Type Signer's Name

\_\_\_\_\_  
Print or Type Signer's Name

**NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN  
CERTIFICATION**

**INDIVIDUAL DOING BUSINESS IN HIS OWN NAME**

The prequalified bidder, 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 any bid or contract, that the prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the Contractor is attesting 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 PREQUALIFIED BIDDER**

Name of Prequalified Bidder \_\_\_\_\_

Print or Type Name

\_\_\_\_\_  
Address as Prequalified

\_\_\_\_\_  
Signature of Prequalified Bidder, Individually

\_\_\_\_\_  
Print or type Signer's Name

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Print or type Signer's name

**DEBARMENT CERTIFICATION OF PREQUALIFIED BIDDER**

## Conditions for certification:

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

**DEBARMENT CERTIFICATION**

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

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

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

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

☐

Check here if an explanation is attached to this certification.

**EXECUTION OF CONTRACT**

**Contract No: DG00546**

**County: Rockingham County**

ACCEPTED BY THE DEPARTMENT

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**Proposals Engineer**

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Date

EXECUTION OF CONTRACT AND BONDS  
APPROVED AS TO FORM:

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**Division Engineer**

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Date

Signature Sheet (Bid) - ACCEPTANCE SHEET