STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

May 21, 2025

ADDENDUM # 1

Contract Number: DN01116
TIP Number: N/A
Federal Aid Number: Helene
WBS Number: 18314.1088015, 18314.1088038
County: Transylvania
Description: Grading, Drainage, Patching, Slope Stabilization, Debris Removal, Guardrail, Pavement Marking, Erosion Control, Traffic Control at various locations along routes US 64 and NC 215 in Transylvania County

Letting Date: May 27, 2025

Plan Holders

Content Summary: **Pre-Bid Meeting Minutes and Roster, Addition of Site 999, Provision Changes, Pay Item Changes, Revised plans to reflect pay item Changes**

The above contract has experienced the following revisions:

1. Pre-Bid Meeting Minutes (see attached)
2. Pre-Bid Roster (see attached)
3. Revise the location description on Proposal Cover and Invitation to Bid to include US 276
4. Replace **Work Zone Traffic Control Project Special Provisions** on pages **TC-1 – TC-7** with the attached
5. Replace **Geotechnical Project Special Provisions** on pages **GT-1.1 – GT-2.9** with the attached

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - DIVISION 14
253 WEBSTER ROAD
SYLVA, NC 28779

Telephone: (828) 331-5200
Fax: (828) 331-5201
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
253 WEBSTER ROAD
SYLVA, NC 28779

6. Revise **Provision SP1 G28 Major Contract Items** on page **G-5** to include line item 0041; Select Material, Class ***** (VII)

7. Pay Item changes: (see attached)

    a. The quantity for line item 0004: 0196000000-E GEOTEXTILE FOR SOIL STABILIZATION has increased from 100 to **200** SY

    b. The quantity for line item 0007: 1099700000-E CLASS IV SUBGRADE STABILIZATION has increased from 350 to **200** TON

    c. The quantity for line item 0019: 6000000000-E TEMPORARY SILT FENCE has increased from 250 to **450** LF

    d. The quantity for line item 0020: 6006000000-E STONE FOR EROSION CONTROL, CLASS A has increased from 20 to **40** TON

    e. The quantity for line item 0021: 6009000000-E STONE FOR EROSION CONTROL, CLASS B has increased from 20 to **40** TON

    f. The quantity for line item 0025: 6042000000-E 1/4" HARDWARE CLOTH has increased from 20 to **35** LF

    g. The quantity for line item 0027: 6084000000-E SEEDING & MULCHING has increased from 0.1 to **0.2** ACR

    h. The quantity for line item 0030: 6117000000-N RESPONSE FOR EROSION CONTROL has increased from 2 to **3** EA

    i. The quantity for line item 0031: 6117500000-N CONCRETE WASHOUT STRUCTURE has increased from 2 to **3** EA

    j. The quantity for line item 0032: 6138000000-E VEGETATIVE DEBRIS REMOVAL AND DISPOSAL has increased from 30 to **55** CY

    k. **0222000000-E SP GEOTEXTILE FOR ROCK EMBANKMENTS, TYPE 2** has been added, **650** SY

    l. **0314000000-E SP CLASS VI SELECT MATERIAL** has been added, **45** TON

    m. **0314000000-E SP CLASS VII SELECT MATERIAL** has been added, **1841** TON

    n. **2044000000-E 815 6" PERFORATED SUBDRAIN PIPE** has been added, **65** LF

    o. **2077000000-E 815 6" OUTLET PIPE** has been added, **65** LF

p. **3642000000-E 876 CLASS A RIP RAP** has been added, **50** TON

q. **3649000000-E 876 CLASS B RIP RAP** has been added, **50** TON

8. Addition of Vicinity Map on sheet 4 to reflect the addition of Site 999 location (see attached)

9. Revise Grading Summary of Quantities on sheet 5 to reflect the pay item changes (see attached)

10. Revise Geotechnical Summary of Quantities on sheet 6 to reflect the pay item changes (see attached)

11. Revise Erosion Control Summary of Quantities on sheet 7 to reflect the pay item changes (see attached)

12. Revise Traffic Control and Paint Summary of Quantities sheet 8 to reflect the pay item changes (see attached)

13. Revised the Transylvania DN01116 kmz file with the addition of Site 999 location

Please access ebsx addenda files, DN0116.001x. on Bid Express® and on the Bidding and Letting website. You may also access the kmz addenda file, Transylvania DN01116 for ADD 1 kmz file on the Bidding and Letting website.

Thank you for your attention to this matter.

If you have any questions, please contact the Division Proposal Engineer at (828) 331-5200.

Sincerely,

DocuSigned by:
29BD93927CF24F6...

Jeanette L. White, P.E.
Division 14 Project Team Lead

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

May 19th, 2025

CONTRACT NO.:	DN01116
TIP NO.:	N/A
FEDERAL:	Helene
WBS:	18314.1088015, 18314.1088038, 18314.1088048
COUNTY:	Transylvania
DESCRIPTION:	Grading, Drainage, Patching, Slope Stabilization, Debris Removal, Guardrail, Pavement Marking, Erosion Control, Traffic Control at various locations along routes US 64 and NC 215 in Transylvania County
LOCATION:	Various Locations Along US 64, NC 215, and US 276.

SUBJECT: Mandatory Prebid Meeting

A mandatory Prebid meeting was held on site at the intersection of US 64 and Catatoga Club Dr Lake Toxaway, NC 28747 for the above reference project from 2:07pm – 4:35pm.

Attendees:	Company:

All Contractors are attached on roster.

Patrick Eubanks	NCDOT
Kevin Mitchell	NCDOT
Justin Brock	GBI
Levi Hord	NCDOT

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
OFFICE OF RESIDENT ENGINEER
4142 HAYWOOD ROAD
MILLS RIVER, NC 28759

Telephone: (828) 891-5367
Fax: (828) 891-8842
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
4142 HAYWOOD ROAD
MILLS RIVER, NC 28759

Contract Time:

Date of Availability: June 23, 2025
Completion Date: June 26, 2026

The liquidated damages for this contract are Two Hundred Dollars ($ 200.00) per calendar day

ICT 1:

Date of Availability: June 23, 2025
Completion Date: December 12, 2025

The liquidated damages for this intermediate contract time are One Thousand Six Hundred Dollars ($ 1,600.00) per calendar day.

ICT 2:

The Contractor shall complete the required work of installing, maintaining, and removing the traffic control devices for lane closures and restoring traffic to the existing traffic pattern. The Contractor shall not close or narrow a lane of traffic on ANY ROAD during the following time restrictions: **MONDAY THRU FRIDAY 7:00 AM TO 8:00 AM AND 5:00 PM TO 6:00 PM**

The liquidated damages are Two Hundred Fifty Dollars ($ 250.00) per hour.

Contract Review:

Patrick Eubanks reviewed the Contract with all parties.

Construction Moratorium:

Trout moratorium has been waived but the bat moratorium is still valid. Trees that must be cut to perform the work may be mitigated through the programmatic agreement, but this process could take up to two months.

Traffic Control:

- Always keep a minimum of one lane of traffic open. It most areas a signal system can be utilized to control traffic.
- If full roadway closure is needed, to be discussed with DOT prior as to inform the public with ample notice.

Erosion Control Review:

- Refer to best measurement practices.

Utilities:

- Need to be investigated first to see what utilities are present and what can be done to work around them.
- Need to be relocated as soon as possible.

- The Contractor is responsible to coordinate all relocations with the Department and all utility owners.

General Comments:

- All sites are the same project, however, use different WBS elements.
- Debris removal needs to be documented.
- Jurisdictional stream is present.

Meeting Notes and Questions

- How many sites?
  - NC 215, US 64, and US 276 (3 sites)
- What percent of the work does the prime contractor need to perform?
  - 35% excluding specialty items.

Site 329 (US 64)

- Should concrete or water-filled barriers be used?
  - Due to the speed limit concrete barriers may be more suitable than water filled barriers.
- Mr. Eubanks stated that drums should be use, rather than cones, to line the site.
- Had an open discussion about using a signal system to direct traffic.
- Mr. Eubanks stated that the guardrail should be put back up as soon as possible.
- Could a plastic pipe be used rather than concrete?
  - It will be best to stick with a similar diameter and type of pipe to the one that is currently on site.

Site 707 (NC 215)

- Mr. Eubanks stated that debris needs to be hauled to a FEMA site.
- Mr. Eubanks stated that the tree laying down on the site can be considered debris.
- Do you think someone could get down below the site and work from the bottom?
  - You would likely need to get right of entry from Lazy J (the campground across the river) and follow environmental agencies guidelines to get equipment across the river.
- Mr. Eubanks stated that he is open to alternative designs for repairing the site if they are cost effective and practical.
- Mr. Eubanks stated that staging equipment in the road should be limited, so road closures aren't required.
- Mr. Eubanks stated that one white oak on the right side of the site may have to be taken down.
- Had an open discussion about pipes/lines that may need to be worked around underneath the site.

Site 999 (US 276)

- Had an open discussion about flagging rather than using signals to be more cost effective and control the flow of traffic in a high-volume tourist area.
- Had an open discussion about preserving the road from damage during work on the site, because its integrity has not yet been compromised.
- Mr. Eubanks stated that a tree removal may be necessary to access the site.

Plan Review:

NCDOT staff and all attending contractors met at the intersection of US 64 and Catatoga Club Dr Lake Toxaway, NC 28747. Scoped and discussed prospected sites, including but not limited to roadway sites #329, #999 and #707. Contractors could ask questions, see above for any answered questions. Any unanswered questions to be answered and posted to the contract bid site prior to bidding date.

Patrick Eubanks

Engineering Specialist II

Construction Meeting

Project Number = DN01116 US64 / 215

NAME	COMPANY	COMPANY ADDRESS	EMAIL	PHONE #
Johnny Phillips	Parrish	BRYSON CITY, NC.	JPhillips35@[illegible].net	507-7899
Keith Voss	SPC	Cliffside, N.C	KVoss@sitedevelopmentcorp	828-774-2268
Mark Valletta	Eclipse	11154 E Washington St. Chagrin Falls	markv@eclipsecollc.com	440-343-5209
MARTIN Woodard	GeoSpecialties	Lexington KY Oh. 44083	Martin.woodard@geospecialties.com	
				540-315-0270
Blake Anderson	Adams Contracting	88 State Shed Rd Robbinsville NC 28771	adamscontracting3@gmail.com	828-479-4626
Rachel Cobb	McCall's Grading	55 Grandma & Grandpa Ln Balsam Grove NC	rachel@mccallsgrading.com	828-884-0059
nick Henry	Watson Contracting	3940 Old Murphy Rd.	nick@watsoncontracting.com	828-226-1404
Chris Carns	Breccia Construction	211 Business Park Blvd, Columbia, SC 29706	ccarns@breccia construction	805-209-0742
Justin Brock	GPI / NCDOT		jbrock@gpinet.com	864 978 2945
Jody Kuhne	GSI/ACC		jody.kuhne@gsi.us	828-779-9482
Nick Henry	Watson Contracting	—	Kevin@watsoncontracting.com	

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 14

PROPOSAL

DATE AND TIME OF BID OPENING: MAY 27, 2025 AT 2:00 PM

CONTRACT ID: DN01116

WBS ELEMENT NO.: 18314.1088015 18314.1088038

FEDERAL AID NO.: HELENE

COUNTY: TRANSYLVANIA

TIP NO.: N/A

MILES: 0.11

ROUTE NO.: US 64 AND NC 215

LOCATION: VARIOUS LOCATIONS ALONG ROUTES US 64, NC 215, AND US 276

TYPE OF WORK: GRADING, DRAINAGE, PATCHING, SLOPE STABILIZATION, DEBRIS REMOVAL, GUARDRAIL, PAVEMENT MARKING, EROSION CONTROL, TRAFFIC CONTROL

NOTICE:

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

THIS IS A ROADWAY PROJECT. **BID BOND IS REQUIRED.**

NAME OF BIDDER

ADDRESS OF BIDDER

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

May 5, 2025

NOTICE TO PROSPECTIVE BIDDERS

Contract Number:	DN01116
TIP Number:	N/A
Federal Aid Number:	Helene
WBS Number:	18314.1088015, 18314.1088038
County:	Transylvania
Description:	Grading, Drainage, Patching, Slope Stabilization, Debris Removal, Guardrail, Pavement Marking, Erosion Control, Traffic Control at various locations along routes US 64, NC 215, and US 276 in Transylvania County
Project Length:	**0.11 Miles**
Letting Date:	May 27, 2025

Contractors bidding on NCDOT contracts must sign up for the Interested Parties List for each project they intend to submit bids on. As part of this new requirement, Contractors must sign up for the Interested Parties List no later than one business day prior to the letting date. Please see attached pages with further information regarding the Interested Parties List.

The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights of 1964 (78 Stat.252) and the Regulations of the Department of Transportation (49 C.F.R., Part 21), issued pursuant to such act, hereby notifies all bidders that it will affirmatively ensure that the contract entered into pursuant to this notice will be awarded to the lowest responsible bidder without discrimination on the grounds of sex, race, color, or national origin. Statements of Disadvantage Business Enterprises participation must be presented with the bids.

BID OPENING

Electronic bids must be received in Bid Express, by 2:00 PM on Tuesday, May 27, 2025. The Bid Express® website is bidx.com. Bids will be opened and publicly read at NCDOT Division 14 Office, 253 Webster Road, Sylva NC, at the above date, shortly after the time that the bids submissions are due. The As-Read Bid Summaries will be posted within 48 hours of the bid opening. Results **will not** be provided by any means other than posting to the website.

BIDDER REQUIREMENTS

Bidders must attend the pre bid meeting and sign the sign in sheet to be considered a valid plan holder; details regarding the meeting day, time, location, and point of contact can be found in the proposal. Bidders should bring a printed copy of the

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - DIVISION 14
253 WEBSTER ROAD
SYLVA, NC 28779

Telephone: (828) 331-5200
Fax: (828) 331-5201
Customer Service: 1-877-368-4968

Location:
253 WEBSTER ROAD
SYLVA, NC 28779

Website: www.ncdot.gov

proposal, plans, and any relevant supplemental documentation to the pre-bid meeting, as hard copies of these documents will not be supplied by NCDOT.

BID DOCUMENTS

The contract proposal, plans, and supplemental project information are available online at https://connect.ncdot.gov/letting/Pages/Division.aspx.

The printing of all bid-related documents, including the proposal, plans, and any supplemental project information shall be the responsibility of the bidder. Division 14 no longer provides hard copies of bid documents.

SUPPLEMENTAL BIDDING INFORMATION

ADDENDA

- All EBSX addenda files will only be posted to the Bid Express®, bidx.com website.
- With the exception of the EBSX addenda file associated with this contract, all other addenda documentation will be posted at the Division 14 Bidding & Letting website: https://connect.ncdot.gov/letting/Pages/Division.aspx

ELECTRONIC BIDDING

Electronic bidding is required through Bid Express®. Their website is bidx.com.

For electronic bidding, the following files will be located on bidx.com, exclusively. These will **not** be included on the Bidding & Letting site on Connect.NCDOT.gov.

- DBE_NC.BIN files

Do **NOT** submit bids for the project let by Division 14 to the NCDOT **Statewide** Project Letting Office.

Note: It takes a few minutes for the Division staff to download the electronic bids before those can be read. The download does not start until 2:00 PM on the day of the letting.

ASSISTANCE

- Project specific questions should be directed to the Division 14 Contract Office at d14contracts@ncdot.gov.
- BidX-related questions should be directed to Jaci Kincaid at **919-707-6920**.
- For questions or problems becoming an NCDOT vendor, to get pre-qualified, or to update your work codes, go to: https://connect.ncdot.gov/business/Pages/default.aspx

TC-1

DN01116 Transylvania County

WORK ZONE TRAFFIC CONTROL

Project Special Provisions
Table of Contents

05/08/2025

TC-2

DN01116 Transylvania County

TEMPORARY TRAFFIC CONTROL
(9/1/2021) (Rev. 10/13/2023)

General Requirements

Maintain traffic on all roads in accordance with Divisions 10, 11 and 12 of the *NCDOT Standard Specifications* and the following provisions:

Install Work Zone Advance Warning Signs when work is within 40 ft. from the edge of the travel lane in accordance with Standard Drawing No. 1101.01 of the *NCDOT Roadway Standard Drawings* prior to beginning any other work. If signs are installed more than 3 calendar days prior to the beginning of work, cover the signs until the work begins. Install each work zone advance warning sign separately and not on the same post or stand with any other sign.

When personnel and/or equipment are working within 15 ft. of an open travel lane, close the nearest open shoulder using Roadway Standard Drawing No. 1101.04 unless the work area is protected by barrier or guardrail or a lane closure is installed.

When personnel and/or equipment are working on the shoulder adjacent to an undivided facility and within 5 ft. of an open travel lane, close the nearest open travel lane using Roadway Standard Drawing No. 1101.02 of the *NCDOT Roadway Standard Drawings* unless the work area is protected by barrier or guardrail.

When personnel and/or equipment are working on the shoulder adjacent to a divided facility and within 10 ft. of an open travel lane, close the nearest open travel lane using Roadway Standard Drawing No. 1101.02 of the *NCDOT Roadway Standard Drawings*, unless the work area is protected by barrier or guardrail.

When personnel and/or equipment are working within a lane of travel of an undivided or divided facility, close the lane using Roadway Standard Drawing No. 1101.02 of the *NCDOT Roadway Standard Drawings* or as directed by the Engineer. Conduct the work so that all personnel and/or equipment remain within the closed travel lane. Perform work only when weather and visibility conditions allow safe operations as directed by the Engineer.

Do not work simultaneously within 15 ft. on both sides of an open travel way, ramp, or loop within the same location, unless protected with guardrail or barrier.

Remove lane closure devices from the lane when work is not being performed behind the lane closure or when a lane closure is no longer needed or as directed by the Engineer.

TC-3

DN01116 Transylvania County

Temporary Traffic Control (TTC)

Refer to Standard Drawing No. 1101.02, 1101.03, 1101.04, 1101.11, 1110.01, 1110.02, 1115.01, 1130.01, 1135.01, 1145.01, 1150.01, 1165.01, and 1180.01 of the *NCDOT Roadway Standard Drawings* when closing a lane of travel or shoulder in the work zone.

Notify the Engineer (30) calendar days prior to any traffic pattern alteration.

Ensure all necessary signing is in place prior to altering any traffic pattern.

When lane closures are not in effect, space channelizing devices in work areas no greater in feet than twice the posted speed limit (MPH), except 10 ft. on-center in radii, and 3 ft. off the edge of an open travelway. Refer to *NCDOT Standard Specifications* Sections 1130 (Drums), 1135 (Cones), and 1180 (Skinny Drums) for additional requirements.

Place additional sets of three channelizing devices (Drums, Cones, or Skinny Drums) perpendicular to the edge of travelway on 100 to 500 ft. centers, as directed by the Engineer, when unopened lanes are closed to traffic.

Place Type III Barricades with “ROAD CLOSED” sign R11-2 attached, of sufficient length to close the entire roadway.

Install black on orange “DIP” (W8-2) and/or “BUMP” (W8-1) signs in advance of the uneven area in accordance with Roadway Standard Drawing 1101.11, or as directed by the Engineer.

Pavement Edge Drop Off Requirements

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

- Backfill drop-offs that exceed 2 inches on roadways with posted speed limits of 45 mph or greater.
- Backfill drop-offs that exceed 3 inches on roadways with posted speed limits less than 45 mph.
- Backfill with suitable compacted material, as approved by the Engineer, at no expense to the department.

Do not exceed a difference of 2 inches in elevation between open lanes of traffic for nominal lifts of 1.5 inches. Install advance warning “Uneven Lanes" signs (W8-11) 500 ft. in advance and a minimum of every half mile throughout the uneven area.

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

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

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

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

If milled areas are not paved back within the same work period the Contractor is to furnish and install portable "Grooved Pavement" (W8-15) w/ Motorcycle Plaque mounted below signs. These are to be dual indicated where lateral clearance can be obtained within the median areas. Install the "Grooved Pavement" (W8-15) w/ Motorcycle Plaque 1500' in advance of the milled area. Once mitigated, all portable signs are to be removed.

Measurement and Payment

Temporary Traffic Control (Lump Sum) shall include but not be limited to providing Signs (portable, stationary, and/or barricade mounted), including detour signing, Barricades, Truck Mounted Attenuators (TMA), Portable Changeable Message Signs (PCMS), Flashing Arrow Boards (FAB), Pilot Vehicle, Flaggers, Cones, Skinny Drums and Drums as shown in the applicable Roadway Standard Drawings and all labor, tools, equipment and incidentals necessary to furnish, install, maintain and remove traffic control devices when no longer required.

Temporary Traffic Control (Lump Sum) does not include Portable Concrete Barrier, Waterfilled Barrier, Temporary Crash Cushions, Digital Speed Limit Signs, Sequential Flashing Lights, or Presence Lights as these devices are beyond the scope of this provision.

Payment for *Temporary Traffic Control (Lump Sum)* will be made on the following schedule:

(A) 70% of the unit bid price upon starting the project
(B) 20% of the unit bid price when the project is 50% complete
(C) 10% of the unit bid price when the project is 100% complete and all traffic control devices have been removed from the project.

TC-5

DN01116 Transylvania County

Payment will be made under:

Pay Item	Pay Unit
Temporary Traffic Control	Lump Sum

TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM:
(07-14-15)

Description

Furnish, install, place in operation, repair, maintain, relocate, and remove temporary portable traffic signal system for traffic maintenance during construction along sites 329, 707 and 999 on US-64, NC-215 and US-276N. The temporary portable traffic signals will require a system that is coordinated to maintain safe and efficient traffic operations along sites 329, 707 and 999 on US-64, NC-215 and US-276N during construction operations. The Temporary Portable Traffic Signal System shall be designed such that all devices operate and communicate as a system. The system will contain (1) trailer mounted Portable Traffic Signals units along sites 329, 707 and 999 on US-64, NC-215 and US-276N.

Materials

Provide:

(1) Portable Traffic Signals (PTS). Each shall be self-contained trailer mounted units with two 12" signal heads per trailer. One signal head shall be mounted on an overhead mast arm capable of extending over the travel lane. The other signal head shall be mounted on a vertical upright. Units must be on the NCDOT Approved Products List.

Communication Requirements

All PTS within the signal set up systems shall maintain communication at all times. Acceptable communication shall be either hardwire cable or wireless radio link communication. If the hardwire cable communication is utilized the communication cable shall be deployed in a manner that will not intrude in the direct work area of the project or obstruct vehicular and pedestrian traffic. If the wireless radio link communication option is utilized clear line of sight between signals within the signal setup shall be maintained. Radio communication shall utilize the 900MHz frequency band and have frequency hopping capability. The radio link communication system shall have a minimum range of (1 mile).

Fault Mode Requirements

The PTS system shall revert to a solid red mode upon system default. The default setting shall be solid red unless otherwise specified by the project engineer. The temporary portable traffic signal system repairs shall be the responsibility of the contactor and shall be rendered in a manner that will return to system to full operation condition in the most expeditious manner. The PTS shall be equipped with a remote monitoring system. Where cell communication availability exists, the remote monitoring system shall have capabilities as described in the Remote Monitoring System section of this specification.

Remote Monitoring System

The remote monitoring system (RMS) shall be capable of reporting signal location, battery voltage / battery history and system default. The RMS shall include a password protected web site viewable from any computer with internet capability. In the event of a system default, the RMS shall provide specific information concerning the cause of the system default (i.e.…red lamp on signal number 1). The RMS shall be equipped with a mechanism capable of immediately contacting a minimum of three previously designated individuals via text messaging and/or email upon a default.

The running program operating the PTS system shall be available and viewable through the RMS website at all times. The RMS shall maintain a history of the operating system in each signal including operating hours and events and the location of the PTS trailer. The remote monitoring system is not required as part of this bid proposal.

Implementation

Deployment and installation of the PTS System shall only be facilitated by personnel that have been factory trained and fully authorized by the manufacturers.

Measurement and Payment

The Temporary Portable Traffic Signal System will be measured as the (1) trailer mounted units (PTS) furnished, installed, field verified, accepted, operated and removed.

No measurement will be made for operation, relocation, maintenance, removal, or use of flaggers during repair periods as these will be considered incidental to furnishing, installing, and operating the temporary portable traffic signal system.

No measurement will be made for signal controller, communication, vehicle detection system, and traffic signal software as these will be considered incidental to furnishing, installing, and operating the temporary portable traffic signal system.

No payment will be made until signal timing and operation has been field verified and accepted by the Engineer.

Pay Item	**Pay Unit**
Temporary Portable Traffic Signal System	Each

ROCK EMBANKMENTS: **(SPECIAL)**

1.0 GENERAL

Construct rock embankments in accordance with the contract and as shown in the plans.

2.0 MATERIALS

Refer to Division 10 of the *Standard Specifications*.

Item	Section
Geotextile for Rock Embankments, Type 2	1056
Rip Rap Materials	1042
Select Materials	1016
Subsurface Drainage Materials	1044

Provide Class VII select material for rock embankments. Use Class A and B rip rap and No. 57 stone to fill voids in rock embankments. Obtain aggregates from sources participating in the Department's Aggregate QC/QA Program in accordance with Section 1006 of the *Standard Specifications* or use similar size onsite material approved by the Engineer. Provide Schedule 40 PVC pipe for drain and outlet pipes. For drain pipes, use pipes with perforations that meet Article 1044-6 or 1044-7 of the *Standard Specifications*.

3.0 CONSTRUCTION METHODS

Construct rock embankments in accordance with the slopes, dimensions and elevations shown in the plans and Section 235 of the *Standard Specifications*. Prior to constructing rock embankments, install geotextile for rock embankments in accordance with the details and plans and Article 270-3 of the *Standard Specifications.* Place Class VII so smaller rocks are uniformly distributed throughout rock embankments. Provide a uniform surface free of obstructions, debris and groups of large rocks that could cause voids in embankments.

Before placing geotextiles over the top of rock embankments, fill voids in the top of rock embankments with rip rap and No. 57 stone. Place and compact Class B rip rap first followed by Class A rip rap. Then, fill any remaining voids with No. 57 stone so geotextiles are not torn, ripped or otherwise damaged when installed and covered. Compact rip rap and No. 57 stone with tracked equipment or other approved methods. Install geotextiles on top of Class VII, rip rap and No. 57 stone in accordance with Article 270-3 of the *Standard Specifications* before placing embankment fill material.

Where indicated on the plans, install continuous perforated drain pipes with perforations oriented downward. Wrap the full length of perforated pipes with a single layer of Type 2 geotextile during installation. Provide subdrain pipes with positive drainage towards outlets. Use solvent cement for connecting pipe and fittings. Provide connectors and fittings that are watertight and suitable for gravity flow conditions. Provide outlet pipes every 50 feet along the toe key. Daylight outlet pipes through the downhill face of the toe key for drainage. Cover open ends of outlet pipes with rodent screen.

4.0 MEASUREMENT AND PAYMENT

Class VII Select Material and *Class VI Select Material* will be measured and paid in tons. Select material will be measured by weighing material in trucks in accordance with Article 106-7 of the *Standard Specifications*. *Rip Rap, Class A and Class B* will be measured and paid in accordance with Article 876-4 of the *Standard Specifications*. The contract unit prices for *Class VII Select Material, Class VI Select Material* and *Rip Rap, Class A and Class B* will be full compensation for providing, hauling, handling, placing, compacting and maintaining select material and rip rap.

Geotextile for Rock Embankments will be measured and paid in square yards. Geotextiles will be measured along the existing slope face and along the top of rock embankments as the square yard of exposed geotextiles before placing Class VII, embankment fill material, and pavement section. No measurement will be made for overlapping geotextiles. The contract unit price for *Geotextile for Rock Embankments* will be full compensation for providing, transporting and installing geotextiles.

Payment will be made under:

Pay Item	**Pay Unit**
Class VII Select Material	Ton
Class VI Select Material	Ton
Geotextile for Rock Embankments, Type 2	Square Yard
Class B Rip Rap	Ton
Class A Rip Rap	Ton
6” Perforated Subdrain Pipe	Linear Foot
6” Outlet Pipe	Linear Foot

Signed by:
J. Dean Hardister 05/08/2025
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SHOTCRETE SLOPE STABILIZATION **(SPECIAL)**

1.0 GENERAL

Construct shotcrete slope stabilization consisting of soil nails spaced at a regular pattern and connected to a nozzle-applied reinforced shotcrete face. A soil nail consists of a solid steel or hollow bar grouted in a drilled hole inclined at an angle below horizontal. Use shotcrete as needed for temporary support of slopes during construction. Construct soil nail slope stabilization based on actual elevations and dimensions in accordance with the provision, contract and accepted submittals. Use a prequalified Anchored Wall Contractor to construct shotcrete slope stabilization. Define "Slope Stabilization Contractor" as the Anchored Wall Contractor installing soil nails and applying shotcrete. Define "nail" as a soil nail and "facing" as a nozzle-applied reinforced shotcrete face.

2.0 MATERIALS

Refer to the *Standard Specifications*.

Item	Section
Geosynthetics	1056
Portland Cement	1024-1
Reinforcing Steel	1070
Shotcrete	1002
Steel Plates	1072-2
Water	1024-4

Provide soil nails consisting of grouted steel bars and nail head assemblies. Use deformed solid steel bars that meet AASHTO M 275 or M 31, Grade 60, 75 or 80. Splice bars in accordance with Article 1070-9 of the Standard Specifications. Use hollow steel bars manufactured by DYWIDAG-Systems International USA Inc., Nucor Skyline, Williams Form Engineering Corp. or an approved equal.

For solid steel bar, provide epoxy coated bars that meet Article 1070-7 of the *Standard Specifications*. Provide Class A corrosion protection (encapsulated bar) or Class B corrosion protection (epoxy coated bar only, no galvanized bar) for soil nails in accordance with Article 34.3.3 of the *AASHTO LRFD Bridge Construction Specifications*. Use centralizers that meet Article 34.3.4 of the AASHTO LRFD specifications. For hollow steel bar, the bar size on the plans has been increased, accounting for a 0.125 inch reduction in outside diameter.

Provide nail head assemblies consisting of nuts, washers and bearing plates. Use steel plates for bearing plates and steel washers and hex nuts recommended by the Soil Nail Manufacturer.

Provide Type 3 material certifications for soil nail materials in accordance with Article 106-3 of the *Standard Specifications*. Store steel materials on blocking at least 12" above the ground and protect it at all times from damage; and when placing in the work make sure it is free from dirt, dust, loose mill scale, loose rust, paint, oil or other foreign materials. Load,

transport, unload and store slope stabilization materials so materials are kept clean and free of damage. Do not crack, fracture or otherwise damage grout inside sheaths of encapsulated nails. Bent, damaged or defective materials will be rejected.

3.0 PRECONSTRUCTION REQUIREMENTS

A. Stabilization Facing Design

Use a prequalified Anchored Wall Design Consultant to design the slope stabilization facing. Provide facing designs sealed by a Design Engineer approved as a Geotechnical Engineer (key person) for the Anchored Wall Design Consultant.

Design shotcrete facing in accordance with the plans and Article 11.12.6.2 of the *AASHTO LRFD Bridge Design Specifications*. Use shotcrete facing with the dimensions shown in the plans.

Submit working drawings and design calculations for acceptance in accordance with Article 105-2 of the *Standard Specifications*. Submit working drawings showing typical sections and details of nails, drainage, and shotcrete facing. If necessary, include details on working drawings for obstructions extending through slope faces or interfering with nails. Use the To values shown on plans for facing (flexure and punching shear) design in accordance with Articles 11.12.5.2, 11.12.6.1 and 11.12.6.2 of the AASHTO LRFD specifications.

B. Stabilization Construction Plan

Submit a PDF file of a slope stabilization construction plan at least 30 days before the preconstruction meeting. Do not begin slope stabilization construction until the construction plan submittal is accepted. Provide detailed project specific information in the slope stabilization construction plan that includes the following:

1. Overall description and sequence of slope stabilization construction;
2. List and sizes of excavation equipment, drill rigs and tools, tremies and grouting equipment;
3. Procedures for excavations, drilling and grouting, soil nail and drainage system installation and facing construction;
4. Details of shotcrete equipment and application including mix process, test panels, thickness gauges and shooting methods;
5. Shotcrete nozzleman with certification in accordance with Article 1002-1 of the *Standard Specifications*;
6. Plan and methods for nail testing with calibration certificates dated within 90 days of the submittal date;
7. Examples of construction records to be provided that meet Section 4.0(F) and test nail records to be used in accordance with Section 5.0(D) of this provision;
8. Grout mix design with acceptable ranges for grout flow and density;

9. Shotcrete mix design that meets Section 1002 of the *Standard Specifications*; and
10. Other information shown in the plans or requested by the Engineer.

If alternate construction procedures are proposed or necessary, a revised slope stabilization construction plan submittal may be required. If the work deviates from the accepted submittal without prior approval, the Engineer may suspend slope stabilization construction until a revised plan is accepted.

C. Preconstruction Meeting

Before starting slope stabilization construction, hold a preconstruction meeting to discuss the construction, inspection and testing of the soil nail slope stabilizations. If this meeting occurs before all slope stabilization submittals have been accepted, additional preconstruction meetings may be required before beginning construction of soil nail slope stabilizations without accepted submittals. The Resident or Bridge Maintenance Engineer, Area Construction Engineer, Geotechnical Operations Engineer, Contractor and Slope Stabilization Contractor Superintendent will attend preconstruction meetings.

4.0 CONSTRUCTION METHODS

Control drainage during construction in the vicinity of soil nail slope stabilizations. Direct run off away from soil nail slope stabilizations.

Notify the Engineer before blasting in the vicinity of soil nail slope stabilizations. Perform blasting in accordance with the contract. Unless required otherwise in the plans, install foundations located behind soil nail slope stabilizations before beginning construction.

Install soil nail slope stabilizations in accordance with the accepted submittals and as directed. Do not excavate behind soil nail slope stabilizations. If overexcavation occurs, repair area with an approved method and a revised soil nail slope stabilization design or construction plan may be required.

Clear and remove loose materials, topsoil, and rootmat prior to beginning construction.

Apply shotcrete to slope faces within 24 hours of installing each row or area of soil nails unless otherwise approved. Shotcreting may be delayed if it can be demonstrated that delays will not adversely affect excavation stability. Slopes faces should be protected using polyethylene sheets anchored at top and bottom of lifts to protect excavation faces from changes in moisture content if work cannot be pursued.

If an excavation becomes unstable at any time, suspend slope stabilization construction and temporarily stabilize the excavation by immediately placing the planned nails in that area or remove instable material from slope. When this occurs, repair areas with an approved method and a revised slope stabilization design or construction plan may be required.

Soil nail slope stabilization will be considered complete once accepted by the Engineer.

A. Soil Nails

Drill and grout nails the same day and do not leave drill holes open overnight.Control drilling and grouting to prevent excessive ground movements, damaging structures and pavements or fracturing rock and soil formations. If ground heave or subsidence occurs, suspend slope stabilization construction and take corrective action to minimize movement. If property damage occurs, make repairs with an approved method and a revised slope stabilization design or construction plan may be required.

1. Drilling

Use drill rigs of the sizes necessary to install soil nails and with sufficient capacity to drill through whatever materials are encountered. Drill straight and clean holes with the dimensions and inclination shown in the accepted submittals. Drill holes within 6" of locations and 2° of inclination shown in the accepted submittals unless otherwise approved.

Stabilize drill holes with temporary casings if unstable, caving or sloughing material is anticipated or encountered. Do not use drilling fluids to stabilize drill holes or remove cuttings.

2. Steel Bars

Center steel bars in drill holes with centralizers. Securely attach centralizers along bars at no more than 8 ft centers. Attach uppermost and lowermost centralizers 18" from excavation faces and ends of holes.

Do not insert steel bars into drill holes until hole locations, dimensions, inclination and cleanliness are approved. Do not vibrate, drive or otherwise force bars into holes. If a steel bar cannot be completely and easily inserted into a drill hole, remove the bar and clean or redrill the hole.

3. Grouting

Mix and place grout in accordance with Subarticles 1003-5, 1003-6 and 1003-7 of the *Standard Specifications*. Remove oil, rust inhibitors, residual drilling fluids and similar foreign materials from holding tanks/hoppers, stirring devices, pumps, lines, tremie pipes and any other equipment in contact with grout before use. Measure grout temperature, density and flow during grouting with at least the same frequency grout cubes are made for compressive strength. Perform density and flow field tests in the presence of the Engineer in accordance with American National Standards Institute/American Petroleum Institute Recommended Practice 13B-1 (Section 4, Mud Balance) and ASTM C939 (Flow Cone), respectively.

Inject grout at the lowest point of drill holes through tremies, e.g., grout tubes, casings, hollow-stem augers or drill rods, in one continuous operation. Fill drill holes

progressively from ends of holes to excavation faces and withdraw tremies at a slow even rate as holes are filled to prevent voids in grout. Extend tremies into grout at least 5 ft at all times except when grout is initially placed in holes.

Provide grout free of segregation, intrusions, contamination, structural damage or inadequate consolidation (honeycombing). Cold joints in grout are not allowed except for test nails. Remove any temporary casings as grout is placed and record grout volume for each drill hole.

4. Nail Heads

Install nail head assemblies prior to shotcreting.

B. Drainage Systems

Before installing shotcrete reinforcement, place geocomposite sheet drains with the geotextile side against excavation faces. Hold sheet drains in place with anchor pins so drains are in continuous contact with surfaces to which they are attached and allow for full flow the entire height of soil nail slope stabilizations. Discontinuous sheet drains are not allowed. If splices are needed, overlap sheet drains at least 12" so flow is not impeded. Place sheet drains with a horizontal spacing of no more than 10 ft and center drains between adjacent nails. Sheetdrains shall daylight below the bottom of shotcrete a minimum of 6 inches.

C. Shotcrete Facing

Clean ungrouted zones of drill holes and excavation faces of loose materials, mud, rebound and other foreign material. Moisten surfaces to receive shotcrete. Install shotcrete reinforcement in accordance with the contract and accepted submittals. Secure reinforcing steel so shooting does not displace or vibrate reinforcement. Install approved thickness gauges on 5 ft centers in the horizontal and vertical directions to measure shotcrete thickness.

Apply shotcrete in accordance with the contract, accepted submittals and Subarticle 1002-3(F) of the *Standard Specifications*. Use approved shotcrete nozzlemen who made satisfactory preconstruction test panels to apply shotcrete. Direct shotcrete at right angles to excavation faces except when shooting around reinforcing steel. Rotate nozzle steadily in small circular patterns and apply shotcrete from bottom of lifts up.

Make shotcrete surfaces uniform and free of sloughing or sagging. Completely fill ungrouted zones of drill holes and any other voids with shotcrete. Taper construction joints to a thin edge over a horizontal distance of at least the shotcrete thickness. Wet joint surfaces before shooting adjacent sections.

Repair surface defects as soon as possible after shooting. Remove any shotcrete which lacks uniformity, exhibits segregation, honeycombing or lamination or contains any voids or sand pockets and replace with fresh shotcrete to the satisfaction of the Engineer. Protect shotcrete from freezing and rain until shotcrete reaches initial set.

Construct shotcrete facing in accordance with the accepted submittals. Provide an acceptable gun finish shotcrete facing in accordance with the contract and plans. Construct facing joints at a spacing of 10 ft unless required otherwise in the plans. Make 1/2" thick expansion joints that meet Article 420-10 of the *Standard Specifications* for every third joint and 1/2" deep grooved contraction or sawed joints that meet Subarticle 825-10(B) or 825-10(E) respectively for the remaining joints. Stop reinforcing steel for facing 2" on either side of expansion joints.

D. Construction Records

Provide 2 copies of slope stabilization construction records within 24 hours of completing each lift. Include the following in construction records:

1. Names of Slope Stabilization Contractor, Superintendent, Nozzleman, Drill Rig Operator, Project Manager and Design Engineer;
2. Description, county, Department's contract, TIP and WBS element number;
3. Station and number and lift location, dimensions, elevations and description;
4. Nail locations, dimensions and inclinations, bar types, sizes and grades, corrosion protection and temporary casing information;
5. Date and time drilling begins and ends, steel bars are inserted into drill holes, grout and shotcrete are mixed and arrives on-site and grout placement and shotcrete application begins and ends;
6. Grout volume, temperature, flow and density records;
7. Ground and surface water conditions and elevations if applicable;
8. Weather conditions including air temperature at time of grout placement and shotcrete application; and
9. All other pertinent details related to slope stabilization construction.

After completing each soil nail slope stabilization site, provide a PDF file of all corresponding construction records.

5.0 NAIL TESTING

If noted on plans, proof test soil nails in accordance with the contract and as directed. "Proof tests" are performed on nails incorporated into the soil nail slope stabilization, i.e., production nails. Define "proof test nail" as a nail tested with a proof test, respectively. Define "test nails" as proof test nails.

Proof tests are typically required for at least one nail per nail row or at least 5% of production nails, whichever is greater. More or less test nails may be required depending on subsurface conditions encountered. The Engineer will determine the number and locations of proof tests required. The approximate known test nail locations may be shown in the plans.

Do not test nails until grout and shotcrete attain the required 3-day compressive strength.

A. Test Equipment

Use the following equipment to test nails:

1. Two dial gauges with rigid supports,
2. Hydraulic jack and pressure gauge,
3. Jacking block or reaction frame and
4. Electrical resistance load cell (verification tests only).

Provide dial gauges with enough range and precision to measure the maximum test nail movement to 0.001". Use pressure gauges graduated in 100 psi increments or less. Submit identification numbers and calibration records for load cells, jacks and pressure gauges with the slope stabilization construction plan. Calibrate each jack and pressure gauge as a unit.

Align test equipment to uniformly and evenly load test nails. Use a jacking block or reaction frame that does not damage or contact shotcrete within 3 ft of nail heads. Place dial gauges opposite each other on either side of test nails and align gauges within 5° of bar inclinations. Set up test equipment so resetting or repositioning equipment during nail testing is not needed.

B. Test Nails

Test nails include both unbonded and bond lengths. Grout only bond lengths before nail testing. Provide unbonded and bond lengths of at least 3 ft and 10 ft, respectively. Hollow bar nail installation will require a bond breaker at the slope face for proof testing.

Steel bars for production nails may be overstressed under higher test nail loads. If necessary, use larger size or higher grade bars with more capacity for test nails instead of shortening bond lengths to less than the minimum required.

C. Nail Tests

Install test nails with the same equipment, installation methods and drill hole diameter and inclination as production nails. Test proof test nails in accordance with the accepted submittals and Articles 34.5.5.2 and 34.5.5.3, respectively of the *AASHTO LRFD Bridge Construction Specifications*.

D. Test Nail Acceptance

Submit 2 copies of test nail records including load versus movement and time versus creep movement plots within 24 hours of completing each proof test. The Engineer will review the test nail records to determine if test nails are acceptable. Test nail acceptance is based in part on the acceptance criteria in Article 34.5.5.4 of the *AASHTO LRFD Bridge Construction Specifications*.

For proof test nails, maintain stability of unbonded lengths for subsequent grouting. If a

proof test nail is accepted but the unbonded length cannot be satisfactorily grouted, do not incorporate the proof test nail into the slope stabilization and add another production nail to replace the test nail.

If the Engineer determines a proof test nail is unacceptable, either perform additional proof tests on adjacent production nails or revise the soil nail design or installation methods for the production nails represented by the unacceptable proof test nail as determined by the Engineer. Submit a revised slope stabilization design or construction plan for acceptance, provide an acceptable proof test nail with the revised design or installation methods and install additional production nails for the nails represented by the unacceptable proof test nail.

After completing nail testing for each slope stabilization site, provide a PDF file of all corresponding test nail records.

6.0 MEASUREMENT AND PAYMENT

Shotcrete Slope Stabilization will be paid for using the contract pay items and units shown below for items that have been incorporated into the completed and accepted work.

Shotcrete will be measured as the length, height, and thickness of shotcrete facing and paid based upon the actual number of cubic yards of shotcrete incorporated into the completed and accepted work.

Reinforcing Steel for shotcrete facing will be measured and paid in accordance with Article 425-6 of the *Standard Specifications*.

Geocomposite Drains will be measured and paid based upon the length of geocomposite drain incorporated into the completed and accepted work.

Soil Nails will be measured and paid for at the contract unit price per each to construct the average length of soil nail incorporated into the completed and accepted work. Any length of soil nail incorporated into the completed and accepted work greater than the average length indicated on the plans shall be paid per linear foot.

The contract unit price for *Shotcrete Slope Stabilization* will be full compensation for providing designs, submittals, labor, tools, equipment, and slope stabilization materials, excavating, hauling and removing excavated materials, installing soil nails, grouting, shotcreting and supplying drainage systems, shotcrete facing and shotcrete cutoff lug and any incidentals necessary to construct soil nail slope stabilizations. No additional payment will be made and no extension of completion date or time will be allowed for repairing property damage, overexcavations or unstable excavations, unacceptable test nails, additional grout or thicker shotcrete facing.

Soil nail testing will be measured as the number of initial proof tests performed. The contract unit prices for *Soil Nail Proof Tests* will be full compensation for initial nail testing. No payment will be made for subsequent nail testing performed on the same or replacement test nails.

Payment will be made under:

Pay Item	**Pay Unit**
Shotcrete	Cubic Yard
Reinforcing Steel	Pound
Geocomposite Drains	Linear Foot
Soil Nail, Average Length	Each
Soil Nail, Additional Length Over Average	Linear Foot
Soil Nail Proof Tests	Each

Signed by:
J. Dean Hardister
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05/08/2025

The liquidated damages are **Two Hundred Fifty Dollars ($ 250.00**) per hour.

PERMANENT VEGETATION ESTABLISHMENT:
(2-16-12)(Rev. 1-16-24) 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 *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 *Standard Specifications*. No additional compensation will be made for maintenance and removal of temporary erosion control items.

MAJOR CONTRACT ITEMS:
(2-19-02)(Rev. 1-16-24) 104 SP1 G28

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

Line #	**Description**
0035	Generic Retaining Wall Item Soil Nail, Average Length
0038	Generic Retaining Wall Item Shotcrete
0041	Select Material, Class ***** VII

T-1

ITEMIZED PROPOSAL FOR CONTRACT NO. DN01116

County: TRANSYLVANIA

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	0043000000-N	226	GRADING	Lump Sum	L.S.	
0004	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	200 SY		
0005	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	60 LF		
0006	0996000000-N	350	PIPE CLEAN OUT	1 EA		
0007	1099700000-E	505	CLASS IV SUBGRADE STABILIZATION	450 TON		
0008	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	21 TON		
0009	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	9 TON		
0010	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	2 TON		
0011	2556000000-E	846	SHOULDER BERM GUTTER	175 LF		
0012	2815000000-N	858	ADJUSTMENT OF DROP INLETS	1 EA		
0013	3030000000-E	862	STEEL BEAM GUARDRAIL	200 LF		
0014	3360000000-E	863	REMOVE EXISTING GUARDRAIL	325 LF		
0015	3420000000-E	SP	GENERIC GUARDRAIL ITEM WEATHERING STEEL BEAM GUARDRAIL	125 LF		
0016	4424500000-N	SP	TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM	1 EA		
0017	4457000000-N	SP	TEMPORARY TRAFFIC CONTROL	Lump Sum	L.S.	

County: TRANSYLVANIA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0018	4688000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)	500 LF		
0019	6000000000-E	1605	TEMPORARY SILT FENCE	450 LF		
0020	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	40 TON		
0021	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	40 TON		
0022	6012000000-E	1610	SEDIMENT CONTROL STONE	20 TON		
0023	6029000000-E	SP	SAFETY FENCE	100 LF		
0024	6036000000-E	1631	MATTING FOR EROSION CONTROL	100 SY		
0025	6042000000-E	1632	1/4" HARDWARE CLOTH	35 LF		
0026	6071010000-E	1642	WATTLE	50 LF		
0027	6084000000-E	1660	SEEDING & MULCHING	0.2 ACR		
0028	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	50 LB		
0029	6108000000-E	1665	FERTILIZER TOPDRESSING	0.1 TON		
0030	6117000000-N	1675	RESPONSE FOR EROSION CONTROL	3 EA		
0031	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	3 EA		
0032	6138000000-E	SP	GENERIC EROSION CONTROL ITEM VEGETATIVE DEBRIS REMOVAL AND DISPOSAL	55 CY		
0033	8252000000-E	425	REINFORCING STEEL (RETAINING WALL)	2,293 LB		
0034	8834000000-N	SP	GENERIC RETAINING WALL ITEM SOIL NAIL PROOF TESTS	22 EA		

County: TRANSYLVANIA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0035	8834000000-N	SP	GENERIC RETAINING WALL ITEM SOIL NAIL, AVERAGE LENGTH	429 EA		
0036	8839000000-E	SP	GENERIC RETAINING WALL ITEM GEOCOMPOSITE DRAINS	450 LF		
0037	8839000000-E	SP	GENERIC RETAINING WALL ITEM SOIL NAIL, ADDITIONAL LENGTH OVER AVERAGE	656 LF		
0038	8853000000-E	SP	GENERIC RETAINING WALL ITEM SHOTCRETE	125 CY		
0039	0222000000-E	SP	GEOTEXTILE FOR ROCK EMBANKMENTS	650 SY		
0040	0314000000-E	SP	SELECT MATERIAL, CLASS ***** (VI)	45 TON		
0041	0314000000-E	SP	SELECT MATERIAL, CLASS ***** (VII)	1,841 TON		
0042	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	65 LF		
0043	2077000000-E	815	6" OUTLET PIPE	65 LF		
0044	3642000000-E	876	RIP RAP, CLASS A	50 TON		
0045	3649000000-E	876	RIP RAP, CLASS B	50 TON		

1344/May21/Q9761.3/D185701410000/E45 **Total Amount Of Bid For Entire Project :**


Sheet No: 4
N
S
E
W
SITE 999
82°47'10"W
35°18'50"N
SITE 707
82°49'54"W
35°9'26"N
SITE 329
82°54'58"W
35°7'33"N
Balsam
Fletcher
BUNCOMBE
HENDERSON
Mills River
Shining Rock Wilderness
Middle Prong Wilderness
Caney Fork
6406 ft
Cruso Rd
Etowah
Brevard Rd
Laurel Park
Hendersonville
East Flat Rock
Flat Rock
Pisgah Hwy
Pisgah Forest
Tuckasegee
TRANSYLVANIA
Brevard
Balsam Grove
DuPont State Forest
SALUDA MOUNTAINS
Glenville
MACON
JACKSON
Cedar Mountain
Rosman
Lake Toxaway
Cashiers
Sapphire
Gorges State Park
NORTH CAROLINA
SOUTH CAROLINA
Jones Gap State Park
Caesars Head State Park
GREENVILLE
Chimney
Beech Gap
Pisgah Ctr
Wildlife Educ
Balsam Grove
Brevard
Pisgah Forest
TRANSYLVANIA
Lake Toxaway
Cherryfield
Rosman
Cedar Mountain

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL UNIT

VICINITY MAP

SITES	
329	Concrete shoulder berm gutter, drainage structure, paving, slope stabilization and erosion control
707	Retaining Wall, brown guardrail, erosion control items.
999	Grading, Slope Repair, Erosion Control Items

0 2.5 5 10
Miles

DIV: 14

PROJ #: DN01116

LET DATE: 5/27/2025

MAP DATE: 5/7/2025

FIGURE 1

SUMMARY OF QUANTITIES

								0000400000-N	0043000000-N	0196000000-E	0448200000-E	0996000000-N	1099700000-E	1491000000-E	1523000000-E	1575000000-E	2044000000-E	20770000000-E	2556000000-E	2815000000-N	3030000000-E	3360000000-E	3420000000-E	6138000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	LENGTH	WIDTH	BEGIN MP	END MP	CONSTRUCTION SURVEYING	GRADING	GEOTEXTILE FOR SOIL STABILIZATION	15" RC PIPE CULVERTS, CLASS IV	PIPE CLEAN OUT	CLASS IV SUBGRADE STABILIZATION	BASE COURSE, B25.0C	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	6" PERFORATED SUBDRAIN PIPE	6" OUTLET PIPE	SHOULDER BERM GUTTER	ADJUSTMENT OF DROP INLETS	STEEL BEAM GUARDRAIL	REMOVE EXISTING GUARDRAIL	WEATHERING STEEL BEAM GUARDRAIL	VEGETATIVE DEBRIS REMOVAL AND DISPOSAL
				MI	FT			LS	LS	SY	LF	EA	TON	TONS	TONS	TONS	LF	LF	LF	EA	LF	LF	LF	CY
18314.1088015	Transylvania	SITE 329	US-64	0.05	22	6.58	6.63	0.33	0.33	100	60	1	350	21	9	2			175	1	200	200		30
TOTAL FOR MAP NO. 1				**0.05**				**0.33**	**0.33**	**100**	**60**	**1**	**350**	**21**	**9**	**2**			**175**	**1**	**200**	**200**		30
TOTAL FOR PROJ NO. 18314.1088015				**0.05**				**0.33**	**0.33**	**100**	**60**	**1**	**350**	**21**	**9**	**2**			**175**	**1**	**200**	**200**		30
18314.1088038	Transylvania	SITE 707	NC-215	0.06	20	1.32	1.38	0.33	0.33													125	125	
TOTAL FOR MAP NO. 2				**0.06**				**0.33**	**0.33**													**125**	**125**	
TOTAL FOR PROJ NO. 18314.1088038				**0.06**				**0.33**	**0.33**													**125**	**125**	
18314.1088048	Transylvania	SITE 999	US-276N	0.02	20	23.88	23.92	0.34	0.34	100.00			100				65	65						25
TOTAL FOR MAP NO. 3				**0.02**				**0.34**	**0.34**	**100.00**			**100**				**65**	**65**						**25**
TOTAL FOR PROJ NO. 18314.1088038				**0.02**				**0.34**	**0.34**	**100.00**			**100**				**65**	**65**						**25**
GRAND TOTAL				**0.13**				**1**	**1**	**200**	**60**	**1**	**450**	**21**	**9**	**2**	**65**	**65**	**175**	**1**	**200**	**325**	**125**	**55**

SUMMARY OF QUANTITIES

								0314000000-E	0314000000-E	0222000000-E	3649000000-E	3642000000-E	8252000000-E	8834000000-N		8839000000-E		8853000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	LENGTH	WIDTH	BEGIN MP	END MP	CLASS VII SELECT MATERIAL	CLASS VI SELECT MATERIAL	GEOTEXTILE FOR ROCK EMBANKMENTS, TYPE 2	CLASS B RIP RAP	CLASS A RIP RAP	REINFORCING STEEL (RETAINING WALL)	SOIL NAIL, AVERAGE LENGTH	SOIL NAIL PROOF TESTS	SOIL NAIL, ADDITIONAL LENGTH OVER AVERAGE	GEOCOMPOSITE DRAINS	SHOTCRETE
				MI	FT			TON	TON	SY	TON	TON	LB	EA	EA	LF	LF	CY
18314.1088015	Transylvania	SITE 329	US-64	0.05	22	6.58	6.63											
TOTAL FOR MAP NO. 1				**0.05**														
TOTAL FOR PROJ NO. 18314.1088015				**0.05**														
18314.1088038	Transylvania	SITE 707	NC-215	0.06	20	1.32	1.38						2293	429	22	656	450	125
TOTAL FOR MAP NO. 2				**0.06**									**2293**	**429**	**22**	**656**	**450**	**125**
TOTAL FOR PROJ NO. 18314.1088038				**0.06**									**2293**	**429**	**22**	**656**	**450**	**125**
18314.1088048	Transylvania	SITE 999	US-276N	0.02	20	23.88	23.92	1841	45	650	50	50						
TOTAL FOR MAP NO. 3				**0.02**				**1841**	**45**	**650**	**50**	**50**						
TOTAL FOR PROJ NO. 18314.1088038				**0.02**				**1841**	**45**	**650**	**50**	**50**						
GRAND TOTAL				**0.13**				**1841**	**45**	**650**	**50**	**50**	**2293**	**429**	**22**	**656**	**450**	**125**

Sheet No: 7

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	LENGTH	WIDTH	BEGIN MP	END MP	6000000000-E TEMPORARY SILT FENCE	6006000000-E STONE FOR EROSION CONTROL, CLASS A	6009000000-E STONE FOR EROSION CONTROL, CLASS B	6012000000-E SEDIMENT CONTROL STONE	6029000000-E SAFETY FENCE	6036000000-E MATTING FOR EROSION CONTROL	6042000000-E 1/4" HARDWARE CLOTH	6071010000-E WATTLE	6084000000-E SEED & MULCHING	6096000000-E SEED FOR SUPPLEMENTAL SEEDING	6108000000-E FERTILIZER TOPDRESSING	6117000000-N RESPONSE FOR EROSION CONTROL	6117500000-N CONCRETE WASHOUT STRUCTURE
				MI	FT			LF	TON	TON	TON	LF	SY	LF	LF	AC	LB	TON	EA	EA
18314.1088015	Transylvania	SITE 329	US-64	0.05	22	6.58	6.63	150	20	20	20		100	20	50	0.1	50.0	0.1	1	1
TOTAL FOR MAP NO. 1				**0.05**				**150**	**20**	**20**	**20**		**100**	**20**	**50**	**0.1**	**50.0**	**0.1**	**1**	**1**
TOTAL FOR PROJ NO. 18314.1088015				**0.05**				**150**	**20**	**20**	**20**		**100**	**20**	**50**	**0.1**	**50.0**	**0.1**	**1**	**1**
18314.1088038	Transylvania	SITE 707	NC-215	0.06	20	1.32	1.38	100				100							1	1
TOTAL FOR MAP NO. 2				**0.06**				**100**				**100**							**1**	**1**
TOTAL FOR PROJ NO. 18314.1088038				**0.06**				**100**				**100**							**1**	**1**
18314.1088048	Transylvania	SITE 999	US-276N	0.02	20	23.88	23.92	200	20	20				15		0.10			1	1
TOTAL FOR MAP NO. 3				**0.02**				**200**	**20**	**20**				**15**		**0.10**			**1**	**1**
TOTAL FOR PROJ NO. 18314.1088038				**0.02**				**200**	**20**	**20**				**15**		**0.10**			**1**	**1**
GRAND TOTAL				**0.13**				**450**	**40**	**40**	**20**	**100**	**100**	**35**	**50**	**0.2**	**50**	**0**	**3**	**3**

Sheet No: 8

THERMOPLASTIC AND PAINT QUANTITIES

								4457000000-N	4424500000-N	4688000000-E	4688000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	LENGTH	WIDTH	BEGIN MP	END MP	TEMPORARY TRAFFIC CONTROL	TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO
				MI	FT			LS	LS	LF	LF
18314.1088015	Transylvania	SITE 329	US-64	0.05	22	6.58	6.63	0.33	0.33	250	250
TOTAL FOR MAP NO. 1				**0.05**				**0.33**	**0.33**	**250**	**250**
TOTAL FOR PROJ NO. 18314.1088015				**0.05**				**0.33**	**0.33**	**250**	**250**
18314.1088038	Transylvania	SITE 707	NC-215	0.06	20	1.32	1.38	0.33	0.33		
TOTAL FOR MAP NO. 2				**0.06**				**0.33**	**0.33**		
TOTAL FOR PROJ NO. 18314.1088038				**0.06**				**0.33**	**0.33**		
18314.1088048	Transylvania	SITE 999	US-276N	0.02	20	23.88	23.92	0.34	0.34		
TOTAL FOR MAP NO. 3				**0.02**				**0.34**	**0.34**		
TOTAL FOR PROJ NO. 18314.1088038				**0.02**				**0.34**	**0.34**		
GRAND TOTAL				**0.13**				**1**	**1**	**250**	**250**