



CITY OF ROCKY MOUNT
WATER RESOURCES

Request for Proposals #: RFP 320-240323TJ

Sewer Main Relining FY23

Date of Issue: 4/10/2023

Proposal Due Date: 5/2/2023

At 2:00 P.M. ET

Direct all inquiries concerning this RFP to:

Tracy Johnson

Purchasing Associate I

Email: tracy.johnson@rockymountnc.gov

Phone: (252) 972-1229

Attendance of bidders at pre-bid meeting on the job site is required. No bids will be accepted from any vendor not represented at the pre-bid meeting.

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**CITY OF ROCKY MOUNT
STANDARD FORM OF INFORMAL CONTRACT
AND GENERAL CONDITIONS**

FOR

Project ID# - RFP 320-240323TJ

I. SCOPE OF WORK

GENERAL

It is the intent of this specification to provide for the reconstruction of pipelines and conduits by the installation of a resinimpregnated flexible tube, which is tightly formed to the original conduit. The resin is cured using either hot water under hydrostatic pressure or steam pressure within the tube. The Cured-In-Place Pipe (CIPP) will be continuous and tight fitting.

The Contractor shall be licensed and bonded in North Carolina and shall use sufficient workmen and competent supervisors in the execution of this portion of the work to ensure adequate and proper installation throughout.

This specification references standards from the American Society for Testing and Materials, such as: ASTM F1216 (Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube), ASTM F1743 (Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP)), ASTM D5813 (Cured-in-Place Thermosetting Resin Sewer Pipe), ASTM D790 (Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials), and D2990 (Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics) which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

LOCATIONS

| STREET OR ADDRESS | UPSTMH | DSTMH | SIZE | LENGTH | MATERIAL | NOTES |
|------------------------------------|-----------|-----------|------|--------|----------|----------------------------|
| US64 ALT WEST HWY & SPRINGFIELD RD | H-113-006 | H-113-005 | 8 | 75 | VCP | BROKEN PIPE LEAKING JOINTS |
| US64 ALT WEST HWY & SPRINGFIELD RD | H-113-005 | H-113-007 | 10 | 314 | VCP | BROKEN PIPE LEAKING JOINTS |
| 900 SPRINGFIELD RD | H-113-007 | H-113-024 | 10 | 463 | VCP | BROKEN PIPE LEAKING JOINTS |
| SPRINGFIELD RD | H-113-024 | H-113-008 | 10 | 285 | VCP | BROKEN PIPE LEAKING JOINTS |
| SPRINGFIELD RD | H-113-008 | H-113-009 | 10 | 361 | VCP | BROKEN PIPE LEAKING JOINTS |
| SPRINGFIELD RD | H-113-009 | H-113-010 | 10 | 141 | VCP | BROKEN PIPE LEAKING JOINTS |
| SPRINGFIELD RD | H-113-010 | H-113-027 | 10 | 312 | VCP | BROKEN PIPE LEAKING JOINTS |

| | | | | | | |
|------------------|-----------|-----------|---|-----|-----|-----------------------------|
| HUNTING LODGE DR | H-113-026 | G-113-017 | 8 | 389 | VCP | BROKEN PIPE ROOTS IN JOINTS |
|------------------|-----------|-----------|---|-----|-----|-----------------------------|

| | | | | | | |
|------------------|-----------|-----------|---|-----|-----|-----------------------------|
| HUNTING LODGE DR | G-113-017 | G-113-018 | 8 | 163 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| FALCON RD | H-113-030 | H-113-029 | 8 | 363 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| FALCON RD | H-113-029 | H-113-028 | 8 | 266 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| FALCON RD | H-113-028 | H-113-031 | 8 | 308 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| FALCON RD | H-113-031 | NO # | 8 | 230 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| CRESTVIEW RD | G-113-017 | G-113-015 | 8 | 348 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| CRESTVIEW RD | G-113-015 | G-113-019 | 8 | 331 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| CRESTVIEW RD | G-113-019 | G-113-014 | 8 | 339 | VCP | BROKEN PIPE ROOTS IN JOINTS |
| CRESTVIEW RD | G-113-014 | NO # | 8 | 300 | VCP | BROKEN PIPE ROOTS IN JOINTS |

PRODUCTS

Product, Manufacturer/Installer Qualification Requirements

Since sewer products are intended to have a fifty-year design life, and in order to minimize the Owner’s risk, only proven products with substantial successful long-term track records will be approved. All trenchless rehabilitation products and installers must be pre-approved prior to the formal opening of proposals. The bidder shall utilize its own forces for the work included in the pipelining process.

Products and Installers seeking approval must meet all of the following criteria to be deemed Commercially Acceptable:

- a) For a Product to be considered Commercially Proven, a minimum of 25 successful wastewater collection system projects of a similar size and scope of work shall be performed in the U.S. and documented to the satisfaction of the Owner to assure commercial viability.
- b) For an Installer to be considered as Commercially Proven, the Installer must satisfy all insurance, financial, and bonding requirements of the Owner. In addition, the Installer must have successfully installed at least 1,000,000 feet of a cured-in-place product in wastewater collection systems utilizing the exact product intended for use on this project. Acceptable documentation of these minimum installations must be submitted to the Owner. Installer’s project managers must have a minimum of 5 years of CIPP installation experience with the exact product intended for use on this project.
- c) Sewer rehabilitation products submitted for approval must provide third party test results supporting the structural performance (short-term and long-term) of the product and such data shall be satisfactory to the Owner. No product will be approved without independent third-party testing verification.
- d) Both the rehabilitation manufacturing and installation processes shall operate under a quality management system which is third-party certified to ISO 9000 or other recognized organization standards. Proof of certification shall be required for approval.
- e) Proposals must be labeled clearly on the outside of the proposal envelope, listing the product name and installer being proposed. Only proposals using pre-approved products and installers will be opened and read. Proposals submitted on products and/or from installers that have not been pre-approved will be returned unopened

The owner authorizes the use of proven materials that serve to enhance the pipe performance specified herein. Proven materials have passed independent laboratory testing, not excluding long-term (10,000 hour) structural behavior testing and have been successfully installed to repair failing host pipes in the U. S. for at least 5 years. In addition to the aforementioned, the owner may require that the contractor demonstrate that

the enhancements proposed exceed the specifications herein, prior to the installation of the enhanced material systems. This section in no way shall be interpreted as authorization to deviate from the minimum standard practices set forth herein.

Documentation for products and installers seeking pre-approved status must be submitted no less than two weeks prior to proposal due date to allow time for adequate consideration. The Owner will advise of acceptance or rejection a minimum of three days prior to the due date. All required submittals must be satisfactory to the Owner.

Materials

- a) Tube - The sewn Tube shall consist of one or more layers of absorbent non-woven felt fabric and meet the requirements of ASTM F1216, Section 5.1 or ASTM F1743, Section 5.2.1 or ASTM D 5813, Sections 5 and 6. The tube shall be constructed to withstand installation pressures, have sufficient strength to bridge missing pipe, and stretch to fit irregular pipe sections. Tube shall be manufactured in the USA by the installer.
- b) The wet-out Tube shall have a relatively uniform thickness that when compressed at installation pressures will equal or exceed the calculated minimum design CIPP wall thickness. Tube shall be wet out by the installer.
- c) The Tube shall be manufactured to a size that when installed will tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during installation.
- d) The outside layer of the Tube shall be coated with an impermeable, flexible membrane that will contain the resin and allow the resin impregnation (wet out) procedure to be monitored.
- e) The Tube shall contain no intermediate or encapsulated elastomeric layers. No material shall be included in the Tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.
- f) The wall color of the interior pipe surface of CIPP after installation shall be a relatively light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.
- g) Seams in the Tube shall be stronger than the non-seamed felt material.
- h) The Tube shall be marked for distance at regular intervals along its entire length, not to exceed 5 ft. Such markings shall include the Manufacturers name or identifying symbol.
- i) Resin - The resin system shall be a corrosion resistant polyester or vinyl ester system including all required catalysts, initiators that when cured within the tube create a composite that satisfies the requirements of ASTM F1216, ASTM D5813 and ASTM F1743, the physical properties herein, and those which are to be utilized in the submitted and approved design of the CIPP for this project. The resin shall produce a CIPP that will comply with the structural and chemical resistance requirements of this specification.

Waterstop

A non-metallic, non-bentonite "hydrophilic" chloroprene rubber waterstop shall be provided on all sanitary sewer mains, 15- inch or greater, during the pipelining process. Moisture-activated, the waterstop shall increase in size to create an effective compression seal between the existing sanitary sewer main and the new pipeliner installed. The waterstop shall be placed on all sewer mains entering or exiting each manhole to prevent fluid migration at the pipeliner to manhole connection. Waterstop shall be GREENSTREAK Hydrotite or equal.

Structural Reequipments

The CIPP shall be designed as per ASTM F1216, Appendix X.1. The CIPP design shall assume no bonding to the original pipe wall. The Contractor must have performed long-term testing for flexural creep of the CIPP pipe material installed by his Company. Such testing results are to be used to determine the long-term, time dependent flexural modulus to be utilized in the product design. This is a performance test of the materials (Tube and Resin) and general workmanship of the installation and curing as defined within the relevant ASTM standard. A percentage of the instantaneous flexural modulus value (as measured by ASTM D790 testing) will be used in design calculations for external buckling. The percentage, or the long-term creep retention value utilized, will be verified by this testing. Retention values exceeding 50% of the short-term test results shall not be applied unless

substantiated by qualified third-party test data to the Owner's satisfaction. The materials utilized for the contracted project shall be of a quality equal to or better than the materials used in the long-term test with respect to the initial flexural modulus used in the CIPP design.

The Enhancement Factor 'K' to be used in 'Partially Deteriorated' Design conditions shall be assigned a value of 7.

The layers of the cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers. If the layers separate during field sample testing, new samples will be required to be obtained from the installed pipe. Any reoccurrence may cause rejection of the work.

The cured pipe material (CIPP) shall have at least these structural properties for structural performance, as listed below.

Minimum CIPP Physical Properties

| Property | Test Method | Cured Polyester Composite | |
|-----------------|-------------|---------------------------|----------------|
| | | min. per ASTM F1216 | Enhanced Resin |
| Modulus of | | | |
| Elasticity | ASTM D790 | 250,000 psi | 400,000 psi |
| Flexural Stress | ASTM D790 | 4,500 psi | 4,500 psi |

The required structural CIPP wall thickness shall be based as a minimum, on the physical properties in Section 5.5 or greater values if substantiated by independent lab testing and in accordance with the design equations in the Appendix X1. Design Considerations of ASTM F1216, and the following design parameters:

- Design Safety Factor (typically used value) = 2.0
- Retention Factor for Long-Term Flexural Modulus = 50% - 75%

to be used in Design

(As determined by long-term tests described in section 5.2 and approved by the Owner)

- Ovality* (calculated from (X1.1of ASTM F1216) = %
- Enhancement Factor, K = See Section 5.3
- Groundwater Depth (above invert of existing pipe) * = ft.
- Soil Depth (above crown of existing pipe) * = ft.
- Soil Modulus** = psi
- Soil Density** = pcf
- Live Load** = H20 Highway
- Design Condition (partially or fully deteriorated) *** = ***

* Denotes information, which can be provided here or in inspection videotapes or project construction plans. Multiple lines segments may require a table of values.

*** Based on review of video logs, conditions of pipeline can be fully or partially deteriorated.

(See ASTM F1216 Appendix) The Owner will be sole judge as to pipe conditions and parameters utilized in design.

Any layers of the tube that are not saturated with resin prior to insertion into the existing pipe shall not be included in the structural CIPP wall thickness computation.

EXECUTION

Testing Requirements

- a) **Chemical Resistance** - The CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical-testing requirements.
- b) **Hydraulic Capacity** - Overall, the hydraulic cross-section shall be maintained as large as possible. The CIPP shall have a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.
- c) **CIPP Field Samples** - When requested by the Owner, the Contractor shall submit test results from field installations of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties have been achieved in previous field applications. Samples for this project shall be made and tested as described in Section Reinstatement of Branch Connections.

Installation Responsibilities for Incidental Items

It shall be the responsibility of the Owner to locate and designate all manhole access points open and accessible for the work and provide rights-of-access to these locations. If a street must be closed to traffic because of the orientation of the sewer, the Owner shall institute the actions necessary to provide access during this for the mutually agreed time period. The Owner shall also provide free access to water hydrants for cleaning, installation and other process related work items requiring water.

- a) **Cleaning of Sewer Lines** - The Contractor, when required, shall remove all internal debris out of the sewer line that will interfere with the installation of CIPP. The Owner shall also provide a dumpsite for all debris removed from the sewers during the cleaning operation. Unless stated otherwise, it is assumed this site will be at or near the sewage treatment facility to which the debris would have arrived in absence of the cleaning operation. Any hazardous waste material encountered during this project will be considered as a changed condition.
- b) **Bypassing Sewage** - The Contractor, when required, shall provide for the flow of sewage around the section or sections of pipe designated for repair. Plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system shall make the bypass. The pump(s) and bypass line(s) shall be of adequate capacity to accommodate the sewage flow. The Owner may require a detail of the bypass plan to be submitted.
- c) **Inspection of Pipelines** - Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections using close circuit television (CCTV) inspection techniques. The pipeline interior shall be carefully inspected to determine the location of any conditions that may prevent proper installation of CIPP. These shall be noted and corrected. A videotape and suitable written log for each line section shall be produced for later reference by the Owner.
- d) **Line Obstructions** - It shall be the responsibility of the Contractor to clear the line of obstructions such as solids and roots that will prevent the insertion of CIPP. If pre-installation inspection reveals an obstruction such as a protruding service connection, dropped joint, or a collapse that will prevent

the installation process, that was not evident on the pre-bid video and it cannot be removed by conventional sewer cleaning equipment, then the Contractor shall make a point repair excavation to uncover and remove or repair the obstruction. Such excavation shall be approved in writing by the Owner's representative prior to the commencement of the work and shall be considered as a separate pay item.

- e) **Public Notification** - The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. In the event that a connection will be out of service, the longest period of no service shall be 8 hours. A public notification program shall be implemented, and shall as a minimum, require the Contractor to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:
- a. Written notice to be delivered to each home or business the day prior to the beginning of work being conducted on the section, and a local telephone number of the Contractor they can call to discuss the project or any potential problems.
 - b. Personal contact with any home or business, which cannot be reconnected within the time stated in the written notice.
 - c. Contractor shall provide documentation with bid certifying that a site visit was made of this project location. The Contractor shall be responsible for confirming the locations of all branch service connections prior to installing the CIPP.

Installation

CIPP installation shall be in accordance with ASTM F1216, Section 7, or ASTM F1743, Section 6, with the following modifications:

- a) **Resin Impregnation** - The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the potential loss of resin during installation through cracks and irregularities in the original pipe wall, as applicable.
- b) **Tube Insertion** – The wet-out tube shall be positioned in the pipeline using either inversion or a pull-in method as defined within relevant ASTM standards previously stipulated. If pulled into place, a power winch or its equivalent should be utilized and care should be exercised not to damage the tube as a result of pull-in friction. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.

Temperature gauges shall be placed between the tube and the host pipe's invert position to monitor the temperatures during the cure cycle.

Curing shall be accomplished by utilizing hot water under hydrostatic pressure or steam pressure in accordance with the manufacturer's recommended cure schedule. A cool-down process shall be conducted that complies with the resin manufacturer's specification.

Reinstatement of Branch Connections

It is the intent of these specifications that branch connections to buildings be re-opened without excavation, utilizing a remotely controlled cutting device, monitored by a CCTV. The Contractor shall certify a minimum of two complete functional cutters plus key spare components are on the job site before each installation or are in the immediate area of the jobsite and can be quickly obtained. Unless otherwise directed by the Owner or his authorized representative, all laterals will be reinstated. No additional payment will be made for excavations for the purpose of reopening connections and the Contractor will be responsible for all costs and liability associated with such excavation and restoration work.

Inspection

CIPP samples shall be prepared for each installation designated by the owner/engineer or approximately 20% of the project's installations. Pipe physical properties will be tested in accordance with ASTM F1216 or ASTM F1743, Section 8, using either method proposed. The flexural properties must meet or exceed the values listed in the table on page 4 of this specification, Table 1 of ASTM F1216 or the values submitted to the Owner/engineer by the contractor for this project's CIPP wall design, whichever is greater.

Wall thickness of samples shall be determined as described in paragraph 8.1.6 of ASTM F1743. The minimum wall thickness at any point shall not be less than 87½% of the submitted minimum design wall thickness as calculated in paragraph 5.6 of this document.

Visual inspection of the CIPP shall be in accordance with ASTM F1743, Section 8.6.

Clean-up

Upon acceptance of the installation work and testing, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work.

Payment

Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed. Items shall be measured and paid as follows:

Item 1: **Light Cleaning & CCTV of Pipes** – Measurement and payment shall be per linear foot of pipe televised and cleaned from edge of pipe to edge of pipe, rounded to the nearest foot.

Item 2: **CIPP Lining of Pipes** – Typically this is incidental to the lining.

Item 3: **Bypass Pumping** - Typically this is incidental to the lining.

Additional items such as heavy cleaning, protruding tap removal.... etc.

Progress payments will be made monthly based on the work performed during that period.

END OF SECTION

***Bidders are to provide brochures, product information and any other information that provides additional information on their product and its application process.**

II. RFP SCHEDULE

| Event | Responsibility | Date and Time |
|--------------------------------|-----------------------|------------------------------------|
| Issue RFP | City | Monday 4/10/2023 |
| Pre-Bid/Site Visit | City | Tuesday 4/18/23 10:00 am |
| Submit Written Questions | Vendor | Thursday 4/20/2023 12:00 pm (noon) |
| Provide Responses to Questions | City | Wednesday 4/26/2023 |
| Submit Bids | Vendor | Tuesday 5/2/2023 2:00 pm |
| Notice of Award | City | TBD |

III. MANDATORY SITE VISIT

Pre-Bid Meeting

Date: Tuesday, 4/18/2023
 Time: 10:00 AM Eastern Time, 331 S Franklin St., Rocky Mount, NC 27804
 Contact #: (252) 972-1229

Instructions: It is mandatory that each Vendor representative be present for a pre-bid/site visit on Tuesday, April 18, 2023. Attendees shall meet promptly 10:00 a.m. Eastern Time at **331 S Franklin St., 2nd floor, Conference Room 2, Rocky Mount, NC 27804**. All attendees must sign in upon arrival and clearly indicate the prospective Vendor represented on the sign in sheet.

The purpose of this visit is for all prospective Vendors to apprise themselves with the conditions and requirements which will affect the performance of the work called for by this Request for Proposals. Vendors shall stay for the duration of the site visit. No allowances will be made for unreported conditions that a prudent Vendor would recognize as affecting the work called for or implied by this bid.

Vendors are cautioned that any information released to attendees during the site visit, other than that involving the physical aspects of the facility referenced above, and which conflicts with, supersedes, or adds to requirements in this Invitation for Bid, must be confirmed by written addendum before it can be considered to be a part of this bid.

IV. QUESTIONS

Written questions shall be e-mailed to tracy.johnson@rockymountnc.gov by the date and time specified above. Contractors will enter "RFP 320-03240323TJ – Questions" as the subject for the email.

Questions received prior to the submission deadline date, the Purchasing Managers response, and any additional terms deemed necessary by the City of Rocky Mount will be posted in the form of an addendum to the Interactive Purchasing System (IPS), <http://www.ips.state.nc.us>, and the City of Rocky Mount website and shall become an Addendum to this RFP. No information, instruction or advice provided orally or informally by any City personnel, whether made in response to a question or otherwise concerning this RFP, shall be considered authoritative or binding. Vendors shall rely only on written material contained in an Addendum to this RFP.

Inquiries submitted no later than the date and time noted in the project schedule. Questions answered verbally will be followed up by written addenda as deemed necessary; oral interpretations shall have no effect.

V. MINORITY BUSINESS PARTICIPATION

The Bidder has the responsibility to make a good faith effort to solicit minority proposals and to attain the aspirational ten percent (10%) goal. We encourage all Bidders even MWBE/HUBs to obtain the aspirational goal where sub-contracting and supplier opportunities exist.

| MWBE FIRM | OWNERSHIP STATUS | ADDRESS | WORK TYPE |
|-----------|------------------|---------|-----------|
| | | | |
| | | | |
| | | | |

VI. PROPOSAL SUBMITTAL

Contractors interested in performing the services requested must submit the following information:

1. One (1) original copy and one (1) photocopy **or** digital (**flash drive**) of their RFP response including name, address, and phone number of contact person. RFP responses shall be mailed or hand delivered to:

City of Rocky Mount
Purchasing - Tracy Johnson
Attn: RFP #320-240323TJ
331 S. Franklin Street
Rocky Mount, NC 27802

All RFP responses shall be received no later than the date and time noted in the schedule on page 4. RFP responses may be sent via US Mail, FedEx, UPS, or hand delivered. **Faxed or emailed RFP responses will not be accepted.** Bids will be opened publicly and read aloud in the atrium located on the first floor of the City Hall.

BID BOND

A Bid Security in the amount of five percent (5%) of the Bid must accompany each Bid a \$500,000.00 or more. A 100% Performance Bond and 100% Payment Bond will be required from the successful bidder or any bids \$300,000.00 or more.

VII. REFERENCES

Vendors shall provide at least three (3) different references for which your company has provided Services of similar size and scope to that proposed herein. The city of Rocky Mount may contact these users to determine the Services provided are substantially similar in scope to those proposed herein and Contractor’s performance has been satisfactory. The information obtained shall be considered in the evaluation of the quote. If city of Rocky Mount reference is provided it cannot be counted towards your three (3) required references but may be included in addition to.

| COMPANY NAME | CONTACT NAME | TELEPHONE NUMBER |
|--------------------------------------|--------------|------------------|
| | | |
| | | |
| | | |
| Optional: City of Rocky Mount | | |

ATTACHMENT A: PROPOSAL/ACCEPTANCE FORM

For

Sewer Main Relining FY23

RFP 320-240323TJ

| STREET OR ADDRESS | COST |
|------------------------------------|-----------|
| US64 ALT WEST HWY & SPRINGFIELD RD | \$ |
| US64 ALT WEST HWY & SPRINGFIELD RD | \$ |
| 900 SPRINGFIELD RD | \$ |
| SPRINGFIELD RD | \$ |
| SPRINGFIELD RD | \$ |
| SPRINGFIELD RD | \$ |
| SPRINGFIELD RD | \$ |
| HUNTING LODGE DR | \$ |
| HUNTING LODGE DR | \$ |
| FALCON RD | \$ |
| FALCON RD | \$ |
| FALCON RD | \$ |
| FALCON RD | \$ |
| CRESTVIEW RD | \$ |
| CRESTVIEW RD | \$ |
| CRESTVIEW RD | \$ |
| CRESTVIEW RD | \$ |
| TOTAL COST | \$ |

Respectively submitted this _____ day of _____ 20_____

(Contractor's Name)

Federal ID#: _____

By: _____

Witness: _____

Title: _____

(Owner, partner, corp. Pres. Or Vice President)

(Proprietorship or Partnership)

Address: _____

Attest: *(corporation)*

Email Address: _____

(Corporate Seal)

By: _____ License #: _____

Title: _____
(Corporation, Secretary. /Ass't Secretary.)

ATTACHMENT B: ACCEPTED BY THE CITY OF ROCKY MOUNT

For

Sewer Main Relining FY23

320-240323TJ

City of Rocky Mount

Total amount of accepted by the owner, included base proposal and proposal alternates: _____

BY: _____ TITLE: Purchasing Manager

Date: _____

PRE-AUDIT

This instrument has been preaudited in the manner required by the Budget and Fiscal Control Act.

Finance Director

Date

ATTACHMENT C: GENERAL CONDITIONS

1. GENERAL

It is understood and agreed that by submitting a proposal that the Contractor has examined these contract documents, drawings and specifications and has visited the site of the Work and has satisfied himself relative to the Work to be performed.

2. DEFINITIONS

Owner: "Owner" shall mean, The City of Rocky Mount

Contractor: "Contractor" shall mean the entity that will provide the services for the Owner.

Designer: The **designer(s)** are those referred to within this contract, or their authorized representatives. The Designer(s), as referred to herein, shall mean architect and/or engineer responsible for preparing the project plans and specifications. They will be referred to hereinafter as if each were of the singular number, masculine gender.

Contract Documents: "Contract Documents" shall consist of the Notice to Bidders; General Conditions of the Contract; special conditions if applicable; Supplementary General Conditions; the drawing and specifications, including all bulletins, addenda or other modifications of the drawings and specifications incorporated into the documents prior to their execution; the proposal; the contract; the performance bond if applicable; and insurance certificates. All these items together form the contract.

INTENT AND EXECUTION OF DOCUMENTS

The drawings and specifications are complementary, one to the other. That which is shown on the drawings or called for in the specifications shall be as binding as if it were both called for and shown. The intent of the drawings and specifications is to establish the scope of all labor, materials, transportation, equipment, and any and all other things necessary to provide a complete job. In case of discrepancy or disagreement in the Contract Documents, the order of precedence shall be Form of Contract, specifications, large-scale detail drawings, small-scale drawings.

In such cases where the nature of the work requires clarification by the Designer/ Owner, the Designer/ Owner shall furnish such clarification. Clarifications and drawings shall be consistent with the intent of the Contract Documents and shall become a part thereof.

4. AS-BUILT MARKED-UP CONSTRUCTION DOCUMENTS

Contractor shall provide one complete set of legible "as-built" marked-up construction drawings and specifications recording any and all changes made to the original design during the course of construction. In the event no changes occurred, submit construction drawings and specifications set with notation "No Changes." The Designer/Owner must receive "As-built" marked-up construction drawings and specifications before the final pay request can be processed.

5. SUBMITTAL DATA

The Contractor awarded the contract shall submit all specified submittals to the Owner/Designer. A minimum number of copies as specified by the owner, of all required submittal data pertaining to construction, performance and general dimensional criteria of the components listed in the technical specifications shall be submitted. No material or equipment shall be ordered or installed prior to written approval of the submittals by the Designer/Owner. Failure to provide submittal data for review on equipment listed in the technical specifications will result in removal of equipment by the Contractor at his expense if the equipment is not in compliance with the specifications.

6. SUBSTITUTIONS

In accordance with the provisions of G.S. 133-3, material, product, or equipment substitutions proposed by the bidders to those specified herein can only be considered during the bidding phase until five (5) days prior to the receipt of proposals or by the date specified in the preproposal conference, when submitted to the Designer with

sufficient data to confirm material, product, or equipment equality. Proposed substitutions submitted after this time will be considered only as potential change order.

Submittals for proposed substitutions shall include the following information:

- a. Name, address, and telephone number of manufacturer and supplier as appropriate.
- b. Trade name, model, or catalog designation.
- c. Product data including performance and test data, reference standards, and technical descriptions of material, product, or equipment. Include color samples and samples of available finishes as appropriate.
- d. Detailed comparison with specified products including performance capabilities, warranties, and test results.
- e. Other pertinent data including data requested by the Designer to confirm product equality.

If a proposed material, product, or equipment substitution is deemed equal by the Designer to those specified, all bidders of record will be notified by Addendum.

7. WORKING DRAWINGS AND SPECIFICATIONS AT THE JOB SITE

The contractor shall maintain, in readable condition at his job site one complete set of working drawings and specifications for his work including all shop drawings. Such drawings and specifications shall be available for use by the owner, designer or his authorized representative.

The contractor shall maintain at the job site, a day-to-day record of work-in-place that is at variance with the contract documents. Such variations shall be fully noted on project drawings by the contractor and submitted to the designer upon project completion and no later than 30 days after acceptance of the project.

8. MATERIALS, EQUIPMENT, EMPLOYEES

- a. The contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, fuel, heat, sanitary facilities, water, scaffolding and incidentals necessary for the completion of his work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents.
- b. All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as stipulated in written standards of recognized organizations or institutes of the respective trades except as exceeded or qualified by the specifications.
- c. Upon notice, the contractor shall furnish evidence as to quality of materials.
- d. Products are generally specified by ASTM or other reference standard and/or by manufacturer's name and model number or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product and manufacturer combination listed. However, the contractor shall be aware that the cited examples are used only to denote the quality standard of product desired and that they do not restrict proposers to a specific brand, make, manufacturer or specific name; that they are used only to set forth and convey to proposers the general style, type, character, and quality of product desired; and that equivalent product will be acceptable. Request for substitution of materials, items, or equipment shall be submitted to the designer for approval or disapproval; the designer prior to the opening of proposals

shall make such approval or disapproval. Alternate materials may be requested after the award if it can clearly be demonstrated that it is an added benefit to the owner and the designer and owner approves.

- e. The designer is the judge of equality for proposed substitution of products, materials or equipment.
- f. If at any time during the construction and completion of the work covered by these contract documents, the language, conduct, or attire of any workman of the various crafts be adjudged a nuisance to the owner or designer, or if any workman be considered detrimental to the work, the contractor shall order such parties removed immediately from grounds.
- g. The Contractor shall cooperate with the designer and the owner in coordinating construction activities.
- h. The Contractor shall maintain qualified personnel and effective supervision at the site at all times during the project and exercise the appropriate quality control program to ensure compliance with the project drawings and specifications. The designer is responsible for determining compliance with the drawings and specifications.

9. CODES, PERMITS AND INSPECTIONS

The Contractor shall obtain the required permits, if required, give all notices, and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work under this contract. If the Contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the Designer in writing. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules and regulations, and without such notice to the Owner, he shall bear all cost arising there from.

All work under this contract shall conform to the current North Carolina Building Code and other state and national codes as are applicable.

All fire alarm work shall be in accordance with the latest State Construction Office (SCO) *Guidelines for Fire Alarm Installation* (NFPA72). Where the contract documents are in conflict with the SCO guidelines, the SCO guidelines shall govern. The Contractor shall be responsible for all the costs for the correction of the work where he installs it in conflict with the latest edition of the SCO *Guidelines for Fire Alarm Installation*.

*Inspection and certification of compliance by local authorities is necessary if an architect or engineer was not employed on the project.

10. PROTECTION OF WORK, PROPERTY, THE PUBLIC AND SAFETY

- a. The contractors shall be jointly responsible for the entire site and the building or construction of the same and provide all the necessary protections, as required by the owner or designer, and by laws or ordinances governing such conditions. They shall be responsible for any damage to the owner's property or of that of others on the job, by them, their personnel, or their subcontractors, and shall make good such damages. They shall be responsible for and pay for any damages caused to the owner. All contractors shall have access to the project at all times, except as indicated in the Supplemental General Conditions.
- b. The contractor shall provide cover and protect all portions of the structure when the work is not in progress, provide and set all temporary roofs, covers for doorways, sash and windows, and all other materials necessary to protect all the work on the building, whether set by him, or any of the subcontractors. Any work damaged through the lack of proper protection or from any other cause, shall be repaired or replaced without extra cost to the owner.
- c. No fires of any kind will be allowed inside or around the operations during the course of construction without special permission from the designer and owner.

- d. The contractor shall protect all trees and shrubs designated to remain in the vicinity of the operations by building substantial boxes around it. He shall barricade all walks, roads, etc., as directed by the designer to keep the public away from the construction. All trenches, excavations or other hazards in the vicinity of the work shall be well barricaded and properly lighted at night.
- e. The contractor shall provide all necessary safety measures for the protection of all persons on the job, including the requirements of the A.G.C. *Accident Prevention Manual in Construction*, as amended, and shall fully comply with all state laws or regulations and North Carolina State Building Code requirements to prevent accident or injury to persons on or about the location of the work. He shall clearly mark or post signs warning of hazards existing, and shall barricade excavations, elevator shafts, stairwells and similar hazards. He shall protect against damage or injury resulting from falling materials and he shall maintain all protective devices and signs throughout the progress of the work.
- f. The contractor shall adhere to the rules, regulations and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction Industry (Title 29, Code of Federal Regulations, Part 1926, published in Volume 39, Number 122, Part II, June 24, 1974, *Federal Register*), and revisions thereto as adopted by General Statutes of North Carolina 95-126 through 155.
- i. In the event of emergency affecting the safety of life, the protection of work, or the safety of adjoining properties, the contractor is hereby authorized to act at his own discretion, without further authorization from anyone, to prevent such threatened injury or damage. Any compensation claimed by the contractor on account of such action shall be determined as provided for under Article 13(b).
- j. Any and all costs associated with correcting damage caused to adjacent properties of the construction site or staging area shall be borne by the contractor. These costs shall include but not be limited to flooding, mud, sand, stone, debris, and discharging of waste products.

11. SUBCONTRACTS AND SUBCONTRACTORS

The Contractor is and remains fully responsible for his own acts or omissions as well as those of any subcontractor or of any employee of either. The Contractor agrees that no contractual relationship exists between the subcontractor and the Owner in regard to the contract, and that the subcontractor acts on this work as an agent or employee of the Contractor.

12. CONTRACTOR-SUBCONTRACTOR RELATIONSHIPS

The Contractor agrees that the terms of these Contract Documents shall apply equally to each Subcontractor as to the Contractor, and the Contractor agrees to take such action as may be necessary to bind each Subcontractor to these terms. The Contractor further agrees to conform to the Code of Ethical Conduct as adopted by the Associated General Contractors of America, Inc., with respect to Contractor-Subcontractor relationships. The Owner reserves the right to limit the amount of portions of work to be subcontracted as hereinafter specified.

13. CHANGES IN THE WORK AND CLAIMS FOR EXTRA COST

- a. The owner may have changes made in the work covered by the contract. These changes will not invalidate and will not relieve or release the contractor from any guarantee given by him pertinent to the contract provisions. These changes will not affect the validity of the guarantee bond and will not relieve the surety or sureties of said bond. All extra work shall be executed under conditions of the original contract.
- b. Except in an emergency endangering life or property, no change shall be made by the contractor except upon receipt of approved_change order from the designer, countersigned by the owner authorizing such change. No claim for adjustments of the contract price shall be valid unless this procedure is followed. Should a claim for extra compensation by the contractor be denied by the designer or the owner, the contractor may pursue his claim in accordance with G.S. 143-135.3.

In the event of emergency endangering life or property, the contractor may be directed to proceed on a time and material basis whereupon the contractor shall proceed and keep accurately on such

form as specified by the designer or owner, a correct account of costs together with all proper invoices, payrolls and supporting data. Upon completion of the work the change order will be prepared as outlined under either Method "c(1)" or Method "c(2)" or both.

- c. In determining the values of changes, either additive or deductive, contractors are restricted to the use of the following methods:
1. Where the extra work involved is covered by unit prices quoted in the proposal, or subsequently agreed to by the Contractor, Designer, an Owner the value of the change shall be computed by application of unit prices based on quantities, estimated or actual as agreed of the items involved, except in such cases where a quantity exceeds the estimated quantity allowance in the contract by one hundred percent (100%) or more. In such cases, either party may elect to proceed under subparagraph c (2) herein. If neither party elects to proceed under c (2), then unit prices shall apply.
 2. The contracting parties shall negotiate and agree upon the equitable value of the change prior to issuance of the change order, and the change order shall stipulate the corresponding lump sum adjustment to the contract price.
- d. Under Paragraph "b" and Methods "c(2)" above, the allowances for overhead and profit combined shall be as follows: all contractors (the single contracting entity (prime), his subcontractors (1st tier subs), or their sub-subcontractors (2nd tier subs, 3rd tier subs, etc.) shall be allowed a maximum of 10% on work they each self-perform; the prime contractor shall be allowed a maximum of 5% on contracted work of his 1st tier sub; 1st tier, 2nd tier, 3rd tier, etc. contractors shall be allowed a maximum of 2.5% on the contracted work of their subs. ; Under Method "c(1)", no additional allowances shall be made for overhead and profit. In the case of deductible change orders, under Method "c(2)" and Paragraph (b) above, the contractor shall include no less than five percent (5%) profit, but no allowances for overhead.
- e. The term "net cost" as used herein shall mean the difference between all proper cost additions and deductions. The "cost" as used herein shall be limited to the following:
1. The actual costs of materials and supplies incorporated or consumed as part of the work;
 2. The actual costs of labor expended on the project site; labor expended in coordination, change order negotiation, record document maintenance, shop drawing revision or other tasks necessary to the administration of the project are considered overhead whether they take place in an office or on the project site.
 3. The actual costs of labor burden, limited to the costs of social security (FICA) and Medicare/Medicaid taxes; unemployment insurance costs; health/dental/vision insurance premiums; paid employee leave for holidays, vacation, sick leave, and/or petty leave, not to exceed a total of 30 days per year; retirement contributions; worker's compensation insurance premiums; and the costs of general liability insurance when premiums are computed based on payroll amounts; the total of which shall not exceed thirty percent (30%) of the actual costs of labor;
 4. The actual costs of rental for tools, excluding hand tools; equipment; machinery; and temporary facilities required for the work;
 5. The actual costs of premiums for bonds, insurance, permit fees and sales or use taxes related to the work.
- Overtime and extra pay for holidays and weekends may be a cost item only to the extent approved by the owner.
- f. Should concealed conditions be encountered in the performance of the work below grade, or should concealed or unknown conditions in an existing structure be at variance with the conditions

indicated by the contract documents, the contract sum and time for completion may be equitably adjusted by change order upon claim by either party made within thirty (30) days after the condition has been identified. The cost of such change shall be arrived at by one of the foregoing methods. All change orders shall be supported by a unit cost breakdown showing method of arriving at net cost as defined above.

- g. Change orders shall be submitted by the contractor in writing to the owner/designer for review and approval. The contractor will provide such proposal and supporting data in suitable format. The designer shall verify correctness. Delay in the processing of the change order due to lack of proper submittal by the contractor of all required supporting data shall not constitute grounds for a time extension or basis of a claim. Within fourteen (14) days after receipt of the contractor's accepted proposal including all supporting documentation required by the designer, the designer shall prepare the change order and forward to the contractor for his signature or otherwise respond, in writing, to the contractor's proposal. Within seven (7) days after receipt of the change order executed by the contractor, the designer shall, certify the change order by his signature, and forward the change order and all supporting data to the owner for the owner's signature. The owner shall execute the change order, within seven (7) days of receipt.

At the time of signing a change order, the contractor shall be required to certify as follows:

"I certify that my bonding company will be notified forthwith that my contract has been changed by the amount of this change order, and that a copy of the approved change order will be mailed upon receipt by me to my surety."

- h. A change order, when issued, shall be full compensation, or credit, for the work included, omitted or substituted. It shall show on its face the adjustment in time for completion of the project as a result of the change in the work.
- i. If, during the progress of the work, the owner requests a change order and the contractor's terms are unacceptable, the owner, may require the contractor to perform such work on a time and material basis whereupon the contractor shall proceed and keep accurately on such form as specified by the Designer or owner, a correct account of cost together with all proper invoices, payrolls and supporting data. Upon completion of the work a change order will be prepared with allowances for overhead and profit per paragraph d. above and "net cost" and "cost" per paragraph e. above. Without prejudice, nothing in this paragraph shall preclude the owner from performing or to have performed that portion of the work requested in the change order.

14. ANNULMENT OF CONTRACT

If the contractor fails to begin the work under the contract within the time specified, or the progress of the work is not maintained on schedule, or the work is not completed within the time specified, or fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure the prompt completion of said work, or shall perform the work unsuitably or shall discontinue the prosecution of the work, or if the contractor shall become insolvent or be declared bankrupt or commit any act of bankruptcy or insolvency, or allow any final judgment to stand against him unsatisfied for a period of forty-eight (48) hours, or shall make an assignment for the benefit of creditors, or for any other cause whatsoever shall not carry on the work in an acceptable manner, the owner may give notice in writing, sent by certified mail, return receipt requested, to the contractor and his surety (if applicable) of such delay, neglect or default, specifying the same, and if the contractor within a period of seven (7) days after such notice shall not proceed in accordance therewith, then the owner shall, declare this contract in default, and, thereupon, the surety shall promptly take over the work and complete the performance of this contract in the manner and within the time frame specified. In the event the contractor, or the surety (if applicable) shall fail to take over the work to be done under this contract within seven (7) days after being so notified and notify the owner in writing, sent by certified mail, return receipt requested, that he is taking the same over and stating that he will diligently pursue and complete the same, the owner shall have full power and authority, without violating the contract, to take the prosecution of the work out of the hands of said contractor, to appropriate or use any or all contract materials and equipment on the grounds as may be suitable and acceptable and may enter into an agreement, either by public letting or negotiation, for the completion of said contract according to the terms and provisions thereof or use such other methods as in his opinion shall be required for the completion of said contract

in an acceptable manner. All costs and charges incurred by the owner, together with the costs of completing the work under contract, shall be deducted from any monies due or which may become due said contractor and surety (if applicable). In case the expense so incurred by the owner shall be less than the sum which would have been payable under the contract, if it had been completed by said contractor, then the said contractor and surety (if applicable) shall be entitled to receive the difference, but in case such expense shall exceed the sum which would have been payable under the contract, then the contractor and the surety (if applicable) shall be liable and shall pay to the owner the amount of said excess.

15. TERMINATION FOR CONVENIENCE

- a. Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience, after notification to the contractor in writing via certified mail. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.
- b. Upon such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement; plus, (2) such other costs actually incurred by Contractor as approved by Owner; (3) plus ten percent (10%) of the cost of the balance of the work to be completed for overhead and profit. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Contractor prior to the date of the termination of this Agreement. Contractor shall not be entitled to any claim or claim of lien against Owner for any additional compensation or damages in the event of such termination and payment.

16. OWNER'S RIGHT TO DO WORK

If, during the progress of the work or during the period of guarantee, the contractor fails to prosecute the work properly or to perform any provision of the contract, the owner, after seven (7) days' written notice sent by certified mail, return receipt requested, to the contractor from the designer, may perform or have performed that portion of the work. The cost of the work may be deducted from any amounts due or to become due to the contractor, such action and cost of same having been first approved by the designer. Should the cost of such action of the owner exceed the amount due or to become due the contractor, then the contractor or his surety, or both, shall be liable for and shall pay to the owner the amount of said excess.

17. REQUESTS FOR PAYMENT

Contractor will be paid at completion of the project. Invoices shall include detailed line item information. At a minimum, the following fields shall be included on all invoices: Vendor's Billing Address, Customer Account Number, NC Contract Number, Order Date, Buyers Order Number, Manufacturer Part Numbers, Vendor Part Numbers, Item Descriptions, Price, Quantity, and Unit of Measure.

18. PAYMENTS WITHHELD

The designer with the approval of the Owner may withhold payment for the following reasons:

- a. Faulty work not corrected.
- b. The unpaid balance on the contract is insufficient to complete the work in the judgment of the designer.
- c. To provide for sufficient contract balance to cover liquidated damages that will be assessed.
- d. The secretary of the Department of Administration may authorize the withholding of payment for the following reasons:
 - i. Claims filed against the contractor or evidence that a claim will be filed.

ii. Evidence that subcontractors have not been paid.

When grounds for withholding payments have been removed, payment will be released. Delay of payment due the contractor without cause will make owner liable for payment of interest to the contractor as provided in G.S. 143-134.1. As provided in G.S. 143-134.1(e), the owner shall not be liable for interest on payments withheld by the owner for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

19. MINIMUM INSURANCE REQUIREMENTS

Requirements. Providing and maintaining adequate insurance coverage is a material obligation of the Contractor and is of the essence of The Contract. All such insurance shall meet all laws of the City of Rocky Mount. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The Contractor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or The Contract. The limits of coverage under each insurance policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under the Contract.

Insurance. Contractor agrees to maintain **Commercial General Liability** in amount of \$1,000,000 each occurrence, \$1,000,000 each occurrence in Personal & Advertising Injury with \$2,000,000 General Aggregate, and \$2,000,000 Products/Completed Operations Aggregate. Contractor shall maintain \$1,000,000 in **automobile liability**, and other appropriate insurance, as well as Workers Compensation in the required statutory amount of \$500,000.00 for all employees participating in the provision of services under this Contract. Contractor also agrees to maintain \$1,000,000 in **professional liability insurance** if the Contractor is engaged in a professional service pursuant to this Contract. The City of Rocky Mount shall be named by endorsement as an additional insured on the General and Automobile Liability policies. Certificates of such insurance shall be furnished by Contractor to the City and shall contain an endorsement to provide the City at least 30 days' written notice of any intent to cancel or terminate by either Contractor or the insuring company. Failure to furnish insurance certificates or maintain such insurance shall be a default under this contract and shall be grounds for immediate termination of this Contract.

20. ASSIGNMENT

No assignment of the Contractor's obligations or the Contractor's right to receive payment hereunder shall be permitted. However, upon written request approved by the Owner and solely as a convenience to the Contractor, the Owner may: (1) forward the Contractor's payment check directly to any person or entity designated by the Contractor, and (2) include any person or entity designated by Contractor as a joint payee on the Contractor's payment check. In no event shall such approval and action obligate the Owner to anyone other than the Contractor, and the Contractor shall remain responsible for fulfillment of all contract obligations.

21. CLEANING UP AND RESTORATION OF SITE

The Contractor shall keep the sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the project, the Contractor shall thoroughly clean the sites, and completely prepare the project and site for use by the Owner.

At the end of construction, the contractor shall oversee and implement the restoration of the construction site to its original state. Restoration includes but not limited to walks, drives, lawns, trees and shrubs, corridors, stairs and other elements shall be repaired, cleaned or otherwise restored to their original state.

22. GUARANTEE

The contractor shall unconditionally guarantee materials and workmanship against patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve (12) months following the final acceptance of the work and shall replace such defective materials or workmanship without cost to the owner.

Where items of equipment or material carry a manufacturer's warranty for any period in excess of twelve (12) months, then the manufacturer's warranty shall apply for that particular piece of equipment or material. The contractor shall replace such defective equipment or materials, without cost to the owner, within the manufacturer's warranty period.

Additionally, the owner may bring an action for latent defects caused by the negligence of the contractor, which is hidden or not readily apparent to the owner at the time of beneficial occupancy or final acceptance, whichever occurred first, in accordance with applicable law.

Guarantees for roofing workmanship and materials shall be stipulated in the specification's sections governing such roof, equipment, materials, or supplies.

23. STANDARDS

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate State inspector which customarily requires the label or re-examination listing or identification marking of appropriate safety standard organization, such as the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and/or National Electrical Manufacturers Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and State and federal requirements relating to clean air and water pollution.

All equipment and products must be independent third party tested and labeled (UL, FM, or CTS) before final connections to Owner services or utilities.

24. EQUAL OPPORTUNITY CLAUSE

The non-discrimination clause contained in Section 202 (Federal) Executive Order 11246, as amended by Executive Order 11375, relative to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin, and the implementing rules and regulations prescribed by the secretary of Labor, are incorporated herein.

The contractor(s) agree not to discriminate against any employee or applicant for employment because of physical or mental disabilities in regard to any position for which the employee or applicant is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with such disabilities without discrimination based upon their physical or mental disability in all employment practices.

25. MINORITY BUSINESS PARTICIPATION

GS 143-128.2 establishes a ten percent (10%) goal for participation by minority businesses valued \$100,000.00 or more for each State funded building project.

For construction contracts with a value of less than \$300,000, the Owner has the responsibility to make a good faith effort to solicit minority proposals and to attain the goal. The contractor shall include with his proposal a completed Identification of HUB Certified/Minority Business Participation form. Contractor shall submit completed Appendix F MBE Documentation for Contract Payments form with final payment request.

For construction contracts with a value of \$300,000 or greater, the contractor shall comply with the document *Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts* including Identification of Minority Business Participation, Affidavits A, B, C, and D, and Appendix E. These forms provided herein are hereby incorporated and made a part of this contract. Forms can be found at <https://rockymountnc.gov/services-finance-vendor-registration/>.

26. MINORITY BUSINESS RESOLUTION

The City Council Minority Business Resolution establishes a ten percent (10%) goal for participation by minority business valued \$100,000.00 or more for each City building project.

27. ACCESS TO PERSONS AND RECORDS

The State Auditor shall have access to persons and records as a result of all contracts or grants entered into by the Owner in accordance with General Statute 147-64.7. The Owner's internal auditors shall also have the right to access and copy the Contractor's records relating to the Contract and Project during the term of the Contract and within two years following the completion of the Project/close-out of the Contract to verify accounts, accuracy, information, calculations and/or data affecting and/or relating to Contractor's requests for payment, requests for change orders, change orders, claims for extra work, requests for time extensions and related claims for delay/extended general conditions costs, claims for lost productivity, claims for lost efficiency, claims for idle equipment or labor, claims for price/cost escalation, pass-through claims of subcontractors and/or suppliers, and/or any other type of claim for payment or damages from Owner and/or its project representatives.

28. GOVERNING LAWS

This contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina, without regard to its conflict of laws rules, and within which State all matters, whether sounding in Contract or tort or otherwise, relating to its validity, construction, interpretation and enforcement shall be determined.

ATTACHMENT D: SUPPLEMENTARY GENERAL CONDITIONS

TIME OF COMPLETION

The Contractor shall commence work to be performed under this Contract on a date to be specified in written order from the Designer/Owner and shall fully complete all work hereunder within **60 days** from the Notice to Proceed. The project over run, liquidated damages, shall be \$500.00 per day.

If the Contractor is delayed at any time in the progress of his work by any act or negligence of the Owner, his employees or his separate contractor, by changes ordered in the work; by abnormal weather conditions; by any causes beyond the Contractor's control or by other causes deemed justifiable by Owner, then the contract time may be reasonably extended in a written order from the Owner upon written request from the contractor within ten days following the cause for delay. Time extensions for weather delays, acts of God, labor disputes, fire, delays in transportation, unavoidable casualties or other delays which are beyond the control of the Owner do not entitle the Contractor to compensable damages for delays. Any contractor claim for compensable damages for delays is limited to delays caused solely by the owner or its agents.

CONSTRUCTION SCHEDULE

Project start date will be [REDACTED], 202__ with a completion date of [REDACTED], 202__.
Contractor to provide a schedule for how they intend to complete the project within the proposed project timeframe.

PAYMENTS

Payment will be provided following the approved application and certification for payment throughout the project.

UTILITIES

Owner may provide certain utilities such as power or water with connections and extensions by the Contractor.

USE OF SITE

May be restricted. Work hours may be limited. Parking permits may be required.

ATTACHMENT E: SUPPLEMENTAL VENDOR INFORMATION

HISTORICALLY UNDERUTILIZED BUSINESSES

Historically Underutilized Businesses (HUBs) consist of minority, women and disabled business firms that are at least fifty-one percent owned and operated by an individual(s) of the categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled.

Pursuant to G.S. 143B-1361(a), 143-48 and 143-128.4, the State invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled. This includes utilizing subcontractors to perform the required functions in this RFP. Any questions concerning NC HUB certification, contact the [North Carolina Office of Historically Underutilized Businesses](#) at (919) 807-2330. The Vendor shall respond to question #1 and #2 below.

- a) Is Vendor a Historically Underutilized Business? **Yes** **No**
- b) Is Vendor Certified with North Carolina as a Historically Underutilized Business? **Yes** **No**

If so, state HUB classification:

VENDOR REGISTRATION

New vendors must complete a vendor registration form using the link below. If you are a current vendor that has not completed the online vendor registration also complete the form. Once registration is complete email a copy of your W9 an E-Verify Affidavit to the contact person listed on the coversheet.

<https://rockymountnc.gov/services-finance-vendor-registration/>

ATTACHMENT F: PROJECT SPECIAL PROVISIONS

The Bidder has carefully examined the location of the proposed work to be known as RFP 320-120123AG-REBID; 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 City of Rocky Mount 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. 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 City of Rocky Mount Standard Specifications and 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. Engineer is herein defined as the Director of Public Works or their designee.

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 the project, 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 the City of Rocky Mount, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

The City of Rocky Mount Standard Specifications and the published volume entitled North Carolina Department of Transportation, Rocky Mount, 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 City of Rocky Mount Purchasing Manager or such other person as may be designated to sign for the City of Rocky Mount. The conditions and provisions herein cannot be changed except over the signature of the said Purchasing Manager, Finance Director or Director of Public Works.

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 City of Rocky Mount 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.

Contingency Items (CI) will only be paid if directed by the Engineer, Project Manager or Construction Inspector.

DOCUMENTS:

The following documents are herein incorporated into the project documents:

Project Plans: City Hall Parking Lot Renovations.

In addition to the plans and general specifications contained herein, the following are herein made part of this Scope of Work by reference.

- City of Rocky Mount Standard Details
- City of Rocky Mount Standard Specifications
- NCDOT Standard Specifications for Roads and Bridges, latest edition
- NCDOT Standard Drawings, latest edition

BOND REQUIREMENTS:

Bid Bond. For projects \$500,000.00 or more this bid shall be a bid bond secured by a corporate surety, or certified check payable to the order of the City of Rocky Mount, 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.as provided in the Standard Specifications; otherwise said deposit will be returned to the Bidder.

Contract Payment and Performance Bonds are required. Provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received.

CONTRACT TIME AND LIQUIDATED DAMAGES:

Contract time for substantial completion is **60 days** from Notice to Proceed.

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 **Five Hundred Dollars (\$500) per calendar day.**

NO MAJOR CONTRACT ITEMS:

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

TWELVE MONTH GUARANTEE:

(7-15-03)

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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 City of Rocky Mount. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the City of Rocky Mount, 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 City of Rocky Mount’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. the City of Rocky Mount would be afforded the same warranty as provided by the Manufacturer.

This guaranteed 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 City of Rocky Mount 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.

MOBILIZATION

The work covered for mobilization consists of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings, and other facilities necessary for work on the project; and for all other work and operations which must be performed, or costs incurred prior to beginning work on the various items on the project site.

All work covered by this section shall not be measured but shall be paid for at the lump sum contract price for mobilization. A lump sum payment up to three percent (3%) of the total bid price (to include all bonds, insurance, move-on expenses, etc.) will be allowed for 'mobilization' as a progress payment line item. Up to half of the cost for mobilization will be considered in the initial payment request provided that cost documentation suitable to the ENGINEER is furnished by the CONTRACTOR. Any outstanding balance of mobilization line item will be payable when the Project Work is ten percent (10%) complete as indicated by the approved progress payments.

PROSECUTION OF WORK:

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 \$200.00 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.

CONSTRUCTION PROGRESS SCHEDULE AND BI-WEEKLY MEETINGS

The Contractor shall provide, at the pre-construction conference, a completed progress schedule. The schedule shall be kept up to date and presented with each month's billing information and shall be made available at the bi-weekly progress meetings and at other times as may be deemed necessary by the Engineer or his representative. The Contractor will be represented at bi-weekly progress meetings during the construction of this project. The meetings will be held at the project site or in the City offices as determined by the City.

UNIT BID PRICE

The unit bid price on the items in this contract shall include all materials, labor, equipment, and incidentals necessary to satisfactorily install said items completely in place and accepted unless otherwise mentioned in this contract document.

POINT OF CONTACT

The Contractor upon start of construction shall provide the Engineer with names, addresses, and telephone numbers of two people to be contacted after office hours in case of emergency.

MATERIAL TICKETS

The Contractor shall turn in all material tickets for the purpose of payment to the Project Inspector on a daily basis.

TRENCHES

All trenches shall be backfilled and made safe at the end of each workday. Payment for installation of utility and drainage lines that requires open cut to existing pavement shall include the cost of pavement for repairs (including pavement saw cut and removal) as incidental to the installation of the utility. No separate payment will be made for this work unless otherwise specifically mentioned in this contract.

SUBSURFACE INVESTIGATION

The Contractor shall make his/her own subsurface investigations. Any information obtained by the City as a result of its own subsurface investigations will be made available upon request. This information is provided for informational purposes only and shall not relieve the Contractor of responsibility for making his own investigations.

CONSTRUCTION STAKING

The CONTRACTOR shall furnish all survey and construction staking for this project.

The Contractor shall set provide construction stakes, lines and grades necessary to construct the proposed project. The contractor will locate and mark right-of-way limits and construction easements (if applicable) within the work area. All construction staking shall be performed under the responsible charge of a North Carolina Professional Land Surveyor.

GRADING, SHOULDERS AND SLOPES

Shoulders and slopes shall be free of all stone and clods that exceed one inch in diameter. Fine grading (raking) shall take place just before seeding and mulching. No separate payment will be made for shoulder construction or material for shoulder construction as all work necessary to complete the work will be considered incidental to other items in the contract unless otherwise provided in the contract.

TRAFFIC CONTROL

The Contractor shall provide all traffic control devices and signs to warn the traveling public in accordance with the latest Manual on Uniform Traffic Control Devices (MUTCD). Two-way traffic shall be maintained at all times, unless otherwise required by the traffic control plan.

MATERIALS AND EQUIPMENT STORAGE AND PARKING

When vehicles, equipment, and materials are not being actively used they shall be moved at least 30 feet away from the edge of any travel way open to traffic (or as directed by the Engineer). All debris shall be immediately moved to a location at least 30 feet from the edge of any travel way open to traffic. If vehicles, equipment, materials, and debris are protected by guardrail or barrier, a 5-foot minimum offset from the rail shall be used.

PERSONNEL PARKING

All personnel involved with construction operations shall not park their personal vehicles within the right-of-way of the project limits for the duration of the construction project. The Contractor shall furnish a parking area that is located off the project limits. The Contractor shall be responsible for daily transportation of all employees to and from the provided parking area and the project site. There will be no direct payment for the work cover by this provision. Payment at the contract unit prices for the various items in the contract will be full compensation for all work covered by this provision.

SIDEWALK, DRIVEWAY, CURB & GUTTER REMOVAL AND REPLACEMENT

Care should be taken during construction to avoid damaging the existing sidewalk, curb & gutter and pavement outside the immediate construction area. If damaged, it shall be replaced in accordance with the NCDOT Standard Specifications for Roads and Structures/City of Rocky Mount Standards, as determined by the Engineer, without extra cost to the City. Prior to construction, the Contractor shall inspect the site and report to the Engineer any damages existing before construction. The Contractor shall be advised that when a portion of any area of concrete driveways, curb and gutter and pavement must be removed, all areas to be removed shall be defined by a machine-sawed joint, prior to removal. Saw cut of concrete driveway, curb & gutter and pavement are considered incidental to removal unless otherwise provided in the contract.

MAINTENANCE OF MAILBOXES, SIGNS, MISCELLANEOUS APPURTENANCES

The Contractor shall be required to maintain mailboxes, signs and all miscellaneous appurtenances impacted by construction activities in working order for the duration of construction as directed by the Engineer. Work on the same

items shall be done in a timely manner. No separate payment for work on these items will be made as the work will be considered incidental to other items in the contract unless otherwise mentioned in the contract document.

PROJECT COMPLETION

When the project is nearing completion, the City will obtain comments from the impacted property owners concerning items that are outstanding, yet to be completed. The Engineer will determine which items have sufficient justification to be included in the final punch-list, and the Contractor will be required to complete these items with no additional payment and in a timely fashion.

VIDEOTAPE OF PROJECT SITE

The Contractor will videotape the project site in its entirety before construction begins, with emphasis on properties adjoining the project, drives, trees, appurtenances and other distinguishing features. Appropriate narration will include location and description of property and physical features. The Contractor will provide two copies of the project tape in electronic format to the City. No separate payment will be made for this work, and all associated costs will be considered incidental to other items in the contract.

COORDINATION WITH UTILITY COMPANIES

Utilities as shown on the plans are intended to represent general locations only. It shall be the responsibility of the Contractor, prior to construction, to contact appropriate utility owners and precisely locate utilities that could be affected by the proposed construction. If the utility belongs to the City, the Contractor shall dig sample holes to uncover the utility. The digging of sample holes shall be coordinated with the Engineer who will determine the number of such holes and will schedule the City Surveyor to locate utility vertical and horizontal locations. There is no line item to pay for digging work. Work is considered incidental to other pay items.

The Contractor shall be responsible for repair of any damage to the utility as well as any other damage may be caused due to the disturbance of the utility. The Contractor will not be permitted to submit any claims for delays caused by utility relocation and proposed utility construction. The City has coordinated designs of utility relocation with private utility owner representatives

The Contractor shall call North Carolina One Call to identify underground utilities before starting any digging and/or excavation operation. The Contractor shall be responsible for field verifying heights and locations of power lines and will be required to maintain the distance from the power lines in accordance with local, State and Federal Safety regulations.

PROTECTION OF EXISTING PLANTS

The work under this item shall consist of the protection of selected trees, shrubs, or other woody plants.

The plants protective fencing encompasses the plants to the dripline. Deviations from this must be approved by the Engineer.

Plant protective fencing shall be installed prior to beginning any construction on this project. Plant protective fencing shall be constructed at the locations as directed by the Engineer and in accordance with City specification. The fencing shall be maintained in place until all construction operations in that particular area are complete. At completion, only light grading equipment such as small agricultural tractors shall be allowed on the plants' roots. Fill dirt no deeper than two inches shall be allowed under the limb spread of any plant.

No building materials, dirt, or equipment shall be stored inside the protective fencing. Plants that die as a result of the Contractor's negligence shall be removed and replaced as directed by the Engineer at the Contractor's expenses. The new plant shall be guaranteed for a year, planted in the proper season, and planted with approved arboricultural specifications.

The Contractor will be required to cooperate with other contractors, utility companies and others needing access to the project site as (approved by the engineer) to complete the work.

**SPECIFICATIONS
PARKING LOT SEALCOAT & MAVEMENT MARKING**

1. Scope of the Work:

The work described in these specifications consists of furnishing all labor, materials, tools, equipment and services and performing all work required to (1) apply a sealcoat to public parking lots and (2) to apply markings for parking spaces on the public parking lots.

2. Specifications:

- 2.1 Preparation. Paved surfaces on which the emulsified asphalt sealcoat is to be placed shall be swept and/or blown clean and dry and be free of loose foreign materials before placing the seal coat. Grease, oil and gas spots and stains shall be pre-treated.
- 2.2. Emulsified Asphalt Sealcoat. The sealcoat shall consist of a mixture of emulsified asphalt, mineral aggregate, additives and water properly proportioned, mixed and uniformly spread over the surfaces areas to be treated. The mixture shall contain no asbestos. The cured sealcoat shall have a homogeneous appearance, adhere firmly to the surface and provide a skid-resistant texture. The sealcoat product shall meet ASTM D-2939 standards or equivalent. Sealcoat product shall be approved by the City of Rocky Mount.
- 2.3. Placing the sealcoat. Mixing and spreading equipment shall conform to manufacturer's requirements. Mixes are generally in the range of 100 gallons of emulsified asphalt sealer, 20 gallons of water, 2 gallons of additive and 300-500 pounds of sand (Portland cement or fly ash may be substituted depending on manufacturer's requirements). When properly mixed with water, additive and aggregate, and applied, one gallon of emulsified asphalt sealant will cover 11-13 square yards in one coat of application. All work shall be performed only when the surface and ambient air temperatures are at least 50 degrees F and rising and no rain is anticipated. Ideally, the surface temperature should not drop below 50 degrees in a 24-hour period following application. The mix shall be spread in a manner to fill cracks and achieve a uniform skid-resistant surface. Sealcoat shall be applied in two coats.
- 2.4. Equipment. A mixing machine equipped with a fines feeder, mixer, water pressure system and fog type sprayer and the ability to control the application rate is recommended. The sealcoat application shall be applied by either pressurized spray application equipment or self-propelled squeegee equipment. Pressurized spray equipment shall be capable of spraying pavement sealer with sand (or other mineral aggregate) added. Equipment shall have continuous agitation or mixing capabilities to maintain a homogeneous consistency throughout the application process.
- 2.5. Pavement Markings (Paint). Pavement markings shall be installed in accordance with project plans and City of Rocky Mount dimensional parking standards.
 - 2.5.1. Marking Materials. Duron DU9948500, DU1LZM100, DU1YZ100 or equivalent, applied per manufacturer's instructions.
- 2.6. Pavement Markings (Thermoplastic). Pavement markings shall be installed in accordance with project plans and City of Rocky Mount dimensional parking standards.
 - 2.6.1. Marking Materials shall be white thermoplastic on NCDOT Approved Products List and installed in accordance with manufactures specifications for parking lot applications. Parking lines are to be hot machine applied alkyd/maleic thermoplastic applied 90 mills thick by extrusion only. Product shall be approved by the City of Rocky Mount prior to installation.

3. Method of Measurement

3.1 Upon completion and acceptance of work performed in accordance with the specifications, and upon presentation of invoices showing quantity of emulsified asphalt sealcoat applied, payment shall become due and payable Payment shall constitute full compensation for furnishing, transporting, and placing the emulsified asphalt sealcoat and pavement markings for parking spaces and for all labor, tools, equipment and incidentals necessary to complete the work in full accordance with the specifications.

DIVISION 02 EARTHWORK

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.

UNDERCUT EXCAVATION

Item has been provided as contingency items should it be needed. Undercut unit price shall include removal of existing material and installation/compaction of approved structural fill or aggregate base course. Quantity of undercut shall be cubic yards as measured in place.

BORROW EXCAVATION (Truck Measurement):

(7-1-95) 230 SP2 R57

The borrow material used on this project will be measured for payment by truck measurement as provided in Article 230-5 of the 2018 Standard Specifications.

DIVISION 05 – SUBGRADE, BASES AND SHOULDERS

SHOULDER RECONSTRUCTION PER SHOULDER MILE:

(11-16-10) (Rev. 8-21-12) 560 SP1 R07FR

DESCRIPTION

This work consists of reconstructing each shoulder (including median shoulders as applicable) in accordance with Standard Drawing No. 560.01 and 560.02 of the 2018 Roadway Standard Drawings except that the rate of slope and width will be as shown on typical section, or to the existing shoulder point, whichever is nearer, as long as the desired typical is achieved, and when completed, seeding and mulching. This work shall be performed immediately after the resurfacing operations are complete as directed by the Engineer.

MATERIALS

The Contractor shall furnish all earth material necessary for the construction of the shoulders in accordance with Section 1019 of the 2018 Standard Specifications. All soil is subject to test and acceptance or rejection by the Engineer.

CONSTRUCTION METHODS

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

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

MEASUREMENT AND PAYMENT

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

Borrow Excavation will be paid in accordance with Section 230 of the 2018 Standard Specifications for earth material furnished by the Contractor. The requirements of Article 104-5 of the 2018 Standard Specifications pertaining to revised contract prices for overrunning minor items will not apply to the item of *Borrow Excavation*.

Incidental Stone Base will be measured and paid as provided in Article 545-6 of the 2018 Standard Specifications.

Seeding and Mulching will be measured and paid as shown elsewhere in the contract documents.

Payment will be made under:

| Pay Item | Pay Unit |
|-------------------------|-----------------|
| Shoulder Reconstruction | Shoulder Mile |
| Borrow Excavation | Cubic Yard |

SHOULDER RECONSTRUCTION PROCEDURE:

(7-1-95) (Rev. 10-15-13) 560 SP1 R10BR

Perform shoulder reconstruction immediately following paving operations and in no case allow paving operations to exceed shoulder operations by more than two weeks without written permission of the Engineer. Failure to meet this requirement shall be caused to cease paving operations until it can be met. Place final pavement marking after shoulder reconstruction.

Upon completion of shoulder reconstruction, remove construction signs and use on other projects or store at the county maintenance installation or as directed by the Engineer.

DIVISION 06 – ASPHALT PAVEMENTS

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 \$640.00 per ton. This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **January 1, 2023.**~~

~~<https://connect.ncdot.gov/projects/construction/Lists/Monthly%20Terminal%20Asphalt%20Binder%20%20Fuel%20FOB%20Prices/AllItems.aspx>~~

ASPHALT BINDER CONTENT OF ASPHALT PLANT MIXES

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

| | |
|---|------|
| Asphalt Concrete Surface Course, Type S9.5A | 6.7% |
| Asphalt Concrete Surface Course, Type S9.5B | 6.0% |
| Asphalt Concrete Intermediate Course, Type I19.0C | 4.8% |
| Asphalt Concrete Base Course, Type B25.0C | 4.4% |

The actual asphalt binder content will be established during construction by the Engineer within the limits established in the NCDOT Standard Specifications or Project Special Provisions.

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.

MILLING ASPHALT PAVEMENT:

(1-15-19) 607 SP6 R59

Revise the 2018 Standard Specifications as follows:

Page 6-5, Article 607-2, EQUIPMENT, lines 14-16, delete the seventh sentence of this Article and replace with the following:

Use either a non-contacting laser or sonar type ski system with a minimum of three referencing stations mounted on the milling machine at a length of at least 24 feet.

OPEN GRADED ASPHALT FRICTION COURSE, PERMEABLE ASPHALT DRAINAGE COURSE, AND ULTRA-THIN BONDED WEARING COURSE:

(4-17-12)(Rev. 12-15-15) 609, 610 SP6 R62

When producing and constructing open graded asphalt friction course, permeable asphalt drainage course, and ultra-thin bonded wearing course revise the 2018 Standard Specifications as follows:

Page 6-9, Subarticle 609-6(B) Required Sampling and Testing Frequencies, delete the third paragraph and replace with the following:

Sample and test the completed mixture from each mix design per plant per year at the following minimum frequency during mix production:

| <u>Accumulative Production Increment</u> | <u>Number of Samples per Increment</u> |
|--|--|
| 500 tons | 1 |

Page 6-9, Subarticle 609-6(C) Control Charts, delete the second paragraph and replace with the following:

Record the following data on the standardized control charts and in accordance with the requirements of Section 7.4 of the Asphalt QMS Manual:

- (a) Aggregate Gradation Test Results:
 1. 12.5 mm (Types P57 & FC-2 Mod. Only)
 2. 9.5 mm (Excluding Type P57)
 3. 4.75 mm
 4. 2.36 mm
 5. 0.075 mm Sieves

- (b) Binder Content, %, Pb

Page 6-10, Subarticle 609-6(D) Control Limits, Table 609-1 CONTROL LIMITS, replace with the following:

| Mix Control Criteria | Target Source | Moving Average Limit | Individual Limit |
|--------------------------------------|------------------|----------------------|------------------|
| 12.5 mm Sieve (Types P57 & FC-2 Mod) | JMF | ±4.0 | ±8.0 |
| 9.5 mm Sieve (Excluding Type P57) | JMF | ±4.0 | ±8.0 |
| 4.75 mm Sieve | JMF | ±4.0 | ±8.0 |
| 2.36 mm Sieve | JMF | ±4.0 | ±8.0 |
| 0.075 mm Sieve | JMF | ±1.5 | ±2.5 |
| Binder Content | JMF | ±0.3 | ±0.7 |
| TSR (Ultra-thin Only) | Min. Spec. Limit | - | - 15% |

Page 6-14, Article 609-9 QUALITY ASSURANCE, Table 609-3 LIMITS OF PRECISION FOR TEST RESULTS, replace with the following:

| Property | Limit |
|---------------------------------------|---|
| % Binder Content | by more than ±1.0% |
| 12.5 mm Sieve (Types P 57 & FC-2 Mod) | by more than ±9.0% |
| 9.5 mm Sieve (Excluding Type P 57) | by more than ±9.0% |
| 4.75 mm sieve | by more than ±9.0% |
| 2.36 mm sieve | by more than ±9.0% |
| 0.075 mm sieve | by more than ±3.0% |
| TSR (Ultra-thin only) | by more than -1.5% from Specification limit |

Page 6-12, Subarticle 609-6(F) Allowable Retesting for Mix Deficiencies, Table 609-2 RETEST LIMITS FOR MIX DEFICIENCIES, replace with the following:

| Mix Property | Limits of Precision |
|---|---------------------|
| 12.5 mm Sieve (Types P 57 & FC-2 Mod. Only) | ± 6.0% |
| 9.5 mm Sieve (Excluding Type P 57) | ± 5.0% |
| 4.75 mm Sieve | ± 5.0% |
| 2.36 mm Sieve | ± 5.0% |
| 0.075 mm Sieve | ± 2.0% |
| Asphalt Binder Content | ± 0.5% |
| TSR (Ultra-thin HMA Only) | ± 15.0% |

Page 6-16, Article 610-3, COMPOSITION OF MIXTURES (MIX DESIGN AND JOB MIX FORMULA), line 30, add the following at the end of the sixth paragraph:

For OGAFc, the maximum percent of binder contributed from RAS or a combination of RAS and RAP is 18%.

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:

| TABLE 609-3 LIMITS OF PRECISION FOR TEST RESULTS | |
|--|----------------------------|
| Mix Property | Limits of Precision |
| 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:

| TABLE 610-1 MIXING TEMPERATURE AT THE ASPHALT PLANT | |
|--|------------------------|
| Binder Grade | JMF Temperature |
| 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 MIX DESIGN CRITERIA | | | | | | | | | |
|--|--|-----------------|-------------------|------------------|------------------------|------------------------------------|-----------|------------------|--|
| Mix Type | Design ESALs millions ^A | Binder PG Grade | Compaction Levels | | Max. Rut Depth (mm) | Volumetric Properties ^B | | | |
| | | | G _{mm} @ | | | VMA % Min. | VTM % | VFA Min.-Max. | %G _{mm} @ N _{ini} |
| | | | N _{ini} | N _{des} | | | | | |
| 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 Types | Dust to Binder Ratio (P _{0.075} / P _{be}) | | | | 0.6 - 1.4 ^C | | | | |
| | Tensile Strength Ratio (TSR) ^D | | | | 85% Min. ^E | | | | |

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 ≤ 20% | 21% ≤ %RBR ≤ 30% | %RBR ≥ 30% |
|---|-----------------------|-----------------------|------------|
| S4.75A, S9.5B, S9.5C, I19.0C, B25.0C | PG 64-22 | PG 64-22 ^A | PG-58-28 |
| S9.5D, OGFC | PG 76-22 ^B | 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:

| TABLE 610-6 PLACEMENT TEMPERATURES FOR ASPHALT | |
|---|--|
| 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 ^A |
| 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:

| TABLE 610-7 DENSITY REQUIREMENTS | |
|---|--|
| Mix Type | Minimum % G_{mm} (Maximum Specific Gravity) |
| S4.75A | 85.0 ^A |
| 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:

| Pay Item | Pay Unit |
|---|-----------------|
| 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^A**

| Mix Type | Coarse Aggregate Angularity ^B | Fine Aggregate Angularity % Minimum | Sand Equivalent % Minimum | Flat and Elongated 5 : 1 Ratio % Maximum |
|-----------------------|--|-------------------------------------|---------------------------|--|
| <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.

PAVING INTERSECTIONS:

(7-1-95) (Rev. 8-21-12) 610 SP6 R67BR

Condition, prime, and surface all unpaved intersections back from the edge of the pavement on the main line of the project a minimum distance of 50 feet. The pavement placed in the intersections shall be of the same material and thickness placed on the mainline of the project.

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

Widen the pavement on curves as directed by the Engineer.

PAVING DRIVEWAYS AND MAILBOX TURNOUTS:

(8-21-12) 610 SP6 R70BR

Condition, prime, and surface all driveway and mailbox turnouts as directed by the Engineer. Place pavement on driveway and mailbox turnouts of the same material as used on the main line and in depths directed by the Engineer. Widen the pavement on curves as directed by the Engineer.

DIVISION 11 – WORK ZONE TRAFFIC CONTROL

WORK ZONE TRAFFIC CONTROL GENERAL REQUIREMENTS

TEMPORARY TRAFFIC CONTROL (TTC):

TRAFFIC CONTROL:

All traffic control shall be performed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).

The contractor shall provide all traffic control devices and signs including Portable Changeable Message Signs (PCMS) in accordance with MUTCD to warn the traveling public. PCMS are required on all streets with four (4) or more marked lanes. PCMS shall be installed at least three (3) days in advance of work and maintained throughout the duration of the work.

Two-way traffic shall be maintained at all times unless otherwise approved by the City. Total road closures shall not be allowed except as approved by the City.

Any work performed without traffic control per MUTCD, will not be paid for by the Owner.

The Traffic Control shall be considered incidental to the work.

ROAD CLOSURES, NOTICE AND MAINTENANCE OF TRAFFIC

Temporary Road closures proposed by the Contractor must be approved by the Engineer in advance. Approved Road closures will be set up and maintained by the contractor. Any detours required by the temporary closure will set up and maintained by the Owner. Contractor shall coordinate all road closures and detours with the Owner at least 72 hours in advance of closure.

Where construction operations are to take place under traffic, the Contractor shall maintain at least one lane of traffic at all times and shall provide serviceable access to all business and dwelling units in the project area. The Contractor shall provide such flagmen as are necessary to temporarily control traffic in the project area and is solely responsible for erection and maintenance of traffic control devices and barricades. All traffic control shall be in accordance with the MUTCD.

Where construction operations will impact parking on public ROW, Contractor shall notify area residents and business of need to move vehicles by door hanger. Notice of work must be provided at least 24 hours in advance of starting operations and shall include a contact number for the Contractor. Any vehicles remaining on the street or public ROW after proper notification will be towed by the Owner. Where roadway closures have been approved by the City, Contractor shall provide notice of temporary road closures local residents and business by door hanger at least 48 hours in advance. Contractor shall make individual contact with impacted businesses to coordinate maintenance of access when temporary closures will exceed 24 hours. Reasonable access shall be provided for local residents and business throughout the closure period.

Access to driveways may be restricted until concrete has achieved sufficient strength to support the anticipated traffic load. However, Contractor must maintain reasonable access to the property. Contractor shall notify residents and business of restricted driveway access at least 24 hours in advance.

MEASUREMENT AND PAYMENT

No direct payment will be made for furnishing and installing necessary traffic control in accordance with the project plans and/or MUTCD. Installation and maintenance of adequate traffic control measures will be considered incidental to other work being paid for by the various items in the contract.

DIVISION 16 – EROSION CONTROL AND Roadside DEVELOPMENT

EROSION AND STORMWATER CONTROL FOR SHOULDER CONSTRUCTION AND RECONSTRUCTION:

(11-16-10) (Rev. 8-21-12)

105-16, 225-2, Division 16

SP16 R03R

Land disturbing operations associated with shoulder construction/reconstruction may require erosion and sediment control/stormwater measure installation. National Pollutant Discharge Elimination System (NPDES) inspection and reporting may be required.

Erosion control measures shall be installed per the erosion control detail in any area where the vegetated buffer between the disturbed area and surface waters (streams, wetlands, or open waters) or drainage inlet is less than 10 feet. The Engineer may reduce the vegetated buffer threshold for this requirement to a value between 5 and 10 feet. Erosion control measures shall be spot checked every 14 days until permanent vegetative establishment.

In areas where shoulder construction/reconstruction includes disturbance or grading on the front slope or to the toe of fill, relocating ditch line or backslope, or removing vegetation from the ditch line or swale, NPDES inspection and monitoring are required every 14 days or within 24 hours of a rainfall event of 0.5" or greater. Maintain daily rainfall records. Install erosion control measures per detail.

In areas where the vegetated buffer is less than 10 feet between the disturbed area and waters of the State classified as High-Quality Water (HQW), Outstanding Resource Water (ORW), Critical Areas, or Unique Wetlands, NPDES inspection and monitoring are required every 14 days or within 24 hours of a rainfall event of 0.5" or greater. The Engineer may reduce the vegetated buffer threshold for this requirement to a value between 5 and 10 feet. The plans or provisions will indicate the presence of these water classifications. Maintain daily rainfall records. Install erosion control measures per detail.

Land disturbances hardened with aggregate materials receiving sheet flow are considered non-erodible.

Sites that require lengthy sections of silt fence may substitute with rapid permanent seeding and mulching as directed by the Engineer.

NPDES documentation shall be performed by a Level II Erosion and Sediment Control/Stormwater certificate holder.

Materials used for erosion control will be measured and paid as stated in the contract.

Stabilization Requirements:

(5-1-15) S-2

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

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

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

SEEDING AND MULCHING: **(East Crimp)**

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

All Roadway Areas

March 1 - August 31

September 1 - February 28

| | | | |
|-------|-----------------------|-------|-------------------------|
| 50# | Tall Fescue | 50# | Tall Fescue |
| 10# | Centipede | 10# | Centipede |
| 25# | Bermudagrass (hulled) | 35# | Bermudagrass (unhulled) |
| 500# | Fertilizer | 500# | Fertilizer |
| 4000# | Limestone | 4000# | Limestone |

Waste and Borrow Locations

March 1 – August 31

| | |
|-------|-----------------------|
| 75# | Tall Fescue |
| 25# | Bermudagrass (hulled) |
| 500# | Fertilizer |
| 4000# | Limestone |

September 1 - February 28

| | |
|-------|-------------------------|
| 75# | Tall Fescue |
| 35# | Bermudagrass (unhulled) |
| 500# | Fertilizer |
| 4000# | Limestone |

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

Approved Tall Fescue Cultivars

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

| | | | |
|----------|-----------|-----------|-------------|
| Dominion | Innovator | Reunion | Watchdog |
| Dynamic | Integrity | Riverside | Wolfpack II |
| Dynasty | Jaguar 3 | RNP | Xtremegreen |
| Endeavor | Jamboree | Rocket | |

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

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

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

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on this project.

CRIMPING STRAW MULCH:

Crimping shall be required on this project adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately tacked with a sufficient amount of undiluted emulsified asphalt.

Straw mulch shall be of sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 8".

- Clearing and Grubbing
- Mass Grading and Ditch Reconstruction:
- Undercut Excavation and Backfill (contingency item)
- Replace Existing Driveway Pipe (15" RCP Class III) (Contingency Item)
- Shoulder Borrow and Reconstruction
- Aggregate Base Course
- Asph. Concrete Surface Course, Type S 9.5B (2 inch)
- Adjustment of Meter Boxes or Valves
- Adjustment of Manholes
- Seeding and Mulching
- Excelsior Matting for Erosion Control
- Coir Fiber Wattle Barrier

ATTACHMENT G: PROJECT MAPS

Plan sheets prepared by Appian Consulting Engineers, PA, are uploaded to the project bid file on the purchasing webpage in PDF form. <https://rockymountnc.gov/services-finance-bids/>

ATTACHMENT H: MWBE FORMS

For construction contracts with a value of \$30,000 or greater, the contractor is expected to complete the Identification of Minority Business Participation, Affidavits A, B, C, and D, and Appendix E (if applicable). These forms provided herein are hereby incorporated and made a part of this RFP. Forms can be found at <https://rockymountnc.gov/services-finance-mwbe/>.