



Project Number 19299

Sugar Creek Streambank Stabilization Project

Date: September 2024

OWNER:

YORK COUNTY, ENGINEERING DEPARTMENT
PO BOX 148
6 SOUTH CONGRESS STREET
YORK, SOUTH SC 29745
(803) 684-8571
(803) 684-8596 FAX

York County Council

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Allison Love, Vice Chair
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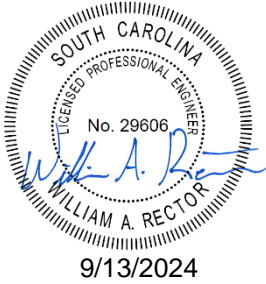

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YORK COUNTY, SOUTH CAROLINA

SUGAR CREEK STREAMBANK STABILIZATION PROJECT

Specifications Prepared By:

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<p>Firm Contact Information: WK Dickson & Co., Inc. 1320 Main Street, Suite 400 Columbia, SC 29201 Office: 803.786.4261 SC COA # C00177</p>	<p>SPECIAL PROVISIONS All Sections</p> <p>MEASUREMENT AND PAYMENT</p>

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BID FORM

Sugar Creek Streambank Stabilization Project

Submitted: _____, 20__

York County Government
6 South Congress Street
York, SC 29745

Sir or Madam:

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid, as principal or principals, is or are named herein and that no other person than herein mentioned has any interest in the Bid of the Contract to which the work pertains; that this Bid is made without connection or arrangement with any other person, company, or parties making a bid or proposal and that the Bid is in all respects fair and made in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the Work and, through personal knowledge and experience and/or subsurface investigations, has fully satisfied himself in regard to all conditions pertaining to such site and he assumes full responsibility therefore; that he has examined the Drawings and Specifications for the Work and from his own experience or from professional advice that the Drawings and Specifications are sufficient for the Work to be done; that he has examined the other Contract Documents and all addenda relating thereto, and that he has satisfied himself fully, relative to all matters and conditions with respect to the Work to which this Bid pertains.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with York County Government (OWNER) in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, transportation and labor and to perform all work necessary to complete the Work specified in the Bid and other Contract Documents.

The Bidder further proposes and agrees to commence substantial work on this project within 15 days of a Notice to Proceed and agrees that the Work will be completed and ready for final payment **within 180 days** of the Notice to Proceed.

The Bidder further agrees that the deductions for liquidated damages, as stated in the Agreement and General Conditions, constitute fixed, agreed, and liquidated damages to reimburse the OWNER for additional costs to the OWNER resulting from the Work not being completed within the time limit stated in the Contract Form. The liquidated damages shall be \$100.00 for each consecutive calendar day thereafter.

The Bidder further agrees to execute a Contract and furnish satisfactory Performance and Indemnity and Payment Bonds, and the required Certificates of Insurance, within ten consecutive calendar days after receipt of Notice of Award of the Contract, and the undersigned agrees that in case of failure on his part to execute the said Contract and Performance and Indemnity and Payment Bonds within the ten (10) consecutive calendar days after the award of the Contract, the Bid guarantee accompanying his Bid and the money payable thereon shall be paid to the OWNER as liquidation of damages sustained by the OWNER; otherwise, the Bid guarantee shall be returned to the undersigned after the Contract is signed and the Performance and Indemnity and Payment Bonds are filed.

BID FORM

A. Bid Amount: (The base bid of this bid document shall include all costs in a Lump Sum Amount for the items)

TOTAL PROJECT BID (SINGLE-PRIME): \$ _____

Total in words _____

B. Bid Bond:

Attached hereto is a cashier's check on the Bank of _____
or Bid Bond for the sum of _____
made payable to _____ (Owner).

C. Acknowledgement of Addenda

If any Addenda are issued, Bidder hereby acknowledges receipt of all Addenda through and including:

Addenda: #1 _____ #2 _____ #3 _____ #4 _____ #5 _____

D. Contractor's Classifications and Subclassifications

SC Contractor's License Number(s): _____

Classification(s) and Limits: _____

Subclassifications (s) & Limits _____

E. List of Subcontractor(s)

Subcontractor(s) _____

F: Signature Page - OFFERORS MUST COMPLETE AND SIGN THE FORM BELOW

The submittal must be signed by an authorized representative of the Offeror accepting all terms and conditions contained in this document and any addenda. Modifying the terms and conditions of this solicitation may result in your response being rejected.

COMPANY NAME

FEDERAL TAX ID NUMBER

COMPANY ADDRESS

CITY, STATE, ZIP+4

PAYMENT/REMITTANCE ADDRESS

CITY, STATE, ZIP+4

EMAIL ADDRESS

COMPANY TELEPHONE

PRINT NAME

TITLE

AUTHORIZED SIGNATURE

DATE

Minority Status

- _____ Not Minority Owned
- _____ African American Male
- _____ Caucasian Female
- _____ African American Female
- _____ Aleut
- _____ Eskimo
- _____ East Indian
- _____ Native American
- _____ Asian
- _____ Other (Please Explain)

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	Exempt payee code (if any) _____
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.	Exemption from FATCA reporting code (if any) _____
	<input type="checkbox"/> Other (see instructions) ▶ _____	<i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
6 City, state, and ZIP code		
7 List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number	
	- -
or	
Employer identification number	
	-

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

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**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
INELIGIBILITY AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Orders 12549 and 12689, Debarment and Suspension, and 2 CFR Part 200, Participants' responsibilities.)

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Contract Number: _____ **Name of Participant:** _____
Address of Participant: _____

Name and Title of Authorized Representative	Signature	Date
<p>1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.</p> <p>2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.</p> <p>3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.</p> <p>4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Orders 12549 and 12689.</p> <p>5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.</p> <p>6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.</p> <p>7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may check the System for Award Management (SAM).</p> <p>8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.</p> <p>9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.</p>		

SECTION 00 42 00
STATEMENT OF BIDDER'S QUALIFICATIONS

PART 1 – GENERAL

The following information must be completed, executed and submitted with the Bid. Failure to provide the data in this section will subject bidder to disqualification.

1.1 DESCRIPTION

- A. Information submitted will be used by the Owner to determine the competency and ability of the Contractor/Subcontractor to perform the scheduled work in a manner deemed satisfactory to the Owner. The Owner's decision shall be final.
- B. Any Subcontractor used by the General Contractor whose portion of this project exceeds 10% of the total bid shall be required to provide the same information as the General Contractor.
- C. The Contractor/Subcontractor shall certify by attaching his signature to this Section as provided that all information contained herein is complete and all statements and answers are accurate and true. Providing misinformation, incomplete information, inaccurate information, or failure to certify the information, will subject bidder to disqualification.
- D. All questions must be answered, and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information desired. Attach all additional sheets to this statement. (Sample "Project Information Form" contained at the end of this Section.)

1.2 QUALIFICATIONS

- A. Complete the following (attach additional sheets as required):

1. Name of Bidder: _____

2. Permanent Main Office Address and Phone Number:

3. When Organized: _____

4. If a Corporation, Where Incorporated: _____

5. How many years have you been engaged in the contracting business under your present firm or trade name? _____

6. General description of type of work performed by your company: _____

7. Have you ever failed to complete any work awarded to you? If so, where and why? _____

8. Have you ever defaulted on a contract? If so, where and why? _____

B. Contracts on Hand. (Complete a "Project Information Form", for each Contract on hand.)

C. Attach a list of five projects completed in the past ten years by your company which are similar in scope to this Project. Bidders must attach a list of five stream bank stabilization projects that each exceeded a contract amount of three hundred thousand dollars (\$300,000) completed in the past five years by your company which are similar in scope to this Project. (Complete a "Project Information Form", for each Project listed.)

D. Names, background and experience of the principal members of your organization, including officers:

Name	Position	Years Experience
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

E. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

I hereby certify that as a duly authorized representative of _____ (bidder), the information provided is to the

best of my knowledge accurate and that failure to provide accurate information will result in disqualification of my bid.

Signature

Name (Print)

Title

Date

(Seal)

Notary Public of _____ (State)

My commission expires: _____

Project Information Form

Project Title: _____

Project description: _____

Project Owner:

- Owner Name: _____

- Contact Person: _____

- Phone Number: _____

Engineer/Construction Manager:

- Company Name: _____

- Contact Person: _____

- Phone Number: _____

Contract Amount:

- Initial: _____

- Final: _____

Contract Time:

- Initial: _____

- Final: _____

- Completion Date: _____

END OF SECTION

BID BOND

STATE OF SOUTH CAROLINA
COUNTY OF YORK

KNOW ALL MEN BY THESE PRESENTS, that _____
as Principal, and _____, as Surety, a
Corporation chartered and existing under the laws of the State of _____
_____, with its principal offices in the City of _____, and authorized to do business
in the State of South Carolina are held and firmly bound unto the OWNER, _____
_____ in the penal Sum of _____
_____ Dollars (\$_____) lawful money of the
United States, for the payment of which sum will and truly to be made, we bind ourselves, our heirs,
executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted to the
OWNER the accompanying bid, dated _____, **2024**, for:

Sugar Creek Streambank Stabilization Project

NOW, THEREFORE,

- A. If said Bid shall be rejected, or
- B. If the principal shall not withdraw said Bid within twenty-four (24) hours after date of opening of the same, and shall within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the OWNER in accordance with the Bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and effect.
- C. In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such contract and give such bonds within the time specified, if the principal shall pay the OWNER the difference between the amount specified in said bid and the amount for which the OWNER may procure the required work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this ____ day of _____, A.D., 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

PRINCIPAL:

Name of Firm

Signature of Authorized Officer
(Affix Seal)

Title

Business Address

City State

WITNESS:

SURETY:

Corporate Surety

(Affix Attorney-in-Fact Seal)

Business Address

City State

Name of Local Insurance Agency

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the principal, was then _____ of said corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

(Corporate Secretary Seal)

STATE OF SOUTH CAROLINA
COUNTY OF YORK

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-in-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the Contractor named therein in favor of the OWNER, the _____.

Subscribed and sworn to before me this ____ day of _____, 20____, A.D.

(Attach Power of Attorney
to original Bid Bond)

Notary Public
State of South Carolina-at-Large

My Commission Expires: _____

END OF SECTION

SOUTH CAROLINA ILLEGAL IMMIGRATION REFORM ACT
CONTRACTOR CERTIFICATION

In accordance with the requirements of the South Carolina Illegal Immigration Reform Act, _____ (“Contractor”) hereby certifies that it is currently in compliance with the requirements of Title 8, Chapter 14 of the S.C. Code Annotated and will remain in compliance with such requirements throughout the term of its contract with _____ (“Owner”).

Contractor hereby acknowledges that in order to comply with requirements of S.C. Code Annotated Section 8-14-20(B), it will:

1. Register and participate in the federal work authorization program (E-Verify) to verify the employment authorization of all new employees; and require agreement from its subcontractors, and through the subcontractors, the sub-subcontractors, to register and participate in the federal verification the employment authorization of all new employees.

Contractor agrees to provide to Owner any documentation required to establish the applicability of the South Carolina Illegal Immigration Reform Act to the Contractor, subcontractor, or sub-subcontractor. Contractor further agrees that it will provide Owner with any documentation required to establish that the Contractor and any subcontractors or sub-subcontractors are in compliance with the requirements of Title 8, Chapter 14 of the S.C. Code Annotated.

Date: _____

By: _____

Title: _____

**DOCUMENT 00 45 53
CORPORATE CERTIFICATE**

I, _____, certify that I am the Contracting and Attesting Officer named as Bidder in the foregoing Bid; that _____, who signed said Bid on behalf of the Contractor was then _____ of said Company; that said Bid was duly signed for and on behalf of said Company by authority of its Board of Directors, and is within the scope of its company's powers; that said Company is organized under the laws of the State of _____.

This the _____ day of _____, 2023.

Corporate Secretary

By (Signature): _____

(Printed/Typed Name)

(SEAL)

END OF DOCUMENT

DOCUMENT 00 45 77
CONTRACTOR'S LICENSE CERTIFICATION

Bidder:

Contractor's Name: _____

License Number: _____

License Classification: _____

Expiration Date of License: _____

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this project.

BIDDER/CONTRACTOR: _____

By (Signature): _____

(Printed/Typed Name)

Title: _____

Date: _____

END OF DOCUMENT

SECTION 00 45 66
BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. § 1352.

Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier-to-tier up to the Recipient who in turn will forward the certification(s) to the awarding agency.

APPENDIX A, 44 C.F.R. PART 18, CERTIFICATION REGARDING LOBBYING – REQUIRED FOR CONTRACTS OVER \$100,000

Certification for Contracts, Grants, Loans, and Cooperative Agreements—

The undersigned certifies, to the best of his/her knowledge and belief, that:

- No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement.
- If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
- The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C., Chapter 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

BIDDER: _____

By (Signature): _____

Authorized Representative: _____
(Printed/Typed Name)

Title: _____

Date: _____

Phone Number: _____

Email Address: _____

END OF SECTION

NOTICE OF AWARD

TO: _____

FROM: York County Engineering _____

P.O. Box 148 _____

York, SC 29745 _____

PROJECT TITLE: Sugar Creek Streambank Stabilization Project

PROJECT DESCRIPTION: The Project shall consist of the stabilization of approximately 775 linear feet of eroded stream bank along Sugar Creek utilizing bioengineered techniques consisting of vegetated fabric encapsulated soil lifts and the installation of three (3) boulder vanes. Additionally, manhole SSMH#5 existing rim elevation will be raised two (2) feet above the existing adjacent grade.

The Owner has considered the Bid submitted by you for the above-described work in response to its Advertisement for Bids dated _____, 2024 and Information for Bidders.

You are hereby notified that your Bid has been accepted for items in the amount of
(Spell out amount:) _____.

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Payment Bond and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this ____ day of _____, 2024.

On behalf of the York County Council

By: _____

Title: County Engineer _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged

By: _____

Title: _____

This _____ day of _____, 2024.

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 2024 A.D., by and between the York County Government, party of the first part (hereinafter sometimes called the "OWNER"), and _____, party of the second part (hereinafter sometimes called the "CONTRACTOR").

WITNESSETH: That the parties hereto, for the consideration hereinafter set forth, mutually agree as follows:

1. SCOPE OF THE WORK

- 1.1. The CONTRACTOR shall furnish all labor, materials, equipment, machinery, tools, apparatus, and transportation and perform all of the Work shown on the Drawings and described in the Specifications entitled:

Sugar Creek Streambank Stabilization Project

as prepared by York County Engineering Department acting as, and in the Contract Documents entitled the ENGINEER, and shall do everything required by this Contract and the other Contract Documents.

2. THE CONTRACT SUM

- 2.1. The OWNER shall pay to the CONTRACTOR for the faithful performance of the Contract, in lawful money of the United States, and subject to addition and deductions as provided in the Contract Documents, a total sum as follows:

Based upon the prices shown in the Bid heretofore submitted to the OWNER by the CONTRACTOR, a copy of said Proposal being a part of these Contract Documents, the aggregate amount of this Contract (obtained from either the lump sum price, the application of unit prices to the quantities shown in the Bid, or the combination of both) being the sum of

(Spell out amount:)

(\$ _____).

3. COMMENCEMENT AND COMPLETION OF WORK

- 3.1. The CONTRACTOR shall commence Work and the Contract Time will commence to run on the date fixed in the Notice to Proceed.
- 3.2. The CONTRACTOR shall prosecute the Work with faithfulness and diligence and shall be completed and ready for final payment within **180 Calendar** days after commencement date fixed in the Notice to Proceed.

4. CONTRACTOR'S ACCEPTANCE OF CONDITIONS

- 4.1. The CONTRACTOR hereby agrees that, by virtue of submitting a completed Bid including his declarations therein of full satisfaction, knowledge and understanding of the Contract Documents, site conditions (surface and subsurface) and all other conditions affecting the Work, he assumes full responsibility for performance of the Work as required under this Contract. It is expressly agreed that under no circumstances, conditions or situations shall this Contract be more strongly construed against the OWNER than against the CONTRACTOR and his Surety.

4.2. It is understood and agreed that the passing, approval and/or acceptance of any part of the Work or material by the OWNER, ENGINEER, or by any agent or representative, as being in compliance with the terms of this Contract and/or of the Contract Documents, shall not operate as a waiver by the OWNER of strict compliance with the terms of this Contract, and/or the Contract Documents covering said Work; and the OWNER may require the CONTRACTOR and/or his surety to repair, replace, restore and/or make to comply strictly and in all things with this Contract and the Contract Documents any and all of said Work and/or materials which within a period of one year from and after the date of the acceptance of any such Work or material, are found to be defective or to fail in any way to comply with this Contract or with the Contract Documents. This provision shall not apply to materials or equipment normally expected to deteriorate or wear out and become subject to normal repair and replacement before their condition is discovered. Failure on the part of the CONTRACTOR and/or his Surety, immediately after notice to either, to repair or replace any such defective materials and workmanship shall entitle the OWNER, if it sees fit, to replace or repair the same and recover the reasonable cost of such replacement and/or repair from the CONTRACTOR and/or his surety, who shall in any event be jointly and severally liable to the OWNER for all damage, loss and expense caused to the OWNER by reason of the CONTRACTOR's breach of this Contract and/or his failure to comply strictly and in all things with this Contract.

5. LIQUIDATED DAMAGES

5.1. It is mutually agreed that time is of the essence of this Contract and should the CONTRACTOR fail to complete the work within the specified time, or any authorized extension thereof, there shall be deducted from the compensation otherwise to be paid to the CONTRACTOR, and the OWNER will retain the amount of *One Hundred Dollars (\$100.00)* per calendar day as fixed, agreed, and liquidated damages for each calendar day elapsing beyond the specified time for substantial completion or any authorized extension thereof, which sum shall represent the actual damages which the OWNER will have sustained by failure of the CONTRACTOR to complete the work within the specified time. After substantial completion, if the CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, Contractor shall pay OWNER *One Hundred Dollars (\$100.00)* for each calendar day that expires after the date specified for Final Completion and readiness for final payment until the work is complete and ready for final payment. It being further agreed that said sum is not a penalty, but is the stipulated amount of damages sustained by the OWNER in the event of such default by the CONTRACTOR.

5.2. For the purposes of this Article, the day of final acceptance of the Work shall be considered a day of delay, and the scheduled day of completion of the work shall be considered a day scheduled for production.

6. PARTIAL AND FINAL PAYMENTS

6.1. In accordance with the provisions fully set forth in the General Conditions, and subject to additions and deductions as provided, the OWNER shall pay the CONTRACTOR as follows:

6.1.1. Within 30 days after receipt by the OWNER of the CONTRACTOR's request for partial payment, the OWNER shall make partial payments to the CONTRACTOR, on the basis of the estimate of Work as approved by the ENGINEER, for work performed during the preceding calendar month, less ten percent (10%) of the amount of such estimate which is to be retained by the OWNER until all Work has been performed strictly in accordance with this Agreement and until such Work has been accepted by the OWNER.

6.1.2. Upon submission by the CONTRACTOR of evidence satisfactory to the OWNER that all payrolls, material bills and other costs incurred by the CONTRACTOR in connection with the construction of the Work have been paid in full, including all retainage to subcontractors on the project, and also after all guarantees that may be required in the

specifications have been furnished and are found acceptable by the OWNER, final payment on account of this Agreement shall be made within sixty (60) days after completion by the CONTRACTOR of all Work covered by this Agreement and acceptance of such Work by the OWNER.

6.1.3. Retainage will be released in full at Final Completion.

7. ADDITIONAL BOND

7.1. It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Performance and Payment Bonds hereto attached for its faithful performance, the OWNER shall deem the surety or sureties upon such bonds to be unsatisfactory, or if, for any reason, such bond(s) ceases to be adequate to cover the performance of the Work, the CONTRACTOR shall, at his expense, and within three days after the receipt of notice from the OWNER to do so, furnish an additional bond or bonds, in such form and amount, and with such sureties as shall be satisfactory to the OWNER. In such event, no further payment to the CONTRACTOR shall be deemed due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the OWNER.

8. CONTRACT DOCUMENTS

8.1. The Contract Documents, as stated in the Instructions to Bidders, including this Project Manual and General Conditions, and the accompanying Contract Drawings, shall form the Contract and are as fully a part of this Contract as if herein repeated.

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the day and date first above written in three (3) counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original Contract.*

Owner

Contractor

By: _____

By: _____

[Corporate Seal]

[Corporate Seal]

Attest: _____

Attest: _____

Address for giving notices:

Address for giving notices:

License No. _____

Agent for service of process: _____

(*) In the event that the CONTRACTOR is a Corporation, a certificate of resolution of the Board of Directors of the Corporation, authorizing the officer who signs the Contract to do so in its behalf shall be completed and submitted with this form.

END OF SECTION

NOTICE TO PROCEED

Date: _____

To: _____

Project:

Sugar Creek Streambank Stabilization Project

You are hereby notified to commence work in accordance with the Agreement dated _____ on or before _____, and you are to complete the work within 180 consecutive calendar days thereafter. The date of completion of all work is therefore _____.

On behalf of the

YORK COUNTY GOVERNMENT

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____, this the ____ day of _____, **20**_____.

By: _____

Title: _____

PERFORMANCE AND INDEMNITY BOND

STATE OF SOUTH CAROLINA
COUNTY OF YORK

KNOW ALL MEN BY THESE PRESENTS that _____
_____ as Principal, hereinafter called Contractor, and _____
_____ as Surety, hereinafter
called Surety, are held and firmly bound unto the York County Government, as Obligee, hereinafter called
owner, in the amount of _____
_____ Dollars (\$_____) for the payment whereof Contractor and Surety bind
themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, Contractor has by written agreement dated _____, 2024, entered
into a Contract with Owner for:

Sugar Creek Streambank Stabilization Project

in accordance with Drawings and Specifications prepared by York County Engineering Department,
ENGINEER, which Contract is by reference made a part hereof and is hereinafter referred to as the
Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if the
Principal shall in all respects promptly and faithfully perform and comply with the terms and conditions of
said Contract and his obligations thereunder and shall indemnify the OWNER and the ENGINEER and
save either or all of them harmless against and from all costs, expenses and damages arising from the
performance of said Contract or the repair of any work thereunder, then this obligation shall be void;
otherwise, this Bond shall remain in full force and effect, in accordance with the following terms and
conditions:

A. The Principal and Surety jointly and severally agree to pay the OWNER any difference
between the sum to which the said Principal would be entitled on the completion of the Contract, and that
sum which the OWNER may be obliged to pay for the completion of said work by Contract or otherwise,
and any damages, direct or indirect or consequential, which the said OWNER may sustain on account of
such work, or on account of the failure of said CONTRACTOR to properly and in all things, keep and
execute all of the provisions of said Contract.

B. And this Bond shall remain in full force and effect for a period of one (1) year from the
date of final payment of the project by the OWNER and shall provide that the CONTRACTOR guarantees
to repair or replace for said period of one (1) year all work performed and materials and equipment
furnished that were not performed or furnished according to the terms of the Contract, and shall make
good, defects thereof which have become apparent before the expiration of said period of one (1) year. If
any part of the project, in the judgment of the OWNER, for the reasons above stated needs to be
replaced, repaired or made good during that time, the OWNER shall so notify the CONTRACTOR in
writing. If the CONTRACTOR refuses or neglects to do such work within five (5) days from the date of
service of such Notice, the OWNER shall have the work done by others and the cost thereof shall be paid
by the CONTRACTOR or his Surety.

C. And the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive Notice of any change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

D. The surety represents and warrants to the OWNER that they have a minimum Best's Key Rating Guide General Policyholder's Rating of "A-" and Financial Category of "Class VIII".

IN WITNESS WHEREOF, the above bounded parties executed this instrument under their several seals, this ____ day of _____ 2024, A.D., the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

PRINCIPAL:

Signature of Authorized Officer
(Affix Seal)

WITNESSES:

Title

Business Address

City State

SURETY:

WITNESS:

Corporate Surety

Attorney-in-Fact (Affix Seal)

Business Address

City State

Name of Local Insurance Agency

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Secretary

Corporate
Seal

STATE OF SOUTH CAROLINA

COUNTY OF YORK

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-in-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the Contractor named therein in favor of the _____.

Subscribed and sworn to before me this . day of _____, 2024, A.D.

(Attach Power of Attorney)

Notary Public
State of South Carolina-at-Large

My Commission Expires:

END OF SECTION

PAYMENT BOND

STATE OF SOUTH CAROLINA
COUNTY OF YORK

KNOW ALL MEN BY THESE PRESENTS that _____
_____ as Principal, hereinafter called CONTRACTOR,
and _____ as Surety, hereinafter called
Surety, are held and firmly bound unto the York County Government, as Obligee, hereinafter
called OWNER, in the amount of _____
_____ Dollars (\$ _____) for the
payment whereof CONTRACTOR and Surety bind themselves, their heirs, executors,
administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, CONTRACTOR has by written agreement dated _____, 2024, entered
into a Contract with OWNER for:

Sugar Creek Streambank Stabilization Project

in accordance with Drawings and Specifications prepared by York County Engineering
Department, ENGINEER, which Contract is by reference made a part hereof and is hereinafter
referred to as the Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if the
Principal shall promptly make payments to all claimants, as herein below defined, then this
obligation shall be void; otherwise, this Bond shall remain in full force and effect, subject to the
following terms and conditions:

- A. A claimant is defined as any person supplying the Principal with labor, material and
supplies, used directly or indirectly by the said Principal or any subcontractor in the
prosecution of the work provided for in said Contract.
- B. The above named Principal and Surety hereby jointly and severally agree with the
OWNER that every claimant as herein defined, who has not been paid in full before the
expiration of a period of ninety (90) days after performance of the labor or after complete
delivery of materials and supplies by such claimant, may sue on this Bond for the use of
such claimant, prosecute the suit to final judgment for such sum or sums as may be justly
due claimant, and have execution thereon. The OWNER shall not be liable for the
payment of any costs or expenses of any such suit.
- C. No suit or action shall be commenced hereunder by any claimant:
 1. Unless claimant, other than one having a direct contract with the Principal, shall
within forty-five (45) days after beginning to furnish labor, materials or supplies
for the prosecution of the work, furnish the Principal with a notice that he intends
to look to this bond for protection.
 2. Unless claimant, other than one having a direct contract with the Principal, shall
within ninety (90) days after such claimant's performance of the labor or complete
delivery of materials and supplies, deliver to the Principal written notice of the

performance of such labor or delivery of such material and supplies and the nonpayment therefore.

3. After the expiration of one (1) year from the performance of the labor or completion of delivery of the materials and supplies; it being understood, however, that if any limitation embodied in this Bond is prohibited by any law controlling the construction hereof such limitations shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 4. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
- D. The Principal and the Surety jointly and severally, shall repay the OWNER any sum which the OWNER may be compelled to pay because of any lien for labor or materials furnished for any work included in or provided by said Contract.
- E. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration of or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications applicable thereto shall in any way affect its obligations on this Bond, and the Surety hereby waives notice of any such change, extension of time, alterations of or addition to the terms of the Contract, or to the work or to the Specifications.
- F. The Surety represents and warrants to the Owner that they have a minimum Best's Key Rating Guide General Policyholder's rating of "A –" and Financial Category of "Class VIII".

IN WITNESS WHEREOF, the above bounded parties executed this instrument under their several seals, this ____ day of _____ 2024, A.D., the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

PRINCIPAL:

Signature of Authorized Officer
(Affix Seal)

WITNESSES:

Title

Business Address

City

State

WITNESS:

SURETY:

Corporate Surety

Attorney-in-Fact
(Affix Seal)

Business Address

City

State

Name of Local Insurance Agency

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Secretary

Corporate
Seal

STATE OF SOUTH CAROLINA
COUNTY OF YORK

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-in-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the CONTRACTOR named therein in favor of the _____.

Subscribed and sworn to before me this ____ day of _____, 2024, A.D.

(Attach Power of Attorney)

Notary Public
State of South Carolina-at-Large
My Commission Expires: _____

END OF SECTION

CONTRACT CHANGE ORDER

CHANGE ORDER NO:

PROJECT: Sugar Creek Stream Bank Restoration Project

DATE OF ISSUANCE:

DESCRIPTION OF CHANGE:

CONTRACT AMOUNT		CONTRACT TIME (Calendar Days)	
Original	\$ <u>0</u>	Original Durations	<u>0</u> Days
Previous Change Orders (Add/Deduct)	\$ <u>0</u>	Previous Change Order (Add/Deduct)	<u>0</u> Days
This Change Order (Add/Deduct)	\$ <u>0</u>	This Change Order (Add/Deduct)	<u>0</u> Days
Revised Contract Amount	\$ <u>0</u>	Revised Contract Time	<u>0</u> Days
REVISD CONTRACT COMPLETION DATE IS:			

OWNER	CONTRACTOR	ENGINEER

Attest

CERTIFICATE OF INSURANCE
(May also use applicable Accord form)

THIS IS TO CERTIFY THAT THE _____
Insurance Company

Address _____

Of _____
has issued policies of insurance, as described below and identified by a policy number, to the insured named below; and to certify that such policies are in full force and effect at this time. It is agreed that none of these policies will be cancelled or changed so as to affect the interest(s) of the York County Government (hereinafter sometimes called the OWNER) until thirty (30) days after written notice of such cancellation or change has been delivered to the ENGINEER.

Insured: _____

Address: _____

Status of Insured
_____ Corporation _____ Partnership _____ Individual

Insured: _____

Description of Work: _____

INSURANCE POLICIES IN FORCE

<u>Forms of Coverage</u>	<u>Policy Number</u>	<u>Expiration Date</u>
*Worker's Comp./Employers' Liability	_____	_____
**Comprehensive Auto Liability	_____	_____
***Excess Liability	_____	_____
Other (Please specify type)	_____	_____

POLICY INCLUDES COVERAGE FOR:	YES	NO
1. Additional Insured: OWNER and ENGINEER	_____	_____
2. *Liability under the United States Longshore-men's and Harbor Workers' Compensation Act.	_____	_____
3. **All owned, hired, or nonowned automotive equipment used in connection with work done for the Owner.	_____	_____
4. Contractual Liability	_____	_____
5. Damage caused by explosion, collapse or structural injury, and damage to underground utilities.	_____	_____
6. Products/Completed Operations	_____	_____
7. Owners and Contractors Protective Liability	_____	_____
8. Personal Injury Liability	_____	_____
9. ***Excess Liability applies excess of:	_____	_____
(a) Employers' Liability	_____	_____
(b) Comprehensive General Liability	_____	_____
(c) Comprehensive Automobile Liability	_____	_____

<u>Types of Coverage</u>	<u>Forms of Coverage</u>	<u>Minimum Limits of Liability</u>	
Workers' Compensation	Bodily Injury	\$ 1,000,000	Statutory
Employers' Liability	Bodily Injury	\$ 500,000	Each Accident
	Disease	\$ 500,000	Each Person
	Disease	\$ 500,000	Policy Limit
Comprehensive Auto Liability	Combined Single Limit BI/PD	\$ 1,000,000	Each Accident
Comprehensive General Liability	Bodily Injury	\$ 1,000,000	Each Occurrence
		\$ 5,000,000	Aggregate

The Insurance Company hereby agrees to deliver, within ten (10) days, two (2) copies of the above policies to the Engineer when so requested.

NOTE: Entries on this certificate are limited to the Authorized Agent or Insurance Company Representative.

Date _____ (SEAL) _____
Insurance Company

Issued at _____
Authorized Representative

Insurance Agent or Company

- Send original and one copy to:

York County Engineering
Post Office Box 148
6 South Congress Street
York, South Carolina 29745

END OF SECTION

Contractor Pay Request Certification

Project: _____

Locality: _____ Contractor: _____

Provisions: *The contractor hereby certifies that work completed on the above-referenced ARPA Project and Contract during the period for which payment is requested complies with the following required provisions, as applicable in accordance with the contract terms and conditions:*

- 1. Contract Work Hours:** Each contractor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of the Contract Work Hours and Safety Standards Act, 40 USC 3702 and 3704, as supplemented by Department of Labor regulations at 29 CFR Part 5 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- 2. Safety Standards Act:** Safety Standards and Accident Prevention provisions require contractors to:
 - Comply with the safety standards provisions of applicable laws, building and construction codes, the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970, and the requirements of Title 29, Section 1518.
 - Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
 - Maintain at the construction office or other well-known place on the job site, all articles necessary for giving first aid to the injured and make standing arrangements for the immediate removal to a hospital or to a doctor's care those persons (including employees), who may be injured on the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or doctor's care.
- 3. Debarment and Suspension:** In accordance with 2 CFR Part 180 and Treasury's implementing regulations at 31 CFR Part 19, ARPA funds may not go to individuals or entities that are prohibited from doing business with the federal government. *Debarment status can be checked on the System for Award Management (SAM) website at www.sam.gov.*

CERTIFICATION:

- I certify to the best of my knowledge and belief, that the above referenced project has complied with the applicable provisions of the Contract Work Hours and Safety Standards Act as outlined above during the period for which payment is requested.
- I certify to the best of my knowledge and belief, that all laborers and mechanics employed by contractors and subcontractors during the period for which payment is requested were paid prevailing wages.
- I certify to the best of my knowledge and belief, that I nor my Company or any of my subcontractors on this project as included in the above-referenced Contract are not presently debarred, suspended, or ineligible from participating in transactions by the federal government or local government department or agency.
- I understand that a false statement on this certification shall be regarded as a material breach of the Agreement. I also acknowledge that state agencies or the US Treasury may request any additional information or documentation it deems necessary to demonstrate compliance in the form of an audit or otherwise pursuant to its ability to effectively administer these funds.

This form must be signed by the contractor and submitted as part of every Contractor's Application for Payment involving federal funds as supporting documentation. This form certifies compliance for the period as stated on the Contractor's Application for Payment.

Contractor Signature: _____ Contractor Printed Name: _____ Date: _____

APPLICATION FOR PAYMENT No. _____

Date: _____ Contractor: _____

Project: _____ Project Number: _____

Purchase Order Number: _____ For Period _____ To _____

Total value of work completed to date (see attached sheet) \$ _____

Total value of materials stored for project (see attached sheet) \$ _____

SUB TOTAL \$ _____

LESS _____ %RETAINED \$ _____

TOTAL \$ _____

LESS PREVIOUS PAYMENTS \$ _____

Other Changes, additions, or deductions
(see attached sheet) \$ _____

TOTAL AMOUNT DUE THIS PAYMENT \$ _____

Previous Payments:				
1	6	11	16	
2	7	12	17	
3	8	13	18	
4	9	14	19	
5	10	15	20	

Submitted By:

I hereby certify to the best of the Contractor's knowledge, information and belief, the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, and that all amounts have been paid by the Contractor for Work which previous Applications for Payment were issued and payments received from the Owner, that current payment shown herein is now due.

Contractor: _____ Notarized: _____

Signed By: _____ My Commission expires: _____

Date: _____ Affix seal:

Recommended By:

Architect/Engineer: _____ Date: _____

Certified Amount: \$ _____

The Certified amount is payable only to the Contractor named herein. Issuance, payment, and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

Accepted By:

Owner: _____ Date: _____

**RELEASE AND WAIVER OF CLAIM
BY PRIME CONTRACTOR**

Know all men by these presents that the undersigned, _____ of _____
_____ first being duly sworn, states that all payrolls, materials bills, sales tax, privilege
tax or license, old age benefits tax, state and federal unemployment insurance, and other liabilities
incurred for use in the performance of the contract for the **Sugar Creek Streambank Stabilization
Project** located in York, South Carolina have been paid in full and waives any and all claims and releases
York County Government (York County, South Carolina) from any rights or claims for debts due and
owing by virtue of the furnishing of any material or supplies or any lien thereon.

(Name of Company)

By: _____

Its: _____

Sworn to before me
this _____ day of _____, 20 _____.

Notary Public for _____

My Commission expires: _____

GENERAL CONDITIONS

1. DEFINITIONS

1.1. Whenever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

1.1.1. Addendum or *Addenda* - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Bidding Requirements or the Contract Documents.

1.1.2. Agreement - The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.1.3. Application *for Payment* - The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.1.4. Bid - The offer or proposal of the bidder on the prescribed Bid Form setting forth the prices for the Work to be performed.

1.1.5. Bidder - One who submits a Bid directly to OWNER, as distinct from sub-bidder, who submits a Bid to a Bidder.

1.1.6. Bidding *Documents* - The Invitation for Bids, Information to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.1.7. Bonds - Performance and Indemnity and Payment Bonds and other instruments of security.

1.1.8. Change *Order* - A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.1.9. *Contract Documents* - Executed Agreement, Addenda (if any), Invitation for Bids, Information to Bidders, Signed Copy of Bid, Bid Guarantee, Statement of Bidder's Qualifications, Performance and Indemnity Bond, Payment Bond, Certification of Insurance, General Conditions, Supplemental Conditions (if any), Special Conditions (if any), Technical Specifications, and Drawings.

1.1.10. *Contract Price* - The moneys payable by OWNER for completion of the Work in accordance with the Contract Documents.

1.1.11. *Contract Times* - The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the work so that it is ready for final payment as evidenced by ENGINEER's written records.

1.1.12. CONTRACTOR - The person, firm, or corporation entering into Contract with the OWNER to construct and install the improvements embraced in this Contract.

1.1.13. *Defective* - An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or had been damaged prior to ENGINEER's recommendation or final payment.

1.1.14. Drawings - The construction drawings which graphically show the scope, extent, and character of the Work to be furnished and performed by the CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

1.1.15. ENGINEER – The person, firm or corporation serving the OWNER with Engineering services, his successors, or any other person or persons, employed by said OWNER for the purpose of directing or having charge of the work embraced in this Contract.

1.1.16. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.1.17. Liens - Liens, charges, security interests or encumbrances upon project funds, real property or personal property.

1.1.18. Local Government - York County, South Carolina, within which the Project Areas are situated.

1.1.19. Milestone - A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.1.20. Notice of Award - The written notice by OWNER to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the agreement.

1.1.21. Notice to Proceed - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform, CONTRACTOR's obligations under the Contract Documents.

1.1.22. OWNER - The York County Government, which is authorized to undertake this Contract.

1.1.23. Partial Utilization - Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.1.24. Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.1.25. Project Area - The area within which are the specified limits of the improvements to be constructed in whole or in part under this Contract.

1.1.26. Project Manual – The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

1.1.27. Resident Project Representative – The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

1.1.28. Samples - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.1.29. Site – Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of the CONTRACTOR.

1.1.30. *Shop Drawings* - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.1.31. *Special Conditions* - The part of the Contract Documents that amends or supplements the Technical Specifications.

1.1.32. *Subcontractor* - An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.1.33. *Substantial Completion* - The Work (or specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certification of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.1.34. *Successful Bidder* - The lowest, qualified, responsible and responsive Bidder to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

1.1.35. *Supplier* - A manufacturer, fabricator, supplier, distributor, material man or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.1.36. *Supplemental Conditions* - The part of the Contract Documents that amends or supplements these General Conditions.

1.1.37. *Technical Specifications* - The part of the Contract Documents that describes, outlines, and stipulates: the quality of materials, equipment and systems to be furnished; the quality of workmanship required; and the methods to be used in carrying out the construction work to be performed under this Contract.

1.1.38. *Underground Facilities* - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.

1.1.39. *Unit Price Work* - Work to be paid for on the basis of unit prices.

1.1.40. *Work* - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing and incorporating materials and equipment into the construction, and furnishing, installing and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

1.2 Other technical terms not specifically defined within the Contract Documents shall have the meanings given in AIA Document "Glossary of Construction Industry Terms," current edition. Technical terms not defined as above and used to describe items of the Work, and which so applied have a well-known technical or trade meaning, shall be deemed to have such recognized meaning.

2. CONTRACTOR'S OBLIGATIONS

2.1. All work shall be done in strict accordance with the Contract Documents. Observations, construction reviews, tests, recommendations or approvals by the ENGINEER or persons other than the

CONTRACTOR, shall in no way relieve the CONTRACTOR of his obligations to complete all work in accordance with the Contract Documents. All work shall be done under the direct supervision of the CONTRACTOR. The CONTRACTOR shall be responsible for construction means, methods, techniques, and procedures, and for providing a safe place for the performance of the work by the CONTRACTOR, Subcontractors, suppliers, and their employees and for access, use, work, or occupancy by all authorized persons.

3. LANDS BY CONTRACTOR

3.1. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application, but specifically related to the use of the Site with which the CONTRACTOR must comply in performing work.

3.2. Any land and access thereto not specifically shown to be furnished by the OWNER that may be required for temporary construction facilities or for storage of materials and equipment shall be provided by the CONTRACTOR with no liability to the OWNER. The CONTRACTOR shall confine his apparatus and storage to such additional areas as he may provide at his expense.

3.3. The CONTRACTOR shall not enter upon private property for any purpose without obtaining permission, and he shall be responsible for the preservation of all public property, trees, monuments, structures and improvements, along and adjacent to the street and/or right-of-way, and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits, and other underground structures, and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

4. SURVEYS BY CONTRACTOR

4.1. Based upon the Construction Documents and any additional information provided by the OWNER, the CONTRACTOR shall develop and make all detailed surveys necessary for construction, including working points, lines and elevations.

5. PUBLIC UTILITIES

5.1. The elevation and location of all public utilities shown on the Drawings were taken from existing public records. It shall be the duty of the CONTRACTOR to make final and exact determination of the location and extent of all utilities and he will be liable for any expense resulting from damage to them.

6. SUPERINTENDENT

6.1. A qualified superintendent, who is acceptable to the OWNER, shall be maintained on the Work and shall give efficient supervision to the Work until its completion. The superintendent shall have full authority to act in behalf of the CONTRACTOR, and all instruction given to the superintendent shall be considered as given to the CONTRACTOR. It shall be the responsibility of this CONTRACTOR's superintendent to coordinate the Work of all the Subcontractors. The superintendent shall be present on the site at all times required to perform adequate supervision and coordination.

7. SUBCONTRACTORS

7.1. At the time set forth in the Contract Documents or when requested by the OWNER, the CONTRACTOR shall submit in writing for review of the OWNER the names of the Subcontractors proposed for the work. Subcontractors may not be changed except at the request or with the approval of the OWNER. The CONTRACTOR is responsible to the OWNER for the acts and deficiencies of his Subcontractors, and of their direct and indirect employees, to the same extent as he is responsible for the acts and deficiencies of his employees. The Contract Documents shall not be construed as creating any

contractual relation between any Subcontractor and the OWNER. The CONTRACTOR shall bind every Subcontractor by the terms of the Contract Documents.

8. ASSIGNMENTS

8.1. The CONTRACTOR shall not assign the whole or any part of this Contract or any moneys due or to become due hereunder without written consent of the OWNER. In case the CONTRACTOR assigns all or any part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the CONTRACTOR shall be subject to prior claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the work called for in this Contract.

9. MUTUAL RESPONSIBILITY OF CONTRACTORS

9.1. If through acts of neglect on the part of the CONTRACTOR, any other CONTRACTOR or any Subcontractor shall suffer loss or damage on the work, the CONTRACTOR agrees to settle with such other CONTRACTOR or Subcontractor by agreement or arbitration if such other CONTRACTOR or Subcontractor will so settle. If such other CONTRACTOR or Subcontractor shall assert any claim against the OWNER on account of any damage alleged to have been sustained, the OWNER shall notify the CONTRACTOR, who shall indemnify and save harmless the OWNER against any such claim.

10. ORAL AGREEMENTS

10.1. No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification.

11. MATERIALS, SERVICE AND FACILITIES

11.1. It is understood that except as otherwise specifically stated in the Contract Documents, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, gas, light, power, transportation, superintendence, taxes, insurance, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

11.2. Any work necessary to be performed after regular working hours, on Sundays or Legal Holidays, shall be performed without additional expense to the OWNER.

12. MATERIALS AND EQUIPMENT

The materials and equipment installed in the work shall meet the requirements of the Contract Documents and no materials or equipment shall be ordered until reviewed by the ENGINEER. The CONTRACTOR shall furnish all materials and equipment not otherwise specifically indicated or provided by the OWNER. The CONTRACTOR shall guarantee all materials and equipment he provides in accordance with Section 16 of these GENERAL CONDITIONS.

12.1. Substitutions: In order to establish standards of Quality, the ENGINEER has, in the detailed Specifications, referred to certain products by name and catalog number without consideration of possible substitute or "or equal" items. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design.

12.1.1. Whenever it is indicated in the Drawings or specified in the specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the CONTRACTOR, application for

such acceptance will not be considered by the ENGINEER until after the Effective Date of the agreement. The CONTRACTOR shall furnish the complete list of proposed desired substitutions, together with such engineering and catalog data as the ENGINEER may require. All proposals for substitutions shall be submitted in writing by the General Contractor and not by individual trades or material suppliers. The ENGINEER will review proposed substitutions and make his recommendations in writing within reasonable time.

12.1.2. The CONTRACTOR shall abide by the ENGINEER's recommendation when proposed substitute materials or items of equipment are not recommended for installation and shall furnish the specified material or item of equipment in such case.

12.2. Space Requirements: It shall be the responsibility of the CONTRACTOR to ensure that materials and equipment to be furnished fit the space available. He shall make necessary field measurements to ascertain space requirements, including those for connections, and shall order such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the Contract Documents.

12.3. Arrangement: Where equipment requiring different arrangement of connections from those shown is approved, it shall be the responsibility of the CONTRACTOR to install the equipment to operate properly, and in harmony with the intent of the work required by such arrangement.

12.4. Unacceptable Materials and Equipment: Materials and equipment which do not conform to the requirements of the Contract Documents, or are not equal to samples reviewed by the ENGINEER, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, shall not be furnished nor installed.

12.5. Storage: Materials and equipment shall be so stored as to ensure the preservation of their quality and fitness for the work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground and/or they shall be placed under cover. Stored materials and equipment shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the property owner or leasee. Materials, equipment, construction machinery, fuel, and oils shall not be stored or parked within the drip-line of any trees in or adjacent to the project site or additional off-site easements and right-of-ways.

12.6. Manufacturer's Directions: Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer.

13. INSPECTION AND TESTING OF MATERIALS

13.1. Unless otherwise specifically provided for in the specifications, the inspection and testing of material and finished articles to be incorporated in the work at the site shall be made by third party bureaus, laboratories, or agencies approved by the OWNER. The cost of such inspection and testing shall be paid by the Owner. The Owner's testing agency shall furnish evidence satisfactory to the Contractor that the material and finished articles have passed the required tests prior to the incorporation of such materials and finished articles in the work. The CONTRACTOR shall promptly segregate and remove rejected material and finished articles from the site of the work.

14. SAMPLES

14.1. All samples called for in the Specifications or required by the ENGINEER shall be furnished by the CONTRACTOR and shall be submitted to the ENGINEER for his review. Samples shall be furnished so as not to delay fabrication, allowing the ENGINEER reasonable time for the consideration of the samples submitted.

14.1.1. Samples for Tests: CONTRACTOR shall furnish such samples of material as may be required for examination and test. All samples of materials for tests shall be taken according to standard methods or as provided in the Contract Documents.

14.1.2. CONTRACTOR's Guaranty: All samples shall be submitted by the CONTRACTOR with a covering letter indicating that such samples are recommended by the CONTRACTOR for the service intended and that the CONTRACTOR's Guaranty will fully apply.

14.1.3. All materials, equipment and workmanship shall be in accordance with samples guaranteed by the CONTRACTOR and reviewed by the ENGINEER.

15. SHOP DRAWINGS

15.1. The CONTRACTOR shall provide shop drawings, setting schedules and such other drawings as may be necessary for the prosecution of the work in the shop and in the field as required by the Drawings, Specifications or the ENGINEER's instructions. Deviations from the Drawings and Specifications shall be called to the attention of the ENGINEER at the time of the first submission of shop drawings and other drawings for consideration. The ENGINEER's review of any drawings shall not release the CONTRACTOR from responsibility for such deviations. Shop drawings shall be submitted according to a schedule prepared jointly by the CONTRACTOR and the ENGINEER.

15.1.1. CONTRACTOR's Certification: When submitted for the ENGINEER's review, shop drawings shall bear the CONTRACTOR's certification that he has reviewed, checked and approved the shop drawings, that they are in harmony with the requirements of the Project and with the provisions of the Contract Documents, and that he has verified all field measurements and construction criteria, materials, catalog numbers and similar data. CONTRACTOR shall also certify that the work represented by the shop drawings is recommended by the CONTRACTOR and the CONTRACTOR's Guaranty will fully apply.

16. GUARANTY

16.1. The CONTRACTOR shall guarantee all materials and equipment furnished and work performed for a period of one year from the date of final payment of the work.

16.1.1. The Performance and Indemnity Bond shall remain in full force and effect during the guaranty period.

16.1.2. Correction of faulty work after final payment shall be as provided in Paragraph 41.

17. INSURANCE

17.1. The CONTRACTOR shall not commence any work until he obtains, at his own expense, all required insurance. Such insurance must have the approval of the OWNER as to the limit, form, and amount. The CONTRACTOR will not permit any Subcontractor to commence work on this project until such Subcontractor has complied with the same insurance requirements.

Types: The types of insurance the CONTRACTOR is required to obtain and maintain for the full period of the Contract will be: Workmen's Compensation Insurance, Automobile and Comprehensive General Liability Insurance as detailed in the following portions of this specification.

17.1.2. Evidence: As evidence of specified insurance coverage, the OWNER may, in lieu of actual policies, accept certificates issued by the insurance carrier showing such policies in force for the specified period. Each policy or certificate will bear an endorsement or statement waiving right of cancellation or reduction in coverage within ten days' notice in writing to be delivered by registered mail to the OWNER. Should any policy be cancelled before final payment by the OWNER to the CONTRACTOR and the CONTRACTOR fails immediately to procure other insurance as specified, the OWNER reserves the right to procure such insurance and to deduct the cost thereof from any sum due the CONTRACTOR under this Contract.

17.1.3. Adequacy of Performance: Any insurance bearing on adequacy of performance shall be maintained after completion of the project for the full guaranty period. Should such insurance be cancelled before the end of the guaranty period and the CONTRACTOR fails immediately to procure other insurance as specified, the OWNER reserves the right to procure such insurance and to charge the cost thereof to the CONTRACTOR.

17.1.4. Payment of Damages: Nothing contained in these insurance requirements is to be construed as limiting the extent of the CONTRACTOR's responsibility for payment of damages resulting from his operations under this Contract.

18. WORKMEN'S COMPENSATION INSURANCE

18.1. Before the Agreement between the OWNER and the CONTRACTOR is entered into, the CONTRACTOR shall submit written evidence that he and all Subcontractors have obtained, for the period of the Contract, full Workman's Compensation Insurance coverage for all persons whom they employ or may employ in carrying out the work under this Contract. This insurance shall be in strict accordance with the requirements and statutory limits of the most current and applicable South Carolina Workman's Compensation Insurance Laws.

19. COMPREHENSIVE GENERAL LIABILITY AND AUTOMOBILE INSURANCE

19.1. Before commencement of the work, the CONTRACTOR shall submit written evidence that he and all his Subcontractors have obtained for the period of the Contract, full Comprehensive General Liability Insurance and automobile coverage. This coverage shall provide for both bodily injury and property damage.

19.1.1. Comprehensive General Liability Insurance shall include coverage for bodily injury, sickness or disease, death, or property damage arising directly or indirectly out of or in connection with the performance of work under this Contract, and shall provide for a combined single limit of not less than one million (\$1,000,000) dollars for all damages arising out of bodily injury, sickness or disease, death, or property damage for each occurrence.

19.1.2. Automobile insurance shall include coverage for bodily injury and property damage arising directly or indirectly out of or in connection with the performance of work under this Contract, and shall provide for a combined single limit of not less than one million (\$1,000,000) dollars for all damages arising out of bodily injury or property damage for each occurrence.

19.1.3. Indemnity: Included in such insurance will be contractual coverage sufficiently broad to insure the provisions of Paragraph 20.

20. INDEMNITY

20.1. The CONTRACTOR shall hold harmless, indemnify and defend the OWNER, its successors and assigns, the ENGINEER, their consultants, and each of their officers and employees and agents, from any and all liability claims, losses or damage arising or alleged to arise from the performance of the work described herein, but not including the sole negligence of the OWNER or the ENGINEER.

21. PATENTS AND ROYALTIES

21.1. If any design, device, material or process covered by letters, patent or copyright is used by the CONTRACTOR, he shall provide for such use by legal agreement with the OWNER of the patent or a duly authorized licensee of such OWNER, and shall save harmless the OWNER, and the ENGINEER, from any and all loss or expense on account thereof, including its use by the OWNER.

22. PERMITS

22.1. All permits and licenses necessary for the prosecution of the work shall be secured and paid for by the CONTRACTOR. This shall include all Business Licenses required by the Local Government.

23. LAWS TO BE OBSERVED

23.1. The CONTRACTOR shall give all notices and comply with all Federal, State and local laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the OWNER its successors and assigns, the ENGINEER, their consultants, and each of their officers and employees and agents against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

24. WARNING SIGNS AND BARRICADES

24.1. The CONTRACTOR shall provide adequate signs, barricades, and watchmen and take all necessary precautions for the protection of the work and the safety of the public.

25. PUBLIC CONVENIENCE

25.1. The CONTRACTOR shall at all times so conduct his work as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to ensure the protection of persons and property. No road or street shall be closed to the public except with permission of the proper authorities. Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to ensure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches, which shall not be obstructed.

26. SAFETY

26.1. The CONTRACTOR shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property affected directly or indirectly by his operation during the performance of the work. This requirement will not be limited to normal working hours but will apply continuously 24 hours per day until written acceptance of the work by the OWNER and shall not be limited to normal working hours.

26.2. The ENGINEER's construction reviews of the CONTRACTOR's performance is not intended to include review of the adequacy of the CONTRACTOR's safety measures in, on, or near the construction site.

27. NOTICE TO PROCEED

27.1. Following the execution of the Contract by the OWNER and the CONTRACTOR, written Notice to Proceed with the work shall be given by the OWNER to the CONTRACTOR. The CONTRACTOR shall begin and shall prosecute the work regularly and uninterruptedly thereafter (except as provided for herein) with such force as to secure the completion of the work within the Contract Time.

28. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

28.1. It is hereby understood and mutually agreed, by and between the CONTRACTOR and the OWNER, that the date of beginning and the time for completion as specified in the Contract of the work to be done hereunder are ESSENTIAL CONDITIONS of this Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the Notice to Proceed.

28.2. The CONTRACTOR agrees that said work shall proceed regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

28.3. If said CONTRACTOR shall neglect, fail, or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this Contract, to pay to the OWNER the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the CONTRACTOR shall be in default after the time stipulated in the Contract for completing the work.

28.4. The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodical estimates.

28.5. It is further agreed that time is of the essence of each and every portion of this Contract and of the Specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract. PROVIDED, that the CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following:

28.5.1. Any preference, priority or allocation order duly issued by the Federal or State Government.

28.5.2. Unforeseeable cause beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, flood, epidemics, quarantine restrictions, strikes, freight embargoes and unusually severe weather; and

28.5.3. Any delays of Subcontractors or suppliers occasioned by any of the causes specified in subsection 28.5.1. and 28.5.2. of this article:

PROVIDED, FURTHER, that the CONTRACTOR shall, within 10 days from the beginning of such delay, unless the OWNER shall grant a further period of time prior to the date of final settlement of the contract, notify the OWNER, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the CONTRACTOR within a reasonable time of its decision in the matter, and grant such extension of time as the OWNER shall deem equitable and just.

29. CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES

29.1. Immediately after execution and delivery of the contract, and before the first partial payment is made, the CONTRACTOR shall deliver to the OWNER an estimated construction progress schedule in a form satisfactory to the OWNER, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents.

30. EXTENSION OF CONTRACT TIME

30.1. A delay beyond the CONTRACTOR's control occasioned by an Act of God, by act or omission on the part of the OWNER or by strikes, lockouts, fire, etc., may entitle the CONTRACTOR to any extension of time in which to complete the work as agreed by the OWNER, provided, however, that the CONTRACTOR shall immediately give written notice to the OWNER of the cause of such delay.

30.2. Act of God shall mean an earthquake, flood, cyclone, or other cataclysmic phenomenon. Storms of normal intensity for the locality shall not be construed as an Act of God and no reparation shall be made to the CONTRACTOR for damages to the work resulting there from.

31. EXTRA WORK

31.1. New and unforeseen items of work found to be necessary, and which cannot be covered by any item or combination of items for which there is a Contract price, shall be classed as Extra Work. It shall be the responsibility of the CONTRACTOR to identify necessary work items classed as Extra Work and for which no previous contract price has been arranged and advise the ENGINEER and the OWNER of the need for the aforesaid necessary Extra Work. The CONTRACTOR shall do such Extra Work and furnish such materials as may be required for the proper completion or construction of the whole work contemplated, upon written order from the OWNER as approved by the ENGINEER. In the absence of such written order, no claim for Extra Work shall be considered.

31.2. Extra Work shall be performed in accordance with these Contract Documents where applicable and work not covered by such shall be done in accordance with the best construction practice and in a workmanlike manner.

31.3. Extra Work required in an emergency to protect life and property shall be performed by the CONTRACTOR as required.

32. CLEANING UP

32.1. The CONTRACTOR shall at all times, keep the premises clean and shall remove from the OWNER's property, and from all public and private property, temporary structures, rubbish, waste materials resulting from his operation or caused by his employees, and all surplus materials, leaving the site smooth, clean and true to line and grade and in the same condition as existed prior to the work performed by the CONTRACTOR or his Subcontractors and as approved by the OWNER. Failure to maintain a clean project site or to complete clean-up of the project site at the completion of the work shall be cause for the OWNER to perform the necessary clean-up and the costs thereof shall be charged to the CONTRACTOR.

33. REQUEST FOR PAYMENT

33.1. The CONTRACTOR may submit to the OWNER periodically, but not more than once each month, a Request for Payment for work done and materials delivered to and stored on the site. The CONTRACTOR shall furnish the OWNER all reasonable information required for obtaining the necessary data relative to the progress and execution of the work. Payment for materials stored on the site will be conditioned upon evidence submitted to establish the OWNER's title to such materials. Each Request for Payment shall be computed on the basis of work completed on all items listed in the Detailed Breakdown of Contract (or on unit prices, as the case may be), less 10 percent to be retained until final completion and acceptance of the work and less previous payments.

34. ENGINEER'S ACTION ON REQUEST FOR PAYMENT

34.1. All CONTRACTOR's Requests for Payment shall be referred to the ENGINEER for his review and, within a reasonable period, the ENGINEER shall:

34.1.1. Recommend payment by the OWNER of the Request for Payment as submitted.

34.1.2. Recommend payment by the OWNER of such other amount as the ENGINEER shall consider as due the CONTRACTOR, informing the OWNER and the CONTRACTOR in writing of his reasons for recommending the amended amount.

34.1.3. Recommend to the OWNER that payment of the Request for Payment be withheld, informing the CONTRACTOR and the OWNER in writing of his reasons, for so recommending.

35. OWNER'S ACTION ON REQUEST FOR PAYMENT

35.1. Within thirty days after receipt of a Request for Payment from the CONTRACTOR, the OWNER shall:

35.1.1. Pay the Request for Payment as recommended by the ENGINEER.

35.1.2. Pay such other amount, in accordance with Paragraph 36, as he shall decide is due the CONTRACTOR, informing the CONTRACTOR and the ENGINEER in writing of this reasons for paying the amended amount.

35.1.3. Withhold payment in accordance with Paragraph 36, informing the CONTRACTOR and the ENGINEER of his reasons for withholding payment.

36. OWNER'S RIGHT TO WITHHOLD PAYMENT OF A REQUEST FOR PAYMENT

36.1. The OWNER may withhold payment, in whole or in part, of a Request for Payment to the extent necessary to protect himself from loss on account of any of the following:

36.1.1. Defective work.

36.1.2. Evidence indicating the probable filing of claims by other parties against the CONTRACTOR that may adversely affect the OWNER.

36.1.3. Failure of the CONTRACTOR to make payments due to Subcontractors, material suppliers, or employees.

36.1.4. Damage to another CONTRACTOR.

37. PAYMENT FOR EXTRA WORK

37.1. Written notice of claims for payment for Extra Work shall be given by the CONTRACTOR within ten days after receipt of instructions from the OWNER to proceed with the Extra Work and also before any work is commenced, except in emergency endangering life or property. No claim shall be valid unless so made. In all cases, the CONTRACTOR's itemized estimate sheets showing all labor and material shall be submitted to the OWNER. The OWNER's order for Extra Work shall specify any extension of the Contract Time and one of the following methods of payment:

37.1.1. Unit prices or combination of unit prices which formed the basis of the original Contract.

37.1.2. A lump sum based on the CONTRACTOR's estimate and accepted by the OWNER.

37.1.3. Actual cost plus 10 percent for overhead and profit. Actual costs are defined as follows:

37.1.3.1. Labor costs, including time of foreman while engaged directly upon extra work.

37.1.3.2. Labor insurance and taxes.

37.1.3.3. Materials and supplies actually used on the work.

37.1.3.4. Associated General Contractors of America standard rental rates on each piece of equipment having a value in excess of \$50.00. Equipment and tools of lesser value are considered "small tools" and, as such, are considered to be part of overhead.

38. ACCEPTANCE AND FINAL PAYMENT

38.1. When the CONTRACTOR has completed the work in accordance with the terms of the Contract Documents, he shall certify completion of the work to the OWNER and submit a final Request for Payment, which shall be the Contract Amount plus all approved additions, less all approved deductions and less previous payments made. The CONTRACTOR shall furnish evidence that he has fully paid all debts for labor, materials, and equipment incurred in connection with the work, and upon acceptance by the OWNER, the OWNER will release the CONTRACTOR except as to the conditions of the Performance and Indemnity Bond and the Labor and Material Payment Bond, any legal rights of the OWNER, required guaranties, and Correction of Faulty Work after Final Payment, and will pay the CONTRACTOR's final Request of Payment. The CONTRACTOR shall allow sufficient time between the time of completion of the work and approval of the final Request for Payment for the ENGINEER to assemble and check the necessary data.

38.1.1. Release of Liens: The CONTRACTOR shall deliver to the OWNER a complete release of all liens arising out of this Contract before the retained percentage or before the final Request for Payment is paid. If any liens remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the OWNER such amounts as the OWNER may have been compelled to pay in discharging such liens including all costs and a reasonable attorney's fees.

39. OWNER'S RIGHT TO TERMINATE AGREEMENT

39.1. The OWNER shall have the right to terminate his agreement with the CONTRACTOR after giving ten days' written notice of termination to the CONTRACTOR in the event of any default by the CONTRACTOR.

39.1.1 Default by CONTRACTOR: It shall be considered a default by the CONTRACTOR whenever he shall:

39.1.1.1. Declare bankruptcy, become insolvent, or assign his assets for the benefit of his creditors.

39.1.1.2. Disregard or violate provisions of the Contract Documents or fail to prosecute the work according to the agreed Schedule of Completion, including extensions thereof.

39.1.1.3. Fail to provide a qualified superintendent, competent workmen or Subcontractors, or proper materials, or fail to make prompt payment thereof.

39.1.2. Completion by the OWNER: In the event of termination of the Agreement by the OWNER because of default by the CONTRACTOR, the OWNER may take possession of the work and of all materials and equipment thereon and may finish the work by whatever method and means he may select.

40. TERMINATION OF CONTRACTOR'S RESPONSIBILITY

40.1. The Contract will be considered complete when all work has been finished and the project accepted in writing by the OWNER. The CONTRACTOR's responsibility shall then cease, except as set forth in his Performance and Indemnity Bond, as provided in Paragraph 16, Guaranty, and as provided in Paragraph 41, Correction of Faulty Work after Final Payment.

41 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

41.1. The making of the final payment by the OWNER to the CONTRACTOR shall not relieve the CONTRACTOR of responsibility for faulty materials or workmanship. The CONTRACTOR shall promptly replace any such defects, as determined by the ENGINEER, discovered within two years from the date of final payment of the work.

42. INSPECTION

42.1. The authorized representatives of the ENGINEER and OWNER shall be permitted to inspect all materials, workmanship, and other relevant project records and data. Materials and workmanship will be subject to the approval of the OWNER and/or his representative.

43. CORRECTION OF WORK

43.1. All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be, at all times and places, subject to the inspection of the ENGINEER who shall be the final judge of the quality and suitability of the work, materials, process of manufacturer, and methods of construction for the purposes for which they are used. Should they fail to meet his approval, they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the CONTRACTOR at his own expense. Rejected material shall immediately be removed from the site. If, in the opinion of the ENGINEER, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract hereunder shall be reduced by such amount as in the judgment of the ENGINEER shall be equitable.

44. SUBSURFACE CONDITIONS FOUND DIFFERENT

44.1. Should the CONTRACTOR encounter subsurface and/or latent conditions at the site materially differing from those shown on the Plans or indicated in the Specifications, he shall immediately give notice to the ENGINEER of such conditions before they are disturbed. The ENGINEER will thereupon promptly investigate the conditions, and if he finds and so determines that they materially differ from those shown on the Plans or indicated in the Specifications, he will at once make such changes in the Plans and/or Specifications, as he may find necessary. Any increase or decrease of cost resulting from such changes are to be adjusted in the manner provided in Paragraph 37 of the General Conditions.

45. CONTRACT SECURITY

45.1. The CONTRACTOR shall furnish a Performance Indemnity Bond and Payment Bond (forms attached) in an amount at least equal to 100% of the contract prices as security for the faithful performance of this Contract, as the security for the payment of all persons performing labor on the project under this Contract, and furnishing materials in connection with this Contract. The Performance and Indemnity Bond and the Payment Bond may be in one or in separate instruments in accordance with local law. Before final acceptance, each bond must be approved by the OWNER.

46. DISPUTE RESOLUTION

46.1 OWNER and CONTRACTOR agree to negotiate all disputes between them in good faith prior to exercising their rights under law.

46.2 Any claim, dispute or other matter in question arising from or related to this Agreement or the performance or breach thereof, which cannot be resolved through direct discussions between parties shall be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by either party, and only after both parties have completed the mediation process.

46.3 Through mediation, CONTRACTOR and OWNER shall endeavor to resolve claims, disputes, or other matters in question between them by mediation in an informal process in which a third-party

mediator facilitates discussion between the parties. The parties may designate a mediator mutually agreeable to both CONTRACTOR and OWNER to conduct the mediation. If the parties are unable to agree upon a mediator, mediation shall be conducted in accordance with the mediation provision of the South Carolina Circuit Court Alternative Dispute Resolution Rules. The mediation shall be conducted in York County, South Carolina. A request for mediation shall be filed in writing with the other party to this Agreement, and legal or equitable proceedings shall be stayed pending mediation for a period of sixty (60) days from the date of the request for mediation is filed, unless stayed for a longer period of time by agreement of the parties or court order. The cost of a third-party mediator will be shared equally by the parties.

46.4 If the parties reach an agreement during the mediation process, they shall reduce the agreement to writing and sign it with their attorneys, if any. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

46.5 In any action or proceedings to enforce or interpret any provision of this Agreement, or where any provision herein is validity asserted as a defense, each Party shall bear its own attorney fees, costs, and expenses.

END OF SECTION

DOCUMENT 00 73 14
SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions, which are defined in the Standard General Conditions of the Construction Contract, have the meanings assigned to them in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below which are applicable to both the singular and plural thereof.

1.0 CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

- A. As required under Article 5.0 of the General Conditions, the Contractor shall not commence work under this Contract until he/she has obtained all the insurance required according to these Supplementary Conditions and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his/her Subcontract until all similar insurance required of the Subcontractor has been so obtained and approved.
- B. Unless otherwise specified in this Contract, the Contractor shall at its sole expense, maintain in effect at all times, during the performance of work, insurance coverage with limits not less than those set forth below with insurers and under forms of policies satisfactory to the Owner.
- C. The Contractor shall deliver Certificates of Insurance to the Engineer no later than ten (10) days after award of the Contract but in any event, prior to execution of the Contract by the Owner and prior to commencing work on the site, as evidence that policies with such coverage and limits of insurance are in full force and effect.
 - 1. Certificates shall provide that not less than thirty (30) days advance notice will be given in writing to the Owner prior to cancellation, termination or material alteration of said policies of insurance.
 - 2. Certificates shall identify on their faces the project name, Sugar Creek Streambank Stabilization.
- D. The Owner and Engineer are not maintaining any insurance on behalf of the Contractor covering against loss or damage to the work or to any other property of the Contractor unless otherwise specifically stated herein and as may be described by Appendix hereto. In the event the Contractor maintains insurance against physical loss or damage to the Contractor's construction equipment and tools, such insurance shall include an insurer's waiver of rights of subrogation in favor of the Owner and Engineer.
- E. If any of the property and casualty insurance requirements are not complied with at their renewal dates, payments to the Contractor will be withheld until these requirements have been met, or at the option of the Owner, the Owner may pay the renewal premiums and withhold such payments from any monies due to the Contractor.

- F. In the event that claims in excess of the insured amounts provided herein are filed by reason of any operations under the Contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due the Contractor until such time as the Contractor shall furnish such additional security covering such claims as may be determined by the Owner.
- G. All insurance shall be placed with insurers maintaining an A.M. Best rating of no less than an A:VII. If A.M. Best rating is less than A:VII, approval must be received from the Owner.
- H. Insurance Requirements:

- 1. Commercial General Liability Insurance: The Contractor shall take out and maintain during the life of the Contract such commercial general liability insurance as shall protect him/her from claims for damage for bodily injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract whether such operations are by him/herself or by any Subcontractor or by anyone directly or indirectly employed by either of them. The amount of such insurance shall not be less than the following:

General Aggregate	\$2,000,000.00
Products – Complete/Operations Aggregate	\$1,000,000.00
Personal and Advertising Injury	\$1,000,000.00
Each Occurrence	\$1,000,000.00
Medical Expenses (Any one person)	\$ 10,000.00

- a. The General Aggregate listed above shall be for this project only.
- b. Special Hazards: The Contractor’s and his/her Subcontractor’s General Liability Insurance shall provide Environmental/Pollution liability coverage in the amount of \$1,000,000.00 as protection against use of explosives, collapse, and underground hazards. If blasting is authorized by the Owner, each detonation of blasting shall be considered a single occurrence.
- c. Provide Waiver of Subrogation in favor of the Owner and Engineer.

- 2. Comprehensive Automobile Liability Insurance:

- a. Coverage sufficient to cover all vehicles owned, used or hired by the Bidder, his/her agents, representatives, employees or Subcontractors.
- b. The limit of liability shall not be less than the following:

Combined Single Limit	\$1,000,000.00
Each Occurrence Limit	\$1,000,000.00
Medical Expense Limit	\$ 5,000.00

- c. Provide Waiver of Subrogation in favor of the Owner and Engineer.
3. Excess Liability (Umbrella) Insurance:
- a. Contractor shall carry and maintain Combined Excess Liability (Umbrella) insurance for a limit not less than the following:

Aggregate	\$5,000,000.00
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4. Workers Compensation: The insurance required by this section shall be written for not less than the following or greater, if required by law:
- a. Statutory benefits as provided by South Carolina Law.
 - b. Employers' Liability:

Each Accident	\$500,000.00
Disease – Policy Limit	\$500,000.00
Disease – Each Employee	\$500,000.00
 - c. Provide Waiver of Subrogation in favor of the Owner and Engineer.
5. Materials and Equipment Floater: The Contractor shall procure and maintain during the life of the Contract Agreement, Materials and Equipment Floater Insurance to protect the interests of the Owner, the Contractor, and Subcontractors against loss by vandalism, malicious mischief, and all hazards included in a standard All Risk Endorsement. The amount of the insurance shall at all times equal or exceed the full amount of the Contract. The policies shall be in the names of the Owner and Contractor.
6. Owner's Protective Liability Insurance: The Contractor shall purchase and maintain an Owner's Protective Liability policy issued in the name of the Owner with a combined single limit of liability of not less than the following:
- | | |
|-----------------|----------------|
| Each Occurrence | \$1,000,000.00 |
| Aggregate | \$1,000,000.00 |
7. Completed Operations Hazards Insurance: Completed Operations Hazards Insurance is to be provided for all the named insured in the amount of \$2,000,000.00, for three (3) years from date of Substantial Completion. The intent of this paragraph is to provide coverage to all of the named insureds for claims which may arise from operations under this Contract.
8. Certificates of Insurance: Certificates acceptable to the Owner shall be attached to the signed Contract Documents when they are transmitted to the Owner for execution. The Owner and Engineer shall be named as additional insureds on all applicable policies with the exception of Worker's Compensation. All policies and certificates of insurances shall contain the following provisions:
- a. All certificates of insurance issued in conjunction with this Contract shall provide that coverages afforded under the policies shall not be cancelled

unless at least thirty (30) days prior to cancellation written notice has been given to the Owner.

- b. Insurers shall have no right of recovery or subrogation against the Owner and its agents and agencies and the Engineer, it being the intention of the parties that the insurance policies so affected shall protect both parties and be primary coverage for any and all losses covered by the above-described insurance.
- c. The insurance required of the Contractor shall be primary and non-contributory to any other insurance which may be available as respects to this project.
- d. The insurance companies issuing the policy or policies shall have no recourse against the Owner and its agents and agencies and the Engineer, for the payment of any premiums or for assessments under any form of policy.
- e. Any and all deductibles in the above-described insurance policies shall be assumed by and be for the amount of, and at the sole risk of, the Contractor.

2.0 ABBREVIATIONS AND DEFINITIONS

- A. Abbreviations used in these Specifications refer to the following:

OWNER: York County, South Carolina
ENGINEER: W.K. Dickson & Co., Inc.

- B. Definitions: Wherever in the Specifications or upon the Drawings the words “directed”, “required”, “permitted”, “ordered”, “designated”, “prescribed” or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation or prescription of the Owner is intended; and similarly, the words “approved”, “acceptable”, “satisfactory” or words of like import shall mean approved by, or acceptable to, or satisfactory to the Owner, unless otherwise expressly stated.

3.0 SCHEDULE OF OCCUPATIONAL CLASSIFICATIONS AND MINIMUM HOURLY WAGE RATES

- A. See 13.0.D.

4.0 NOTICE AND SERVICE THEREOF

- A. All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Owner’s representative as indicated below, and any notice to or demand upon the Owner shall be sufficiently given if delivered to the office of said representative, or if deposited in the United States Postal Service, in a sealed prepaid postage envelope, or delivered with charges prepaid to any parcel service company for transmission, in each case addressed to the Owner’s representative as indicated below, or to such other representative of the Owner, or to such other address as the Owner may subsequently specify in writing to the Contractor for such purposes. The Owner’s representative is as follows:

Lisa Hagood, PE
County Engineer
York County Government
PO Box 148
York, SC 29745
lisa.hagood@yorkcountygov.com
803.818.5733

5.0 CORRELATION OF PLANS AND SPECIFICATIONS

- A. The Contract, Plans, and Specifications are to be interpreted as mutually explanatory or supplementary, and therefore any features shown in one and not in the other shall have the same force and effect as if shown by both and shall be fully executed. Prior to execution of the work, the Contractor shall check all Drawings and Specifications, and shall immediately report to the Engineer all errors, discrepancies, conflicts, and omissions discovered therein. All such errors, discrepancies, conflicts, and omissions will be adjusted by the Engineer, and adjustment by the Contractor without prior approval shall be at his/her own risk. The settlement of any complications arising from such adjustments shall be made by the Contractor at his/her own expense and to the satisfaction of the Owner.

6.0 OWNERSHIP OF DRAWINGS

- A. All Drawings, Specifications, and memoranda relating to the work are the property of the Owner and are to be carefully used and returned to the Owner upon completion of cessation of the work from any cause.
- B. Plans and Specifications to be Furnished: One (1) set of Plans and Specifications will be furnished to the Contractor without charge. Additional sets can be produced from electronic PDF files provided by the Engineer. The Contractor shall have available on the project site at all times one (1) copy of each of said Plans and Specifications.

7.0 ORDER OF WORK

- A. The prosecution, order of sequence of the work, shall be as approved by the Engineer, which approval, however, shall in no way affect the responsibility of the Contractor.

8.0 PHYSICAL DATA

- A. The Drawings, which accompany and form a part of the Contract, have been prepared on the basis of surveys and observations of the site, and are intended to present an essentially accurate indication of the physical conditions at the site. However, this shall not relieve the Contractor of the necessity for familiarizing him/herself with physical conditions at the site, and any discrepancies found in the Drawings shall not be grounds for claims by the Contractor against the Owner, or for non-performance of work specifically provided for under the Contract.

9.0 ORGANIZATION, PLANT, AND PROGRESS

- A. The following is supplemental to Article 6.1 of Document 00 72 15, General Conditions, of these Contract Documents:
1. The Contractor shall give his/her personal superintendence to the work or shall have a competent superintendent with authority to act for him/her, to the satisfaction of the Engineer, on the job at all times during the progress of the work.
 2. The Contractor shall employ an ample force of properly experienced persons and provide construction plant properly adapted to the work and of sufficient capacity and efficiency to accomplish the work in a safe and workmanlike manner at a rate of progress satisfactory to the Owner. All plants shall be maintained in good working order and provision shall be made for immediate emergency repairs. No reduction in the capacity of the plant employed on the work shall be made except by written permission of the Owner. The measure of the capacity of the plant shall be its actual performance on the work to which these Specifications apply. Award of this Contract shall not be construed as a guaranty by the Owner that plant listed by the Contractor for use on this Contract is adequate for the performance of the work.
 3. Should the Contractor fail to maintain a rate of progress which, in the opinion of the Owner, will complete work within the time limit specified, the Owner may require that additional persons working, if necessary, during additional periods or shifts, or additional plant, or both, be placed on the work; or a reorganization of plant layout be effected in order that the progress of the work be brought up to schedule and so maintained. Should the Contractor refuse or neglect so to increase the number of employees, working period or plant, or to reorganize the plant layout in the manner satisfactory to the Owner, the latter may proceed under the provisions of the Contract to rectify the conditions.

10.0 ENGINEER'S REVIEW AND CONTRACTOR'S INSPECTION

- A. The work shall be periodically reviewed by the Engineer's representatives, but the presence of the Engineer's representatives shall not relieve the Contractor or his/her responsible agent of responsibility for the proper execution of the work.
- B. The Contractor will be required to furnish at his/her expense such labor, organization, and materials which form a part of the ordinary and usual equipment and crew of the Contractor as may be reasonably necessary in inspecting and supervising the work. Should the Contractor refuse, neglect or delay compliance with this requirement, the specified facilities may be furnished and maintained by the Owner and the cost thereof will be deducted from any amounts due, or to become due, the Contractor.
- C. Except as specified in this paragraph, or otherwise provided for in these Contract Documents and Specifications, all expenses of inspection will be borne by the Contractor.
- D. It is understood that any instruction or decision given by the Engineer through the Resident Project Representative is to be considered the instruction or decision of the Owner, in all cases where, under the terms of this Contract, decision rests with the Engineer.

- E. The Engineer or his/her authorized representative shall have access to the work at all times.

11.0 STANDARD TESTS, QUALITY, AND GUARANTEES

- A. Standard tests, quality, and guarantees shall comply with the following:
 - 1. All materials, supplies, and parts and assemblies thereof, entering into the work to be performed under these Specifications, shall be tested as specified herein or otherwise required, in conformity with the Contract and according to the best modern approved methods for the particular type and class of work.
 - 2. Unless waived in writing by the Engineer, all tests and trials shall be made in the presence of a duly authorized representative of the Engineer. When the presence of the Inspector is so waived, sworn statements in duplicate of the tests made and results thereof shall be furnished to the Engineer by the Contractor as soon as possible after completion of tests.
 - 3. Unless otherwise authorized, directed or specified, where standard published Specifications of recognized authorities and organizations are mentioned, the latest revision of such Specification current at the time when the work is executed shall govern.
 - 4. All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards.
 - 5. See General Conditions: ARTICLE 13 – INSPECTION AND TESTING OF MATERIALS.
 - 6. Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with Specifications and suitability for uses intended.
 - 7. In accordance with the Contract, all materials, parts, and equipment furnished and incorporated in the work shall be high grade, free from defects and imperfections, of recent manufacture, and unused. Workmanship shall be of the highest grade and in accordance with the best modern standard practice.

12.0 STANDARD PRODUCTS

- A. All materials supplied, and articles furnished, shall wherever specified and otherwise wherever practicable, be the standard products of recognized, reputable Manufacturers. The standard products of Manufacturers other than those specified will be accepted when it is proven to the satisfaction of the Engineer, in accordance with the Contract, that they are equal in strength, durability, usefulness, and convenience for the purpose intended. Any changes required in the details and dimensions indicated on the Drawings, or the substitution of standard products other than those provided for, shall be properly made as approved by the Engineer and at the expense of the Contractor.

13.0 AMERICAN RESCUE PLAN ACT – STATE & LOCAL FISCAL RECOVERY FUNDS (ARPA SLFRF) SUPPLEMENTAL CONDITIONS FOR CONTRACTS

- A. Termination for Cause and Convenience
 - 1. The contract may be terminated in whole or in part as follows:

- i. By the Owner, if a contractor fails to comply with the terms and conditions of the grant award;
- ii. By the Owner, to the greatest extent authorized by law, if an award no longer effectuates the program goals or agency priorities;
- iii. By the Owner with the consent of the contractor, in which case the two parties must agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated;
- iv. By the Owner upon written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if the Owner determines in the case of partial termination that the reduced or modified portion of the contract will not accomplish the purposes for which the contract was made, the Owner may terminate the contract in its entirety; or
- v. By the Owner pursuant to termination provisions included in the grant award.

B. Administrative, Contractual, and Legal Remedies

1. In addition to any of the remedies described elsewhere in the contract, if the contractor materially fails to comply with the terms and conditions of this contract, including any federal or state statutes, rules or regulations, applicable to this contract, the Owner may take one or more of the following actions:
 - i. Temporarily withhold payments pending correction of the deficiency by the contractor;
 - ii. Disallow (that is, deny both use of funds and any applicable matching credit for) all or part of the cost of the activity or action not in compliance;
 - iii. Wholly or partly suspend or terminate this Contract; and
 - iv. Take other remedies that may be legally available.

The remedies identified above, do not preclude the contractor from being subject to debarment and suspension under Presidential Executive Orders 12549 and 12689. The Owner shall have the right to demand a refund, either in whole or part, of the funds provided to the contractor for noncompliance with the terms of this Contract.

C. Equal Employment Opportunity: During the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity or national origin.
3. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
4. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
5. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, (E.O. 11246), and of the rules, regulations, and relevant orders of the U.S. Secretary of Labor.
6. The Contractor will furnish all information and reports required by E.O. 11246, and by rules, regulations, and orders of the U.S. Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the U.S. Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
7. In the event of the Contractor's non-compliance with the non-discrimination clauses of this Contract or with any of the said rules, regulations or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or Federally-assisted construction contracts in accordance with procedures authorized in E.O. 11246, and such other sanctions may be imposed and remedies invoked as provided in E.O. 11246, or by rule, regulation or order of the U.S. Secretary of Labor, or as otherwise provided by law.
8. The Contractor will include the portion of the sentence immediately preceding Paragraph 1. and the provisions of Paragraphs 1. through 7. in every Subcontract or Purchase Order unless exempted by rules, regulations or orders of the U.S. Secretary of Labor issued pursuant to Section 204 of E.O. 11246, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor

will take such action with respect to any Subcontract or Purchase Order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

D. Prevailing Wages:

1. Contractors will be required to certify throughout the project, that prevailing wages are being paid to all contractor and subcontractor employees. The wages listed on General Decision Number SC20240046 01/05/2024 will apply to this contract. Please note that the contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract.

E. Copeland Anti-Kickback Act:

1. Contractor: The Contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. Part 3, as may be applicable, which are incorporated by reference into this Contract.
2. Subcontracts: The Contractor or Subcontractor shall insert in any subcontracts the clause above and a clause requiring the Subcontractors to include these clauses in any lower-tier subcontracts. The prime Contractor shall be responsible for the compliance by any Subcontractor or lower-tier Subcontractor with all of these Contract clauses.
3. Breach: A breach of the Contract clauses above may be grounds for termination of the Contract, and for debarment as a Contractor and Subcontractor as provided in 29 C.F.R. § 5.12.

F. Contract Work Hours and Safety Standards Act: Compliance with the Contract Work Hours and Safety Standards Act (as required by 29 C.F.R. § 5.5(b)(1)-(4)). The Contractor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of forty (40) hours.

1. Overtime requirements: No Contractor or Subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he/she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1-1/2) times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.
2. Violation; Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in Paragraph 1. of this section the Contractor and any Subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the United States (in the case of work done under Contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such

liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in Paragraph 1. of this section, in the sum of \$27.00 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in Paragraph 1. of this section.

3. Withholding for Unpaid Wages and Liquidated Damages: The York County, South Carolina shall, upon its own action or upon written request of an authorized representative of the U.S. Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or Subcontractor under any such Contract or any other Federal Contract with the same prime Contractor, or any other Federally-assisted Contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or Subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in Paragraph 2. of this section.
4. Subcontracts: The Contractor or Subcontractor shall insert in any subcontracts the clauses set forth in Paragraph 1. through 4. of this section and also a clause requiring the Subcontractors to include these clauses in any lower-tier subcontracts. The prime Contractor shall be responsible for compliance by any Subcontractor or lower-tier Subcontractor with the clauses set forth in Paragraphs 1. through 4. of this section.

G. Compliance with Clean Air Act and Federal Water Pollution Control Act:

1. Clean Air Act:
 - a. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401, et seq.
 - b. The Contractor agrees to report each violation to the York County, South Carolina and understands and agrees that the York County, South Carolina will, in turn, report each violation as required to assure notification to the Treasury, and the appropriate Environmental Protection Agency (EPA) Regional Office.
 - c. The Contractor agrees to include these requirements in each Subcontract exceeding \$150,000.00.
2. Federal Water Pollution Control Act:
 - a. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251, et seq.
 - b. The Contractor agrees to report each violation to the York County, South Carolina and understands and agrees that the York County, South Carolina will, in turn, report each violation as required to assure notification to the Treasury, and the appropriate EPA Regional Office.
 - c. The Contractor agrees to include these requirements in each Subcontract exceeding \$150,000.00.

H. Debarment and Suspension:

1. This Contract is a covered transaction for purposes of 2 C.F.R. Part 180 and 2 C.F.R. Part 3000. As such, the Contractor is required to verify that none of the Contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
2. The Contractor must comply with 2 C.F.R. Part 180, Subpart C, and 2 C.F.R. Part 3000, Subpart C, and must include a requirement to comply with these regulations in any lower-tier covered transaction it enters into.
3. This certification is a material representation of fact relied upon by York County, South Carolina. If it is later determined that the Contractor did not comply with 2 C.F.R. Part 180, Subpart C, and 2 C.F.R. Part 3000, Subpart C, in addition to remedies available to York County, South Carolina, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
4. The Bidder or Proposer agrees to comply with the requirements of 2 C.F.R. Part 180, Subpart C, and 2 C.F.R. Part 3000, Subpart C, while this offer is valid and throughout the period of any Contract that may arise from this offer. The Bidder or Proposer further agrees to include a provision requiring such compliance in its lower-tier covered transactions.

I. Byrd Anti-Lobbying Amendment: Contractors who apply or bid for an Award of \$100,000.00 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal Contract, Grant or any other Award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal Award. Such disclosures are forwarded from tier to tier up to the Recipient who in turn will forward the certification(s) to the awarding agency.

J. Procurement of Recovered Materials: In the performance of this Contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired competitively within a timeframe providing for compliance with the Contract performance schedule; meeting Contract performance requirements; or at a reasonable price. Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines webpage:

<https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>

The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

K. Domestic Preference for Procurement: As appropriate, and to the extent consistent with law, the Contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition or use of goods, products or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products. For purposes of this clause: Produced in the United States means, for iron and steel

products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

- L. Access to Records: The following access to records requirements apply to this Contract:
1. The Contractor agrees to provide York County, South Carolina, U.S Department of the Treasury, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts, and transcriptions.
 2. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
 3. The Contractor agrees to provide the Treasury or authorized representatives access to construction or other work sites pertaining to the work being completed under the Contract.
- M. Compliance with Federal Laws, Regulations, and Executive Orders: This is an acknowledgement that the U.S. Department of the Treasury ARP SLFRF financial assistance will be used to fund all or a portion of the contract. The Contractor will comply with all applicable Federal laws, regulations, executive orders, and the Treasury's policies, procedures, and directives.
- N. Program Fraud and False or Fraudulent Statements or Related Acts: The Contractor acknowledges that 31 U.S.C., Chapter 38, (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this Contract.
- O. Increasing Seat Belt Use in the United States: Pursuant to Executive Order 13043, 62 Fed. Reg. 19216 (Apr. 18, 1997), York County, South Carolina encourages Contractor to adopt and enforce on-the-job seat belt policies and programs for its employees when operating company-owned, rented or personally owned vehicles.
- P. Reducing Text Messaging While Driving: Pursuant to Executive Order 13513, 74 Fed. Reg. 51225 (Oct. 6, 2009), York County, South Carolina encourages Contractor to adopt and enforce policies that ban text messaging while driving.

End of Section

"General Decision Number: SC20240031 06/14/2024

Superseded General Decision Number: SC20230031

State: South Carolina

Construction Type: Building

County: York County in South Carolina.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	06/14/2024

* ELEC0379-010 01/01/2024

	Rates	Fringes
ELECTRICIAN.....	\$ 31.31	15.5%+8.65

Work from swinging scaffolds, boson chairs, or raw structural steel: \$1.00 per hour additional.

 * SUSC2011-027 08/31/2011

	Rates	Fringes
BRICKLAYER.....	\$ 17.50	0.67
CARPENTER (Form Work Only).....	\$ 15.53 **	1.76
CARPENTER, Excludes Drywall Hanging, and Form Work.....	\$ 17.14 **	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 14.10 **	0.00
DRYWALL HANGER.....	\$ 16.32 **	1.50
LABORER: Common or General.....	\$ 11.26 **	0.00
LABORER: Landscape.....	\$ 9.45 **	0.49
LABORER: Mason Tender-Brick/Concrete/Cement/S tone.....	\$ 10.88 **	0.00
LABORER: Pipelayer.....	\$ 14.69 **	2.08
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 16.05 **	1.96
OPERATOR: Bulldozer.....	\$ 17.07 **	2.65
OPERATOR: Crane.....	\$ 19.39	2.02
OPERATOR: Grader/Blade.....	\$ 17.50	1.78
OPERATOR: Loader.....	\$ 11.64 **	1.03
PAINTER: Brush, Roller and Spray.....	\$ 12.36 **	0.00
PIPEFITTER.....	\$ 19.67	9.16
PLUMBER.....	\$ 19.21	4.56
ROOFER.....	\$ 12.11 **	0.00
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 19.11	0.00
TRUCK DRIVER.....	\$ 14.05 **	3.18

 WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

 ** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate

changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

SECTION 01 10 00
SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Contract description.
 - 2. Specification Conventions.
 - 3. Work sequence.

1.2 CONTRACT DESCRIPTION

- A. Work of the Project includes the stabilization of approximately 775 linear feet of eroded stream bank along Sugar Creek utilizing bioengineered techniques consisting of vegetated fabric encapsulated soil lifts and the installation of three (3) boulder vanes. Additionally, manhole SSMH#5 existing rim elevation will be raised two (2) feet above the existing adjacent grade.
- B. Perform Work of Contract under unit prices contract with Owner in accordance with Conditions of Contract.

1.3 SPECIFICATION CONVENTIONS

- A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.

1.4 WORK SEQUENCE

- A. Construct Work in stages during construction period, coordinate construction schedule and operations with Owner:
 - 1. Obtain erosion control permit from SCDES, York County, and all other approvals necessary to begin and complete the project.
 - 2. Contractors are required to have rain gauges at the construction site and the rain totals documented for review by York County.
 - 3. Hold an on-site pre-construction meeting with York County and SCDES (as required) at least 48 hours prior to beginning any land -disturbing activities. The owner, design engineer and contractor must be present and have obtained the stormwater permit, stamped approved plans and the N.O.I. approval letter from SCDES before calling SCDES to schedule this meeting. Receive the York County land disturbance permit (at the pre-construction meeting). This will be a preliminary issuance of the land disturbance permit.
 - 4. Contractor is fully responsible for contacting all appropriate parties and assuring that utilities are located prior to the commencement of construction. Contractor shall verify location and depth of all existing utilities prior to construction.
 - 5. Stabilized construction entrance at the site shall be installed as shown on the plans and details
 - 6. Clearing and grubbing only for those areas necessary for installation of perimeter controls.

7. Install perimeter controls.
8. Clearing, grubbing, and installation of sediment basins and traps. (not applicable to this project.)
9. Call the York County environmental compliance division to request an inspection of the control measures for perimeter controls. Upon satisfactory inspection and approval of perimeter controls and any sediment basins and traps, the environmental compliance inspector will issue the final land disturbance permit.
10. Permittee shall conduct construction site inspections on a routine basis of all areas disturbed by construction activity, perimeter BMPs and areas used for storage of materials that are exposed to precipitation, all in accordance with section 4 of the NPDES-CGP.
11. Haul route shall have 5' or more of vertical cover over the sanitary sewer force main. Contractor shall perform soft digs prior to start of construction to verify location and depth of force main. Contractor shall add soil or gravel to haul route as needed to achieve designated cover, and shall maintain surface drainage. Contractor shall provide two (2) poles (min. 6' tall above ground) with flagging to mark each sanitary sewer manhole in project area.
12. Prepare staging and stockpiling areas in locations as shown on the construction plans or as approved by the engineer.
13. Remaining clearing and grubbing. Install any remaining erosion control measures per plan.
14. Utility installation and statement of whether storm drains will be used or blocked until after completion of construction, if applicable. (not applicable to this project.)
15. Road grading, if applicable. (not applicable to this project.)
16. Grading for the remainder of the site.
17. Grade the channel banks per plan, cutting and filling as necessary. Work shall take place at a time when cuttings and live stakes to be installed are dormant (Nov. 15 – Mar. 15).
18. Prior to fine grading and installation of rock and other structures, obtain approval of engineer. Review vane detail on sheet 8 for item-specific construction sequence.
19. Construction shall proceed in an upstream to downstream direction, one vane at a time with associated stream bank. Contractor shall install temporary cofferdam in order to work in dry conditions. Cofferdam shall be tall enough to maintain dry work conditions with base flow in the channel but is not expected to be taller than elevation 501 and will not prevent full channel flow during large storm events.
20. Final grading, landscaping, or stabilization. Establish permanent vegetation as shown on plans. Erosion control measures shall be properly maintained until permanent vegetation is established. Disturbed areas not at final grade, left idle for two or more weeks during any phase of construction, shall be temporarily vegetated. Upon completion of final grading, permanent vegetation shall be established within 7 calendar days. All other disturbed areas will be stabilized by permanently vegetating with seed and mulch as recommended by the permanent seeding specifications due to the restraints on the length of improvements and/or duration of exposed disturbed areas.
21. Removal of sediment and debris from BMPs. (not applicable to this project.)
22. Confirm final stabilization has been reached and request inspection from the County.

23. Removal of temporary erosion and sediment controls, and/or conversion of temporary water quality and/or water quantity BMPs to permanent features with York County approval required prior to filing for notice of termination (not).
24. It shall be understood that failure to specifically mention any work that would naturally be required to complete this project shall not relieve the contractor of his responsibility to perform such work.
25. No clearing will take place between April 1st and October 14th.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Submittal Procedures
 - 2. Product Data
 - 3. Shop Drawings
 - 4. Samples
 - 5. Construction Progress Schedules
 - 6. Proposed Products List

1.2 SUBMITTAL PROCEDURES

- A. Submit number of copies Contractor requires, plus two copies Engineer will retain.
- B. Deliver to Engineer at business address. If requested, Contractor can submit electronically to Engineer via email to be provided during preconstruction conference.
- C. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- D. Transmit each submittal with Engineer accepted form.
- E. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- F. Identify Project, Contractor, subcontractor, and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.
- G. Apply Contractor's transmittal cover page signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- H. Schedule submittals to expedite Project. Coordinate submission of related items.
- I. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- J. When revised for resubmission, identify changes made since previous submission.
- K. Distribute electronic copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- L. Submittals not requested will not be recognized or processed.

1.3 PRODUCT DATA

- A. Product Data: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.

- B. Mark submittal to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

1.4 SHOP DRAWINGS

- A. Shop Drawings: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual specification sections, provide Shop Drawings signed and sealed by Professional Engineer responsible for designing components shown on Shop Drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. Submit number of copies described in SUBMITTAL PROCEDURES article.

1.5 DESIGN DATA

- A. Submit for Engineer's knowledge as Contract Administrator or for Owner.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.6 TEST REPORTS

- A. Submit for Engineer's knowledge as Contract Administrator or for Owner.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.7 CERTIFICATES

- A. When specified in individual Specification Sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Engineer.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product but must be acceptable to Engineer.

1.8 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual Specification Sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing to Engineer for delivery to Owner.

- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.9 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for Engineer's knowledge as Contract Administrator or for Owner.
- B. Submit report within 72 hours of observation to Engineer for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.10 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit preliminary schedules within 10 calendar days after the Effective Date of the Contract. After review, resubmit required revised data within 10 calendar days before the submission of the first Application for Payment. No Progress Payment will be made to Contractor until acceptable schedules are submitted to Engineer.
- B. Submit revised Progress Schedules with each Application for Payment, but not less than monthly.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated horizontal bar or Gantt chart with separate line for each major portion of Work or operation, identifying first workday of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Submit separate schedule of submittal dates for Shop Drawings, product data, and samples. Indicate dates reviewed submittals will be required from Engineer. Indicate decision dates for selection of finishes.
- I. Indicate delivery dates for Owner furnished products and products identified under Allowances, if required.
- J. Revisions to Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect, including effect of changes on schedules of separate Contractors.

1.11 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.12 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of site and construction throughout progress of Work.
- B. Submit photographs monthly or to show milestones of Work.
- C. Take three photographs from differing locations for each section of work indicating relative progress of the Work, three days maximum prior to submitting.
- D. Take photographs as evidence of existing project conditions.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 41 00
REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The following requirements of Regulatory Agencies having an interest in this Project are hereby made a part of this Contract.
- B. The construction of the Project, including the letting of Contracts in connection therewith, shall conform to the applicable requirements of state, territorial, and local laws and ordinances to the extent that such requirements do not conflict with federal laws and this subchapter.
- C. State and Local Sales Tax: All applicable South Carolina sales tax shall be to the account of the Contractor.
- D. Use of Chemicals: All chemicals used during the Project construction or furnished for Project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.
- E. Safety and Health Regulations: The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).
- F. The Contractor shall comply with applicable sections of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and any state versions of a similar manual.
- G. Inspection by Agencies: The representatives of the SCDES, local jurisdiction, USACE and other governing agencies shall have access to the Work wherever it is, in preparation or in progress, and the Contractor shall provide proper facilities for such access and inspection.
- H. Withholding for non-residents shall comply with the following:
 - 1. Attention of non-resident Contractors is invited to Code Sections 12-8-540 and 12-8-550 as amended effective July 1, 1994, Section 49, Appropriations Bill, Part II.
 - 2. If a non-resident Contractor is the Successful Bidder on this Project, he/she shall be required to provide the Owner with an Affidavit (Form I-312, Non-Resident Taxpayer Registration Affidavit Income Tax Withholding) affirming registration with the South Carolina Department of Revenue or the South Carolina Secretary of State's office. (See attached form).
 - 3. Forms to register for all taxes administered by the South Carolina Department of Revenue may be obtained by calling the License and Registration Section at (803) 737-4872 or writing to South Carolina Department of Revenue, Registration Unit, Columbia, South Carolina 29214-0140.
 - 4. In the absence of an Affidavit being provided, withholding in the amount of 2 percent of the Contract price will be made by the Owner.

- I. Bypassing of Wastewater: No wastewater bypassing will be permitted during construction unless a schedule has been approved by applicable state and local agencies, if required pursuant to the terms of the NPDES permit.
 1. Schedule Work to minimize bypassing.
 2. Coordinate all Work which will affect operation of the existing treatment facility with the Owner and the Engineer to assure the least interruption possible in operation of the existing facilities.
 3. Make no connections to the existing treatment facility diverting flow to the new facility until directed by the Engineer.

END OF SECTION

[Attachment on following page(s)]

1350



STATE OF SOUTH CAROLINA
DEPARTMENT OF REVENUE
**NONRESIDENT TAXPAYER REGISTRATION
AFFIDAVIT INCOME TAX WITHHOLDING**

I-312
(Rev. 10/5/07)
3323

Mail to: The company or individual you are contracting with.

The undersigned nonresident taxpayer on oath, being first duly sworn, hereby certifies as follows:

1. Name of Nonresident Taxpayer: _____

2. Trade Name, if applicable (Doing Business As):

3. Mailing Address: _____

4. Federal Employer Identification Number (FEI): _____

5. _____ Hiring or Contracting with:
Name: _____
Address: _____

_____ Receiving Rentals or Royalties From:
Name: _____
Address: _____

_____ Beneficiary of Trusts and Estates:
Name: _____
Address: _____

6. I hereby certify that the above named nonresident taxpayer is currently registered with (check the appropriate box):

- The South Carolina Secretary of State or
- The South Carolina Department of Revenue

Date of Registration: _____

7. I understand that by this registration, the above named nonresident taxpayer has agreed to be subject to the jurisdiction of the South Carolina Department of Revenue and the courts of South Carolina to determine its South Carolina tax liability, including estimated taxes, together with any related interest and penalties.

8. I understand the South Carolina Department of Revenue may revoke the withholding exemption granted under Code Sections 12-8-540 (rentals), 12-8-550 (temporarily doing business or professional services in South Carolina), and 12-8-570 (distributions to nonresident beneficiary by trusts or estates) at any time it determines that the above named nonresident taxpayer is not cooperating with the Department in the determination of its correct South Carolina tax liability.

The undersigned understands that any false statement contained herein could be punished by fine, imprisonment or both.

Recognizing that I am subject to the criminal penalties under Code Section 12-54-44 (B) (6) (a) (i), I declare that I have examined this affidavit and to the best of my knowledge and belief, it is true, correct and complete.

Signature of Nonresident Taxpayer (Owner, Partner or Corporate Officer, when relevant) (Seal) _____
Date

If Corporate officer, state title: _____

(Name - Please Print)

33231028

INFORMATION
NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT

Submit this form to the company or individual you are contracting with.

Do not submit this form to South Carolina Department of Revenue.

PURPOSE OF AFFIDAVIT

A person is not required to withhold taxes for a nonresident taxpayer who submits an affidavit certifying that they are registered with either the South Carolina Secretary of State or the South Carolina Department of Revenue.

REQUIREMENTS TO MAKE WITHHOLDING PAYMENTS

Code Section 12-8-550 requires persons hiring or contracting with a nonresident taxpayer to withhold 2% of each payment made to the nonresident where the payments under the contract exceed \$10,000. However, this section does not apply to payments on purchase orders for tangible personal property when those payments are not accompanied by services to be performed in this state.

Code Section 12-8-540 requires persons making payment to a nonresident taxpayer of rentals or royalties at a rate of \$1,200 or more a year for the use of or for the privilege of using property in South Carolina to withhold 7% of the total of each payment made to a nonresident taxpayer who is not a corporation and 5% if the payment is made to a corporation.

Code Section 12-8-570 requires trusts or estates making distribution of South Carolina taxable income to a nonresident beneficiary to withhold 7% of the beneficiary's distribution which is attributable to South Carolina taxable income.

Our Internet address is: www.sctax.org

33232026

SECTION 01 70 00
EXECUTION AND CLOSE-OUT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes the following:
 - 1. Final cleaning.
 - 2. Protecting installed construction.
 - 3. Project record documents.
 - 4. As-Built survey.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Work of this section will not be measured for payment and should be included in the cost of the Work.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final Project assessment.
- B. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- C. Prohibit traffic from landscaped areas.

1.5 PROJECT RECORD DOCUMENTS

- A. Contractor to provide Project Record Documents in accordance with Section 01 78 39 - Project Record Documents.

1.6 AS-BUILT SURVEY

- A. Contractor to provide as-built survey in accordance with Section 01 78 31 - As-Built Survey.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SUBSTANTIAL COMPLETION

- A. The Contractor shall notify the Owner and Engineer that, in his/her opinion, the Project is substantially complete. A written statement listing items complete shall be submitted.
- B. Upon receipt of the Contractor's notice, the Owner and Engineer shall make an observation to determine if substantial completion is provided.

- C. If, in the Engineer's opinion, the Project is not substantially complete, a written notice to the Contractor shall follow outlining reasons and deficiencies in Work that comprised the Engineer's decision. The Engineer's decision shall be final.

3.2 FINAL OBSERVATION

- A. The Owner and Engineer will make a final observation for the Contractor after all items noted in the substantial completion observation have been corrected. The Contractor shall notify the Engineer in writing when a final observation is needed. Incomplete and/or defective Work shall be given to the Contractor by written notice.

3.3 REOBSERVATION

- A. Reobservation required due to failure by the Contractor to make previously noted corrections will be performed by the Owner and Engineer.
- B. Cost for such observations will be due to and payable by the Contractor at a rate equal to charges to the Owner for similar work.
- C. Reobservations will continue until the Work is acceptable to the Owner and Engineer.

3.4 COMPLETION BY CONTRACTOR

- A. When the Owner and Engineer finds the Contractor's work acceptable, the Contractor shall be given such notice and should proceed with close-out submittals.
- B. Close-out submittals shall contain at least the following:
 - 1. Project Record Documents.
 - 2. Evidence of payment and release to liens per General Conditions.
 - 3. Contractor's Affidavit.

3.5 FINAL PAYMENT

- A. Final payment to the Contractor will be made upon completion of the previous items and others required by these Specifications. A final statement shall be forwarded to the Owner and Engineer. The statement shall address:
 - 1. Previous Change Orders.
 - 2. Unit prices.
 - 3. Deductions for uncorrected Work.
 - 4. Deductions for liquidated damages.
 - 5. Deductions for retesting Work.
 - 6. Deductions for reobservation.
 - 7. Deductions for Shop Drawing review.
 - 8. Adjusted Contract sum.
 - 9. Previous payments.
 - 10. Amount due.
- B. When required, the Owner/Engineer will prepare a Contract Change Order for adjustments not previously made.

END OF SECTION

**SECTION 01 78 31
AS-BUILT SURVEY**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: As-Built Survey.

1.2 MEASUREMENT AND PAYMENT

- A. No separate measurement or direct payment will be made for the items under this Section and all costs for same shall be included in the related cost of the work.

1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. The Contractor shall submit Contractor red-line Record Drawings and As-Built Survey electronically for review and comment by the Engineer and Owner. The Contractor shall resurvey any areas/items requiring confirmation and then revise red-line Record Drawings and As-Built Survey to incorporate Engineer and Owner comments and resurveyed areas/items. Continue the review process until acceptance by the Engineer and Owner.
- C. The Contractor shall submit in electronic format: AUTOCAD (.dwg) and PDF (.pdf).

1.4 QUALITY ASSURANCE

- A. Qualifications:
1. Perform Work according to Owner and Utility Owner standards.
 2. Licensed Professional: Professional Land Surveyor licensed in State of South Carolina.

1.5 AS-BUILT SURVEY

- A. Contractor to provide As-Built Survey to be completed and sealed by a licensed Professional Land Surveyor in the State of South Carolina
1. Horizontal Datum: NAD83 or as indicated on the Drawings.
 2. Vertical Datum: NAVD 88 or as indicated on the Drawings.
 3. As-Built Survey shall be tied to the nearest Geodetic Monument.
 4. Engineer can provide, upon request, design Drawings in AUTOCAD format for use by the surveyor; however, the surveyor shall assume all responsibility and risk for using provided design Drawings.
 5. As-Built Survey to include topography, location of installed bank stabilization measures, and boulder cross-vanes.
 6. Contractor to provide red-line Record Drawings.
 7. Final Completion will not be considered reached until the submittal and acceptance of the As-Built Survey by the Owner and Engineer per Section 01 33 00 - Submittal Procedures.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 31 10 00
SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Protecting existing vegetation to remain.
- 2. Removing existing vegetation.
- 3. Clearing and grubbing.
- 4. Stripping and stockpiling topsoil.
- 5. Removing above- and below-grade site improvements.
- 6. Temporary erosion and sedimentation control.

B. Related Sections:

- 1. Section 312500 – Erosion and Sediment Controls
- 2. Section 312001 – Unclassified Grading

1.3 DEFINITIONS

- A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in- place surface soil; the zone where plant roots grow.
- D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in- place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.
- E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.
- F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected

during construction and as indicated on Construction Drawings or as indicated according to requirements in Section 015639 "Temporary Tree and Plant Protection."

G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 INFORMATIONAL SUBMITTALS

A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.

1. Use sufficiently detailed photographs or video recordings.
2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.

B. Topsoil stripping and stockpiling program.

C. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

D. Burning: Burning is not allowed on site.

1.6 QUALITY ASSURANCE

A. Topsoil Stripping and Stockpiling Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work. Include dimensioned diagrams for placement and protection of stockpiles.

1.7 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.

1. Do not proceed with work on adjoining property until directed by Architect/Engineer.

C. Utility Locator Service: Notify utility locator service Palmetto Utility Location service **Call**

811 (www.sc811.org) for area where Project is located before site clearing.

- D. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
- E. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312001 "Unclassified Grading" and Section 312300 "Excavation and Fill".
 - 1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.
- B. Antirust Coating: Fast-curing, lead- and chromate-free, self-curing, universal modified-alkyd primer complying with MPI #23 surface-tolerant, anticorrosive metal primer or SSPC-Paint 20 or SSPC-Paint 29 zinc-rich coating.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 015639 "Temporary Tree and Plant Protection."
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction

until permanent vegetation has been established.

- D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

- A. Protect trees and plants remaining on-site according to requirements in Section 015639 "Temporary Tree and Plant Protection."
- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.4 EXISTING UTILITIES

- A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
 - 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
 - B. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 - 1. Arrange with utility companies to shut off indicated utilities.
 - 2. Owner will arrange to shut off indicated utilities when requested by Contractor.
 - C. Locate, identify, and disconnect utilities indicated to be abandoned in place.
 - D. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Architect/Engineer not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Architect/Engineer's written permission.
 - E. Excavate for and remove underground utilities indicated to be removed.
 - F. Removal of underground utilities is included in earthwork sections; in applicable fire suppression, plumbing, HVAC, electrical, communications, electronic safety and security, and utilities sections; and in Section 024116 "Structure Demolition" and Section 024119 "Selective Demolition."
- ### 3.5 CLEARING AND GRUBBING
- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.

1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 2. Grind down stumps and remove roots larger than 2 inches (50 mm) in diameter, obstructions, and debris to a depth of 24 inches (625 mm) below exposed subgrade.
 3. Use only hand methods or air spade for grubbing within protection zones.
 4. Dispose of felled trees off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to depth of 6 inches (150 mm) in a manner to prevent intermingling with underlying subsoil or other waste materials.
1. Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other objects larger than 2 inches (50 mm) in diameter; trash, debris, weeds, roots, and other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
1. Limit height of topsoil stockpiles to 120 inches (3000 mm).
 2. Do not stockpile topsoil within protection zones.
 3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
 4. Stockpile surplus topsoil to allow for respreading deeper topsoil.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste

materials including trash and debris, and legally dispose of them off Owner's property.

B. Burning not permitted.

C. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials, and transport them to recycling facilities. Do not interfere with other Project work.

END OF SECTION
31 10 00

SECTION 31 20 01
UNCLASSIFIED GRADING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to Work of this section.

1.2 RELATED SECTIONS

- A. Section 312300

1.4 DESCRIPTION

- A. Work included: Excavation, backfill, compact and grading the site as necessary to bring the embankment to the lines and grades shown on the drawings. This work includes but is not limited to:
1. Stream channel grading
 2. Stream bank grading
 3. Undefined site grading necessary to bring area within limits of disturbance to proposed final grade.
- B. Definitions:
1. Maximum density: Maximum weight in pounds per cubic foot of a specific material.
 2. Optimum moisture: Percentage of water in a specific material at maximum density.
 3. Muck: Materials unsuitable for foundation because of organic content, saturation to the extent that it is somewhat fluid and must be removed by dragline, dredge or other special equipment, are designated as muck.
 4. Unsuitable material: Unsuitable material is defined as earth material unsatisfactory for its intended use and as classified by the soils technician. In addition to organic matter, sod, muck, roots and rubbish, highly plastic clay soils of the CH and MH descriptions, and organic soils of the ML, MH, CH, OL, OH, and PT descriptions, as defined in the Unified Soil Classification System shall be considered as unsuitable material.
 5. Suitable material: Where the term suitable material is used in specification sections pertaining to earthwork, it means earth or materials designated as being suitable for their intended use by soils technicians or the Engineer. Suitable material shall be designated as meeting the requirements of the Unified Soil Classification System types GW, GP, GM, SM, SW, SM and SP or as designated in these specifications.
 6. Select material: Select material is defined as granular material to be used where indicated on the drawings or where specified herein consisting of soils conforming to the Unified Soil Classification types GC, SW, SM, GW or GM or as otherwise approved by the Engineer as select fill. Select material shall contain no stones or rubble larger than 1-1/2" in diameter.

7. Excavation: Excavation is defined as unclassified excavation of every description regardless of materials encountered.

C. The Contractor must determine for himself the volume of material required by the site.

1.5 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Comply with requirements of governmental agencies having jurisdiction.

C. A testing laboratory retained by the Contractor will make such tests as are deemed advisable. The Contractor shall schedule his work so as to permit a reasonable time for testing before placing succeeding lifts of fill material and shall keep the laboratory informed of his progress. The cost of the tests shall be paid for by the Contractor.

1.6 JOB CONDITIONS

A. Notification of intent to excavate:

1. South Carolina Underground Utility Damage Prevention Act (S.C. Code Ann, 58-35-10, CT-SEQ, Supp. 1978) requires persons to ascertain the location of underground public utility property prior to excavation or demolition in certain situations. The Act also requires such persons to give timely notice of intent to excavate or demolish prior to commencing such operations. Failure to comply could subject the violator to a civil penalty of up to one thousand dollars (\$1,000) for each violation of the Act.
2. Notification of intent to excavate may be given by calling this toll free number: 1-800-922-0983.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Soil material used as fill, backfill, subgrade for structures or pavements, embankments, or site grading shall consist of suitable material as found available on site until such supply of on-site material is depleted.

1. Provide suitable material free from organic matter and deleterious substances, containing no rocks or lumps over 6" in greatest dimension, and with not more than 15% of the rocks or lumps larger than 2-1/2" in their greatest dimension.
2. Do not permit rocks having a dimension greater than 1" in the upper 6" of fill or embankment.

B. Should the quantity of suitable on-site material be insufficient to complete the work, suitable borrow material as approved by the Engineer shall be provided by the Contractor at no additional expense to the Owner.

- C. Select materials may be provided from on-site if acceptable material as approved by the Engineer is available on site. Otherwise approved select material shall be provided by the Contractor from an off-site source.

- D. Soils that are acceptable for use as select material for embankment and as subgrade vary by county. The Contractor will test soil in accordance with SC-T-34 and classify it in accordance with AASHTO M 145 to determine suitability when required. Acceptable borrow material for embankment and subgrade is shown below. The acceptability of the material, as outlined below, is based on the county in which the project is located, regardless of the location of the borrow pit. Perform grading operations and sequence with selective grading and crosshauling so that the best available soils are reserved for the top portions of the embankments.
 - 1. The following counties are classified as Group A:
Abbeville, Anderson, Cherokee, Chester, Edgefield, Fairfield, Greenville, Greenwood, Lancaster, Laurens, McCormick, Newberry, Oconee, Pickens, Saluda, Spartanburg, Union, and York.
 - 2. In addition to the general restrictions given above, the following restrictions apply to borrow material for work conducted in counties in Group A:
 - i. Below the top 5 feet of embankment, any soil that does not meet the description of muck may be used to form embankments as long as it is stable when compacted to the required density.
 - ii. In the top 5 feet of embankment, only the following soil types are acceptable: A-1, A-2, A-3, A-4, A-5, and A-6
 - 3. The following counties are classified as Group B:
Aiken, Allendale, Bamberg, Barnwell, Beaufort, Berkeley, Calhoun, Charleston, Chesterfield, Clarendon, Colleton, Darlington, Dillon, Dorchester, Florence, Georgetown, Hampton, Horry, Jasper, Kershaw, Lee, Lexington, Marion, Marlboro, Orangeburg, Richland, Sumter, and Williamsburg.
 - 4. For counties classified as Group B, only the following soil types are acceptable for use as borrow material in the top 18 inches of the embankment: A-1, A-2-4, A-2-5, A-3, A-4(0), and A-2-6(0).
 - 5. For counties classified as Group B, only the following soil types are acceptable for use as borrow material below the top 18 inches of the embankment: A-1, A-2, A-3, A-4, and A-5.
 - 6. 203.2.1.8 For counties classified as Group B, A-6 soil may be used below the top 5 feet of the embankment. Do not use A-7 soil.

See SCDOT section 203.2.1.8 for more information.

2.4 EQUIPMENT

- A. Use equipment adequate in size, capacity and numbers to accomplish the work in a timely manner without undue waste or damage of material.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Clearing and grubbing: Clear and grub areas to be graded prior to commencement of the grading operations.
- B. Where so directed by the Owner, protect and leave standing designated desirable trees.
- C. Complete any demolition and/or removal work as may be required prior to grading operations.
- D. Dispose of all clearing, grubbing and demolition debris and other deleterious material off the project site. Vegetation, roots, brush, rubbish, stumps, etc. shall also be removed from the project site.
- E. Topsoil: Strip topsoil to a depth of 3" to 6" without contamination from the subsoil and stockpile topsoil separate from other excavated materials.
 - 1. Transport and deposit topsoil in storage piles convenient to areas that are to receive topsoil or in other locations as indicated or approved by the Engineer.
 - 2. Deposit topsoil in areas that are already graded and will not be disturbed by on-going construction.
 - 3. Dispose of unsuitable or unusable stripped material off-site or as otherwise directed by the Engineer.
- F. Sampling and preliminary testing:
 - 1. Prior to beginning the grading operations, the Contractor shall submit to the Engineer his proposed sequence of excavation operations.
 - 2. Based upon the sequence of excavation, samples of the fill materials will be obtained as excavation proceeds and tested for grain size permeability and moisture density relationship using the Standard Proctor Method (ASTM D698, Method A).
 - 3. Allow sufficient time for completion of laboratory tests before any fill operations begin, using the soils being tested.

3.3 FINISH ELEVATIONS AND LINES

- A. Construct areas true to grades shown.
 - 1. Where no grade is indicated, shape finish surface to drain down gradient or, as approved by the Engineer.
- B. Finish surfaces to within 0.10' above or below the established grade or approved cross section.

3.4 GENERAL PROCEDURES

- A. Existing utilities:
 - 1. Unless shown to be removed, locate and protect active utility lines shown on the drawings or otherwise made known to the Contractor prior to excavating. If damaged, repair or replace at no additional cost to the Owner.
 - 2. If active utility lines are encountered and are not shown on the drawings or otherwise made known to the Contractor, promptly notify the Engineer and take necessary steps to assure that service is not interrupted.
 - 3. If service is interrupted as a result of work under this Section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.
 - 4. If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Engineer and secure his instructions.
 - 5. Do not proceed with permanent relocation of utilities until written instructions are received from the Engineer.

- B. Protection of persons and property:
 - 1. Barricade open holes and depressions occurring as part of this Work, and post warning lights on property adjacent to or with public access.
 - 2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 - 3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout and other hazards created by operations under this Section.

- C. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.

- D. Maintain access to adjacent areas at all times.

- E. Excavate and backfill in a manner and sequence that will provide proper drainage at all times.

3.5 EXCAVATING (CUTS)

- A. Perform excavating of every type of material encountered within the limits of the Work to the lines, grades and elevations indicated and specified herein.

- B. Provide sloping, sheeting, shoring, and bracing for excavations conforming with 29CFR1926 Subpart P-Excavations and the Contract Documents.

- C. Suitable excavated materials:
 - 1. Use all suitable materials removed from the excavation as far as practicable in the formation of the embankments, subgrades, and other places as directed.
 - 2. Surplus suitable materials from excavations shall be wasted on the site as indicated, spreading and leveling as directed.

- D. Unsuitable excavated material: Remove from the site and dispose of all unsuitable material unless otherwise approved by the Engineer.

- E. Unauthorized excavation:
 - 1. Excavation of material to depths below the grades indicated unless so directed by the Engineer will be deemed unauthorized excavation.
 - 2. Unauthorized overexcavation shall be backfilled and compacted without any additional expense to the Owner.
- F. Authorized over excavation: In the event that it is necessary to remove unsuitable material to a depth greater than that shown on the drawings or otherwise specified, the Contractor shall remove, replace and compact such material with suitable material as directed by the Engineer at no additional expense by the Owner.

3.6 FILLING AND BACKFILLING

- A. Use fills formed of suitable material placed in layers of not more than 8" in depth measured loose and rolled and/or vibrated with suitable equipment until compacted.
- B. Do not place rock that will not pass through a 6" diameter ring within the top 12" of the surface of the completed fill or rock that will not pass through a 3" diameter ring within the top 6" of the completed fill.
- C. Do not use broken concrete or asphaltic pavement in fills.
- D. Selection of borrow material:
 - 1. Material in excess of that available on the site shall be suitable material furnished by the Contractor from private sources selected by the Contractor. The material shall be approved by the Engineer before use. All expenses involved in securing, developing, transporting and placing the material shall be borne by the Contractor.
- E. Placing and compacting:
 - 1. Place backfill and fill materials in layers not more than 8" in loose depth.
 - 2. Before compacting, moisten or aerate each layer as necessary to provide the optimum moisture content.
 - 3. Compact each layer to required percentage of maximum density for the area.
 - 4. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
 - 5. Place backfill and fill materials evenly adjacent to structures, to required elevations.
 - 6. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around the structures to approximately the same elevation in each lift.
- F. Moisture control:
 - 1. Do not use soil material that is either too dry or too wet to achieve proper compaction.
 - 2. Where subgrade or layer of soil material is too dry to achieve proper compaction, uniformly apply water to surface of soil material such that free water does not appear on the surface during or subsequent to compacting operations.
 - 3. Remove and replace, or scarify and air dry, soil material that is too wet to permit compacting to the specified density.

4. Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture-density relation tests approved by the Engineer.

G. Compaction requirements:

1. Compact soils to not less than the following percentages of maximum dry density as determined in accordance with ASTM D698, Method A (Standard Proctor).

2. Embankments:

Top 12" of subgrade	85%
All other fill material	80%

4. Unpaved open areas:

All other fill material	80%
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3.7 FINISH GRADING

A. General:

1. Uniformly grade the areas within limits of grading under this Section, including adjacent transition areas.
2. Smooth the finished surfaces within specified tolerance.
3. Where a change of slope is indicated on the drawings, construct a rolled transition section having a minimum radius of approximately 8'0", unless adjacent construction will not permit such a transition, or if such a transition defeats positive control of drainage.

3.8 FIELD QUALITY CONTROL

- A. Secure the Engineer's construction review and observation and approval of subgrades and fill layers before subsequent construction is permitted thereon.

3.9 PLACING TOPSOIL

- A. Upon completion of site grading and other related site work, topsoil shall be uniformly spread over the graded or improved areas. Topsoil shall be evenly distributed to conform to final grade elevations shown on the plans.
- B. Place, level and lightly compact topsoil to a depth of not less than 3".
- C. Maintain topsoil free of roots, rocks, debris, clods of soil and any other objectionable material which might hinder subsequent grassing or mowing operations.
- D. Any surplus materials shall be removed from the site, unless the owner approves areas on-site for disposal.

3.10 MAINTENANCE

A. Protection of newly graded areas:

1. Protect newly graded areas from traffic and erosion, and keep free from trash and weeds.

2. Repair and re-establish grades in settled, eroded and rutted areas to the specified tolerances.
- B. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape, and compact to the required density prior to further construction.

END OF SECTION
31 20 01

SECTION 31 23 00
EXCAVATION AND FILL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to Work of this section.

1.2 SECTION INCLUDES

- A. Compacting backfill materials in acceptable manner.
- B. Earthwork: The extent of earthwork is indicated on the drawings. The work, in general, includes the following items:
 - 1. Excavation and backfill for embankments, streams, structures and miscellaneous.
- C. Excavation Definition: "Excavation" consists of removal of all material encountered to required subgrade elevations as required to reach design elevations.

1.3 RELATED SECTIONS

- A. Section 311000
- B. Section 312001
- C. Section 312500

1.4 QUALITY ASSURANCE

- A. Codes and Standards: Perform excavation work in compliance with all applicable requirements of governing authorities having jurisdiction.
- B. Survey Work, Grades, and Elevations:
 - 1. Grades and Elevations: Finished grades indicated by spot elevation and normal contour line elevations denote finished top surface elevations. Report conflicts, errors and inconsistencies in grades and elevations to Architect/Engineer for resolution. Do not proceed with the work in questionable areas until conflicts are resolved by the Architect/Engineer.
 - 2. Survey Work: Lay out work to the lines and levels required before excavation.

1.5 SUBMITTALS

- A. Laboratory Test Reports: Submit the following reports directly to the Architect/Engineer

from the testing services, with copy to Contractor and Owner:

1. Test reports on borrow and fill material including optimum moisture-maximum density curve for each type of soil.
2. Field density test reports.
3. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested.
4. Product Data.

1.6 JOB CONDITIONS

- A. Site Information: Data on indicated subsurface conditions are not intended as representations or warranties of accuracy or continuity between soil borings. It is expressly understood that Owner will not be responsible for interpretations or conclusions drawn there by Contractor. Data are made available for convenience of Contractor. Additional test borings and other exploratory operations may be made by the Contractor at no cost to the Owner.
- B. Removal of Items Remaining from Demolition: Include as part of earthwork the breaking up and removal of all concrete slabs, pavements, footings, foundations, cisterns, septic tanks, abandoned underground utility lines and all other obstructions remaining from previous demolition operations that may have occurred.
- C. Existing Utilities:
1. The drawings indicate the locations of known active and inactive above grade and below grade utilities. Locate all existing underground utilities in areas of work before proceeding. Provide adequate support and protection during earthwork operations of utilities that are to remain in place.
 2. If any active utility not indicated in drawings is encountered, notify Architect/Engineer, SPM, and FPI and protect from damage until instructions for proper disposition of the utility are given by the Architect/Engineer. Perform the requested work in compliance with rules and regulations of authority having jurisdiction.
 3. Repair active utilities scheduled to remain that are damaged by earthwork operations to the satisfaction of the utility owner.
 4. If any inactive utility not indicated on the drawings is encountered, remove, plug, or cap as directed by the Architect/Engineer. Abandoned in place utilities shall be surveyor located and identified in the As-Built record set of drawings. Obtain any necessary data relative to proposed abandonment of existing utility service from authority having jurisdiction.
 5. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, during occupied hours, except when permitted in writing by Architect/Engineer and then only after acceptable temporary utility services have been provided. Follow UH Service Interruption Procedure through the SPM. Provide minimum of 48-hour notice to Architect/Engineer, and receive written notice to proceed before interrupting any utility. Refer to UH outage policy for additional requirements.

D. Use of Explosives:

1. The use of explosives is not permitted.

E. Protection of Persons and Property:

1. Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction.
2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.
3. Perform excavation within drip-line of large trees to remain by hand, and protect the root system from damage or dry out to the greatest extent possible. Maintain moist condition for root system and cover exposed roots with burlap. Paint root cuts of 1" diameter and larger with emulsified asphalt tree paint.
4. Accidental or Careless Damage to Work Intended to Remain in Place: Restore to a condition as good or better than existed before work was commenced as approved by the Architect/Engineer and at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 DEFINITION OF SOIL MATERIALS

- A. Satisfactory Soil Materials: Satisfactory soil materials are defined as those complying with ASTM D 2487 soil classification groups GW, GP, GM, SM, SW, SM and SP. Some CL materials subject to the requirements for "Select Fill" may be acceptable.
- B. Unsatisfactory Soil Materials: Unsatisfactory soil materials are defined as those complying with ASTM D 2487 soil classification groups ML, MH, CH, OL, OH, and PT. Groups SC and CL are also unsatisfactory unless conforming to requirements specified below.
- C. Fill and Backfill:
 1. Definition: "Fill" is soil material that is used to raise existing grades such as under foundation slabs or above footings, or to replace unsuitable material. "Backfill" is soil material that is used to fill an excavation, to fill against the structure, or to fill behind foundation walls.
 2. Select Fill: "Select fill" material shall be used as noted on the drawings as fill and/or backfill and shall conform to one of the following:
 - a. Sandy clay or clayey sand having a plasticity index between 7 and 19 and a liquid limit not exceeding 35. Material shall be free of debris, roots, vegetation, organic matter and all other deleterious substances and free of rock or gravel greater than 2" in any dimension.
 - b. Satisfactory Soil Material as defined above free of clay, rock, or gravel larger than 2" in any dimension and free of debris, roots, vegetation, waste and all other deleterious

materials.

3. Use of On-site Materials: On-site materials (i) may be used for fill and backfill only when approved by the Owner's Testing Laboratory. (ii) are not satisfactory for use on this project and shall be hauled off and disposed of in a safe manner.
- D. Approval: All soil materials used for the project shall be approved by the Owner's Testing Laboratory prior to hauling or placement. Soil materials used for fill and backfill shall be retested and reapproved each time the source or character of the material changes.
- E. Filter Fabric: Nonwoven geotextile, specifically manufactured as a drainage geotextile: made from polyolefins, polyesters, or polyamides: and with the following minimum properties determined according to ASTM D4759 and referenced standard test methods:

Grab Tensile Strength: 100lbf: ASTM D4632

Tear Strength: 40 lbf: ASTM D4533

Puncture Resistance: 50 lbf; ASTM D4833

Water Flow Rate; 90 gpm per sq. ft.; ASTM D4491

Apparent Opening Size; No. 50; ASTM D4751

PART 3 - EXECUTION

3.1 CLEARING AND GRUBBING

- A. Remove all existing slabs, pavements, trash, rubbish, debris, trees, roots, stumps, underbrush, grass, shrubs, plants and other vegetation from within the mass excavation limits.

3.2 PREPARATION

A. Survey Work:

1. Set required lines and levels as required to accurately perform the excavation work.
2. Maintain all bench marks and other reference points.

B. Protection of Existing Work:

1. Protect bench marks and existing structures, utilities, roads, sidewalks, paving curbs and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations. In areas where excavations must be carried to such depths that surcharge from streets, sidewalks, or earth pressure create hazardous conditions, provide sheet piling, shoring and bracing, or combinations thereof, as required to protect excavations. Remove shoring and bracing before backfilling is completed, but not before permanent supporting structure is in place.
2. Protect excavations by laying back sides on a maximum 1:1 slope or by other methods as required to prevent cave-ins and loose dirt from falling into excavations.

3. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
4. Notify Architect/Engineer of any unexpected subsurface conditions. Discontinue work in area until Architect/Engineer provides notification to resume work.

3.3 EXCAVATION

A. **Unclassified Excavation:** The excavation for this project is unclassified. The Contractor is required to excavate to subgrade elevations as needed, regardless of the character of materials or obstructions encountered. No additional costs will be paid by the Owner for any underground obstructions encountered.

B. **Unauthorized Excavation:**

1. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Architect/Engineer. Unauthorized excavation, as well as remedial work directed by Architect/Engineer, shall be at Contractor's expense.
2. Under footings, foundation bases, or foundation walls, fill unauthorized excavation by extending indicated bottom elevation of footing or base to excavation bottom, without altering required top elevation. Lean concrete fill or cement stabilized sand may be used to bring elevation to proper position, when acceptable to Architect/Engineer and approved by the Geotechnical Engineer.
3. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Architect/Engineer.

C. **Stability of Excavations:**

1. Slope sides of excavations to comply with local codes and ordinances having jurisdiction and in accordance with the requirements noted in the Geotechnical Report. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
2. Maintain sides and slopes of excavations in safe condition until completion of backfilling. Protect slopes from erosion by covering the slope with material such as polyethylene sheet.

D. **Shoring and Bracing:**

1. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross-braces, in good serviceable condition.
2. Establish requirements for trench shoring and bracing to comply with local codes and authorities having jurisdiction.
3. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.
4. Provide permanent steel sheet piling or pressure creosoted timber sheet piling wherever subsequent removal of sheet piling might permit lateral movement of soil under adjacent

structures. Cut off tops as required and leave permanently in place.

E. Material Storage:

1. Where required by schedule or site limitations, stockpile satisfactory soil materials and/or select fill where directed, until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.
2. Locate and retain soil materials away from edge of excavations. Do not store within drip-line of trees indicated to remain.
3. Dispose of excess soil material and waste materials as herein specified.

F. Excavation for Structures:

1. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10'.

G. Cold Weather Protection: Protect excavation bottoms against freezing when atmospheric temperature is less than 35°F.

3.4 PLACING FILL AND BACKFILL

A.

1. Location: Place satisfactory and approved soil material in layers to required subgrade elevations for each area classification listed below. : Excavations: In excavations use select fill or approved excavated material. Place in layers to required subgrade elevations.

B. Ground Surface Preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, or break-up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.
2. When existing ground surface has a density less than that specified under "Compaction" for particular area classification, break up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.

C. Grading:

1. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated, or between such points and existing grades.
2. Compaction: After grading, compact subgrade surfaces to the depth and indicated percentage of maximum or relative density for each area classification.
3. Allowance for Compaction and Settlement: Allow for natural compaction and settlement

during grading operations. Where excessive settlement occurs, scarify settled areas, fill and compact to required subgrade levels.

3.5 COMPACTION

- A. General: Control all soil compaction during construction, providing minimum percentage of density specified for each area classification indicated below. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand- operated tampers.
- B. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum density for soils which exhibit a well-defined moisture density relationship (cohesive soils) determined in accordance with ASTM D 698 ASTM D 1557; and not less than the following percentages of relative density, determined in accordance with ASTM D 4253 and 4254, for soils which will not exhibit a well-defined moisture-density relationship (cohesion less soils). Cohesive soils are defined as those that have more than 50% of the soil material by weight passing the #200 sieve.
 - 1. Lawn or Unpaved Areas: Scarify and re-compact top 6" of subgrade and each layer of backfill or fill material at the optimum moisture content \pm 2% to 90% maximum density for cohesive soils and 85% relative density for cohesion less soils.
- C. Moisture Control:
 - 1. Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.
 - 2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
 - 3. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by dicing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.

3.6 MAINTENANCE

- A. Protection of Graded Areas:
 - 1. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
 - 2. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
- B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.
- C. Settling: Where settling is measurable or observable at excavated areas during general project

warranty period, remove surface (pavement, lawn or other finish), add backfill material, compact, and replace surface treatment. Restore appearance, quality, and condition of surface or finish to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.7 DISPOSAL OF EXCESS WASTE MATERIALS

- A. Removal from Owner's Property: Remove waste materials, including unacceptable excavated material, trash and debris, and dispose of it off Owner's property.

END OF SECTION
31 23 00

SECTION 31 25 00
EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes

1. Submittals
2. Erosion control plan.
3. Erosion control materials.
4. Grading and earthwork
5. Drainage.
6. Tracking control.
7. Maintenance.

B. Related Sections

1. Section 311000 – Site Clearing
2. Section 312001 – Unclassified Grading
3. Section 312300 – Excavation and Fill

1.2 REFERENCES

- A. Technical Standards for Construction Site Erosion & Sediment Control (Technical Standards).
- B. Standard Specifications for Highway Construction, current version as published by the South Carolina Department of Transportation.

1.3 SUBMITTALS

- A. Contractor shall submit to the Engineer, shop drawings for erosion control features as indicated on Drawings.

1.4 EROSION CONTROL PLAN

- A. The Engineer has prepared an erosion control plan included in these documents for the project. The erosion control plan is in accordance with SCDHEC and OCRM Standards. Contractor shall provide additional or alternate erosion control measures as needed due to the contractors' means and methods throughout all phases of construction.
- B. Contractor shall comply with all requirements of the erosion control plan, and the requirements of the General Permit to Discharge under the Land Distance Permit that has been issued by SCDHEC. If applicable, the project specific SCDHEC/OCRM Construction Site Stormwater Discharge Permit for Erosion Control shall supersede the General Permit.

- C. Erosion control and storm water management practices shall be installed and maintained in accordance with the SCDHEC approved Technical Standards (or equivalent).

PART 2 – PRODUCTS

2.1 MATERIALS

A. General

1. Erosion mats, soil stabilizers, and tackifiers shall be listed on the SCDHEC or the Technical Standards
2. When the design or contract includes permanent erosion control or stormwater control features, the contractor may employ these items to control erosion and stormwater during construction activities. However, these features shall be fully cleaned and restored to the original design providing full function for the intended permanent use prior to acceptance of the work.

- B. Silt Fence: Fence fabric, support posts and support cord shall comply with the requirements of the SCDHEC Technical Standards and install as shown and outline on the construction drawings.

- C. Erosion Mat: Erosion control mat shall comply with the applicable Class and Type as defined by the SCDHEC OCRM.

- D. Staples: Use biodegradable staples in accordance with manufacturer's recommendations for materials being anchored. Wood and metal staples are not allowed.

- E. Riprap: Riprap shall be the class specified and shall conform to the Standard Specifications for Highway Construction for SCDOT.

- F. Tracking Pad Stone: The aggregate for tracking pads shall be 3 to 6 inch clear or washed stone. All materials shall be retained on a 3-inch sieve.

- G. Soil Stabilizers: Soil stabilizers shall be non-asphalt-based products of the type specified, and meeting the requirements of the SCDHEC.

- H. Soil Tackifiers: Soil tackifiers shall be non-asphalt based products of the type specified, and meeting the requirements of the SCDHEC.

- I. Polymers: Polymers used to settle suspended soils shall meet the requirements of the Technical Standards.

- J. Anionic Polyacrylamide: Water soluble anionic polyacrylamide (PAM) used as temporary soil binding agents to reduce erosion shall meet the requirements of the Technical Standards.

- K. Geotextile Fabric: Geotextile fabric used for inlet protection shall be as shown on the detail sheet in the Construction Drawings.

- L. Dewatering: All dewatering shall be done in accordance with the Design Drawings.
- M. Ditch Check: Ditch checks shall be stone or logs conforming to the Technical Standards.
- N. Dust Control: Dust control measures shall be done in accordance with the Technical Standards.

PART 3 – EXECUTION

3.1 GENERAL

- A. Install and maintain erosion control measures as required by the erosion control plan throughout all phases of the project. Notify Engineer of modifications to the erosion control plan as directed by Contractor's means and methods, construction phasing or differing site conditions.
- B. Contractor shall provide all erosion control measures necessary to prevent and manage polluted runoff from the construction site and discharge of sediment onto adjacent property, into storm sewers or waters of the state.
- C. Perform all work in accordance with manufacturer's instruction when these specifications do not specify a higher requirement.

3.2 GRANDING AND EARTHWORK

- A. Install temporary or permanent erosion control measures applicable to each phase or land disturbance prior to commencing on that phase.
- B. Clear only those areas designated for the placement of improvements or earthwork before placement of the final cover. Perform stripping of vegetation, grading, excavation or other land disturbing activities in phases to minimize exposure of bare soil. Do not clear the site of topsoil, trees, and other natural ground covers before the commencement of construction. Retain natural vegetation and protect until the final ground cover is placed.
- C. Do not stock pile soil within 25 feet of any roadway, parking lot, paved area or drainage structure/channel. Provide temporary stabilization and erosion control measures on disturbed areas and soil stockpiles which will remain for a period of more than 7 consecutive calendar days.
- D. Remove surplus excavation materials from the site immediately after rough grading.

3.3 DRAINAGE

- A. Divert roof drainage and runoff from all undisturbed areas upslope of the site around disturbed areas, where possible. Minimize runoff on exposed soil. Provide measures to

remove sediment and debris.

- B. Convey clean or treated runoff to the nearest adequate storm water facility. Do not discharge water in a manner that will cause erosion or sedimentation of the site or receiving storm water facility.
- C. Protect storm sewer inlets and catch basins with inlet protection devices as listed on approved Construction Drawings.
- D. Provide ditch checks in swales or ditches to reduce the velocity of water in the channel.
- E. Dewatering discharge shall be routed to a sedimentation basin or sedimentation vessel to reduce the discharge of sediments to meet the requirements of SCDHEC. Do not discharge water in a manner that will cause erosion or sedimentation of the site or receiving storm water facility.

3.4 CONSTRUCTION ENTRANCE

- A. Construct and maintain tracking pads in accordance with the Design Drawings. Provide each entrance to the site with a stone tracking pad at least 100 feet in length with a minimum thickness of 6 inches. The tracking pad shall be the full width of the egress. Inspect tracking pad on a daily basis and replace aggregate when no longer effective.
- B. If applicable, wash water shall be discharged to sedimentation basins, sedimentation vessels, or other such control areas. Untreated wash water shall not be routed to storm sewers or waters of the state.

3.5 COFFERDAMS

A. General

The term cofferdam designates any temporary or removable structure constructed to hold the surrounding earth, water or both, out of the excavation. It includes timber cribs, any type of sheet piling, removable steel shells, sandbags, riprap, Jersey Barrier, water bags or similar structures, all necessary bracing and the use of pumping wells or well points for the same purpose. Ensure cofferdams located in bodies of water are designed, detailed and sealed by an engineer licensed by the State of South Carolina when the distance from the water surface to the bottom of the excavation is 5 feet or greater.

This work includes but is not limited to all the materials needed to construct the cofferdams. This work includes but is not limited to all scheduling, certification, inspection, observation, labor, equipment, materials, hauling, staging, stockpiling, mobilization, demobilization, repair, hardware, rental fees, observation and maintenance.

B. Construction

Design and construct cofferdams to adequate depths and heights, safely and as watertight as is necessary for the proper performance of the work. Provide interior dimensions of the cofferdams as to give sufficient clearance for the construction and inspection of rock vanes and to permit pumping outside the excavation area. Provide at least 5 feet of clearance between the proposed edge of excavation and inside face of cofferdams. Right, rest or enlarge cofferdams that are tilted or moved laterally during the process of sinking to provide the necessary clearance.

Construct cofferdams to protect construction against damage from a sudden rising of the stream and to prevent damage to the foundation by erosion. Do not leave timber or bracing in cofferdams that could extend into the rock vane without permission.

C. Removal

After the completion of the rock vane, unless otherwise provided in the contract, remove cofferdams with all sheeting and bracing to the stream bed or one foot below existing ground. Take care not to disturb or damage the finished rock vane structure.

3.6 MAINTENANCE

- A. Contractor shall inspect all erosion control measures within 24 hours of the end of each rainfall event that exceeds 0.25 inches, or daily during periods of prolonged rainfall, or weekly during periods without rainfall. Immediately repair and/or replace any and all damaged, failed, or inadequate erosion control measures.
- B. Re-apply soil stabilizers, tackifiers, polymers and anionic polyacrylamides as needed to prevent erosion of exposed soil.
- C. Maintain records of all inspections and any remedial actions taken on-site. Records must be made available to state and local officials upon request.
- D. Remove any sediment reaching a public or private roadway, parking lot, sidewalk, or other pavement. Do not remove tracked sediments by flushing. Completely remove any accumulations not requiring immediate attention at least once daily at the end of the workday.
- E. Frequently dispose of all waste and unused construction materials in licensed solid waste or wastewater facilities. Do not bury, dump, or discharge, any garbage, debris, cleaning wastes, toxic materials, or hazardous materials on the site, on the land surface or in detention basins, or otherwise allow materials to be carried off the site by runoff onto adjacent lands or into receiving waters or storm sewer systems.

END OF SECTION

31 25 00

SECTION 31 52 20 COFFERDAM

PART 1 - GENERAL

1.1 SUMMARY

- A. The cofferdam shall be constructed, maintained, inspected, and removed as shown in the plans and as directed by the Engineer and will result in the reduction of the stream useable width (normal width of stream will be encroached and reduced by installing cofferdams). The work area will be dewatered for construction operations.
- B. Section Includes:
 - 1. Cofferdams.
 - 2. Contractor design of cofferdams.
 - 3. Installation, dewatering, maintenance, inspection, and removal of cofferdams.
 - 4. Site restoration.
- C. Related Sections:
 - 1. Documents affecting Work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 01 of these Specifications.

1.2 MEASUREMENT AND PAYMENT

- A. General:
 - 1. Basis of Measurement: Cofferdam will be measured on a contract unit per Each basis upon completion and acceptance by the Engineer.
 - 2. Basis of Payment: Payment for Cofferdam installed in accordance with the plans and details will be paid for by each dewatered work area. The price and payment will be full compensation for all materials, labor, tools, equipment, and supplies to design, install, maintain, inspect, and remove the temporary cofferdam to include stone, riprap, silt bags, dewatering pumps, hoses, cofferdam, geotextile fabric, polyethylene membrane, sandbags/bags, other cofferdam products and materials if selected by the Contractor, and other incidental materials required to complete work as shown on the plans. The Contractor shall be responsible to remove the cofferdam when the project is complete, stabilized, and as directed by the Engineer. All resultant disturbed areas shall be seeded & mulched immediately upon removal. Includes all work related to this section.

1.3 REFERENCES

- A. SCDOT Standard Specifications:
 - 1. Standard Specifications for Highway Construction, latest edition, published by the South Carolina Department of Transportation.

1.4 SUBMITTALS

- A. Shop Drawings:
 - 1. Provide detailed shop drawings for the complete cofferdam system.
 - 2. Delegated Design Submittals: Submit signed and sealed Shop Drawings with design criteria, calculations and assumptions (including loading assumptions) for the cofferdam.
 - 3. Dewatering Plan: Provide detailed dewatering work plan with a description of proposed materials, equipment, and construction sequencing. [Include drawings with written descriptions of the proposed procedures for dewatering.] Provide detailed information of the proposed cofferdam system's materials, dimension, layout [and pumping plan including the type of pump(s), capacity, sump detail, dewatering pit construction, location,] and other measures and equipment as required for the complete system.
- B. Equipment: For each type of equipment proposed to be used in the work, submit manufacturer's specifications and] a description of how the installation will be performed.
- C. Manufacturer's Certificate: Product meets or exceed specified project requirements and is suitable for the installation application.
- D. Manufacturers' Instructions.
- E. Field Quality-Control Submittals: Indicate results of Contractor furnished inspections.
- F. Qualifications Statements:
 - 1. Qualifications for manufacturer, installer, and licensed professional. Submit documentation of experience installing temporary cofferdams of similar size, type, and scope.

1.5 CLOSE-OUT SUBMITTALS

- A. NOT USED

1.6 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Perform Work according to Owner and Utility standards and Specifications.
 - 2. Manufacturer's Qualifications: Company specializing in manufacturing Products specified in this section with minimum [three] years documented experience.
 - 3. Installers: Company specializing in performing Work of this Section with three years' documented experience.
 - 4. Licensed Professional: Professional engineer experienced in design of specified Work and licensed in State of South Carolina.
- B. Certifications:
 - 1. Manufacturer's Certificate.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements:

- B. Storage and Handling Requirements:
 - 1. Store and protect materials and products according to manufacturer's instructions.

1.8 SITE CONDITIONS

- A. Minimum Conditions: Do not install work immediately prior to anticipated large storm events. Schedule work as much as practicable to avoid large storm events.
- B. Field Measurements: Verify field measurements for installation of cofferdam system. Indicate field measurements on Shop Drawings.

1.9 PRE-INSTALLATION MEETINGS

- A. Owner reserves the right to eliminate the pre-installation meeting requirement. Notify Owner, Utility Owner, and Engineer a minimum of ten (10) calendar days prior to meeting.
- B. Conduct meeting at Project site prior to installation of any cofferdams.
- C. Review methods and procedures related to cofferdam system including, but not limited to, the following:
 - 1. Proposed installation sequence.
 - 2. Proposed products, materials and equipment.
 - 3. Monitoring and inspection of support and protection system.
 - 4. Working area location and stability.
 - 5. Removal of cofferdam system.

PART 2 - PRODUCTS

2.1 SYSTEMS

- A. Performance and Design Criteria:
 - 1. This is a performance specification. Submittals are required; however, except as otherwise specified or indicated, selection of equipment, products, materials, and methods shall be Contractor's responsibility.
 - 2. The dewatering of any excavation areas and disposal of all water handled shall be in strict accordance with all local and state government rules and regulations. Water removed from the work area shall pass through a silt bag to be located as shown on the plans.
 - 3. The Contractor is responsible for control of water to enable construction in the dry by installing cofferdam systems. Prevent surface water from entering excavations/work areas. The cofferdams shall not permit seepage of water into the construction site.
 - 4. Design temporary cofferdam systems to accommodate normal water surface elevations plus an allowance for increase in water surface elevations from storm events [(min. 2-year storm event)](i.e. withstand elevations and forces without damage).
 - 5. The Contractor shall have full responsibility for the structural and protective adequacy of the cofferdam system. The Contractor shall be aware that some instances may occur where the water level may exceed the protection provided

by the cofferdam. In the event of overtopping, minimize erosion and discharge of sediment.

6. The Contractor shall be responsible for the design of the cofferdam including, but not necessarily limited to, dewatering system, required dewatering pump equipment, temporary shoring if required, as well as any miscellaneous temporary structures if required.

2.2 COFFERDAM MATERIALS

- A. Sandbags/bags: Non-erodible materials. Polypropylene material minimum 6 mils thick. Other materials may be selected. Thicker materials will be required depending on the application and the sandbag/bag full weight to ensure function and performance of product in the cofferdam system. Contractor shall submit justification of material and thickness selected. Sand or other soil material used to fill the sandbag shall be free from contaminants and other pollutants.
- B. Riprap, field stone or rough hewn quarry stone conforming to SCDOT Standard Specifications.
 1. Class 1 Riprap: Minimum size 5 inches, midrange size 10 inches, and maximum size 17 inches equally distributed.
 2. Class A Stone for Erosion Control: Minimum size 2 inches, midrange size 4 inches, and maximum size 6 inches equally distributed.
- C. No. 5 or No. 57 Stone per [Section 1005 of NCDOT Standard Specifications].
- D. Geotextile Fabric: Non-woven, needle punched, non-biodegradable, filter fabric conforming to [Section 1056 of the NCDOT] [SCDOT, latest edition] Standard Specifications for Type 2 Engineering fabric.
- E. Polyethylene Membrane: Minimum 20 mils thick.
- F. Silt bag: Material shall be [per Section 1639 – Special Stilling Basin of the NCDOT] Standard Specifications and shall be a water permeable sediment filter bag that traps sand, silt, and fines as sediment laden water is pumped into it. The silt bag shall be constructed with a sediment filter bag to a minimum size of 10' x 15' made from a non-woven fabric. It shall have a sewn-in 8 in. (maximum) spout for receiving pump discharge. The bag seams shall be sewn with a double needle machine using a high strength thread. The seams shall have a minimum wide width strength per ASTM D-4884 Standard Test Method for Strength of Sewn or Bonded Seams of Geotextiles of 60 lb. /in (10.7 kg/cm).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall verify existing conditions before starting work.

3.2 PREPARATION

- A. The Contractor shall thoroughly review, understand, and adhere to all applicable provisions of the project permits which shall govern the work.

- B. Notify the Owner and Engineer at least 48 hours in advance of the delivery of materials and installation of the cofferdam.
- C. All sediment and erosion control measures shall be in place prior to the commencement of the construction for the cofferdam.
- D. Contractor's equipment used in, or around, the work area shall be free of lubricating or hydraulic oil leaks. If Contractor's equipment develops leaks or breaks, the affected area shall be immediately cleaned up and Contractor shall promptly remove the equipment from the construction area.

3.3 INSTALLATION

- A. Product Installation: Install products according to manufacturer's instructions and requirements.
- B. Installation Standards: Install Work according to [Owner and Utility Owner] standards, specifications, and requirements and per plans.
- C. Maintain a safe, clean, and accessible construction area. Provide for the complete and proper diversion of water during all stages of the construction at no additional expense to the Owner. Any damage to any equipment, products, materials or work caused by floods, high water or failure of the cofferdams shall be the responsibility of the Contractor.
- D. Construct cofferdams to provide adequate clearances in all directions as required for the execution of work to be performed in the dewatered area, including room for dewatering pumps, and installation and removal operations.
- E. Install silt bags per [Section 1639 – Special Stilling Basin of the NCDOT] Standard Specifications.
- F. After installation of cofferdams, pump out the water behind the cofferdam within the work area. All water removed from the work area shall pass through a silt bag to be located as shown on the plans.
- G. Locate and seal minor leaks and/or nuisance water intrusion.
- H. Temporary sump holes may be installed within the area to be dewatered to create a more suitable pumping area. Pumps shall be capable of adequately dewatering the work area at a faster rate than water enters the area.
- I. Keep pumps in a workable condition. Maintain a spare pump on-site for breakdowns or emergency conditions.
- J. Incorporate proper sediment control methods to ensure no sediment laden or discolored water is discharged to the adjacent land and water.

3.4 REMOVAL

- A. Notify the Owner, Utility Owner, and Engineer at least 48 hours in advance prior to removing any portion of the cofferdam system.
- B. Upon completion, inspection, and acceptance of the internal dry work, remove the cofferdam.
- C. Stabilize disturbed areas. Seed and install plant material per the plans.

3.5 SITE QUALITY CONTROL

A. Site Inspections:

1. Inspect cofferdam system a minimum of weekly and before every forecasted storm event and after every storm event that produces ½ inch or greater rainfall.

3.6 RESTORATION

- A. Remove all cofferdam materials, debris and rubbish from project site when project is complete, stabilized, and as directed by the Engineer. All resultant disturbed areas shall be seeded & mulched immediately upon removal. Sand or other soil material used for the sandbags/bags if used shall be removed from the project site, and shall not be discarded and left in or near the waterbody.
- B. Remove and transport the materials and debris in a manner that prevents spillage on streets or adjacent areas. Apply local regulations regarding hauling and disposal.
- C. Restore project areas in a condition of equal or better than existing conditions.

**END OF SECTION
31 52 00**

**SECTION 32 90 00
PLANTING**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work included: Furnish, transport, stockpile, install, and maintain a 1-year warranty on all landscaping material, including but not limited to trees, shrubs, and herbaceous material to implement the planting plans as specified in the Contract Documents, or as directed by the OWNER.
- B. Related Work: Documents affecting work of this section include, but are not necessarily limited to, General Provisions and Modifications of these Specifications.

1.02 RELATED SECTIONS

- A. Section 32 92 00 Seeding
- B. Section 31 20 01 Unclassified Grading
- C. Section 21 25 00 Erosion and Sediment Control

1.03 REFERENCE STANDARDS

- A. South Carolina Department of Transportation Standard Specifications for Highway Construction 2007.
- B. York County Stormwater Management Design Manual June 2019.
- C. South Carolina Department of Health and Environmental Control 2014.
- D. American Standard for Nursery Stock, as published by the American Nursery and Landscape association.

1.04 ABBREVIATIONS, DEFINITIONS, AND TERMS

- A. ANLA: American Nursery & Landscape Association
- B. ASNS: American Standard for Nursery Stock

1.05 SUBMITTALS

- A. The CONTRACTOR shall submit documentation from plant suppliers demonstrating compliance with the requirements of this specification.
- B. Fifteen (15) days prior to the start of planting work, the CONTRACTOR shall submit a proposed planting schedule showing species, quantities, any proposed substitutions, and also

provide the source of plant material to the OWNER for review. No plantings shall be performed until this submittal is approved by the OWNER.

- C. Any problems with obtaining any of the specified plant materials shall be forwarded in writing to the OWNER. The cause of the acquisition problems shall be discussed in detail and a list of vendors contacted shall be included. The CONTRACTOR shall be aware that more than one (1) vendor may be required to obtain all the necessary plant materials. Suggestions concerning appropriate substitutions may be included with this correspondence; however, only the OWNER may approve such substitutions.
- D. The CONTRACTOR shall supply tickets from the suppliers that the plants supplied are the plants specified or agree to under substitution. No compensation shall be made for materials or the cost of installation for plants species that are not specified.

1.06 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size capacity, and numbers to accomplish the work of this Section in a timely manner.
- C. In addition to complying with requirements of governmental agencies having jurisdiction, comply with the directions of the ENGINEER, which may also include the Project Architect, Project Civil Engineer, or the Geotechnical (Soil) Engineer.
- D. All plant material must be inspected and approved by the OWNER prior to installation. The OWNER reserves the right reject non-conforming material at no additional cost to the OWNER.
- E. The CONTRACTOR shall be responsible for all certificates of inspection of plant materials that may be required by federal, state, or other authorities to accompany shipments of plants.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. All plants shall be packed, transported, and handled with utmost care to ensure adequate protection against injury or damage to the root ball and desiccation. Plants must be protected from excessive vibration and/or other physical damage that may occur during procurement and delivery. Plants shall not be thrown or bounded off a truck or loader to the ground. Plants shall not be dragged, lifted, or pulled by the truck or braces in a manner that will damage branch or root structure.
- B. Plant materials transported in vehicles shall be protected from wind whipping either by use of covered vehicles or secure tarps. Failure to protect plant materials during transport to the site will result in rejection of plant materials.
- C. Plants will be delivered as close as possible to the date planting will begin. Upon shipment arrival, plants will be unpacked, and roots will be checked to ensure they are moist. Plant roots will be sprinkled with water if they appear dry. Do not wet stems or tops.

- D. If not planting the same day as shipment arrival, plants will be repacked, and roots covered with moist packing material and stored at a temperature between 35 degree F – 45 degree F. If storing boxed plants outdoors, keep boxes sheltered from wind. Daily temperature variation may not exceed lows of 32 degree F or highs of 45 degree F. Plants may be stored in this format for up to 24 hours post-delivery.
- E. If plants cannot be stored at the specified temperatures, or the entire shipment cannot be planted within one day from delivery, the plants will be temporarily staged in the ground by digging a trench long and wide enough to completely cover the roots. Trench backfill material will be recently adjacent tilled topsoil compacted by foot. Plants can be temporarily staged for up to fourteen (14) days prior to planting. Landscaper shall photo document the staged materials and provide to OWNER.

1.08 SEQUENCING AND SCHEDULING

- A. Install plants after finish grades are achieved and after any applicable seed and/or stabilization matting.
- B. Plant deciduous, woody plants between November 1st and March 15th whenever the temperature is between 32 degrees F and 65 degrees F and the soil is in a workable condition, unless otherwise approved in writing.

1.09 WARRANTY

- A. The CONTRACTOR shall maintain a minimum 85% survival rate within each representative 500 square foot area of all planting zones and material for a minimum of 1 year (12 months) from the final inspection and initial planting acceptance by the OWNER and include at least one full continuous growing season consisting of the full months of June through October, inclusive.
- B. Following installation and throughout the warranty period, the CONTRACTOR shall actively maintain the installed planting work. This work includes removing debris accumulated in the planting area, resetting trees and shrubs to upright positions, reseeding bare soil areas, removing, and replacing dead trees and shrubs, and watering during drought conditions.
- C. If 85% survival rate per 500 square foot area is not demonstrated at the end of the one-year warranty, as evidenced by a site review with the OWNER and CONTRACTOR, the CONTRACTOR shall replace in kind and replant in kind all unhealthy and dead material in quantities that will achieve the 85% survival rate per 500 square foot area. The intent is to prevent a scenario in which there may be areas of barren land in sensitive landscape positions such as sloped areas, etc. that, while included with all site plantings, may achieve an 85% survival rate but leave areas of the site vulnerable to localized erosion.

1.10 MAINTENANCE

- A. Maintenance and warranty shall begin upon acceptance of the planting efforts, by the OWNER, and last for one year. The CONTRACTOR shall maintain the recently planted material by watering, weeding including invasive species, replacement of dead material and any other methods necessary to encourage and promote the health, vigor and survivability of the plant material.

B. Watering:

1. For all maintenance areas, CONTRACTOR is responsible for watering. Watering and rainfall shall supply a minimum of 1 inch of water per week.

2. It will be the CONTRACTOR's responsibility to supply water if there is none available on the site. Any costs associated with supplying water shall be the responsibility of the CONTRACTOR from planting through to the end of the warranty period.

C. Following each bi-weekly maintenance visit, the CONTRACTOR shall provide a written report to the OWNER detailing the condition of the project site and the corrective actions taken to address deficiencies.

D. The CONTRACTOR shall perform maintenance visits to the project site at the agreed upon time intervals as requested by the OWNER. Additional maintenance visits may be performed at the CONTRACTOR's discretion and expense.

PART 2 - PRODUCTS

2.01 GENERAL

A. Provide approved like materials from the same manufacturer or supplier to provide consistent composition and appearance.

B. Plant quality and size: all plants shall be true to type and nomenclature and typical of their species or variety. Ensure that all plant materials conform to the current edition of the American Standard for Nursery Stock (ASNS), as approved by the American Nursery and Landscape Association (ANLA). They shall have a normal habit of growth with well-developed branch systems and vigorous root systems. They shall be sound, healthy, and vigorous plants, free from visible defects, disfiguration, injury, recognizable disease of any kind, insect eggs, borers, and any infestation. All plants shall be nursery grown in a suitable growth medium. It is the responsibility of the CONTRACTOR to inspect the plants before removal from the nursery where they have been grown to make sure that the plants meet these requirements. CONTRACTOR shall ensure plants continue to meet these requirements through installation.

C. All plants shall conform to all sizes and measurements detailed in these specifications and indicated on the plans. Unacceptable plants shall be culled at the nursery prior to being packed. No substitutions for any materials shall be made unless agreed to in writing by the OWNER. With the approval of the OWNER, plants larger in size than specified may be utilized, but such plants shall not increase the contract price. Plants shall have a form and architecture that is easily planted for the stock specified.

D. The CONTRACTOR shall notify the OWNER of the unavailability of plant material in the contract, as well as provide confirmation of all orders from all sources of supply Fifteen (15) days prior to start of work. Any proposed substitutions must be submitted in writing to the OWNER for approval. The OWNER must approve all plant substitutions prior to delivery.

E. If a substitute species is required, the species must be native to the South Carolina region and of the same size, and cost as the original plant. As noted above, the CONTRACTOR shall make every proactive effort to ensure that proposed plant material per the planting plan, including

species and associated quantities/sizes, are reserved in anticipation of project plantings. Substitutions made solely on the basis of negligence in securing planting material shall be rejected.

- F. Native plant material must be derived from the local genotypes of the native Plants specified. For purposes of this native plant material paragraph, “local” shall mean within 200 miles from the planting site. However, a reasonable effort shall be made to obtain sources of plant material as close to the planting site as possible. All plants must have been grown in a hardiness zone no warmer than Zone 8b or colder than Zone 8a as determined by the USDA Agricultural Research Service, Plant Hardiness Zone Map. Unless otherwise specified, straight species are required; cultivars or varieties shall be rejected.
- F. Plant materials must be selected from certified nurseries that have been inspected by state and/or federal agencies. A copy of the State Department of Agriculture Nursery Inspection Certification, from all nurseries supplying plant material, must be submitted to the OWNER upon request.
- G. Plant material collected from the wild is prohibited with the exception of native material cultivated from the site corresponding to proposed species in applicable planting units or otherwise directed by the OWNER.
- H. Only use products which have been approved by the OWNER.

2.02 MATERIALS

A. Plant Material

1. Container Grown Plants

- a. Container grown stock shall have been grown in a container long enough for the root system to have developed sufficiently to hold its soil. Roots shall visibly extend to the inside face of the growing container. All container-grown plants shall be grouped and kept moist until they are planted. Containerized stock that exhibits evidence of excessive circling (girdling) roots shall be rejected.
- b. It is the CONTRACTOR’s responsibility to ensure that arrangements are made to ensure that all species, associated quantities, and material sizes specified in the planting plan and schedules are procured to minimize any substitutions in species or material sizes to the maximum extent practicable.
- c. OWNER’s onsite representative may reject plants damaged in handling and/or transportation.
- d. No plants shall be installed unless the OWNER’s onsite representative approves both the conditions of the plantings and the process of installation, which include plant spacing, clustering instruction and any specific planting location due to species characteristics and considerations.

B. Water

- 1. Water used for the establishment or maintenance of plants shall be free from any substances that are injurious to plant life, including but not limited to oil, acids, alkalis and salts.

C. Mulch

1. Provide mulch conforming to the requirements of SCDOT 811.2.5.

D. Fertilizer (if applicable)

1. Provide fertilizer conforming to the requirements of SCDOT Subsection 810.2.5.

E. Lime (if applicable)

1. Provide lime conforming to the requirements of SCDOT Subsection 810.2.6.

F. Stakes for Bracing and Anchoring

1. Provide bracing and supports for trees and shrubs conforming to the requirements of SCDOT 811.2.6.2.

2.03 EQUIPMENT

- A. It is the responsibility of the CONTRACTOR to utilize the appropriate equipment necessary to complete the requirements in this specification in a safe working manner.
- B. It is the responsibility of the CONTRACTOR to utilize equipment, or the lack thereof, that limits disturbance to the newly completed project area. All areas that have been disturbed or destroyed due to the use of equipment by the CONTRACTOR, as solely determined by the OWNER, shall be repaired in accordance with these specifications by the CONTRACTOR; at his own expense.

PART 3 - EXECUTION

3.01 GENERAL

A. Optimal Planting Season

1. Woody shrubs and trees shall be planted between the first of November 1st and March 15th. The OWNER may permit planting at other times when necessary. Trees and shrubs shall not be planted when the ground is frozen.
2. Herbaceous material (EV & SAV) shall be planted between April 1st and June 1st. Herbaceous material shall not be planted when the ground is frozen.

- B. During planting, all areas shall be kept neat, clean, and free of all trash and debris, and all reasonable precautions shall be taken to avoid damage to existing plants, structures, and private property.

3.02 PREPARATION

A. Plant Layout

1. The CONTRACTOR shall lay out and identify planting zones, and as requested by the OWNER or ENGINEER, individual planting locations. The CONTRACTOR shall request that the OWNER inspect and approve plant spacing and locations before proceeding with installation.
2. All areas disturbed by construction shall be planted in accordance with the composition and planting schedules for each designated planting zone. Areas within designated planting zones not disturbed by construction shall be supplemented with trees and shrubs to meet the acre quantities specified in the composition schedule at the direction of the OWNER.
3. The CONTRACTOR shall refer to the Plant Schedules and Details in the Contract for specific spacing requirements.
4. In the Plant Schedules, the CONTRACTOR shall use the Overall Minimum Spacing figure to determine the spacing between each species of vegetation. The CONTRACTOR shall use the individual spacing figure to determine the spacing between each plant of the same species.

B. Pre-Installation Inspection

1. The CONTRACTOR shall meet with the OWNER during delivery of plant materials at the project site. Each item shall be labeled with the product name (genus, species), material size, and vendor. The CONTRACTOR shall provide the OWNER with copies of all shipping manifests for the materials. The OWNER shall verify the materials delivered are in a healthy and vigorous condition and are consistent with the plan requirements in regard to quantity, species, and size.
2. The OWNER shall be the sole judge of the conditions of quality and acceptability and will direct all corrections to the CONTRACTOR in writing. All rejected materials shall be immediately removed from the site and replaced with specified materials at the CONTRACTOR's expense.
3. The OWNER shall reject all plant materials not achieving these specifications: material having damaged or missing leaders, multiple leaders, Y-crotches, or indications of topping or heading back.
4. The OWNER may also reject plants damaged during handling or transportation, or that are otherwise inadequate to the standards listed in the specification prior to installation. If rejected, plantings must be replaced by the CONTRACTOR at no additional cost to the OWNER.
5. No plants shall be installed unless the OWNER approves the plant material, and the proposed plant locations.

3.03 INSTALLATION

A. Planting

1. Immediately after site preparation and approval, trees and shrubs shall be planted. The CONTRACTOR shall coordinate work to prevent any delays that result in damage to plant material (e.g. freezing, desiccation, etc.). Coordinate work to prevent delays in planting that may expose the root systems of plants to the air, sun, or freezing conditions. Planting shall be conducted according to Optimal Planting Season or as approved by the OWNER. Plant material shall not be planted when the ground is frozen.

2. Rootstock of the plant material shall be kept moist during transport, from the source to the job site and until planted.
3. All planting pits shall be dug by hand or other acceptable method. Side walls of planting pits shall be dug so that they are vertical or sloping outward in heavy soils. Scarify the walls of the pit after digging to maximize the potential for root penetration into adjacent soil areas.
4. Excavate the planting pit to two (2) times the width of the root mass.
5. The planting pit shall be dug to a depth allowing the first lateral root of the root mass to be flush with the existing grade.
6. Remove all non-organic debris larger than 1-inch diameter from the pit and tamp loose soil in the bottom of the pit by hand.
7. Plant material shall be handled by the root mass; do not handle the plant by the branches, leaves, trunk or stem.
8. Place the plant in the center of the planting pit. Set plants plumb and at the same depth at which they were grown in the nursery, except set trees with a trunk flare 1/2 to 1 inch above the surrounding grade to allow for settling. Shave the root ball as needed to correct circling (girdling) roots prior to backfilling. Set roots for the various conditions as follows:
 - a. Containerized Plants (trees and shrubs):
 - 1). Immediately before planting, remove the container, and make three (3) vertical cuts equidistantly spaced around the perimeter of the root mass. Make each cut 1/2 inch deep from the top of the root-earth mass to the bottom.
 - b. Herbaceous material:
 - 1). 1. Locations and sizes of herbaceous material (containerized individuals and plugs) to be verified in the field by the CONTRACTOR and evaluated by the ENGINEER prior to planting.
9. Backfill the planting pit with existing soil and hand tamp to remove major voids and air pockets. Do not compact soil such to the degree that it becomes detrimental to root growth and air exchange. Do not cover the top of the root mass with soil.
10. Install tree and shrub protection as shown in the Construction Drawings as applicable.
11. Water plant thoroughly immediately after planting, unless otherwise directed by the OWNER and/or the ENGINEER. Waterings shall occur at the intervals specified above.
12. The CONTRACTOR shall backfill any vacant planting pits at the close of each day as needed.
13. Remove all tags, labels, strings and wire from the plant materials, once directed by the OWNER and/or the ENGINEER.

B. Mulching

1. Place mulch within 48 hours after planting. Place mulch material as a top layer on the backfilled plant hole after all planting operations have been completed. Place the mulch in a "doughnut" shape with no mulch touching the main stem(s) of the planted vegetation. In general, ensure that this layer of mulch may be up to 3 inches in depth, but vary it according to the climatic conditions and to the type of material used. The OWNER will determine the appropriate depth of mulch.
2. Planting mulch can inhibit the growth of seed mix when intermixing plantings within seeded area. Special attention should be placed on limiting planting mulch outside of specific individuals species' planting footprints.

C. Staking and Guying (if applicable)

1. Stake all trees in accordance with SCDOT 811.4.17 Staking.
2. Stake all trees in accordance with SCDOT 811.4.18 Guying.

3.04 CLOSEOUT ACTIVITIES

A. Clean-Up

1. The CONTRACTOR shall be responsible for the removal of all trash and any other materials incidental to the project and disposing of them off-site. During planting, all areas shall be kept neat, clean, and free of all trash and debris, and all reasonable precautions shall be taken to avoid damage to existing plants, turf, structures, and private property. All stakes, guying materials, and any other plant protection measures are to be completely removed from and disposed off-site following two (2) years after initial planting acceptance.

B. Damage

1. All areas where the installed plants have been disturbed or destroyed by the CONTRACTOR'S negligent actions or inactions, as solely determined by the OWNER, shall be replanted in accordance with these specifications by the CONTRACTOR at his own expense. Replanting shall occur at the next available planting window and shall not be delayed until the end of the warranty period.

C. Initial Construction Inspection

1. Upon completion of all planting installation requirements, the CONTRACTOR shall request an inspection of plantings by the OWNER. The OWNER will perform the initial inspection within 15 days after notification that all work and final cleanup has been completed.
2. If an initial inspection reveals no deficiencies, the OWNER will provide the CONTRACTOR with notification of acceptance, and the one-year warranty period shall commence.
3. If an initial inspection reveals deficiencies, the OWNER will provide the CONTRACTOR with a punchlist. Upon completion of the punchlist, the CONTRACTOR shall request an inspection by the OWNER. The OWNER will perform the follow-up initial inspection within

15 days after notification that all work and final cleanup has been completed. If the follow-up initial inspection reveals no deficiencies, the OWNER will provide the CONTRACTOR with notification of acceptance, and the one-year warranty period shall commence.

D. Final Inspection

1. The CONTRACTOR shall request the final inspection on or before the end of the establishment period, a minimum of 1-year after the initial planting acceptance. The OWNER will perform the final inspection within 15 days after notification. At that time the OWNER will determine which plants are rejected or missing and need replacing.

E. Replacements

1. The CONTRACTOR shall replace all plants designated at the final inspection by the OWNER within 30 calendar days during the next planting window specified above.
2. Replace plantings using the methods and procedures outlined previously for initial plantings. Furnish, install, and care for the replacement plantings for a 90-day period without any additional compensation.
3. If any of the replacement plantings are defective, missing, or otherwise unsatisfactory at the end of the 90-day period as determined by the OWNER, the CONTRACTOR shall replace with satisfactory plantings without any additional compensation.

F. Final Acceptance

1. Upon completion of all planting replacements established at the final inspection, the CONTRACTOR shall request final acceptance by the OWNER. The OWNER will perform a final acceptance inspection within 15 days after notification that all work and final cleanup has been completed. If an inspection reveals no deficiencies, the OWNER will provide the CONTRACTOR with final acceptance.

**END OF SECTION
32 90 00**

SECTION 32 92 00
SEEDING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work included: Furnish, transport, stockpile, install, and maintain a 1-year warranty on all temporary seed, permanent seed and sod (if/as applicable in turf areas not encompassed by planting units) to implement the planting plans as specified in the Contract Documents, or as directed by the OWNER.
- B. Related Work: Documents affecting work of this section include, but are not necessarily limited to, General Provisions and Modifications of these Specifications.

1.02 RELATED SECTIONS

- A. Section 32 90 00 Planting
- B. Section 31 20 01 Unclassified Grading
- C. Section 21 25 00 Erosion and Sediment Control

1.03 REFERENCE STANDARDS

- A. South Carolina Department of Transportation Standard Specifications for Highway Construction 2007.
- B. York County Stormwater Management Design Manual June 2019.
- C. South Carolina Department of Health and Environmental Control 2014.
- E. South Carolina Department of Agriculture (SCDA).

1.04 ABBREVIATIONS, DEFINITIONS, AND TERMS

- A. PLS: Pure Live Seed
- B. SCDOT: South Carolina Department of Transportation

1.05 SUBMITTALS

- A. The CONTRACTOR shall submit documentation from seed suppliers demonstrating compliance with the requirements of this specification.
 - 1. Fifteen (15) days prior to the start of planting work, the CONTRACTOR shall submit a complete list of seed mixes and sod showing species and quantity, to the OWNER for review. This submission shall identify the seed or seed mix and include the seed sources

with genetic origin of the material and identification of all varietal types. Any deviations from the seed mix specifications shall be clearly identified to the OWNER. No work shall be performed until this submittal is approved by the OWNER.

2. Upon rejection of any material, new material submissions shall be made until the proposed materials are in compliance with the specification, as solely determined by the OWNER. Any materials deemed not in compliance with the specifications by the OWNER shall not be utilized for this work. The OWNER reserves the right to reject on or after delivery any material that does not meet the specifications herein. All rejected materials and equipment shall be removed from the work site by the end of the working day.
- B. The CONTRACTOR shall submit certified and dated seed tickets stating mix composition and weight in pounds (LBS) to the OWNER prior to application.
 - C. The CONTRACTOR shall submit certified and dated sod tickets stating mix composition and weight in pounds (LBS) to the OWNER prior to application.

1.06 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size capacity, and numbers to accomplish the work of this Section in a timely manner.
- C. In addition to complying with requirements of governmental agencies having jurisdiction, comply with the directions of the ENGINEER which may also include the Project Architect, Project Civil Engineer, or the Geotechnical (Soil) Engineer.
- D. Testing required for this part of the work will be furnished by the CONTRACTOR.
- E. Certified and dated seed tickets stating mix composition and weight in pounds (LBS) must be furnished to the OWNER prior to payment.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Seed and sod shall be stored in a cool dry place, away from moisture or direct sunlight.
- B. Handle sod in a manner that prevents tearing, breaking, drying, or any other damage.

1.08 SEQUENCING AND SCHEDULING

- A. Place seed and sod after finish grades are achieved and soil preparations have been made.

1.09 WARRANTY

- A. The CONTRACTOR shall maintain a minimum 85% survival rate per 500 square foot area of all herbaceous seeding and sod for a minimum of 1 year (12 months) from the final inspection and initial planting acceptance by the OWNER and include at least one full continuous growing

season consisting of the full months of June through October, inclusive. This shall include necessary care and replacement to achieve the required coverage. If 85% survival rate per 500 square foot area is not satisfactorily demonstrated at the end of the warranty period, the CONTRACTOR shall reseed with the appropriate seed mixes and apply all necessary efforts to achieve the specified coverage. The intent of this warranty enforcement strategy is to prevent localized bare planted areas from contributing to erosion and other adverse site impacts.

1.10 MAINTENANCE

- A. The CONTRACTOR shall perform all necessary weeding, overseeding, watering and other efforts necessary to maintain the warranty.
- B. Watering:
 - 1. For all maintenance areas, CONTRACTOR is responsible for watering. Watering and rainfall shall supply a minimum of 1 inch of water per week.
 - 2. It will be the CONTRACTOR's responsibility to supply water if there is none available on the site. Any costs associated with supplying water shall be the responsibility of the CONTRACTOR from planting through to the end of the warranty period.
- C. Following each maintenance visit, the CONTRACTOR shall provide a written report to the OWNER detailing the condition of the project site and the corrective actions taken to address deficiencies.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Provide approved like materials from the same manufacturer or supplier to provide consistent composition and appearance.

2.02 MATERIALS

A. Temporary Seed

1. Temporary Seed shall consist of brown-top millet (*Urochloa ramosa*) March through August applied at a rate of 40 lbs per acre and grain rye September through March applied at a rate of 56 lbs per acre or approved substitution. The planting zones shall conform to those shown on the Construction Drawings.

B. Permanent Seed

1. Permanent seed shall consist of seed mixes specified on the planting schedules in the Construction Drawings at the specified rate in the schedules. The planting zones shall conform to those shown on the Construction Drawings.

2. Seed shall be certified that the Pure Live Seed (PLS) percentage is equal to or greater than that which is specified on the Plant Schedules. If the PLS is less than specified, the

CONTRACTOR shall increase the seeding rate to compensate for the PLS difference as his/her own expense.

3. All seed and seed varieties shall be free from State and Federal prohibited noxious weeds including but not limited to the following:

Annual bluegrass	Corn cockle	Spurred anoda
Bermuda grass	Dodder	Wild garlic
Bindweed	Giant foxtail	Wild onion
Cocklebur	Horse nettle	

C. Sod (if applicable)

1. Sod shall consist of a Centipede grass or other species approved by the OWNER specified for the planting zones or areas as shown on the Construction Drawings.
2. Provide vigorous, well-rooted, healthy turf, free from disease, insect pests, weeds, other grasses, stones, and any other harmful or detrimental materials.
3. Provide machine stripped sod with a uniform minimum soil thickness of 1 inch. The measurement for thickness excludes top growth and thatch.

D. Mulch/Tack

1. Mulch shall be un-rotted straw or hay applied at a rate of 70 to 90 lbs./1,000 square feet. The placement of mulch shall achieve 95% soil surface coverage. Tacking is to be achieved by crimping only.
2. Do not use mulch that contains noxious weed seeds, soil, sawdust, or any substance toxic to plant growth.

E. Water (if applicable)

1. Water used for the establishment or maintenance of seed and/or sod shall be free from any substances that are injurious to plant life.

F. Fertilizer (if applicable)

1. Seeding and sodding area soils shall be tested with soil test recommendations provided to the OWNER for review and approval. Provide fertilizer conforming to the requirements of SCDOT Subsection 810.2.5.

G. Limestone (if applicable)

1. Limestone shall be applied uniformly according to soil test recommendations. Provide limestone conforming to the requirements of SCDOT Subsection 810.2.6.

2.03 EQUIPMENT

- A. It is the responsibility of the CONTRACTOR to utilize the appropriate equipment necessary to complete the requirements in this specification in a safe working manner.
 - 1. Seeders which are compatible with seeding are broadcast/cyclone seeder and drop-type seeders.
 - 2. Seed drill modified to handle native warm season grass and native forb seed mixes.
- B. It is the responsibility of the CONTRACTOR to utilize equipment, or the lack thereof, that limits disturbance to the newly completed project area. All areas that have been disturbed or destroyed due to the use of equipment by the CONTRACTOR, as solely determined by the OWNER, shall be repaired in accordance with these specifications by the CONTRACTOR; at his own expense.

PART 3 - EXECUTION

3.01 GENERAL

- A. The CONTRACTOR shall install the seed and sod in accordance with the Contract Documents.
- B. Seeding and sod placement shall not be performed during periods of rain, severe drought, high winds, excessive moisture, frozen grounds, or other conditions that preclude satisfactory results. All seeding is to be performed in moderately dry to moist (not flooded) soil and at a time where the wind does not exceed a velocity of ten (10) miles per hour.

3.02 PREPARATION

- A. The CONTRACTOR must examine the area and conditions under which the work is to be performed. The area must be properly prepared before seeding and sodding begins. The OWNER is to be notified in writing of conditions detrimental to the proper and timely completion of the work. The CONTRACTOR shall identify those areas that are detrimental to seeding and consult with the OWNER to determine corrective actions. Seeding and sodding work is not to proceed until either the undesired condition is corrected, or a waiver is granted from the OWNER. Unless directed by the OWNER, no seeding shall occur until all the soil testing results have been reviewed by both the CONTRACTOR and the OWNER, and the as-built survey verifying subsoil and topsoil elevations have been reviewed and approved by the OWNER.
- B. Prior to seeding and sodding, the CONTRACTOR shall verify final elevations and prepare soils.
- C. The CONTRACTOR shall with the approval of the OWNER incorporate all necessary amendments such as fertilizer and limestone, based on soil test recommendations, into the soil prior to seeding and sodding.
- D. The CONTRACTOR shall ensure all soil is loose, friable and free of stone, sticks, debris or other material larger than 2 inches in size with the exception of woody debris.

- E. Where applicable per the ENGINEER and/or OWNER, place compost per Section 31 91 19.13 Compost Amended Soil Placement and Grading, or topsoil prior to seeding and sodding in accordance with Section 31 14 13 Soil Stripping and Stockpiling. Areas to be seeded and sodded shall be maintained at approved grades.
- F. All mechanical equipment for soil preparation or seeding and sodding shall be as approved and shall operate parallel to the contours unless otherwise approved by the OWNER. The CONTRACTOR shall be responsible for performing all work necessary to achieve and maintain an acceptable seedbed prior to seeding and sodding as required by the OWNER at no additional cost.

3.03 INSTALLATION

A. Seeding

1. All areas disturbed by construction shall be seeded in accordance with the planting plans and schedules indicated in the Contract. At a minimum, upon completion of soil disturbing activities, permanently stabilize disturbed areas within 7 days. Areas not disturbed shall not be seeded.
2. All areas to be seeded shall conform to the finished grades as specified in the Construction Drawings and be free of all weeds, trash, debris, brush, clods, loose rocks and other foreign materials larger than 2 inches in diameter or length that would interfere with seeding (aside from woody material). All gullies, washes or disturbed areas that develop subsequent to final dressing shall be repaired prior to seeding.
3. Seeding operations shall be initiated and completed within the seeding dates indicated for each of the mixes per vendor guidelines. No seeding shall be performed on frozen ground or when the temperature is 32°F (0°C) or lower.
4. The CONTRACTOR shall notify the OWNER at least forty-eight (48) hours in advance of the time they intends to begin sowing seed and shall not proceed with such work until permission to do so has been obtained. When delays in operations carry the work beyond the dates specified in the schedule, or when conditions of high winds, excessive moisture, or ice are such that satisfactory results are not likely to be obtained at any stage of the work, the CONTRACTOR shall stop the work. The work shall be resumed with the OWNER's approval when the desired results are likely to be obtained or when approved corrective measures and procedures are adopted.
5. Permanent and Temporary seed installed by a broadcast spreader shall be capable of placing seed at the specified rate. Any alternative seeding methods must be approved by the OWNER, prior to application. All seeding equipment shall be calibrated before application to the satisfaction of the OWNER so that the material is applied accurately and evenly to avoid misses and overlaps.
6. Native Seed Mixes
 - A. Native seed shall be broadcast on top of finished, prepared grade using a broadcast spreader or by hand, capable of placing seed evenly across the surface at the

specified rate. Alternative seeding methods must be approved by the OWNER prior to procurement or use on site.

B. Seeding equipment shall be calibrated before application to the satisfaction of the OWNER so that the material is applied accurately and evenly to avoid misses and overlaps.

C. To maximize the seed-to-soil contact, the seed shall be incorporated into the top 1/4" of the surface by using a cultipacker, other similar equipment, or by dragging a metal prong rake or chain link fence overtop the surface. Seed shall not be buried more than a 1/4" into the topsoil surface. The OWNER shall inspect and confirm that the seed has been applied in accordance with this specification prior to applying straw or mulch.

9. Following installation, seeded areas shall not be disturbed in any manner by vehicular, foot, or other traffic other than specified herein or approved by the OWNER. Particular care shall be taken to ensure complete and accurate coverage at the prescribed rates. Proper predetermined quantities of mixture in accordance with the specifications shall be used to cover specified sections of known surface area. Any area inadequately covered, as solely determined by the OWNER, shall be retreated at no additional cost.

B. Sodding (if applicable)

1. All areas disturbed by construction and requiring sod shall be done so in accordance with the planting plans and schedules indicated in the Contract. At a minimum, upon completion of soil disturbing activities, permanently stabilize disturbed areas within 7 days.
2. All areas to receive sod shall conform to the finished grades as specified in the contract and be free of all weeds, trash, debris, brush, clods, loose rocks and other foreign materials larger than 2 inches in diameter or length that would interfere with sod. All gullies, washes or disturbed areas that develop subsequent to final dressing shall be repaired prior to sod placement.
3. Sod operations shall be initiated and completed within optimal planting dates provided by the vendor's guidelines. In general Sod placement shall be performed from March 1 - May 1 and September 15 – November 15 with Autumn being the preferred window, or as directed by the OWNER. No sod placement shall be performed on frozen ground or when the temperature is 32 degree F (0 degree C) or lower.
4. The CONTRACTOR shall notify the OWNER at least forty-eight (48) hours in advance of the time he/she intends to begin placing sod and shall not proceed with such work until permission to do so has been obtained. When delays in operations carry the work beyond the dates specified in the schedule, or when conditions of high winds, excessive moisture, or ice are such that satisfactory results are not likely to be obtained at any stage of the work, the CONTRACTOR shall stop the work. The work shall be resumed with the OWNER's approval when the desired results are likely to be obtained or when approved corrective measures and procedures are adopted.
5. Lay sod on the prepared sod bed within 24 hours after cutting, except that sod may be stored in stacks or piles, grass to grass and roots to roots for not more than 5 days. Protect sod

against drying from sun or wind and from freezing if necessary. Perform moving and laying of sod when weather conditions and soil moisture are favorable.

6. Lay the sod when the soil is moist. If necessary, moisten dry sod beds before sod is laid. Lay sections of solid sod edge to edge with staggered joints. Plug openings with sod or fill with acceptable loamy topsoil. Fill openings in joints with loamy topsoil. After laying sod and filling joints, roll or tamp with approved equipment to eliminate air pockets and provide an even surface.
7. Following installation, sod areas shall not be disturbed in any manner by vehicular, foot, or other traffic other than specified herein or approved by the OWNER.

C. Watering

1. Immediately after seeding, the site shall be watered lightly but thoroughly so that the top 4 inches of soil is saturated.
2. Thoroughly water all seeded areas after the seed has germinated. Apply a total rate of 300 gallons per 1000 square feet in at least two applications spread over seven days. Apply the water such that the spray that will not dislodge the matting material. Perform a second water application between seven and ten days after the primary applications. If ½-inch or greater of rainfall has occurred within the first seven-day period, the CONTRACTOR may omit the secondary application, if approved by the OWNER.
3. Water sod thoroughly immediately after installation to a depth of 3-4", unless otherwise directed by the OWNER and/or the ENGINEER. CONTRACTOR shall keep sod uniformly moist (not soaked) by watering in short intervals 3-4 times a day for the first 12 days and should water within the window of 7am – 2pm for best results. After 12 days, watering shall occur once every day for a longer interval for 7 days. After this time period and after good rooting has been established, watering every second or third day is recommended.

D. Mulch/Tack

1. The CONTRACTOR shall mulch and tack all seeded areas immediately after seeding.

3.04 CLOSEOUT ACTIVITIES

A. Acceptance

1. Acceptance of the permanent seed installation shall not occur until at least four (4) weeks following completion of the seeding operation or until related soil erosion control items have been installed and accepted, including the soil and erosion control minimum coverage requirement. Acceptance of the seed installation by the OWNER shall be based on proper site preparation and installation, and satisfactory completion of required watering, if any. Acceptance of the WORK by the OWNER shall not relieve the CONTRACTOR from any obligations of the contract.

B. Damage

1. Damaged areas: all areas where the vegetative growth has been injuriously disturbed or destroyed by the CONTRACTOR's actions or inactions, as solely determined by the OWNER, shall be restored and seeded in accordance with these specifications by the CONTRACTOR at his own expense. Reseeding shall occur at the next available seeding window and shall not be delayed until the end of the warranty period

C. Trash Removal

1. The CONTRACTOR shall be responsible for the removal of all trash and any other materials incidental to the project and disposing of them off-site at no additional cost to the OWNER.

END OF SECTION
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SP-01
BOULDER VANE

1.0 Description

The work covered by this section consists of furnishing, stockpiling, placing, and maintaining approved stone and filter fabric to be utilized to construct the boulder vane, as specified in the Contract Document or as directed by the Engineer. The vane is used for directing the stream flow and providing habitat.

The quantity of structures to be constructed will be affected by actual conditions that occur during the construction of the project. The type and quantity of this structure may be increased or decreased at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

2.0 Materials

Boulders shall consist of flat-sided, durable field or quarry stone that is sound, hard, dense, angular, and resistant to the action of air and water, and free of seams, cracks, or other structural defects. The Contractor cannot use limestone or concrete waste for stone. Stone shall be approved by the Engineer.

The size (length, width and depth (thickness)) of the boulder material shall as specified by the Engineer. Stone shall be approved by the Engineer.

Boulders for in-stream structures shall conform to their respective specifications as shown on the plans.

Coarse backfill material shall consist of durable field or quarry stone that is sound, hard, dense, slightly rounded, resistant to the action of air and water, and free of seams, cracks, or other structural defects. The Contractor cannot use limestone or concrete waste for stone. Stone shall be approved by the Engineer.

The type, size and gradation of the Coarse Backfill Material shall be specified by the Engineer to be mobile or non-mobile as the conditions in the channel warrant, and in accordance with the construction documents.

3.0 Submittal

Not applicable.

4.0 Methods

Structure installation and channel grading sequences may vary based on structure function and design. Boulder vanes should be installed after channel grading operations, so that flow vectors and channel alignment can be used to adjust the installation.

Prior to construction of the structure, establish elevations at the upstream end of the proposed structure and at the bankfull connection point. The Contractor may install additional survey control, as needed, to complete the work in accordance with the Contract Documents.

Vane Arm and Sill

- a) Over-excavate/trench the stream bed to a depth equal to the total thickness of the header and footer boulders plus specified bedding per plans. The excavation slope should be smooth and gradual,

typically matching the designed vane arm slope. Place coarse backfill bedding to depth specified on plans. Bedding for the placement of the footer boulders shall be approved by the Engineer prior to placement of footer boulders.

- b) Place footer boulders in the trench made for the vane arm. Footer boulders shall have direct surface contact with adjacent boulders and shall smoothly and gradually transition in accordance with the design vane arm slope. Review, survey (measure), and adjust the alignment and/or height of the vane arm footer boulders, as needed. Selecting boulders with similar thickness for the footers may assist with the ease of construction. The footers shall be reviewed by the Engineer prior to proceeding with the work.
- c) Install the footer boulders for the floodplain sill at the downstream end of the structure arm. Review, survey (measure), and adjust the alignment and/or height of the sill footer boulders, as needed. The footers shall be reviewed by the Engineer prior to proceeding with the work.
- d) Install filter fabric per the Contract Documents. Typically the fabric is draped over the top of footers, down the back face of the footer boulders and across the area of over-excavation/trenching. Fabric reaching the excavated soil face may be folded and/or trimmed, in accordance with the Contract Documents. The fabric installation shall be reviewed by the Engineer prior to proceeding with the work.
- e) Place Coarse Backfill on top of the filter fabric and between the back of the footer boulders and the excavated soil face. Coarse Backfill shall be level with the top surface of the footer boulders. The Coarse Backfill shall be reviewed by the Engineer prior to proceeding with the work.
- f) Place the header boulders on top of and slightly back from the edge of the footer boulders (such that the header boulders rest partially on top of the Coarse Backfill material). Header boulders shall be placed so that they span the seams of the footer boulders. Header boulders shall have direct surface contact with adjacent boulders, free of gaps, and shall smoothly and gradually transition in accordance with the design vane arm slope. Review, survey (measure), and adjust the alignment and/or height of the vane arm header boulders, as needed. Selecting boulders with similar thickness for the headers may assist with the ease of construction.
- g) Install the header boulders for the floodplain sill at the downstream end of the structure arm. Sill header boulders shall be placed so that they span the seams of the sill footer boulders. Header boulders shall have direct surface contact with adjacent boulders, free of gaps. Review, survey (measure), and adjust the alignment and/or height of the sill header boulders, as needed. The sill header boulders shall be reviewed by the Engineer prior to proceeding with the work.
- h) Place Coarse Backfill between the back of the header boulders (vane and sill) and the excavated soil face. Coarse Backfill shall be level with the top surface of the header boulders. The Coarse Backfill shall be reviewed by the Engineer prior to proceeding with the work.

In locations where exposed bedrock and/or other existing feature extends to and/or within the limits of the proposed work, the boulder vane installation shall be field adjusted to incorporate the bedrock/existing feature, into the finished work. The Engineer shall be contacted as soon as the presence of bedrock and/or other existing feature is field identified, to determine the appropriate method of incorporation. Site conditions may require slight deviation from the plan and shall be approved by the Engineer.

5.0 Warranty

All work performed shall fall within the Contractors standard warranty period.

END OF SECTION

SP-02
LIVE STAKES AND CUTTINGS

1.0 Description

The work covered in this special provision includes preparation, furnishing equipment, materials, and labor necessary to install and maintain live stakes or cuttings on “finished” stream banks as shown on the plans and/or as directed by the Engineer or Owner.

Live stakes or cuttings shall be installed in accordance with the various stream bank stabilization techniques described in the Contract Documents.

All planting shall be executed during the dormant season for each species (generally November 15 thru March 15).

2.0 Materials

Live stake and cutting materials shall consist of materials specified in the Contract Documents, or if not specified, then shall be made up of the species and percentages in the table below.

Live stakes shall be 1/2 inch to two-inch diameter, two to three feet in length, angled on the bottom and flush on the top, with buds oriented upwards. Live stakes shall be living based on the presence of young buds and green cambium. All side branches shall be cleanly trimmed so the cutting is a single stem. They shall be cut at a 45° angle on the basal end, and cut flat on the other end. The basal end is intended as the end to take root and shall be the end installed in the ground. Live stakes shall not be harvested after March 15 or before November 15.

Live cuttings shall be 1/2 inch to three inches in diameter, length as specified on plans, freshly cut woody branches, and shall be installed per plans.

The following table contains live stakes which may be used.

BOTANICAL NAME	COMMON NAME	PERCENTAGE
<i>Cornus amomum</i>	Silky dogwood	50
<i>Salix sericea</i>	Silky willow	50

3.0 Submittals

Furnish a copy of tags used to identify cuttings after harvest and during transport or any tickets, tags, or manifests for purchased materials, as applicable based on the Contractor’s method of live stake procurement/ harvesting. Provide the following documentation:

- 1) The Contractor may decide to harvest live cuttings/stakes or purchase live cuttings and/or pre-made live stakes. If the Contractor decides to harvest their own material:
 - a) A list of live cutting harvest sites shall be provided ten days prior to beginning the Work.

- b) A copy of the signed written agreement and applicable correspondence between the harvest site property owner and Contractor shall be provided ten days prior to beginning the Work. At minimum, the signed agreement shall:
 - i) Grant permission to harvest.
 - ii) Specify the requirements of access/egress.
 - iii) Specify the use of and condition in which the harvesting site is to be left.
 - iv) Acknowledge that the Contractor shall be solely responsible for activities on the harvesting site and shall hold the Owner and any other parties harmless.
 - v) Certify that the proposed cutting material is insect and disease free.
 - c) Provide a copy of any applicable permits from regulatory agencies for the harvest site.
- 2) If the Contractor decides to purchase live cuttings and/or pre-made live stakes, provide the name and location of and contact information for the supplier. Suppliers must provide all of the written information required of the Contractor.

4.0 Methods

Live stakes shall be installed by a professional certified professional landscape contractor with previous planting experience. Live stakes shall be installed into the ground using a dead blow hammer. They shall be installed so that approximately one-fifth of the stake protrudes with at least two buds exposed from the finished ground elevation. On the sloped areas, they shall be placed at right angles to the slope face. In cases where the ground is hard, a pilot hole may be made to assist in inserting the live stake. The Contractor may use a half-inch metal rod or other means acceptable to the Engineer for this purpose. The intent of this requirement is to maintain firm soil/stake contact after the live stake is installed. The rod must be removed carefully and may not be rotated to enlarge the hole.

Species selection may be adjusted depending on availability. Substitute species must be approved by the Engineer prior to installation. All final locations and configurations shall be determined in the field by the Engineer.

The stakes shall be installed per the spacing requirements shown on the plans. Live stake applications shall follow application rates shown in details.

Live cuttings shall be installed as directed on the plans.

No planting shall be done in soil that, in the opinion of the Engineer or Client, is too wet, too dry or not properly conditioned as provided in these specifications. No planting shall be done on channel banks that have not been seeded and stabilized with erosion control matting, unless otherwise directed.

Materials shall be installed the same day as prepared or stored in a refrigerated area that has been kept moist for no longer than two weeks.

Protect plants at all times from sun, drying winds, and frost. Plants that cannot be planted immediately on delivery shall be kept well protected from winds and frost. Bundles of harvested live material should be

kept with cut ends submerged in water to keep cut ends moist at all times. Care shall be taken to keep bundles moist during transportation from the harvest site to the planting site. Live cuttings that appear to be dried out or damaged during transportation will not be accepted. Rejected live cuttings may be marked by the County.

5.0 Warranty

All live stakes and cuttings (plant material) installed by the Contractor shall be assessed by the Engineer or representative thereof at the end of the same planting season they were installed. One hundred percent of the plant material must be installed correctly and still be alive at the time this assessment is completed. If dead plant material is found, the Contractor is responsible for replacing that material before the completion of that planting season (March 15). At the completion of one full growing season following planting, all plant material installed by the Contractor shall be assessed by the Engineer. Eighty percent (85%) of the plant material must survive after one full growing season. If the Contractor does not meet this requirement then all dead plant material shall be removed and replanted during the next planting season. The new replacement plant material shall have the distal end marked with yellow paint and will also be under warranty, and be assessed at the conclusion of the next full growing season. Replacement of plant material under warranty is required to have 85% survival of the original planting at the end of any new warranty period. The Engineer or representative thereof, shall have the option to do a 100% count or to substitute a method of random systematic sampling that counts survival on 25% of the planted area and have these results of this sampling method represent the actual estimate of survival for warranty purposes.

The Contractor shall be responsible for furnishing equipment, materials, labor, incidentals and water to maintain plant survival in accordance with these specifications during the construction contract and during the warranty period.

END OF SECTION

STR-03
COIR FIBER MATTING

1.0 DESCRIPTION

Furnish material, install and maintain coir fiber matting in locations shown on the plans or in locations as directed by the Engineer. Work includes providing all materials, excavating, backfilling, and placing and securing coir fiber matting.

The quantity of coir fiber matting to be installed will be affected by the actual conditions that occur during the construction of the project. The quantity of coir fiber matting may be increased, decreased, or eliminated entirely at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

2.0 MATERIALS

- (A) Matting:
Provide matting to meet the following requirements.

Mass/Unit Area – 900g/m²
Thickness – 0.38 in
Light Penetration – 18%
Tensile Strength – 1915 lb/ft

3.0 SUBMITTAL

Contractor to supply Engineer with proposed product specification prior to the order of materials.

4.0 METHODS

Provide a smooth soil surface free from stones, clods, or debris that will prevent the contact of the matting with the soil. Place the matting immediately upon final grading.

Take care to preserve the required line, grade, and cross section of the area covered.

Unroll the matting and apply without stretching such that it will lie smoothly but loosely on the soil surface. Vegetated Fabric Encapsulated Soil Lift as shown on the plans and details. Fold over and bury matting to create a wrap of soil, close and tamp firmly as shown. Overlap matting at least 6 in. where 2 or more widths of matting are installed side by side. Fold over and bury matting to the full depth of the trench, close and tamp firmly. Overlap matting at least 6 in. where 2 or more widths of matting are installed side by side.

Place stakes across the matting at ends, junctions, and check trenches approximately 1 ft. apart with notch facing upslope.

Place stakes along the outer edges and down the center of each strip of matting 3 feet apart. Place stakes along all lapped edges 1 ft. apart. Refer to details in the plan sheets.

The Engineer may require adjustments in the trenching or staking requirements to fit individual site conditions

5.0 WARRANTY

All work shall be covered under Contractors general warranty period.

END OF SECTION

STR-04
TURF REINFORCEMENT MATTING

1.0 DESCRIPTION

Furnish material, install and maintain Turf Reinforcement Matting in locations shown on the plans or in locations as directed by the Engineer. Work includes providing all materials, excavating, backfilling, placing and securing Turf Reinforcement Matting.

2.0 MATERIALS

A. Matting:

Provide matting to meet qualities below:

Mass/Unit Area – 10oz/yd³

Thickness – 0.50 in

Light Penetration – 20%

Tensile Strength – 425 x 350 lbs/ft

Resiliency – 90%

UV Resistance – 80%

Shear Stress Performance – 10 lb/ft²

3.0 SUBMITTALS

Contractor to provide engineer with product specification submittals before ordering.

4.0 METHOD

Provide a smooth soil surface free from stones, clods, or debris that will prevent the contact of the matting with the soil. Place the matting immediately upon final grading.

Take care to preserve the required line, grade, and cross section of the area covered.

Unroll the matting and apply without stretching such that it will lie smoothly but loosely on the soil surface. Fill Vegetated Fabric Encapsulated Soil Lifts as shown on the plans and details. Fold over and bury matting to create a wrap of soil, close and tamp firmly as shown. Overlap matting at least 6 in. where 2 or more widths of matting are installed side by side. Fold over and bury matting to the full depth of the trench, close and tamp firmly. Overlap matting at least 6 in. where 2 or more widths of matting are installed side by side.

Place anchors or staples across the matting at ends, junctions, and check trenches approximately 1 ft. apart with notch facing upslope.

Place anchors or staples along the outer edges and down the center of each strip of matting 3 feet apart. Place anchors or staples along all lapped edges 1 ft. apart. Refer to details in the plan sheets.

The Engineer may require adjustments in the trenching or anchoring requirements to fit individual site conditions or per manufacturer's recommendations.

5.0 WARRANTY

All work shall be covered under Contractors general warranty period.

END OF SECTION

MEASUREMENT AND PAYMENT

ITEM 1 – MOBILIZATION

- A. DESCRIPTION: The work covered by this section consists of preparatory work and operations, including, but not limited to, those activities necessary for the movement of personnel, equipment, supplies, and incidentals to the project site.
1. Those items necessary for providing the items required by the General Provisions, Special Provisions, and General Requirements.
 2. Those items including, but not limited to: the establishment of all temporary offices, buildings, temporary fencing, staging areas, temporary access and haul routes, and other facilities necessary for work on the project.
 3. Surveying and construction staking.
 4. Performance bond, labor and materials bond, insurance.
 5. Those items for all other work in the various items on the project site for which work must be performed, or costs incurred, prior to beginning work.
 6. This item also includes all work outside the limits of construction that is necessary to demobilize and restore areas disturbed by the Contractor to their original condition including, but not limited to, pavement rehabilitation, grading, seeding, mulching, cleaning, and disposal.
 7. This item further includes any costs incurred to comply with the following provisions:
 - i. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to, the following:
 1. Building Code requirements.
 2. Health and safety regulations.
 3. Utility company requirements.
 4. Police, Fire Department and Rescue Squad rules.
 5. Environmental protection regulations.
 - ii. Standards: Comply with NFPA Code 241, "Standard for Safeguarding Construction, Alterations, and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities".
 - iii. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70, "National Electric Code".
 - iv. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.
 - v. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in safe and efficient manner. Relocate temporary services and facilities as Work progresses. Do no overload facilities or permit them to

interfere with progress. Take necessary fire prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on site.

- vi. Equipment: Provide new equipment, if acceptable to Engineer, undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.

B. MEASUREMENT: There is no measurement for this item.

C. PAYMENT: The lump sum price bid to be made for this Item shall be full compensation required to complete Mobilization as specified in these specifications. Mobilization payments will be pro-rated on a monthly basis. Mobilization shall not exceed 5% of the total bid prior to the addition of mobilization.

ITEM 2 - SITE CLEARING

A. RELATED SECTIONS: Section 311000 – Site Clearing, 312001 – Unclassified Grading

B. DESCRIPTION: This work consists of all means and methods necessary for the clearing and preparation of the project site as described within the design drawings and contract documents. This work shall include all equipment, labor, materials, safety equipment, preparation, planning, storage and disposal as necessary to prepare and maintain the project site for the describe work.

C. MEASUREMENT: The quantity to be paid for under this item will be the number of acres or fractions thereof of actual land cleared and grubbed as shown on the construction plans and as accepted by the Engineer.

D. PAYMENT: The unit price bid per acre to be paid under this item shall be full compensation to complete clearing and grubbing activities including removal of obstructions, trees, shrubs, other vegetation; grinding of stumps and roots larger than 2 inches in diameter to a depth of 24 inches below exposed subgrade; proper disposal of the debris; testing and all else incidental thereto for which separate payment is not provided under other items in the contract document or design plans.

ITEM 3 – UNCLASSIFIED GRADING

A. RELATED SECTIONS: Section 312300 – Excavation and Fill, Section 312001 – Unclassified Grading

B. DESCRIPTION: Unclassified grading is as defined in Section 31 20 01, UNCLASSIFIED GRADING. Relevant areas include but not limited to stream rough and final grading, slope grading, slope tie ins, and final grading of site for the acceptance by the owner. This item is also defined as the process of moving soil from one portion of the stream to another and includes the process of removing the soil, storing, testing, dewatering, mixing (if applicable), replacing the material in another location, shoring the banks and sanitary line when needed and raising manhole covers to final grade as shown in the design documents.

C. MEASUREMENT: The quantity of excavation to be a percentage of the total lump sum value based on percentage complete for the total grading. The Contractor is encouraged to secure a South Carolina licensed land surveyor to complete an existing grade survey prior to construction. Contractor should take care to stockpile and otherwise keep all suitable soil from cut as necessary to reach final grade.

- D. **PAYMENT:** The lump sum unit bid rate shall include hauling excavated materials anywhere along or within the project, temporarily off-site, and return to site; temporary stockpiling of desired materials, temporary stockpile stabilization; hauling and proper disposal of all excavated materials, included excess materials; formation of compaction of sub grades; and all else incidental thereto for which separate payment is not provided under other bid items.

ITEM 4 – BOULDER VANE

- A. **RELATED SECTIONS:** Special Provision-01 BOULDER VANE
- B. **DESCRIPTION:** This work consists of the furnishing and installation of the boulder structures as shown on the plans and details. Boulders shall conform to dimensions found within the plans and details. Boulders shall be furnished from an acceptable quarry and consist of sound, hard, dense, angular and a surface resistant to the action of air and water. The boulders shall be free of structural defects. The Boulder Vane structures shall be constructed following the guidelines included in Special Provision 01 and accepted by the engineer before considered complete.
- C. **MEASUREMENT:** The quantity to be paid for under this item will be the actual number of acceptable linear foot of boulder vanes installed as measured in the field and as verified by the Engineer.
- D. **PAYMENT:** The unit bid price per linear foot for the item shall include furnishment of all boulders, geotextile, and anchors. Installation of boulder vanes will include all materials incidental to the completion of the structure as shown in the design drawings and details and not included in a separate pay item. Payment will be based on acceptance of Boulder Vane's by the engineer, at the correct grade and angle. Contractor is responsible for providing structure verification for payment.

ITEM 5 – VEGETATED FABRIC ENCAPSULATED SOIL LIFT BANK STABILIZATION

- A. **RELATED SECTIONS:** Special Provision-04 Erosion Control Matting, Special Provision-05 Permanent Matting.
- B. **DESCRIPTION:** This work consists of the furnishing and installation of the vegetated fabric encapsulated soil lift bank stabilization as shown on the plans and details. Materials shall conform to the specifications included in the related sections and as shown on the plans and details. Structures shall be composed of sound material meeting SCDOT Standard 713.2.7.6. Structures shall be constructed in dry conditions. Materials shall be free of defects and installed as necessary to not undermine their structural integrity. Any damage to the materials will result in rebuilding of the soil lifts with undamaged material. vegetated fabric encapsulated soil lift bank stabilization shall be accepted by the engineer before considered complete.
- C. **MEASUREMENT:** The quantity to be paid for under this item will be the actual number of acceptable linear foot of vegetated fabric encapsulated soil lift bank stabilization installed as measured in the field and as verified by the Engineer.
- D. **PAYMENT:** The unit bid price per linear foot for the item shall include furnishment of all rock, geotextile, and anchors. Installation of vegetated fabric encapsulated soil lift bank stabilization will include all materials incidental to the completion of the structure as shown in the design drawings and details and not included in a separate pay item. Payment will be based on acceptance of vegetated fabric encapsulated soil lift bank stabilization by the engineer, at the correct grade and angle. Contractor is responsible for providing structure verification for payment.

ITEM 6 – LIVE CUTTING AND LIVE STAKES

- A. RELATED SECTIONS: Section 329000 – Planting, Special Provision -02 – Live Stakes and Cuttings
- B. DESCRIPTION: This work shall consist of preparing for, installing and maintaining live stakes and cuttings and furnishing equipment, materials and labor necessary to complete the work, directed by the Engineer, and detailed in the Design Plans. No payment shall be made for improperly installed stakes, i.e. mushroomed or split ends.
- C. MEASUREMENT: The unit price is actual single item installed and accepted as shown in the design plans. Unit price bid to be made for this Item shall include all materials, fertilizers, stakes, flagging, and other incidentals required for completion of this bid item and not covered elsewhere, see section 329000 for details.
- D. PAYMENT: The quantity live cuttings and live stakes, measured as provided above, will be paid for on an each unit based on stakes and cuttings installed and accepted by the Engineer. Such payment shall be full compensation for installing and maintaining materials, including furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work as specified in the Design Plans and this Special Provision, or as directed by the Engineer.

ITEM 7 – TEMPORARY VEGETATION

- A. RELATED SECTIONS: Section 329200 – Seeding
- B. MEASUREMENT: The quantity to be paid for under this Item shall be the actual number of square yards of Temporary Seeding performed as verified and accepted by the Engineer. Temporary seeding shall include placement of lime, fertilizer, seeding, and mulching as specified in the design plans and specifications. Temporary seeding shall only be performed when permanent seeding cannot be performed due to seasonal constraints or as directed by the Engineer. No payment will be made for temporary seeded areas until the establishment of a sufficient growth of grass as examined and approved by the Engineer. See section 329200.
- C. PAYMENT: The unit price bid per square yard for this Item shall be full compensation for all labor, materials, tools, equipment, supervision and incidentals required to furnish and install Temporary Seeding, including lime, fertilizer and mulching as specified and all else incidental thereto for which separate payment is not provided under other items in the contract document or design plans.

ITEM 8 – PERMANENT VEGETATION

- A. RELATED SECTIONS: Section 329200 – Seeding
- B. MEASUREMENT: The quantity to be paid for under this Item shall be the actual number of square yards of Permanent Seeding performed as verified and accepted by the Engineer. Permanent seeding shall include placement of lime, fertilizer, seeding, and mulching as specified in the design plans and specifications. Permanent seeding shall include all disturbed areas within the project limits.
- C. PAYMENT: The unit price bid per square yard for this Item shall be full compensation for all labor, materials, tools, equipment, supervision and incidentals required to furnish and install Permanent Seeding, including lime, fertilizer, seed and mulching as specified and all else incidental thereto for which separate payment is not provided under other items in the contract document or design plans.

ITEM 9 – EROSION CONTROL

- A. RELATED SECTIONS: 312500 – Erosion and Sedimentation Controls
- B. DESCRIPTION: This item shall consist of temporary control measures as shown on the plans or as ordered by the Engineer during the duration of construction to control water pollution, soil erosion, and siltation through the use of construction entrances, berms, dikes, coffer dams, sediment basins, fiber mats, gravel, mulches, grasses, coir fiber matting and other erosion control devices or methods as shown on the design plans.

The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period. No work outside the construction limits is anticipated and is not covered under this project's permitting or measurement and payment. Any work outside of the project limits deemed necessary for project completion will be brought to the engineer's attention before such work is conducted.

- C. MEASUREMENT: Full compensation shall be for all labor, materials, tools, equipment, supervision and incidentals necessary for implementing all required Erosion and Sediment Control devices, including Silt Fence, Silt Fence Outlet, Temporary Construction Entrance, Haul Road, Staging Area, Depression Crossing, Cofferdam, Erosion Control Matting and any other device as shown in the plans, or as necessary to oblige to the approved erosion control plan. This bid price also includes inspecting, maintaining and repairing in accordance with the approved Requirements as shown in the Drawings or otherwise required for adequate control of sedimentation from the site, and specified herein; including removal and proper disposal of accumulated sediment as required to maintain the functionality of each device; relocation of temporary sediment and erosion control measures as required as the Work progresses; removal of all temporary sediment and erosion control measures at construction completion, including hauling and proper disposal; and all else incidental thereto for which separate payment is not provided in other bid items.
- D. PAYMENT: The lump sum price bid to be made for this Item shall be as follows: 90% of the contract amount for this item shall be distributed over the duration of the project and paid in amounts proportional to the amount of the contract work completed. The remaining 10% of the contract amount for this item is to be paid at time of the Final Payment. In no case shall the payment under this provision be more than the unit bid item as shown in the bid tab.

END OF SECTION