

INVITATION FOR BIDS and Specifications and Contractual Requirements

For
Legends Drive
Road Improvement Project
Horry County, South Carolina

BID# 2024-25-014

Due: 2:00 p.m., December 6, 2025

The Following Applies to this solicitation:

- Last Day for Questions: November 20, 2024 at 2:00 PM
- Required Bid Forms Packet must be submitted with responses to this IFB.

DIVISION 0 CONTRACT INFORMATION and DOCUMENTS

SECTION 0100- ADVERTISEMENT

INVITATION FOR BID

Horry County Government is requesting solicitation bids for **BID# 2024-25-014 Legends Drive Road Improvement Project**. Bids will be submitted via Horry County's electronic bid software **no later than 2:00 p.m., local time, December 6, 2024.** No fax, email, telephone, hand delivered, or text bid submittals will be accepted.

The solicitation document (IFB) can be obtained from the County's electronic bid software by visiting https://www.bidnetdirect.com/south-carolina/horrycounty.

Local Vendor Preference is applicable to this sealed bid process.

Electronic bid submittals must include the bidder's current (active) State of SC General Contractor's License.

Your firm is required to provide bid security in the amount of five percent (5%) of the base bid (excluding alternates and/or optional bid items).

Contact Information for this Project:

Mrs. Donna Hiers 843-915-5380

All questions shall be submitted in the Horry County's ebidding software.

SECTION 0200-INSTRUCTION TO BIDDERS

General

This solicitation will be conducted in accordance with Horry County Procurement Code and Regulation. This ordinance can be found in its entirety on the County's website at https://www.horrycountysc.gov/media/ygbcfubd/codeandreg.pdf.

Horry County hereby notifies all those responding to this IFB that, in accordance with the provisions of the Civil Rights Act of 1964 (Chapter 21, Title 42, of the U.S. Code) and Regulations promulgated in connection therewith, that it will affirmatively ensure that any contract entered into pursuant to this IFB, disadvantaged business enterprises will be afforded full and fair opportunity to make submittals in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Funding

Goods and Services solicited in this IFB may be purchased with Grant and/or Federal Funds. In the event Federal Funding is available, Horry County requires compliance with all federal rules and regulations related to such funding.

Submitting a Bid

All bids shall be submitted electronically via Horry County's ebidding software, https://www.bidnetdirect.com/south-carolina/horrycounty: no later than the date and time specified on the cover page. No e-mail, fax, hand-delivered, telephone, or text bid submittals will be accepted.

Pricing must be provided as indicated in the electronic bid software. If there is no charge for a specific item listed, bidders must enter \$0.00. Leaving item pricing blank indicates a "No Bid" for the item.

The bidder must include the required items listed in the Required Bid Forms Packet or their bid may be deemed non-responsive.

The County reserves the right to accept or reject any and all bids, in whole or in part, that are deemed to be in the best interest of the county at its sole discretion.

Examination of Bid Document

Prior to submitting a bid, each bidder shall carefully examine the Bidding documents, study and thoroughly familiarize himself with the specifications/requirements thereof and notify Owner of all conflicts, errors or discrepancies.

By submission of a bid, the bidder guarantees that all goods and services meet the requirements of the solicitation.

Bid proposals may be rejected if any omissions, alteration of form additions not called for, or any irregularities of any kind are shown. The bid shall remain firm for no less than the specified number of calendar days from the date of bid submission as specified in the Comments to the Project. The bidder's name and

solicitation number shall be included when specifications or descriptive papers are submitted with the invitation for bid (IFB).

Drawings/Maps will be obtained in the ebidding software unless otherwise specified.

The work under the resulting contract includes the furnishing of all labor, materials, equipment, and all items and services of every nature whether particularly mentioned or not that is required to complete the construction specified.

All work is to be done in accordance with drawings, specifications, and any permit conditions of federal, state, local, or any other agencies having jurisdiction.

Ouestions / Addendum

All questions must be submitted via Horry County's ebidding software prior to the last day for questions as specified on the cover sheet for this IFB. Each question should be submitted individually within the "Q&A" section of the electronic bid software. All questions will be answered in the form of an addendum in the ebidding software. If it becomes necessary to revise any part of this IFB, an addendum will be published. All amendments issued by Horry County must be acknowledged by the bidder. It shall be the Bidder's responsibility to ensure he has all addenda which have been issued by visiting Horry County's ebidding software https://www.bidnetdirect.com/south-carolina/horrycounty

Potential and actual bidders are not permitted to contract Horry County employees outside of the Procurement Department during the procurement process. Potential and actual bidders are not permitted to contact any consultants contracted by the County to assist with efforts related, directly or indirectly, to the IFB process. Failure to comply with Horry County Procurement Regulation, Chapter 4, Contractor Requirements and Standards of Conduct for Horry County and Procurement Participants may result in the rejection of the bid and other penalties as applicable.

Mistakes in Bid

Corrections and withdrawal of the submitted offer will be permitted within the ebidding software prior to Bid due date and time.

Bid Opening

Unofficial Bid Results will be made publicly available in the County's ebidding software within an estimated time of 60 minutes after the established due date and time.

Licenses

All BIDDERS must be properly licensed to do business in the State of South Carolina and must comply with the Code of Laws of South Carolina, including Section 40-11-200, when applicable. Your company does not need to be based in South Carolina, but must be licensed to do business in the state of SC and specifically Horry County, if awarded a contract. Failure to comply with this requirement may result in the rejection of the bid as non-responsive.

Bidder's Representation

By the act of submitting a bid for the proposed contract, the bidder represents that the bidder and all subcontractors the bidder intends to use have carefully and thoroughly reviewed the drawings, specifications and other construction contract documents and have found them complete and free from ambiguities and sufficient for the purpose intended. The bidder and all workmen, employees and subcontractors the bidder intends to use are skilled and experienced in the type of construction represented by the construction contract documents bid upon. Neither the bidder nor any of the bidder's employees, agents, intended suppliers or subcontractors have relied upon any verbal representations, allegedly authorized or unauthorized from the owner, or the owner's employees or agents including architects, engineers or consultants, in assembling the bid figure. The bid figure is based solely upon the construction contract documents and properly issued written addenda and not upon any other written representation.

Bid Bond

Bid Bond is a guarantee that the successful bidder will enter into a contract with Horry County. The aforementioned guarantee, is to be retained by the Horry County as liquidated damages in the event the successful Bidder fails to enter into the contract as provided herein.

Each Bid must be accompanied by a Bid Bond made payable to Horry County in an amount of five percent (5%) of the Base Bid (excluding alternates and/or optional bid items). The Bid Bond Form and Powers of Attorney (POA) must be completed and submitted in Horry County's electronic bid software. Bid Bonds must be duly executed by the bidder as principle and issued by a surety authorized to conduct business in the State of South Carolina.

Any cost of the bonds should be included as the same as other necessary items not specifically quantified on the Bid Form.

Performance Bond

Performance Bond is a guarantee that the successful completion of the contract will be done in a satisfactory manner to Horry County. The aforementioned guarantee is to be retained by Horry County, in addition to any liquidated damages, in the event the successful Bidder fails to complete the contract as provided herein.

A performance bond in the amount of 100% of the contract price shall be required. The performance bond shall be delivered by the contractor to the County at the same time the contract is executed. If a contractor fails to deliver the required performance bond, the contractor's bid proposal shall be rejected, its bid proposal security shall be enforced. The bond shall be issued from a surety approved to operate in the State of South Carolina and shall have a "raised" seal. At no time during the contract will it be permissible for the performance bond to lapse.

Payment Bond

Payment Bond is a guarantee that the successful bidder will pay their subcontractors

and material suppliers for the contracted project. The aforementioned guarantee is to be retained by Horry County, in the event that the successful bidder fails to administer all payments to subcontractors and material suppliers used for the completion of contract as provided herein.

A payment bond in the amount of 100% of the contract price shall be required. The payment bond shall be delivered by the contractor to the County at the same time the contract is executed. If a contractor fails to deliver the required payment bond, the contractor's bid proposal shall be rejected, its proposal security shall be enforced. The bond shall be issued from a surety approved to operate in the State of South Carolina and shall have a "raised" seal. At no time during the contract will it be permissible for the payment bond to lapse.

Liquidated Damages

Contractors shall complete 100% of the improvements within the number of calendar days specified within the <u>Comments to Project</u>, (\$1,000.00 per day liquidated damages) from the date of the Notice to Proceed. If liquidated damages are not paid, the contractor agrees the County may deduct the amount of liquidated damages from any money due or that becomes due the contractor under this contract. All deductions from any money due to the contractor are considered to be liquidated damages and not a penalty.

Should the contractor fail to complete this contract and the work provided therein within the time fixed for such completion, the contractor shall become liable to the County for all loss and damage which the County may suffer on account thereof. It is agreed and understood that it will be difficult and impossible to ascertain and determine the actual damage which the County will sustain in the event of, and by reason of, such delay. It is therefore agreed that the contractor will pay to the County in liquidated damages of the dollar amount noted on the Comments to the Project of this document, per day for delays of completion by the contractor. If liquidated damages are not paid, the contractor agrees the County may deduct the amount of liquidated damages from any money due or that becomes due to the contractor under this contract. All deductions from any money due to the contractor are considered to be liquidated damages and not a penalty.

The contractor shall not be charged with resulting damage if:

- A. The delay in completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the contractor, including, but not restricted to the act of God, acts of the public enemy, acts of the County, acts of another contractor in the performance of a contract with the County, fires, floods, epidemics, strikes, freight embargoes, delays of subcontractors or suppliers arising from unforeseeable causes beyond their control; and
- B. The contractor, within ten (10) days from the beginning of such delay, unless the County grants a further period of time before the date of final payment under the Special Instructions notifies the County in writing of the

causes(s) of delay. The County shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in his judgement, the findings of facts justify such an extension, and his findings of fact shall be final and conclusive on the parties.

The remedies provided for under this provision shall not be construed to limit, waive or otherwise abrogate any other remedy that the County shall be entitled to under other terms and conditions of this Contract. Failure of the County to enforce the liquidated damages provision of the contract shall not constitute a waiver of the breach of the contract for failure to perform in a timely manner. Any extension of time will be in the form of a Change Order duly authorized and signed by the appropriate County official, prior to contract completion date.

Payment Terms

Payment Terms are Net thirty (30) days upon receipt of correct invoice.

Unit Prices

Unit prices are requested for items in the bid. Each bidder shall include it's prorate share of overhead, and other items necessary for completion of the project, per plans and specifications, not specifically listed in the schedule of values, so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the Total Bid. Any bid not conforming to this requirement may be rejected as non-responsive. Additional instruction for Unit prices is found within the Comments to Project.

If there is no charge for a specific item listed, bidders must enter \$0.00. Leaving item pricing blank indicates a "No Bid" for the item.

Sales Tax

When applicable, Horry County currently pays eight percent (8%) sales tax. The tax rate for the City of Myrtle Beach is nine percent (9%). The County is <u>NOT</u> sales tax exempt. Horry County is required to pay South Carolina Sales Tax. Sales Tax is expected to be include in the bidder's electronic bid submittal.

Deviations

Any deviations from the scope of work indicated herein must be submitted in writing and clearly noted and explained in detail on a separate form and attached to the submitted bid. Otherwise it will be considered that items offered are in strict compliance with these specifications and successful bidder shall be held responsible thereto.

Written consent from the Director of Procurement must be submitted should any changes in specifications be made after the purchase order/contract has been awarded; otherwise, the responsibility for such changes shall be with the bidder. **Verbal information obtained otherwise will not be considered in awarding of bids.**

Horry County reserves the right to reject any or all bid proposals. It further reserves the

right to waive technicalities and informalities in bids as well as to accept in whole or in part such bid or bids where it deems it advisable in protection of the best interest of the County of Horry, South Carolina. The County will be the sole judge as to whether bids submitted meet all requirements contained in this IFB.

Liability Coverage

The successful bidder shall provide proof of all required insurance(s), including workers' compensation, automobile liability, and general liability. Workers' Compensation shall include a minimum limit of \$100,000 per accident. Commercial General Liability coverage shall provide minimum limits of liability of \$1,000,000 per occurrence. This shall include coverage for premises/operations, products/completed operations, contractual liability, and independent contractors. Commercial Auto Liability shall include a minimum limit of \$1,000,000 combined single limit for bodily injury and property damage for vehicles used in premises/operations. Professional Liability insurance shall be provided with minimum liability limits of \$1,000,000 per occurrence (in addition to Commercial General Liability insurance) by professional services such as accountant, attorney, architect, design, engineering and most consultants that involve errors and omissions exposure protection. Horry County shall be named as an Additional Insured on all General Liability policies and expressed on the Certificate of Liability Insurance. Certificate Holder for Certificate of Insurance must be: Horry County, Attention: Risk Management, P.O. 997 Conway, SC 29528. Insurance shall indemnify County against any and all claims arising under or as a result of the performance of the contract resulting from this solicitation. The County must be provided written notice prior to cancellation, modification, or reduction in limits of any stipulated insurance. It is the responsibility of the vendor/contractor to ensure all subcontractors comply with all insurance requirements of this solicitation and the resulting contract.

Contract Requirements Review Meeting(s)

The apparent low bidder and major sub-contractors may be required to attend a Contract Requirements Review Meeting(s) with the Procurement Director, and the Owners Representative. The General Contractor's designated Project Manager, Superintendent and Estimator shall be required to attend this meeting(s). The Project Manager, Superintendent, and Estimator for all Sub-Contractors must attend. Additional review meetings including technical (field) representatives from the major suppliers may also be required. The Sub-Contractor's Project Superintendent shall lead that portion of the meeting that addresses their particular trade.

Non-Collusion

By submitting a response, the party making the foregoing offer that such offer is genuine and not collusive or sham; that said Responder has not colluded, conspired, connived, or agreed, directly or indirectly with any responder or person, to put in a sham response, or that such other person shall refrain from offering and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person to fix the submittal of affiant or any other responder or to fix any overhead, profit or cost element of said Response or of that of any other responder or to secure any advantage against owner any person interested in the proposed contract; and that all statements in said Response are true; and further, that such responder has not, directly or indirectly submitted this Quotation Request, or the contents thereof, or divulged

information or date relative thereto to any association or to any member or agent thereof. https://www.horrycountysc.gov/media/ygbcfubd/codeandreg.pdf.

Disaster/Emergency Clause

It is anticipated that services in the resultant contract may be necessary for emergency protective measures, disaster response, and disaster recovery. By submitting a response to this solicitation, the Proposer shall comply with all applicable federal laws, regulations, executive orders, FEMA policies, procedures, and directives, including but not limited to Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards with the exception of Part (D) Davis Bacon Act. Invoices for services related 9 to emergency protective measures, disaster response, and disaster recovery shall be separate from non-emergency/disaster service invoices.

Contract Award

Award of contract will be made to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in this IFB. In determining the lowest responsive and responsible bidder, the County will consider/evaluate the bidder's past and current performance of other County contracts and the bidder's existing work load, to include quality of work and timely completion of the performance schedule. The bidder must include all of the required forms in the required bid forms packet, signed and filled out correctly or their proposal may be deemed non-responsive. The County reserves the right to accept or reject any and all bids, in whole or in part, that are deemed to be in the best interest of the County at its sole discretion. The successful bidder agrees to enter into a contract with the County substantially similar to the attached "Sample Contract."

Term of Contract

The term of this contract shall be the amount of time specified within the <u>Comments to Project</u>. The effective date of the contract shall be the date of the County's signature. The successful bidder will execute and abide by the contract referred to herein.

Non Appropriation of Funds

If (a) sufficient funds are not budgeted or appropriated and budgeted by Horry County Council in any fiscal period for payment of costs and fees and (b) Horry County has exhausted all funds legally available for such payment costs and fees due under this agreement or any renewal thereof, then Horry County will give awarded Provider reasonable written notice and this Agreement will terminate as of the last day of Horry County's fiscal period for which funds for payment are available. Such termination with notice is without any expense or penalty.

Local Vendor Preference

<u>Local Vendor Preference</u> affidavit and required documentation <u>MUST be submitted WITH a vendor's SEALED BID</u> to be considered, per Horry County Council Resolution # 116- 13. Please see attached documentation.

Grievance / Bid Protest

Any actual or prospective responder, bidder, offeror, or awardee of a contractor agreement who aggrieved in connection with the solicitation or award of a contract may protest to the County Administrator. The protest shall be submitted in writing within fourteen (14) days after such aggrieved person knows or should have known of the facts giving rise thereto provided that grievance has been made in accordance with solicitation requirements. Any grievance filed shall be made known prior to any bid opening in accordance with invitation to bids. *Please reference* **Subchapter 15-3-Bid Protests** of the Horry County Code & Regulation by visiting:

https://www.horrycountysc.gov/media/ygbcfubd/codeandreg.pdf.

Contract Changes

Contract terms and conditions shall not be changed unless by change order. Change must be deemed allowable, allocable, within the scope of its grant or cooperative agreement, and reasonable for the completion of project scope. Changes shall be agreed upon by both parties and recorded using the approved change order document. The change to method, price, or schedule of the work must be clearly identified for each specific change which may occur. Additional process information available within Horry County Procurement Regulation Subchapter 13-3: Post Award Issues.

This procurement (IFB) does not commit the County of Horry to award a contract, to pay any costs incurred in the preparation of the bid proposal, or to procure or contract for goods or services listed herein.

Freedom of Information Statement

Procurement information shall be a public record to the extent required by Chapter 4 of Title 30, Code of Laws of South Carolina (1976, as amended) (The Freedom of Information Act), with the exception that commercial or financial information obtained in response to a "Invitation for Bids" which is privileged and confidential if so designated by the proposer shall be protected from disclosure. Such information must be clearly marked as "CONFIDENTIAL" by those submitting responses for each section of information so affected. Privileged and confidential information is information in specific detail not customarily released to the general public, the release of which might cause harm to the competitive position of the party supplying the information.

Title VI

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

Legal Statement

Disclose any litigation within the last five (5) years in which a claim has been made against any team member (individual or company) asserting a cause of action other than Employment issues or Contracts not related to your professional work. Explain the issues in these cases (or the fact there are none) as part of your submittal.

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ADDITIONAL INSTRUCTIONS TO BIDDERS

PART I. SUMMARY

1.1 DOCUMENT INCLUDES:

- A. Invitation
 - 1. Bid Submission
 - 2. Work Identified in the Contract Documents
 - 3. Contract Time/Penalty
- B. Bid Documents and Contract Documents
 - 1. Definitions
 - 2. Availability
 - 3. Examination
 - 4. Queries/Addenda
 - 5. Product/System Substitutions
- C. Site Assessment
 - 1. Site Examination
- D. Qualifications
 - 1. Evidence of Qualifications
 - 2. Subcontractors/Suppliers/Others
- E. Bid Submission
 - 1. Submission Procedure
 - 2. Bid Ineligibility
- F. Bid Enclosures/Requirements
 - 1. Bid Security
 - 2. Performance Assurance
 - 3. Bid Form Requirements
 - 4. Bid Form Signature
- G. Offer Acceptance/Rejection
 - 1. Duration of Offer
 - 2. Acceptance of Offer

1.2 RELATED DOCUMENTS

- A. Document 0100 Invitation for Bids
- B. <u>Document 0300</u> Bid Form
- C. General and Supplementary Conditions

PART II. INVITATION

2.1 BID SUBMISSION

- A. Bids submitted after the time and date set for the receipt will not be opened.
- B. Offers will be opened publicly immediately after the time for receipt of Bids.
- C. Amendments to the submitted offer will be permitted if received in writing prior to Bid opening and if endorsed by the same party or parties who signed and sealed the offer.

2.2 WORK IDENTIFIED IN THE CONTRACT

A. The work under this contract includes the furnishing of all labor, materials, equipment, and all items and services of every nature whether particularly mentioned or not that is required to complete the construction specified on the plans.

All work is to be done in accordance with drawings and specifications and any permit conditions of state, federal, local or any other agencies having jurisdiction.

2.3 CONTRACT TIME/LIQUIDATED DAMAGES

A. Contractors shall complete 100% of the improvements within the time identified within the <u>Comments to Project.</u> (\$1,000.00 per day liquidated damages) from the date of Notice to Proceed.

PART III. BID DOCUMENTS AND CONTRACT DOCUMENTS

3.1 DEFINITIONS

- A. Bid Documents: Contract Documents supplemented with Bid Form and Supplements To Bid Forms and Bid Securities, identified herein.
- B. Contract Documents: Defined in General Conditions including issued Addenda.
- C. Bid, Offer or Bidding: Act of submitting an offer under seal.
- D. Bid Price: Monetary sum identified by the Bidder in the BidForm.
- E. Day: Unless otherwise specified herein, the term day shall refer to calendar day.

3.2 AVAILABILITY

A. Document drawings will be obtained in the ebidding software

unless otherwise specified.

3.3 EXAMINATION

- A. Bid Documents and plans may be viewed at the office of the County Engineer or the ebidding software.
- B. Upon receipt of Bid Documents verify that documents are complete. Notify Engineer should the documents be incomplete.
- C. Immediately notify the Engineer upon finding discrepancies or omission in the Bid documents.

3.4 QUERIES/ADDENDA

All questions shall be submitted in the Horry County's ebidding software no later than the date and time specified on the cover sheet.

- A. Addenda may be issued during the Bidding period. All Addenda become part of the Contract Documents. Include resultant cost adjustments in the Bid Price. It shall be the Bidder's responsibility to ensure he has all addenda which have been issued by visiting the ebidding software.
- B. Verbal instructions or comment are not binding on any party.
- C. Clarifications requested by Bidders must be submitted in the ebidding software no later than the date and time specified on the cover sheet.

3.5 PRODUCT/SYSTEM SUBSTITUTIONS

- A. Where the Bid Documents stipulate a particular product, substitutions will be considered unless otherwise stated by the Engineer/Owner fifteen (15) days after the date of agreement with no increase in price. Price decreases will be negotiated.
- B. In submission of substitutions to products specified if approved or noted above. Bidders shall include a Bid, any changes required in the Work to accommodate such substitutions. A later claim by the Bidder for an addition to the Contract Time or Contract Sum/Price because of changes in Work necessitated by use of substitutions shall not be approved.

PART IV. SITE ASSESSMENT

4.1 SITE EXAMINATION

- A. The Bidder is responsible for visiting the project site before submitting a Bid in order to become familiar with site and soil conditions.
- B. The premises at the project site are open 24 hours a day for examination by Bidders.

PART V. QUALIFICATIONS

5.1 EVIDENCE OF QUALIFICATIONS

- A. To demonstrate qualifications for performing the Work of this Contract, Bidders must be licensed to perform work in the State of South Carolina and as evidenced by their Contractors and Bidders license number appearing on bid documents.
- B. The successful Bidder must complete a minimum of 70% of the Work involved in the project construction. The remainder may be accomplished by sub-contractors which must be approved by the Owner and the Engineer in writing prior to the commencement of work.

5.2 SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. The Owner reserves the right to reject a proposed Subcontractor for reasonable cause.
- B. Information on subcontractors shall be furnished by the Bidder to the Owner as requested.
- C. All Subcontractors must be approved in writing by the Owner prior to any Construction by the Subcontractor.
- D. All Subcontractors must provide a Non-collusion Affidavit and a certified Insurance Certificate.

PART VI. BID SUBMISSION

6.1 SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their Bids in the manner and time prescribed.
- B. Improperly completed information and irregularities in bid bond maybe cause to reject a bid.
- C. A summary of submitted Bids will be made available to all Bidders within five (5) working days following Bid opening.

6.2 BID INELIGIBILITY

A. Bids that are incomplete, unsigned, improperly signed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind may be cause for rejection of a bid.

PART VII. BIDENCLOSURES/REQUIREMENTS

A. Bids shall be accompanied by a security deposit <u>and</u> bid form as follows:

- 1. Bid Bond in the amount of five (5%) percent of the bidder's total Bid Price. (Include Power of Attorney); or
- 2. Other types of security may be allowed if pre-approved in writing by the Owner.
- B. Bids shall also be accompanied by proper Bid Form, Non-collusion Affidavit, and proof of insurance.
- C. Endorse the Bid Bond in the name of the Owner as oblige, signed and sealed by the Contractor as principal and the Surety.
- D. The security deposits will be returned as soon as practical.
- E. Include the cost of Bid security in the Bid Price.
- F. If no contract is awarded, all monetary security deposits will be returned.
- G. <u>Local Vendor Preference</u> Local Vendor Preference does apply to this bid

7.1 PERFORMANCE ASSURANCE

- A. Contracted Bidder: Shall provide a Performance, Labor and Materials Bond (Payment Bond) as described in the IFB Documents, and General and Supplementary Conditions.
- B. Include the cost of all bonds in the Bid Price.

7.2 BID FORM REQUIREMENTS

A. Complete all requested information in the <u>Required Bid</u> Form Packet.

7.3 BID FORM SIGNATURE

- A. The Bid Form shall be signed by the Bidder, as follows:
 - 1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
 - 2 Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
 - 3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts under each signature. Affix the corporate seal. If the Bid is signed by officials other than the President and Secretary of the company, or the President/Secretary/Treasurer of the company, a copy

of the by-law resolution of the Board of Directors authorizing them to do so must also be submitted with the Bid Form.

4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

PART VIII. OFFER ACCEPTANCE/REJECTION

8.1 DURATION OF OFFER

A. Bids shall remain open to acceptance and shall be irrevocable for a period of sixty (60) days after the Bid closing date.

8.2 ACCEPTANCE OF OFFER

A. The apparent low bidder will be determined by the <u>Lowest Total Bid Price</u>. The award of the project will be based on the lowest Total Bid Price from a qualified responsive and responsible bidder and as per the local vendor preference procedures, as applicable.

In determining the lowest responsive and responsible bidder, the County will consider/evaluate the bidder's past and current performance of other County contracts and the bidder's existing work load, to include quality of work and timely completion of the performance schedule.

The bidder must include the items in the Required Bid Forms Packet or their bid proposal may be deemed nonresponsive.

- B. The Owner reserves the right to accept or reject any or all offers or to delete portions of this project from the contract.
- C. After acceptance by the Owner, the Owner will issue to the successful Bidder, a written notice of Award and an Agreement to be completed.

END OF SECTION

SECTION 0300 – REQUIRED BID FORMS

$Separate\ download able\ file\ in\ BidNet$

See Required Bid Forms Packet pdf

COMMENTS TO THE PROJECT

Horry County intends to make road improvements for Legends Drive located off Hwy 501. The Contractor is to include in his bid all work necessary to complete the listed items and other work reasonably intended and/or is shown on the sketch provided.

The Contractor should consider the following information in making his bid:

- 1. Local Vendor Preference Local Vendor Preference affidavit and required documentation MUST be submitted WITH a vendor's SEALED BID to be considered, per Horry County Council Resolution # 116-13. Please see attached documentation at the end of this section (Section 0300).
- 2. The bid shall remain firm for no less than sixty (60) calendar days from the date of bid submissions.
- 3. SCDOT Holiday Work Restriction will be implemented in the contract unless otherwise directed by the County Engineer or a designated representative of Horry County.
- 4. The contractor should be aware of and adhere to all Special Provisions that are specific to this project which are attached in the appendix section, "Special Provisions." These special provisions include items that are typical to Horry County Road construction projects.
- 5. Directions to the Legends Drive Road Improvement Project: This road project is located between Hwy 501 and Parkland Drive (The project limits will end at the guard house before Parkland Drive) in Myrtle Beach, SC.
- 6. Project Completion Time: **One Hundred Twenty (120) calendar days.** Time for completion will begin when the Notice to Proceed is issued. (\$1,000.00 per day liquidated damages)
- 7. The bid item Mobilization price shall not exceed 5% of the total bid amount. The bid item Mobilization price shall include traffic control. Traffic Control: This shall include any/all items necessary (signs, flags, barrels, cones, etc.) to provide proper flagging operations, temporary lane closures, permanent construction signs, etc. All Traffic Control Devices (Signs, Barrels, Etc.) shall be new or like new, to be determined by the engineer, before placement and shall be properly installed and maintained according to SCDOT Standard Drawings Section 605-000.
- 8. Restrictions on single lane closures are not anticipated; however, they may become necessary at the discretion of the County Engineer as warranted by traffic conditions. No full road closures will be permitted.

- 9. All asphalt supplied in this contract must have a SCDOT approved mix design. A copy of all approved mix designs must be submitted to the County Engineer prior to its use. NO MIX DESIGN UTILIZING RECYCLED ASPHALT SHINGLES (RAS) WILL BE ACCEPTED FOR USE IN THIS CONTRACT. Daily asphalt plant reports and lab reports are required from the contractor when HMA is being placed on county-maintained roadways. No payment will be approved until the county receives the daily asphalt plant report and lab report.
- **10.** The resurfacing/paving of driveways is included in mainline tonnage. There is no separate line item.

11. All quantities listed on the road list are estimates only.

- 12. Payment will be provided only for work that is completed on a unit cost basis as indicated in the bid schedule. Lump sum items may be paid based on percentage completed at the time that the application for payment is submitted.
- 13. 10% retainage shall be withheld from each Contractor pay request; all retainage withheld will be paid to Contractor upon Owner's acceptance of the completed work.
- **14.** Unit prices shall include all costs for providing all personnel to perform these operations. To determine the adjusted unit prices for payment for all asphalt items on the bid schedule where the quantity is given in tons, monthly adjustments (on the 1st of each month) will be made to the bid unit prices based on the SCDOT Monthly Asphalt Price Index.
- 15. Contractor shall provide a work schedule for review/approval by Horry County Engineering or a representative on their behalf during the preconstruction meeting.
- 16. Bidders should make note of the requirements and specifications in Section- 2600 Seeding (revised 9-4-2024).
- 17. All work shall conform to SCDOT latest Specifications, Supplemental Specifications, and Supplemental Technical Specifications.
- 18. The Contractor will be responsible for all property damage due to road repair/resurfacing. The Contractor shall resolve all complaints in a timely manner.
- 19. All materials used shall be approved and meet the requirements listed on the SCDOT Qualified Products Listing. Any material placed that does not meet the above criteria may be required to be removed and replaced at the Contractor's expense. Contractor shall submit all material certifications for approval before start of construction.
- 20. All existing utilities shown are approximate only. The contractor is required to notify SC811 to obtain locate tickets prior to any work being performed. Contractor is responsible for locating all existing utilities, including potholing prior to the start of construction.

- 21. The Contractor will be responsible for maintaining the area of the project limits from the time the Notice to Proceed is received and signed by the Contractor until the end of the Warranty Period.
- 22. Contractor shall be responsible for having a superintendent on the site at all times with the responsibility for, and the authority to direct the work.
- 23. The successful Bidder shall complete a minimum of 70% of the contract work.
- 24. All sub-contractors must be approved in writing by the Owner and must provide a non-collusion affidavit and an insurance certificate prior to any construction.
- 25. Storm drainage pipe prices shall include all work deemed necessary for installation of pipe which includes but is not limited to removal of existing storm drain pipe, back filling, trench sheeting, benching, trench boxes, dewatering, etc. All joints are to be wrapped with filter fabric.
- 26. All work will be coordinated with the Office of the County Engineer, or a designated representative of Horry County. Contractor shall give the County 48-hour notice prior to work being done. The County shall designate a project manager for the work. The project manager shall have the responsibility for, and the authority to direct the work. All decisions from the designated project manager shall be final.
- 27. Access to adjacent properties shall be maintained to the maximum extent possible during construction. Short interruptions to access are permissible but shall not be allowed for more than 15 minutes at a time.
- 28. A one (1) year warranty is required on all materials and workmanship in this contract. The contractor's performance bond shall remain in place for the entire warranty period.
- 29. All excess material, i.e. excavation, trees, brush, debris, etc., shall be removed from the site and disposed of at the contractor's expense (this item of work should be included in the closest related unit price item listed in the bid schedule).
- 30. Erosion control and final stabilization is solely the contractor's responsibility. Site conditions may require different and/or additional measures. Final payment will not be made until the site is stabilized and a good stand of grass (70% coverage) is established. No clover of any kind shall be used for permanent cover.
- 31. Horry County reserves the right to require complete removal and replacement of work in place or retain any portion of payment, deemed appropriate by the County Engineer, from payment to the contractor due to any product workmanship or deficiencies that do not meet the expectations of Horry County herein.
- 32. The Contractor shall setup and maintain traffic control, as required, at all times.

- 33. The Permanent Signage bid item: The contractor shall be responsible for ensuring that all existing signs have reflectivity type 3. Any signs not having reflectivity type 3 shall be replaced by the contractor as instructed by the onsite engineer. All signs shall be placed in accordance with the MUTCD and SCDOT Standard Drawings. All signs should be installed as soon as construction phasing allows to ensure the safety of the driver and will not cause confusion to the driver.
- **34.** The sketch provided with this IFB is used to provide project limits, typical sections, and the locations of other primary roadway / drainage construction items (drainage pipe to be removed and replaced, etc.). The sketch does not include 3D points, elevations, grades, etc. in CAD format; therefore, the contractor will be required to perform their own construction staking and surveying for the 1,200 linear feet of road widening (new 3rd lane).

The contractor shall set centerline PK nails and / or edge of pavement hubs/blue tops for road alignment and elevation at 50-foot intervals while preparing subgrade and base. Contractor will be responsible for establishing benchmarks every 500'. Hubs/blue tops will not be required if the contractor utilizes a GPS Control Grading System. If GPS Control Grading System is utilized, the contractor will be required to identify the limits of the base material and/or edge of pavement as often as necessary for inspection purposes (proof rolls, grade checks, etc.). Contractor must also supply all grading files to HCG Engineering Department.

35. Awarded Contractor shall be required to provide Certificate of Insurance(s) with insurances as described within IFB document. **Horry County must be named as Additional Insured.** Certificate Holder address must be:

Horry County ATTN: Risk Management PO BOX 997 Conway, S.C. 29528

END OF SECTION

SECTION 0400 CONTRACT FORMS

Notice of Award
Contractor Agreement
Performance Bond
Legal/Litigation Statement Form
Labor and Material Payment Bond
Notice to Proceed
Application For Payment
Change Order

NOTICE OF AWARD

TO: Contractor
1 one St.
Town, SC 20000

RE: IFB 2024-25-014

The OWNER has considered the BID submitted by you for the above described WORK dated day of month 20XX.

You are hereby notified that your BID has been accepted for the Total Bid Amount of \$ 000,000.00.

You are required by the Information for Bidders to execute the CONTRACT AGREEMENT and furnish the required CONTRACTOR'S PERFORMANCE BOND, PAYMENT BOND (Labor and Materials) 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 a 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, Month 20XX.

HORRY COUNTY, OWNER BY: TITLE: Assistant County Administrator STATE OF SOUTH CAROLINA) CONTRACTOR AGREEMENT **COUNTY OF HORRY** THIS AGREEMENT is made this day of , 20 , by and between Horry County, a political subdivision of the State of South Carolina, whose Administrative Office is at 1301 Second Avenue, Conway, SC 29526 hereinafter called "OWNER" a South Carolina Corporation, hereinafter called the "CONTRACTOR" (each a "Party" and collectively with OWNER the "Parties"). WITNESSETH, that the CONTRACTOR and the OWNER, for the consideration set forth below, hereby covenant and agree as follows: Article 1. Scope of the Work. The CONTRACTOR shall furnish all of the materials and perform all of the work (collectively the "Work") ("Site") shown and described under Contract to complete **Description & Bid # located** at Documents below. Article 2. The Contract Price. OWNER shall pay CONTRACTOR a maximum contract price of dollars and XX/100 (\$XXX,XXXXX) for completion of the Work in accordance with the Contract Documents and as shown on the Bid Schedule, subject to additions and deductions pursuant to authorized change orders agreed

Article 3. Time for Completion.

OWNER as contemplated in Article 4 below.

The Work to be performed under this Contract shall be commenced when OWNER issues a written notice to proceed with the Work ("Notice to Proceed") and shall be substantially completed within ______ days of the Notice to Proceed ("Time for Completion"). **Time is of the essence in performance of this agreement**. CONTRACTOR and OWNER recognize that time is of the essence and OWNER will suffer financial loss if the Work is not completed within the time specified with any extensions allowed by the Contract Documents. CONTRACTOR and OWNER also recognize the delays, expense, and difficulties in quantifying and proving

to in writing by the Parties. Payments shall be made periodically as work progresses and is approved by

in a legal proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (and not as penalty), CONTRACTOR shall pay OWNER ________dollars and no/100 (\$XXX.xx) for each calendar day that expires after the completion date. CONTRACTOR also acknowledges that failing to complete the Work within the Time for Completion could result in a carry over into OWNER's next fiscal year thereby triggering Termination due to Non-Appropriation as contemplated by Article 10 herein.

Article 4. Progress Payments.

OWNER shall make progress payments on account of the Contract Price on the basis of the CONTRACTOR's application for payment in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.

Article 5. OWNER and CONTRACTOR's Representations.

In order to induce OWNER and CONTRACTOR to enter into this Agreement, CONTRACTOR and OWNER make the following representations:

- 1. OWNER has the lawful authority required under State law and County Ordinances to enter into and perform this Agreement.
- 2. OWNER shall not offer employment to any employee of CONTRACTOR for a period of two (2) years after the termination of this Agreement.
- 3. CONTRACTOR has all necessary licenses and consents required to enter into and fully perform the Work required by the Contract Documents and is in good standing in the State of South Carolina.
- 4. CONTRACTOR has examined and carefully studied the Contract Documents.
- 5. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- 6. CONTRACTOR is familiar with and is satisfied as to all applicable, relevant and appropriate federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work.
- 7. CONTRACTOR has considered the information known to CONTRACTOR; information commonly known to contractors doing business in Horry County, information and observations obtained from visits to the site, the Contract Documents, and any site related reports and drawings identified in the Contract Documents with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including any specific means, methods, techniques, sequences and procedures of construction expressly required by the Construction Documents; and (3) CONTRACTOR'S safety precautions and programs. Based on the information and observations, CONTRACTOR does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of

the Work at the Contract Price, within the Time of Completion, and in accordance of other terms and conditions of the Contract Documents.

- 8. CONTRACTOR is aware of the general nature of any work that may be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents and does not require any additional information to ensure CONTRACTOR meets its obligations in the Contract Documents.
- 9. CONTRACTOR has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- 10. The Contract Documents are sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 11. CONTRACTOR shall properly withhold from all wages, commissions, salaries, and fees paid by CONTRACTOR to third parties or employees, agents, or sub-contractors of CONTRACTOR, all amounts required by State or Federal law to be withheld for or on account of taxes, social security payments, or other withholdings mandated by law or regulation.
- 12. CONTRACTOR shall comply with all lawful demands made pursuant to the South Carolina Freedom of Information Act, S.C. Code § 30-4-10 et seq. or the Federal Freedom of Information Act, 5 U.S.C.S. § 552.
- 13. CONTRACTOR shall make no offer of employment to any County employee for a period of two (2) years after the termination of this Contract.

Article 6. Contract Documents.

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR consist of the following:

- 1. Section 00100 Invitation to Bidders
- 2. Section 00200 Instruction to Bidders
- 3. Section 00300 Bid Forms (consisting of Non-collusion Affidavit of Prime Bidder, Bid Bond, Proposal of Contractor, Bid Schedule, and Comments to the Project)
- 4. Section 00400 Contract Forms (consisting of Contract Agreement, Performance Bond, Payment Bond, Notice to Proceed, Application of Payment Form, and Change Order Form)
- 5. Section 00600 Supplementary Conditions
- 6. Section 00700 General Construction Contract Terms and Conditions
- 7. Drawings prepared by or on behalf of
- 8. Specifications prepared or issued by Horry County Engineers Office.
- 9. 0 Addenda:

 No. ______, dated ______

 No. _____, dated _____

The CONTRACTOR will indemnify and hold harmless the OWNER and its agents and employees from and against all claims, damages, losses and expenses, including attorney's fees arising out of or resulting from the performance of the Work provided that any such claims, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, injury to or destruction of tangible property, including the loss of use resulting therefrom, and is caused by any negligent or willful act or omission of the CONTRACTOR, and anyone directly or indirectly employed by it or anyone for whose acts any of them may be liable. In any and all claims against the OWNER or any of their agents or employees by an employee or subcontractor of the CONTRACTOR, and anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way to the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR under the workman's compensation acts, disability benefit acts, or other employee benefit acts. The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the OWNER or its agents or employees arising out of reports, surveys, change orders, designs, or specifications that are un-attributable to the CONTRACTOR.

Article 8. Insurance.

CONTRACTOR represents that it has purchased and agrees that it will keep in force, for the duration of the performance of the work, or for such longer term as may be required by this Agreement, in a company or companies lawfully authorized to do business in the State of South Carolina, such insurance as will protect general liability and the OWNER from claims for loss or injury which might arise out of, or result from, CONTRACTOR's operations under this project, whether such operations be by CONTRACTOR or by a subcontractor or its subcontractors. CONTRACTOR represents and agrees that such insurance is written for and shall be maintained in an amount not less than the limits of the liability specified in the Contract Documents or required by law, whichever coverage is greater. CONTRACTOR certifies that coverage written on a "claims made" form will be maintained without interruption from the commencement of work until the expiration of all applicable statutes of limitation.

CONTRACTOR shall have its insurer or agent file Certificates of Insurance, naming the OWNER as additional insured, in duplicate, prior to commencement of work, which shall contain a provision that coverages under the policies shall not be cancelled or allowed to expire or permit material changes until at least ten (10) days written notice of been given to additional insured.

Article 9. Independent Contractor Status

CONTRACTOR shall not, by entering into this Agreement, become a servant, agent, or employee of OWNER, but shall remain at all times an independent contractor to OWNER. This Agreement shall not be deemed to create any joint venture, partnership, or common enterprise between CONTRACTOR and OWNER, and the rights and obligations of the parties shall not be other than as expressly set forth herein.

Article 10. Termination for Non-Appropriation

Notwithstanding any other provision herein, the OWNER may terminate this Contract, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project in the following fiscal year after execution of this agreement, regardless of the source of such funds, and such termination shall be in accordance with the relative terms set forth in Article 11 below.

Article 11. Termination in General

- 1. If the termination is for the convenience of the OWNER, an equitable adjustment in the Contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services. The CONTRACTOR shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the CONTRACTOR shall stop work when such termination becomes effective. The CONTRACTOR shall also terminate outstanding orders and subcontracts for the affected work. The CONTRACTOR shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The OWNER may direct the CONTRACTOR to assign the CONTRACTOR 's right, title and interest under termination orders or subcontracts to the County or its designee. The CONTRACTOR shall transfer title and deliver to the County such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the CONTRACTOR has in its possession or control. CONTRACTOR further agrees to provide or acquire, as may be necessary, any lien waivers or releases from CONTRACTOR or its subcontractors as may be required by OWNER.
- 2. If the termination is due to failure to fulfill the CONTRACTOR's obligations, the OWNER may take over the work and prosecute the same to completion by Contract or otherwise. In such case, the CONTRACTOR shall be liable to OWNER for any additional cost occasioned to the OWNER thereby. If, after notice of termination for failure to fulfill the Contract obligations, it is determined that the CONTRACTOR had not so failed, the termination shall be deemed to have been affected for the convenience of the OWNER. In such event, adjustment in the Contract price shall be made as provided in Subsection 11.1 above.
- 3. The rights and remedies of the OWNER provided in this Article are in addition to any other rights and remedies provide by law or under this Contract.
- 4. Notwithstanding any other provision contained herein, any violation or breach of terms of this Contract on the part of the CONTRACTOR or their subcontractors may result in the suspension or termination of this Contract or such other action that may be necessary to enforce the rights of the parties of this Contract. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.
- 5. In order to Terminate this Agreement under this Article XI, the terminating Party must deliver thirty (30) days written notice to the non-terminating Party specifying the reason and provision within this Agreement justifying such termination.

Article 12. Notice to Parties

All notices to each party to this Contract, except routine notices of performance of the Work during the Agreement term, shall be in writing, and sent as follows:

To OWNER:

Horry Co	ounty	
Conway,	, SC 29526	
(Tel:	; fax:	

with a copy to:

Horry County Attorney 1301 Second Avenue Conway, SC 29526

(Tel: 843-915-5270; fax: 843-915-6270)

To Provider:		
(Tel:	; fax:)

Article 13. Assignment.

CONTRACTOR shall not assign, permit the assumption of or in any manner transfer any interest in this Agreement, or any part thereof, without the prior written consent of the OWNER. If CONTRACTOR assigns, permits the assumption of or in any manner attempts a transfer of its interest in this Agreement, OWNER, in its sole discretion, may declare this entire Agreement null and void.

Article 14. Jurisdiction and Venue.

CONTRACTOR agrees that jurisdiction over any dispute arising under or in relation to this Agreement shall be filed in the Court of Common Pleas in Conway, SC with South Carolina law governing without any reference to any conflict of laws provision and that any subcontract issued by CONTRACTOR shall contain this same provision.

Article 15. Compliance with EEOC and other State and Federal Laws.

CONTRACTOR shall comply with the provisions and affirmatively warrants that CONTRACTOR is currently in compliance with the following laws, and further warrants that during the term of this Contract, CONTRACTOR shall remain in compliance to the extent set forth within the respective statute or regulation:

Titles VI & VII of the Civil Rights Act of 1964;

Age Discrimination in Employment Act of 1967;

Title I of the Americans with Disabilities Act of 1990;

Equal Pay Act of 1963;

Fair Labor Standards Act of 1938;

Immigration Reform and Control Act of 1986;

South Carolina Payment of Wages Act, S.C. Code §§ 41-10-10 et seq.;

South Carolina Worker's Compensation Act, S.C. Code §§ 42-1-10 et seq.;

South Carolina Illegal Immigration Reform Act, including without limitation Chapters 14

& 29, Title 8, and Chapter 8, Title 41, S.C. Code of Laws; and

Part 681, Title 16 of the Code of Federal Regulations, Sections 114 and 315 of the Fair and Accurate Credit Transactions Act (FACTA) of 2003; the South Carolina Act 90 of 2008; Financial and Identity Theft Protection Act; and the Horry County Privacy / Identity Theft Policy.

CONTRACTOR, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. CONTRACTOR shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by CONTRACTOR to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the County or aggrieved party deems appropriate.

Article 16. Force Majeure and Impossibility of Performance.

Neither Party will be liable for any failure or delay in performing an obligation under this Agreement that is due to any of the following causes, to the extent beyond its reasonable control: acts of God, accident, riots, war, terrorist act, epidemic, pandemic, quarantine, civil commotion, natural catastrophes, governmental acts or omissions, changes in laws or regulations, national strikes, fire, explosion, generalized lack of availability of raw materials or energy.

For the avoidance of doubt, Force Majeure shall not include (a) financial distress nor the inability of either party to make a profit or avoid a financial loss, (b) changes in market prices or conditions, or (c) a party's financial inability to perform its obligations hereunder.

Article 17. Severability.

Signed in the present of:

If any term or condition of this contract or the application thereof to any Party or circumstances is held invalid, this invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition, or application. To this end, the terms and conditions of this contract are agreed to be severable.

Article 18. Merger, Waiver, and Amendment.

This Contract contains all the terms of all agreements, oral or written, between the parties, and is the only document containing all such terms. This Contract merges all prior contracts, agreements, and understandings between OWNER and CONTRACTOR concerning the Scope of Work described herein. The Scope of Work described in this Contract, and all other terms of this Contract, shall not be amended or varied except by a written instrument signed by a duly authorized signatory of OWNER and CONTRACTOR. Forbearance by OWNER from enforcing the strict terms of this Contract shall not be a waiver of any other term of this Contract, nor shall such forbearance entitle CONTRACTOR to rely upon such forbearance in the event of another similar breach by CONTRACTOR of the terms of this Contract. Any variance to the terms of this Contract shall be attached as an Exhibit hereto, and shall have effect as from the effective date thereof as set forth on such Exhibit.

IN WITNESS WHEREOF, the parties have executed this Contract in three (3) originals, each of which shall be deemed to be an original on the Effective Date first above written

Witness: Witness:	

HORRY COUNTY		
	(Authorized Signature)	
By:	By:	

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that [full name and address or legal title of Contractor] as Principal, hereinafter called Contractor, and [Bonding Company], a corporation duly organized under the laws of the County, as Surety, hereinafter called Surety, are held and firmly bound unto County as Obligee, in the amount of [a sum equal to at least one half of the Contract price] 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
NOW, THEREFORE THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract then this obligation shall be null and void; otherwise it shall remain in full force and effect. The Surety hereby waives notice of any alteration or extension of time made by the County and its obligation is not affected by any such alteration or extension provided the same is within the scope of the contract. Whenever Contractor shall be, and is declared by County to be in default under the Contract, the County having performed County obligations thereunder, the Surety may promptly remedy the default or shall promptly:
1) Complete the Contract in accordance with its terms and conditions; or 2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by the County and the Surety jointly of the lowest responsive, responsible bidder, arrange for a contract between such bidder and the County, and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount properly paid by County to Contractor under the Contract and any amendments thereto, less the amount properly paid by County to Contractor. No right of action shall accrue on this bond to or for the use of any person or corporation other than the County or successors of the County. Signed and sealed this
(Principal) (Seal)
(Witness)

(Title) (BONDING COMPANY)

(Witness)

LABOR AND MATERIAL PAYMENT BOND

Bond No.____

KNOW ALL MEN BY THESE PRESENTS that [full name and address or legal title of Contractor] as Principal, hereinafter called principal, and [Bonding Company], a corporation duly organized under the laws of the County, as Surety, hereinafter called Surety, are held and firmly bound unto the County as Obligee, hereinafter called County, for the use and benefit of claimants as herein below defined, in the amount of [a sum equal to at least on half of the Contract price] Dollars (\$) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

NOW, THEREFORE, THE CONDITION OF THIS Obligation is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

- 1) A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental of equipment directly applicable to the Contract.
- 2) The above-named Principal and Surety hereby jointly and severally agree with the County that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished 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 County shall not be liable for the payment of any costs or expenses of any such suit.
- 3) No suit or action shall be commenced hereunder by any claimant:
- a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: the Principal, the County, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be personally served or served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal at any place the Principal maintains an office or conducts its business.
- b) After the expiration of one (1) year following the date on which the last of the labor was performed or material was supplied by the party bringing suit.
- c) Other than in a court of competent jurisdiction for the county or district in which the construction contract was to be performed.
- d) The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this	day of_	, 20
		(Principal) (Seal)
av.		
(Witness)		
		(Title) (BONDING COMPANY)
(Witness)		
		By(Attorney-in-Fact)

Required Form Legal / Litigation Statement Form

Disclose any litigation within the last five (5) years in which a claim has been made against anyteam member (individual or company) asserting a cause of action other than Employment issues or Contracts not related to your professional work. Explain the issues in these cases (or the fact there are none) as part of your submittal:



NOTICE TO PROCEED

Date: month/day, 202X

To: **Contractor**

One Road Conway SC, 29526

Project: Title of Project Bid # 2024-25-014

5P

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

OWNER

By: _____

Title: Assist. County Administrator

APPLICATION FOR PAYMENT NO.

Contractor's Schedule of Values All Work Completed to D	CONTRACT FOR: PROJECT #:						_
ITEM Unit Price Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Amount Quantity Quantity	For work accomplished through t	he date of:					_
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Total (OriginalContract) Change Order#1 Change Order#2 Accompanying Documentation: GROSS AMOUNT DUE LESS % RETAINAGE \$ AMOUNT DUE TODATE \$ LESS PREVIOUS PAYMENTS \$ AMOUNT DUE THIS APPLICATION \$ CONTRACTOR'S Certification: The undersigned CONTRACTOR certifies that (1) all previous progress payments received from OWNER on account of Work don under the Contract referred to above have been applied to discharge in full all obligations of CONTRACTOR incurred in connectic with Work covered by prior Applications for Payment number 1 through inclusive; and (2) title to all materials equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at tin payment free and clear of all liens, claims, security interests and encumbrances (except such as covered by Bond acceptable to OW Dated:	ITEM						
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ENGINEER

CHANGE ORDER

No. _____

OWNER: Horry County c/o Engineering Department P.O. Box 1236 Conway, South Carolina 29528	OWNER'S PROJECT #:
CONTRACTOR:	ENGINEER: Horry County Engineering
CONTRACT FOR: You are directed to make the following changes in	ENGINEER'S PROJECT #: the Contract Documents. Description:
Purpose of Change Order: Attachments (list documents supporting change):	
CHANGE IN CONTRACT PRICE: Original Contract Price:	CHANGE IN CONTRACT TIME: Original Contract Time
\$	days or date
Previous Change Orders Noto No	
<u>\$</u>	days
Contract Price prior to this Change Order	Contract Time Prior to this Change Order
\$	days or date
Net increase (decrease) of this Change Order	Net increase (decrease) of this Change Order
\$	days
Contract Price with all approved Change Orders	Contract Time with all approved Change Orders
\$	days or date

SECTION 0600 SUPPLEMENTARY CONDITIONS

1.1 PROJECT DESCRIPTION: Horry County intends to receive bids to make the road improvements on Legend Drive located in Myrtle Beach, SC. Work includes clearing and grubbing, shoulder grading, widening for an additional lane, surveying, staking, two-foot widening, subgrade and asphalt overlay, remove and install drainage pipe, and seeding and other associated work.

1.2 DEFINITIONS:

A. Owner - Horry County
P.O. Box 1236
Conway, South Carolina 29526

- 1.3 PERFORMANCE & PAYMENT BOND: Will be for 100 percent (100%) of the contract and shall be in force for a period of twelve (12) months from date of acceptance of the completed work by the Owner. The bond form in the contract documents will be used to execute the required bonds unless otherwise approved by the Engineer.
- 1.4 PLANS & SPECIFICATIONS: The Contractor will be responsible for survey and staking of additional lane widening from the first driveway to the Hampton Inn located on the east side of Legends Drive to the canal ditch (approx. 1,200 LF with the taper ending at the canal ditch). The taper is approx. 165 LF. Provided with PDFs of the sketches and references to specifications to complete the work.
- 1.5 CONSTRUCTION SURVEY / STAKING: The survey control and staking will be the responsibility of the Contractor. Owner's representative will be on site to assist contractor when needed. The Contractor will provide survey control, survey reference points, and right of way monumentation. Offset staking to the baseline are at 100-ft intervals along tangents and 50-ft intervals through curves. It is the responsibility of the contractor to calculate and stake all grades and elevations deemed necessary to perform the work. The Engineer's checking of grade and offset stake out shall in no way relieve the Contractor of this responsibility. The Contractor shall be aware; utilities may request staking on an as needed basis of construction items, right-of-way limits and other utilities to help facilitate relocations and to avoid potential conflict with roadway construction and other utilities.
- 1.6 SUPERINTENDENCE BY CONTRACTOR: The Contractor shall provide a full time superintendent at the job site acceptable to the Engineer who shall have full authority to act for the Contractor. He shall be fully responsible to maintain the activities of any and all subcontractors on the job, and to respond to job instructions from the Owner.

- 1.7 TRAFFIC CONTROL ON PUBLIC STREETS: The Contractor shall provide adequate warning signs, and where necessary, flagman control traffic flows and movement at construction locations. Where public streets are affected, traffic will be maintained on such public streets at all construction locations and no public street or road shall be blocked completely at any time. The paved areas of all public roads and streets will be sufficiently cleared each night and during other non-working hours to assure safe, two-way traffic. Sufficient lights and after hours supervision will be maintained to assure public safety and excavations in pavements are properly filled and surface smooth. Construction equipment such as excavation machines, loaders, tractors, trucks, pumps, etc., shall be removed from public traffic lanes and paved areas so as to provide a safe and usable area for public traffic.
- 1.8 BARRICADES AND LIGHTING: The Contractor will provide adequate barricades to properly protect the work and warn pedestrians and drivers as to areas of construction and hazards at night. The Owner and his construction observer/representative shall have the right to require such barricades and lighting as they feel is required if the contractor fails to provide same.
- 1.9 CONTRACTOR'S AND SUBCONTRACTOR'S PUBLIC LIABILITY, VEHICLE LIABILITY, AND PROPERTY DAMAGE INSURANCE.
 - A. Bodily injury, other than automobile, in the amount of not less than \$1,000,000 for injuries, including wrongful death to any one person, and subject to the same limit for all persons.
 - B. Property damage insurance, other than automobile, in an amount not less than \$1,000,000 for damage on account of all accidents.
 - C. Automobiles, including bodily injury liability and automobile property damage of not less than \$1,000,000 for damages on account of all accidents.
 - D. The requirements of insurance shall in no way be construed of establishing or admitting any master-servant of agency relationship between Owner and contractor, which such relations are hereby acknowledged not to exist between parties. Additionally, Contractor shall maintain full coverage for Workman's Compensation Insurance, South Carolina state minimum of \$100,000.
 - E. Builder's Risk Insurance, if applicable, shall be in an amount equal to 100% of the projects completed value for the benefit of the Owner, the Contractor and the subcontractors as their interest may appear.
- 1.10 WORK SCHEDULE: The Contractor shall, upon notice of award, or as otherwise requested, furnish the Owner a job schedule showing the various components of work and the anticipated beginning and completion date for the Contractor's particular phase

- of the project and should take into account the utility relocation window as well as the remobilization period. Schedule shall be updated monthly. Pay request will not be processed without a current and correct schedule.
- 1.11 OTHER UTILITIES: Telephone lines, power lines and cables should be anticipated. The Contractor shall contact representatives of all utilities to determine the exact locations of all existing facilities and underground utilities and shall make every effort to avoid damage to such. Exploratory hand excavation prior to machine excavation should be done to avoid damage to existing facilities.
- 1.12 STATE HIGHWAY ENCROACHMENT: The Owner will obtain encroachment agreements for all work located in the state highway right-of-way, if required. All operations, trenching, pavement butting and repair will be coordinated with the appropriate public agency where such work affects public property. All requirements of these permits shall be performed by the contractor as though the permits were issued in the name of the contractor. A copy of the permit will be provided to the contractor upon request.
- 1.13 AS BUILT DRAWINGS: The Contractor shall keep a complete record of variations between contract drawings and specifications requirements and the actual project installation. One set of drawings shall be marked in red by the contractor showing such variations and delivered to the Owner upon completion of the project.
- 1.14 REQUIRED RECORDS ON SALES AND USE TAX: In order that the owner may substantiate a refund claim for sales and use taxes, the Contractors shall furnish certified statements in triplicate, setting forth the cost of building materials, supplies and fixtures, and equipment which becomes a part of, or are annexed to any building or structure being erected, altered, or repaired under contract, with the Owner and the amount of sales and/or use taxes paid thereon.
- 1.15 SUBCONTRACTORS: In the interest of assuring the most expeditious and properly controlled project, unless specifically approved in writing, it is a condition of this contract that the Prime Bidder must accomplish not less than 70% of the work to be done with his own forces. Not more than four subcontractors will be allowed to accomplish work on this project and they must work directly under the Prime Contractor's superintendent. This shall in no way prohibit the use of Rental equipment by the Prime Contractor's forces. All equipment and personnel shall be subject to approval of the Engineer. In determining the value of subcontracts, the value of materials and equipment installed by the subcontractor shall be included.
- 1.16 AWARD OF CONTRACT: Before awarding a contract the Owner may require the apparent low bidder to qualify himself to be a responsible bidder by furnishing any or all of the following documentary data:
 - A. A financial statement showing assets and liabilities of the company current to date within 30 days of the date of opening of bids or other information

- satisfactory to the Owner.
- B. A listing of not less than three completed projects of similar scope and nature.
- C. Permanent name and address of place of business.
- D. The number of regular employees of the organization and length of time the organization has been in business under the present name.
- E. The name and home office address of the Surety proposed and the name and address of the responsible local claim agent.
- F. The names of members of the firm who hold appropriate trade licenses, together with license numbers.

1.17 PROJECT CLOSEOUT

- A. Cleaning Up: The Contractor shall at all times keep the premises free from accumulations of waste materials or rubbish from and about the project as well as all his tools, construction equipment, machinery and surplus materials. If the Contractor fails to clean up, the Owner may do so and the cost thereof shall be charged to the Contractor as provided in the General Conditions.
- B. Project Record Documents: The General Contractor shall maintain at the site for the Owner, one copy of all drawings, specifications, addenda, approved shop drawings, change orders and other modifications in good order and marked as "as built copy" to record all changes made during construction by all contractors. These shall be available to the Owner. The drawings marked to record all changes made during construction shall be delivered to the Owner in an electronic format upon completion of the work. This set of drawings, specifications, and addenda shall be furnished free to the Contractor for this purpose only. Final payment will not be made to the Contractor until their "as built" portion is completed and delivered to the Engineer. See 1.14 of Section 0600.
- C. Guarantee: The Contractor guarantees that all work executed under this contract and specifications will be free from defects of materials and workmanship for a period of one (1) year from the date of final acceptance, two (2) years from final date of acceptance within state right- of-way, and that all defects occurring within that period shall be replaced at no cost to the Owner. Where guarantees or warranties are written in any section for a period of more than one year, such longer terms shall apply. The Contractor shall, in case of work performed by his subcontractors and where

- guarantees are required, be responsible for fulfilling all terms of the guarantee.
- D. Certificate of Final Payment: When construction work has been completed and accepted by the Owner, the Contractor must execute a certificate of final payment stating that he has fully paid for all work done in connection with the construction of said project and that the said contractor has fully paid any and all claims of all persons who have furnished to the Owner in triplicate.
- 1.18 EXISTING CONDITIONS: The Contractor, in submitting a proposal and in signing this contract, acknowledges that he has thoroughly investigated the existing conditions and has examined the plans and specifications, understanding clearly their requirements and the requirements necessary to construct all to completion the improvements contracted for; that he is fully prepared to sustain all losses and damages incurred by the actions of elements; is prepared to provide all necessary tools, appliances, machinery, skilled and unskilled workmen; and all necessary materials to successfully complete the work.
- 1.19 OWNERS INSURANCE: Notwithstanding any other provision of the CONTRACT DOCUMENTS, Owner shall not be required to obtain insurance coverage other than what it maintains in its normal course of its business as of the date of this contract.
- 1.20 IDENTITY OF ENGINEER: whenever the General Conditions make reference to ENGINEER, such term shall be understood to mean the authorized representative of the Horry County Public Works Division, Office of the County Engineer.

SECTION 0700-GENERAL CONSTRUCTION CONTRACT TERMS & CONDITIONS

1.01 Refer to the following website to reference the contract terms and conditions:

 $\underline{https://www.horrycountysc.gov/media/3h0pnuij/updated-march-2016-general-construction-contract-terms-and.pdf}$

DIVISION 1 GENERAL REQUIREMENTS

SECTION 1000 - COORDINATION AND MEETINGS

PART I GENERAL

1.1 SECTION INCLUDES

- A. Coordination
- B. Field Engineering
- C. Pre-construction Conference

1.2 COORDINATION

A. Coordinate scheduling, submittals, and Work of the various Sections and Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.

1.3 FIELD ENGINEERING

- A. Contractor will locate survey control, reference points and limited construction staking. (Off-set staking to centerline at 100' intervals)
- B. Contractor shall provide field engineering services. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.

1.4 PRE-CONSTRUCTION CONFERENCE

- A. Engineer will schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Engineer's Project Manager, Inspector, and Contractor.

C. Agenda:

- 1. Execution of Owner-Contractor Agreement.
- 2. Submission of list of Subcontractors, list of Products, schedule of values and progress schedule.
- 3. Designation of personnel representing the parties in Contract and the Engineer.
- 4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract close-out procedures.
- 5. Scheduling. END OF SECTION

SECTION 1050 – APPLICATIONS FOR PAYMENT

PART I GENERAL

1.1 SECTION INCLUDES

A. Procedures for preparation and submittal of Applications for Payment.

1.2 RELATED SECTIONS

- A. <u>Document 0400</u> Contract Forms: Contract Agreement and Application for Payment Form.
- B. Document 0700 General Construction Contract Terms & Conditions.
- C. <u>Document 1060</u> Change Order Procedures.
- D. Section 1700 Contract Close-out: Final Payment.

1.3 FORMAT

A. Application For Payment Form: Use the one provided in the bid documents.

1.4 PREPARATION OF APPLICATIONS

- A. Present required information in typewritten form.
- B. Execute certification by signature of authorized officer.
- C. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored Products.
- D. List each authorized Change Order listing Change Ordernumber and dollar amount as for an original item of Work. Include a copy of approved change order form.
- E. Prepare Application for Final Payment as specified in Section 1700.

1.5 SUBMITTAL PROCEDURES

A. Submit three copies of each Application for Payment.

1.6 SUBSTANTIATING DATA

- A. When Engineer requires substantiating information, submit data justifying dollar amounts in questions.
- B. Provide one copy of data with cover letter for each copyof submittal. Show Application number and date, and line item by number and description.

SECTION 1060 – CHANGE ORDER PROCEDURES

PART I GENERAL

1.1 SECTION INCLUDES

- A. Submittals.
- B. Documentation of change in contract Sum/Price and Contract Time.
- C. Change procedures.
- D. Construction Change Authorization.
- E. Unit price change orders.
- F. Execution of change orders.
- G. Correlation of Contractor submittals.

1.2 RELATED SECTIONS

- A. Document 0400 Contract Forms: Change Order Form.
- B. Document 0700 General Construction Contract Terms and Conditions.
- C. <u>Section 1050</u> Applications for Payment: Payment applications.
- D. <u>Section 1700</u> Contract Close-out: Project record documents.

1.3 SUBMITTALS

- A. Submit name of the individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. Change Order Forms: Use the one provided in bid documents.

1.4 DOCUMENTATION OF CHANGE IN CONTRACT SUM/PRICE AND CONTRACT TIME

A. Maintain detailed records of work done on a time and material basis.

Provide full information required for evaluation of proposed changes, and

to substantiate costs of changes in the Work.

- B. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.
- C. On request, provide additional data to support computations:
 - 1. Quantities of products, labor, and equipment.
 - 2. Taxes, insurance and bonds.
 - 3. Overhead and profit.
 - 4. Justification for any change in Contract time.
 - 5. Credit for deletions from Contract, similarly documented.
- D. Support each claim for additional costs, and for work done on a time and material basis, with additional information:
 - 1. Origin and date of claim.
 - 2. Dates and times work was performed, and by whom.
 - 3. Time records and wage rates paid.
 - 4. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

1.5 CHANGES PROCEDURES

- A. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time.
- B. The Engineer may issue a Notice of Change which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within 10 days.

1.6 CONSTRUCTION CHANGE AUTHORIZATION

- A. Engineer may issue a directive, signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B. The document will describe changes in the Work, and will designate method of determining any change in Contract Sum/Price or Contract Time.
- C. Promptly execute the change in Work.

1.7 UNIT PRICE CHANGE ORDER

A. For pre-determined unit prices and quantities, the Change Order will be

executed based on the fixed unit prices in the proposal.

B. For unit costs or quantities of units of work which are not pre-determined, execute Work under a construction Change Authorization.

1.8 EXECUTION OF CHANGE ORDERS

A. Execution of Change Orders: Engineer will issue Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the General Conditions of the Contract.

1.9 CORRELATION OF CONTRACTOR SUBMITTALS

- A. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum/Price.
- B. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust time for other items of work affected by the change, and resubmit.
- C. Promptly enter changes in Project Record Documents.

SECTION 1300 – SUBMITTALS

PART I GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures
- B. Proposed Products list
- C. Product data.
- D. Manufacturers' instructions.
- E. Manufacturers' certificates.

1.2 RELATED SECTIONS

A. <u>Section 1700</u> - Contract Close-out: Contract warranty and manufacturer's certificates close-out submittals.

1.3 SUBMITTAL PROCEDURES

- A. Transmit each submittal to the Engineer for approval.
- B. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.
- C. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite the Project, and deliver to Engineer. Coordinate submission of related items.
- E. Identify variations from Contract Documents and Product orsystem limitations which may be detrimental to successful performance of the completed Work.
- F. Provide space for Contractor and Engineer review stamps.
- G. Revise and resubmit submittals as required, identify all changes made since previous submittal.

H. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

1.4 PRODUCT DATA

- A. Submit the number of copies which the Contractor requires, plus two copies which will be retained by the Engineer.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.
- C. After review, distribute in accordance with Article on Procedures above and provide copies for Record Documents described in <u>Section 1700</u> Contract Close-out.

1.5 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification Sections, submit manufacturers' certificate to Engineer for review, in quantities specified for ProductData.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

SECTION 1400 – QUALITY CONTROL AND TESTING SERVICES

PART I GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance and control of installation.
- B. Selection and payment.
- C. Laboratory responsibilities.
- D. Laboratory reports.
- E. Limits on testing laboratory authority.
- F. Contractor responsibilities.
- G. Schedule of inspections and tests.

1.2 RELATED SECTIONS

- A. <u>Section 0600</u> Supplementary Conditions: Material testing.
- B. <u>Section 0700</u> General Construction Contract Terms and Conditions.
- C. Section 1300 Submittals: Manufacturer's certificate.
- D. <u>Section 1700</u> Contract Close-out: Project Record Documents.
- E. Individual Specification Sections: Inspections and tests required, and standards for testing.

1.3 REFERENCES

- A. ANSI/ASTM D3740 Practice for evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- B. ANSI/ASTM E329 Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

1.4 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship or specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.5 SELECTION AND PAYMENT

A. Owner will employ services of an independent testing laboratory to perform specified inspection and testing. Contractor shall pay the costs for the testing services for the areas that have to be retested due to the failure of the initial test.

1.6 LABORATORY RESPONSIBILITIES

- A. Test samples of mixes submitted by Contractor.
- B. Provide qualified personnel at site. Cooperate with Engineer/Owner and Contractor in performance of services
- C. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- E. Promptly notify Engineer/Owner and Contractor of observed irregularities or non-conformance of Work or Products.
- F. Perform additional inspections and tests required by Engineer/Owner.
- G. Attend pre-construction conferences and progress meetings.

1.7 LABORATORY REPORTS

- A. After each inspection and test, promptly submit two copies of laboratory report to Engineer/Owner, and to Contractor.
- B. Include:
 - 1. Date issued,
 - 2. Project title and number,
 - 3. Name of inspector,
 - 4. Date and time of sampling or inspection,
 - 5. Identification of product and Specifications section,
 - 6. Location in the Project,
 - 7. Type of inspection or test,
 - 8. Date of test,
 - 9. Results of test,
 - 10. Conformance with Contract Documents.
- C. When requested by Owner and Engineer, provide interpretation of test results.

1.8 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Laboratory may not approve or accept any portion of the Work.
- C. Laboratory may not assume any duties of Contractor.

1.9 CONTRACTOR RESPONSIBILITIES

- A. Deliver to laboratory at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
- B. Cooperate with laboratory personnel, and provide access to the Work.
- C. Provide incidental labor and facilities to provide access to Work to be tested, to obtain and handle samples at the site or at source of Products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- D. Notify Owner and Engineer and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.

E. Arrange with laboratory and pay for additional samples and tests required by Contractor beyond specified requirements.

1.10 SCHEDULE OF INSPECTIONS AND TESTS

- A. <u>Section 2200</u> Backfilling: Requirements for sampling and testing backfilled materials and trenching.
- B. <u>Section 02400</u> Hot laid asphaltic concrete pavement and base: field inspections and test of materials and compaction test.

PART II PRODUCTS

Not Used

PART III EXECUTION

Not Used

SECTION 1500 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART I GENERAL

1.1 SECTION INCLUDES

- A. Temporary Controls: Barriers, enclosures and fencing, protection of the Work, and water control.
- B. Construction Facilities: Parking, progress cleaning, and project signage.

1.2 RELATED SECTIONS

- A. <u>Section 1550</u> Traffic Regulation.
- B. Section 1700 Contract Close-out: Final cleaning.

1.3 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades and walkways required by governing authorities for public rights-of-way.
- C. Provide protection from plant life designated to remain. Replace damaged plant life.
- D. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

1.4 FENCING

A. Construction: Contractor's option.

1.5 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.6 PROTECTION OF INSTALLED WORK

- 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 minimize damage.

1.7 SECURITY

A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.8 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

PART II PRODUCTS

Not Used

PART III EXECUTION

Not Used

SECTION 1550 – TRAFFIC REGULATION

PART I GENERAL

1.1 SECTION INCLUDES

- A. Flagmen.
- B. Flares and Lights.
- C. Traffic Signs and Signals.
- D. Removal.

1.2 RELATED SECTIONS

A. <u>Section 1500</u> - Construction Facilities and Temporary Controls: Barriers.

1.3 REFERENCES

A. SCDOT Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 Edition.

1.4 SIGNS, SIGNALS, AND DEVICES

- A. Post Mounted and Wall Mounted Traffic Control and Informational Signs: As approved by SCDOT.
- B. Automatic Traffic Control Signals: As approved by SCDOT.
- C. Traffic Cones and Drums, Flares and Lights: As approved by SCDOT.
- D. Flagman Equipment: As approved by SCDOT.

1.5 FLAGMAN

A. Provide trained and equipped flagmen to regulate traffic when construction operations or traffic encroach on public traffic lanes.

1.6 FLARES AND LIGHTS

A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

1.7 TRAFFIC SIGNS AND SIGNALS

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B. Install and operate automatic traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.
- C. Relocate as Work progresses, to maintain effective traffic control.
- D. Maintain signs and signals at all times.

1.8 REMOVAL

- A. Remove Equipment and devices when no longer required.
- B. Repair damage caused by installation.
- C. Remove post settings to a depth of 2 feet.

SECTION 1600 – MATERIAL AND EQUIPMENT

PART I GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.2 RELATED SECTIONS

- A. <u>Document 0100</u> Instructions to Bidders: Product options and substitution procedures.
- B. <u>Section 1400</u> Quality Control and Testing Services monitoring.

1.3 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions
- B. Promptly inspect shipments to assure that Products comply with requirements, quantities are correct, and Products are undamaged.
- C. Provide equipment and personnel to handle Products by methods

to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated Products, place on sloped supports, above ground.
- C. Provide off-site storage and protection when site does not permit on-site storage or protection.
- D. Cover Products subject to deterioration with impervious sheeting covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- F. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of Products to permit access for inspection. Periodically inspect to assure Products are undamaged and are maintained under specified conditions.

1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

1.7 SUBSTITUTIONS

- A. Engineer will consider requests for Substitutions only within 15 days after date of Owner-Contractor Agreement.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.

- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. Substitutions Submittal Procedure:
 - 1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
 - 2. Submit shop drawings, Product data, and certified test results attesting to the proposed Product equivalence.
 - 3. The Engineer will notify Contractor, in writing, of decision to accept or reject request.

PART II PRODUCTS

Not Used

PART III EXECUTION

Not Used

SECTION 1700 - CONTRACT CLOSEOUT

PART I GENERAL

1.1 SECTION INCLUDES

- A. Close-out Procedures.
- B. Final Cleaning.
- C. Adjusting.
- D. Project Record Documents.
- E. Spare Parts and Maintenance Materials.

1.2 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Submit Final Application for Payment identifying total adjusted Contract Sum, previous payments and sum remaining due.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.4 ADJUSTING

A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.5 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.

- 2. Specifications.
- 3. Addenda.
- 4. Change Orders and other Modifications to the Contract.
- 5. Reviewed shop drawings, product data and samples.
- 6. Applications for payment.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish elevation.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible feature of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract Drawings.
- E. Submit full set of above documents to Engineer with claim for final Application for Payment.

1.6 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to Project site and place in location as directed.

PART II PRODUCTS

Not Used

PART III EXECUTION

Not Used

DIVISION 2 SITE WORK

SECTION 2000 – SITE CLEARING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Removal of surface debris.
- B. Clear site of plant life and grass.

1.02 REGULATORY REQUIREMENTS

- A. Conform to applicable code for disposal of debris.
- B. Coordinate clearing work with utility companies.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.01 PREPARATION

- A. Contractor shall clear and grub all areas necessary to allow implementation of the infrastructure.
- B. Clear all subsurface roots, plant life and debris a minimum of 1 foot deep.

3.02 PROTECTION

- A. Protect utilities that remain from damage.
- B. Protect bench marks and existing structures from damage or displacement.

3.03 REMOVAL

A. Remove debris, rock and extracted plant life from site.

SECTION 2100 - EXCAVATION

PART I GENERAL

1.01 SECTION INCLUDES

- A. Grading and excavation for roadway and drives.
- B. Grading and excavation for pipelines and channels.
- C. All excavation, formation of embankments and finishing and dressing of graded earth areas, shoulders and ditches.

1.02 RELATED SECTIONS

- A. Section 1400 Quality Control Testing
- B. Section 2200 Backfilling

1.03 FIELD MEASUREMENT

A. Verify that shot survey bench mark and intended elevations for the work are as indicated.

PART II PRODUCTS

Not Used

PART III EXECUTION

3.01 GENERAL

A. The term "excavation" used hereinafter is defined as "unclassified excavation". Excavation of every description regardless of material encountered within the grading limits of the project, shall be performed to the lines and grades indicated. Satisfactory excavated material shall be transported to and placed in the fill areas within the limits of the work. When directed by the Engineer, unsatisfactory material encountered within the limits of the work shall be excavated below the grade shown and replaced with satisfactory material as directed in order to obtain the required surface condition and density to sustain the subsequent work. Such material ordered as a replacement shall be paid for at the unit prices given in the stated allowance shown in the proposal. Unsatisfactory and surplus excavation material not required for fill shall be disposed of by the Contractor off of the Owner's property as part of the contract price. During construction, excavation and filling shall be performed in a manner and sequence that will provide drainage at all times. Except where otherwise

shown on the plans or as directed, the unsatisfactory soils shall be removed to a depth required and filled with selected sands and sand clays from borrow excavations that will provide a firm, unyielding subgrade at the specified density. See Section 2200 - Backfilling for additional details.

- B. All areas covered by the project, including excavated and filled sections and adjacent transition areas, shall be uniformly smooth-graded. The finished surface shall be reasonably smooth, compacted and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from either blade grader or scraper operations. The finished surface shall be not more than 0.10 foot above or below the established grade or approved cross section. Gutters and ditches shall be finished so as to permit adequate drainage.
- C. All vegetation, roots, brush, sod, broken pavements, rubbish and other unsatisfactory or surplus material stripped or removed from the limits of construction shall be hauled off the Owner's property and disposed of by the Contractor as part of the contract price. The material shall be dumped, spread and leveled to drain.
- D. The Contractor shall be responsible for control of erosion and sedimentation during the work. Silt fence and sediment tubes or other devices as required shall be installed to prevent off-site deposits of eroded materials. Similar devices shall be placed around storm drain catch basins and inlets to prevent the infiltration of soil materials into the underground drainage system. Such devices shall be maintained until all site work is complete.

3.02 CONSERVATION OF TOPSOIL

- A. Areas designated for grading operations that contain a blanket of soil which is more satisfactory for the growth of grass than the embankment material to be placed, as determined by the Engineer, shall be stripped to a depth of approximately four to six inches and placed in convenient stockpiles as directed in the field, for later use as a topsoil blanket on the new graded areas specified herein, or as designated.
- B. Material ordered stockpiled shall be placed in satisfactory manner to afford drainage.
- C. When grading operations permit, instead of stockpiling, the topsoil shall be hauled and spread directly on the areas to receive topsoil.
- D. Surplus topsoil shall remain the property of the Owner.
- E. This work shall be the responsibility of the Contractor and considered subsidiary to the contract work.

3.03 PROTECTION OF EXISTING SERVICE LINES, UTILITIES AND STRUCTURES

- A. Existing utility lines and structures that are shown on the drawings or the locations of other utility lines which may exist in the project area, as well as utility lines constructed during excavation operations, shall be protected from damage during excavation, and if damaged, shall be repaired by the Contractor at his expense.
- B. When utility lines that are to be removed or relocated are encountered within the area of operations, the Contractor shall notify the utility company in ample time for the necessary measures to be taken to prevent interruption of the service.
- C. It shall be the Contractor's responsibility to contact all utility companies with services in the area for an accurate location of the respective utilities prior to beginning excavation.

3.04 EXCAVATION OF DITCHES

- A. Ditches shall be cut accurately to the cross sections and grades indicated by the drawings.
- B. All roots, stumps and other foreign matter in the sides and bottom of ditches shall be cut one foot below the grades indicated.
- C. Any excessive ditch excavation due to the removal of roots, stumps, etc., or due to over-excavation shall be backfilled to grade either with satisfactory soils, thoroughly compacted, or with suitable stone or cobble to form an adequate ditch paving, as directed at no additional cost to the Owner.
- D. The Contractor shall maintain all ditches excavated under this specification free from detrimental quantities of leaves, sticks and other debris until final acceptance of the work.
- E. Satisfactory earth material excavated from ditches and channel changes shall be placed in fill areas as directed.
- F. All excess excavation and debris shall be disposed of off-site at the Contractor's expense unless otherwise approved in writing by the Engineer/Owner.
- G. No diking or berming of soils along the bank will be permitted.
- H. No excavated materials shall be deposited within the distance of three feet from the edge of any ditches.

- I. When storm drain pipe terminates in a new ditch, ditch pavement, if specified, shall be constructed immediately as called for on the plans.
- J. The Contractor shall be responsible for maintaining these newly constructed ditches and take immediate action to keep erosion of the ditch bottom and slopes to a minimum during the life of the contract. No additional compensation will be given to the Contractor for the required maintenance.

3.05 PREPARATION

- A. Identify required lines, levels, contours and datum.
- B. Identify known underground, above ground and aerial utilities. Stake and flag locations.
- C. Protect above and below grade utilities which are to remain.
- D. Protect plant life, lawns and other features remaining as a portion of final landscaping.
- E. Protect bench marks, existing structures, fences, sidewalks, paving and curbs from excavation equipment and vehicular traffic.

3.06 EXCAVATION

- A. Underpin adjacent structures which may be damaged by excavation work, including utilities and pipe chases.
- B. Excavate subsoil required to accommodate building foundations, slabs-on-grade, paving and site structures.
- C. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- D. Hand trim excavation. Remove loose matter.
- E. Remove lumped subsoil, boulders and rock up to 1/3 cubic yard measured by volume.
- F. Notify Engineer/Owner of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- G. Correct unauthorized excavation at no extra cost to Owner.
- H. Remove excess excavated material not being used from the site at no additional cost to the Owner.

3.07 FIELD QUALITY CONTROL

- A. Field inspection will be performed under provisions of Section 1400.
- B. Provide for visual inspection of bearing surfaces.

3.08 PROTECTION

A. Protect excavations by methods required to prevent cave-in or loose soil from falling into excavation.

END OF SECTION

SECTION 2200 – BACKFILLING

PART I GENERAL

1.01 SECTION INCLUDES

- A. Building perimeter and site structure backfilling to subgrade elevations.
- B. Site filling and backfilling.
- C. Fill and compaction of trenches.
- D. Fill under slabs-on-grade and paving.
- E. Consolidation and compaction.
- F. Fill for over-excavation.

1.02 RELATED SECTIONS

- A. Section 1400 Quality Control and Testing Services.
- B. Section 2100 Excavation.

1.03 REFERENCES

- A. ANSI/ASTM C136 Method for sieve analysis of fine and course aggregates.
- B. ANSI/ASTM D1556 Test method for density of soil in place by the sand cone method.
- C. ANSI/ASTM D1557 Test methods for moisture density relations of soils and soil aggregate mixtures using 10 15 hammer and 18 inch drop.
- D. ANSI/ASTM D2922 Test methods for density of soils in place by nuclear methods.

1.04 SUBMITTALS

A. Submit under provisions of Section 1300.

PART II PRODUCTS

2.01 FILL MATERIALS

A. Type A (Class 1) - Course Stone Crushed: Angular, washed natural stone: free of shale, clay, friable material, sand, debris; graded in accordance with ANSI/ASTM C136 within the following limits:

Sieve Size	Percent Passing
2 inches 1 inch	100 95
3/4 inch	95 to 100
5/8 inch 3/8 inch	75 to 100 55 to 85
No. 4 No. 16	35 to 60 15 to 35
No. 40	10 to 25
No. 200	5 to 10

B. Type B (Class 2) - Pea Gravel: Natural stone; washed, free of clay, shale, organic matter; graded in accordance with ANSI/ASTM, to the following:

Minimum Size: 1/4 inch
 Maximum Size: 5/8 inch

C. Type C (Class 3) - Sand: Natural river or bank sand; washed: Free of silt, clay, loam friable or soluble materials or organic matter; graded in accordance with ANSI/ASTM C136, within the following limits:

Sieve Size	Percent Passing
No. 4	100
No. 14	10 to 100
No. 50	5 to 90
No. 100	4 to 30
No. 200	0

D. Subsoil: Reused and/or imported, free of gravel larger than 3 inch size, roots and other organic material and trash and approved by the Engineer.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify from Engineer/Owner fill materials to be reused are acceptable.

3.02 PREPARATION

- A. Generally, compact subgrade to density requirements for subsequent backfill materials.
- B. Cut out soft areas of subgrade not capable of in situ compaction. Backfill with Type C fill and compact to density equal to or greater than requirements for subsequent backfill material.
- C. Prior to placement of aggregate base course material at gravel or paved areas, compact subsoil 98 percent of its maximum dry density in accordance with ANSI/ASTM D1557 and AASHTO T-180.
- D. All vegetation, such as roots, brush, heavy sods, heavy growth of grass and all decayed vegetable matter, rubbish and other unsuitable material within the area upon which fill is to be placed shall be stripped or otherwise removed before the fill is to be placed shall be stripped or otherwise removed before the fill is started.
- E. In no case will unstable material remain in or under the fill area that will prevent the placement and compaction of subsequent layers to the specified densities.
- F. Sloped ground surfaces steeper than one vertical to four horizontal on which fill is to be placed shall be plowed, stepped and benched, or broken up as directed, in such manner that the fill material will bond with the existing surface.
- G. Prepared surfaces on which compacted fill is to be placed shall be scarified, wetted or dried as may be required to obtain the compaction specified.

3.03 BACKFILLING

- A. Backfill areas at the locations and to lines and elevations shown on the plans.
- B. Filled areas shall conform to the shape of the typical sections indicated or shall meet the requirements of the particular case.
- C. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- D. Granular Sand Fill: Place and compact materials in continuous layers not exceeding 6 inches compacted depth.
- E. Soil Fill: Place and compact material in continuous layers not exceeding 8 inches compact depth.

- F. Employ a placement method that does not disturb or damage utilities in trenches.
- G. Maintain optimum moisture content of backfill materials to attain required compaction density.
- H. Slope grade away from buildings minimum 2 inches in 10 ft., unless noted otherwise.
- I. Make grade changes gradual. Blend slope into level areas.
- J. Remove surplus backfill materials from site.
- K. Leave fill material stockpile areas completely free of excess unsuitable materials.

3.04 TOLERANCES

A. Top Surface of Backfilling: Plus or minus five hundredths from required elevations.

3.05 FIELD QUALITY CONTROL

- A. Field inspection will be performed by the Owner.
- B. Field testing will be performed under provisions of Section 1400.
- C. Tests and analysis of fill material will be performed in accordance with ANSI/ASTM D1557 (AASHTO T-180) and ANSI/ASTM D2922 with Section 1400.
- D. Compaction testing will be performed in accordance with ANSI/ASTM D2922 and ANSI/ASTM D1557 (AASHTO-190).
- E. If tests indicate work does not meet specified requirements, remove work, replace and retest at no cost to owner.
- F. Frequency of tests: as required by the testing firm or as directed by the Engineer.
- G. Proof roll all compacted fill surfaces under paving.

3.06 PROTECTION OF FINISHED WORK

A. Protect all finished Work.

B. Re-compact fills subjected to vehicular traffic.

3.07 COMPACTION REQUIREMENTS

- A. The compaction of fill materials shall meet the following requirements as determined by the maximum density obtained at optimum moisture content by an approved laboratory.
 - a. Fill under buildings100%
 - b. Fill under paved areas 98%
- B. The Contractor shall be responsible for compaction of the existing soils to meet the above compaction requirements.
- C. The Contractor will be responsible for compacting the sub-base to the required density by whatever means necessary.

3.08 SCHEDULE

- A. Fill under grassed areas.
 - 1. Subsoil fill, to finished grade
- B. Fill under asphaltic concrete pavement.
 - 1. Type C fill to 8 inches below finished paving elevation.

END OF SECTION

SECTION 2300 - TRENCHING

PART I GENERAL

1.01 SECTION INCLUDES

- A. Excavate trenches for utilities.
- B. Compacted bedding under fill over utilities.
- C. Backfilling and compaction.

1.02 RELATED SECTIONS

- A. Section 1400 Quality Control and Testing Services
- B. Section 2100 Excavation
- C. Section 2200 Backfilling
- D. Section 2500 Storm Drainage Systems

1.03 REFERENCES

- A. ANSI/ASTM C136 Method for sieve analysis of fine and coarse aggregates.
- B. ANSI/ASTM D1556 Test method for density of soil in place by the sand cone method.
- C. ANSI/ASTM D1557 Test methods for moisture density relations of soils and soil aggregate mixtures using 10 15 hammer and 18 inch drop.
- D. ANSI/ASTM D2922 Test methods for density of soils in place by nuclear methods.

1.04 FIELD MEASUREMENTS

A. Verify that survey benchmark and intended elevations for the Work are as shown on Drawings prior to proceeding with construction.

PART II PRODUCTS

2.01 FILL MATERIALS

A. Type C and subsoil materials as specified in Section 2200.

2.02 BED MATERIALS

A. Type 1 Material: As specified for Type A in Section 2200.

PART III EXECUTION

3.01 EXAMINATION

A. Verify fill materials to be reused are acceptable.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Maintain and protect existing utilities remaining, which pass through work area.
- C. Protect plant life, lawns, rock outcropping and other features remaining as a portion of final landscaping.
- D. Protect bench marks, existing structures, fences, sidewalks, paving and curbs from excavation equipment and vehicular traffic.
- E. Protect above and below grade utilities which are to remain.
- F. Cut out soft areas of subgrade not capable of in situ compaction. Backfill with Type 3 fill and compact to density equal to or greater than requirements for subsequent backfill material.

3.03 EXCAVATION

- A. Excavate subsoil required for storm sewer.
- B. Cut trenches sufficiently wide to enable installation of utilities and allow inspection.
- C. Excavation shall not interfere with normal 45 degree bearing splay of foundations.
- D. Hand trim excavation. Remove loose matter.
- E. Remove lumped subsoil, boulders and rock.
- F. Correct unauthorized excavation at no cost to Owner.

- G. Correct areas over-excavated by error in accordance with Section 2200.
- H. Remove excess material not being used from site.

3.04 EXCAVATION PROTECTION

- A. Protect excavations by shoring, bracing sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into excavation.
- B. Notify Engineer of unexpected subsurface conditions and discontinue work in the affected area until notification to resume work is given.
- C. Protect bottom of excavation and soil adjacent to and beneath foundations from frost.
- D. Grade excavations top perimeter to prevent surface water run- off into trench excavation.

3.05 BEDDING

A. Support pipe during placement and compaction of bedding fill.

3.06 BACKFILLING (RECOMMENDED TECHNIQUE)

- A. Backfill trenches to elevations shown on plans.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- C. Granular Sand Fill: Place and compact material in continuous layers not exceeding 6 inches compacted depth.
- D. Soil Fill: Place and compact material in continuous layers not exceeding 8 inches compacted depth.
- E. Employ a placement method that does not disturb or damage foundation perimeter, pipe, conduit in trench.
- F. Maintain optimum moisture content of backfill materials to attain required compaction density.
- G. Remove surplus backfill materials from site.
- H. Leave fill material stockpile areas completely free of excess unsuitable materials.

3.07 TOLERANCES

A. Top Surface of Backfilling: Plus or minus five hundredths from required elevations.

3.08 FIELD QUALITY CONTROL

- A. Field inspection will be performed by the Owner.
- B. Field testing will be performed under provisions of Section 1400.
- C. Tests and analysis of fill material will be performed in accordance with ANSI/ASTM D1557 and or ANSI/ASTM D2922.
- D. Compaction testing will be performed in accordance with ANSI/ASTM D2922 and ANSI/ASTM D1557.
- E. If tests indicate work does not meet specified requirements, remove work, replace and retest at no cost to owner.
- F. Frequency of tests: As required by the testing firm or as directed by the Engineer/Owner.

3.09 PROTECTION OF FINISHED WORK

- A. Protect all finished Work under provisions of Section 1500.
- B. Re-compact fills subjected to vehicular traffic.

END OF SECTION

SECTION 2400 – HOT MIX ASPHALT PAVEMENT

PART 1 GENERAL

- 1.01 SECTION INCLUDES
- A. Aggregate Base and Hot Mix Asphalt Pavement.
- B. Sampling and Testing.
- 1.02 RELATED SECTIONS
- A. Section 2100 Excavation
- B. Section 2200 Backfilling
- C. Section 2580 Pavement Markings
- D. Section 2401 Specifications for Hot Mix Asphalt
- E. Section 2402 Supplementary Bid Schedule Item Specifications

1.03 REFERENCES

- A. SCDOT SS South Carolina State Highway Department Standard Specifications, 2007 Edition.
- B. Federal Highway Administration Manual on Uniform Traffic Control Devices.
- C. ASTM D 1188 Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens
- D. ASTM D 1556 Density of Soil in Place by the Sand-Cone Method
- E. ASTM D 1557 Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft)
- F. ASTM D 2726 Bulk Specific Gravity of Compacted Surface-Dry Specimens
- G. ASTM D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods
- H. ASTM D 3017 Moisture Content of Soil and Rock in Place by Nuclear Methods

1.04 QUALITY ASSURANCE

- A. Except as specified herein or as indicated, work and materials shall be in accordance with the SCDOT SS and SCDOT Supplemental Technical Specifications for Hot Mix Asphalt (HMA). The provisions therein for method of measurement and payment do not apply.
- B. Obtain materials from same source throughout.
- C. Coordinate with testing laboratory to provide testing as specified in Section 01400Testing Laboratory Services.

1.05 ENVIRONMENTAL REQUIREMENTS

A. Do not produce or place asphaltic concrete when the weather is rainy or foggy, when the base course is frozen or has excess moisture, or when the ambient temperature is less than 40 degrees F in the shade away from artificial heat.

1.06 SUBMITTALS

A. Job-Mix Formula: Submit the mix design, including mixing temperature, for approval. The mix design shall include a certified laboratory analysis of mix composition with void content and flow. After mix design approval, job mixes shall conform to the range of tolerances specified in SCDOT SS. Obtain acknowledgment of receipt prior to asphaltic concrete placement. Submit additional data regarding materials if the source of the materials changes.

1.07 BARRICADES AND SIGNALS

A. Provide and maintain temporary signs, signals, lighting devices, markings, barricades, and channelizing and hand signaling devices in accordance with the Manual on Uniform Traffic Control Devices to protect personnel and new construction from damage by equipment and vehicles until the surface is approved by the Engineer.

1.08 WARRANTY

A. Contractor shall provide an unconditional maintenance free warranty in writing for all asphaltic concrete paving against defects in workmanship and materials for a period of one (1) year. The warranty period shall begin on the date of the final approval. The warranty shall be executed by the paving subcontractor and cosigned by the General Contractor.

- B. Condition at Expiration of Warranty Period: At his own expense and just before expiration of the one (1) year warranty period, the Contractor shall make such repairs as may be necessary to produce a pavement which shall:
 - 1. Have a contour substantially conforming to that of the pavement indicated on the drawings, and free from depressions of any kind exceeding 1/8" deep as measured between any points 4 feet apart on a line conforming substantially to the original contour of the paved area.
 - 1. Be free from cracks or depressions showing disintegration of the surface mixture.
 - 2. Contain no disintegrated surface mixture.
 - 4. Not have been reduced more than 3/8" in thickness in any part.
 - 5. Have a base free from cracks or defects which will cause its disintegration or settling of the pavement.

PART 2 PRODUCTS

2.01 MATERIALS

- A. HMA Intermediate Course: SCDOT SS, Section 402, Type C for material and mix.
- B. HMA Surface Course: SCDOT SS, Section 403, Type C for material and mix.
- C. Base Course: SCDOT SS, Section 305.
- D. Tack Coat: SCDOT SS, Section 401.2.1 Binder and Additives Emulsified asphalt, Type SS-1

2.02 MIX PLANT

A. SCDOT SS, Section 401, Type 1.

PART 3 EXECUTION

3.01 INSTALLATION AND APPLICATION

A. Tack Coat:

- 1. Apply to contact surfaces of previously constructed asphaltic concrete course and surfaces abutting or projecting into asphalt concrete pavement.
- 2. Apply tack coat in accordance with SCDOT's Standard Specifications.
- 3. Allow tack to "break" before placement of HMA.

3.02 PLACING HOT MIX ASPHALT CONCRETE PAVEMENT

- A. Placing Temperature The mixture shall be delivered to the spreader at a temperature between 275 degrees and 325 degrees F and within 20 degrees F. of the temperatures set at the plant for the approved mix design. Mixtures which have a lower temperature shall be rejected.
- B. Joints Where new pavement abuts existing pavement, cut existing surface course along straight lines approximately 6 inches from edge. Cuts shall be vertical and extend full depth of surface course. Prior to HMA placement, apply asphalt cement to exposed edges of cold joints.
- C. Spreading and Finishing Equipment Spread the HMA to a uniform density and produce a smooth finish, true to cross section and free from irregularities. Provide adjustable screeds to shape the surface to true cross section.
- D. HMA Placement As continuous as possible. Place in maximum 2-inch lifts. Avoid passing rollers over unprotected edges of asphalt prior to asphalt cooling. If rollers pass over unprotected edges of asphalt prior to cooling, cut asphalt back to expose full depth of asphalt. Immediately prior to resumption of HMA placement, coat exposed edges of asphalt with asphalt cement. When HMA placement resumes, rake the hot asphalt against asphalt cement and compact.
- E. Featheredges Accomplish featheredging by raking out the larger aggregate as necessary and sloping the pavement uniformly throughout the featheredge to create a smooth transition. Unless indicated otherwise, featheredge transition shall be 10 feet.
- F. Compaction SCDOT SS for equipment and compaction procedures, modified to compact asphalt to 96 percent of maximum laboratory density. Finished surfaces shall be uniform in texture and appearance and free of cracks and creases.
- G. Protection No vehicular traffic shall be allowed on pavement for a minimum of 6 hours after final rolling, or until asphalt has cured, whichever is longer.

3.03 TOLERANCES OF PAVEMENT

- A. Flatness: Maximum variation of 1/4 inch measured with a 10 foot straight edge.
- B. Compacted Scheduled Thickness: Shall be no less than 90% of the minimum required depth.
- C. Any deficiencies in the pavement shall be removed and replaced in a curb and gutter section, or overlaid if no curbing is present. Paving "birdbaths" will not be allowed.

3.04 FIELD QUALITY CONTROL

A. Sampling: Provide new materials where samples are taken. Take the number and size of samples required to perform the following tests.

1. HMA Sampling

- a. Job Mix: Take one initial sample and one sample for every 400 tons or fraction thereof.
- b. Thickness: Take one sample for every 500 square yards or fraction thereof.
- c. Density: One field test for every 1000 square yards or fraction thereof, and one laboratory test for the project. Provide minimum 6-inch diameter cores.

2. Base Course Sampling

- a. Thickness: Take one sample for every 500 square yards or fraction thereof.
- b. Density: One field test for every 1000 square yards or fraction thereof, and one laboratory test for the project.

B. Testing: Provide for each sample.

1. HMA Testing

- a. Job Mix: Determine gradation and bitumen content.
- b. Thickness: Maximum allowable deficiency shall be 1/4 inch less than the indicated thickness.
- c. Density, In Place: ASTM D 2922 and ASTM D 3017; cored sample ASTM D 1188 or ASTM D 2726.

2. Base Course Testing

- a. Thickness: Maximum allowable deficiency shall be ½ inch less than the indicated thickness.
- b. Density: ASTM D 1556 or ASTM D 2922 and ASTM D 3017

SECTION 2405 – BASE COURSE MATERIAL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Stabilized Aggregate Base Coarse.
- B. Subgrade Preparation.

1.02 RELATED SECTIONS

- A. Section 2100 Excavation.
- B. Section 2200 Backfilling.

1.03 REFERENCES

- A. SCDOT Standard Specifications, Latest Edition.
- B. SCDOT Manual of Uniform Traffic Control Devices for Streets and Highways.

1.04 QUALITY ASSURANCE

- A. Perform work in accordance with the SCDOT Standards.
- B. Obtain materials from same source throughout.

1.05 TESTING REQUIREMENTS

- A. Testing and analysis of asphaltic mix will be performed under provisions of Section 1400 Quality Control and Testing Services.
- B. Submit proposed mix design of each class of mix for review prior to commencement of work.
- C. Gradation of materials shall be in accordance with ASTM C136.

1.06 SUBMITTALS

A. Certificates: Provide certificates stating that materials supplied comply with the specifications. Certificates shall be signed by asphalt producer and Contractor.

1.07 ENVIRONMENTAL REQUIREMENTS

Sieve Designation

A. Place base course when air temperature is above 40 degrees F. and rising.

1.08 DEFINITIONS

- A. Pavement Structure: The combination of sub-base, base, pavement or other specified layer placed on the subgrade to support the traffic load and distribute it to the roadbed.
- B. Pavement: The uppermost layer of material placed on the base course consisting of one or more layers of asphaltic concrete. The binder, intermediate and surface wearing courses are considered part of the pavement. The term has the same intent and meaning as "surface" or "surfacing".

PART 2 PRODUCTS

2.01 STABILIZED AGGREGATE BASE COARSE MATERIALS

- A. Base coarse shall be composed of coarse aggregate together with fine aggregate or binder material and water, which shall be mixed, compacted and primed.
- B. Material must come from a SCDOT approved pit unless otherwise specified on the plans or by the Engineer/Owner.

Percentage by Weight Passing

C. Stabilized aggregate base shall meet the composite mixture gradation:

1 1/2"	100
1"	
3/4"	65 - 100
1/2"	50 - 90
3/8"	45 - 70
No. 4	35 - 55
No. 30	17 - 38
No. 200 (liquid amount - 25 max.)	
(plasticity index - 6 max.)	6 - 15

The amount passing the number 200 shall be determined by the wash method.

D. Meet all requirements in the SCDOT standard specifications for highway construction, Section 305(2007Edition).

2.02 SUBGRADE PREPARATION

- A. Work shall consist of the removal of existing base courses and the construction and preparation of the subgrade on that part of the roadway intended to receive the pavement, sidewalks, curb, curb and gutter, base course, and shoulders.
- B. After all earthwork has been substantially completed and all drains and structures have been completed and backfilled, the subgrade, when compared to the satisfaction of the Engineer/Owner, shall conform to the lines and grades shown on the plans or as established by the Engineer/Owner.

PART III EXECUTION

3.01 INSPECTION

- A. Verify compacted subgrade is dry and ready to support a compacted base course.
- B. Verify compacted base course is dry and ready to support paving and imposed loads.
- C. Verify gradients and elevations of subgrade and base course respectively are correct before next stage of construction begins.
- D. Beginning of installation means acceptance of substrate.

3.02 SUBGRADE PREPARATION

- A. Remove existing base course; shape and compact subgrade.
- B. Prior to beginning paving work, inspect subgrade for loose or soft material, rock or organic matter. No stones over 2" in diameter will be allowed in to 6" of subgrade.
- C. Proof roll cut subgrade using loaded 20 ton dump truck or similar weight construction equipment to verify that subgrades are stable and to identify loose or soft areas requiring undercutting or stabilization.
- D. Stabilization of soft or unstable subgrades shall be accomplished to minimum depth of 8". Stabilizing aggregate shall be of type specified for base course aggregate unless otherwise shown on the plans or stated by the Engineer.

E. Verify elevations and cross sections of subgrade immediately prior to placing base course material.

3.03 BASE COURSE PREPARATION

- A. The base course shall be placed on the approved subgrade and uniformly spread.
- B. Shape base to provide thicknesses and widths shown on the plans.
- C. Care shall be taken to prevent segregation of the fine from the coarse aggregates during the handling, spreading or shaping of the materials. All areas of segregation shall be corrected.
- D. The base shall be consolidated by rolling until the base is thoroughly bonded and compacted to a minimum density of 100%.
- E. Apply primer over substrate at uniform rate of 1/3 gal/sq. yard.
- F. Apply primer in accordance with SCDOT's Standard Specifications.
- G. Use clean sand to blot excess primer.
- H. Apply primer to contact surfaces of curbs and gutters.
- I. Coat surfaces of manhole and catch basin frames with oil to prevent bond with asphalt paving.

3.04 TOLERANCES

- A. Compaction and Density Requirements:
 - 1. Base and sub-base: Compact to 100% and 98% respectively.
- B. Allowable Variation in Thickness:
 - 1. Base course: (+/-) 1/2".
- C. Surface Smoothness: Test finished surface of each course for smoothness using a 10' straight edge. Intervals of tests shall be as directed by the Engineer. Surfaces will not be acceptable if exceeding the following:
 - 1. Base course: 1/2" in 10'-0".

- 2. Surface (wearing) course: 1/4" in 10' 0".
- D. Laboratory shall test in place courses for compliance with specified density, thickness and surface smoothness.
- E. Contractor's duties relative to testing shall include:
 - 1. Coordinating with Engineer/Owner and laboratory for field testing.
 - 2. Paying costs for retesting where initial tests reveal Non-conformance with specified requirements.

3.05 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of Section 1400.

3.06 TRAFFIC CONTROL

- A. Comply with State Manual of Uniform Traffic Devices for Streets and Highways.
- B. Maintain vehicular and pedestrian traffic during placement operations as required for other construction activities. Flagmen may be required.
- C. Provide flagmen, barricades, warning signs and warning lights for movement of traffic and safety and to cause the least interruption of work.

3.07 CLEANING AND PROTECTION

A. At completion of each operation, remove excess or spilled materials from site.

END OF SECTION

SECTION 2500 – STORM DRAINAGE SYSTEMS

PART I GENERAL

1.01 SECTION INCLUDES

- A. Storm drainage piping, fittings and accessories.
- B. Catch basins, junction boxes and drop inlets.

1.02 REFERENCES

- A. ANSI/ASTM C76 Reinforced Concrete Culvert, Storm Drain and Sewer Pipe.
- B. American Association of State Highway and Transportation Officials Specification M-196.

1.03 RELATED SECTIONS

- A. Section 2200 Backfilling.
- B. Section 2300 Trenching.
- C. Section 3100 Concrete.

PART II PRODUCTS

2.01 DRAINAGE PIPE MATERIALS

A. Reinforced Concrete Pipe: ANSI/ASTM C76, Class III with concrete pipe; mesh reinforcement and inside nominal diameter as shown on plans.

2.02 CATCH BASINS, DROP INLETS, JUNCTION BOX FRAMES AND GRATES

- A. Basin Lid and Frame: Cast iron construction, as specified on the plans.
- B. Manhole castings shall be cast iron meeting ASTM Serial Designation A48-62, Class 30B. They shall be "Anti-Rattle" type.
- C. Shaft construction to be 8" concrete brick or reinforced precast concrete basin sections, lipped male/female dry joints; nominal size, 4 feet

square.

D. Base Pad: Cast-in-place 3000 psi concrete leveled top surface to receive concrete brick or pre-cast concrete section.

2.03 JUNCTION BOXES

- A. Lid and Frame: Cast iron construction, removable lid, nominal lid and frame diameter of 24 inches as shown on the plans.
- B. Shaft construction to be 8" concrete brick or reinforced precast concrete basin sections, lipped male/female dry joints; nominal size, 4 feet square unless shown otherwise on the plans.
- C. Base Pad: Cast-in-place 3000 psi concrete leveled top surface to receive concrete brick or pre-cast concrete section.
- D. Manholes used as junction boxes shall have the following diameters based upon the largest size pipe:

- E. For larger pipes, pre-cast manhole junction boxes must have prior approval of the Engineer.
- F. Pre-cast concrete manholes shall meet ASTM Specifications, Serial Designation C478-64T or latest revision and have "O" ring gasket joints meeting ASTM Specifications, Serial Designation D443-65 or latest revision.

2.04 BRICK

A. Brick shall meet ASTM Serial Designation C26 for common brick, Grade C.

2.05 CEMENT MORTAR JOINTS

- A. All concrete pipe shall be laid with cement mortar joints. The mortar mixture shall be one part Portland cement and two parts clean sand by volume.
- B. Only enough water shall be used to make a stiff, workable mortar and no more than 5.5 gallons of water per sack of cement shall be used.

2.06 CONCRETE MATERIALS

- A. Portland Cement shall conform to Section 3250 and the specifications of ASTM, Serial Designation C-150-62 or latest revision.
- B. Cement shall be stored in a weather-tight enclosure.
- C. Hydrated lime shall meet the specifications of ASTM, Serial Designation C207-49, or latest revision.
- D. Fine aggregate shall conform to the following ASTM Specifications, latest revisions: for concrete: Serial Designation C33-66T for masonry mortar: Serial Designation C144-62T
- E. Coarse aggregate for concrete shall consist of crushed granite conforming to the current ASTM Specifications C33. Aggregate shall be cleaned, hard and uncoated.
- F. Water for mortar and concrete must not be contaminated by salt, oil, acid or other material which may be harmful.

2.07 REINFORCING STEEL

- A. Reinforcing steel shall be of the lengths and sizes shown on the plans.
- B. Reinforcing steel shall be of approved deformed type and meet all requirements of ASTM Standard Specifications for new Billet Steel Reinforcement Bars, serial Designation A150-62T. Bars will be structural or intermediate grade open hearth steel.

2.08 BACKFILL MATERIALS

- A. Reused or imported subsoil as specified in Section 2200 and approved by the Engineer.
- B. Type C for any pipe crossing beneath roadways.
- C. Type C shall be utilized in areas of poor soil conditions as directed by the Engineer.

PART III EXECUTION

3.01 EXAMINATION

- A. Contractor shall notify Engineer/Owner so the trench cut or excavation base can be verified if it is ready to receive work and excavations, dimensions and elevations are as indicated on drawings.
- B. Beginning of installation means acceptance of existing conditions.

3.02 PREPARATION

- A. Hand trim excavations to required elevations. Correct over excavation with fill material of fine aggregate.
- B. Remove large stones or other hard matter which could damage drainage tile or impede consistent backfilling or compaction.

3.03 INSTALLATION - PIPE

- A. Lay pipe to slope gradients noted on drawings with maximum variation from true slope of 1/8 inch in 10 feet.
- B. Increase compaction of each successive lift. Do not displace or damage pipe when compacting.
- C. Storm drain pipe and appurtenant structures shall be installed in accordance with Section 2300 Trenching and Section 2200 Backfilling.
- D. All pipe shall be laid with the bells uphill.
- E. Clean the pipe ends and wet before the joint is made.
- F. Apply stiff mortar to the lower half of the bell of the pipe already laid and the upper half of the tongue of the pipe to be laid. The joint shall then be made and drawn tight. Use of an approved joint sealant may be substituted for mortar.
- G. Additional mortar shall be applied to the outside to fill any unfilled portion of the groove.
- H. Backfill shall be done so as not to disturb the mortar joints.
- I. Fill must be approved by the Engineer/Owner before placement.
- J. Spoil from the excavation may not be utilized at these locations unless specifically approved by the Engineer/Owner.

- K. In all locations where storm water drainage pipe crosses beneath roadways, select granular sand fill shall be used to backfill above the pipe.
- L. When completed, each pipe line shall show a neat circular bore when lamped.
- M. All perforated pipe shall be backfilled with select backfill material and compacted.
- N. Prior to placing perforated pipe and after the trench has been excavated an approved construction fabric will be placed in the trench and wrapped around the pipe, the perforated pipe placed, backfill over pipe with select material and compact.

3.04 INSTALLATION - CATCH BASINS, DROP INLETS AND JUNCTION BOXES

- A. Form bottom of excavation clean and smooth to correct elevation.
- B. Form and place cast-in-place concrete base pad with provision for storm sewer pipe end sections.
- C. Establish elevations and pipe inverts for inlets and outlets as indicated.
- D. Mount lid and frame level in grout, secured to top cone section to elevation indicated.
- E. Inverts shall be smooth with uniform slopes from invert to invert.
- F. Brick structures shall have every fifth course of brick laid as headers. Other courses shall be stretchers.
- G. All mortar joints shall be full.
- H. Inside mortar joints shall be rubbed full and struck.
- I. The outside of the brick work shall be covered with 0.5 inches of mortar.

3.05 FIELD QUALITY CONTROL

A. Testing shall be in accordance with Section 1400.

3.06 PROTECTION

- A. Protect pipe from damage or displacement until backfilling operation is in progress.
- B. Protect drainage piping and catch basins from siltation during construction by covering with filter fabric.

3.06 RELAID PIPE CULVERTS

- A. The work shall consist of carefully exposing, taking up, cleaning out and relaying the existing pipe sections to the lines and grades shown on the plans.
- B. Exercise care and use proper equipment in removing pipe. Pipe damaged through negligence, or improper handling, shall be replaced with new pipe at the contractor's expense.
- C. Pipe joint sealant shall be installed during assembly.

END OF SECTION

SECTION 2580 - PAVEMENT MARKINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Thermoplastic pavement markings.
- B. Latex pavement markings

1.02 RELATED SECTIONS

A. Section 2400 – Asphaltic Concrete Pavement

1.03 REFERENCES

- A. SCDOT Standard Specifications, 2007 Edition
 - Section 627 Thermoplastic Pavement Markings
 - Section 609 Temporary Pavement Markings
 - Section 625 Permanent Pavement Markings Fast Dry Waterborne Paint
- B. Federal Highway Administration Manual on Uniform Traffic Control Devices

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use only thermoplastic markings which are of the hot, machine applied type. Use Alkyd/Maleic thermoplastic that is on the approved product list of SCDOT.
- B. Ensure that the temporary paint complies with the Specifications that apply to permanent paint in Subsection 625.2.

PART 3 EXECUTION

3.01 PREPARATION

A. Sweep and clean surface to eliminate loose material and dust.

3.02 APPLICATION

- A. Apply the thermoplastic at the manufacture's recommended rate to achieve 90 mils for edge lines and center lines. Apply the temporary paint at the manufacture's recommended rate to achieve 15 mils wet.
- B. Do not apply pavement marking materials over longitudinal joints.
- C. Apply thermoplastic and temporary paint with mechanical equipment to produce uniform straight edges.
- D. Protect the thermoplastic and temporary paint from traffic until tack free.

END OF SECTION

SECTION 2600- SEEDING

(Revised 9-4-24)

PART I GENERAL

- 1.01 WORK INCLUDED
 - A. Preparation of soil
 - B. Fertilizing
 - C. Seeding
- 1.02 RELATED WORK
 - A. Section 2200 Backfilling
- 1.03 REFERENCES
 - A. SCDOT Standard Specifications for Highway Construction, 2007 Edition and latest Supplemental Technical Specifications
- 1.04 DEFINITIONS
 - A. Weeds: Includes Dandelion, Jimsonweed, Quack grass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel and Brome Grass
- 1.05 REGULATORY REQUIREMENTS
 - A. Seed and fertilizer shall conform to all State laws and the State Department of Agriculture regulations.
- 1.06 QUALITY ASSURANCE
 - A. Provide a vegetation plan for the Project Manager and/or Inspector's approval prior to any seeding activity. The plan shall include the results from soil samples, seed mixtures that will be used on site, type and rate of fertilizer and lime, biological growth stimulates, location and type of erosion control matting and hydraulically applied erosion control products. The seed mixture shall be in containers showing percentage of seed mix, year of production, net weight, date of packaging, origin, germination percentages and purity.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis and name of manufacturer.
 - i. Store seed and fertilizer in manner to prevent wetting and deterioration.

1.08 PROJECT CONDITIONS

- A. Protect existing utilities, paving, and other facilities from damage caused by seeding operations.
- B. Restrict traffic from lawn areas until grass is established. Erect signs and barriers as necessary.

1.09 SOIL ANALYSIS

- A. A soils analysis is required on all representative soil types for the specified vegetation species prior to agricultural granular lime and granular fertilizer applications. Representative soil types include existing predominate soils on project site, cut slopes, fill material, and areas of exposed subsoil.
- B. Collect one (1) sample for each distinguishable representative soil type. One (1) sample consist of mixing ten (10) sub-samples taken uniformly over each distinguishable representative soil types. Soil samples should be taken from stockpiles or existing shoulder where the material will be the top six (6) inches of the seed bed. Take each sub-sample within the top four (4) to six (6) inches of the soil surface.
- C. Submit a separate soil sample for each representative soil type to a SCDOT certified soil testing laboratory. At a minimum, a standard soil test includes pH, buffer pH, extractable phosphorus, potassium, lime requirements and recommendations, calculations for CEC (cation exchange capacity), and fertilizer requirements and recommendations.

PART II PRODUCTS

- 2.01 SEED MIXTURE APPLICATION RATE POUNDS PER ACRE SEEDING SCHEDULE FOR PERMANENT AND TEMPORARY VEGETATION
 - A. Permanent Seeding Refer to SC-M-810-4 (01/21) (See Specification in Appendix "A" Special Provisions/Supplemental Specifications.)
 - i. Omit the following: Bahiagrass, Weeping Lovegrass, and all Clover
 - B. Temporary Seeding Refer to SC-M-810-4 (01/21) (See Specification in Appendix "A" Special Provisions/Supplemental Specifications.)
 - i. Omit the following: Bahiagrass, Weeping Lovegrass, and all Clover
- 2.02 SOD
 - A. Type pre-approved in writing by Engineer and Owner
- 2.03 SOIL MATERIALS
 - A. Topsoil: Topsoil shall be placed on all road shoulders prior to seeding. Topsoil may be excavated from site or imported and shall be free of weeds and insect pests.

2.04 ACCESSORIES

- A. Fertilizer: FS O-F-241, Recommended for grass, with 50% of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil, to the following proportions: Nitrogen 10%, phosphoric acid 10%, soluble potash 10% or as directed by the Owner/Engineer. Use fertilizer that incorporates a minimum of 50% water insoluble (slow release) nitrogen.
- B. Water: Clean, fresh and free of substances or matter which could inhibit vigorous growth of grass.

C. Lime:

- i. Agricultural grade, standard ground limestone containing not less than 85% of total carbonates. Lime shall be ground such that at least 50% will pass through a 100-mesh sleeve and 90% will pass through a #20 sieve.
- Fast Acting Lime Liquid forms and/or dry forms that meet all of the requirements of agricultural grade and granular lime specified herein.

- D. Biological Growth Stimulants: Contains compounds such as humic acid (humates), cold water processed seaweed extract, cytokinin's, gibberellins, auxins (growth hormones), and endo-mycorrhizae that provide an immediate seedbed adjustment to help stimulate seed germination, improve the availability of nutrients to the grass, increase the number and depth of root development, and generate robust plant growth which is more tolerant of changes in environmental conditions.
- **E.** Erosion control matting shall be biodegradable.

PART III EXECUTION

3.01 PREPARATION

- A. All graded areas except those to be occupied by pavement, walks, buildings, gravel, rip-rap or other surface shall be grassed.
- B. All disturbed areas, which shall be undisturbed for fourteen (14) days or more, shall be grassed.
- C. The seed bed shall be of loose soil. If necessary, light tilling shall be done to break up crusts and provide enough loose soil to cover the seed.
- D. The topsoil shall be graded to the finished grades specified.
- E. Fertilizer and lime shall be uniformly distributed over the area in the quantities specified herein.
- F. During the grading operations, all stones, stakes, wires, etc. that may be a hindrance to mowing operations shall be removed. Grade to eliminate rough, low or soft areas, to ensure positive drainage and to create a smooth, even surface, free of stones larger than two (2) inches in any dimension, large clods, roots or other debris brought to the surface.
- G. Swale, ditch bottoms and slopes shall be seeded at double the normal application rate.
- H. Mulch shall be applied to all seeded areas within 24 hours after covering the seed.
- I. Contractor shall notify the Project Manager and/or Inspector upon completion of seedbed preparation. Notification shall be made 24 hours in advance of seeding to allow for inspection and approval of seedbed.

3.02 INSPECTION

A. Verify that prepared soil base is ready to receive the work of this section.

B. Beginning of authorized installation means acceptance of existing site conditions.

3.03 SEEDING

- A. Using the seed specified in the seeding tables in Section 2.01, Contractor will create a seeding plan and determine all rates of application necessary to produce the required stand of permanent grass.
- B. Seed areas within the contract limits and areas adjoining contract limits disturbed as a result of construction operations. Disturbed areas outside the R/W, such as lay down areas etc. will be seeded and paid for at the contractor's expense.
- C. Uniformly sow seed at the rate specified by the use of approved mechanical seed drills, rotary hand seeders, hydraulic equipment, or any other type equipment that produces a uniform seed application.
- D. On small areas inaccessible to machinery, the seed may be covered by hand rakes.

3.04 FERTILIZING AND LIMING

- A. Apply agricultural granular lime at a rate that is within +/-10% of the weight recommendation of the soil analysis. Thoroughly mix agricultural granular lime with the soil to a depth of approximately two (2) inches. Mixing is not required when spreading lime with hydraulic methods.
- B. Apply fast acting liquid lime at a rate of five (5) gallons per acre or per the manufacturer's recommendations. Apply fast acting dry lime at a rate of 100 pounds per acre or per the manufacturer's recommendations.
- C. Apply all fertilizer at a rate that is within +/-10% of the weight recommendation of the soil analysis. Apply fertilizer that is within +/-2 percentage points of the recommendation of the soil analysis. Fertilizer may be applied by approved mechanical spreaders or by hydraulic methods as a mixture of fertilizer and seed. When fertilizer is applied with combination seed and fertilizer drills, no further incorporation is necessary. Apply fertilizer and seed together when hydraulic methods of seeding are used.

3.05 HYDRAULICALLY – APPLIED ERISION CONTROL: HIGH PERFORMANCE – FLEXIBILE GROWTH MEDIUM (HP-FGM) – OR EQUAL

A. See Specification in Appendix "A" Special Provisions/Supplemental Specifications.

3.06 MAINTENANCE

- A. Maintain seeded areas until completion and acceptance of the areas by the Owner. Contractor shall be responsible for maintenance of seeded areas throughout the Warranty Period.
- B. Maintenance of seeded areas includes watering, mowing, repairing areas of erosion and washes, and applying additional seed, fertilizer, and mulch to areas where a satisfactory stand of grass has been achieved. Water seeded areas as necessary.

3.07 MOWING

- A. Mow shoulders and medians when vegetation reaches a height of approximately twelve (12) to fifteen (15) inches. Mowing is performed by the Contractor, where directed by the Project Manager and/or Inspector, and will commence within five (5) business days following verbal notification by the Project Manager and/or Inspector.
- B. Mowing shall be required a minimum of four (4) times with the Final mowing forty-five (45) days prior to the Warranty Expiration date. Contractor will be responsible for mowing through the Warranty period. Ensure that mowing results in a uniform vegetation height of four (4) to six (6) inches, unless otherwise directed by the Project Manager and/or Inspector.
- C. Remove litter and debris prior to beginning mowing operations. Immediately remove and properly dispose of all litter and debris resulting from mowing operations.
- D. Do not perform moving when soil and weather conditions are such that rutting or other damage to the project may occur.

3.08 ACCEPTANCE

- A. Before acceptance of permanent grassing, a uniform perennial vegetative cover with a density of 70% of each square yard of the seeded area is required by the Contractor.
- B. Contractor will be required to produce a satisfactory stand of perennial grass whose root system shall be developed sufficiently to survive dry periods and the winter weather and be capable of reestablishment in the spring.
- C. Upon acceptance, the Owner will assume all maintenance.

3.09 PAYMENT FOR PERMANENT COVER

- A. Payment for the accepted quantity, measured in accordance with this Specification, is determined using the Contract unit bid price for the applicable pay item for Permanent Cover. The payment includes all direct and indirect costs and expenses necessary to complete the work.
- B. Payment for Permanent Cover is full compensation for furnishing all materials, seed, fast acting lime, biological growth stimulants, labor, soil samples and analysis, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, Specifications, and other terms of the Contract. Payment is 100% of the Contract unit price for Permanent Cover upon installation meeting the requirements of Section 2600.
- C. If a satisfactory stand of perennial vegetative cover with a uniform density of 70% of the seeded area is not achieved within forty-five (45) days of sowing the permanent seed, the seeded area will be re-assessed by the Project Manager and/or Inspector. If re-seeding is necessary, the Contractor is required to reapply Permanent Cover within five (5) business days at no additional cost to the County.

3.10 PAYMENT FOR TEMPORARY COVER

- A. Payment for the accepted quantity, measured in accordance with this Specification, is determined using the Contract unit bid price for the applicable pay item for Temporary Cover. The payment includes all direct and indirect costs and expenses necessary to complete the work.
- B. Payment for Temporary Cover is full compensation for furnishing all materials, seed, fast acting lime, biological growth stimulants, labor, soil samples and analysis, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, Specifications, and other terms of the Contract. Payment is 100% of the Contract unit price for Temporary Cover upon installation meeting the requirements of Section 2600.
- C. If a satisfactory stand of temporary vegetative cover with a uniform density of 70% of the seeded area is not achieved within fourteen (14) days of sowing the temporary seed, the seeded area will be re-assessed by the Project Manager and/or Inspector. If re-seeding is necessary, the Contractor is required to reapply Temporary Cover within five (5) business days at no additional cost to the County.

3.11 WARRANTY

A. Provide a uniform stand of grass by mowing and maintaining seeded areas until final acceptance at conclusion of Warranty period. Areas which fail to

provide a uniform stand of grass shall be re-seeded with specified materials until all affected areas are accepted by the Owner.

END OF SECTION

SECTION 2401 SPECIFICATIONS FOR HOT MIX ASPHALT

SPECIFICATIONS FOR HOT MIX ASPHALT TYPE C – SURFACE, TYPE C – INTERMEDIATE, TYPE D – SURFACE, TYPE B SURFACE, TYPE B – INTERMEDIATE

- 1. All HMA pavement mixes provided under this contract shall meet South Carolina Department of Transportation specifications.
- 2. All HMA shall be an approved mix by South Carolina Department of Transportation.
- 3. Bids shall include all costs for all the above based on the Contractor's hauling and delivery of material, placement, spreading, and compaction of the Hot Mix Asphalt to SCDOT's specifications. (This is to be included in the closest related unit price listed on the bid schedule.)
- 4. Unit prices shall include all costs for providing all personnel to perform these operations. To determine the adjusted unit prices for payment for all asphalt items on the bid schedule where the quantity is given in tons, monthly adjustments (on the 1st of each month) will be made to the bid unit prices based on the SCDOT Monthly Asphalt Price Index.
- 5. Contractor shall be responsible for traffic control during all operation, including possible required nighttime work. This shall include any/all items necessary (signs, flags, barrels, cones, light plants, etc.) to provide proper flagging operations, temporary lane closures, and etc. All signs shall be new or like new signs and shall be properly installed and maintained according to SCDOT Standard Drawings Section 610-000. (Traffic Control is to be included in the closest related unit price listed in the bid schedule)
- 6. All weight tickets will be carbon copy and provided to County personnel as each truck delivers the material to the site. Weight tickets will be signed by an inspector or a designated representative of Horry County.
- 7. The Contractor shall furnish Horry County with daily test results of asphalt used on each road project for the duration of the work performed on each project. Horry County, as desired, will also have asphalt tested by a certified laboratory at Horry County's expense on road projects. Horry County will furnish inspection personnel at road sites to check for thickness, width and quality of asphalt paving. No work shall be performed without a designated county representative on site.

- 8. Any material delivered by the CONTRACTOR, which does not meet the specifications, may be rejected prior to placement. Any material placed which does not meet the specifications may be required to be removed and replaced at the CONTRACTOR'S expense.
- 9. Subcontractors must be approved in writing by the County prior to the commencement of work by the subcontractor.
- 10. Contractor shall sweep/clean/remove/haul off any debris or other, as required by the county. It shall be the Contractor's responsibility to keep the site neat and clean as construction continues. All rubbish, waste materials, and unnecessary construction equipment shall be removed from the site except as otherwise specified. All construction shall be accomplished so that the public and adjacent property owners will be inconvenienced as little as possible. Contractor shall be responsible for the repair of damage to public and other private lands that resulted from site construction the County, off driveways caused by brooming or placement of Hot Mix Asphalt.
- 11. The Contractor shall arrange to protect all utility facilities above and below ground or other utility properties from damage before commencing work. THE CONTRACTOR WILL, AT ITS OWN EXPENSE, MAKE GOOD ANY DIRECT OR INDIRECT DAMAGE THAT SHALL BE DONE IN THE COURSE OF CONSTRUCTION TO ANY UTILITY STRUCTURE, OTHER INSTALLATION OF PROPERTY THROUGH OR BY REASON OF THE PROSECUTION OF THIS WORK. THE LIABILITY OF THE CONTRACTOR UNDER THIS COVENANT IS ABSOLUTE AND IS NOT DEPENDENT UPON ANY QUESTION OF NEGLIGENCE ON ITS PART OR ON THE PART OF ITS AGENT'S SERVANTS, EMPLOYEES, OR SUBCONTRACTORS, AND THE NEGLECT OF THE COUNTY TO DIRECT THE CONTRACTOR TO TAKE ANY PARTICULAR PRECAUTION OR TO REFRAIN FROM DOING ANY PARTICULAR THING SHALL NOT EXCUSE THE CONTRACTOR IN CASE OF ANY SUCH DAMAGE. Please refer to SCDOT Standard Specification for Highway Construction, Edition 2007, subsection 107.00.
- 12. Water valves and sewer manholes shall be adjusted by the Contractor (raised or lowered) to match the roadway or sidewalk profile. No additional payment will be made for adjusting water valves or sewer manholes. The Work shall be considered incidental and shall include all workmanship and materials necessary to complete this item.
- 13. The temperature for the placement of all Hot Mix Asphalt shall be 45° and rising unless otherwise instructed by County representative.
- 14. The pavement striping price shall include the layout, as required by the County.

SECTION 2402

SUPPLEMENTARY BID SCHEDULE ITEM SPECIFICATIONS SUPPLEMENTARY BID ITEM SPECIFICATIONS

All work must meet, or exceed, SCDOT's minimum requirements and specifications

To determine the adjusted unit prices for payment for all asphalt items on the bid schedule where the quantity is given in tons, monthly adjustments (on the 1st of each month) will be made to the bid unit prices based on the SCDOT Monthly Asphalt Price Index. (If Applicable)

- 1. **Traffic Control and Mobilization** Contractor is responsible to perform traffic control in accordance with SCDOT specifications associated with SCDOT Manual on Uniform Traffic Control Devices for Streets and Highways
- 2. Clearing/Grubing within R/W The clearing area will be from Hwy 501 to the Canal Ditch on both sides of the road to the right of way. Remove all trees inside 80' R/W. See Attached Specifications.
- 3. **Regrade** / **Relocate Roadside Ditches** Ditches shall be graded to where no water is holding and minimize material excavated to achieve positive drainage.
- 4. **Unclassified Excavation** Excavate the widened portions of the project from Hwy 501 to the Canal Ditch (new 3rd lane). All excavated portion must be smooth and compacted prior to the placement of GABC.
- 5. Graded Aggregate Base Course 8" Uniform (Include Fine Grading) Graded Aggregate Base Course must meet SCDOT Gradation and Compaction Standards. Will be placed in widen sections of the project from Hwy 501 to the Canal Ditch. Proof roll must also be completed prior to the placement of GABC. Include all grading, compaction and etc. necessary to get GABC ready for asphalt pavements.
- 6. **2" SCDOT HMA Type C Intermediate Course** Shall be installed on widen portions of the project and be installed in accordance with SCDOT standards. Mix designs must be SCDOT approved mixes and submitted for approval by HCG Engineering staff.
- 7. **15" RC Pipe Cul. Class III-** All reinforced concrete pipe must be approved on the qualified product list & be installed in accordance with SCDOT standards. Once installed 100% of pipe will be inspected by camera. Adjust location of drainage pipe to minimize impact to utilities.

- 8. **18" RC Pipe Cul. Class III** All reinforced concrete pipe must be approved on the qualified product list & be installed in accordance with SCDOT standards. Once installed 100% of pipe will be inspected by camera. Adjust location of drainage pipe to minimize impact to utilities.
- 9. Variable Milling Existing asphalt surface to be milled prior to resurfacing. Bid Quantity is based on 2" 3" inches deep; price shall be prorated if a different depth more than 3" is actually milled. Millings shall remain the property of the County. Milled material to be hauled by contractor to 4401 Privetts Road, unless a closer disposal site is requested by the county. During any asphalt milling operation, the Contractor shall ensure that all drainage structures within the work zone are protected from the intrusion of the asphalt millings. All storm drainage inlets shall be temporarily covered by the use of non-woven fabric, inlet structure filters, or any other method approved by the County. Additionally, as part of the milling operation the Contractor shall clean the site each day, all millings shall be removed from the work zone by any method necessary to ensure that the drainage structures, road surface, shoulders, curb and gutter, sidewalk, and any other appurtenances are clear of any millings to the satisfaction of the County. If the storm drainage system is found to have been contaminated by asphalt millings, the Contractor shall utilize a Jet-Vac or comparable equipment to clean the drainage system at no cost to the County.
- 10. Full Depth Patching with 8" SCDOT Intermediate C prior to resurfacing Sawcut joints, remove existing asphalt, remove existing base, place and compact binder. All edges of the sawcut joints shall be tacked prior to placement of Hot Mix Asphalt. Material removed shall be hauled and properly disposed of by contractor. Binder shall be installed in lifts not exceeding 4".
- 11. **2' Widening (8" SCDOT Intermediate C)** Shall be installed in accordance with SCDOT standards. Installed along the 2-lane section of the project. Compaction of the 2' widening must be done with appropriate equipment.
- 12. 2" SCDOT HMA SCDOT Surface C Course See specifications.
- 13. **Import Fill to Restore Grass Shoulders Back Up Shoulders -** Place imported fill that meets county approval along the new pavement and tie to existing shoulders. These areas are typically 2" 3" deep and 3' 4' wide. These areas shall be rolled, graded, raked and ready to be seeded (**NO BEACH SAND**).
- 14. **Pavement Markings** Pavement markings must be replaced at the end of the day if removed, for striping notes see attached sketch. All Fast Dry Paint, Thermoplastics &

- Pavement Markers materials must be on SCDOT QPL and installed in accordance with SCDOT standards. See bid tab for specific thickness (mils) for Thermoplastic.
- 15. **Permanent Signage (Stop, Speed, Etc.)** All signs must meet or exceed SCDOT standards, location of signs will be determined by HCG staff.
- 16. **Sediment and Erosion Control** Keep jobsite in compliance with SC DHEC, SCDOT standards. Contractor shall install rain gauge in area free of overhead obstructions and have CEPSCI certified person for inspection.
- 17. Construction Staking / Surveying See "Comments to the Project"
- 18. **Shoulder Clipping** Clip shoulders back on existing roadway to expose EOP prior to any milling and/or widening. All excess material must be removed and disposed.
- 19. **Permanent Vegetation** See seeding specifications and special provisions.
- 20. Muck and Replace Unsuitable Material w/ 12" Graded Aggregate Base Course Locations will be determined by County Engineer. Muck excavation will include replacement with 12" Graded Aggregate Base Course as directed by the Engineer. Payment is inclusive of all material and tasks associated with the removal and disposal of unsuitable subgrade at a depth of 12" as well as the placement of suitable graded aggregate base course in the excavated area. The quantity for the pay item *Muck and Replace Unsuitable W/12*" Graded Aggregate Base Course is paid on a square yardage (SY) basis.
- 21. **Removal of Existing RCP** Remove existing RCP and compact back in lifts not exceeding 12". Each lift must be compacted back to 95% maximum density. Backfill material must meet SCDOT standards for fill material.

APPENDIX "A"

SPECIAL PROVISIONS / SUPPLEMENTAL SPECIFICATIONS

Unless otherwise stated in contract documents, all specifications will adhere to the 2007 SCDOT's "Standard Specifications for Highway Construction"

A. MOVING ITEMS:

Moving items will include the removal and replacement of posts, signs, fences, landscaping, and incidentals within the proposed easement and as directed by the Engineer.

B. <u>SUPPLEMENTAL SPECIFICATIONS:</u>

- Measurement and Payment for Pipe Installation: Quantity of the pipe is measured by LF of pipe that has been installed and accepted. Payment per contract unit price to include all labor and materials associated with the excavation, installation, approved backfill and all other costs that are considered incidental to installation of the pipe.
- Muck and Replace Unsuitable Material W/12" Graded Aggregate Base Course:

Muck excavation will include replacement with 12" Graded Aggregate Base Course as directed by the Engineer. Payment is inclusive of all material and tasks associated with the removal and disposal of unsuitable subgrade at a depth of 12" as well as the placement of suitable graded aggregate base course in the excavated area. The quantity for the pay item *Muck and Replace Unsuitable W/12" Graded Aggregate Base Course* is paid on a square yardage (SY) basis.

 Subgrade Work: Subgrade work will be in accordance with SCDOT Standard Specifications- Section 208. Subgrade work will not be measured for direct payment. Payment for this work will be considered as included and paid for in the various pay items of the contract.

• Permanent Vegetation Note:

Seeding Special Provision: The unit price for *Permanent Vegetation* should be inclusive of all items necessary to prepare the soil, apply seeding, fertilizing, watering, and mowing for the project. All the work should be done in compliance with the Seeding Specifications of Division 03 Section 2600 of this Bid Document as well as SCDOT 2007 Standard Specifications. The bid price for the *Permanent Vegetation* should also include mowing as

needed during construction and up to four times during the one-year warranty period that starts when the project is accepted by HCG.

See included Specification for Flexterra HP-FGM (Flexterra) as a separate downloadable file in BidNet. Flexterra is the preferred seeding option. If any other seed is to be used, the Contractor shall request permission from the RCE prior to its use.

• Permanent Signage:

The pay item *Permanent Signage* consist of all equipment, materials, and personnel necessary to identify existing permanent road signs that meet the requirements to be relocated, and the work necessary to relocate them. Also included is the effort for the removal and disposal of the existing signs.

Requirements:

- The contractor shall be responsible for ensuring that all existing signs being relocated are not damaged to a point where the information conveyed to the driver is corrupted and can still safely provide information to the driver.
- All relocated existing signs shall be placed in accordance with the MUTCD and SCDOT Standard Drawings.
- All signs should be installed as soon as construction phasing allows to ensure the safety of the driver and will not cause confusion to the driver.

The quantity for the pay item *Permanent Signage* is based on each (EA) existing sign relocated. Payment for *Permanent Signage* is full compensation for all work necessary including post and break away.