

**PROJECT MANUAL
FOR
INDIAN HUT ROAD / AMOS ROAD
EXTENSION PAVING IMPROVEMENTS**

No. 20-062



**GEORGETOWN COUNTY,
SOUTH CAROLINA**

VOLUME I

DIVISION 0 – BIDDING AND CONTRACT DOCUMENTS

DIVISION 1 – GENERAL REQUIREMENTS

**PREPARED BY:
GEORGETOWN COUNTY
DEPARTMENT OF PUBLIC SERVICES
CAPITAL PROJECTS DIVISION**

&

DENNIS
CORPORATION

**1800 Huger Street
Charleston, SC 29201
803-252-0991**

Issue Date: 12/30/2020

VOLUME I PROJECT MANUAL

DATE: 12/30/2020

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SECTION 00010

REQUEST FOR PROPOSALS

Time Line: Invitation for Bid #20-062

| Item | Date | Time | Location* |
|-------------------------------------|--------------------------|-----------|-----------|
| Advertised Date of Issue: | Wednesday, Dec. 30, 2020 | n/a | n/a |
| VOLUNTARY: On Own | n/a | n/a | n/a |
| Inquiry Cut-Off Time: | Wednesday, Jan. 13, 2021 | 3:00PM ET | Suite 239 |
| Bids Must be Received on/or Before: | Wednesday, Jan. 20, 2021 | 3:00PM ET | Suite 239 |
| Public Bid Opening & Tabulation: | Wednesday, Jan. 20, 2021 | 3:00PM ET | Suite 239 |
| County Council Award Consideration | Tuesday, Feb. 09, 2021 | 5:30PM ET | TBD |
| Earliest Possible Notice to Proceed | Monday, Feb. 22, 2021 | n/a | n/a |

*Due to the current COVID-19 situation, County offices at the time of this bid posting remain open but access to the public may be limited to support social distancing efforts. At the time of this posting, bid openings are being performed virtually and may occur from an alternate secure and/or remote location as needed. A virtual meeting link will be posted under the bid number before the bid opening time so that members of the public may attend the meeting virtually

**INDIAN HUT ROAD / AMOS ROAD EXTENSION PAVING IMPROVEMENTS
GEORGETOWN COUNTY, SOUTH CAROLINA
Bid #20-062**

Written, sealed proposals for **Indian Hut Road / Amos Road Extension Paving Improvements** will be received by the Purchasing Office, 2nd floor, Suite 239, 129 Screven St., Georgetown, SC 29440 until cut-off time shown in the Bid Time Line above through the Purchasing Department's Vendor Registry webpage. Please click on the following link <http://www.georgetowncountysc.org/purchasing/default.html> for instructions on how to submit bids electronically through this system. As always, emailed/faxed bids will not be accepted. Your bid must be submitted electronically through Georgetown County's Purchasing Vendor Registry page to ensure it remains sealed until the scheduled bid opening date and time.

Any scheduled bid openings will still be opened at the designated date and time as listed in the bid document or related addendum. However, at the time of this bid issuance these bid openings will be conducted virtually. As always, bid openings will be accompanied by at least one witness and bid tabulation results will be posted online for the public's viewing after the bid opening.

MAILING ADDRESS:

County of Georgetown
Post Office Drawer 421270
Georgetown SC 29442-4200
Attn: Purchasing

STREET ADDRESS:

Georgetown County Courthouse
129 Screven Street, Suite 239
Georgetown SC 29440-3641
Attn: Purchasing

This project may consist of, but not be limited to, paving approximately 2.3 miles of existing unpaved contiguous portions of Indian Hut Road and Amos Road. The project will provide two 12' travel lanes with 2' paved shoulders and 3' grassed shoulders. The project will also include related storm drainage improvements and striping. The work performed under this Contract shall include, but may not be limited to: the furnishing of all labor, materials, equipment and services, whether specifically mentioned or not, that is required to complete the Construction of the Work of the project. All requirements of the State of South Carolina and all pertinent administrative regulations shall apply to this project as if herein written out in full.

Each proposer shall respond as provided more specifically herein, Section 00100, Instructions to Bidders, Paragraph IV Preparation and Submission of Bids. Proposals or amendments to proposals received after the proposal deadline will be considered as "Late Proposals" and will not be considered for any cause whatsoever. The Respondent shall sign his / her proposal correctly. All offers shall be entered in ink or typewritten. Proposals may be rejected if any omissions, alteration of form, additions not called for, or any irregularities of any kind are shown. Proposal envelopes or containers with amendments or changes written on the exterior will not be considered or opened. Respondents and their authorized representatives are invited to be present at the proposal opening.

The Construction Contract will be awarded to the firm or team of firms submitting the lowest and most responsive and responsible proposal as determined by the County. Georgetown County reserves the right to reject any and all proposals for any reason at any time prior to execution of the Contract. It further reserves the right to waive any and all technicalities and formalities in the proposal process as well as accept in whole or in part such proposal or proposals where it deems it advisable in protection of the best interests of the County and to hold all proposals for examination for a period not to exceed ninety (90) calendar days. The selected Contractor is encouraged to utilize, to the extent possible, local firms and trades from within Georgetown County.

Bid Security/Bid Bonding:

- a) Each bid must be accompanied by a Bid Bond, or by a certified check payable to Georgetown County, SC, for an amount equal to five per-cent (5%) of the total base bid as a guarantee that if the bid is accepted, the required Contract will be executed within fifteen (15) days after receipt of written notice of formal award of Contract. Bids not including such a bid bond will not be considered. Bid Bonds will be returned to unsuccessful vendors after award of Bid. **For COVID-19 compliance, a digital scan of the Bid Bond will be accepted as part of the on-line submittal process.**
- b) The successful proposer must provide a Performance Bond from a surety company qualified to do business under the laws of the State of South Carolina in the amount of 100 percent (100%) of the contract amount, within fifteen (15) days the after receipt of written notice of formal award of the Contract.
- c) The successful offeror must provide a Payment and Material Bond from a surety company qualified to do business under the laws of the State of South Carolina in the amount of 100 percent (100%) of the contract amount, within fifteen (15) days after receipt of written notice of formal award of Contract.
- d) Should any Surety on the Construction Contract be determined unsatisfactory at any time by the Owner, notice will be given the Contractor who shall immediately provide a new Surety, satisfactory to the Owner and at no additional cost to the Owner. The Contract shall not be operative nor will any payments be due or paid until approval of the bonds has been made by the Owner.
- e) The Bidder shall require the Attorney-in-Fact who executes the required bonds, on behalf of the Surety, to affix thereto a certified and current copy of his Power of Attorney, indicating the monetary limit of such power.
- f) The cost of the bonds shall be included in the construction portion of the base bid.

Throughout this Project Manual all references to the "Owner" shall mean the County of Georgetown, SC or its Designated Representative.

Construction Contract Documents, including Bidding and Contract Documents, General Requirements, Plans and Technical Specifications may be viewed and downloaded on line at the Vendor Registry™ website www.georgetowncountysc.org, select "Purchasing" and then "Current Bids".

END OF SECTION 00010



SECTION 00100
INSTRUCTIONS TO BIDDERS/PROPOSERS
Bid #20-062

1. **IMPORTANT COVID-19 NOTICE:** Until further notice all bids MUST BE submitted electronically through the Purchasing Department's Vendor Registry webpage. Please click on the following link <http://www.georgetowncountysc.org/purchasing/default.html> for instructions on how to submit bids electronically through this system. As always, emailed/faxed bids will not be accepted. Your bid must be submitted electronically through Georgetown County's Purchasing Vendor Registry page to ensure it remains sealed until the scheduled bid opening date and time.

Any scheduled bid openings will still be opened at the designated date and time as listed in the bid document or related addendum. However, at the time of this bid issuance these bid openings will be conducted virtually. As always, bid openings will be accompanied by at least one witness and bid tabulation results will be posted online for the public's viewing after the bid opening.

2. **Inclement Weather/Closure of County Courthouse**
If the County Courthouse is closed for business at the time scheduled for bid opening, for whatever reason, sealed bids will be accepted and opened on the next scheduled business day, at the originally scheduled time.
3. This solicitation does not commit Georgetown County to award a contract, to pay any cost incurred in the preparation of the bid, or to procure or contract for goods or services. It is the responsibility of each bidder to see that the Georgetown County Purchasing Office receives bids on, or before, the date and time specified for the bid opening. No bid will be accepted thereafter. The County assumes no responsibility for delivery of bids that are mailed. Georgetown County reserves the right to reject any or all bids and to waive any informalities and technicalities in the bid process.
4. Bidders shall be licensed as a General Contractor in the State of South Carolina and will hold all Trade Contracts and the Building Permit on the Project.
5. Trade Contractors (Prime and sub-contractors) shall be qualified to perform the work contracted for and shall be licensed as such in the State of South Carolina.
6. Design services shall be performed by qualified architects and engineers licensed to perform the contracted work in the State of South Carolina.
7. **No Bidder may submit more than one bid.** Multiple bids for different manufacturers but represented by the same firm will not be accepted. Bids offered directly from manufacturers shall indicate if a local dealer/representative will be involved.
8. **Definitions:**
 - a) The terms "Proposer", "Offeror", or "Bidder" refer to those parties who are submitting sealed responses for the work set forth in this document to the OWNER, as distinct from a sub-bidder who provides a bid to the Bidder. The term "Contractor" refers to the successful Bidder.
 - b) The term "**Paving Improvements**" or "**Project**" refers to the **complete set of services** as specified in this document, in every aspect.
 - c) The terms "Owner" and "County" refer to the County of Georgetown, South Carolina.
 - d) Where the words "shall" or "must" are used, it signifies an absolute minimum function or capacity that, if not satisfied, may result in disqualification.

- e) Where the words “should”, “may”, or “is desirable” are used, it signifies desirable, but not mandatory functions or capacities. Bidders who are able to provide these functions or capacities may be evaluated more favorably than those who cannot.

9. SITE INSPECTION:

- a) The bidder is expected to have become familiar with and take into consideration, site conditions which may affect the work and to check all dimensions at the site.
- b) Each bidder shall acquaint themselves thoroughly as to the character and nature of the work to be done. Each bidder furthermore shall make a careful examination of the site of the work and inform themselves fully as to the difficulties to be encountered in performance of the work, the facilities for delivering, storing and placing materials and equipment and other conditions relating to construction and labor.
- c) The bidder shall examine the premises and the site and compare them with any applicable drawings and specifications. (S)he shall familiarize themselves with the existing conditions such as obstructive area levels and any problems related to erecting the required systems.
- d) No plea of ignorance of conditions that exist or may hereafter exist on the site of the work, or difficulties that may be encountered in the execution of the work, as a result of failure to make necessary investigations and examinations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill in every detail all the requirements of the contract documents and to complete the work for the consideration set forth therein, or as a basis for any claim whatsoever.
- e) Insofar as possible, the Contractor, in carrying out his/her work, must employ such methods or means as will not cause interruption of or interference with the work of any other Contractor, or County personnel at the site.
- f) When boring data is provided by the Owner, the Bidder shall assume responsibility for any conclusions he/she may draw from such data. (S)he may employ his/her own consultants to analyze available information and shall be responsible for any conclusions drawn from that information. The cost of such employment shall be borne solely by the Bidder.

10. Correction or Withdrawal of Bids; Cancellation of Awards

An offeror must submit in writing a request to either correct or withdraw a bid to the Procurement Officer. Each written request must document the fact that the offeror’s mistake is clearly an error that will cause him substantial loss.

- a) Correction of awards : An offeror shall not be permitted to correct a bid mistake after bid opening that would cause such offeror to have the low bid unless the mistake in the judgment of the Procurement Officer is clearly evident from examining the bid document; for example, extension of unit prices or errors in addition.
- b) Cancellation of awards prior to performance: When it is determined after an award has been issued but before performance has begun that Georgetown County’s requirements for the goods or services have changed or have not been met, the award or contract may be canceled and either reawarded or a new solicitation issued.

11. Faxed or E-mailed bids will not be accepted by Georgetown County.

12. If you need any reasonable accommodation for any type of disability in order to participate in this procurement, please contact the purchasing office as soon as possible.
13. Any deviations from the specifications or modification of this bid and any extra or incidental work or reductions in work shall be set forth in writing and signed by both parties prior to making such change. Any increase or decrease in the bid price resulting from such change shall be included in writing.
14. Exceptions: The bidder shall list on a separate sheet of paper any variations from, or exceptions to, the conditions and specifications of this bid. This sheet shall be labeled "Exception(s) to Bid Conditions and Specifications," and shall be attached to the bid. When Proposers find instances where they must take exception with certain requirements or specifications of the bid, all exceptions shall be clearly identified. Written explanations shall include the scope of the exceptions, the ramifications of the exceptions for the County of Georgetown, and a description of the advantage to be gained or disadvantages to be incurred by the County as a result of these exceptions.
15. The County reserves the right to reject any or all bids, waive any informality in bids and accept in whole or in part such bid or bids as may be deemed in the best interest of the County. Georgetown County reserves the right to reject any bid submitted, at sole option that the vendor may not be able to meet the service requirements of the bid.
16. Publicity releases: contractor agrees not to refer to award of any resulting contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by the user.
17. Material Safety Data Sheets: The County of Georgetown will not receive any materials, products, or chemicals which may be hazardous to an employee's health unless accompanied by a Material Data Sheet when received.
18. Ownership of Copyright: All right, title and interest in all copyrightable materials which vendor shall create in the performance of its obligations hereunder shall be the property of the procurer. Vendor agrees to assign and hereby does assign any and all interest it has in and to such material to procurer. Vendor agrees, upon the request of procurer to execute all papers and perform all other such acts necessary to assist procurer to obtain and register copyrights on such materials. Where applicable, works of authorship created by the vendor in the performance of its obligations hereunder, shall be considered "works for hire" as defined in the U.S. Copyright Act.
19. Ownership of Documents: Any reports, studies, photographs, negatives or other documents prepared by vendor in the performance of its obligations shall be the exclusive property of the procurer and all such material shall be remitted to the procurer by the vendor upon completion, termination or cancellation of this order. Vendor shall not use, willingly allow or cause to have such material used for any purpose other than performance of its obligations under this order without the prior written consent of the procurer.
20. Affirmative Action: The contractor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of age, race, color, religion, sex, national origin or physical handicap. The following are incorporated herein by reference: 41 C.F.R. 60-1.4, 60-250.4 and 60-741.4.
21. Contract Work Hours and Safety Standard Act Requirements: The contractor must include a provision for compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USC 327-330) as supplemented by the Department of Labor regulations (29 CFR Part 5). Under Section 103 of the Act, each Contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate not less than one times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to health and safety as determined under construction, safety and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchases of supplies, materials, or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

22. CERTIFICATION REGARDING DRUG-FREE WORKPLACE:

The contractor certifies that the vendor(s) will provide a “drug-free workplace” as that term is defined in Section 44-107-30 of the Code of Laws of South Carolina, 1976, as amended, by the complying with the requirements set forth in title 44, Chapter 107.

23. Certification of Non-Segregated Facilities

The federally-assisted construction contractor certifies that he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that he will retain such certifications in his files.

24. ILLEGAL IMMIGRATION: Construction

By signing its bid or proposal, Contractor certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)

25. Bidders must clearly mark as "confidential" each part of their bid which they consider to be proprietary information that could be exempt from disclosure under section 30-4-40, Code of Laws of South Carolina 1976, as amended (Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in section 30-4-40. The County reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the County or its agents for its determination in this regard.

26. Nothing herein is intended to exclude any responsible vendor, his product or service or in any way restrain or restrict competition. On the contrary, all responsible vendors are encouraged to bid and their bids are solicited.

27. Acknowledgement of Addenda

Each contractor is responsible to verify the number of total addenda issued prior to bid. **Failure to acknowledge all addenda shall disqualify the bidder.** All addenda are posted by the County at the website located at www.georgetowncountysc.org, select “Purchasing” and “Current Bids”. It is each proposer’s responsibility to verify that all addenda have been received and acknowledged.

28. Form and Style of Bids

- a) Bids in the form of sealed proposals for the Construction of the Project will be received until the time and the date stated in Section 00010, Notice to Bidders.
- b) The Bid shall be submitted on the Bid Form provided; no other form is acceptable.
- c) The successful Bidder will be required to provide verified breakdown of costs of all services and work in a manner acceptable to the Owner.
- d) All blanks on the Bid Form shall be filled in legibly. The person signing the bid shall initial all corrections or erasures.
- e) Where so indicated on the Bid Form, the Bid Sum shall be expressed in both words and figures; in case of a discrepancy between the two, the Sums expressed in words shall govern.
- f) Bid unit price on quantity specified -- extend and show total. In case of errors in extension, unit prices shall govern.
- g) Bidder shall quote all Alternates in the Bidding Documents. If Bidder fails to bid on all Alternates, then his/her Bid may be considered irregular, non-responsive and may be disqualified.
- h) Bids containing qualifications will be considered irregular, non-responsive and may be disqualified.
- i) A Bid Form submitted by a partnership shall list the names of all partners and shall be signed in the partnership name by one of the members of the partnership who is authorized to sign for the partnership.
- j) A Bid Form submitted by a corporation shall be executed in the legal name of the corporation, followed by the state of incorporation and signed by the President or Vice President or other authorized officer. The name of each person signing the Bid Form shall be typed or printed below the signature.
- k) When the person signing for a corporation is other than the President or Vice President and when requested by the Owner, a resolution or other satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished for the Owner's records. The name of each person signing the Bid Form shall be typed or printed below the signature.

29. Request for Information or Clarification:

To ensure a fair review and selection process, firms submitting proposals are prohibited from contacting any other staff or Council members regarding the content, timing or scope of these proposals.

All questions or requests for information should be directed, in writing, prior to the deadline shown in the timeline of this solicitation to:

Nancy Silver, Purchasing Officer

Fax: (843) 545-3500

Email: purch@gtcounty.org

30. Insurance

The successful bidder shall procure, maintain, and provide proof of, insurance coverage for injuries to persons and/or property damage as may arise from or in conjunction with, the work performed on behalf of the County by the bidder, his agents, representatives, employees or subcontractors. Proof of coverage as contained herein shall be submitted fifteen (15) days prior to the commencement of work and such coverage shall be maintained by the bidder for the duration of the contract period; for occurrence policies.

a. General Liability

Coverage shall be as broad as: Comprehensive General Liability endorsed to include Broad Form, Commercial General Liability form including Products/Completed Operations.

1. Minimum Limits

General Liability:

- \$1,000,000 General Aggregate Limit
- \$1,000,000 Products & Completed Operations
- \$1,000,000 Personal and Advertising Injury
- \$1,000,000 Each Occurrence Limit
- \$50,000 Fire Damage Limit
- \$5,000 Medical Expense Limit

b. Automobile Liability

Coverage sufficient to cover all vehicles owned, used, or hired by the bidder, his agents, representatives, employees or subcontractors.

1. Minimum Limits

Automobile Liability:

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

c. Workers' Compensation

Limits as required by the Workers' Compensation Act of SC. Employers Liability, \$1,000,000.

d. Owners' & Contractors' Protective Liability

Policy will be in name of County. Minimum limits required are \$1,000,000.

e. Professional Liability

Minimum limits are \$1,000,000 per occurrence.

f. Coverage Provisions

1. All deductibles or self-insured retention shall appear on the certificate(s).
2. The County of Georgetown, its officers/ officials, employees, agents and volunteers shall be added as "additional insured" as their interests may appear. This provision does not apply to Professional Liability or Workers' Compensation/Employers' Liability.
3. The offeror's insurance shall be primary over any applicable insurance or self-insurance maintained by the County.
4. Shall provide 30 days written notice to the County before any cancellation, suspension, or void of coverage in whole or part, where such provision is reasonable.
5. All coverage for subcontractors of the bidder shall be subject to all of the requirements stated herein.
6. All deductibles or self-insured retention shall appear on the certificate(s) and shall be subject to approval by the County. At the option of the County, either; the insurer shall reduce or eliminate such deductible or self-insured retention; or the bidder shall be required to procure a bond guaranteeing payment of losses and related claims expenses.
7. Failure to comply with any reporting provisions of the policy(s) shall not affect coverage provided the County, its officers/officials, agents, employees and volunteers.
8. The insurer shall agree to waive all rights of subrogation against the County, its' officers/officials, agents, employees or volunteers for any act, omission or condition of premises which the parties may be held liable by reason of negligence.

9. The bidder shall furnish the County certificates of insurance including endorsements affecting coverage. The certificates are to be signed by a person authorized by the insurance company(s) to bind coverage on its' behalf, if executed by a broker, notarized copy of authorization to bind, or certify coverage must be attached.
10. All insurance shall be placed with insurers maintaining an A.M. Best rating of no less than an A:VII. If A.M. Best rating is less than A:VII, approval must be received from County's Risk Officer.

31. **Workman's Compensation Coverage**

Georgetown County, SC will require each contractor and service provider to maintain on file with the purchasing officer, a current Certificate of Insurance showing limits as required by the Workers' Compensation Act of SC: Employers Liability, \$1,000,000.

The law also recognizes "statutory employees." These are employees who work for a subcontractor who may be working for a business or another contractor. Employers should inquire whether or not a subcontractor working for them has workers' compensation insurance, regardless of the number of employees employed by the subcontractor. If the subcontractor does not, the subcontractor's injured employees would be covered under the employer's workers' compensation insurance. If the subcontractor does not carry workers' compensation insurance, then the owner or the principal contractor would be liable just as if the subcontractor's employee was one of their employees.

For answers to additional questions, visit the SC Worker's Compensation Commission website, at:
<https://wcc.sc.gov/contact-us/faqs>

32. **Hold Harmless Clause**

The Contractor shall, during the term of the contract including any warranty period, indemnify, defend, and hold harmless the County, its officials, employees, agents, and representatives thereof from all suits, actions, or claims of any kind, including attorney's fees, brought on account of any personal injuries, damages, or violations of rights, sustained by any person or property in consequence of any neglect in safeguarding contract work or on account of any act or omission by the contractor or his employees, or from any claims or amounts arising from violation of any law, bylaw, ordinance, regulation or decree. The vendor agrees that this clause shall include claims involving infringement of patent or copyright.

33. **Condition of Items**

All items shall be new, in first class condition, including containers suitable for shipment and storage, unless otherwise indicated herein. Verbal agreements to the contrary will not be recognized.

34. **Workmanship and Inspection**

All work under this contract shall be performed in a skillful and workmanlike manner. The County may, in writing, require the Contractor to remove any employee from work that the County deems incompetent or careless.

Further, the County may, from time to time, make inspections of the work performed under this contract. Any inspection by the County does not relieve the Contractor from any responsibility regarding defects or other failures to meet the contract requirements.

35. **Progress Payments**

Contractor's Application for Payment shall be submitted to the Owner on AIA Document G702 and G703--1992 Edition, or such other form as may be mutually agreed upon. The period covered by each Application for Payment shall be not less than one calendar month. The Owner shall make progress payments to the Contractor on undisputed amounts certified by the Architect within twenty-one (21) days from receipt of the Application for Payment by the Owner in accordance with Title 29, Chapter 6 of the Code of Laws of South Carolina, 1976, as amended.

36. **South Carolina Sales Tax**

The County of Georgetown, SC is not exempt and pays the appropriate SC sales tax on all applicable purchases.

37. Assignment of Contract

This contract may not be assigned in whole or part without the written consent of the Purchasing Officer.

38. Termination

Subject to the provisions below, the contract may be terminated by the County upon thirty (30) days advance written notice to the other party; but if any work or service hereunder is in progress, but not completed as of the date of termination, then this contract may be extended upon written approval of the County until said work or services are completed and accepted.

a. Termination for Convenience

In the event that this contract is terminated or canceled upon request and for the convenience of the County, without the required thirty (30) days advance written notice, then the County shall negotiate reasonable termination costs, if applicable.

b. Termination for Cause

Termination by the County for cause, default or negligence on the part of the contractor shall be excluded from the foregoing provision; termination costs, if any, shall not apply. The thirty (30) days advance notice requirement is waived in the event of Termination for Cause.

c. Non-Appropriation:

It is understood and agreed by the parties that in the event funds are not appropriated in the current fiscal year or any subsequent fiscal years, this contract will become null and void and the County will only be required to pay for services completed to the satisfaction of the County.

39. Default

In case of default by the contractor, for any reason whatsoever, the County may procure the goods or services from another source and hold the contractor responsible for any resulting excess cost and may seek other remedies under law

40. Severability

In the event that any provision shall be adjudged or decreed to be invalid, such ruling shall not invalidate the entire Agreement but shall pertain only to the provision in question and the remaining provisions shall continue to be valid, binding and in full force and effect.

41. Applicable Laws

This Agreement shall be governed by and construed in accordance with the laws of the State of South Carolina, U.S.A.

42. Claims and Disputes:

All claims, disputes and other matters in question between parties arising out of, or relating to, this Agreement, or the breach thereof, shall be decided in the Circuit Court of the Fifteenth Judicial circuit in Georgetown County, South Carolina. By executing this Agreement, all parties specifically consent to venue and jurisdiction in Georgetown County, South Carolina and waive any right to contest jurisdiction and venue in said Court.

43. Rights of County

The County reserves the right to reject all or any part of any bid, waive informalities and award the contract to the lowest responsive and responsible bidder to best serve the interest of the County.

44. Notice of Intent to Award

A *Notice of Intent to Award* will be mailed to all respondents.

45. Protest

Bidders may refer to Sections 2-67, 2-73, and 2-74 of Ordinance #20-32, also known as the Georgetown County, South Carolina Purchasing Policy to determine their remedies concerning this competitive process. The failure to be awarded a bid shall not be valid grounds for protest.

46. Debarment

By submitting a bid, the offeror certifies to the best of its knowledge and belief, that it and its principals, sub-contractors and assigns are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or local department or agency. A copy of the County's debarment procedure in accordance with Section 2-68 of Ordinance #2008-09, also known as the Georgetown County, South Carolina Purchasing Policy is available upon request.

47. Firm Pricing for County Acceptance

Bid price must be firm for County acceptance for 90 days from bid opening date.

48. Use of Brand Names (If Appropriate)

Unless otherwise stated in an Invitation for Bid, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named; it conveys the general style, type, character, and quality of the article desired, and any article which the County in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. Any catalog, brand name or manufacturer's reference used in bid invitation is descriptive - NOT restrictive - it is to indicate type and quality desired. Bids on brands of like nature and quality will be considered. If bidding on other than reference or specifications, bid must show manufacturer, brand or trade name, catalog number, etc. of article offered. If other than brand(s) specified is offered, illustrations and complete description must be submitted with bid. Samples may be required. If bidder makes no other bid and takes no exception to specifications or reference data, he will be required to furnish brand names, numbers, etc., as specified. Bidders must certify that item(s) bid upon meet and/or exceed specifications.

49. Substitutions and Product Options

Written requests for changes in products, materials, equipment and methods of construction required by the Contract Documents shall be submitted to the Owner prior to effecting such requested changes.

50. Mobilization After Notice to Proceed

Bid must show the number of days required to mobilize after receiving a Notice to Proceed under normal conditions. Failure to state delivery time obligates bidder to complete delivery in fourteen (14) calendar days. Unrealistically short or long delivery promised may cause bid to be disregarded. Consistent failure to meet delivery promises without valid reason may be cause for removal from bid list.

51. Permits

The successful Offeror must be responsible for obtaining all necessary city, county, and state permits/licenses and must comply with all local codes and ordinances. Copies of such permits/licenses shall be made available to the County upon request. Building contractors working within Georgetown County must also secure a Contractor's License from the Building Department. Work within the Georgetown City Limits may require a City Business License.

52. Environmental Management:

Vendor/Supplier/Contractor will be responsible for complying with all federal, state and local environmental regulations relating to transportation, handling, storage, spillage and any other aspect of providing the services specified herein, as applicable.

53. Bid Tabulation Results

Vendors wishing to view the bid tabulation results may visit the Georgetown County, SC web-site at: <http://www.georgetowncountysc.org>. Select "Purchasing", then "Bids Information" and double click the link under the individual bid listing.

54. The Bidder hereby certifies that he or she has carefully examined all of the Documents for the project, has carefully and thoroughly reviewed this Request for Bid/Quotation, has inspected the location of the project (if applicable), and understands the nature and scope of the work to be done; and that this Bid is based upon the terms, specifications, requirements, and conditions of the Request for Bid/ Documents. The Bidder further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope of the project as aforesaid.

55. Any attempt by the vendor to influence the opinion of County Staff or County Council by discussion, promotion, advertising, misrepresentation of the submittal or purchasing process or any procedure to promote their offer will constitute a violation of the vendor submittal conditions and will cause the vendor's submittal to be declared null and void.

56. Apparent omission of a detailed description concerning any point, shall be regarded as meaning the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used.

57. Response Clarification

Georgetown County reserves the right to request additional written or oral information from Bidders in order to obtain clarification of their Responses.

58. Georgetown County, SC has a Local Vendor Preference Option by ordinance:

Sec 2-50. Local Preference.

1. A vendor shall be deemed a Local Georgetown County vendor for the purposes of this Section if such vendor is an individual, partnership, association or corporation that is authorized to transact business within the State, maintains an office in Georgetown County, and maintains a representative inventory or commodities within the County on which the bid is submitted, and has paid all taxes duly assessed.
2. This option allows the lowest local Bidder whose bid is within five percent (5%) of the lowest non-local Bidder to match the bid submitted by the non-local Bidder and thereby be awarded the contract. This preference shall apply only when (a) the total dollar purchase is greater than \$30,000; (b) the vendor has a physical business address located and operating within the limits of Georgetown County and has been doing business in the County for a period of twelve (12) months or more; and (c) the vendor provides proof of payment of all applicable Georgetown County taxes and fees if so requested.
 - 1) Should the lowest responsible and responsive Georgetown County bidder not exercise its right to match the bid as granted herein, the next lowest qualified Georgetown County bidder shall have that right and so on. The right to exercise the right to match the bid shall be exercised within 24 hours of notification of the right to match the non-Georgetown County bidder's bid.
 - 2) In order to qualify for the local preference authorized by this Section, the vendor seeking same shall be required to submit with its bid a statement containing relevant information which demonstrates compliance with the provisions of this Section. This statement shall be on a form provided by the County purchasing department and shall be signed under penalty of perjury. Failure to provide such affidavit at the time the bidder submits its bid shall constitute a waiver of any claim for preference.
 - 3) For all contracts for architecture, professional engineering, or other professional services governed by Section 2-56, Architect-Engineer and Land Surveying Services - Public Announcement and Selection Process, the county shall include the local business status of a firm among the factors considered when

selecting which firms are "most highly qualified". In determining which firm is the "most qualified" for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.

- 4) Local preference shall not apply to the following categories of contracts: (a) Goods or services provided under a cooperative purchasing agreement or similar "piggyback" contract; (b) Contracts for professional services except as provided for in section five (§5) above; (c) Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference; (d) Purchases or contracts made pursuant to a noncompetitive award process, unless otherwise provided by this section; or (e) Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county council or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.

See the RESIDENCE CERTIFICATION FOR LOCAL PREFERENCE form attached for details.

59. Bidding Documents

- a) Each Bidder shall carefully examine the Bidding and Contract Documents, General Requirements, Drawings and Technical Specifications and all addenda or other revisions and thoroughly familiarize themselves with the detailed requirements prior to submitting a Bid. Bidders shall promptly notify the Owner in writing of any ambiguity, inconsistency, error or omission, which they may discover upon examination of the Bidding and Contract Documents, Project Site and / or local conditions. The Owner shall make such interpretations, corrections or changes to the Bidding Documents and will reply to all questions submitted by the Bidders. The Owner will log all responses and issue an addendum as may be appropriate. The Owner will not be responsible for any oral instructions and / or responses. Interpretations, corrections or changes made in any other manner will not be binding. All addenda sent to Bidders will become a part of the Bidding and Contract Documents. All inquiries shall be directed in writing or transmitted by facsimile to the office of the Owner. No allowance will be made after Bids are received due to oversight and / or error by bidder.
- b) Each Bidder shall carefully review the Table of Contents and the List of Drawings in the Project Manual to determine if any instrument is missing from the Bidding Documents. Bidders shall promptly notify the Owner, in writing, of any discrepancy.
- c) Addenda will be mailed or faxed to all Bidders. Copies of Addenda will be made available for inspection at the office of the County Purchasing Officer. Prior to submitting a Bid each Bidder shall ascertain that he/she has received all Addenda issued.
- d) Owner does not assume any responsibility for errors, omissions or misinterpretations resulting from the Bidder's use of incomplete Bidding Documents.

60. Liquidated Damages

Refer to *The Project Manual, Vol. 1, Division 1, Section 01100, Summary of Work.*

61. Allowances

The Bidder shall include in the Contract sum, an Allowance in the amount of Twenty-Thousand Dollars (\$20,000.00) for field testing and laboratory services. The services covered by this allowance shall be supplied by such persons or entities as the Owner may direct. These services are not intended to relieve the contractor of his/her responsibility for testing and / or laboratory services required in the construction contract documents as part of his/her Quality Control (QC) activities.

END OF SECTION 00100

SECTION 00300
BID FORM
MANDATORY BID SUBMITTAL FORM

For: **Bid #20-062, Indian Hut Road / Amos Road Extension Paving Improvements**

IMPORTANT COVID-19 NOTICE: Until further notice all bids MUST BE submitted electronically through the Purchasing Department's Vendor Registry webpage. Please click on the following link <http://www.georgetowncountysc.org/purchasing/default.html> for instructions on how to submit bids electronically through this system. As always, emailed/faxed bids will not be accepted. Your bid must be submitted electronically through Georgetown County's Purchasing Vendor Registry page to ensure it remains sealed until the scheduled bid opening date and time.

Name of Company Submitting Bid: _____

The undersigned, having visited the site of the Work and having familiarized themselves with local conditions affecting the design and cost of the work and with all requirements of the proposed Contract Documents, and duly issued Addenda to said documents, as acknowledged herein, propose to furnish and perform all labor, materials, necessary tools, expendable equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all work required by said documents and Addenda.

- 1) **BASE BID PROPOSAL:** Bidder / Proposer agrees to perform all of the work described in the specifications, including allowances, and shown on the drawings, for the sum of:

_____ \$ _____
(words shall govern)

- 2) For additional work authorized after signing the Contract, the amount of overhead and the amount of profit to be added to base costs of labor and materials shall be (10%) total for overhead and profit on work performed by the Contractor's own forces and (15%) total on work by Subcontractors.
- 3) **COMPLETION DATE:** Contractor must conform to Division 0, Section 00750, Summary Schedule and Key Milestones.
- 4) **LIQUIDATED DAMAGES:** Liquidated damages for this project shall be \$300.00 per calendar day for Contractor's failure to complete any key milestone by its intermediate completion date or the Substantial Completion date. Refer to Division 1, Section 01100, Summary of Work.
- 5) The undersigned affirms that in making such Bid, neither he /she nor any company that they may represent, nor anyone in behalf of him / her or their company, directly or indirectly, has entered into any combination, collusion, undertaking or agreement with any other Bidder or Bidders to maintain the prices of said work, or any compact to prevent any other Bidder or Bidders from Bidding on said Contract or work and further affirms that such bid is made without regard or reference to any other Bidder or Proposer and without any agreement or understanding or combination either directly or indirectly with any other person or persons with reference to such Bidding in any way or manner whatsoever.
- 6) The undersigned, when notified of the acceptance of this Bid proposal, does hereby agree to enter into a Contract with the Owner within five (5) calendar days from the date of the Notice of Award, for the execution of the work described within the period of time allocated, and he / she shall give a Performance Bond and Payment Bond, with good and sufficient surety.
- 7) The undersigned further agrees that if awarded the Contract he /she will commence the work within ten (10) calendar days after the date of the Notice of Award and that he / she will complete the work in accordance with the Summary Schedule and Key Milestones and Substantial Completion date set forth in the Bidding and Contract Documents or such amended date as may be granted. If the undersigned fails to complete the work as provided in the aforementioned

schedule, then and in that event, he / she further expressly agrees that, for each day that any phase of work under this Contract remains uncompleted thereafter the Owner may deduct from the Contract price herein specified the stipulated sum of liquidated damages as provided for herein and retain that sum for failure of the undersigned to complete this Contract on or before the expiration of the period shown in the completion schedule.

- 8) The undersigned agrees that the Owner's damages caused by delay are not capable of being established and would be difficult to measure accurately and that the sums herein specified as liquidated damages are not a penalty, but represent the parties' estimate of the actual damages which the Owner would suffer per day if the work is not completed as scheduled.
- 9) In submitting this Bid, it is understood that the right is reserved by the Owner to waive any informality or irregularity in any Bid or Bid guaranty, to reject any and all Bids, to re-Bid, to award or refrain from awarding a contract for the work and to negotiate with the apparent qualified low responsive Bidder to such extent as may be beneficial to the Owner.
- 10) The undersigned attaches hereto a cashier's check, certified check or Bid Bond in the sum five per-cent (5%) of the total base bid payable to Georgetown County, as required in the Request for Proposals, and the undersigned agrees that in case he / she fails within five (5) calendar days after Notice of Award of the Contract to him /her to enter into the Contract in writing and furnish the required Payment and Performance Bonds, with surety or sureties to be approved by Owner, and insurance policies or endorsements, the Owner may, as its option, determine that the undersigned has abandoned his / her rights and interest in such Bid and that the cashier's check, certified check, or Bid Bond accompanying his or her bid has been forfeited. Otherwise, the cashier's check, certified check, or Bid Bond shall be returned to the undersigned upon the execution of the Contract and acceptance of the bonds and insurance, or upon rejection of his / her Bid.
- 11) A Bid shall be considered unresponsive and shall be rejected if it fails to include fully executed statements or if the Bidder fails to furnish required data. When a determination has been made to award the Contract to a specific Contractor, such Contractor shall, prior to award, furnish such other pertinent information regarding his / her own employment policies and practices as well as those of his / her proposed prime contractor, subcontractors and consultants as the Owner may require.
- 12) The Bidder shall furnish similar statements executed by each of his / her prime contractor, first-tier and second-tier subcontractors and consultants whose contracts equal Ten Thousand Dollars (\$10,000.00) or more and shall obtain similar compliance by such prime contractor, subcontractors and consultants before awarding such contracts. No prime contractor or subcontract shall be awarded to any non-complying prime contractor and/or subcontractor.
- 13) It is understood and agreed that all workmanship and materials under all items of work are guaranteed for one (1) year from the date of Final Acceptance, unless otherwise specified.
- 14) The undersigned affirms that he / she has completed all of the blank spaces in the Bid Form, with an amount in words and numbers and agrees that where a discrepancy occurs between the prices quoted in words and/or in numbers the lowest figure quoted in words shall take precedence and govern when determining final costs or award of the Contract.
- 15) The undersigned affirms that wages not less than the minimum rates or wages, as predetermined for this project by the State of South Carolina were used in the preparation of this "Bid Form".
- 16) **REQUIRED FORMS:** There are specific forms required to be completed and submitted as part of the response to this Request For Proposals (RFP). The omission, whether inadvertent or not, of any one or more of these forms will cause the Bidder's / Proposer's response to be disqualified. The following forms identified as Exhibits to this RFP, shall be included in the response:

- Exhibit A: Acknowledgement of Addenda
- Exhibit B: Statement of Non-Proposal
- Exhibit C: Non-Collusion Affidavit
- Exhibit D: [not used]
- Exhibit E: Indemnification
- Exhibit F List of Prime and Sub-Contractors

- Exhibit G: Statement of Experience
- Exhibit H: Unit Price Schedule
- Exhibit I: Resident Certification for Local Preference Option
- Exhibit J: Exceptions Page Form
- Exhibit K: [not used]
- Exhibit L: [not used]

17) Project Mgr/NTP Contact Address: _____

18) Project Mgr/NTP Contact Person: _____

19) Telephone Number _____ Fax Number _____

20) E-Mail address _____

21) Remittance Address: _____

22) A/P Accounting Contact _____

23) Telephone Number _____ Fax Number _____

24) E-Mail address _____

25) FEIN or Social Security Number: _____

26) Suspension and Debarment

Federal guidelines require grant recipients to obtain sufficient assurance that vendors are not suspended or debarred from participating in federal programs when contracts exceed \$25,000. By signing below you verify that no party to this agreement is excluded from receiving Federal contracts, certain subcontracts, and certain Federal financial and nonfinancial assistance and benefits, pursuant to the provisions of 31 U.S.C. 6101, note, E.O. 12549, E.O. 12689, 48 CFR 9.404, and each agency's codification of the Common Rule for Nonprocurement suspension and debarment. [See <https://www.epls.gov/> for additional information.]

27) Does your individual or company structure require the filing of a Form 1099 to the IRS on the part of Georgetown County, SC? Yes No

28) Acceptance of Invitation for Bid Content: The contents of the successful IFB/RPS are included as if fully reproduced herein. Therefore, the selected contractor must be prepared to be bound by his/her proposal as submitted.

29) CERTIFICATION REGARDING DRUG-FREE WORKPLACE:

The undersigned certifies that the vendor listed below will provide a "drug-free workplace" as that term is defined in Section 44-107-30 of the Code of Laws of South Carolina, 1976, as amended, by the complying with the requirements set forth in title 44, Chapter 107.

Yes No

30) Any attempt by the vendor to influence the opinion of County Staff or County Council by discussion, promotion, advertising, misrepresentation of the submittal or purchasing process or any procedure to promote their offer will constitute a violation of the vendor submittal conditions and will cause the vendor's submittal to be declared null and void.

31) The lowest or any proposal will not necessarily be accepted and the County reserves the right to award any portion thereof. I/We, the undersigned, hereby confirm that all the above noted documents for Bid/Request for Proposal No. 20-062 were received.

32) MINORITY PARTICIPATION [INFORMATION ONLY]

(a) Is the bidder a South Carolina Certified Minority Business? Yes No

(b) Is the bidder a Minority Business certified by another governmental entity?

Yes No

If so, please list the certifying governmental entity: _____

(c) Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor?

Yes No

If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? _____%

(d) Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor?

Yes No

If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor?
_____%

(e) If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:

- Traditional minority
- Traditional minority, but female
- Women (Caucasian females)
- Hispanic minorities
- DOT referral (Traditional minority)
- DOT referral (Caucasian female)
- Temporary certification
- SBA 8 (a) certification referral
- Other minorities (Native American, Asian, etc.)

(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

33)

INFORMATION ONLY:

- Our company accepts VISA government procurement cards without penalty.
- Our company does not accept VISA government procurement cards.

34) Printed Name of person binding bid _____

35) Signature (X)_____

36) Date_____

37) **IMPORTANT:** Execute acknowledgment of officer or agent who signs this document (use proper form on following pages)

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(Exhibits Continue on Following Pages)



EXHIBIT A
ADDENDA ACKNOWLEDGEMENT
BID #20-062

Mandatory Bid Submittal Form

COMPANY NAME: _____

- | | | |
|--------------------------|----------------------------------|---------------------|
| <input type="checkbox"/> | Addendum #1 Received Date: _____ | Initialed By: _____ |
| <input type="checkbox"/> | Addendum #2 Received Date: _____ | Initialed By: _____ |
| <input type="checkbox"/> | Addendum #3 Received Date: _____ | Initialed By: _____ |
| <input type="checkbox"/> | Addendum #4 Received Date: _____ | Initialed By: _____ |
| <input type="checkbox"/> | Addendum #5 Received Date: _____ | Initialed By: _____ |
| <input type="checkbox"/> | Addendum #6 Received Date: _____ | Initialed By: _____ |

Company Name: _____

Authorized Signature: _____

Printed Name: _____

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EXHIBIT B

Intent to Respond

REF: Bid #20-062, Indian Hut Road / Amos Road Extension Paving Improvements

If your company intends to respond to this solicitation, please complete and promptly return this form to assure that you can be included on the mailing list to receive all addenda regarding this project.

It is not necessary to return any other portion of the bid documents if you are not bidding.

Failure to return the Intent to Respond shall not be sufficient cause to rule a submittal as non-responsive; nor does the return of the form obligate an interested party to submit a response. Georgetown County's efforts to directly provide interested parties with addenda or additional information are provided as a courtesy only, and do not alleviate the respondent from their obligation to verify they have received and considered all addenda. All addenda are published and available on the county website at www.gtcounty.org select Quick Links, "Bid Opportunities" and "View Current Bid Solicitations".

Our firm **does** intend on responding to this solicitation.

Our firm **does not** intend on responding to this solicitation.

Company Name: _____

Address: _____

Contact Person: _____

Telephone: _____

Fax: _____

E-Mail: _____

How did you hear about this opportunity? _____

Reason if **not** responding: _____

Please return this completed form to Nancy Silver, Purchasing Officer:

- by e-mail to purch@gtcounty.org
- or by Fax to (843) 545-3500.

[End of Intent to Respond]

EXHIBIT C
FORM OF NON-COLLUSION AFFIDAVIT OF PRIME PROPOSER / BIDDER
(Mandatory Bid Submittal Form)

State of _____)

County of _____)

Being first duly sworn deposes and says that:

- (1) (S)he is _____ of _____
The Bidder / Proposer that has submitted the attached Bid / Proposal;
- (2) (S)he is fully informed respecting the preparation and contents of the attached Bid / Proposal and of all pertinent circumstances respecting such Bid / Proposal;
- (3) Such Bid / Proposal is genuine and is not a collusive or sham Bid / Proposal;
- (4) Neither the said Bidder / Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder / Proposer, firm or person to submit a collusive or sham Bid / Proposal in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder / Proposer, firm or person to fix the price or prices in the attached Bid / Proposal or of any other Bidder / Proposer, or to fix any overhead, profit or cost element of the Bid / Proposal price or the Bid / Proposal price of any other Bidder / Proposer, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached Bid / Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder / Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

(Title)

Subscribed and sworn to before me this _____ day of _____, 2021

Notary Public in and for Georgetown County, South Carolina

My commission expires on: _____

EXHIBIT D
ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION:

State of: (_____)

Country of: (_____) SS

On this _____ day of _____, 20____, before me personally came and appeared _____ to me Known, who, being by me duly sworn, did depose and say to me that he resides at _____, that he/she is the _____ of _____ the corporation described in and which executed the foregoing instrument is an impression of such seal; that it was so affixed by the order of the directors of said corporation, and that he signed his name thereto by like order.

(Seal) _____
Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP:

State of (_____)

Country of (_____)

On this _____ day of _____ 20____, before me personally came and appeared _____ to me known and known to me to described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Seal) _____
Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL:

State of (_____)

Country of (_____)

On this _____ day of _____ 20____, before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the forgoing instrument and acknowledged that he executed the same.

(Seal) _____
Notary Public

EXHIBIT E
INDEMNIFICATION
(Mandatory Bid Submittal Form)

The Bidder / Proposer will indemnify and hold harmless the Owner, Georgetown County, South Carolina and their 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, damages, 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 there from, and is caused by any negligent or willful act or omission of the Bidder / Proposer, and anyone directly or indirectly employed by him/her or anyone for whose acts any of them may be liable.

In any and all claims against the Owner, Georgetown County, South Carolina or any of their agents and / or employees by an employee of the Bidder / Proposer, 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 Bidder / Proposer under the Worker's Compensation Acts, Disability Benefit Acts, or other employee benefit acts.

The obligation of the Bidder / Proposer under this paragraph shall not extend to the liability of Georgetown County, South Carolina or its agents and / or employees arising out of the reports, surveys, Change Orders, designs or Technical Specifications.

BIDDER / PROPOSER: _____

BY: _____

DATE: _____

TELEPHONE NO.: _____

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EXHIBIT G

**STATEMENT OF EXPERIENCE OF THE BIDDER / PROPOSER
(Mandatory Bid Submittal Form)**

The Bidder / Proposer is requested to state below what work of similar scope and complexity he/she has successfully completed, and to provide references that will enable the Owner to judge his/her experience, skill and business standing and his/her ability to conduct the Work in conformance with the requirements of the Construction Contract Documents. Proposer may also substitute AIA A305 Contractor's Qualification statement form in lieu of Exhibit G.

| Project and Location | Reference |
|----------------------|----------------|
| 1) _____ _____ | _____ _____ |
| 2) _____ _____ | _____ _____ |
| 3) _____ _____ | _____ _____ |
| 4) _____ _____ | _____ _____ |
| 5) _____ _____ | _____ _____ |
| 6) _____ _____ | _____ _____ |
| 7) _____ _____ | _____ _____ |

Dated: _____ Bidder / Proposer : _____

Signed: _____

Title: _____

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EXHIBIT H

**UNIT PRICE SCHEDULE
(Mandatory Bid Submittal Form)**

When changes in the Work are ordered by the Owner, and such changes involve the following items, the following Unit Prices will be used to calculate adjustments to the Contract Sum. These Unit Prices shall be for the Work as specified, including all labor, materials, equipment, accessories, shipping, preparation, insurance testing, overhead, profit, applicable taxes, permits, fees and all other associated costs for the finished and completed Work. All Unit Prices for utility conduits shall include sweeps, bends, couplings, caps, fittings, etc, which shall be included in the Unit Price per linear foot. The pavement Unit Prices shall include all striping and pavement markings that are required to complete the Work. Unit Prices for undercut – soils shall include material in place, surveyed and compacted pursuant to the Contract Documents.

**Georgetown County
Indian Hut Road and Amos Road Extension Paving Project**

Estimated Quantities

| <u>Item No.</u> | <u>Description</u> | <u>Quantity</u> | <u>Units</u> | <u>Unit Price</u> | <u>Total Price</u> |
|-----------------|--|-----------------|--------------|-------------------|--------------------|
| 1031000 | Mobilization | 1 | LS | | |
| 1050800 | Construction Stakes, Lines & Grades | 1 | EA | | |
| 1050810 | As-Built Surveys | 1 | LS | | |
| 1071000 | Traffic Control | 1 | LS | | |
| 2012000 | Clearing & Grubbing within Roadway | 6.5 | ACRE | | |
| 2031000 | Unclassified Excavation | 9,294 | CY | | |
| 2033000 | Contingent Borrow Excavation | 500 | CY | | |
| 2034000 | Contingent Muck Excavation | 675 | CY | | |
| 2036000 | Contingent Geotextile for Separation of Subgrade & Subbase | 675 | SY | | |
| 2037010 | Contingent Geogrid Reinforcement (Biaxial) | 675 | SY | | |
| 2052010 | Contingent Stone Bridge Lift Material | 400 | TON | | |
| 2081001 | Fine Grading | 41,830 | SY | | |
| 3050106 | Graded Aggregate Base Course (6" Uniform) | 45,000 | SY | | |
| 3069900 | Contingent Maintenance Stone | 400 | TON | | |
| 4011004 | Liquid Asphalt Binder PG64-22 | 265 | TON | | |
| 4020320 | Hot Mix Asphalt Intermediate Course Type B | 4,990 | TON | | |
| 4030320 | Hot Mix Asphalt Surface Course Type B | 4,990 | TON | | |
| 6051120 | Permanent Construction Signs (Ground Mounted) | 224 | SF | | |
| 6271010 | 4" White Solid Lines (Pvt Edge Lines) - Thermo-90Mil | 24,300 | LF | | |
| 6271025 | 24" White Solid Lines (Stop/Diag Lines) - Thermo-125Mil | 45 | LF | | |
| 6271074 | 4" Yellow Solid Lines - Thermo-90Mil | 21,850 | LF | | |
| 6271074 | 4" Yellow Broken Lines - Thermo-90Mil | 2,450 | LF | | |
| 6301100 | Permanent Yellow Pavement Markers - Bi-Dir 4x4 | 300 | EA | | |
| 6510105 | Flat Sheet Sign, Type III, Fixed Sz. & Msg. | 35 | SF | | |
| 6531210 | U-Section Post for Sign Supports - 3P | 74 | LF | | |
| 7011852 | Concrete Key | 28 | LF | | |

| <u>Item No.</u> | <u>Description</u> | <u>Quantity</u> | <u>Units</u> | <u>Unit Price</u> | <u>Total Price</u> |
|-----------------|---|-----------------|--------------|-------------------|--------------------|
| 7143624 | 24" RC Pipe | 1,080 | LF | | |
| 7192020 | Drop Inlet (24" x 36") | 4 | EA | | |
| 8041020 | Rip-Rap (Class B) | 72 | TON | | |
| 8048205 | Geotextile for Erosion Control Under Riprap | 108 | SY | | |
| 8100100 | Permanent Cover | 7.6 | ACRE | | |
| 8100200 | Temporary Cover BY SEEDING | 3.5 | ACRE | | |
| 8151151 | Turf Reinforcement Matting (TRM) Type 1 | 21,300 | SY | | |
| 8152007 | Sediment Tubes for Ditch Checks | 1,700 | LF | | |
| 8153000 | Silt Fence | 3,225 | LF | | |
| 8156219 | Inlet Structure Filter - Type A | 150 | LF | | |

Dated: _____

Bidder / Proposer: _____

Signed: _____

Title: _____

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EXHIBIT I
RESIDENCE CERTIFICATION FOR LOCAL PREFERENCE
(Mandatory Bid Submittal Form)

WHEREAS, Georgetown County Council desires to further its support of local businesses when awarding contracts for the provision of supplies and construction services to the County through its established procurement procedures.

THEREFOR pursuant to Georgetown County, SC Ordinance #20-32 as adopted, §2-50 Local Preference Option, the Georgetown County Purchasing Officer requests each offeror provide Residence Certification. The Local Preference Option provides some restrictions on the awarding of governmental contracts; provisions of which are stated below:

Sec 2-50. Local Preference.

- 1) A vendor shall be deemed a Local Georgetown County vendor for the purposes of this Section if such vendor is an individual, partnership, association or corporation that is authorized to transact business within the State, maintains an office in Georgetown County, and maintains a representative inventory or commodities within the County on which the bid is submitted, and has paid all taxes duly assessed.
- 2) This option allows the lowest local Bidder whose bid is within five percent (5%) of the lowest non-local Bidder to match the bid submitted by the non-local Bidder and thereby be awarded the contract. This preference shall apply only when (a) the total dollar purchase is greater than \$30,000; (b) the vendor has a physical business address located and operating within the limits of Georgetown County and has been doing business in the County for a period of twelve (12) months or more; and (c) the vendor provides proof of payment of all applicable Georgetown County taxes and fees if so requested.
- 3) Should the lowest responsible and responsive Georgetown County bidder not exercise its right to match the bid as granted herein, the next lowest qualified Georgetown County bidder shall have that right and so on. The right to exercise the right to match the bid shall be exercised within 24 hours of notification of the right to match the non-Georgetown County bidder's bid.
- 4) In order to qualify for the local preference authorized by this Section, the vendor seeking same shall be required to submit with its bid a statement containing relevant information which demonstrates compliance with the provisions of this Section. This statement shall be on a form provided by the County purchasing department and shall be signed under penalty of perjury. Failure to provide such affidavit at the time the bidder submits its bid shall constitute a waiver of any claim for preference.
- 5) For all contracts for architecture, professional engineering, or other professional services governed by Section 2-56, Architect-Engineer and Land Surveying Services - Public Announcement and Selection Process, the county shall include the local business status of a firm among the factors considered when selecting which firms are "most highly qualified". In determining which firm is the "most qualified" for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.
- 6) Local preference shall not apply to the following categories of contracts: (a) Goods or services provided under a cooperative purchasing agreement or similar "piggyback" contract; (b) Contracts for professional services except as provided for in section five (§5) above; (c) Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference; (d) Purchases or contracts made pursuant to a noncompetitive award process, unless otherwise provided by this section; or

(e) Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county council or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.

I certify that [Company Name] _____ is a

Resident Bidder of Georgetown County as defined in Ordinance #20-32, (see §1. above) and our local place of business within Georgetown County is: _____

I certify that [Company Name] _____ is a

Non-Resident Bidder of Georgetown County as defined in Ordinance #20-32, and our principal place of business is _____ [City and State].

(X) _____

Signature of Company Officer

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EXHIBIT J
EXCEPTIONS PAGE
MANDATORY BID SUBMISSION FORM

List any areas where you cannot or will not comply with the specifications or terms contained within the bid documentation. If none, write "NONE".

Title (Sole Proprietor or Partner)

PRINCIPAL (If Corporation)

(Corporate Name)

By: _____
(President)

Attest: _____
(Secretary)

(Impress Corporate Seal)

COUNTERSIGNED BY
RESIDENT SOUTH CAROLINA
AGENT OF SURETY:

SURETY:

(Copy of Agent's current license
as issued by State of South Carolina
Insurance Commissioner

By: _____
Attorney-In-Fact

(Power of Attorney Must Be Attached)

(Impress Corporate Seal)

END OF SECTION 00400

SECTION 00500

“SAMPLE” CONTRACT

THIS CONTRACT made and entered into this _____ day of _____, 2021, by and between Georgetown County, hereinafter referred to as the “Owner”, a body politic and corporate and political subdivision of the State of South Carolina, whose administrative address is: 129 Screven Street Georgetown, South Carolina 29442; and _____ hereinafter referred to as the “Contractor”, a corporation formed and existing under the laws of the State of _____ and authorized to do business within the State of South Carolina, whose administrative address is:

WITNESSETH:

WHEREAS, the Owner has a project entitled **Indian Hut Road / Amos Road Extension Paving Improvements** hereinafter referred to as the “Project”, and;

WHEREAS, the Contractor has submitted the lowest responsible and responsive bid for the Project at \$_____ and the Owner has awarded the Project to the Contractor; and

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, as well as other good and valuable consideration not specifically mentioned, the parties agree as follows:

1. The Contractor, for and in consideration of the payments hereinafter specified and agreed to be made by the Owner, hereby covenants and agrees to furnish and deliver all materials required, to do and perform all the work and labor, in a satisfactory and workmanlike manner, required to complete the Project within the time specified, in strict and entire conformity with the Construction Contract Documents, on file at the Office of the Purchasing Dept., Georgetown County, which are duly approved by the Owner and which said Project Manual, Drawings, Technical Specifications and other Contract Documents are hereby made part of this Contract as fully and with the same effects as if the same had been set forth at length in the body of this Contract.
2. The Contractor hereby agrees to indemnify, defend and hold the Owner and its agents, representatives and employees harmless from any and all liabilities, losses, damages, penalties, judgments, awards, claims, demands, costs, expenses, including reasonable attorney’s fees and court costs, actions, lawsuits or other proceedings arising directly or indirectly, in whole or in part, out of the negligence or willful acts or omissions of the Contractor, its prime contractor, trade subcontractors and consultants or their respective agents, directors, officers or employees in connection with this Contract or in any way with the services or Work described herein, any occurrence at the Project site, or any occurrence arising in connection with or at the Project site or in connection with the Work, whether within or beyond the scope of its duties hereunder.
3. The Contractor’s indemnity and defense obligations under this Contract shall be absolute notwithstanding any provision contained herein or elsewhere to the contrary, and shall survive Final Completion and Final Payment for a period equal to the statute of limitations for any action which could be brought against the Owner or its agents, officers, directors and employees and shall continue through the duration of any action brought during the applicable time periods.
4. Contractor agrees to indemnify, defend and hold the Owner and its agents, representatives, officers, directors and employees harmless from all costs, damages and expenses, including reasonable attorneys

fees, incurred by the Owner and its consultants by virtue of any claim or claims filed by any trade prime or subcontractor, mechanic, laborer, or materialman making claims arising from the performance of the Work by, through, or under the Contractor, provided the Contractor has received from the Owner all amounts properly due under this Contract concerning the claim. The Contractor shall execute and deliver to the Owner's title insurer similar indemnifications or such other document as such title insurer shall reasonably request in order to protect it against lien claims from trade prime or subcontractors. The Contractor also hereby agrees to indemnify and hold harmless, protect and defend the Owner and its consultants from and against any liability, claim, judgment, loss or damage, including, but not limited, to direct damages, attorney's fees, court costs and expenses of collection, occasioned in whole or in part by the sole failure of the Contractor, and its trade prime or subcontractors to comply with any of the terms or provisions of this Contract.

5. In any and all claims against the Owner by any employee of the Contractor or trade prime or subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 2 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any trade prime or subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

6. The Owner hereby agrees to pay to the Contractor for the said work, when fully completed, the total sum of \$_____ (the said sum being the total of the Contractor's bid, a copy of which is attached hereto and made a part hereof for all purposes), subject to such additions and deductions as may be provided for in the Contract Documents. In the event the Bid contains multiple pay items, it is understood that the amount to be paid shall be the total based on the unit prices, together with lump sum prices, contained in said bid, for the work actually completed. Payments on accounts will be made as provided for in the Contract Documents, Division 1, General Requirements, Section 01290, Payment Procedures. The Contractor shall submit bills for fees or other compensation for services or expenses in detail sufficient for a proper pre-audit and post audit thereof. Any unit of provision of goods and services must be approved in writing by the Owner prior to payment.

7. The Owner may unilaterally cancel this Contract and the goods and services there under in the event that the Contractor fails and refuses to allow public access to all documents, papers, letters, or other material subject to the provisions of the applicable South Carolina Statutes, made or received by the Design/Builder in conjunction with this Contract.

8. The Construction Contract Documents provide the criteria and the final date for completion of the Work of the Project

9. This Contract has been executed by the parties prior to the rendering of any goods or services by the Contractor.

10. The Contractor shall provide a payment and performance bond (the Bond) to the Owner meeting the requirements of Applicable South Carolina Statute in the sum of \$_____ and shall cause the Bond to be recorded with the Notice of Award in the Public Records of Georgetown County, South Carolina.

11. This Contract shall be subordinate to any rule, regulation, order or law of the United States of America, or the State of South Carolina.

12. Contractor and its employees shall promptly observe and comply with then applicable provisions of all Federal, State and local laws, rules and regulations which govern or apply to the goods and services rendered by the Contractor hereunder, or to the wages paid by the Contractor to its employees. Contractor

shall require all of its prime and subcontractors and consultants to comply with the provisions of this paragraph.

13. Contractor shall procure and keep in force during the term of this contract all necessary licenses, registrations, certificates, permits and other authorizations as are required by law in order for Contractor to render its services hereunder. Contractor shall require all of its prime and subcontractors and consultants to comply with the provisions of this paragraph.

14. All remedies provided in this Contract shall be deemed cumulative and additional and not in lieu of or exclusive of each other or of any other remedy available to any party at law or in equity. In the event one party shall prevail in any action (including appellate proceedings), at law or in equity arising hereunder, the losing party will pay all costs, expense, reasonable attorneys' fees and all other actual and reasonable expenses incurred in the defense and/or prosecution of any legal or arbitration proceedings, including, but not limited to, those for paralegal, investigate and legal support services and actual fees charged by expert witnesses for testimony and analysis, incurred by the prevailing party referable thereto.

15. Contractor represents and warrants unto Owner that no officer, employee or agent of Owner has any interest, either directly or indirectly, in the business of the Contractor to be conducted hereunder. Contractor further represents and warrants to Owner that it has not employed or retained any company person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract, that it has not paid or agreed to any person, company, corporation, individual or firm, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this Contract, and that it has not agreed, as an express or implied condition for obtaining this Contract, to employ or retain the services of any firm or person in connection with carrying out this Contract. Contractor assures that it will insert the above provision in each of its prime and subcontractor and consultant's agreements relating to the services to be performed hereunder.

16. The headings of the sections of this Contract are for the purpose of convenience only and shall not be deemed to expand or limit the provisions contained in such sections.

17. This Contract, including all Contract documents, constitute the entire understanding and agreement between the parties and shall supersede and replace all prior agreements or understandings, written or oral, relating to the matters set forth herein.

18. This Contract shall not be amended or modified other than in writing signed by the parties hereto. Notwithstanding the foregoing, any Amendments that are not being paid for, in whole or in part, with funds granted by the United States of America or State of South Carolina need not be approved by them.

19. The validity, interpretation, construction and effect of this Contract shall be in accordance with and be governed by the laws of the State of South Carolina. In the event any provision hereof shall be finally determined to be unenforceable, or invalid, such unenforceability or invalidity shall not affect the remaining provisions of this Contract which shall remain in full force and effect.

Contract Work Hours and Safety Standard Act Requirements. The contracts must include a provision for compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USC 327-330) as supplemented by the Department of Labor regulations (29 CFR Part 5). Under Section 103 of the Act, each Contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate not less than one times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. Section 107 of the Act is applicable to construction work and provides that no

laborer of mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to health and safety as determined under construction, safety and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchases of supplies, materials, or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Copeland "Anti-Kickback" Act Requirements. All construction contracts over \$2,000.00 must include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). This act provides that each Contractor shall be prohibited from inducing, by any means, persons employed in the construction, completion, or repaid of public work to give up any part of their compensation.

21. Termination of Contract

- a. The Owner may, by written notice, terminate this Contract in whole or in part at any time, either for the Owner's convenience or because of failure to fulfill the Contract obligations. Upon receipt of such notice, services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performed this Contract, whether completed or in process, delivered to the Owner.
- b. Contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.
- c. 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 the Owner for any additional cost occasioned to the Owner thereby.
- d. If, after notice of termination for failure to fulfill its Contract obligations, it is determined that the Contractor had not failed, the termination shall be deemed to have been effected for the convenience of the Owner. In such event, adjustment in the Contract price shall be made as provided in paragraph 21.a of this clause.
- e. The rights and remedies of the Owner provided in this clause are in addition to any other rights and remedies provided by law or under this Contract.

IN WITNESS WHEREOF, the Owner and Contractor hereto have signed and sealed this Contract on the day and date first above written in three counterparts, each deemed an original contract.

Georgetown County

Witness:

By: _____

Title: _____

Contractor

By: _____
Witness:
Title: _____

(SEAL)

END OF SECTION 00500

SECTION 00600

PERFORMANCE BOND

BOND NO. _____

KNOW ALL MEN BY THESE PRESENTS that we, _____ as Principal, and _____ as Surety, are held and firmly bound unto Georgetown County, South Carolina hereinafter called the Obligee, in the Penal sum of _____ Dollars (\$ _____) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally firmly by these presents.

WHEREAS, the Principal, on the _____ day of _____, 2021 entered into a certain Contract with the Owner, included herein, for the Contract entitled **Indian Hut Road / Amos Road Extension Paving Improvements**.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Contract, and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation shall be void; otherwise, to remain in full force and effect.

Whenever the Principal shall be and is declared by the Owner to be in default under the Contract, or wherever the contract has been terminated by default of the Contractor, the Owner having performed the Owner's obligations hereunder, the Surety shall:

1. Complete the Contract in accordance with its terms and conditions, or at the Owner's sole option.
2. Obtain a Bid or Bids for submission to the Owner for completing the Contract in accordance with its terms and conditions, and upon determination by the Owner and Surety of the lowest responsible Bidder, arrange for a Contract between such Bidder and the Owner, and made 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 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 payable by the Owner to the Contractor under the Contract and any amendments thereto, less the amount properly paid by the Owner to the Contractor.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Owner named herein or the successors or assignees thereof.

In the case of termination of the Contract, as provided in the Contract Documents, there shall be assessed against the Principal and Surety herein, all expenses, including design/engineering, geo-technical, surveying, and legal services incidental to collecting losses to the Owner under this Bond.

This Bond shall remain in full force and effect for such period or periods of time after the date of acceptance of the project by the Owner as are provided for in the Contract Documents, and the Principal hereby guarantees to repair or replace for the said periods all work performed and materials and equipment furnished, which were not performed or furnished according to the terms of the Contract

Documents. If no specific periods of warranty are stated in the Contract Documents for any particular item of work, material, or equipment, the Principal hereby guarantees the same for a minimum period of one (1) year from the date of final acceptance by the Owner.

The Surety shall permit arbitration and be ultimately responsible for the payment of any award.

IN WITNESS WHEREOF, the above bounden parties have caused this Bond to be signed and sealed by their appropriate officials as of the _____ day of _____, 2021.

PRINCIPAL

(Firm Name)

By: _____
WITNESS (Title)

SURETY

(Firm Name)

By: _____
WITNESS (Title)

END OF SECTION 00600

SECTION 00601

LABOR AND MATERIAL PAYMENT BOND

BOND NO. _____

KNOW ALL MEN BY THESE PRESENTS that we, _____ as Principal, and _____ as Surety, are held and firmly bound unto Georgetown County, South Carolina hereinafter called the Obligee, in the Penal sum of _____ Dollars (\$ _____) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally firmly by these presents.

WHEREAS, the Principal, on the _____ day of _____, 2021 entered into a certain Contract with the Owner, included herein, for Contract entitled **Indian Hut Road / Amos Road Extension Paving Improvements**.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payments to all persons supplying labor, materials and supplies used directly or indirectly by said Principal or his Subcontractors in the prosecution of the work provided for in said Contract, then this obligations shall be void; otherwise to remain in full force and effect, subject, however, to the following conditions:

1. This bond is executed for the purpose of complying with the applicable State of South Carolina Statutes and all acts amendatory thereof, and this Bond shall inure to the benefit of any and all persons supplying labor, material and supplies used directly or indirectly by the Principal or his Subcontractors in the prosecution of the work provided for in said Contract so as to give such persons a right of action to recover upon this Bond in a separate suit brought on this Bond. No right of action shall accrue hereunder to or for the use of any person except as such right of action may be given and limited by the applicable State of South Carolina Statutes.
2. In each and every suit brought against the Principal and Surety upon this Bond in which the plaintiff shall be successful, there shall be assessed therein against the Principal and Surety herein, in favor of the Plaintiff therein, reasonable counsel fees, which the Principal and Surety hereby expressly agree to pay as a part of the cost and expense of said suit.
3. A claimant, except a laborer, who is not in privity with the Principal and who has not received payment for his labor, materials, or supplies, shall, within forty-five (45) calendar days after beginning to furnish labor, materials, or supplies for the prosecution of the work, furnish the Principal with a notice that he intends to look to the bond for protection.
4. A claimant who is not in privity with the Principal and who has not received payment for his labor, materials or supplies shall, within ninety (90) calendar days after performance of the labor or after complete delivery of the materials or supplies, deliver to the Principal and to the Surety written notice of the performance of the labor or delivery of the materials or supplies and of the non-payment.
5. No action for the labor, materials, or supplies may be instituted against the Principal or the Surety unless both notices have been given. No action shall be instituted against the Principal or the Surety on the bond after one (1) year from the performance of the labor or completion of delivery of the materials or supplies.

The Surety shall permit arbitration and be ultimately responsible for the payment of any award.

IN WITNESS WHEREOF, the above bounden parties have caused this Bond to be signed and sealed by their appropriate officials as of the _____ day of _____, 2021.

PRINCIPAL

(Firm Name)

(Witness)

By: _____

(Title)

SURETY

(Firm Name)

(Witness)

By: _____

(Title)

END SECTION 00601

SECTION 00750

SUMMARY SCHEDULE AND KEY MILESTONES

1.0 GENERAL

1.01 THIS SECTION INCLUDES

- A. Summary Submittals
- B. Key Milestones
- C. Base Bid Summary Schedule
- D. Alternate Summary Schedule (If Applicable)

1.02 SUMMARY SCHEDULE

- A. Summary Schedules referred to in this section will be developed by the Contractor and the Owner illustrating an approach to designing and constructing the project. The activities to be shown on the schedules will be monitored and updated.
- B. Milestones shown on the Summary Schedules will be “Key Milestones” and are to be included in the Contractor’s Contract Schedule. The Contractor is responsible to develop his/her own activities and logic to meet the required Key Milestone Intermediate Dates. Refer to Division 1, Section 01310, Project Management and Coordination.

1.03 KEY MILESTONES

- A. Key Milestones shall be included in all Contractor Schedules and show completing on the intermediate dates shown in this Section.
- B. Key Milestones are a contractual requirement and liquidated damages as specified in *The Project Manual, Vol. 1, Division 1, Section 01100, Summary of Work*, will be assessed for each Key Milestone that completes beyond the dates listed below. Refer to Division 1, Section 01100 and Summary of Work.
- C. Key Milestones for the Base Bid are as follows:

Milestone: Substantial Completion

270 Days from NTP

Milestone: Final Completion

300 Days from NTP

END OF SECTION 00750

SECTION 00800

SPECIAL PROJECT CONDITIONS

1.0 PURPOSE

The Special Project Conditions are intended to identify those elements of work and items of material, and responsibilities of the Contractor, which are unique to the **Indian Hut Road / Amos Road Extension Paving Improvements** project and required by the Contract Documents. They are intended to supplement those contractual requirements contained within the Contract Documents including, but not limited to: the Contract; Division 1, General Requirements, Drawings and Technical Specifications.

2.0 SAFETY AND SECURITY

2.0.1 ENTRY ONTO THE PROJECT SITE

The only entrance to the Project site shall be by a gate or gates or such other location designated by the Owner. This will be determined during the pre-construction meeting. The Contractor shall be responsible for gate security. Vehicles to be allowed on the Project site will include only those of the Contractor, prime and sub-contractors and those designated by the Owner. Contractor shall have sole responsibility for the control and safety of vehicles traversing to and from such streets and roads as agreed upon with project owner.

2.0.2 STORAGE / STAGING AREA

All construction material, either the Contractor's, prime and sub-contractor's vehicles and equipment, and personal vehicle parking areas will be established and regulated by the Contractor and approved by the Owner

2.0.3 OPEN TRENCHES

All open trenches and excavations within the project site shall be marked by lighted and flagged barricades.

2.0.4 SECURITY

The Contractor shall be responsible for the security of his/her equipment and materials, as well as the security of the equipment and materials of his agents prime and sub-contractors. Further, he/her shall be responsible for the security of all gates and entrances to the Project site. The gates shall be locked at all times, or guards posted at the gates to control ingress and egress through them. The Contractor shall provide adequate lighting for the entire area of the Project site.

The Contractor shall provide to Owner a list of all his/her employees as well as a list of all the employees of the prime and sub-contractors and shall, during the work of the Project, advise the Owner of changes to the list of personnel working on the Project. The Contractor shall be responsible for the direct supervision of his/her employees, those of his agents, prime and sub-contractors at all times while on the Project site.

The Contractor shall exercise and take all precautions in the storage and dispensing of all flammable liquids such as, but not limited to, gasoline, diesel fuel and lubricants.

3.0 SURFACE INFORMATION AND MATERIALS INSPECTION

The Contractor shall have full responsibility for acquisition, interpretation, analysis and cost impact of sub-surface conditions in the performance of the Work required by this contract. The Contractor shall provide, to the Owner, written certification that all materials and equipment meet the design requirements, established in the drawings and technical specifications for permitting and are in conformance with the Construction Documents. Copies of all test, inspection and certification reports shall be submitted to the Owner within twenty-four (24) hours of receipt of such reports by the Contractor.

4.0 PAVEMENT

The Contractor shall be responsible for all roadways adjacent to or on the project site over which his, his agents prime and / or sub-contractors vehicles may travel. The Contractor shall at his sole cost and expense, repair any damage caused by operation of equipment or hauling of debris on any and all roads off of the project site used to travel on.

5.0 PROJECT SIGN

[NIC]

6.0 PROJECT PROGRESS PHOTOGRAPHS

The Contractor shall furnish to the Owner progress photographs that shall be taken monthly for the duration of the Work of this Contract. The photographs shall be taken before the start of construction work and continuing throughout the work as it progresses and as long as the work of this Contract is being performed. Refer to Division 1, Section 01322, Photographic Documentation. A photograph shall be taken from each corner of the construction limit lines of this Contract looking towards the center of the Project site.

PART 2- PRODUCTS

Not Used

PART 3- EXECUTION

Not Used

END OF SECTION 00800

SECTION 00900

LIST OF DRAWINGS AND TECHNICAL SPECIFICATIONS

IFB No. 20-062, Indian Hut Road / Amos Road Extension Paving Improvements

I - LIST OF DRAWINGS:

| <u>SHEET NO.</u> | <u>SHEET TITLE.</u> | <u>CURRENT DATE</u> |
|------------------|------------------------------------|---------------------|
| 1 | Title Sheet | 12-14-2020 |
| 2 | Summary of Estimated Quantities | 12-14-2020 |
| 3 | Typical Sections | 12-14-2020 |
| 4 | Right-of-Way Data Utility Contacts | 12-14-2020 |
| 5 | Alignment & Control Sheet | 12-14-2020 |
| 6 to 19 | Plan & Profile | 12-14-2020 |
| ND-1 to ND-4 | Plans & Details | 12-14-2020 |
| X1 – X24 | Cross Sections | 12-14-2020 |

END OF SECTION 00900

SECTION 01100

SUMMARY OF WORK

PART 1-GENERAL

The Summary of Work in this Section comprises the **Indian Hut Road / Amos Road Extension Paving Improvements** project in Georgetown County, South Carolina. The following scope of work description is intended to be general in nature. The intention is to have the successful Contractor perform all of the work included and presented within the Contract Documents, paying particular attention to the Summary Schedule, Key Milestones in Division 0, Section 00750. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual. The Drawings and Technical Specifications are not intended to indicate or describe all work, or means and method of construction required for completion of the Work. The Contractor shall provide and install all incidentals that are required for completion of the Work.

1.01 RELATED REQUIREMENTS INCLUDED

- A. Project Manual, Division 0, Bidding and Contract Documents
- B. Project Manual, Division 1, General Requirements
- C. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual, without exception.
- D. The Contract Form for this Project shall be as stipulated in Division 0, Section 00500 in the Project Manual.

1.02 SCOPE OF WORK AND USE OF THE PREMISES

- A. Contractor shall have use of the Project Site as shown on the applicable Drawings for execution of the Work of this Contract, except as may be otherwise indicated or necessitated by the requirements of the Project Manual, or as may be determined by the Owner.
- B. Contractor shall provide, or cause to be provided, and shall pay for all testing, labor, equipment, materials and such other utilities, transportation and facilities necessary for the proper execution of the Work, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work.
- C. Construction services shall be performed by qualified, licensed construction contractors and suppliers selected and paid by the Contractor.
- D. Contractor shall provide protection at all affected areas of the site during the performance of the Work.
- E. Contractor shall perform all work in conformance with O.S.H.A. requirements, which will be strictly enforced.
- F. Contractor shall coordinate the use of the premises consistent with the Project requirements as may be directed by the Owner.
- G. Contractor shall use access routes for delivery of materials and equipment only as indicated on the drawings approved by the Owner and as may be directed by the Owner. Do not use access routes other than those indicated. Contractor shall keep clean, maintain and repair all access routes used.
- H. Electrical power will not be provided for welding or any other equipment.
- I. Contractor shall assume full responsibility for the protection and safekeeping of all products under this contract, stored and / or installed on the Project Site as well as those products stored off the Project Site. Materials, products and equipment shall be stored on the Project Site only in those areas indicated or allowed for staging and approved by the Owner.

- J. Safe staging and material storage shall be limited to the area indicated on the drawings, which have been approved by the Owner and as may be designated by the Owner. Contractor must obtain specific permission from the Owner for the use of other areas for storage and staging.
- K. Contractor shall protect existing sidewalks, pavement, curbs, utilities, building exterior and interior surfaces subject to damage by Work performed under this contract. Contractor shall, at his sole cost and expense, repair or replace any existing work damaged by his/her prime and/or sub-contractor's personnel or equipment.

1.03 WORK SEQUENCE AND COMPLETION

- A. Contractor shall work in an orderly manner coordinated with the work of other disciplines and trades.
- B. No disruption to, or use of adjacent facilities and access to those facilities will be allowed.
- C. The Owner may require certain work to be performed after normal working hours or on holidays or weekends or as may be necessitated in the Public interest. Such work does not constitute a change of scope or additional cost.
- D. Contractor shall perform the Work in conformance with the Summary Schedule and Key Milestones in Section 00750. This Section includes critical interim completion dates that the Contractor is required to meet.

1.04 LIQUIDATED DAMAGES

The Contractor agrees to commence Work under this Contract on the effective date established as "Notice to Proceed", and to complete the Work in conformance with the established Summary Schedule and Key Milestones in Section 00750 of the Project Manual. Should the Contractor neglect, fail or refuse to complete the Work by any one of the key milestone activities by its critical interim completion date(s) or the Substantial Completion date then the Contractor shall pay to the Owner Liquidated Damages in the amount of \$300.00 per calendar day for those damages suffered by the Owner as a result of delay for each and every calendar day that the Contractor has failed to complete any key milestone activity by its interim completion date or the Substantial Completion date. The aforementioned Liquidated Damages are not a penalty, but rather are a pre-agreed liquidation of the losses incurred by the Owner due to failure of the Contractor to complete the Work on time.

1.05 SUBSTITUTIONS AND PRODUCT OPTIONS

Refer to Division I, Section 01600, Product Requirements in the Project Manual.

1.06 SURVEY

Contractor shall verify all survey data, Geotechnical reports and Dilatometer investigations included within the Contract Documents and report any errors and inconsistencies in writing to the Owner before any work is performed in those areas where errors and inconsistencies may exist. Refer to Division 1, Section 01310, Project Management and Coordination in the Project Manual.

PART 2- PRODUCTS

Not Used

PART 3- EXECUTION

Not Used

END OF SECTION 01100

SECTION 01290

PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents of the Project Manual.
- B. Division 1, General Requirements of the Project Manual

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Certified Applications for Payment.
- B. This Section requires the coordination of the Contractor's Applications for Payment with the Construction Schedule, including established Key-Milestone Dates, Schedule of Values, Submittal Schedule, Prime and Sub-Contractors work.

1.3 APPLICATION FOR PAYMENT

A. General

1. Progress payments shall be applied for and made as the construction of the Work proceeds at intervals stated in the Contract. The Contractor will provide, to the Owner a "draft" copy of his/her Application for Payment on the 25th day of the month, or the closest workday should the 25th day fall on a weekend or holiday. This provides an opportunity to discuss figures (Schedule of Values) before they become "fixed", and will expedite the processing of the final typed Application when the Owner receives it.
2. Formal Applications for Payment shall be submitted to the Owner by close of business on the 1st day of the succeeding month, or the closest work day should the 1st day fall on a weekend or holiday of the month. The Certified Application for Payment will be processed, by the Owner, thirty (30) calendar days from the day that the Contractor submits the final Application for Payment, except if that day should fall on a weekend or holiday in which case payment shall be made on the next succeeding work day.
3. All information required on the Application shall be provided and filled in, including that for Change Orders executed prior to the date of submittal of the Application. Summary of dollar values must agree with respective totals indicated on continuation sheets.
4. Each Certified Application for Payment shall be consistent with previous Applications as approved by and paid for by the Owner.
5. All Work covered by Progress Payments shall, at the time of payment, become the property of the Owner.
6. Form of Application for Payment will be AIA Document G 702 revised, and Continuation Sheets G 703.
7. All formal Applications for Payment shall be submitted in duplicate to the Owner by means ensuring receipt within twenty-four (24) hours. Itemized Applications and supporting documents shall be submitted with a complete transmittal form listing attachments, and recording appropriate information related to the Application in a manner acceptable to the Owner. Itemized data and format provided on continuation sheets shall include schedules, line items, values as stipulated in the Schedule of Values as accepted by the Owner.

8. With each Application for Payment the Contractor shall certify that such Application for Payment represents a just estimate of costs reimbursable to Contractor under terms of the Contract and shall certify there are no Mechanic's or Materialmen's Liens outstanding at the date of that Application for Payment, that all due and payable bills with respect to the Work have been paid to date or shall be paid from the proceeds of that Application for Payment, that there is no known basis for the filing of any Mechanic's or Materialmen's Lien against the Surety in connection with the Work, that Waivers and Bills Paid Affidavit forms from all prime and subcontractors, consultants and materialmen have been, or will be, obtained in the form agreeable to the Owner and that amount of the contract remaining to be expended is sufficient to complete the project.
9. The Contractor shall complete each entry on the forms, including notarization and execution by a person authorized to sign legal documents on behalf of the Contractor. Incomplete Applications for Payment will be returned without action.
10. Conditions governing regular schedule for applications, payment and retainage shall be as stated in the Contract.
11. Continuation sheets shall include a total list of all scheduled component items of work with item number and scheduled dollar value for each item. Dollar values to be included in each column for each scheduled line item when Work has been performed or products stored. Round off values to nearest dollar or as may be specified for Schedule of Values.
12. List each Change Order executed prior to date of submission at end of continuation sheets. List by Change Order number and description as to original component item of Work.

B. Waivers and Mechanics Liens

1. Monthly Applications for Payment shall include Waivers of Mechanic's Liens and Claims for all Work included in the period of construction covered by the Application for Payment and the previous month's Application. Waivers of Liens and Claims from prime contractors or subcontractors and suppliers shall include the period of construction covered by the Application for Payment, the total amount paid prior to and including the previous month's Application
2. Partial Waivers of Liens shall be submitted on each item of work for the amount requested, prior to deduction for retainage, for each item.
3. Contractor shall submit final or full Waivers of Liens and Claims for completed items of work shown on the monthly Application for Payment.
4. The Owner reserves the right to designate which entities involved in the Work must submit Waivers of Liens.
5. The Contractor's final Application for Payment shall be submitted with, or preceded by final Waivers from every entity involved with the performance of work, supplying of materials or the providing of professional services covered by the Application who could lawfully be entitled to a Lien.
6. Waivers of Liens shall be provided on forms, and executed in a manner acceptable to the Owner.

C. Initial (First) Monthly Application for Payment

1. Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include, but are not limited to the following:
 - a. List of all prime contractors, first and second tier subcontractors.
 - b. Contractor's Sworn Statement of principal suppliers, fabricators, prime and subcontractors.
 - c. Schedule of Values.
 - d. Contractor's construction schedule, to be updated monthly.
 - e. Schedule of principal products and long lead delivery items, to be updated monthly.
 - f. Submittal Schedule, Procurement Schedule.
 - g. Copies of all required permits.
 - h. Copies of authorizations and licenses from governing authorities for performance of work.
 - i. Initial progress report.
 - j. Certificates of Insurance and insurance policies.
 - k. Any material stored off site must carry additional insurance (All Risk Rider) stating Owner as insured. All material will be inspected by the Owner before billing can be approved. Bill of Sale and receipts for items being billed at cost only are required and 25% retainage will be held for off-site stored materials. Paperwork must accompany request two weeks prior to billing to insure adequate time to schedule Owner's inspection.
 - l. Contractor's Construction Safety Plan (Initial Only).

D. Application for Payment at Substantial Completion

1. The Contractor shall, upon issuance of the Certificate of Substantial Completion, submit his/her Application for payment, which shall reflect any Certificates of Substantial Completion issued previously for Owner occupancy for designated portions of the Work.
2. Application shall include, but not be limited to and as may be determined by the Owner, the following:
 - a. Certificates of Occupancy and such other permits and approvals as may be required.
 - b. Warranties (Guarantees) and maintenance agreements as may be applicable.
 - c. Testing, adjusting and balance records.
 - d. Maintenance manuals, training and instructions.
 - e. Equipment start-up performance reports.
 - f. Changeover information related to Owner's occupancy, use, operation and maintenance.
 - g. Final cleaning of the entire project site.
 - h. Application for Reduction of Retainage, and Consent of Surety.
 - i. List of incomplete Work, recognized as exceptions to issuance of Certificate of Substantial Completion.

E. Final Application for Payment

1. Administrative actions and submittals that shall precede or coincide with this final Application for Payment shall include, but not be limited to and as may be determined by the Owner, the following:
 - a. Completion of Project Closeout requirements.
 - b. Completion of items specified for completion after Substantial Completion.
 - c. Prepare and submit to the Owner a list of unsettled claims, as may be applicable.
 - d. Transmit to the Owner all required project records including permit drawings, as constructed drawings both on hard copy and in electronic (PDF) format.
 - e. Provide to the Owner evidence that all requisite taxes, fees and similar obligations have been paid in full.
 - f. Removal of all temporary facilities and services.
 - g. Removal of all surplus materials, rubbish and similar elements.

PART 2 - PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01290

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SECTION 01300

REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents of the Project Manual
- B. Division 1, General Requirements of the Project Manual

1.02 CODES, AUTHORITIES, REGULATORY AGENCIES, AND INDUSTRY REFERENCES

- A. Where references are made on the Drawings or in the Technical Specifications to codes, they shall be considered an integral part of the Contract Documents as minimum standards. Nothing contained in the Contract Documents shall be so construed as to be in conflict with any law, bylaw or regulation of the municipal, state, federal or other authorities having jurisdiction.
- B. Perform Work in compliance with the following code:
 - 1. Current edition of all applicable building code(s), local, state and federal.
- C. Perform Work in compliance with the following Authorities and Regulatory Agencies:
 - 1. Georgetown County, South Carolina
 - 2. South Carolina Dept. of Natural Resources (SCDNR)
 - 3. South Carolina Dept. of Transportation (SCDOT)
 - 4. South Carolina Department of Health Environmental Controls (SCDHEC)
 - 5. OSHA Code of Federal Regulations. (OSHA)
 - 6. All federal, state and local clean air, clean water, water rights, resource recovery, and solid waste disposal standards and the Federal Endangered Species Act, and the Occupational Safety and Health Acts.
 - 7. Environmental Protection Agency (EPA).
- D. Perform Work in compliance with the following industry references:
 - 1. National Fire Protection Association (NFPA), National Electric Code (NEC).
 - 2. NFPA 101, Life Safety Code.
 - 3. SCE 7-88: Minimum Design Loads for Buildings and Other Structures.
 - 4. American Society for Testing and Materials (ASTM).
 - 5. Underwriters Laboratories (UL).
 - 6. The National Board of Fire Underwriters.

1.03 FIRE RATINGS

- A. Where material, component, or assembly is required to be fire rated, fire rating shall be determined or listed by the following testing agency:
 - 1. Factory Mutual Laboratories (FM).
- B. Equivalent fire rating as determined or listed by another testing authority is acceptable if approved by applicable governing authorities having jurisdiction in Georgetown County, SC.

1.04 PERMITTING

- A. At no additional expense to the Owner, file for and obtain necessary licenses and permits for any interim phases for construction, and be responsible for complying with any Federal, State, County, and Municipal Laws, Codes, regulations applicable to the performance of the Work, including, but not limited to, any laws or regulations requiring the use of licensed prime and /or subcontractors to perform parts of the Work.

1.05 INSPECTION AND CERTIFICATIONS

- A. Arrange inspection and obtain Certificates of approval from applicable authorities having jurisdiction. Furnish Certificates of Approval in accordance with the applicable Technical Specifications and the General Requirements of the Contract.
- B. Notify and coordinate for all appropriate Georgetown County and State inspections of the work. Allow enough time to maintain progress of the work.

1.06 PERFORMANCE

- A. Should the Contractor knowingly perform any Work that does not conform with the requirements of applicable codes, ordinances, regulations, or standards, without given prior written notice to the Owner and obtaining required variance, etc. from the governing body, Contractor shall assume full responsibility thereof and shall bear all costs involved in correcting such non-complying Work. Costs shall include but not be limited to: All fines, inspection costs, damages, design and management fees in addition to the cost of removal and replacement of the work of all trades involved.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION 01300

SECTION 01310

PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual and the Construction Contract Documents, without exception
- B. The Contractor shall be responsible for general project coordination of all construction phases and aspects, trades and disciplines of the Work of the Project.
- C. The Contractor shall be responsible for general coordination of all construction site operations with other improvement projects that may be conducted by the Owner.
- D. The Contractor shall be responsible for general coordination with other interested parties including, but not limited to, Georgetown County, Owner, other Contractors working on Owner or abutter property projects, and all involved permitting authorities.

1.02 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents in the Project Manual.
- B. Division 1, General Requirements in the Project Manual

1.03 GENERAL COORDINATION

- A. Coordinate scheduling, submittals, and work of various Sections of the Technical Specifications to assure efficient and orderly sequence of installation of construction elements with provisions for accommodating items furnished by the Owner, or others, to be installed by the Contractor.
- B. Coordinate sequence of Work to accommodate partial occupancy for the Owner as specified in Section 01100, Summary of Work and / or as directed by the Owner.
- C. Review and coordinate requirements of all Divisions of the Project Manual and Sections of the Technical Specifications. Report any discrepancies to the Owner
- D. Maintain services of prime and major sub-contractors throughout duration of the Contract, except as may be required by provisions of Conditions of Contract. Notify the Owner, in writing, of intention to replace prime or sub-contractor(s), outlining reasons for the action and naming proposed replacement contractor(s).
- E. Coordinate work of prime and sub-contractors and record contractor installation(s) data on Project Record Drawings.
- F. All communications regarding Contract requirements shall be addressed to the Owner. Outline any special procedures required for coordination and include such items as required notices, reports and attendance at meetings.
- G. Arbitrate and resolve coordination conflicts between prime and sub-contractors to ensure complete and operational systems.

- H. Coordinate work with all existing utility systems.
- I. Coordinate construction activities to ensure that operations are carried out with due consideration given to energy, water and materials.
- J. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.04 COORDINATION MEETINGS

- A. In addition to the meetings referred to in Section 01315, Progress Meetings, the Contractor shall conduct coordination meetings and pre-installation meetings with supervisory personnel, prime and sub-contractors, suppliers, the Owner and others as necessary and applicable to assure coordination of different trades and disciplines
- B. Schedule coordination and pre-installation meetings with prime and sub-contractors, suppliers and the Owner to discuss hardware installation and specialty systems installation as may be applicable.

1.05 COORDINATION OF SUBMITTALS

- A. Coordinate use of Project space and sequence of installation of equipment, walks, parking areas, mechanical, electrical, plumbing, or other Work that is indicated diagrammatically on the Drawings and/or contained in the Technical Specifications. Utilize space efficiently to maximize accessibility for Owner installations, maintenance and repairs.
- B. In finished areas, except as otherwise shown, conceal ducts, pipes, wiring, and other non-finish items within construction. Coordinate locations of concealed items with finish elements, and provide as-constructed drawings of the involved location.
- C. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in sequence required to obtain best results.
- D. Make adequate provisions to accommodate items scheduled for later installation, including accepted Bid Alternates, Owner supplied items, sub-subcontractor installed items, work by others, and installation of products purchased with allowances.

1.06 COORDINATION OF MECHANICAL, ELECTRICAL, AND OTHER INSTALLATIONS

- A. General: Sequence, coordinate, and integrate the various elements of mechanical, electrical, and other systems, materials, and equipment. Comply with the following requirements:
 - 1. Coordinate mechanical and electrical systems, equipment and materials installation with other building components.
 - 2. Verify all dimensions by field measurements, and advise the Owner of any dimensional conflicts.
 - 3. Arrange and coordinate for chases, slots, and openings in other building components during progress of construction.

4. Coordinate the installation of required supporting devices and sleeves to be set in poured-in-place concrete and other structural components, prior to placement of concrete and/or other structural components.
5. Where mounting heights are not detailed or dimensioned, install systems, materials, and equipment to provide the maximum headroom possible and advise the Owner prior to completion of such installations.
6. Coordinate connection of systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchise service (utility) companies, and controlling agencies. Coordinate and provide required connection for each service.
7. Install systems, materials, and equipment to conform with approved submittal data, include coordination drawings. Confirm to arrangements indicated by the Contract Documents, recognizing that portions of the Work may be shown only in diagrammatic form. Where coordination requirements conflict with individual system requirements, immediately refer conflict to the Owner
8. Install systems, materials, and equipment level and plumb, parallel and perpendicular to other building systems and components. Elements restricting such installation will be referred to the Owner
9. Install systems, materials, and equipment to facilitate servicing, maintenance, and repair or replacement of disconnecting, with minimum of interference with other locations and ease of access.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used.

END OF SECTION 01310

SECTION 01315

PROGRESS MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Division 0, Bidding and Contract Documents apply to this Section.
- B. Division 1, General Requirements of the Contract Documents apply to this Section.

1.2 SUMMARY

- . This Section specifies administrative and procedural requirements for all project meetings including but not limited to the following:
 - 1. Field / Site Coordination Meetings.
 - 2. Construction Progress Meetings.
 - 3. Project Coordination / Information Response Meetings (By Owner)

1.3 PROGRESS MEETINGS

- A. Conduct Field / Site Work Coordination meetings at a location and at appropriate times to be determined by the Owner. Notify the Owner no less than 48 hours prior to scheduled meeting date.

Conduct Construction Progress meetings at the Project site, or at such location designated by the Owner at regularly scheduled intervals. At the onset of the project these meeting shall be held on a weekly basis until such time as the frequency is changed by the Owner. Notify the Owner of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.

Conduct Project Coordination / Information Response Meetings at such times as may be required and at a location to be approved by the Owner. Notify the Owner no less than 48 hours prior to scheduled meeting date.

- B. Agenda: Agendas and minutes for Field and Project Coordination meetings will be prepared by whoever (Contractor or Owner) requests the meeting. Agenda for regularly scheduled Construction Progress Meetings will be prepared by the Owner; minutes of those meetings will be prepared by the Contractor.. Review and provide comment on minutes of the previous (Field/Site Coordination, Progress or Project Coordination meetings. Review other items of significance that could affect progress. Include topics for discussion as appropriate in the current status of the Project.

- 1. Contractor's construction schedule: Review progress since the last meeting. Determine where each activity is in relation to the construction progress schedule, whether on time or ahead or behind schedule. Determine how schedule can be improved if behind..

- C. Reporting: After each Construction Progress meeting date the Contractor will prepare and forward to the Owner, minutes of the meeting for review and comment. The Owner will distribute (corrected) copies of minutes of the meeting to each party present and to other parties who should have been present. Contractor shall include a brief summary, in narrative form, of progress since the previous meeting and report.
1. Schedule Updating: Contractor will revise / update the construction schedule after each Construction Progress Meeting where revisions to the schedule have been made or recognized. Contractor will Issue the revised schedule, to the Owner, concurrently with the report / minutes of each meeting.

PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01315

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SECTION 01320

CONSTRUCTION PROGRESS AND DOCUMENTATION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Schedule for Submittals
- B. Scheduling Personnel (NIC)
- C. Contract Milestones
- D. Submittal Schedule.
- E. Material Procurement Schedule.
- F. Construction Activities Schedule
- G. Construction Activities Schedule Revisions and Updates.
- H. Short Interval Schedule.
- I. Adjustments of Time for Completion.

1.04 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents in the Project Manual, more specifically Section 00750, Summary Schedule and Key Milestones apply to this Section..
- B. Division 1, General Requirements in the Project Manual, more specifically Section 01100, Summary of Work, Section 01330, Submittal Procedures and Section 01770, Close Out Procedures apply to this Section.

1.05 SCHEDULE FOR SUBMITTALS

- A. Allow ten (10) calendar days for review and turnaround of any submittals as may be required in the Drawings and / or Technical Specifications. All required Submittals shall be forwarded directly to the Architect / Engineer of record with sufficient time to allow for review, approval, fabrication and delivery to support the Schedule as outlined. Copy of the transmittal only must be sent to the Owner.
- D. The Contractor shall submit the following as may be appropriate and acceptable to the Owner:
 - 1. Schedule of Submittals and Product Data: To be submitted within ten (10) calendar days from Notice to Proceed (NTP). Schedule shall show submittals commencing within ten (10) calendar days from NTP and completing within sixty (60) calendar days from NTP.
 - 2. Material Procurement Schedule: To be submitted within ten (10) calendar days from NTP.
 - 3. Construction Activities Schedule: To be submitted within ten (10) calendar days from NTP.
 - 4. Short Interval Schedule: To be submitted within seven (7) calendar days from NTP.
 - 5. Inspection and Material Testing Schedule: To be submitted within twenty-one (21) calendar days from NTP.
 - 6. Hot Laid Asphalt and Portland Cement Concrete Pour Schedules: To be submitted no less than five (5) calendar days prior to the date scheduled for the activity.

1.03 SCHEDULING PERSONNEL

- A. Not Included (NIC)

1.04 CONTRACT MILESTONES

- A. Key Milestones developed by the Owner and provided for in Division 0, Section 00750, Summary Schedule and Key Milestones in the Project Manual, are to be incorporated into the Contractor's Construction Schedule.
- B. Key Milestones: Key Contract Milestones (the "Milestones") are significant interim dates on the Critical Path of the Work and within the Contract Time at which certain portions of the Work must be either partially or totally complete in order for the Work to be in compliance with the Contract Documents
- C. Identify all Milestones in the Schedule Submittals, whether or not the Owner has identified those dates in the Bidding and Contract Documents.
- D. Milestones will be clearly identified in all Contractor submitted schedules and will serve as an essential instrument of measurement, by the Owner, of the Contractor's compliance with the Contract Documents.
- E. Failure by the Contractor to achieve Milestones by the Contract Dates may result in Owner implementing contractual remedies, as required, in order to regain the Contract Schedule.

1.05 SUBMITTAL SCHEDULE

- A. Within ten (10) calendar days after NTP, develop and submit a Schedule of Submittals on a form acceptable to the Owner. At a minimum, the Submittal Schedule shall be in the form of: (i) a hard copy ;and ,(ii) an electronic version (PDF) to be approved by the Owner.
- B. Incorporate all submittals required by the Contract Documents for the duration of the Contract Time.
- C. Integrate the Submittal Schedule into the Contract Schedule and link material and equipment deliveries as appropriate to construction work activities.
- D. Submit status of the Submittal Schedule with the monthly Contract Schedule Status Submission.
- E. Indicate changes from the previous report with an asterisk.
- F. The Owner's review of the Submittal Schedule does not constitute it to be a complete listing of all submittals required by the Contract.

1.06 MATERIAL PROCUREMENT SCHEDULE

- A. Within ten (10) calendar days after the NTP, develop and submit a Material Procurement Schedule on a form acceptable to the Owner. At a minimum, the Submittal Schedule shall be in the form of (i) a hard copy and (ii) an electronic version (PDF) to be approved by the Owner.
- B. Incorporate all material required by the Contract Documents for the duration of the Contract Time.
- C. Integrate the Material Procurement Schedule with the Schedule of Submittals and the Contract Schedule.
- D. Review the Material Procurement Schedule at the weekly scheduled Construction Progress Meeting.
- E. Submit status of the Material Procurement Schedule with the monthly Contract Schedule Status Submission.
- F. Indicate changes from the previous report with an asterisk.

1.07 CONSTRUCTION ACTIVITIES SCHEDULE

- A. Within ten (10) calendar days following NTP and prior to submission of the first Application for Payment, submit the Construction Activities Schedule (Project Schedule) both in (i) a hard copy and (ii) electronic version (PDF). The Project Schedule shall employ the Critical Path Method (CPM) and may utilize Microsoft Project or equal.
- B. Incorporate all Key Milestones as designated by the Owner in the Contract Documents, Division 0, Section 00750, as well as other Milestones the Contractor identifies as significant points in time.
- C. At a minimum, the Construction Activities Schedule (Project Schedule) shall include the following:
 - 1. A computer generated bar chart, based upon the CPM logic, organized by discipline and resource and sorted by early start, early finish.
 - 2. No work activity shall exceed fifteen (15) working days in duration, unless agreed upon by the Owner.
 - 3. Each activity shall be cost loaded to reflect the estimated value of performing the work. Activity cost shall consist of the sum of labor, materials, equipment, supervision and allocated overhead. The sum of all activity cost shall equal the Contract Sum.
 - 4. All Milestones, submittal dates and completion dates for all shop drawing activities, material procurement, fabrication and delivery dates shall be in support of the Construction Activities Schedule. Anticipated types and durations of usage for major equipment, and any other scheduling data relevant to the Work shall be included. .
 - 5. Activities required for Project Closeout shall include appropriate activities for obtaining Substantial Completion, Punch List, Punch Work, Final Inspections (including pre-inspections and system checkouts), Closeout Submittals (Certificates, Warranties, Manuals, Release of Liens, As-Constructed drawings etc.). Show Milestones for Substantial Completion, Temporary Certificate of Occupancy (where appropriate), Certificate of Occupancy, and Final Completion.
 - 6. Weather conditions, such as high or low ambient temperatures, wind, and/or precipitation, can influence progress of the work shall be considered and allowed for in the planning and scheduling of work. This is to ensure completion of the work within the Contract time. Weather conditions shall be determined by an assessment of average historical climatic conditions based upon the preceding ten (10) year records published for the locality by the U.S. Weather Bureau Service. Weather must be unusually severe and beyond the 10 year average to even be considered as having impacted the Project Schedule.
 - 7. The Project Schedule shall indicate holidays and any non-work days applicable to the schedule.
- D. Joint Review, Revision, and Acceptance of the Construction Activities Schedule:
 - 1. Within five (5) calendar days of receipt of Contractor's proposed Construction Activities Schedule (Project Schedule), the Owner and the Contractor shall meet for joint review of the Project Schedule to address corrections or adjustments needed. Any areas that conflict with timely completion of the Work of the Project shall be subject to revision by the Contractor at no cost to the Owner.
 - 2. Within five (5) calendar days after joint review, the Contractor shall revise and resubmit the Project Schedule in accordance with agreements reached during review. Within five (5) calendar days of resubmission of the revised proposed Project Schedule, the Owner and Contractor shall again meet for joint review.

3. Any areas of the schedule still not in compliance shall be corrected and the Project Schedule resubmitted for acceptance within three (3) calendar days of the joint review.
 4. If the Contractor fails to define any element of work, activity or logic, and the Owner's review does not detect this error or omission, such error or omission when discovered shall be corrected at the next monthly update without change to Contract Time, and at no cost to the Owner.
 5. If the Owner questions Contractor's proposed logic, activity duration or cost, Contractor shall provide satisfactory revisions or adequate justification, within five (5) calendar days of receipt of written request. Any changes to the Project Schedule shall be at the Contractor's sole cost and expense.
- E. The Project Schedule shall become the basis for tracking and measuring progress once the Owner has provided written acceptance of the Contractor's submittal. Acceptance of the Project Schedule by the Owner does not relieve Contractor of any responsibilities for the accuracy or feasibility of the schedule, or the Contractor's ability to meet Substantial Completion, Contract Completion and/or Key Milestones – Intermediate dates. Also, acceptance does not warrant, acknowledge or admit the reasonableness of logic, activity duration or cost loading of the Project Schedule.

1.08 CONSTRUCTION ACTIVITIES SCHEDULE REVISIONS AND UPDATES

- A. The Construction Activities Schedule (Project Schedule) shall be updated monthly to show progress and submitted for the Owner's review. The Contractor shall provide the updated Project Schedule with each payment application. This shall include two (2) schedule hard copies and reports along with one electronic version using Microsoft Project or equal software. Non-submittal of the update will be grounds to withhold the Application for Payment.
- B. Updating of the Project Schedule to reflect actual progress shall not be considered revisions to the Schedule. The accepted Project Schedule cannot be changed (revised) without review and acceptance, by the Owner of the Contractor's proposed change.
- C. After the monthly Schedule Update, if the Project Schedule no longer represents actual progress of the Work, Contractor shall revise the Project Schedule to properly reflect progress and resubmit to the Owner. Any costs determined as a product of the Schedule Update shall be borne solely by the Contractor
- D. If Contractor desires to make changes in the Project Schedule to reflect revisions in method(s) of operating and scheduling of Work, Contractor shall notify the Owner in writing, stating the reason for the proposed revision. After the Owner accepts the proposed revision, the Contractor shall implement the revision within three (3) calendar days and submit the Project Schedule to the Owner for review and final approval. Any costs determined as a product of the Project Schedule changes shall be borne solely by the Contractor
- E. In addition, revisions to the Project Schedule that are requested by the Owner shall be made by the Contractor within three (3) calendar days of the requested revision.
- F. All revisions to the Project Schedule shall be identified by an appropriate activity code. The Contractor shall submit the proposed code structure to the Owner for approval. Approval of the codes and requested revision(s) are required prior to revising the accepted Project Schedule.
- G. If the Contractor defaults by failing to submit a Project Schedule, or provide the required updates or revisions, the Owner reserves the right to prepare the Project Schedule, update, or revision back-charging the Contractor for the cost of this work. In such an event:
 1. The Owner will request the Contractor's participation in the development of the Project Schedule, update or revision to assure the Project Schedule produced

accurately reflects Contract requirements and progress of the Work. The Contractor shall respond and participate in this effort within three (3) calendar days of the Owners request.

2. If the Contractor refuses to participate or cooperate with the Owner, then the Owner will develop the status of the Project Schedule to the best of its ability with the information available.
3. Whether the Contractor participates or not, the Project Schedule shall be issued for the use of a unilateral Change Order to the Contract as may be appropriate and determined by the Owner.

1.09 SHORT INTERVAL SCHEDULE

- A. Within seven (7) calendar days from receipt of Notice to Proceed (NTP) the Contractor shall submit to the Owner a Short Interval Schedule.
- B. The Short Interval Schedule shall be a time-scaled, hand-drawn or computer generated schedule and be consistent with the timing and sequencing of the Construction Activities Schedule (Project Schedule). It is not required to be in a CPM format.
- C. The Short Interval Schedule shall depict all activities planned to occur within the next four (4) weeks from the data date and show status for activities, which have occurred within the prior one (1) week from the data date.
 1. Generally, no activity presented in the Short Interval Schedule shall have a duration greater than five (5) working days.
 2. The Owner, from time to time, may require the Contractor to further define activities on the Short Interval Schedule that have a duration greater than one (1) day.
- D. The Contractor shall update the Short Interval Schedule at a minimum of once a week for the duration of the project. It shall be submitted to the Owner at regularly scheduled Progress and Coordination meetings. The data date shall be within one (1) workday of the aforesaid meeting.
- E. The Short Interval Schedule shall be utilized with Contractor's prime and sub-contractors and other project parties for the near term coordination of the Work.
- F. All Milestones identified in the Contract and scheduled to take place within the calendar time frame of the Short Interval Schedule shall be included in the Schedule.

1.10 ADJUSTMENT OF TIME FOR COMPLETION

- A. Time for Completion will be adjusted only in accordance with this Clause and the Contract Documents.
- B. Any request for adjustment of time for completion because of changes or alleged delays shall be accompanied by a complete and comprehensive **Time Impact Analysis Proposal**, which shall be submitted for approval within five (5) calendar days of the event causing delay. Failure to provide the proper notice within this time frame shall be construed as the Contractor's acceptance that the event causing delay can be absorbed into the Construction Activities Schedule (Project Schedule) without causing a delay to the project completion or any Key Contract milestone date.
- C. Each **Time Impact Analysis Proposal** shall provide information justifying the request and stating the extent of the adjustment requested. Each Analysis shall be in a form and content acceptable to the Owner and shall include, but not be limited to, the general information set forth in this section appropriate to the type of request (change or alleged delay) including the following:
 1. A fragnet (a detailed sub-level schedule) CPM Schedule illustrating how Contractor proposes to have the change or alleged delay incorporated into the current Updated Project Schedule.

2. Identification of activities in current updated Project Schedule, which are proposed to be amended due to the change or alleged delay, together with engineering estimates and other appropriate data justifying the proposal.
3. **Time Impact Analysis Proposals** shall be based upon the dates when the change or changes were issued, or dates when alleged delay or delays began, status of work at that time, and shall include time computations for affected activities.
4. Activity delays shall not automatically mean that an extension of the Contract Time is warranted or due to the Contractor. *It is the Owner's intention to own and control all float time indicated in the Project CPM Schedule.*
5. Contract Time Extensions or Key Contract Milestone Adjustments will only be considered when a Critical Path activity or activities are affected and a resulting delay extends the Contract Completion Date or Key Contract Milestone date(s).
6. Adjustment of a Key Contract Milestone date(s) may not necessarily result in an adjustment to the Contract Completion Date.
7. As an alternative to extending the Contract Completion Date or adjusting Key Contract Milestones, the Owner may require the Contractor to adjust the Project Schedule. This shall be accomplished by revising logic, adding resources, working crews on overtime, working additional shifts, and any other mitigating measures that the Owner determines is in the best interest of the project and the Public. Contractor agrees to fully cooperate with the Owner in finding the most effective (least cost) means to accomplish this task when requested.
8. Should the Owner find, after review of the **Time Impact Analysis**, that the Contractor is entitled to an extension of time for completion, the time extension for completion will be considered for approval by the Owner..
9. **Time Impact Analysis** related to Change Order Work and/or Contract Time Extensions shall be incorporated into and attached to the applicable Change Order to be prepared by the Owner.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01320

SECTION 01322

PHOTOGRAPHIC DOCUMENTATION

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual, without exception.
- B. Construction progress record photographs shall be taken by the Contractor periodically during the course of the Work as requested by the Owner.
- C. Furnish construction photographs taken at commencement of Work and at monthly intervals until completion of the Work.
- D. Views and quantities required:
 - 1. At each specified time, take photographs from numerous different views to show the progress of the Work. Indicate date photo was taken on all photographs.
 - 2. Furnish digital images, to the Owner and provide a set for the Project Record file, a total of two (2) sets.
 - 3. The Owner shall have the right to request fewer photographs be taken at certain intervals so more photographs may be taken at other times, providing the total number of photographs remains unchanged.
- E. Do not display photographs in publications, contests or other public or private forums without the express written consent of Owner.
- F. Assemble construction photographs at project closeout in accordance with requirements stipulated in Section 01781, Project Record Documents.

1.02 RELATED REQUIREMENTS

- A. Division 1, General Requirements of the Project Manual. .
- B. Section 01781, Project Record Documents.

1.03 COST OF PHOTOGRAPHY

- A. Contractor shall pay all costs for specified photography and prints.

PART 2 – PRODUCTS

2.01 PRINTS OR DIGITAL ALBUMS

- A. Identify each print, listing time and date of exposure, location and orientation of view, Project name and address of photographer, and photographer's numbered identification of exposure.
- B. Photographs shall be taken with high definition digital equipment as a minimum.

2.02 NEGATIVES

- A. Negatives, if applicable, will become the property of Owner with sole rights of reproduction.

PART 3 – EXECUTION

3.01 VIEWS REQUIRED

- A. Consult with the Owner for instructions concerning views required at each specified visit to Site.
- B. Photographs from locations to adequately illustrate conditions of construction and progress status.

3.02 DELIVERY OF PRINTS OR DIGITALALBUMS

- A. Deliver to the Owner as soon as processed.

END OF SECTION 01322

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit shop drawings, product data, samples, coordination drawings and certifications concurrently as required in the applicable Drawings and / or Technical Specifications.
- B. Prepare and submit to the Owner no later than ten (10) calendar days after receipt of Notice to Proceed (NTP), a list of submittals required by each applicable Section of the Technical Specifications. Submit in accordance with this Section and the requirements of Section 01310, Project Management and Coordination.
- C. Designate in schedule data dates for submission and review of shop drawings, product data and samples and the date of return.

1.02 RELATED REQUIREMENTS

- A. Division 1, General Requirements of the Project Manual.

1.03 SHOP DRAWINGS

- A. Present drawings in a clear and thorough manner. Prepare original, project specific documents-do not reproduce Construction Documents.
- B. Identify details by reference to sheet and detail, schedule or room numbers shown on Contract Drawings or as may be referred to in the Technical Specifications.
- C. Consecutively number shop drawings for each section of Work. Retain numbering system throughout all revisions.
- D. Show detail, material, dimensions, thickness, methods of assembly, attachments and relationship to adjoining Work and other pertinent data and details.
- E. Verify dimensions and field conditions. Clearly indicate field dimensions and field conditions.
- F. Check and coordinate shop drawings of any Section or trade with requirements of other Sections or trades as related and as required for proper and complete installation of Work.
- G. Prepare composite shop drawings and installation layouts when necessary or requested to depict proposed solutions for tight field conditions. Coordinate in field with affected trades for proper relationship to work of other trades based on field conditions.

1.04 PRODUCT DATA

- A. Preparation
 - 1. Annotate each sheet to clearly identify specific product or part installed, and specific data applicable to installation.
 - 2. Show performance characteristics and capacities.

3. Show dimensions and clearances required.
4. Show wiring or piping diagrams and controls.
5. Indicate specified finish.
6. Indicate only those sheets, which are pertinent to specific product(s) with product clearly identified.

B. Manufacturer's standard schematic drawings and documents.

1. Modify drawings and diagrams to delete information which is not applicable to the Work.
2. Supplement standard information to provide information which is applicable to the Work.

1.05 SAMPLES

- A. Provide a minimum of two (2) samples, or as otherwise indicated in the Technical Specifications, of sufficient size to clearly illustrate:
1. Functional characteristics of the product, with integrally related parts and attachment devices.
 2. Full range of color, texture, and pattern.
 3. Samples shall be referenced to the applicable section of the Technical Specifications.

1.06 MANUFACTURER'S CERTIFICATION OF MATERIALS AND EQUIPMENT

- A. Before shop drawings or manufacturer's data for equipment are submitted for approval, a duly authorized manufacturer's representative of the proposed equipment shall review the design of the system relative to the proper operation of his/her equipment and material.
1. Shop drawings and/or manufacturer's data submitted shall include letter from manufacturer's representative certifying that his/her equipment and materials will operate and function satisfactorily under the proposed design conditions. If required by the jurisdiction having authority, data shall be signed and sealed by a South Carolina Registered Engineer in the respective discipline.
- B. Before the work is accepted, a duly authorized manufacturer's representative of the installed equipment shall inspect the installation and operation of his/her equipment and materials to determine that they are properly installed and properly operating in accordance with the manufacturer's recommendations.
- C. Systems requiring certification will be specified in each of the applicable Sections of the Technical Specifications.

1.07 CONTRACTOR REVIEW

- A. Contractor shall review all submittals prior to transmittal to the Architect / Engineer of record and the Owner.
1. The Contractor shall consecutively number all shop drawings and product data transmittals. Re-submittals would have the same number of the previous submittal followed by the suffix "A, B, C etc."
 2. The transmittal is to contain the Owner's RFP / Bid number and the applicable specification section for each product represented on the transmittal.

- B Apply Contractor's stamp to submittals, initialed or signed by authorized person and dated, certifying: review of submittal, verification of products, field measurements and field construction criteria, and coordination of information within submittal with requirements of Work and the Construction Contract Documents.
- C Submittals without Contractor's stamp or submittals which, in the Owner's and the Architect / Engineer of record opinion are incomplete, contain numerous errors, or have not been checked or have only been checked superficially, will be returned without comments. Delays resulting therefrom shall be solely the Contractor's responsibility.
- D. Clearly note proposed deviations from the Contract Documents on submittals. Submit listing identifying deviations in a format acceptable to the Architect / Engineer of record and the Owner.
- E. Contractor shall be responsible to ensure quantities and dimensions shown on submittals comply with the requirements of the applicable Drawing and Technical Specifications.

1.08 SUBMISSION REQUIREMENTS

- A. Make submittals promptly to the Architect / Engineer of record and the Owner in accordance with approved Submittal and Project Progress Schedule and in such sequence as to cause no delay in the Work.
- B. Number of submittals required:
 - 1. Shop Drawings: Submit two (2) full size, hard copies and one (1) electronic version (PDF) in addition to what the Contractor will require back; submit one (1) additional electronic version (PDF) each for civil, structural, mechanical, electrical or landscaping work.
 - 2. Product Data: Submit two (2) originals that will be retained by the Architect / Engineer of record and the Owner..
 - 3. Samples: Submit the number stated in each of the respective Technical Specifications, with a minimum of two (2) samples, or as otherwise noted in the applicable Technical Specifications, for each item.
- C. Submittals shall contain:
 - 1. Date of submission and dates of any previous submissions.
 - 2. Owner RFP / Bid number..
 - 3. The names of:
 - a. Contractor.
 - b. Subcontractor.
 - c. Supplier.
 - d. Manufacturer.
 - 4. Identification of the product, with the applicable Specification Section number.
 - 5. Field dimensions, clearly identified as such.
 - 6. Relation to adjacent or critical features of the Work or Materials.
 - 7. Applicable standards, such as ASTM or Federal Specification numbers.
 - 8. Identification of deviations from Contract Documents and justification.
 - 9. Identifications of revisions on re-submittals.
 - 10. Additional information as required by Contract Documents.
 - 11. An 8 in. x 3 in. blank space for Contractor and Architect/Engineer stamps.

- D. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by the Architect / Engineer of record or Owner review of submittals
- E. Numbering system established by the Contractor. shall be agreeable to the Owner

1.09 RESUBMISSION REQUIREMENTS

- A. Contractor will make any corrections or changes in the submittals required by the Architect / Engineer of record or the Owner, mark number of submission, and resubmit as required until approved; none of this shall be of any cost to the Owner.
- B. Shop Drawings and Product Data:
 - 1. Contractor will revise initial drawings and data, and resubmit as specified for the initial submittal.
 - 2. Contractor will indicate any changes which have been made other than those requested by the Architect / Engineer of record or the Owner.
 - 3. Mark number of submission and resubmit until accepted.
- C. Samples: Contractor will submit new samples as required for initial submittal. Remove samples, which are "rejected" or designated "resubmit."

1.10 REVIEW RESPONSIBILITIES – ARCHITECT / ENGINEER OF RECORD (A/E)

- A. The A/E shall review submittals, when applicable, with responsible promptness in accordance with the requirements of the Project Manual.
- B. The A/E will affix stamp and initials or signature, and indicate requirements for revisions and re-submittal, if any.
- C. The A/E will return submittals to Contractor, with copy of transmittal to Owner, for distribution, or for resubmission within five (5) days of original receipt.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used.

END OF SECTION 01330

SECTION 01331

SCHEDULE OF VALUES

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Contractor shall submit to the Owner a Schedule of Values with line items allocated to various portions of the Work for the purpose of monitoring the progress of the work and administration of the Application for Payment Process with their response (Bid) to the RFP.
- B. Provide Owner, after receipt of the Notice to Proceed (NTP) and upon request by the Owner, including support values and data substantiating their accuracy and correctness.
- C. Division 0, Bidding and Contract Documents in the Project Manual.
- D. Division 1, General Requirements in the Project Manual.

1.02 FORM AND CONTENT

- A. The Schedule of Values shall be tabulated to correspond with the Contractor's Application for Payment form, and shall be identified with:
 - 1. Title of Project, Location and Owner RFP or Bid Number.
 - 2. Project Manager for Contractor
 - 3. Name and Address of Contractor
 - 4. Contract Designation
 - 5. Date of Submission
- B. Schedule of Values shall be presented in accordance with the CSI format on a line item basis
- C. Listing of Component Items:
 - 1. Identify each line item with the number and title of the respective major section of the Technical Specifications.
 - 2. Provide breakdown of Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and Progress Reports. Break principal subcontract amounts down into several line items by completed task in various locations.
 - 3. Round off amounts to nearest whole dollar, total of all listed values shall equal total Contract Sum.
 - 4. For each part of the Work where an Application for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on Schedule of Values for initial cost of materials, for each subsequent state of completion, and for total installed value of that part of the Work.
 - 5. Costs of actual work-in-place may be shown as separate line items in Schedule of Values, such as:
 - a. Bonds
 - b. Insurance
 - c. Temporary facilities, services and controls.
 - d. Field supervision and layout
 - e. Testing
 - 6. Separate material cost and labor cost as directed or requested by the Owner
- D. For each major line item whose value is larger than five thousand dollars (\$5,000.00) list sub-values of major products or operations under the item.

E. For various portions of the Work:

1. Each item shall include a directly proportional amount of overhead and profit.
2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. Cost of materials, delivered and unloaded, with taxes paid.
 - b. Total installed value.

F. The sum of all values listed in the Schedule of Values must equal the total Contract Sum.

1.03 SUB-SCHEDULE OF UNIT MATERIAL VALUES

A. Not Included (NIC)

1.04 RESUBMITTAL

- A. After review by the Owner, the Contractor may be requested to revise and resubmit Schedule of Values as may be determined appropriate by the Owner.
- B. Revised and approved Schedule of Values shall be resubmitted as part of monthly Application for Payment.

1.05 MATERIALS STORED OFF - SITE

- A. Payment for materials and equipment stored off – site, and not on the property of Georgetown County shall be subject to, and comply with the following:
 1. Prior written approval from the Owner, of materials and equipment to be stored, and location of facilities to be used for storage.
 2. Storage of materials and equipment will be in a bonded warehouse. Proof of insurance shall be provided to the Owner in the name of Georgetown County.
 3. Contractor shall furnish an inventory, including invoices, for all stored materials and equipment that are included in the Application for Payment using a form acceptable to and approved by the Owner.
 4. Contractor shall issue a Bill of Sale to the Owner for all items.

PART 2 - PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01331

SECTION 01400

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor's Quality Control (QC), in addition to customary testing and control requirements and those included in the Construction Contract Documents.
- B. Manufacturer's field services, coordinated by the Contractor.

1.02 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents of the Project Manual.
- B. Division 1, General Requirements of the Project Manual.

1.03 GENERAL QUALITY CONTROL

- A. Maintain Quality Control over construction activities, suppliers, manufacturers, products, services, site conditions, and workmanship of all personnel to assure Work is of specified quality.
- B. Quality inspections:
 - 1. Contractor shall be the first line of quality control and shall review all items for compliance with the Drawings and Technical Specifications reviewed and approved by the Owner. Prior to Owner's Testing Laboratory inspectors performing Quality Assurance (QA) review and inspections such as rebar placement, asphalt and concrete, piling inspection, soil compaction, etc., the Contractor shall have verified conformance to the requirements of the Construction Contract Documents, plans and technical specification prepared by the Architect / Engineer of record and reviewed and approved by the Owner.
 - 2. Maintain a written Quality Assurance / Control Program establishing the methods of assuring compliance to the contract documents. The Program shall be submitted to, reviewed and approved by the Owner. Quality Control personnel shall be identified at the initiation of the Project and shall be adequate to monitor the Work effectively and to enforce the Quality Assurance / Control procedures.
 - 3. Inspect each phase of Work for compliance with Contract Documents, plans and specification prepared by the Architect / Engineer of record and reviewed and approved by the Owner.
 - 4. Contractor shall have defective conditions corrected before calling for inspections and starting subsequent operations which would cover or are dependant upon the Work in question.
 - 5. Where visual inspection is not sufficient, such as in verifying slope of pavement or depth of retention / detention ponds for proper drainage, use instruments with qualified operators to inspect work.
 - 6. Secure the services of a testing laboratory when necessary to assist in evaluating quality.
 - 7.

1.04 WORKMANSHIP

- A. Comply with industry standards, except when more restrictive tolerances or specified requirements are called for in Construction Contract Documents, plans and specifications prepared by the Architect / Engineer of record and reviewed and approved by the Owner.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stress, vibration and other forces such as, but not limited to hurricane force winds.

1.05 MANUFACTURER'S INSTRUCTIONS

- A. When required by the Technical Specifications, submit manufacturer's current printed instructions, in the quantity required for product data, for delivery, storage, assembly, installation, startup, adjusting and finishing, as necessary.
- B. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Construction Contract Documents, plans and technical specifications prepared by the Architect / Engineer of record and reviewed and approved by the Owner, Contractor shall re-submit and provide written clarification and explanation to the Architect / Engineer of record and the Owner.

1.06 MANUFACTURER'S CERTIFICATES

- A. When required by the Technical Specifications, supplier/manufacturer shall provide qualified personnel to observe field conditions, conditions of the surfaces and installation, quality of workmanship, start-up of equipment, testing, adjusting and balancing of equipment as applicable, and to make appropriate recommendations.

1.07 MANUFACTURER'S FIELD SERVICES

- A. When specified in the respective Technical Specification Sections, the supplier/manufacturer will provide qualified personnel to observe field conditions, conditions of the surfaces and installation, quality of workmanship, start-up of equipment, testing, adjusting and balancing of equipment as applicable, and to make appropriate recommendations.
- B. Manufacturer's Representative shall submit written report to Architect / Engineer of record and the Owner listing observations and recommendations.

1.08 CONTRACTOR'S CERTIFICATION

- A. Contractor shall supply written certification that the Work, as installed, has been reviewed by him/her for compliance with the Contract Documents, applicable Drawings and Technical Specifications.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01400

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Unless otherwise required by a Section of the Technical Specifications, the Owner shall employ and pay for the services of an Independent Testing Laboratory to perform specified testing of work and materials at the Project Site or at point of manufacture. This is intended to provide Quality Assurance (QA) of the work performed and material provided by the Contractor.
 - 1. Contractor shall cooperate with the testing laboratory to facilitate the execution of its required services.
 - 2. Contractor shall incorporate recommendations from Owner's testing results.
 - 3. Contractor shall obtain testing prior to Owner's testing as may be necessary.
 - 4. Owner's testing shall not be a substitute for Contractor's own Quality Control (QC) measures.
- B. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual, without exception.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Contractor shall conduct, or have performed all inspections and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities and as may be specified in the Construction Contract Documents..
- B. Each specification section listed: Contractor shall perform each inspection and laboratory test required, and standards for testing as specified in the Construction Contract Documents..
- C. Division 1, General Requirements of the Project Manual.

1.03 QUALIFICATIONS OF LABORATORY

- A. Meet "Recommended Requirements for Independent Laboratory Qualification," published by American Council of Independent Laboratories.
- B. Comply with the following requirements:
 - 1. 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.
 - 2. ANSI/ASTM E329: Standard Recommended Practice for Inspection and Testing for Concrete, Steel, and Bituminous Materials as Used in Construction.
- C. Authorized to operate in the State of South Carolina

- D. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- E. Testing Equipment:
 - 1. Calibrated at reasonable intervals by devices of accuracy traceable to either:
 - a. National Bureau of Standards.
 - b. Accepted values of natural physical constants.
- F. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of the Construction Contract Documents.
- G. Failure on part of Owner to perform any tests of materials shall in no way relieve the Contractor of responsibility of furnishing materials or performing work conforming to the Construction Contract Documents.

1.04 LABORATORY DUTIES

- A. Cooperate with the Owner, Architect / Engineer of record and Contractor; provide qualified personnel after due notice from the Owner or Contractor.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.
- C. Promptly notify Owner, Architect / Engineer of record and Contractor of observed irregularities or deficiencies of work or products.
- D. Promptly submit written report of each test and inspection: one (1) copy each to Owner , Architect / Engineer of record and Contractor. Each report shall include:
 - 1. Date issued.
 - 2. Project title and location
 - 3. Owner RFP or Bid Number
 - 4. Testing laboratory name, address and telephone number.
 - 5. Name and signature of laboratory inspector.
 - 6. Date and time of sampling or inspection.
 - 7. Record of temperature and weather conditions.
 - 8. Date of test.
 - 9. Identification of product.
 - 10. Location of sample or test in the Project.
 - 11. Type of inspection or test.
 - 12. Results of tests and compliance with Contract Documents.
 - 13. Interpretation of test results, when requested by Owner
- E. Perform additional tests as may required by the Owner.

1.05 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Construction Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor..
 - 4. Stop the Work.

1.06 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate, together with laboratory personnel; provide access to the point/location of the Work, and to manufacturer's operations.
- B. Secure and deliver to laboratory at designated location(s) adequate quantities of representational material proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other material mixes which required control by the testing laboratory.
- D. Furnish copies of Products test reports to the Architect / Engineer of record and Owner as required.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project Site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- F. Notify laboratory twelve (12) hours in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence or inability to perform the prescribed Work at the scheduled time.
- G. Make arrangements with laboratory and pay for services to perform inspections, sampling and testing required:
 - 1. For the Contractor's convenience.
 - 2. When the initial tests or inspections indicate Work does not comply with Construction Contract Documents (i.e., re-tests).

1.07 SOURCE OF MATERIALS

- A. Source of supply of each of materials required shall be acceptable to the Architect / Engineer of record and Owner before delivery is started.
- B. Representative samples shall be submitted for inspection or tests.

- C. Results obtained from testing samples will be used for preliminary approval, but will not be used as final acceptance of materials.
- D. The Owner may test materials proposed to be used at any time during preparation and use.
- E. If it is found that sources of supply, which have been approved, do not furnish product of uniform quality, or if product from any source proves unacceptable at any time, Contractor shall furnish approved material from another source without additional cost to Owner or delay in Substantial Completion date.

1.08 IDENTIFICATION

- A. Required samples submitted by Contractor shall be properly labeled for identification.
- B. Materials and/or equipment that have been inspected and/or tested shall be stored in a controlled area with suitable identification referencing tests and certifications.
- C. Continuous inventory shall be kept of all items in this area controlled by log in and log out with receiving and disbursing signatures.
- D. Copies of receiving or disbursing actions shall be sent to the Owner on a daily basis.
- E. Disbursing records shall show final destination and installation.

1.09 MATERIAL STORAGE

- A. Materials shall be stored so as to ensure preservation of their quality and fitness for Work, in accordance with requirements of Section 01620, Storage and Protection and as may be required in the applicable Technical Specifications..

1.10 SCHEDULE OF INSPECTIONS AND TESTS

- A. Refer to each individual Section of the Project Manual for specific testing requirements, or as otherwise required by the Drawings, Technical Specifications of the Construction Contract Documents or appropriate regulatory and approval agency.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION 01410

SECTION 01500

TEMPORARY FACILITIES AND UTILITIES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual and the Construction Contract Documents.
- B. Furnish, install and maintain temporary utilities required for construction, to be removed at completion of Work.
- C. Provide and maintain methods, equipment, and temporary construction required to control environmental conditions at construction site and other areas under Contractor's control. Remove evidence of temporary facilities at completion of Work.
- D. Furnish and pay for installation of all temporary utilities, permanent utilities except as provided by Owner, or fuel required for testing of installed equipment and systems.

1.02 RELATED REQUIREMENTS

- A. Division 1, General Requirements of Project Manual.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code (NEC), federal, state, and local codes and regulations and with utility company requirements.
- B. Comply with State of South Carolina regulatory agencies having judicial authority.
- C. All affected Utility Organizations should be contacted by the Contractor to arrange temporary utilities. The appropriate Utility Organization, as well as other Contacts are listed on the cover sheet of the construction contract drawings.

PART 2 – PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.02 (Not Used)

2.03 (Not Used)

2.04 (Not Used)

2.05 TEMPORARY WATER (If Required)

- A. Furnish and install temporary water line and distribution from a point designated by the Owner, if determined to be necessary.
- B. Contractor will pay all water consumption charges.

2.06 TEMPORARY SANITARY FACILITIES

- A. Provide portable chemical-type sanitary facilities in compliance with applicable health laws, and state, county and local regulations and ordinances.
- B. Service, clean and maintain facilities and enclosures.
- C. Facilities shall be fitted with approved sanitary holding capacity and shall be emptied periodically to prevent overflow. Legal disposal of sanitary waste must be off-site and is Design/Builder's responsibility.
- D. Construction workers and project staff shall not use permanent plumbing facilities
- E. Sanitary facilities failing to meet required standards or maintenance methods shall be corrected immediately.
- F. Contractor will pay all costs for installation, maintenance and removal.

2.07 TEMPORARY FIRE PROTECTION

- A. Do not open, turn off, interfere with, attach any pipe or hose to, or connect anything to any fire hydrant, stop valves, or stop cock, or tap any water main without prior written permission of proper authority or the Owner.

PART 3 – EXECUTION

3.01 GENERAL

- A. Comply with local jurisdiction and all other applicable requirements as stated in this Section.
- B. Contractor shall obtain and pay for all required permits for the Work.

3.02 REMOVAL

- A. Completely remove from the project site temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities immediately after removal.

- C. Restore existing facilities used for temporary services to specified, or to original, condition.
- D. Restore permanent facilities used for temporary services to specified condition.
 - 1. Prior to final inspection, remove temporary lamps and install new lamps where appropriate.

END OF SECTION 001500

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SECTION 01510

TEMPORARY CONSTRUCTION CONTROLS

PART 1- GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual, without exception.
- B. Furnish, install and maintain temporary controls required for construction.
- C. Remove all temporary controls at completion of Work.

1.02 RELATED REQUIREMENTS

- A. Division 1, General Requirements of the Project Manual.

1.03 CONSTRUCTION SITE CLEANING

- A. Maintain areas within limits of the Project Work Site free of extraneous debris and litter.
- B. Initiate and maintain specific program to prevent accumulation of debris at construction site, storage and parking areas, or along access roads and off site hauls routes.
 - 1. Furnish on-site containers for collection of waste materials, debris and rubbish.
 - 2. Prohibit overloading of trucks to prevent spillage on access and haul routes.
 - 3. Provide periodic inspection of traffic areas to enforce requirements.
 - 4. Remove waste material, debris and rubbish from site and building area daily, or sooner as otherwise needed.
 - 5. Do not drop or throw materials from heights. Lower waste material in a controlled manner and with as few handlings as possible.
 - 6. During entire construction period, and at all times, keep the site access entry road, parking areas free from accumulation of waste materials, debris and rubbish caused by the Work of this Project.
 - 7. Dirt and debris shall be removed from all surfaces prior to closure of all areas (walls, ceilings, chases, etc.).
- C. Hazards Control:
 - 1. Store volatile wastes in covered metal containers.
 - 2. Remove containers from premises daily.
 - 3. Prevent accumulation of wastes, which create hazardous conditions.
 - 4. Provide adequate ventilation during use of volatile or noxious substances.
- D. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws:
 - 1. Do not burn or bury rubbish and waste materials on project site.
 - 2. Do not dispose of wastes into streams or waterways.
 - 3. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.

1.04 DUST CONTROL

- A. Provide positive methods and apply dust control materials to minimize raising dust from construction operations and provide positive means to prevent air-borne dust from dispersing into atmosphere.
- B. Clean interior building areas to prevent accumulation of dirt and debris and execute prior to start of finish painting, special coatings, and/or other finish material installations.
- C. Wet down materials and rubbish to prevent blowing dust.
- D. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.
- E. Continue cleaning on an as-needed basis until building and/or site is ready for beneficial occupancy.

1.05 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation. Wetland areas shall be protected as well.
 - 1. Hold areas of bare soil exposed at one time to minimum.
 - 2. Provide temporary control measures such as berms, dikes, and drains.
 - 3. Comply with federal, state and local regulations.
- B. Construct fills and soil waste areas by selective placement to eliminate surface soils or clay, which will erode.
- C. Periodically inspect earthwork to detect any evidence of start of erosion, apply corrective measures as required for erosion control.

1.06 POLLUTION CONTROL

- A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by discharge of noxious substances from construction operations.
- B. Contractor is responsible only for pollution control of the immediate Work of the Contract, the actions and operations of the Contractor, and the workers employed or contracted to Contractor. Provide equipment and personnel to perform emergency measures required to contain spillage, and to remove contaminated soil or liquids.
- C. Take special measures to prevent harmful substances from entering public waters. Prevent disposal of wastes, effluents, chemicals or other such substances adjacent to basins, or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants. Prevent toxic concentrations of chemicals. Prevent harmful disposal of pollutants into atmosphere.

1.07 WATER CONTROL

- A. Provide methods to control surface water to prevent damage to project site or adjoining properties. Control fill, grading, and ditching to direct surface drainage away from excavations, pits, tunnels and other construction areas. Direct drainage to proper runoff.
- B. Provide, operate, and maintain hydraulic equipment of adequate capacity to control surface and water.
- C. Dispose of drainage water in manner to prevent flooding, erosion or other damage to any portion of site or adjoining areas.
- D. Dewater areas in accordance with applicable local and state requirements and accepted professional practice.

1.08 EARTH CONTROL

- A. Contractor shall, at his/her sole cost, remove excess soil, pier spoils, etc., at time of generation.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTIONS

3.01 REMOVAL

- A. Contractor shall, at his/her sole cost, remove temporary construction controls at the completion of the Work, or as required by execution of the Work or as may be directed by the Owner..

END OF SECTION 01510

SECTION 01530

BARRIERS

PART 1 – GENERAL

1.01 REQUIREMENTS

- A. The Contractor shall comply with and be responsible for all the requirements of Division 1, General Requirements of the Project Manual, without exception.
- B. Provide and maintain barriers and lighted barriers for the protection of personnel and materials in accordance with the requirements of applicable state and local codes.
- C. Install barriers at the start of construction.

1.02 RELATED WORK

- A. Section 01510, Temporary Construction Controls

1.03 REGULATORY AGENCIES

- A. Comply with federal, state, and local, municipal regulations and with utility company and insurance agencies' requirements.

PART 2 – PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials and equipment must be adequate in capacity for the required usage, and not violate applicable codes and standards.
- B. Provide warning signs to help prevent damage and injury.
- C. Should it become necessary to remove safety items it shall be the Contractor's responsibility to replace the item immediately in conformance with applicable codes, standards and regulations.
- D. Wood materials used in barricades and barriers within any building and in material storage areas shall be fire-retardant.

2.02 BARRICADES

- A. Protect all vertical shafts with safe, temporary railings, adequately braced.
- B. Cover trenches and holes when not in use. Erect barriers at sharp changes in plane of more than 3 feet.
- C. Protect all building openings with safe, temporary railings adequately braced.

2.03 CONSTRUCTION FENCE (If Required)

- A. Prior to starting Work at Project Site the Contractor , as may be directed by the Owner, shall install enclosure fence with locked entrance gates.
- B. Provide construction fence around material storage and construction areas to prevent unauthorized access. Comply with local, municipal and / or Georgetown County requirements for construction barriers.
- C. Provide minimum number of gates, padlocked during non-working hours as may be directed by the Owner.
- D. Locate personnel gates as necessary to provide controlled entry from construction parking to construction area, as may be directed by the Owner.

2.04 PERIMETER SIGNAGE (NIC)

2.05 CONSTRUCTION LIGHTING (if Required)

- A. Provide construction lighting throughout construction areas as may be required and necessary to maintain safety and security.
- B. Maintain lighting on a daily basis, including weekends, holidays, and foul-weather days so that the Project Site is adequately lighted at all times in the interest of safety and security.

PART 3 – EXECUTION

3.01 REMOVAL

- A. Contractor shall, at his/her sole cost, completely remove barricades, including barricades foundations when construction has progressed to a point that they are no longer required, and when requested by the Owner.

3.02 CLEANING

- A. Clean and repair damage caused by the Work of this Section. Fill and grade the areas of the Site to required elevations and slopes, and clean the area.

END OF SECTION 01530

SECTION 01550

ACCESS ROADS AND PARKING AREAS

PART 1 – GENERAL

1.01 REQUIREMENT INCLUDED

- A. The Contractor shall comply with and be responsible for all the requirements of Division 1, General Requirements of the Project Manual without exception.
- B. Access to and egress from the Project Site will be gained only via routes and through gates as shown on the Plans and approved by Owner. Equipment weight and height limits will be strictly enforced. Contractor is responsible for providing access roads capable of supporting construction traffic. Contractor and trade contractors of all tiers shall be responsible to comply with these requirements.
- C. Install barriers and necessary traffic controls at start of construction to protect public and leave in place throughout construction. Remove at end of construction.
- D. Contractor is responsible for assessing risk to public and providing lights, flagmen, traffic signals, stop signs or other necessary controls, as needed and approved by the Owner and / or the South Carolina Dept. of Transportation (SCDOT).
- E. Contractor shall be responsible to repair all damage to off site street, roads, curbs along haul routes and any existing site elements damaged by construction related traffic.

1.02 RELATED WORK

- A. NIC

1.03 REGULATORY AGENCIES

- A. Comply with federal, state and local codes and regulations, and with utility company and insurance agencies' requirements.

PART 2 – PRODUCTS

2.01 GENERAL

- A. If repair to public or private roadways is necessary due to damage by construction traffic, materials and methods used for repairs are to be acceptable to the applicable jurisdictional authority and are to match existing conditions. Contractor shall perform such work at his/her sole cost and expense.
- B. Provide warning signs to help prevent damage and injury and to promote safety..
- C. Should it become necessary to remove safety items, it shall be Contractor's responsibility to replace them immediately, in conformance with applicable regulations. Contractor shall perform such work at his/her sole cost and expense.

2.02 PARKING

- A. Contractor's vehicles and employee parking shall be confined to an area identified within the site limits and as directed by the Owner.

2.03 STAGING

- A. Contractor shall confine materials, products, equipment and temporary facilities within site limits and as directed by the Owner.

PART 3 – EXECUTION

3.01 REMOVAL

- A. Temporary construction access roads, drives, walks, and parking areas shall be removed at completion of Work or as required by execution of Work at the Contractor's sole cost and expense.
- B. Areas shall be returned to original condition unless otherwise required by the Owner.

END OF SECTION 01550

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SECTION 01563

HANDLING OF INCIDENTAL FUEL SPILLAGE DURING CONSTRUCTION

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents in the Project Manual.
- B. Division 1, General Requirements in the Project Manual.
- C. South Carolina Dept. of Health and Environmental Controls (SCDHEC)

1.02 SCOPE

- A. This section consists of procedures to be followed in handling material contaminated with petroleum fuel products (hydrocarbons including petroleum, petroleum derivatives, hydraulics and like products) caused by incidental spillage (including leaks) from the Contractor's or his/her prime and sub-contractor's equipment.

Incidental spillage shall mean spillage of a quantity not greater than 25 gallons per incident, of vehicular or mechanical equipment fuel products, onto open ground and absorbed or not absorbed by the soils.

Spillage or leakage of petroleum fuel products in quantities in excess of 25 gallons shall be immediately remediated by the Contractor using applicable and appropriate procedure(s). Whenever such spillage or leakage occurs, the Contractor shall immediately implement the appropriate corrective actions as required.

- B. The provisions of this Section are limited to incidental petroleum fuel spillage on ground surfaces and it excludes fuel spillage onto surface waters.

1.03 APPLICABLE CODES

- A. The Contractor shall comply with all prevailing federal, state, and local environmental protection ordinances and codes governing and having application to and any discharges, intentional or accidental, which may cause water pollution and constitute a nuisance, and sanitary nuisance.
- B. Leaks and spillage may occur when using mechanical equipment. Equipment generated or lubricated with petroleum products, is prone to leaks or spillages, therefore proper management of "spillage incidents" is essential.

PART 2 – PRODUCTS

2.01 ABSORBENT MATERIALS

Contractor shall equip crews and/or provide machinery with the most efficient type of petroleum absorbent materials. These materials are available at petroleum equipment suppliers and must be readily accessible so that spillages can be quickly contained and prevented from becoming greater incidents. Fiber material, sand or cat litter may be used as an absorbent material. Sufficient quantity of absorbent material capable of absorbing up to 25 gallons of petroleum fuel products shall be stocked at the job site at all times.

PART 3 - EXECUTION

3.01 PROCEDURES

- A. Personnel handling waste materials must have a minimum of 40 hours training as defined in 29 CFR 1910.120 and in accordance with the certified OSHA course.
- B. Perform work as specified herein and in accordance with the applicable provisions of South Carolina Dept. of Transportation (SCDOT) and South Carolina Dept. of Health and Environmental Controls (SCDHEC). No payment will be made to the Contractor for the cost of handling and disposing of leaks, spillages and materials, soils and environment contaminated by such leaks or spillages.

The procedure for the proper handling and disposal of contaminated soils and absorbent materials is readily available through the aforementioned agencies:

- C. The steps outlined below are minimum requirements and are merely presented as guidelines. They do not constitute a complete compliance procedure.

STEP 1:

If a fuel contamination to open ground has been discovered, check for the origin of that leak or spillage. Then stop the spillage or leak and positively contain it, and then use absorbents to collect the discharged liquid. Immediately notify the Owner.

STEP 2:

Sand may be used to absorb ground surface spills while absorbent materials may be used to absorb ground spills as well as surface water spills. Once absorption of spilled fuels is complete the impacted (contaminated) absorbent materials shall be stored in 55-gallon steel drums (100-150 lbs.). If leaked or spilled fuel has been absorbed into the soils, excavate and containerize the impact (contaminated) soils. Soils may be stored in 55- gallon steel drums.

STEP 3:

The contaminated materials must be collected, containerized and otherwise properly stored and labeled prior to transport to a pre-approved storage, disposal or treatment facility. All drums used to store impacted (contaminated) absorbent material and/or contaminated soils shall be properly sealed and labeled with the following information.

Name of Company (Contractor)

RFP / Bid No.:

Location of origin:

Type of contents:

Type of containment:

Quantity: (e.g. 1 of 1)

Date:

Containerized by:

Labeled by:

END OF SECTION 01563

SECTION 01570

TRAFFIC REGULATION

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual, without exception.
- B. Construction parking control, flagmen, flares and lights, haul routes, traffic signs and signals, and removal.
- C. The Contractor shall comply with and be responsible for traffic control planning and implementation as may be directed and approved by SCDOT and the Owner.
- D. Maintenance of safety and convenience of public.

1.02 RELATED WORK

- A. Division 1, General Requirements of the Project Manual.

1.03 PUBLIC SAFETY AND CONVENIENCE

- A. Materials and equipment shall be stored and Work conducted to minimize obstruction to pedestrian movement and vehicular traffic. Materials and equipment stored in or near path of traffic shall be protected with appropriate warning signs and barricades. At night, or as otherwise required, equipment not in use shall be stored in such manner and location to not interfere with safe passage of pedestrians and vehicles. Contractor shall provide and maintain flagmen at points and for periods of time required to provide safety and convenience of traffic, and as may be required by the SCDOT and as directed by the Owner
- B. Contractor shall not close traffic to any bridge, culvert, or any other portion of public road except as designated. in the Construction Contract Documents. Prior to closing any access way and/or structure coordinate Work schedule with the Owner and the SCDOT if applicable..
- C. Contractor shall provide the Owner with notice at no less than 48 hours prior to movement of heavy equipment and/or wide or slow moving vehicles to or from Project Site. Contractor shall strictly adhere to vehicular routes established or as may be directed by the Owner and / or the SCDOT if applicable..

1.04 HAUL ROUTES

- A. Based on regulations prescribed by the South Carolina Dept. Transportation (SCDOT), Georgetown County or any other agency having jurisdiction, use only established roadways or use temporary roadways constructed by Contractor when and as authorized by the Owner. When materials are transported in executing the Work vehicles shall not be loaded beyond loading capacity recommended by manufacturer of vehicle or prescribed by federal, state, or local law or regulation. When it is necessary to cross curbs or sidewalks, Contractor shall protect them from damage, and shall repair or pay for repair of all damaged curbs, sidewalks, roads and/or paving.

1.05 TRAFFIC SIGNS AND SIGNALS

- A. At approaches to site and on-site, install signs or signals at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public vehicular and pedestrian traffic. This should be included in the Contractor's approved Traffic Control Plan.
- B. Install and operate 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 traffic control signs and signals as Work progresses, to maintain safe and effective traffic control.
- D. Coordinate with construction signs described in Section 01580, Project Identification and Signs.

1.06 FLAGMEN

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

1.07 FLARES AND LIGHTS

- A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic in landside areas only.

PART 2 – PRODUCTS

2.01 SIGNS, SIGNALS AND DEVICES

- A. Post-mounted and wall-mounted at parking areas to indicate spaces designated for use by construction personnel.
- B. Traffic control signals, as required, and as approved by SCDOT and the Owner.
- C. Traffic cones and drums and lights, as approved by SCDOT and the Owner.
- D. Flagmen equipment as required by SCDOT and the Owner.

PART 3 – EXECUTION

3.01 REMOVAL

- A. Contractor shall remove equipment and devices, at his/her sole cost, when no longer required. Repair damage caused by installation. Remove post settings to depth of three (3) feet.

END OF SECTION 01570

SECTION 01580

PROJECT IDENTIFICATION SIGNS

(Not Used)

END OF SECTION 01580

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SECTION 01590

FIELD OFFICE AND SHEDS

(Not Used)

END OF SECTION 01590

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SECTION 01600

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents of the Project Manual without exception.
- B. Division 1, General Requirements of the Project Manual without exception.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling requests for substitutions made after award of the Construction Contract.
- B. Procedural requirements governing the Contractor's selection of products and product options are included under Section 01610, Materials and Equipment.

1.3 DEFINITIONS

- A. Definitions used in this Section are not intended to change or modify the meaning of other terms used in the Contract Documents.
- B. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor after award of the Contract are considered requests for "Substitutions." The following are not considered substitutions:
 - 1. Substitutions requested by Bidders during the bidding period, and accepted prior to award of Contract, are considered as included in the Construction Contract Documents and are not subject to requirements specified in this Section for substitutions.
 - 2. Revisions to Construction Contract Documents requested by Georgetown County
 - 3. Specified options of products and construction methods included in Contract Documents.
 - 4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS

- A. Substitution Request Submittal: Requests for substitution will be considered if received within thirty (30) calendar days after commencement of the Work. Requests received more than thirty (30) calendar days after commencement of the Work may be considered or rejected at the discretion of the Owner.
 - 1. Submit three (3) copies of each request for substitution for consideration. Submit requests in the form to be provided by the Owner and in accordance with procedures required for Change Order proposals to be established by the Owner
 - 2. Identify the product, or the fabrication or installation method to be replaced in each request. Include related Technical Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

- a. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
 - b. Samples, where applicable or requested.
 - c. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect.
 - d.. A statement indicating the substitution's effect on the Contractor's Construction Progress Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 - e. Cost information, including a proposal of the net change, if any in the Contract Sum.
 - f. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Construction Contract Documents. Include the Contractor 's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
3. Owner's Action: Within one (1) week of receipt of the request for substitution, the Owner may request additional information or documentation necessary for evaluation of the request. Within two (2) weeks of receipt of the request, or one (1) week of receipt of the additional information or documentation, which ever is later, the Owner will notify the Contractor of acceptance or rejection of the proposed substitution. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name. Acceptance will be in the form of a Change Order.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions: The Contractor's substitution request will be received and considered by the Owner when one or more of the following conditions are satisfied, as determined by the Owner, otherwise requests will be returned without action except to record noncompliance with these requirements.
1. Extensive revisions to Construction Contract Documents are not required.
 2. Proposed changes are in keeping with the general intent of the Construction Contract Documents.
 3. The request is timely, fully documented and properly submitted.
 4. The request is directly related to an "or equal" clause or similar language in the Construction Contract Documents.
 5. The specified product or method of construction cannot be provided within the Contract time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 6. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
7. A substantial advantage is offered the Owner in terms of cost, time, energy conservation or other considerations of merit after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect / Engineer of record for redesign, increased cost of other construction elements by the Owner or other separate Contractors, and similar considerations.

8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 9. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
 10. The specified product or method of construction cannot provide a warranty required by the Construction Contract Documents and where the Contractor certifies that the proposed substitution will provide the required warranty.
- B. The Contractor 's submittal and the Owner's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.
- C. Substitution request constitutes a representation that the Contractor:
1. Has investigated the proposed product and determined that it meets or exceeds, in all respects, the product specified.
 2. Will provide the same warranty for substitution as for the product specified.
 3. Will coordinate installation and make other changes, which may be required for work to be complete in all respects.
 4. Waives claims for additional costs, which may subsequently become apparent. All costs associated with the substitution will be paid for by the Contractor regardless of approvals given, and regardless of subsequent difficulties experienced as a result of substitutions.

PART 3 - EXECUTION

Not Used

END OF SECTION 01600

SECTION 01610

MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all requirements of the Project Manual, without exception.
- B. The Contractor shall comply with the applicable requirement in this Section, and the requirements of Division 1, Section 01100 Summary of Work.
- C. Division 1, Section 01600, Product Requirements.
- D. Division 1, Section 01770, Closeout Procedures

1.02 RELATED WORK

- A. Division 1, General Requirements of the Project Manual.

1.03 SCOPE

- A. General storage and protection of project materials and equipment.
- B. Furnish, install and maintain storage sheds as required for protection of materials and equipment. Remove at completion of Work.
- C. Exterior storage requirements for all specified materials and equipment requiring protection.

1.04 MATERIAL AND EQUIPMENT INCORPORATED INTO WORK

- A. Comply with applicable specifications, manufacturer's recommendations and standards.
- B. Comply with size, make, type and quality specified or as specifically accepted in writing by the Owner.
- C. Design, fabricate, assemble deliver and install products in accordance with engineering and shop practices normal to trade.
- D. Manufacture like parts of duplicate units to standard interchangeable sizes and gauges. Two or more items of same kind shall be identical by same manufacturer.
- E. Products shall be suitable for intended purpose.
- F. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically accepted in writing.
- G. Do not use material or equipment for any purpose other than for which it is designed or is specified.

1.05 IDENTIFICATIONS AND NAMEPLATES

- A. Nameplates, trademarks, and other identifying marks on manufactured and fabricated items are not permitted on surfaces exposed to view in public spaces, including elevators and escalators except as noted otherwise in the Construction Contract Documents. This does not apply to UL labels.

1.06 QUALITY ASSURANCE

- A. Materials specified are to define standard of quality or performance and to establish basis for evaluation of proposals.
- B. Comply with individual Technical Specification Sections and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Technical Specification Section shall be of same manufacturer and shall be interchangeable, unless otherwise required.

1.07 PRODUCT OPTIONS

- A. For Products specified only by reference standard, select Product meeting that standard by any manufacturer.
- B. For Products specified by naming only one Product and manufacturer, select any one of the products and manufacturers named which complied with the Technical Specifications.
- C. For products specified by naming only one Product and manufacturer, there is no option and no substitution will be allowed.

1.08 PRODUCTS LIST

- A. Within twenty (20) calendar days after award of Contract, submit to the Owner three (3) copies of complete list of major Products, which are proposed for installation.
- B. Tabulate Products by Technical Specification Section number and title.
- C. For products specified only by reference standards list for each such Product:
 - 1. Name and address of manufacturer.
 - 2. Trade name.
 - 3. Model or catalogue designation.
 - 4. Manufacturer's data:
 - a. Reference standards.
 - b. Performance test data.
- D. The Owner will coordinate with the Architect / Engineer of record and reply in writing stating whether there is reasonable objection to listed items. Failure to object to a listed item shall not constitute a waiver of the requirements of the Construction Contract Documents.

1.09 MANUFACTURER'S INSTRUCTIONS

- A. When Construction Contract Documents require installation of work to comply with manufacturers printed instructions, obtain and distribute copies of instructions to parties involved in installation, including two (2) copies to the Owner, prior to commencing work.

- B. Maintain one (1) set of complete instructions at job site during installation and until work is complete.
- C. Maintain copies for Project Record Documents.
- D. Handle, install, connect, clean, condition and adjust products in strict accord with manufacturer's instructions and in conformity with specified requirements.
- E. Should job conditions or specified requirements conflict with manufacturer's instructions, notify the Owner in writing for further instructions. Do not proceed with Work without clear instructions.
- F. Perform Work in accordance with manufacturer's instructions. Do not omit preparatory steps on installation procedures unless specifically modified or exempted by the Contract Documents.

1.10 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of materials and equipment in accordance with construction schedules. Coordinate to avoid conflict with Work and conditions at Site. Avoid congesting traffic.
- B. Deliver materials and equipment in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
- C. Immediately upon delivery, inspect shipments to assure compliance with requirements of the Construction Contract Documents and accepted submittals, and that products are properly protected and undamaged.
- D. Promptly remove unsatisfactory materials from Site.
- E. Furnish equipment and personnel to handle products by methods necessary to prevent soiling or damage to products or packaging.

1.11 STORAGE

- A. Store materials subject to damage from exposure to weather in weather tight storage facilities of suitable size with floors raised above ground. Materials not subject to weather damage may be stored on blocks off ground.
- B. Store fabricated products in accordance with manufacturer's instructions, seals and labels intact and legible. Store product subject to damage by elements in weather tight enclosures. Maintain temperature and humidity within ranges required by manufacturer's instructions.
- C. Cover materials, which are subject to deterioration with breathable, impervious sheet covering to provide adequate ventilation to avoid condensation.
- D. Store loosed granular materials in well-drained area on solid surfaces to prevent mixing with foreign matter and cover during inclement weather. Store cementitious and clay products clear of earth or concrete floors, away from walls.
- E. Arrange storage in manner to permit easy access for inspections.
- F. Protect metal from damage, dirt or dampness. Furnish flat, solid support for sheet products during storage.

- G. Make periodic inspections of stored materials to verify that products are maintained under specified conditions and are free from damage or deterioration.
- H. Do not use materials in work that have deteriorated, become damaged or are otherwise unfit for use.
- I. Store paints in assigned room or area kept under lock and key. Prevent mixing of refuse or chemically injurious materials or liquids with stored materials.
- J. Remove oil, rags and other combustible materials daily and take precautions to prevent fire hazard.
- K. Do not load structure during construction by storing materials with load greater than structure is calculated to support safely. Such storage is subject to approval by the Owner.
- L. Provide substantial platforms, blocking, or skids to support fabricated products above ground; slope to provide drainage. Provide surface drainage to prevent erosions and pounding of water.
- M. Pipe and conduit stored outdoors shall have open ends sealed to prevent entrance of dirt, moisture, etc.

1.12 PROTECTION AND MAINTENANCE

- A. Furnish protection against weather. Cover building openings and penetrations to protect interior of building from weather.
- B. Maintain work, materials, apparatus and fixtures free from damage, accumulation of debris, and protected from dust and dirt.
- C. Protect items having factory finish to prevent damage to finish and equipment.
- D. At end of day's work, cover new work likely to be damaged or otherwise protect and necessary.
- E. After installation, secure substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations.
- F. Remove protection where no longer needed. Upon completion of Work, remove storage facilities from site.
- G. Contractor shall replace, at no additional cost to the Owner, stored items damaged by inadequate protection and environmental control.
- H. For mechanical and electrical equipment in long-term storage, provide manufacturer's service instructions shown on exterior of package.
- I. Service equipment on a regular basis as recommended by manufacturer. Maintain log of maintenance services; submit log as Project Record Document in accordance with requirements of Section 01781, Project Record Documents.
- J. After cabinets and boxes are installed, cover openings to prevent entrance of water and foreign materials. Close conduit openings with temporary metal or plastic cap, including those terminated in cabinets.

- K. Provide temporary enclosures for equipment such as substations and motor control centers. Provide and maintain heat in closures until equipment is energized, to avoid condensation damage.

1.13 MANUFACTURER CERTIFICATION

- A. Prior to Final Acceptance of Work, for items designated in Technical Specifications Sections, an authorized representative of each manufacturer of materials and/or equipment installed under the work of that Section, shall personally inspect installation and operation of his/her materials, system and equipment to determine they are correctly installed and operating properly as follows:
 - 1. Inspection and testing shall be accomplished:
 - a. For Work which will be concealed during execution of Work, after completion of installation and prior to concealment.
 - b. For Work which will not be concealed, at completion of Work.
 - 2. Each representative shall submit a signed statement to the Owner through the Contractor certifying to his personal inspection and to the correct installation and proper operation of materials, systems and/or equipment. Their certification shall list all items included.
 - 3. Contractor shall transmit all such certifications to the Owner at or prior to Final Acceptance Inspection. Transmittal shall include a list of all certifications included.

PART 2 - PRODUCTS

2.01 MATERIALS, EQUIPMENT & FURNISHINGS

- A. Materials and equipment intended for use in Project must be new. Equipment and furnishings utilized for installation of material and equipment in the Project may be new or used, but must be serviceable, must be adequate for intended purpose, and must not violate applicable codes and/or regulations.

PART 3 - EXECUTION

3.01 GENERAL

- A. Store products immediately upon delivery at location acceptable to the Owner, in accordance with manufacturer's storage instructions, with seals and labels intact. Protect until uninstalled.
- B. Arrange storage in manner to provide access for maintenance of stored items and for inspection.

3.02 MAINTENANCE OF STORAGE

- A. Verify that storage facilities comply with manufacturer's product storage requirements.
- B. Verify that manufacturer required environmental conditions are maintained continually.
- C. Verify that surfaces of products to elements are not adversely affected and that any weathering of finishes is within acceptable tolerances under requirements of Construction Contract Documents.

END OF SECTION 1610

SECTION 01620

STORAGE AND PROTECTION

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. General storage and protection of project materials and equipment.
- B. Furnish, install and maintain storage sheds as required for protection of materials and equipment. Remove at completion of Work.
- C. Exterior storage requirements for all specified materials and equipment requiring protection.

1.02 RELATED REQUIREMENTS

- A. Division 1, General Requirements in the Project Manual without exception..

PART 2 – PRODUCTS

2.01 MATERIALS, EQUIPMENT & FURNISHINGS

- A. Materials and equipment intended for use in Project must be new. Equipment and furnishings utilized for installation of material and equipment in the Project may be new or used, but must be serviceable, must be adequate for intended purpose, and must not violate codes or regulations.

PART 3 – EXECUTION

3.01 GENERAL

- A. Store products immediately upon delivery at location acceptable to the Owner, in accordance with manufacturer's storage instructions, with seals and labels intact. Protect until installed.
- B. Arrange storage in manner to provide access for maintenance of stored items and for inspection.

3.02 ENCLOSED STORAGE

- A. Store products subject to damage by elements in substantial weather tight enclosures or storage sheds of adequate dimensions.
- B. Maintain temperature and humidity within ranges stated in manufacturer's instruction.
- C. Provide humidity control and ventilation for sensitive products as required by manufacturer's instruction.
- D. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
- E. Contractor shall replace, at no additional cost to the Owner, store items damaged by inadequate protection or environmental control.

- F. Provide substantial platforms, blocking, or skids to support fabricated products above ground; slope to provide drainage.
- G. For products subject to dislocation or deterioration from exposure to elements, cover with impervious sheet materials. Provide ventilation to prevent condensation below covering.
- H. Store loose, granular materials on clean, solid surfaces, or on rigid sheet materials, to prevent mixing with foreign matter.
- I. Provide surface drainage to prevent erosion and pounding of water.
- J. Prevent mixing of refuse or chemically injurious materials or liquids with stored material.
- K. Pipe and conduit stored outdoors shall have open ends sealed to prevent entrance of dirt, moisture, etc.

3.03 MAINTENACE OF STORAGE

- A. Periodically inspect stored products on a scheduled basis.
- B. Verify that storage facilities comply with manufacturer's product storage requirements.
- C. Verify that manufacturer required environmental conditions are maintained continually.
- D. Verify that surfaces of products exposed to elements are not adversely affected and that any weathering of finishes is within acceptable tolerances established by the applicable manufacturer.

3.04 MAINTENACE OF EQUIPMENT STORAGE

- A. For mechanical and electrical equipment in long-term storage, provide manufacturer's service instructions shown on exterior of package.
- B. Service equipment on a regular basis as recommended by manufacturer. Maintain log of maintenance services; submit log in accordance with requirements of Section 01781, Project Record Documents

3.05 PROTECTION OF INSTALLED EQUIPMENT

- A. After cabinets and boxes are installed, cover openings to prevent entrance of water and foreign materials. Close conduit openings with temporary metal or plastic cap, including those terminated in cabinets.
- B. Provide temporary enclosures for equipment such as substations and motor control centers. Provide and maintain heat in closures until equipment is energized, to avoid condensation damage.

END OF SECTION 01620

SECTION 01700

EXECUTION REQUIREMENTS

PART 1- GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall comply with and be responsible for all of the requirements of the Project Manual without exception.
- B. Contractor shall provide field engineering and general layout services required on the project as follows:
 - 1. Civil, structural or other professional engineering services specified, or required to execute construction methods consistent with the requirements of the Construction Contract Documents..
 - 2. Survey work required for execution of the total Work. of the Project.
 - 3. Continuous horizontal and vertical control regarding layout and execution of Work. of the Project.
 - 4. Coordinate field engineering services with the Owner.

1.02 RELATED REQUIRMENTS

- A. Division 1, General Requirements of the Project Manual without exception.
- B. The Technical Specifications, Sections 0200 through 1900, as may be applicable.

1.03 CONTROLS

- A. Contractor will establish primary controls, horizontal and vertical control points at various locations at the Site. These will be described and indicated on the Contractor's approved Drawings and will be coordinated in the field by the Contractor.
- B. Existing control points and property line markers will be shown on the Owner's survey drawings.

1.04 QUALIFICATIONS OF SURVEYOR OR ENGINEER

- A. For Surveying, a qualified engineer or registered land surveyor, registered in the State of South Carolina and acceptable to the Owner.
- B. For engineering, a registered professional engineer of a discipline required for this Project licensed in the State of South Carolina and acceptable to the Owner.

1.05 SURVEY REFERENCE POINTS

- A. Existing horizontal and vertical control points for the Project are those designated on Owner's survey drawings or as determined from investigation of the existing conditions.
- B. Verify property, grades, lines, levels and dimensions indicated.

- C. Locate and protect control points prior to starting Site Work and preserve permanent reference points during construction.
 - 1. Make no changes or relocations without prior approval of the Owner
 - 2. Report to the Owner when a reference point is lost, destroyed or requires relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace Project control points, which may be lost or destroyed.

1.06 PROJECT LAYOUT REQUIREMENTS

- A. Establish a sufficient number of permanent bench marks on Site, as may be required, referenced to data established by survey control points. Record locations of benchmarks with horizontal and vertical data on Project Record Documents, Section 01781.
- B. From established control points, Contractor shall layout all Work by establishing all lines and grades at Site necessary to control Work, and shall be responsible for all measurements that may be required for execution of Work.
- C. Furnish, at own expense, all such stakes, steel pins, equipment, tools and material and labor that may be required in laying out Work control points.
- D. Establish lines and levels, locate and layout by instrumentation and similar appropriate means:
 - 1. Site Improvements
 - a. Stakes for grading, fill, and topsoil placement.
 - b. Utility slopes and invert elevations.
 - c. Limits of pavement (concrete and asphalt).
 - 2. Batter boards for structures.
 - 3. Building foundation column locations, piling and floor levels.
 - 4. Controlling lines and levels required for mechanical and electrical trades.
- E. Verify and coordinate in field all existing and proposed underground components including civil, structural, utilities and other components prior to initiation of the Work. Advise the Owner of any conflicts or discrepancies.

1.07 SUBMITTALS AND DOCUMENTS

- A. Submit name and address of Surveyor and Professional Engineer assigned to the Project to the Owner.
- B. On request of the Owner, submit documentation to certify accuracy of field engineering work and compliance with Construction Contract Documents.
- C. Submit certificate signed by registered engineer or surveyor certifying that elevations and locations of improvements are in conformance, or non-conformance, with Construction Contract Documents.
- D. Standards and Availability: Data and other measurements shall be recorded in accordance with standard and approved methods. All field notes, sketches, recordings, and computation in establishing above horizontal and vertical control points shall be available at all times during progress of Work for ready examination by the Owner

- E. Maintain complete and accurate record data on underground utilities and obstructions, new and existing, encountered in execution of Work. Record data on Project Record Documents in accordance with requirements of Section 01781, Project Record Documents.
- F. On completion of all foundation walls, pavement and other major site improvements, prepare certified survey showing dimensions, locations, angles, and elevations of construction.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01700

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SECTION 01710

FINAL CLEANING

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall comply with and be responsible for all requirements of the Project Manual, without exception.
- B. Contractor shall comply with applicable requirements in this Section and more specific requirements in Section 00800, Special Project Conditions, and Section 01100, Summary of Work.
- C. Execute final cleaning at completion of the Work as required by the Construction Contract Documents.

1.02 RELATED REQUIREMENTS

- A. Divisions 1, General Requirements in the Project Manual without exception..

1.03 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with all applicable codes, ordinances, regulations, and anti-pollution laws.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C. Using cleaning materials only on surfaces recommended by cleaning material manufacturer.
- D. Refer to applicable manufacturer's recommendations for specific products and materials.

PART 3 – EXECUTION

3.01 FINAL CLEANING

- A. Execute prior to inspection at Substantial Completion.
- B. Employ skilled workmen or professional cleaners for the final cleaning.
- C. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces, and clean as follows:

1. Remove grease, dust, dirt stain, labels, fingerprints, and other foreign materials from site-exposed interior and exterior surfaces; wash and polish surfaces so designated to shine finish.
 2. Repair, patch and touch-up marred surfaces to specified finish, to match adjacent surfaces.
- D. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- E. Clean roof areas of debris; flush roof drainage system(s) with water until clear.
- F. Prior to final completion, or Owner occupancy, Contractor and Owner shall conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas, to verify that the entire Project Work area is clean.
- G. Leave Project Work area clean and ready for use and occupancy.

END OF SECTION 01710

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SECTION 01731

CUTTING AND PATCHING

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Requirements and limitations of cutting and patching associated with the Work of this Contract.
- B. Cutting, fitting and patching, including attendant excavation and backfill required completing the Work of this Contract.
- C. Assume that concealed or previously unknown conditions may be encountered during the execution of the Work. No consideration whatsoever will be given to any claim for additional cost and/or time resulting from such conditions that can reasonably be expected, which are ordinarily encountered or which are generally recognized as inherent in the character of the Work anticipated for this Project.

1.02 RELATED REQUIREMENTS

- A. Division 1, General Requirements in the Project Manual without exception.
- B. The Technical Specifications, which may be applicable and incidental to the Work of the respective Sections.

1.03 DESCRIPTION AND SCOPE

- A. Execute cutting, fitting and patching, including attendant excavation and backfill required to complete the Work or to:
 - 1. Make all parts of the Work fit together.
 - 2. Uncover portions of the Work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work, products and/or equipment.
 - 4. Remove and replace work not conforming to the requirements of the Construction Contract Documents, approved Drawings and Technical Specifications.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of mechanical, electrical and plumbing work.
 - 7. Uncover work that has been covered prior to a required observation by the Owner

1.04 SUBMITTALS

- A. The Contractor shall submit a written request to the Owner seventy two (72) hours in advance of any cutting or alteration work. The written request/notice shall state the location, date and time the work will be accomplished. The preceding will apply to instances that affects:
 - 1. Work of other Contractors engaged by the County on the site.
 - 2. The structural value or integrity of any element of the Work of the Project.
 - 3. The integrity or effectiveness of weather exposed or moisture resistant elements of, or systems within the Work of the Project.
 - 4. Efficiency, operational life, maintenance and/or safety of the operational elements of, or systems within the Work of the Project.

5. The visual and esthetic qualities of sight exposed elements of the Work of the Project.
- B. The Contractor's requests / notices shall include, at a minimum:
1. Owner RFP / Bid Number.
 2. Location and description of the affected work to be performed.
 3. The necessity for cutting, patching, alteration or excavation.
 4. Effect of the work on the Owner and / or its Contractors and abutting property.
 5. Effect of the work on the integrity of the structural and/or weatherproof elements of the Work of the Project.
 6. Description of the proposed work:
 - a. Scope of cutting, patching, alteration or excavation.
 - b. Contractor's prime or sub-contractors who will execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
 7. Alternatives to cutting, patching, alteration or excavation.
 8. Written permission of any affected entity other than the Contractor's prime and sub-contractors.
- C. Should the conditions and schedule of the work to be performed indicate a change of products from the original installation, the Contractor shall submit a written request to the Owner for substitution pursuant to the stipulations in Section 01600, Product Requirements.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Contractor shall comply with the final, approved Technical Specifications and standards for each specific product involved.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Contractor shall examine existing conditions in the area of the work, including any elements subject to damage or to movement during cutting, patching, alteration or excavation.
- B. After uncovering the work, Contractor shall inspect the conditions affecting installation of products, or performance of the work.
- C. Contractor shall report unsatisfactory or questionable conditions to the Owner in writing. No work is to proceed until a written response is received from the Owner.
- D. Beginning of cutting, patching, alterations or excavation operations shall be considered as acceptance, by the Contractor of the existing conditions.

3.02 PREPARATION AND PROTECTION

- A. Contractor shall provide adequate temporary support as necessary to assure structural value or integrity of the affected portion of the work.
- B. Contractor shall provide devices and methods to protect adjacent work and other portions of the Work of the Project from any damage.

- C. Contractor shall provide protection from the elements of weather for that portion(s) of the Work of the Project that may be exposed by cutting, patching, alteration or excavation.
- D. Contractor shall maintain excavations free from water and comply with the requirements of state and local agencies having jurisdiction.

3.03 DUST CONTROL

- A. Contractor shall obtain approval of the means and method by which dust and debris will be controlled from the Owner.
- B. Contractor shall provide and maintain positive methods of dust control and apply dust control materials to minimize raising and spreading of dust from cutting, patching and alteration operations.
- C. Contractor shall conform to the requirements of Section 01510, Temporary Construction Controls.

3.04 PERFORMANCE

- A. Open flame torch cutting operations require a “Hot Work” permit in compliance with current state and local codes and regulations. Contractor shall exercise all fire and safety precautions as required.
- B. Contractor shall execute all cutting, patching, alteration and demolition by methods that will prevent damage to other work, and will provide proper surfaces to receive installation of repairs or alterations.
- C. Contractor shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Contractor shall cut, remove and legally dispose of selected mechanical equipment, components and materials as indicated, including but not limited to removal of mechanical piping, heating units, plumbing fixtures and trim, and other mechanical items made obsolete by the modified work.
- E. Contractor shall restore work that has been cut or removed, and shall install new products to provide completed work in accordance with the requirements of the Construction Contract Documents.
- F. Contractor shall fit work tight to pipes, sleeves, ducts, conduit, and other penetrations through vertical and/or horizontal surfaces. Where fire rated separations are penetrated, fill space around pipe or insert penetration with material having physical characteristics equivalent to fire resistant requirements of penetrated surfaces in accordance with state or local codes and acceptable construction practices.
- G. Contractor shall refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.
- H. Contractor shall employ the Original Installer or Fabricator of Work performed under this Contract to execute cutting and patching for:
 - 1. Weather exposed or moisture resistant elements to maintain warranty and/or bonds.
 - 2. Sight exposed specialty finished surfaces.

END OF SECTION 01731

SECTION 01770

CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall comply with and be responsible for all of the requirements of the Project Manual, without exception.
- B. The Contractor shall comply with applicable requirements in this Section and more specific requirements in Division 1, Section 01100, Summary of Work.
- C. The Contractor shall comply with the requirements stated in the Construction Contract and in approved and permitted Drawings and Technical Specifications for the Work.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Construction Contract: fiscal provisions, legal submittals and additional administrative requirements.
- B. Division 1, General Requirements in the Project Manual without exception.
- C. Closeout submittals required of trades as may be indicated in various sections of the approved Technical Specifications.

1.03 DAMAGES

- A. If the Contractor neglects, fails, or refuses to complete the work by the Substantial Completion Date, Final Completion Date, or any portion of the Work by an Interim Completion Date, subject to any proper extension granted by the Owner, then the Contractor will pay, or cause the Contractor's Surety to pay damages to the Owner as defined in Summary of the Work, Section 01100.

1.04 PHASED COMPLETION

- A. In addition to Substantial Completion (Beneficial Occupancy) and Final Completion as defined below, the Contractor shall complete and make available to the Owner certain portions of the Work set forth on the Summary Schedule and Key Milestones in Section 00750 no later than the dates indicated on said Schedule ("Interim Completion Date")
- B. The Contractor acknowledges that such Interim Completion Dates are essential to the Owner's plans and use and, therefore, time is of the essence in meeting said Interim Completion Dates.

1.05 SUBSTANTIAL COMPLETION

- A. When Contractor considers the Work is substantially complete, he shall submit to the Owner the following:
 - 1. A written certification that the Work, or designated portion thereof, is substantially complete. All items not complete shall be listed and deficient items noted.

2. Owner will review the Contractor's certification and examine the Work for conformance to the Certification and the Construction Contract Documents.
 3. Owner will inform the Contractor of non-compliance or incomplete items.
 4. Contractor shall remedy the deficiencies in the Work within seventy-two (72) hours, and send a second written notice of substantial completion to the Owner.
 5. The Owner will re-examine the Work.
- B. When the Owner determines that the Work is substantially complete, the Owner will:
1. Prepare a Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected, as verified and amended.
 2. Send to Contractor for his/her written acceptance of the responsibilities assigned to them in the Certificate.
- C. After Work is substantially complete, Contractor shall:
1. Obtain and submit Certificate of Occupancy. Owner shall, in detail, list the status of the area affected by partial acceptance and occupancy to establish the existing conditions prior to such acceptance or occupancy.
 2. Complete Work listed for completion or correction within designated form.
 3. Perform all cleaning in accordance with Section 01710, Final Cleaning.

1.06 FINAL COMPLETION

- A. Within ten (10) calendar days after substantial completion, the Contractor shall submit to the Owner written certification that:
1. Construction Contract Documents have been reviewed.
 2. Work has been examined for compliance with Construction Contract Documents.
 3. Work has been completed in accordance with Construction Contract Documents.
 4. Equipment and systems have been tested in the presence of the Owner and the appropriate County personnel, and are operational.
 5. Work is completed and ready for final examination.
 6. Submittal of Closeout Documents as stipulated in paragraph 1.07 below.
- B. The Owner will make an examination to verify the status of completion within ten (10) calendar days after receipt of such certification.
- C. Should the Owner consider the Work incomplete or defective, or the Contractor has not demonstrated to the Owner that a "good faith" effort has been made within the time (72 hours) allotted in paragraph 1.05 A above, any Damages and/or Liquidated Damages, will be charged against the Contractor as defined and explained in Section 01100, Summary of Work

1. The Owner will promptly notify the Contractor in writing of all deficiencies listing the incomplete or defective work.
 2. Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written Certification to the Owner that the Work is complete.
 3. The Owner will re-examine the Work.
- D. When the Owner concludes that the Work is complete, the Owner shall determine the number of days for which Liquidated Damages will be assessed and request the Contractor to prepare closeout submittals.
- E. Acceptance of the entire project shall commence after all contract work is complete, final inspections are made, corrective actions completed, the Work re-examined, and after final acceptance by the Owner
- F. The date established by the Owner as the Final Completion Date shall initiate the guarantee and the warranty periods for all system components and the construction of the Project. The Project shall not be considered Final Complete until all Close Out Documents are properly completed and transmitted to the Owner.
- G. The Owner shall review the status of the Work and compare it to the request for final payment and compare it with the Project records for conformance to the final settlement requirements.
- H. The Owner shall receive from the Contractor, and maintain, the permit drawings and specification package, copy of all shop drawings and submittals, the “as-built” set of drawings and specifications, maintenance manuals as required by the contract and submitted by the Contractor. In addition, the Contractor shall provide spare parts and supplies, stored materials, special tools, filters, and other pertinent items as required under the Construction Contract Documents to the Owner for transmittal to the appropriate County department(s)

1.07 CLOSEOUT SUBMITTALS

- A. Evidence of compliance with requirements of governing authorities:
1. Certificates of Inspection:
 - a.) Asphaltic Pavement;
 - b.) Concrete.
- B. Project Record (Permit) Documents, in accordance with Section 01781
- C. Operating and Maintenance Data, in accordance with Section 01782
- D. Warranties and Bonds, in accordance with Section 01790.
- E. Spare Parts and Maintenance Materials,, in accordance with Section 01785.
1. Provide products, spare parts, and maintenance materials in quantities specified in each approved Specification Section in addition to that required for completion of Work.
- F. Certificate of Insurance for Products and Completed Operations.

1.08 EVIDENCE OF PAYMENTS AND RELEASE OF LIENS

- A. Contractor s Affidavit of Release of Liens.
 - 1. Consent of Surety to Final Payment. Use form acceptable to the Owner
 - 2. Contractor’s Release or Waiver of Liens. Standard Form “Affidavit and Partial Lien Waiver”. Use form acceptable to Owner.
 - 3. Separate releases of waivers of liens from prime and subcontractors, suppliers and others with lien rights against property of the Owner together with a list of those parties, in accordance with Standard Form “Affidavit and Final Lien Waiver”. Use form acceptable to Owner.
- B. All submittals shall be duly executed and notarized before delivery to the Owner.

1.09 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final Statement of Accounting to the Owner.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Allowances.
 - c. Unit Prices.
 - d. Deductions for uncorrected Work.
 - e. Deductions for liquidated damages.
 - f. Other adjustments.
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. The Owner will prepare a final Change Order reflecting approved adjustments to the Contract Sum, which was not previously made by Change Orders.

1.10 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit final Application for Payment in accordance with procedures and requirements stated in the Construction Contract and Section 01290, Payment Procedures of the Project Manual.

1.11 ADDITIONAL ADJUSTMENT

- A. No adjustments to the Construction Contract requested by the Contractor will be allowed if asserted after execution of Final Payment of Contract.

1.12 POST-CONSTRUCTION INSPECTION

- A. Prior to expiration of one (1) year from the Date of Final Completion, the Owner, or its designated representative, will make visual inspection of the Project Work in the company of the Contractor to determine whether further correction of Work is required in accordance with the provisions of the Construction Contract. The Contractor shall be responsible for contacting the Owner and scheduling and coordinating the one (1) year inspection.
- B. The Owner will notify the Contractor, in writing, of any observed deficiencies.
- C. Contractor shall contact the Owner to arrange convenient time and establish schedule for correction of deficiencies.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01770

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SECTION 01781

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 REQUIRED INCLUDED

- A. Contractor shall comply with and be responsible for all requirements of the Project Manual without exception.
- B. Contractor shall comply with the applicable requirements in this Section and more specific requirements in: Section 00800, Special Project Conditions; Section 01100, Summary of Work; Section 01330, Submittal Procedures; Section 01322, Photographic Documentation; and Section 01770, Close Out Procedures.
- C. Contractor shall conform to the requirements of the Owner, Georgetown County, and such other federal, state and municipal agencies having jurisdiction.

1.02 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents, in the Project Manual without exception.
- B. Division 1, General Requirements in the Project Manual without exception.

1.03 MAINTENACE OF DOCUMENTS AND SAMPLES

- A. For duration of Project, maintain at job Site the following:
 - 1. One copy of the Drawings, Technical Specifications, Addenda, shop drawings, products data, miscellaneous requested submittal data, Change Orders and other modifications to Contract, field orders, field test or written instructions.
 - 2. One copy of transmittal letters.
 - 3. One set of construction photographs.
 - 4. One set of samples.
 - 5. One copy of Permit Drawings as may be required by the appropriate governing agency having jurisdiction.
- B. Store documents and samples in Contractor's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinets or secure storage space for storage of samples.
- C. File documents and samples in accordance with CSI 16-division format.
- D. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- E. Make documents and samples available at all times for inspection by the Owner.

- F. Incomplete or out of order documents and samples will be grounds for not approving the Design/Builder's Application for Payment.
- G. Provide felt tip marking pens for recording information in color code designated by the Owner.
- H. Label each document "PROJECT RECORD" in neat large printed letters. Keep record documents current. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.

1.04 RECORD DRAWINGS

- A. Electronic data "As-Built" record drawings shall be required. The Owner will select electronic format and software to be used by Contractor.
- B. Permanent and Accurate Record Drawings shall be created on full size sheets (24 in. x 36 in. ft.) capable of being reproduced. These shall be made from the approved, original drawings, which shall be provided to a commercial reprographics service at an appropriate time. All of the aforementioned shall be at the Contractor's sole cost and expense.
- C. Legibly mark in color code designated by the Owner to record actual construction on designated Record Drawing prints:
 - 1. Depths of various elements of structure(s) foundations in relation to finish first floor datum.
 - 2. Horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
 - 3. Location of all internal utilities and appurtenances and features of the structure(s), including dimensional locations of underground activities and other work
 - 4. Dimensional locations, vertical and horizontal, of site work, including utilities.
 - 5. Dimensional location, vertical and horizontal, of asphalt and concrete pavement.
 - 6. Dimensional location, vertical and horizontal, of storm water drainage system including pipe invert elevations.
- D. Indicate the following installed conditions:
 - 1. All electrical systems, plumbing and mechanical systems and such other units installed requiring periodic maintenance or repair.
 - 2. Equipment locations (exposed and concealed), dimensioned from prominent building lines.
 - 3. Approved substitutions, contract modifications, and actual equipment and materials installed.
 - 4. Field modifications with dimensions and details.
 - 5. Modifications made by addenda, clarifications, Field Orders or Change Orders.
 - 6. Details not on original, approved Construction Contract drawings.
 - 7. Record information on a daily basis, or as often as necessary.
 - 8. Include references to related shop drawings and modifications.
- E. Contractor shall retain competent drafting services, as necessary, for transfer of "mark-up notations" from information recorded during construction.
- F. Contractor shall submit Record Documents drawings to the Owner for review and acceptance thirty (30) days prior to final closeout.

- G. Make revisions and additions as may be indicated by the Owner.
- H. Do not use these Drawings for reference or construction, nor allow them to leave the field office.

1.05 RECORD SPECIFICATIONS AND ADDENDA

- A. Legibly mark up in color code designated by the Owner each Specification Section to record the following:
 - 1. Manufacturer, trade name, catalog name and supplier (with address and phone number) of each product and item of equipment actually installed.
 - 2. Modifications made by Change Order.
 - 3. Other matters not originally specified.

1.06 RECORD SAMPLES

- A. Record in transmittal, if not indicated, manufacturer, trade name, catalog number.

1.07 SUBMITALLS

- A. At Contract closeout, Contractor shall sign each final Record Drawing and cover of Record Specifications stating documents are complete and accurate, deliver project Record Documents to the Owner.
- B. Accompany submittal with transmittal letter in duplicate, containing:
 - 1. Date.
 - 2. Owner RFP / Bid Number.
 - 3. Contractor's name and address.
 - 4. Title and number of each Record Document.
 - 5. Signature of Contractor or his/her authorized representative.
- C. Submit the following quantities of Record Documents:
 - 1. Two (2) complete and full sets of Project Record Drawings.
 - 2. Two (2) complete sets of "Up-Dated" Technical Specifications
 - 3. A complete set of Project Record Drawings in electronic format to be determined by Owner.

1.08 BURDEN OF ACCURACY

- A. Contractor shall bear all costs of damages of any nature incurred by the Owner due to inaccuracies or incompleteness of the submitted Project Record Documents.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01781

SECTION 01790

WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 0, Bidding and Contract Documents of the Project Manual without exception.
- B. Division 1, General Requirements of the Project Manual without exception.
- C. Approved Technical Specifications, as attached herein as applicable and required.

1.02 SUMMARY

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Construction Contract Documents, including manufacturer's standard warranties on products and special warranties.
 - 1. Refer to the applicable requirements of Division 0 and Division 1 for Contractor's special warranty of workmanship and materials.
 - 2. General closeout requirements are included in Section 01770, Closeout Procedures.
 - 3. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual and applicable Sections of the Technical Specifications.
 - 4. Certifications and other commitments and agreements for continuing services to the Owner, Georgetown County, South Carolina are specified elsewhere in the Construction Contract Documents.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products.

1.03 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Construction Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

- E. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Construction Contract Documents.
- F. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to counter sign such commitments are willing to do so.

1.04 SUBMITTALS

- A Submit written warranties to the Owner prior to the date certified for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.
- B When a designated portion of the Work is completed and occupied or used by the Owner by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within ten (10) calendar days of completion of that designated portion of the Work.
- C When a special warranty is required to be executed by the Contractor, or the prime and a subcontractor, supplier or manufacturer prepare a written document that contains appropriate terms and identification, ready for execution by the required parties, Contractor shall submit a draft to the Owner for approval prior to final execution.
- D Form of Submittal: At Final Completion, the Contractor shall compile two (2) copies of each required warranty and bond properly executed by the Contractor, or by the prime, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- E Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
- F Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
- G Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS, the Project title or name and location, Owner RFP / Bid number and the name of the Contractor.
- H When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01790

END OF PROJECT MANUAL, VOLUME 1

**PROJECT MANUAL
FOR
INDIAN HUT ROAD / AMOS ROAD
EXTENSION PAVING IMPROVEMENTS**

No. 20-062



**GEORGETOWN COUNTY,
SOUTH CAROLINA**

VOLUME II

DIVISION 3 – TECHNICAL SPECIFICATIONS

DIVISION 4 – PLANS & DRAWINGS

**PREPARED BY:
GEORGETOWN COUNTY
DEPARTMENT OF PUBLIC SERVICES
CAPITAL PROJECTS DIVISION**

&

DENNIS
CORPORATION

**1800 Huger Street
Charleston, SC 29201
803-252-0991**

VOLUME II - PROJECT MANUAL

DATE: 12/30/2020

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| 6 | Maintenance and Control of Traffic | |
| 7 | Structure and Storm Drains | |
| 8 | Incidental Construction and Erosion Control | |
| Attachment | Geotechnical Report (For Information Only) | |

NOTE: Special Project Requirement

All 24” pipe in this project shall be specified as m315 (profile gasket) with bedding/joint wrap to include 4” of stone bedding backfilled to the pipe haunch, and all joints to be wrapped in non-woven fabric overlapping 2’ on either side of the joint.

DIVISION 4- LIST OF DRAWINGS & TECHNICAL SPECIFICATIONS

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Technical Specifications For Indian Hut Road and Amos Road Extension Paving Project

Prepared for:

Georgetown County

Prepared by:



Report Date: As Sealed
Revision Date: _____

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1. GENERAL SPECIFICATIONS

1.1. REFERENCES

The “Standard Specifications for Highway Construction, Edition of 2007” as published by the South Carolina Department of Transportation shall govern the material and workmanship on this project and is incorporated within this Contract by reference, except where modified by the Contract Conditions, and the Specifications and Special Conditions included within this section. In addition, the “Standard Drawings for Road Construction” published by the South Carolina Department of Transportation are incorporated within this Contract by reference.

The following are SCDOT Supplemental Specifications that may pertain specifically to the project. Additional Supplemental Specifications not included but which may be required for the Project, are on file with SCDOT and are available on the SCDOT website.

The list of the SCDOT Supplemental Specifications provided is as follows:

- (05-04-09) Errata to Standard Specifications for Highway Construction
- (03-20-03) South Carolina Mining Act
- (08-01-13) Crane Safety
- (11-14-13) Construction Schedules
- (07-01-17) Muck Excavation
- (03-08-16) Bridge Lift Materials
- (01-04-12) Fine Grading
- (06-01-01) Bases and Subbases Quality Control/Quality Assurance
- (01-02-14) Grade Aggregate Base
- (06-01-09) Graded Aggregate Base, Composite Mixture
- (07-01-10) Subsection 401.4.17 Transportation & Delivery of Mixes
- (01/01/19) Asphalt Binder and Additives
- (04-05-10) Concrete Batching and Mixing
- (05-05-14) Portland Cement and Portland Cement Concrete
- (02-01-15) Concrete Entrained Air and Slump Properties
- (07-01-19) Fine and Coarse Aggregate for Portland Cement Concrete
- (07-01-18) Concrete Placement in Hot and Cold Weather
- (07-01-18) Concrete Batching and Mixing in Hot and Cold Weather
- (07-01-20) Work Zone Traffic Control Training Requirements for Contractors/Subcontractors
- (07-01-18) NCHRP 350 Approved Products List
- (08-04-14) Temporary Pavement Markings Fast Dry, High Build Durability Waterborne Paint
- (12-02-11) Permanent Pavement Markings
- (07-01-20) Section 627 Thermoplastic Pavement Markings
- (05-01-13) Temporary Barrier Fence for Environmental Boundary

The latest SCDOT Supplemental Technical Specifications which may be required for the Project, are on file with SCDOT and are available on the SCDOT website.

1.2. SPECIAL CONDITIONS

DEFINITIONS AND TERMS

1. The project **Owner** is Georgetown County.
2. The project **Engineer** is Dennis Corporation.
3. **Notice-to-Proceed** is written notice to the Contractor fixing the date on which the contract time will commence to run and on which the Contractor may start to perform obligations under the Contract Documents.
4. **Substantial Completion of Work** is the point in the project when work has been constructed to the typical section in the Plans over the entire length of the project including tie-ins, all pay items have been installed in reasonable conformance with the plans and specifications over the entire length of the project and in their final configuration with the only remaining work to be performed being punch list items.

CONSTRUCTION SCHEDULES

Refer to the SCDOT Supplemental Specification as described. This is a **Level 1 Project**.

MAINTENANCE OF TRAFFIC

In addition to the Contractor maintaining traffic throughout the length of this project as required by the Specifications, it will also be necessary that the Contractor, prior to beginning any work, submit to the Engineer for approval his plan for constructing this project.

CONSTRUCTION QUALITY CONTROL AND ASSURANCE

The Owner, through the Engineer, shall provide quality assurance inspections and testing for this project, except for MANUFACTURERS MATERIALS CERTIFICATIONS AND CERTIFIED TEST REPORTS as required by the specifications included herein. The Contractor shall be responsible for Quality Control in accordance with the SCDOT Construction Manual.

Contractor shall provide Engineer with at least 48 hours notice prior to the installation of all pipe and drainage structures, the execution of proof rolls, the placement of stone base courses, the placement of asphalt courses and any other items of work so directed by the Engineer. Include these items on the Construction Schedule.

MANUFACTURERS MATERIALS CERTIFICATIONS AND CERTIFIED TEST REPORTS

The Contractor shall supply the Engineer with all required materials certifications and manufacturers test reports for items to be permanently incorporated into the project, prior to their use. The Owner (or his designee) must approve these certifications and reports before payment can be made to the Contractor for these items.

LOCATION OF UNDERGROUND UTILITIES

The location of existing underground utilities shown is based upon information furnished by the utility owner and above ground inspection and cannot guaranteed to be correct. The CONTRACTOR should engage the individual Providers to cause their utility to be located in the best method available. Any necessary revisions in the plan alignment must be approved by the ENGINEER.

COORDINATION OF UTILITY RELOCATION WORK

As it is not economically feasible to complete the rearrangement of all utility conflicts in advance of the construction, **it shall be the responsibility of the contractor to inspect the site for**

potential utility conflicts and coordinate utility relocations during construction. It is the responsibility of the Contractor to call Palmetto Utility Protection Service (1-888-721-7877 or 811) and the non-PUPS member utilities three (3) days prior to work so that existing utilities can be properly marked.

PROTECTION AND RESTORATION OF PROPERTY

Only such clearing, grubbing, cutting and excavation on public or private property which, in the opinion of the ENGINEER, is required for execution of the work shall be allowed. All residual debris emanating from the construction operations shall be cleaned up and disposed off the construction site in areas provided by the CONTRACTOR. All shoulders and lawns defaced shall be replanted or replaced in like kind (turf grasses if applicable) and any shrubs or trees destroyed shall be replaced if such be the wish of the owner, either individual or governmental entity.

PROPERTY PINS AND MONUMENTS

Any property pins or monuments destroyed or displaced by the CONTRACTOR'S operations shall be reset by a licensed land surveyor at the CONTRACTOR'S expense.

DISPOSAL OF WASTE FROM CLEARING

Any waste from necessary project clearing operations shall be disposed of offsite legally, by the CONTRACTOR, in suitable areas provided by him.

FUEL ADJUSTMENT INDEX

There will be no adjustments for this contract.

ASPHALT BINDER ADJUSTMENT INDEX

There will be no adjustments for this contract.

TYPICAL TRAFFIC CONTROL STANDARD DRAWINGS

Typical traffic control standard drawings are provided in sections 601-610 of the "Standard Drawings for Road Construction" manual for this project and shall be utilized as required including the specific drawings listed below:

- SCDOT Std DWG No. 605-010-02 (Schemes C and E)
- SCDOT Std DWG No. 610-005-00
- SCDOT Std DWG No. 610-005-10
- SCDOT Std DWG No. 610-205-00

CONTINGENT ITEMS

- A. Construction Item(s) identified as being contingent on the "Summary of Quantities" sheets of the plans, in the column headed "Contingent" and/or listed herein are provided in the Contract for use as directed by the Engineer and shall be included as part of the proposal base bid unless otherwise specified. The quantities for these items are established for the purpose of obtaining a bid price and shall be included as part of the proposal base bid unless otherwise specified. The quantities for these contingent items may be increased or decreased without any adjustment to the Contract unit price bid or the contingent items may be deleted entirely from the Contract by the Engineer without negotiation. The Contractor will not be allowed to submit a claim against the Owner for any adjustment to the Contract unit price bid should the contingent items be increased, decreased or eliminated entirely.

- B. Payment for any contingent items used will be made on the basis of the quantities as actually measured. Materials, Construction Requirements, and Basis of Payment shall be as specified in the Specifications, Supplement to the Specifications, Interim Specifications or Addenda, Plans or Special Provisions.

MOBILIZATION

Refer to SCDOT Standard Specifications Section 103.10.

CONSTRUCTION STAKES, LINES AND GRADES

Construction Stakes, Lines and Grades shall be provided by the Contractor. Refer to SCDOT Standard Specifications Section 105.8.2 and the following:

Ensure that all computations of survey work and any determinations of real property boundaries required in the execution of this project are performed under the direction of a Land Surveyor registered in South Carolina.

AS-BUILT SURVEYS

Contractor shall collect as-built survey data and provide this data electronically, in a format acceptable to the Engineer, and as redline markups on the Construction Plans prior to punch list inspection. Contractor may submit this data as the relevant work is completed. Any re-work due to unapproved deviations from the Plans may require updated as-built survey at the sole expense of the Contractor. All survey data shall be provided in State Plane Coordinates (horizontal and vertical). The following data is to be provided:

- Centerline, edge of pavement, ditch flowlines (100 LF tangent sections; 50 LF curves)
- Relocated and uncovered utilities (100 LF and changes in direction for subsurface utilities)
- Pipe inverts
- Drainage structures (include elevations for inverts, inlets and/or rims as appropriate)

As-Built surveys are to be performed under the direction of a Land Surveyor registered in South Carolina.

Measurement and Payment for this item of work shall be made on a Lump Sum (LS) basis. Partial payments up to 90% of the Lump Sum Bid Price may be approved at the Owner's discretion based on the percent complete of the relevant construction. Final payment for this item of work shall be made upon acceptance of the relevant construction.

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2. **EARTHWORK**

CLEARING AND GRUBBING WITHIN ROADWAY

Refer to SCDOT Standard Specifications Section 201.

REMOVAL AND DISPOSAL OF EXISTING PAVEMENT

Refer to SCDOT Standard Specifications Section 202 and the following:

The removal and disposal of existing pavement is measured by the cubic yard (CY) of Unclassified Excavation in accordance with SCDOT Standard Specifications Section 203.5.

REMOVAL AND DISPOSAL OF EXISTING PIPE

Refer to SCDOT Standard Specifications Section 202 and the following:

The removal and disposal of existing pipe is measured by the cubic yard (CY) of Unclassified Excavation in accordance with SCDOT Standard Specifications Section 203.5. No measurement is made for the removal of pipe that is to be replaced by new pipe or for the removal of pipe that is to be re-laid at any location. The cost of this removal is included in the new pipe or re-laid pipe items.

UNCLASSIFIED EXCAVATION

CONTINGENT BORROW EXCAVATION

CONTINGENT MUCK EXCAVATION

**CONTINGENT GEOTEXTILE FOR SEPARATION OF SUBGRADE AND
SUBBASE**

CONTINGENT GEOGRID REINFORCEMENT (BIAXIAL)

CONTINGENT STONE BRIDGE LIFT MATERIAL

Refer to SCDOT Standard Specifications Section 203 and the following SCDOT Supplemental Technical Specifications:

SC-M-203-1 – Geosynthetic Materials – Separation and Stabilization

SC-M-203-2 – Geogrid Soil Reinforcement

FINE GRADING

Refer to SCDOT Standard Specifications Section 208.

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3. BASES AND SUBBASES

GRADED AGGREGATE BASE COURSE

Refer to SCDOT Standard Specifications Section 305.

CONTINGENT MAINTENANCE STONE

The work associated with Contingent Maintenance Stone shall consist of increasing the strength of the subgrade or subbase by the addition of crushed stone or gravel as directed by the Engineer.

Produce crushed stone and gravel from tough, durable parent rock, free from soft, thin, elongated or laminated pieces, disintegrated particles, organic matter, or other deleterious materials. Use crushed stone meeting the gradation requirements of Aggregate No. CR-14 and from suppliers chosen from the current SCDOT Qualified Products List.

This item is a contingent item and its use is authorized only with the written consent of the Engineer. The quantity for the pay item Contingent Maintenance Stone is the weight of the aggregate incorporated into the project as specified and measured by the ton (TON) of the material as weighed in trucks on approved platform scales and incorporated into the finished work, complete and accepted. Payment for the accepted quantity of Contingent Maintenance Stone is determined using the contract unit bid price for the item. Payment is full compensation and includes all items required for placement per the Plans or as directed by the Engineer.

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4. ASPHALT PAVING

**LIQUID ASPHALT BINDER
HMA INTERMEDIATE COURSE
HMA SURFACE COURSE**

Refer to SCDOT Standard Specifications Sections 400-403 and the following:

Submit to the Engineer certification that the asphalt mix design for the type specified has been approved by SCDOT.

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5. **CONCRETE PAVING (NOT USED)**

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6. MAINTENANCE AND CONTROL OF TRAFFIC

**TRAFFIC CONTROL
PERMANENT CONSTRUCTION SIGNS**

Refer to SCDOT Standard Specifications Section 107.12 and Sections 601-611

**4" WHITE SOLID LINES THERMO
24" WHITE SOLID LINES THERMO
4" YELLOW BROKEN LINES THERMO
4" YELLOW BROKEN LINES THERMO**

Refer to SCDOT Standard Specifications Section 627

PERMANENT YELLOW PAVEMENT MARKERS BI-DIRECTIONAL

Refer to SCDOT Standard Specifications Section 630

FLAT SHEET SIGN, FIXED SIZE AND MESSAGE

Refer to SCDOT Standard Specifications Section 650-651

U-SECTION POSTS FOR SIGN SUPPORTS

Refer to SCDOT Standard Specifications Section 653

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7. **STRUCTURES AND STORM DRAINAGE**

CONCRETE KEY

Construct Concrete Key in accordance with the details shown on the Plans. Use SCDOT Class 4000 concrete. Refer to SCDOT Standard Specifications Section 701.

Measurement and payment for this item shall be by the Linear Foot (LF) constructed and accepted using the contract unit bid price for the item. Payment is full compensation and includes all items required for construction per the Plans or as directed by the Engineer.

REINFORCED CONCRETE (RC) PIPE

Refer to SCDOT Supplemental Technical Specification SC-M-714 – Permanent Pipe Culverts

DROP INLET

Refer to SCDOT Standard Specifications Section 719.

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8. INCIDENTAL CONSTRUCTION AND EROSION CONTROL

MOVING ITEMS

Refer to SCDOT Standard Specifications Section 808 and the following:

For this Project, the removal and relocation of mailboxes, signs and other items in conformity with the Plans and the Specifications or as directed by the Engineer are considered incidental to other items of work and will not be measured for payment.

**RIPRAP
GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP**

Refer to SCDOT Standard Specifications Section 804.

**PERMANENT COVER
TEMPORARY COVER
TURF REINFORCEMENT MATTING
INLET STRUCTURE FILTERS
SEDIMENT TUBES
SILT FENCE**

Refer to SCDOT Standard Specifications Section 815 and the following SCDOT Supplemental Technical Specifications:

- SC-M-810-4 – Seeding
- SC-M-815-1 – Sediment Tubes
- SC-M-815-2 – Silt Fence Systems
- SC-M-815-8 – Inlet Structure Filters
- SC-M-815-9 – Rolled Erosion Control Products
- SC-M-815-10 – Stabilized Construction Entrance
- SC-M-815-12 – Sediment Tubes for Ditch Checks

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November 27, 2019

Mr. Matt Hines
Dennis Corporation
1800 Huger Street
Columbia, SC 29201

Reference: **Report of Geotechnical Exploration**
Amos Road and Indian Hut Road
Georgetown County, South Carolina
SUMMIT Project No. 1359.21

Matt:

SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) is pleased to submit this report for the geotechnical exploration for the roadway development for a portion of Amos Road and Indian Hut Road in Georgetown County, South Carolina.

Project Information

The total length of the roads is approximately 2.25 miles and includes a portion of Amos Road and a portion of Indian Hut Road in Georgetown County. The roads are currently unpaved and pavement designs will be provided based on local collector roads with some truck traffic.

The field work consisted of hand augers and dynamic cone penetrometer testing to depths of 3 feet at approximate intervals of 800 feet along the roads. Laboratory testing on selected samples consisted of classification testing, along with a modified Proctor and CBR testing on a bulk sample from each road.

This report includes the Dynamic Cone Penetrometer boring logs, a description of the soil conditions that have been encountered, and general site preparation and pavement design recommendations. Enclosed with this report is the Boring Location Plan as well as our soil test boring records.

ENGINEERING • LABORATORY • TESTING
1029 Old Stage Road , Suite D | Simpsonville, South Carolina 29681 | (864) 932 -3705 | (864) 932 -3706 Fax
WWW.SUMMIT-COMPANIES.COM

Subsurface Exploration

A layer of gravel mixed with sand was encountered at the surface of the roads to average depths of 3 to 4 inches. Some areas of thicker gravel were also encountered. Beneath the gravel, the soils at the hand auger locations consisted of loose to medium dense brown and tan SAND (SP) and SAND with silt (SP-SM). Some minimal areas of medium dense clayey SAND (SC) were also encountered. Average DCP values ranged from 4 to in excess of 15 blows per increment (bpi), with the majority of DCP values between 5 and 10 bpi. Some loose soils were encountered near the surface and at various depths in some of the hand augers.

During DCP testing, the conical point of the DCP is first seated to penetrate loose cuttings, and then driven into the soil in additional increments of 1-3/4 inches with blows from a 15 pound hammer falling 20 inches. The number of hammer blows required to achieve this penetration is recorded, and is an index to the soil strength and density. The strength readings are recorded and subjected to engineering review.

Groundwater was not encountered in any of the hand auger borings. Some moist samples were obtained, however, groundwater was not observed in the hand augers at the time of drilling. The borings were backfilled with soil cuttings following completion of drilling.

It should be noted that regional groundwater levels will fluctuate with seasonal and climatic changes and may be different at other times. Based on the information obtained in our hand auger borings, we do not anticipate that groundwater will be encountered during any grading or other work at the site. Please note that the near surface soils can be conducive to the development of a temporarily high groundwater condition (water ponding at the surface) following periods of inclement weather.

Laboratory Testing

A representative portion of the soil was obtained from each hand auger boring, sealed, labeled and transported to our laboratory for classification and analysis by a geotechnical engineer. The soil samples were visually classified in general accordance with the Unified Soil Classification System (USCS), using visual-manual identification procedures (ASTM D-2488). Four classification tests consisting of Atterberg Limits (ASTM D-4318), percent fines (ASTM D-1140) and natural moisture contents were performed on selected samples. A bulk sample of the subgrade soils from each road was obtained for Modified Proctor (ASTM D-698) and California Bearing Ratio (ASTM D-1883) testing.

The results of the classification testing are presented below.

| Boring No. | Depth (ft.) | Classification | LL | PL | PI | % Fines | Water Content (%) |
|------------|-------------|----------------|----|----|----|---------|-------------------|
| HA-1 | 0-1' | SP | NP | NP | NP | 4.3 | 7.1 |
| HA-4 | 2'-3' | SP | NP | NP | NP | 2.8 | 6.2 |
| HA-10 | 2' | SP-SM | NP | NP | NP | 6.7 | 9.4 |
| HA-16 | 1'-2' | SP-SM | NP | NP | NP | 6.3 | 10.0 |

Site Geology

According to the Generalized Geologic Map of South Carolina (1997), the project site is located within the lower Atlantic Coastal Plain Physiographic Province of South Carolina. This province is characterized by sedimentary deposits of varying age and thickness. Generally, the deposits in this province consist of interceded mixtures of sands, silts, and clays. These materials were laid down in layers during successive advances and retreats of the ocean and generally dip gently toward the sea at a rate of a few feet per mile. However, during previous periods of low ocean levels, they were partially eroded by streams.

Site Preparation Recommendations

We recommend that the subgrade for the roads be proof-rolled with a loaded tandem axle dump truck or other similar heavy construction equipment to confirm the stability of the subgrade soils and detect the presence of soft or unstable areas. Our geotechnical engineer or his representative should observe the proof-rolling operations. If proof-rolling reveals unstable conditions, the method of repair should be as directed by the project geotechnical engineer, but will likely consist of several options, such as undercutting the unsuitable soils and replacement with adequately compacted structural fill, scarifying and reconditioning, or the use of geotextiles for ground stabilization. Based on the results of the hand auger borings, it appears that the subgrade soils should be suitable for support of the new roads. Some loose sands were encountered in the near surface soils in some of the hand auger borings. There could be some isolated areas of undercut or stabilization due to the soft soils, but it should be very minor and isolated based on the hand auger borings and our observations. The existing gravel at the surface can be left in place depending on final grades and pending a successful proofroll.

During grading operations hidden features in the substratum may be encountered within the proposed construction area. Details regarding removal of deleterious material must be determined on a case-by-case basis, and, therefore, contract documents should include a contingency cost for the removal of subsurface features. Excavated areas should be backfilled in general accordance with the compacted fill recommendations presented herein. Site preparation monitoring by SUMMIT personnel is recommended.

Structural Fill Placement

Soils imported from an off-site borrow source may be used as structural fill, provided they meet the following criteria:

- Soils should be free of deleterious and organic material;
- Have low plasticity, containing no more than 20% fines (material passing the No. 200 sieve) by weight;
- Should have particle sizes of less than two (2) inches in diameter and should not have a maximum dry density of less than 100 pounds per cubic foot as determined by a laboratory modified Proctor compaction test (ASTM D-1557).

Samples of structural fill material should be tested by SUMMIT for compliance with the above criteria prior to placement. Soils that do not meet the structural fill requirements in addition to any undercut surficial organic soil may be used in non-structural or landscaped areas. The on-site sands and sands with silt should be suitable for reuse as structural fill. The clayey sands may not be suitable for use as structural fill depending on the clay content in the soils.

Following the above site preparation recommendations, all structural fill and backfill material should be placed in approximate eight to ten (8-10) inch thick loose lifts and compacted to at least 95 percent of the modified Proctor maximum dry density and to within (+/-) 3 percent of the fill's optimum moisture content as determined by ASTM D-1557.

Some moisture conditioning of the soils (such as wetting and drying) will likely be required during the filling operation to obtain the required degree of compaction. Field density tests should be performed by SUMMIT on each lift of structural fill placed and at a frequency determined by the Geotechnical Engineer to verify compliance with project compaction specifications.

The contractor should exercise care after these soils have been compacted. If water is allowed to stand on the surface, these soils may become saturated. Therefore, the fill surface should be sloped to achieve positive drainage and to minimize water from ponding on the surface. If the surface becomes excessively wet, fill operations should be halted and our geotechnical engineer consulted for guidance. Testing of the fill material and compaction monitoring by our engineering technician is recommended during fill placement operations.

Pavement Considerations

Based on our analysis of the hand auger borings and our understanding of the proposed site grades, we anticipate that the soils at the assumed pavement subgrade elevations will likely consist of fine SANDS and SANDS with silt, or newly placed structural fill soils overlying the same. The upper 12 inches of subgrade soils are considered acceptable for pavement support when prepared to a dense and uniform consistency of at least 95% of the modified Proctor maximum dry density and within +/- 2% of the soil's optimum moisture content.

Based on the laboratory CBR testing, we recommend a CBR value of fifteen (15) be used in design of project pavements. Based on the Georgetown County Roadway Design and Construction Manual, collector roads should have an equivalent daily load application (EDLA) of 100. Since there will be heavy truck traffic utilizing these roads, the pavement design has been based on an EDLA of 150. A serviceability index of 2.5 has been used based on the Design Manual. Utilizing a CBR value of fifteen (15), an EDLA of 150 and the Design Nomograph for Flexible Pavements with a SI of 2.5, a structural number of 2.7 was obtained. Based on this structural number and strength coefficients in the Design Manual, the following pavement recommendations are provided. The pavement recommendations are also based on the minimum standards for collector roads as required by Georgetown County.

Composite Section:

Asphalt Surface Course – 2.0”

Asphalt Binder Course – 3.0”

Aggregate Base Course – 6”

Full Depth Asphalt:

Asphalt Surface Course – 3.0”

Asphalt Binder Course – 4.0”

The typical pavement sections are based on the assumption that all pavements will be constructed on properly prepared, proofrolled and stable soil subgrades approved by SUMMIT's geotechnical personnel. Different combinations of materials and depths, varied to provide roughly equivalent strengths, can achieve serviceable flexible pavements.

We do not anticipate that highly plastic soils will be exposed at design subgrade. However, the subgrades should be carefully examined by an experienced geotechnical engineer following rough grading to evaluate whether or not any highly plastic soils or soft wet soils are present. If highly plastic soils are exposed in pavement subgrades, they should be undercut to a depth of 2 feet and be replaced with adequately compacted low plasticity soils or can be treated with lime to reduce their objectionable behavior when wet. It is critical that a thorough proofrolling be performed on the subgrade soils prior to fill or stone base placement. Any soft or loose materials encountered should be evaluated by a SUMMIT geotechnical engineer and if necessary removed and backfilled with properly placed and compacted structural fill.

The long-term performance of any pavement section is directly related to drainage of the base and subgrade. We emphasize the good base course and subgrade drainage is absolutely essential for successful pavement performance. Water buildup in the base course will result in premature pavement failures. The subgrade and pavement should be graded to provide rapid runoff to either the outer limits of the paved area or to catch basins so that standing water will not accumulate on the subgrade or pavement surfaces. Any areas that allow water or groundwater to enter the pavement system will require sub drains (i.e. French drains) installed to prevent water entry into the pavement base and subgrades.

The majority of pavement sections incur their heaviest loads during the construction process. The construction loads are generally in excess of the design traffic loads. For this reason, we recommend that construction be staged to allow final preparation of the base course and paving to be performed near the end of the project when heavy construction equipment is not present.

Flexible asphalt pavements and bases should be constructed in accordance with the guidelines of the latest applicable South Carolina Department of Transportation Specifications. Materials, weather limitations, placement and compaction are specified under appropriate sections of this publication.

LIMITATIONS

This summary report has been prepared for the exclusive use of Dennis Corporation for specific application to the referenced project in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made. Please note that our summary of observations reflects the condition of near-surface bearing soils at the locations of our soil borings and assumes that conditions are equivalent or better at depth. There is the possibility that actual conditions at other locations across the site may differ from those encountered at the test locations. These recommendations do not reflect variations in subsurface conditions that could exist intermediate of the boring locations or in unexplored areas of the site. Should such variations become apparent during construction, we reserve the right to re-evaluate our recommendations based upon the available data. In the event changes are made in the proposed construction plans, the recommendations presented in this report shall not be considered valid unless reviewed by our firm and the recommendations of this report modified or verified in writing.

There are important limitations to this and all geotechnical studies. Regardless of the thoroughness of the subsurface exploration, there is the possibility that conditions between borings will differ from those at the boring locations, that conditions are not as anticipated by the designers, or that the construction process has altered the soil conditions. Therefore, an experienced staff professional working under the supervision of a geotechnical engineer should evaluate the subgrade soils to verify that the conditions anticipated in design actually exist.

CLOSING

SUMMIT appreciates the opportunity to provide our professional services to you on this project. If you have any questions concerning the information in this report or if we can be of further service, please contact us.

Sincerely,
SUMMIT ENGINEERING, LABORATORY & TESTING, P.C.



Ross R. Deaver, P.E.
SC Regional Manager



Attachments: Boring Location Plan
 Hand Auger Logs
 Lab Testing

APPENDIX I

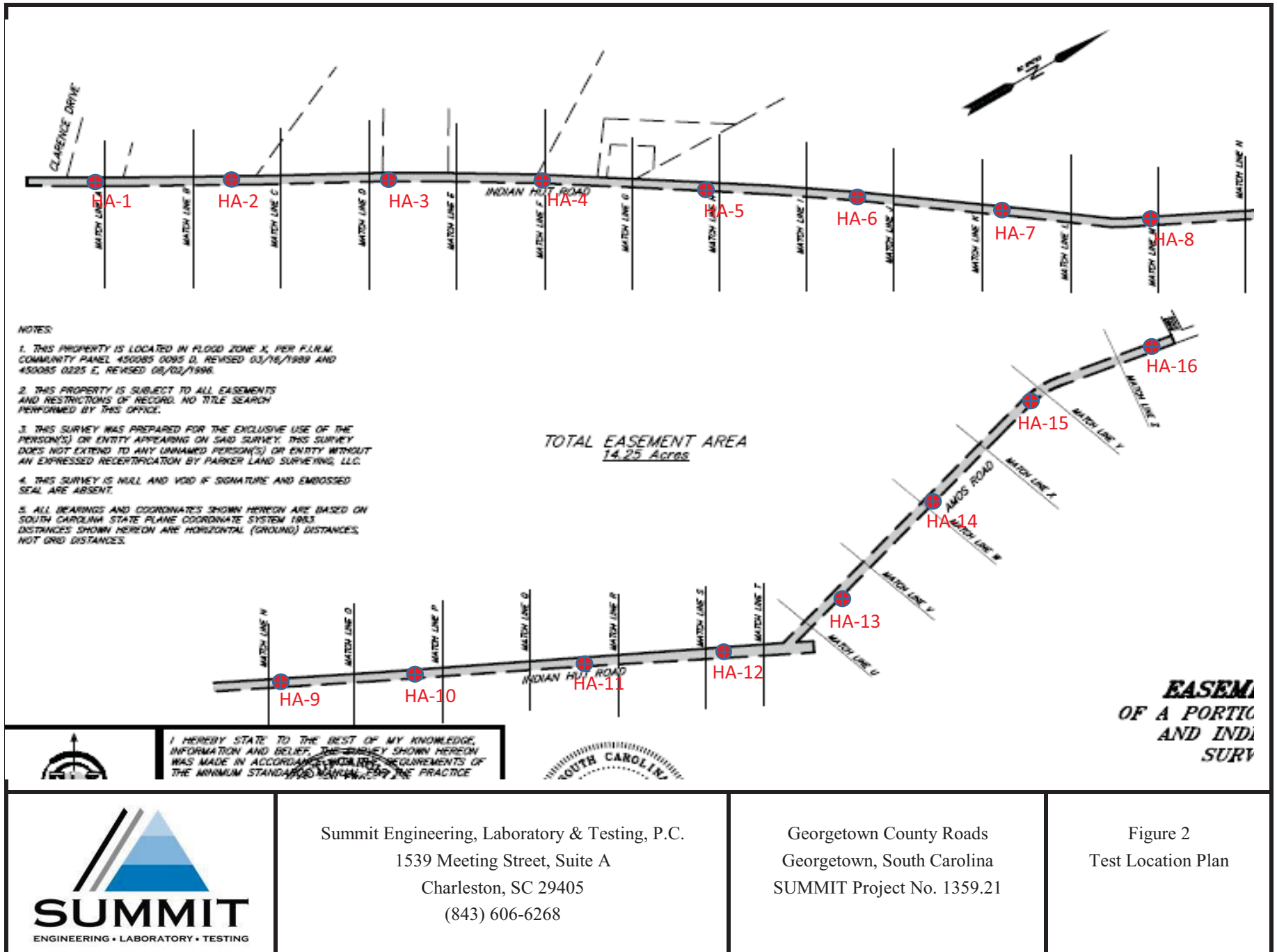
Site Vicinity Map (Figure 1)
Test Location Plan (Figure 2)



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 (843) 606-6268

Georgetown County Roads
 Georgetown, South Carolina
 SUMMIT Project No. 1359.21

Figure 1
 Site Vicinity Map



APPENDIX II

Hand-Auger Boring Logs



HAND AUGER BORING & DCP TESTING SHEET

Project Name: Amos Road and Indian Hut Road

11/13/2019

Project Number : 1359.21

Lot # : N/A

Performed by : J. Brown/D. Watson

County : Georgetown

| Location of Test | Depth (from) | Depth (to) | Soil Description | Depth* (feet) | DCP Blows Per 1 3/4-inch | | | |
|------------------|--------------|------------|---------------------------|---------------|--------------------------|-----|-----|------|
| | | | | | 1st | 2nd | 3rd | Avg. |
| HA-1 | 0 | 1' | Tan fine SAND | 0 | 12 | 14 | 15 | 15 |
| | 1' | 2' | Tan fine SAND | 1 | 6 | 12 | 13 | 13 |
| | 2' | 3' | Tan slightly silty SAND | 2 | 10 | 11 | 11 | 11 |
| | 3' | | | 3 | 4 | 5 | 6 | 6 |
| | | | | | | | | |
| HA-2 | 0 | 1' | Tan fine SAND | 0 | 4 | 5 | 5 | 5 |
| | 1' | 2' | Tan fine SAND | 1 | 8 | 9 | 12 | 11 |
| | 2' | 3' | Tan fine SAND | 2 | 8 | 10 | 8 | 9 |
| | 3' | | | 3 | 5 | 5 | 5 | 5 |
| | | | | | | | | |
| HA-3 | 0 | 1' | Tan fine SAND | 0 | 8 | 6 | 7 | 7 |
| | 1' | 2' | Brown slightly silty SAND | 1 | 6 | 6 | 7 | 7 |
| | 2' | 3' | Tan silty SAND | 2 | 4 | 5 | 6 | 5 |
| | 3' | | | 3 | 3 | 4 | 4 | 4 |
| | | | | | | | | |
| HA-4 | 0 | 1' | Tan SAND with silt | 0 | 7 | 6 | 7 | 7 |
| | 1' | 2' | Tan fine SAND | 1 | 8 | 8 | 7 | 8 |
| | 2' | 3' | Tan fine SAND | 2 | 4 | 5 | 6 | 6 |
| | 3' | | | 3 | 5 | 4 | 6 | 10 |
| | | | | | | | | |

Notes :

* Depth from existing ground surface
 HAR - Hand Auger Refusal
 BOF - Bottom of Footing



HAND AUGER BORING & DCP TESTING SHEET

Project Name: Amos Road and Indian Hut Road

11/13/2019

Project Number : 1359.21

Lot # : N/A

Performed by : J. Brown/D. Watson

County : Georgetown

| Location of Test | Depth (from) | Depth (to) | Soil Description | Depth* (feet) | DCP Blows Per 1 3/4-inch | | | |
|------------------|--------------|------------|--|---------------|--------------------------|-----|-----|------|
| | | | | | 1st | 2nd | 3rd | Avg. |
| HA-5 | 0 | 1' | Tan and light brown fine slightly silty SAND | 0 | 6 | 5 | 5 | 5 |
| | 1' | 2' | Tan and light brown fine slightly silty SAND | 1 | 5 | 7 | 8 | 8 |
| | 2' | 3' | Light tan fine SAND | 2 | 4 | 5 | 5 | 5 |
| | 3' | | | 3 | 4 | 4 | 5 | 5 |
| | | | | | | | | |
| HA-6 | 0 | 1' | Light brown fine SAND | 0 | 9 | 7 | 7 | 7 |
| | 1' | 2' | Light brown fine SAND | 1 | 8 | 10 | 10 | 10 |
| | 2' | 3' | Light brown/orange silty SAND | 2 | 3 | 5 | 5 | 5 |
| | 3' | | | 3 | 3 | 4 | 4 | 4 |
| | | | | | | | | |
| HA-7 | 0 | 1' | Brown and orange slightly clayey SAND | 0 | 12 | 14 | 13 | 14 |
| | 1' | 2' | Orange slightly silty SAND | 1 | 10 | 11 | 10 | 11 |
| | 2' | 3' | Orange slightly silty SAND | 2 | 7 | 9 | 10 | 10 |
| | 3' | | | 3 | 8 | 9 | 9 | 9 |
| | | | | | | | | |
| HA-8 | 0 | 1' | Tan fine SAND | 0 | 11 | 10 | 14 | 13 |
| | 1' | 2' | Tan fine SAND | 1 | 12 | 15 | 16 | 16 |
| | 2' | 3' | Tan fine SAND | 2 | 11 | 11 | 13 | 12 |
| | 3' | | | 3 | 7 | 8 | 8 | 8 |
| | | | | | | | | |

Notes :

* Depth from existing ground surface
 HAR - Hand Auger Refusal
 BOF - Bottom of Footing



HAND AUGER BORING & DCP TESTING SHEET

Project Name: Amos Road and Indian Hut Road

11/13/2019

Project Number : 1359.21

Lot # : N/A

Performed by : J. Brown/D. Watson

County : Georgetown

| Location of Test | Depth (from) | Depth (to) | Soil Description | Depth* (feet) | DCP Blows Per 1 3/4-inch | | | |
|------------------|--------------|------------|----------------------------------|---------------|--------------------------|-----|-----|------|
| | | | | | 1st | 2nd | 3rd | Avg. |
| HA-9 | 0 | 1' | Orange clayey SAND | 0 | 8 | 9 | 11 | 10 |
| | 1' | 2' | Tan fine SAND with silt | 1 | 10 | 12 | 12 | 12 |
| | 2' | 3' | Tan fine SAND with silt | 2 | 9 | 10 | 10 | 10 |
| | 3' | | | 3 | 6 | 7 | 7 | 7 |
| | | | | | | | | |
| HA-10 | 0 | 1' | Orange slightly clayey SAND | 0 | 8 | 8 | 7 | 8 |
| | 1' | 2' | Tan and orange SAND with silt | 1 | 9 | 11 | 10 | 11 |
| | 2' | 3' | Tan SAND with silt | 2 | 8 | 8 | 9 | 9 |
| | 3' | | | 3 | 7 | 6 | 7 | 7 |
| | | | | | | | | |
| HA-11 | 0 | 1' | Tan and orange SAND with silt | 0 | 10 | 11 | 13 | 12 |
| | 1' | 2' | Orange slightly silty SAND | 1 | 10 | 10 | 9 | 10 |
| | 2' | 3' | Tan and orange SAND with silt | 2 | 9 | 9 | 10 | 10 |
| | 3' | | | 3 | 8 | 9 | 9 | 9 |
| | | | | | | | | |
| HA-12 | 0 | 1' | Tan fine SAND | 0 | 8 | 8 | 9 | 9 |
| | 1' | 2' | Tan and grey slightly silty SAND | 1 | 10 | 9 | 9 | 9 |
| | 2' | 3' | Grey fine SAND | 2 | 12 | 11 | 13 | 12 |
| | 3' | | | 3 | 5 | 6 | 6 | 6 |
| | | | | | | | | |

Notes :

* Depth from existing ground surface

HAR - Hand Auger Refusal

BOF - Bottom of Footing



HAND AUGER BORING & DCP TESTING SHEET

Project Name: Amos Road and Indian Hut Road

11/13/2019

Project Number : 1359.21

Lot # : N/A

Performed by : J. Brown/D. Watson

County : Georgetown

| Location of Test | Depth (from) | Depth (to) | Soil Description | Depth* (feet) | DCP Blows Per 1 3/4-inch | | | |
|------------------|--------------|------------|---|---------------|--------------------------|-----|-----|------|
| | | | | | 1st | 2nd | 3rd | Avg. |
| HA-13 | 0 | 1' | Orange and tan SAND with silt | 0 | 7 | 8 | 8 | 8 |
| | 1' | 2' | Tan fine SAND | 1 | 10 | 10 | 12 | 11 |
| | 2' | 3' | Tan and orange fine SAND | 2 | 8 | 9 | 9 | 9 |
| | 3' | | | 3 | 9 | 9 | 10 | 10 |
| | | | | | | | | |
| HA-14 | 0 | 1' | Orange fine SAND | 0 | 8 | 7 | 7 | 7 |
| | 1' | 2' | Orange and tan fine SAND with slight clay | 1 | 10 | 9 | 12 | 11 |
| | 2' | 3' | Tan slightly silty SAND | 2 | 6 | 9 | 9 | 9 |
| | 3' | | | 3 | 8 | 8 | 9 | 9 |
| | | | | | | | | |
| HA-15 | 0 | 1' | Loight brown SAND with silt | 0 | 10 | 9 | 9 | 9 |
| | 1' | 2' | Light brown SAND with silt | 1 | 8 | 8 | 9 | 9 |
| | 2' | 3' | Light brown and orange fine SAND | 2 | 5 | 6 | 6 | 6 |
| | 3' | | | 3 | 5 | 5 | 6 | 6 |
| | | | | | | | | |
| HA-16 | 0 | 1' | Brown SAND with silt | 0 | 10 | 7 | 8 | 8 |
| | 1' | 2' | Tand and brown SAND with silt | 1 | 4 | 5 | 5 | 5 |
| | 2' | 3' | Light brown fine SAND | 2 | 6 | 7 | 7 | 7 |
| | 3' | | | 3 | 6 | 7 | 6 | 7 |
| | | | | | | | | |

Notes :

* Depth from existing ground surface
 HAR - Hand Auger Refusal
 BOF - Bottom of Footing

APPENDIX III

Results of Lab Testing



**Percent Finer Than # 200 Sieve
ASTM D1140**

Project Name : Georgetown County - Indian Hut Road
 Job Number: _____
 Date: 15-Nov-2019

Laboratory ID: _____

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------|---------------|--------------------|------------|-----------------------|---------------------------------|---------------------------------|-------------------------------|----------------------------------|-----------------------------------|
| Boring Number | Sample Number | Sample Depth (ft.) | Pan Number | Weight of Pan (grams) | Initial Weight Soil+Pan (grams) | Final Weight Pan + Soil (grams) | (7-5) Weight Retained (grams) | (6-[8+5]) Weight Passing (grams) | (9/[6-5])*100 Percent Passing (%) |
| IHR-1 | 1 | 3"-1' | Kobe | 0.00 | 138.20 | 132.20 | 132.20 | 6.00 | 4.3% |
| IHR-4 | 3 | 2'-3' | Pele | 0.00 | 203.50 | 197.90 | 197.90 | 5.60 | 2.8% |
| PT1 | 2 | 2' | Lily | 0.00 | 125.50 | 117.10 | 117.10 | 8.40 | 6.7% |
| A-1 (Amos Rd) | 2 | 1'-2' | Beth | 0 | 186.8 | 175 | 175.00 | 11.80 | 6.3% |
| | | | | | | | | | |
| | | | | | | | | | |

Performed By: DW

RESPECTFULLY SUBMITTED

Checked By: DW

Remarks: All was sampled from Indian Hut Road. This is the same as the samples from Indian Hut Road.

Laboratory Manager



Moisture Content of Soil
ASTM D2216

Project Name : Georgetown County - Indian Hut Road
 Job Number: _____

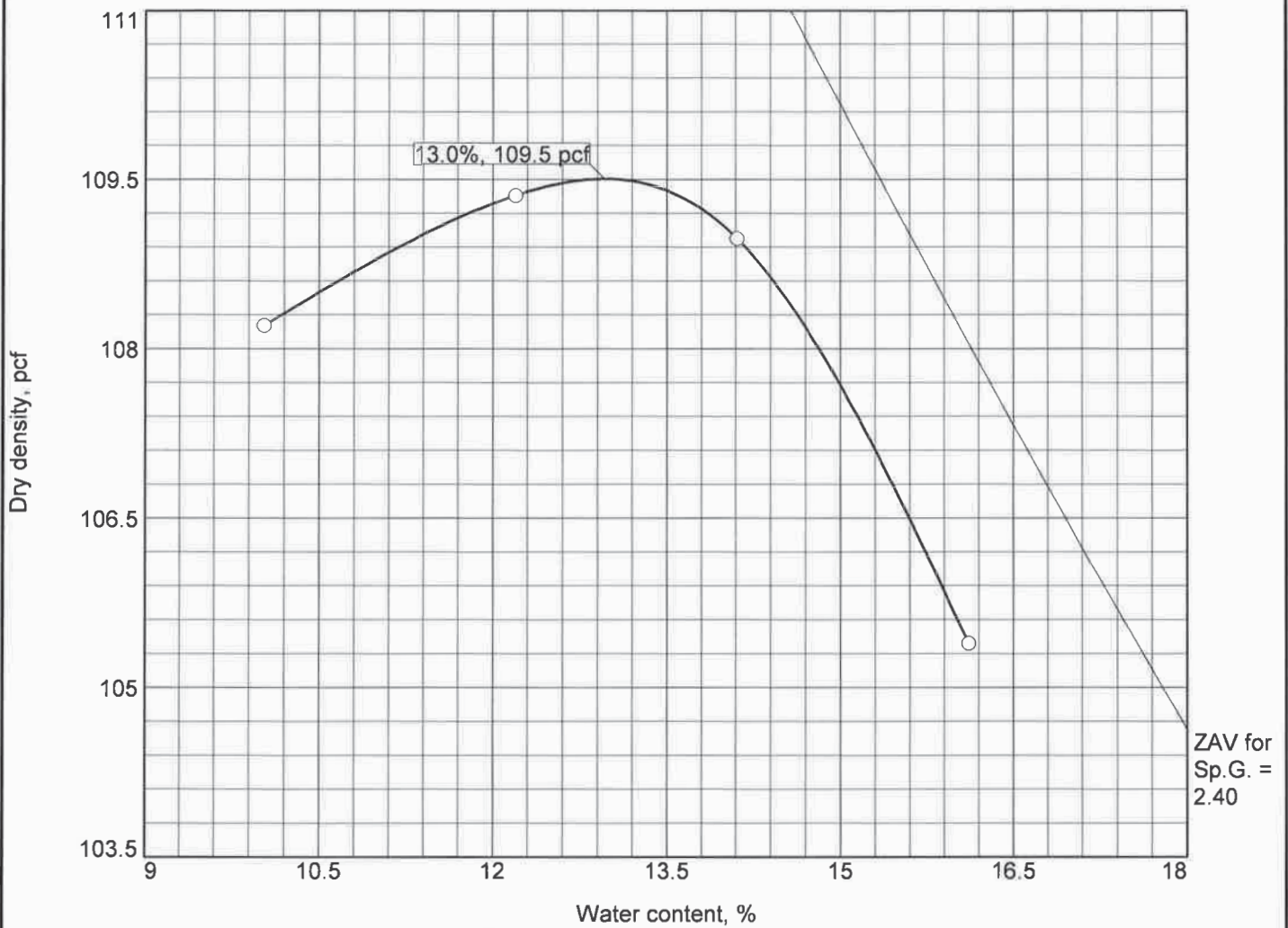
Laboratory ID: _____
 Date: Friday, November 15, 2019

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------|---------------|--------------------|-----------------|-----------------------|-------------------------------------|-------------------------------------|----------------------------------|-------------------------------|--------------------------------|
| Boring Number | Sample Number | Sample Depth (ft.) | Pan Designation | Weight of Pan (grams) | Weight of Pan Plus Wet Soil (grams) | Weight of Pan Plus Dry Soil (grams) | (7-5) Weight of Dry Soil (grams) | (6-7) Weight of Water (grams) | (9/8)*100 Moisture Content (%) |
| IHR-1 | 1 | 3"-1' | Barney | 0.00 | 106.10 | 99.10 | 99.10 | 7.00 | 7.1 |
| IHR-4 | 3 | 2'-3' | Jerry | 0.00 | 224.50 | 211.40 | 211.40 | 13.10 | 6.20 |
| PT1 | 2 | 2' | Tammy | 0.00 | 93.30 | 85.30 | 85.30 | 8.00 | 9.40 |
| A-1 (Amos Rd) | 2 | 1'-2' | Robyn | 0.00 | 207.30 | 188.50 | 188.50 | 18.80 | 10.00 |
| | | | | | | | | | |

Performed By: DW

RESPECTFULLY SUBMITTED

Checked By: DW



Test specification: ASTM D 1557-91 Procedure A Modified

| Elev/ Depth | Classification | | Nat. Moist. | Sp.G. | LL | PI | % > #4 | % < No.200 |
|----------------|----------------|--------|----------------|-------|----|----|-----------|---------------|
| | USCS | AASHTO | | | | | | |
| 3"-1.5' | | | | | NV | NP | | |

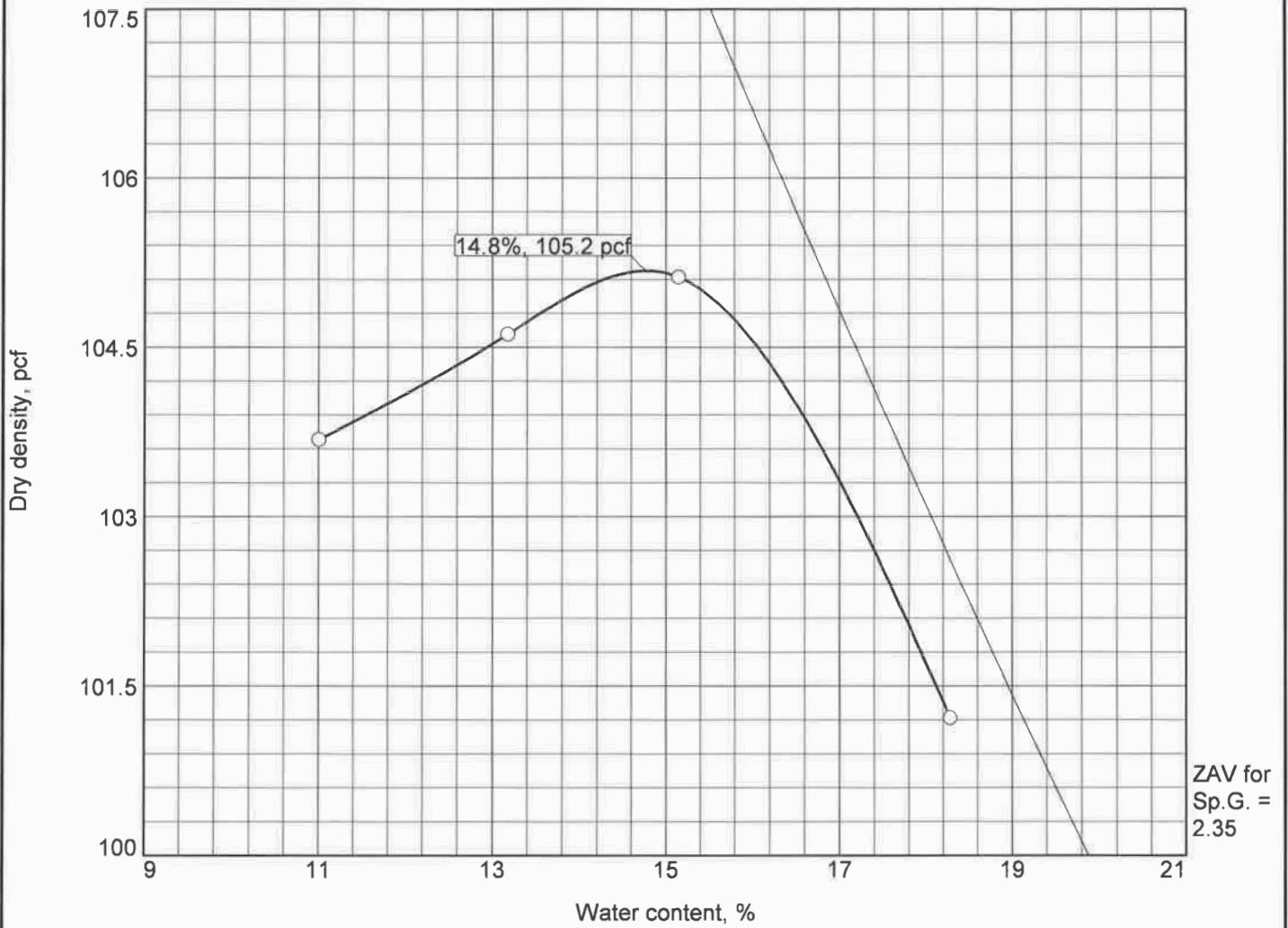
| TEST RESULTS | MATERIAL DESCRIPTION |
|--|----------------------|
| Maximum dry density = 109.5 pcf Optimum moisture = 13.0 % | Brown Silty Sand |

Project No. _____ **Client:** Georgetown County
Project: Georgetown County - Amos Road
Date: 11/12/19
Location: Amos Road, Georgetown, SC **Sample Number:** 2

Remarks:

Summit Engineering

Figure



Test specification: ASTM D 1557-91 Procedure A Modified

| Elev/ Depth | Classification | | Nat. Moist. | Sp.G. | LL | PI | % > #4 | % < No.200 |
|----------------|----------------|--------|----------------|-------|----|----|-----------|---------------|
| | USCS | AASHTO | | | | | | |
| 3"-1.5' | | | | | NV | NP | | |

| TEST RESULTS | | | | MATERIAL DESCRIPTION | | | |
|--|--|------------------|---------------------------|----------------------|--|----------|--|
| Maximum dry density = 105.2 pcf | | | | Brown Silty Sand | | | |
| Optimum moisture = 14.8 % | | | | | | | |
| Project No. _____ | | | Client: Georgetown County | | | Remarks: | |
| Project: Georgetown County - Indian Hut Road | | | Date: 11/12/19 | | | | |
| Location: Indian Hut Road | | Sample Number: 1 | | | | | |
| Summit Engineering | | | | | | Figure | |



REPORT OF CBR FINDINGS

PROJECT : Amos Road
CBR Testing

CLIENT: Dennis Corporation

PROJECT #: 1359.21

SAMPLE INFORMATION

SAMPLE # 1
Sample location: Bulk Sample
Sample Description: Brown silty SAND

INDEX PROPERTIES

| | | | |
|----------------------|-------|---------------------------|------|
| MAXIMUM DRY DENSITY: | 109.5 | Optimum Moisture Content: | 13.0 |
| % Passing 3/4" | | LL: n/a PI: | n/a |
| % Passing #4 | | USCS Classification: | SP |
| % Passing #200 | | AASHTO Classification: | |

TESTING INFORMATION

| | |
|---|-------------|
| COMPACTION METHOD: | ASTM D-1557 |
| NUMBER OF BLOWS | 10 |
| CONDITION OF SAMPLE: | Soaked |
| SURCHARGE AMOUNT: | 10 |
| DRY DENSITY PRIOR TO SOAKING | 101.3 |
| DRY DENSITY AFTER SOAKING | 100.3 |
| AVG. MOISTURE CONTENT (DURING COMPACTION) | 12.5 |
| AVERAGE MOISTURE CONTENT (AFTER SOAKING) | 13.6 |
| SWELL (%) | 0.00 |
| CBR VALUE | 20 |

Comments:

Tests performed in accordance with ASTM D-1883.



REPORT OF CBR FINDINGS

PROJECT : Amos Road
CBR Testing

CLIENT: Dennis Corporation

PROJECT #: 1359.21

SAMPLE INFORMATION

SAMPLE # 1
 Sample location: Bulk Sample
 Sample Description: Brown silty SAND

INDEX PROPERTIES

| | | | |
|----------------------|-------|---------------------------|---------------|
| MAXIMUM DRY DENSITY: | 109.5 | Optimum Moisture Content: | 13.0 |
| % Passing 3/4" | | LL: n/a | PI: n/a |
| % Passing #4 | | USCS Classification: | SP |
| % Passing #200 | | AASHTO Classification: | |

TESTING INFORMATION

| | |
|---|-------------|
| COMPACTION METHOD: | ASTM D-1557 |
| NUMBER OF BLOWS | 25 |
| CONDITION OF SAMPLE: | Soaked |
| SURCHARGE AMOUNT: | 10 |
| DRY DENSITY PRIOR TO SOAKING | 108.6 |
| DRY DENSITY AFTER SOAKING | 107.2 |
| AVG. MOISTURE CONTENT (DURING COMPACTION) | 12.6 |
| AVERAGE MOISTURE CONTENT (AFTER SOAKING) | 14.1 |
| SWELL (%) | 0.00 |
| CBR VALUE | 37 |

Comments:

Tests performed in accordance with ASTM D-1883.



REPORT OF CBR FINDINGS

PROJECT : Amos Road
CBR Testing

CLIENT: Dennis Corporation

PROJECT #: 1359.21

| SAMPLE INFORMATION | |
|---------------------|------------------|
| SAMPLE # | 1 |
| Sample location: | Bulk Sample |
| Sample Description: | Brown silty SAND |

| INDEX PROPERTIES | | | |
|----------------------|-------|---------------------------|---------|
| MAXIMUM DRY DENSITY: | 109.5 | Optimum Moisture Content: | 13.0 |
| % Passing 3/4" | | LL: n/a | PI: n/a |
| % Passing #4 | | USCS Classification: SP | |
| % Passing #200 | | AASHTO Classification: | |

| TESTING INFORMATION | |
|---|-------------|
| COMPACTION METHOD: | ASTM D-1557 |
| NUMBER OF BLOWS | 56 |
| CONDITION OF SAMPLE: | Soaked |
| SURCHARGE AMOUNT: | 10 |
| DRY DENSITY PRIOR TO SOAKING | 109.9 |
| DRY DENSITY AFTER SOAKING | 108.8 |
| AVG. MOISTURE CONTENT (DURING COMPACTION) | 13.5 |
| AVERAGE MOISTURE CONTENT (AFTER SOAKING) | 14.7 |
| SWELL (%) | 0.00 |
| CBR VALUE | 42 |

Comments:

Tests performed in accordance with ASTM D-1883.



REPORT OF CBR FINDINGS

PROJECT : Indian Hut Road
CBR Testing

CLIENT: Dennis Corporation

PROJECT #: 1359.21

SAMPLE INFORMATION

SAMPLE # 2
 Sample location: Bulk Sample
 Sample Description: Brown silty SAND

INDEX PROPERTIES

| | | | |
|----------------------|-------|---------------------------|--------|
| MAXIMUM DRY DENSITY: | 105.2 | Optimum Moisture Content: | 14.8 |
| % Passing 3/4" | | LL: n/a | PI: B1 |
| % Passing #4 | | USCS Classification: | SP |
| % Passing #200 | | AASHTO Classification: | |

TESTING INFORMATION

| | |
|---|-------------|
| COMPACTION METHOD: | ASTM D-1557 |
| NUMBER OF BLOWS | 10 |
| CONDITION OF SAMPLE: | Soaked |
| SURCHARGE AMOUNT: | 10 |
| DRY DENSITY PRIOR TO SOAKING | 98.1 |
| DRY DENSITY AFTER SOAKING | 96.9 |
| AVG. MOISTURE CONTENT (DURING COMPACTION) | 14.4 |
| AVERAGE MOISTURE CONTENT (AFTER SOAKING) | 15.8 |
| SWELL (%) | 0.00 |
| CBR VALUE | 15 |

Comments:

Tests performed in accordance with ASTM D-1883.



REPORT OF CBR FINDINGS

PROJECT : Indian Hut Road
CBR Testing

CLIENT: Dennis Corporation

PROJECT #: 1359.21

SAMPLE INFORMATION

SAMPLE # 2
Sample location: Bulk Sample
Sample Description: Brown silty SAND

INDEX PROPERTIES

| | | | |
|----------------------|-------|---------------------------|------------|
| MAXIMUM DRY DENSITY: | 105.2 | Optimum Moisture Content: | 14.8 |
| % Passing 3/4" | | LL: n/a | PI: B1 |
| % Passing #4 | | USCS Classification: | SP |
| % Passing #200 | | AASHTO Classification: | |

TESTING INFORMATION

| | |
|---|-------------|
| COMPACTION METHOD: | ASTM D-1557 |
| NUMBER OF BLOWS | 25 |
| CONDITION OF SAMPLE: | Soaked |
| SURCHARGE AMOUNT: | 10 |
| DRY DENSITY PRIOR TO SOAKING | 102.6 |
| DRY DENSITY AFTER SOAKING | 101.3 |
| AVG. MOISTURE CONTENT (DURING COMPACTION) | 14.2 |
| AVERAGE MOISTURE CONTENT (AFTER SOAKING) | 15.7 |
| SWELL (%) | 0.00 |
| CBR VALUE | 28 |

Comments:

Tests performed in accordance with ASTM D-1883.



REPORT OF CBR FINDINGS

PROJECT : Indian Hut Road
CBR Testing

CLIENT: Dennis Corporation

PROJECT #: 1359.21

SAMPLE INFORMATION

SAMPLE # 2
Sample location: Bulk Sample
Sample Description: Brown silty SAND

INDEX PROPERTIES

| | | | |
|----------------------|-------|---------------------------|------|
| MAXIMUM DRY DENSITY: | 105.2 | Optimum Moisture Content: | 14.8 |
| % Passing 3/4" | | LL: n/a PI: | B1 |
| % Passing #4 | | USCS Classification: | SP |
| % Passing #200 | | AASHTO Classification: | |

TESTING INFORMATION


| | |
|---|-------------|
| COMPACTION METHOD: | ASTM D-1557 |
| NUMBER OF BLOWS | 56 |
| CONDITION OF SAMPLE: | Soaked |
| SURCHARGE AMOUNT: | 10 |
| DRY DENSITY PRIOR TO SOAKING | 106.6 |
| DRY DENSITY AFTER SOAKING | 105.3 |
| AVG. MOISTURE CONTENT (DURING COMPACTION) | 14.5 |
| AVERAGE MOISTURE CONTENT (AFTER SOAKING) | 15.9 |
| SWELL (%) | 0.00 |
| CBR VALUE | 34 |

Comments:

Tests performed in accordance with ASTM D-1883.

INDIAN HUT ROAD / AMOS ROAD EXTENSION PAVING IMPROVEMENTS FOR GEORGETOWN COUNTY

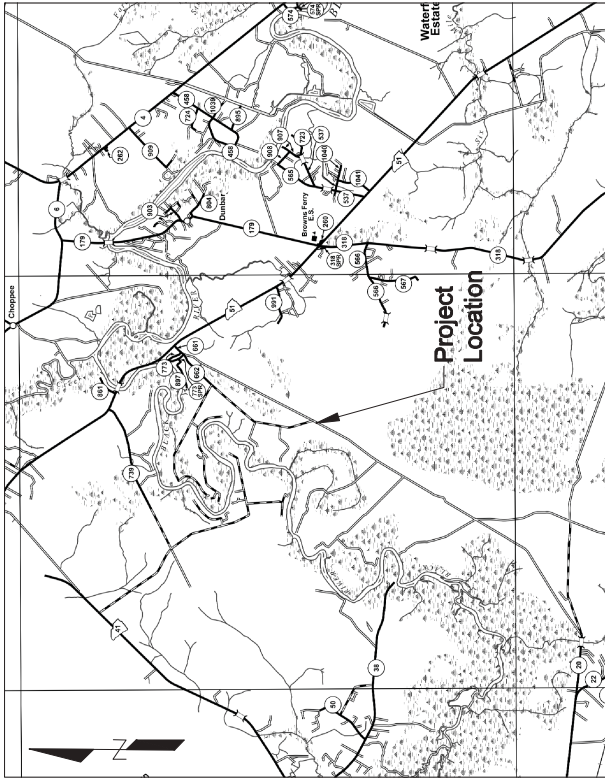
| SHEET NO. | DESCRIPTION | TOTAL |
|-----------|-------------------------|-------|
| 1 | TITLE SHEET | 1 |
| 2 | QUANTITY SHEET | 1 |
| 3 | TYPICAL SECTION SHEET | 1 |
| 4 | SIGNAGE & CONTROL SHEET | 1 |
| 5 | PLAN & PROFILE | 14 |
| 6-19 | SS1-SS8 | |
| 20-23 | EC1-EC7 | |
| 24 | ND1-ND4 | |
| | NOTES & DETAILS | 4 |
| | CROSS SECTIONS | 24 |



PUPS
PALMETTO UTILITY PROTECTION SERVICE

Please Call
Palmetto Utility Protection Service
1-888-721-7877
72 Hours Prior to Beginning Construction

Design Reference for these plans is:
"Georgetown County Roadway Design & Construction Manual", 2014



Vicinity Map
Scale: 1" = 5000'

| NET LENGTH OF ROADWAY | 2.29 MILES |
|-------------------------|------------|
| NET LENGTH OF BRIDGES | 0 MILES |
| NET LENGTH OF PROJECT | 2.29 MILES |
| LENGTH OF EXCEPTIONS | 0 MILES |
| GROSS LENGTH OF PROJECT | 2.29 MILES |

| NPDES PERMIT INFORMATION | |
|------------------------------------|---------------------------|
| Disturbed Area = 7.6 Acre(s) | Total Area = 16.0 Acre(s) |
| Approximate Location of Roadway is | |
| Latitude | 33° 30' 5" |
| Longitude | 79° 24' 41" |

- General Notes:**
- An encroachment permit from the Georgetown County Public Services Department is required prior to commencing work with County right-of-way, or drainage easements.
 - Any work within State right-of-way will require a SCDOT Encroachment Permit.
 - The contractor shall notify the Georgetown County Public Works Division at least 24 hours prior to starting construction within the right-of-way.
 - The contractor shall provide all signs, barricades, flagmen, lights or other devices necessary for safe traffic control in accordance with the current edition of the Manual on Uniform Traffic Control Devices as modified by the South Carolina Supplement to the MUTCD. A traffic control plan shall be submitted and approved by the Georgetown County Public Works Division prior to the issuance of any construction permit for work within County right-of-way.
 - The contractor shall contact South Carolina 811 (sc1plus.org / 1-888-721-7877) at least 72 working day hours prior to construction, and request utility locates.
 - Construction specification: Shall comply with the latest edition of the South Carolina Department of Transportation Standard Specifications for Road and Bridge Construction, special provisions and revisions thereto, and as amended by Chapter 5 of the Georgetown County Roadway Design and Construction Manual.
 - The subgrade material shall be scarified or removed to a depth required by Georgetown County according to information obtained from laboratory tests and as required in the design report. Leaky, loose, or approved materials shall not be used. If the subgrade material is to be used, the subgrade shall be compacted to a minimum density determined in accordance with AASHTO designations T180 or T98 and in accordance with the SCDOT Standard Specifications Section 208 (current editions).
 - Service trenches and utility main trenches shall be compacted throughout the depth of trench.
 - Class 6 aggregate base course for shoulders shall be placed and compacted to 95% Standard Proctor after placement of asphalt.
 - Existing asphalt pavement shall be straight saw cut or blede out when adjoining with new asphalt pavement. SS-1 tack coat shall be applied to all surfaces.
 - Structure section shall be as approved by the Georgetown County Public Works Division, with pavement design in accordance with the Georgetown County Roadway Design and Construction Manual.

| REV. # | DATE | CONSTR. | DESCRIPTION | REMARKS |
|--------|------|---------|-------------|---------|
| 1 | | | | |
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| 6 | | | | |



DENNIS
CORPORATION
ENGINEERING | SURVEYING | CONSTRUCTION SERVICES
1805 PINE DRIVE
COLUMBIA, SC 29204
PHONE (803) 733-4747
FAX (803) 733-4747

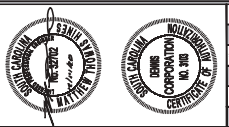
IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD
FOR GEORGETOWN COUNTY
GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
G0004.31
SCALE
AS SHOWN
SHEET
1

I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 725 CMR 1-201, SEC. 1 (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCRT10000.

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION) AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF LETTING.

| | | | |
|--------|------|---------|------------|
| REV. # | DATE | CONSTR. | ISSUE DATE |
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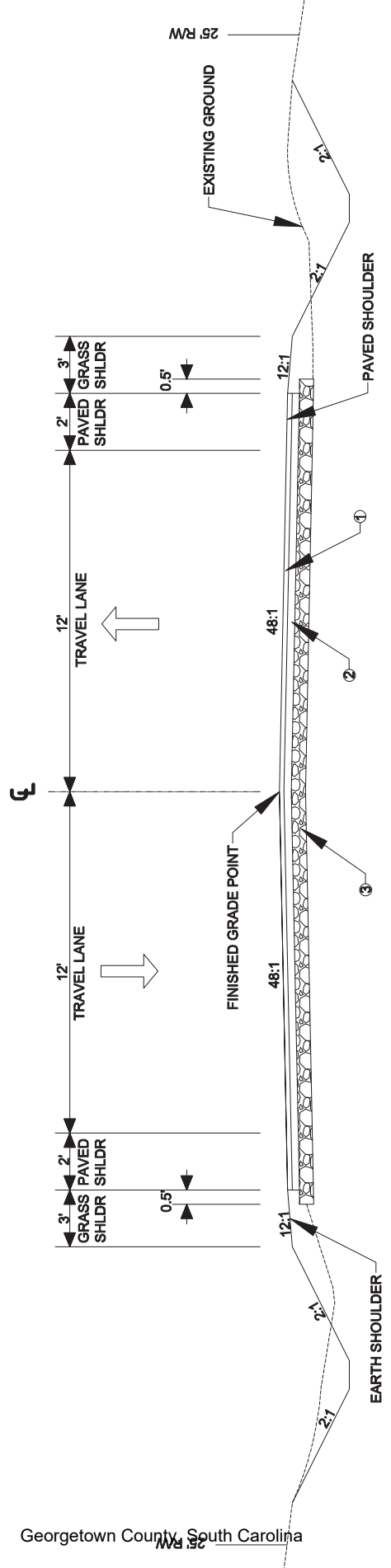


DENNIS CORPORATION
 ENGINEERS
 1000 W. MARKET STREET
 GEORGETOWN, SOUTH CAROLINA 29440

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY,
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: G0004.31
 SCALE: N.T.S.
 SHEET: 5

NOTES:
 1. DITCH DEPTH AND SLOPES VARY, REFER TO CROSS SECTIONS



1. 220 PSY SURFACE COURSE TYPE B HMA (± 2")
2. 330 PSY INTERMEDIATE COURSE TYPE B HMA (± 3")
3. GRADED AGGREGATE BASE COURSE (6" UNIFORM)

TYPICAL SECTION FOR INDIAN HUT & AMOS ROAD STA. 10+87.00 - STA. 131+00.00
 REFER TO CROSS-SECTIONS

ALIGNMENT DATA

| CHAIN | CURVE | LOCATION | STATION | NORTHING | EASTING | DELTA | TANGENT | LENGTH | RADIUS |
|-------|-------|----------|-----------|-------------|--------------|--------------|---------|---------|----------|
| IH | IH_1 | PC | 19+24.91 | 603546.4396 | 2479734.0432 | | | | |
| | | PI | 20+12.27 | 603621.0026 | 2479779.5515 | 1°04' LT | 87.36' | 174.71' | 10000' |
| | | PT | 20+99.62 | 603695.9604 | 2479824.4068 | | | | |
| IH | IH_2 | PC | 30+92.11 | 604549.8285 | 2480330.3158 | | | | |
| | | PI | 34+69.67 | 604870.7974 | 2480528.7629 | 4°19'28" RT | 377.56' | 754.77' | 10000' |
| | | PT | 38+46.88 | 605184.0505 | 2480739.1788 | | | | |
| IH | IH_3 | PC | 50+58.75 | 606177.1082 | 2481433.7730 | | | | |
| | | PI | 53+77.55 | 606435.3049 | 2481620.5653 | 3°39'7" RT | 318.80' | 637.39' | 10000' |
| | | PT | 56+96.13 | 606687.4186 | 2481815.4900 | | | | |
| IH | IH_4 | PC | 68+14.11 | 607560.8636 | 2482513.3219 | | | | |
| | | PI | 69+09.83 | 607638.1473 | 2482569.2432 | 10°56'8" LT | 95.72' | 190.86' | 1000' |
| | | PT | 70+04.97 | 607720.4079 | 2482617.5462 | | | | |
| IH | IH_5 | PC | 82+86.46 | 608855.1564 | 2483212.9829 | | | | |
| | | PI | 83+14.02 | 608879.5608 | 2483225.7929 | 0°15'4" RT | 27.56' | 55.12' | 100000' |
| | | PT | 83+41.58 | 608903.9617 | 2483238.6096 | | | | |
| IH | IH_6 | PC | 99+24.22 | 610304.9742 | 2483974.7483 | | | | |
| | | PI | 103+37.90 | 610699.5949 | 2484089.2883 | 43°49'15" LT | 413.68' | 786.64' | 1028.53' |
| | | PT | 107+10.86 | 611068.6392 | 2484052.4335 | | | | |
| AR | AR_1 | PC | 122+19.81 | 612518.3932 | 2483633.9322 | | | | |
| | | PI | 123+35.59 | 612632.3479 | 2483614.9575 | 26°4'36" RT | 115.79' | 227.56' | 500' |
| | | PT | 124+47.37 | 612743.6733 | 2483621.8751 | | | | |

CONTROL POINTS

| # | NORTHING | EASTING | ELEVATION |
|---|-----------|------------|-----------|
| 1 | 603140.92 | 2479135.21 | 55.43 |
| 2 | 602991.98 | 2479411.65 | 54.88 |
| 3 | 610637.67 | 2484196.07 | 40.26 |
| 4 | 613467.87 | 2483731.92 | 48.60 |
| 5 | 613812.00 | 2483792.14 | 47.40 |

| | | |
|---|--|--|
|   | DENNIS CORPORATION ENGINEERS ARCHITECTS SURVEYORS PLANNERS LANDSCAPE ARCHITECTS INTERIORS ENVIRONMENTAL SCIENTISTS PROJECT MANAGERS CONSTRUCTION MANAGERS TRAFFIC ENGINEERS TRANSPORTATION ENGINEERS WATER RESOURCES ENGINEERS CIVIL ENGINEERS ELECTRICAL ENGINEERS MECHANICAL ENGINEERS CHEMICAL ENGINEERS METALLURGICAL ENGINEERS AERONAUTICAL ENGINEERS AGRICULTURAL ENGINEERS INDUSTRIAL ENGINEERS MARINE ENGINEERS NUCLEAR ENGINEERS PETROLEUM ENGINEERS SAFETY ENGINEERS SOFTWARE ENGINEERS SYSTEMS ENGINEERS THERMAL ENGINEERS TRANSPORTATION ENGINEERS URBAN ENGINEERS WIND ENGINEERS POLYMER ENGINEERS FOOD ENGINEERS TEXTILE ENGINEERS FIBER ENGINEERS PAPER ENGINEERS LEATHER ENGINEERS RUBBER ENGINEERS PLASTIC ENGINEERS GLASS ENGINEERS CERAMIC ENGINEERS METAL ENGINEERS WOOD ENGINEERS TEXTILE ENGINEERS FIBER ENGINEERS PAPER ENGINEERS LEATHER ENGINEERS RUBBER ENGINEERS PLASTIC ENGINEERS GLASS ENGINEERS CERAMIC ENGINEERS METAL ENGINEERS WOOD ENGINEERS | ALIGNMENT AND CONTROL SHEET IMPROVEMENTS TO INDIAN HUT ROAD AND AMOS ROAD FOR GEORGETOWN COUNTY, SOUTH CAROLINA PROJECT ID: G0004.31 SCALE: N/A SHEET: 5 |
|---|--|--|

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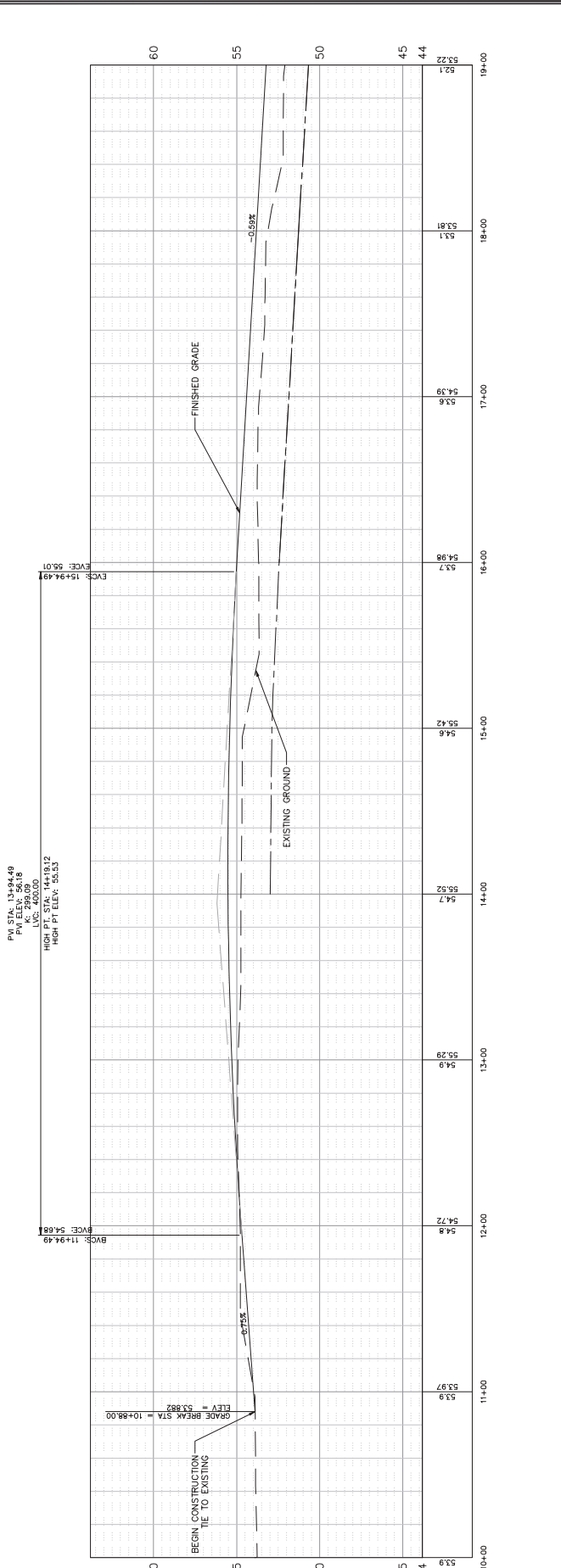
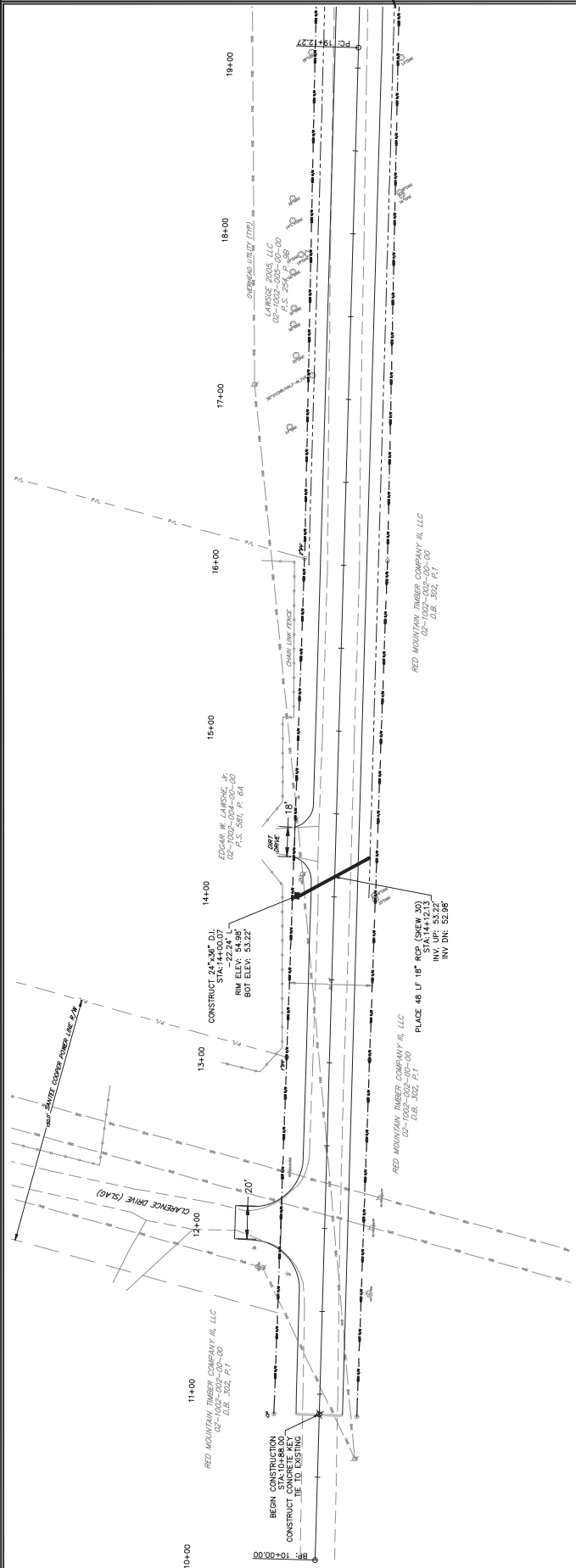


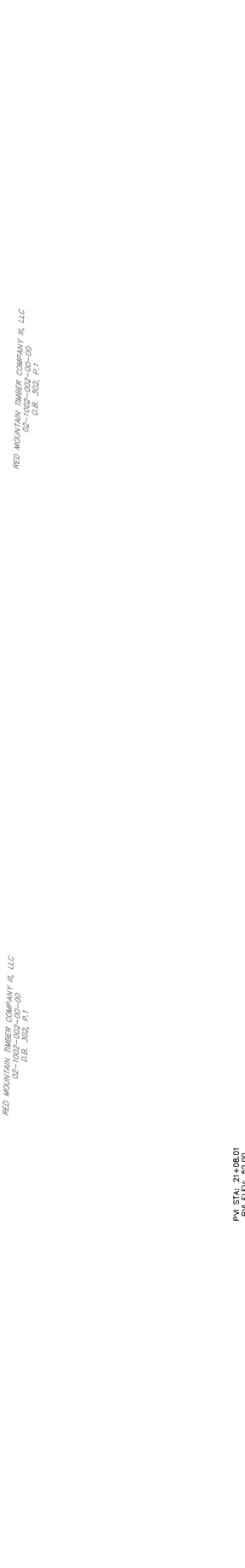
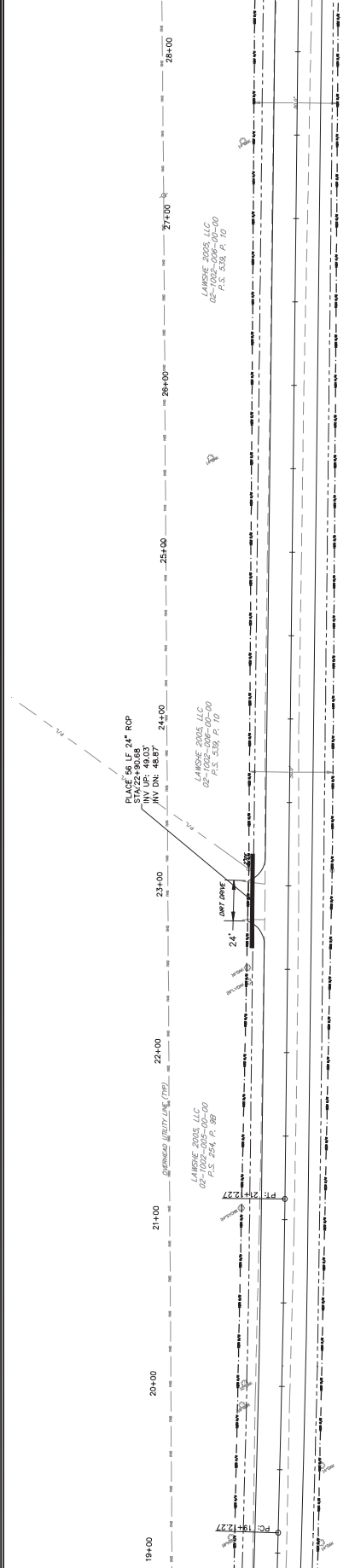
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1 OF 14
PLAN & PROFILE

**IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD**
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID:
G0004.31
 SCALE:
1" = 30'
 SHEET
6





| STATION | ELEVATION |
|----------|-----------|
| 19+00 | 52.08 |
| 20+00 | 51.56 |
| 20+08.01 | 51.66 |
| 21+00 | 51.08 |
| 22+00 | 50.65 |
| 22+08.01 | 50.65 |
| 22+08.01 | 51.72 |
| 23+00 | 50.56 |
| 23+08.01 | 50.24 |
| 24+00 | 50.24 |
| 24+08.01 | 49.91 |
| 25+00 | 49.91 |
| 26+00 | 49.81 |
| 26+08.01 | 49.81 |
| 27+00 | 49.81 |
| 28+00 | 49.71 |

| REV. # | DATE | DESCRIPTION |
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| NO. | REVISION |
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PLAN & PROFILE
2 OF 14
DENNIS

IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD
FOR GEORGETOWN COUNTY
GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
G0004.31
SCALE
1" = 30'
SHEET
7

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| REV. # | DATE | DESCRIPTION |
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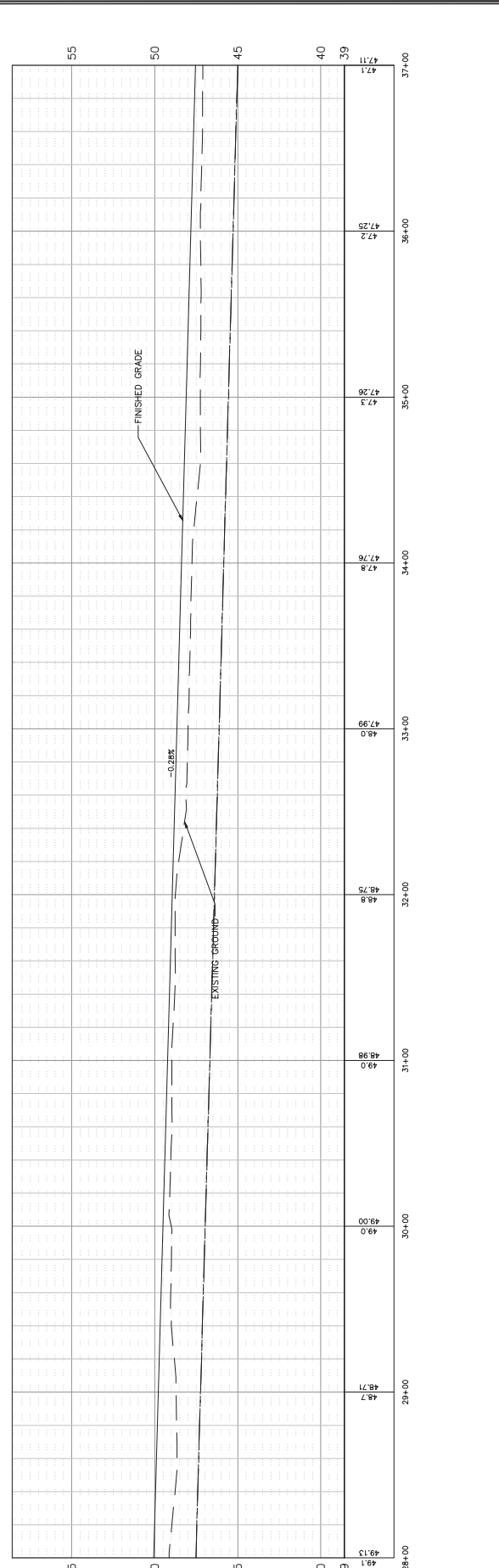
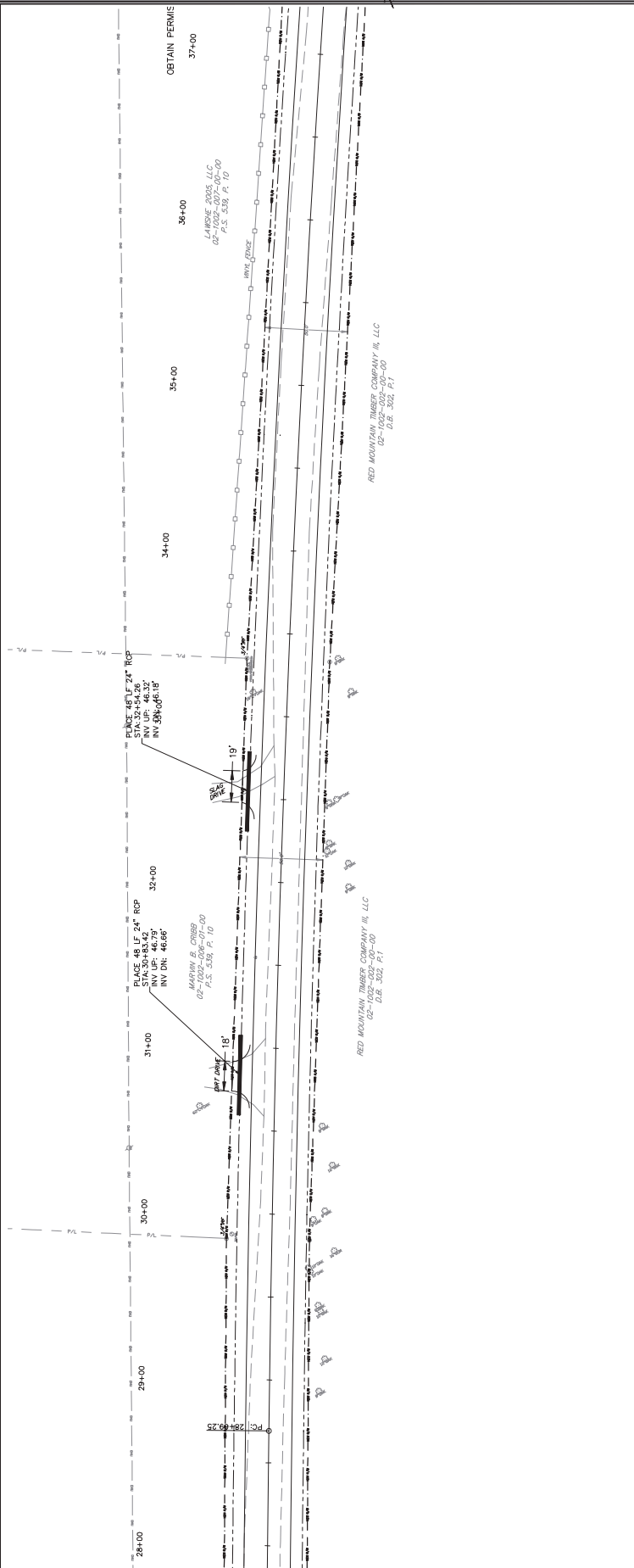


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| DESIGNED | DATE |
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| IN CHARGE | DATE |

DENNIS
 3 OF 14
 PLAN & PROFILE

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
 G0004.31
 SCALE
 1" = 30'
 SHEET
 8



| REV. | DATE | DESCRIPTION |
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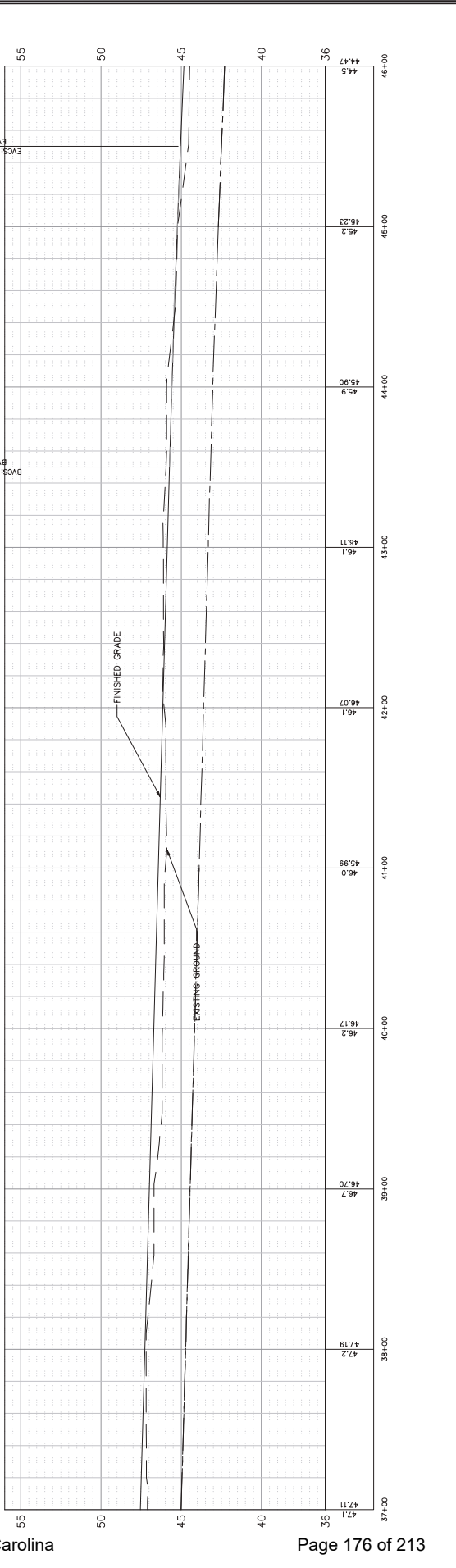
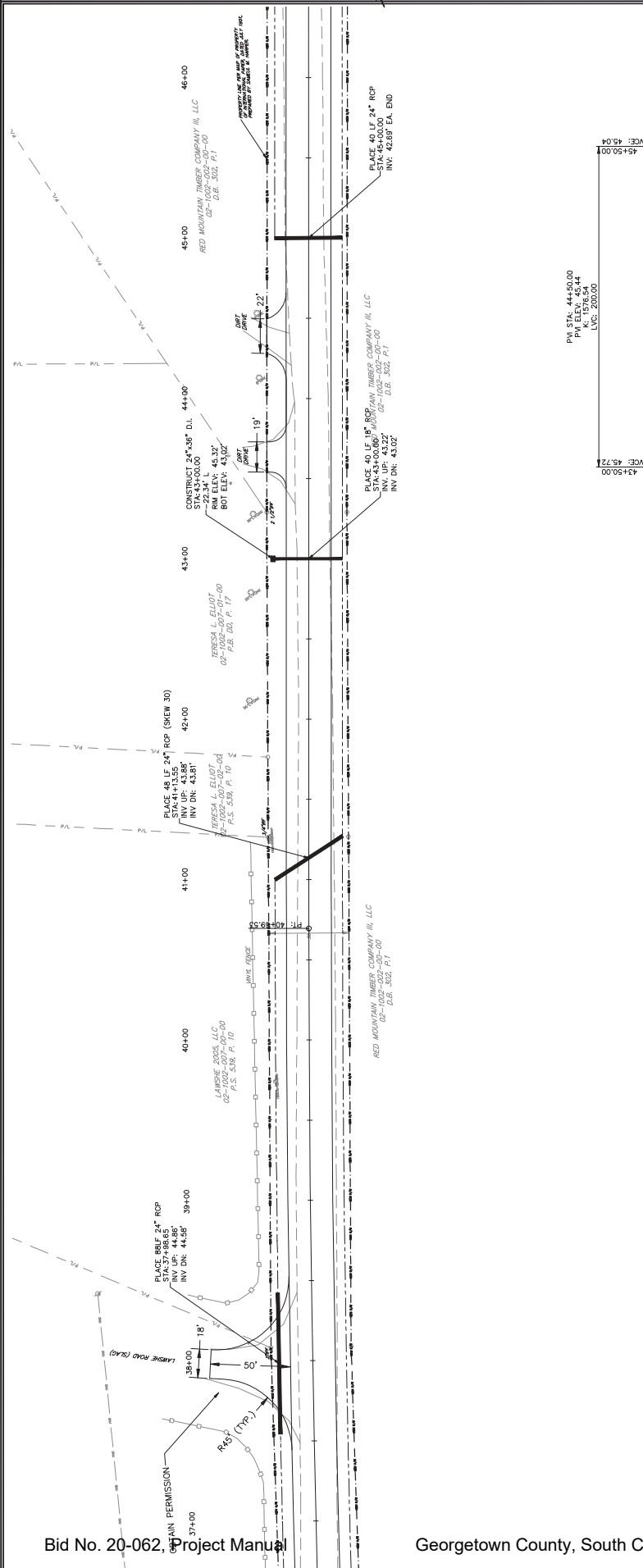


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| IN CHARGE | DATE |

DENNIS
 4 OF 14
 PLAN & PROFILE

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID:
G0004.31
 SCALE:
1" = 30'
 SHEET:
9



| REV. # | DATE | CONTR | ISSUE DATE |
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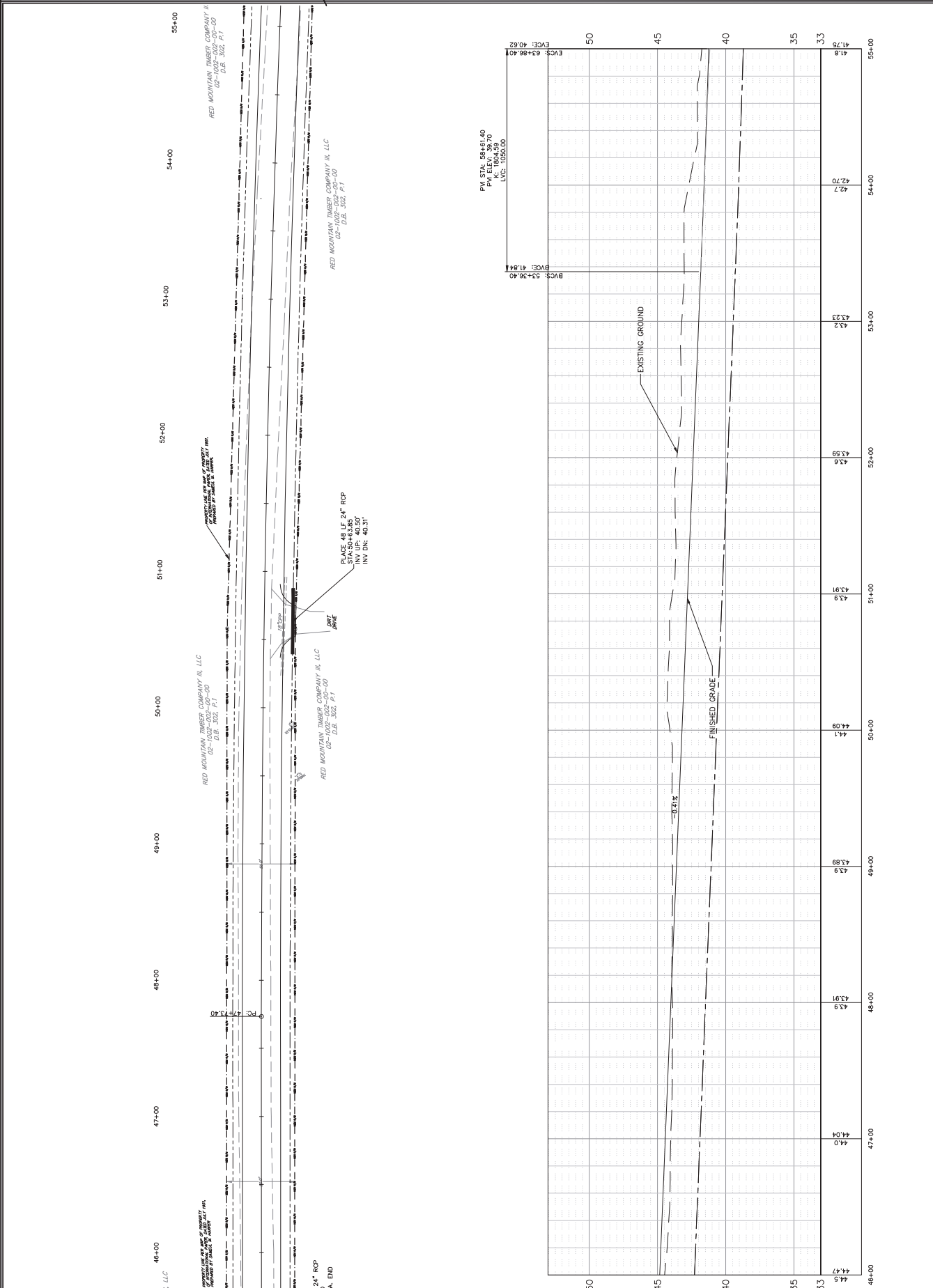


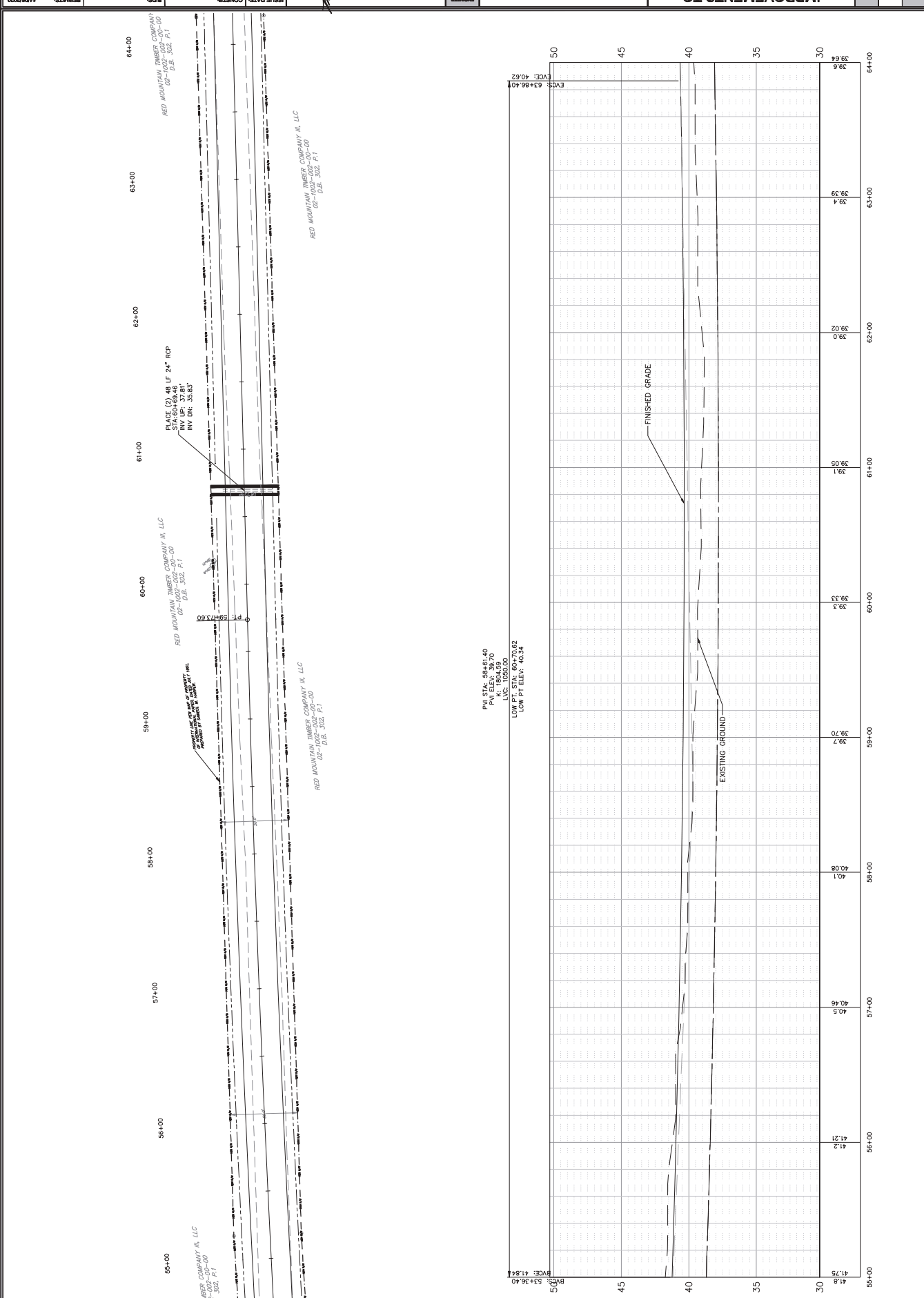
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| DRAWN | DENNIS |
| CHECKED | DENNIS |
| IN CHARGE | DENNIS |

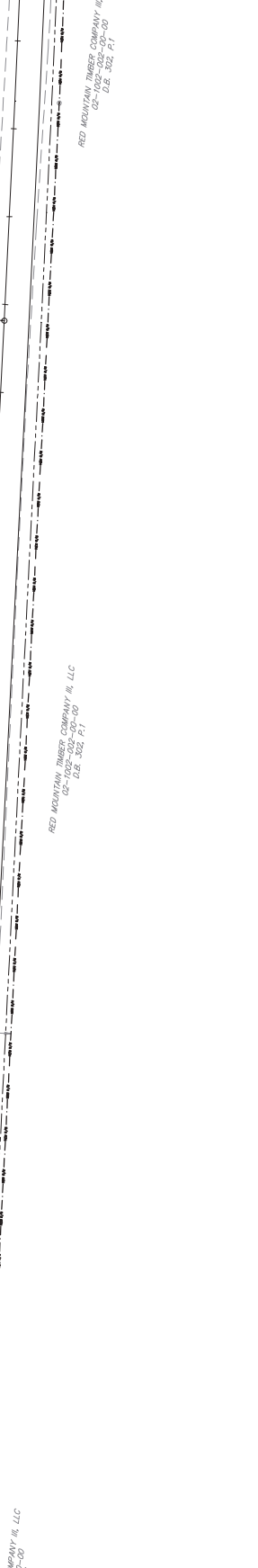
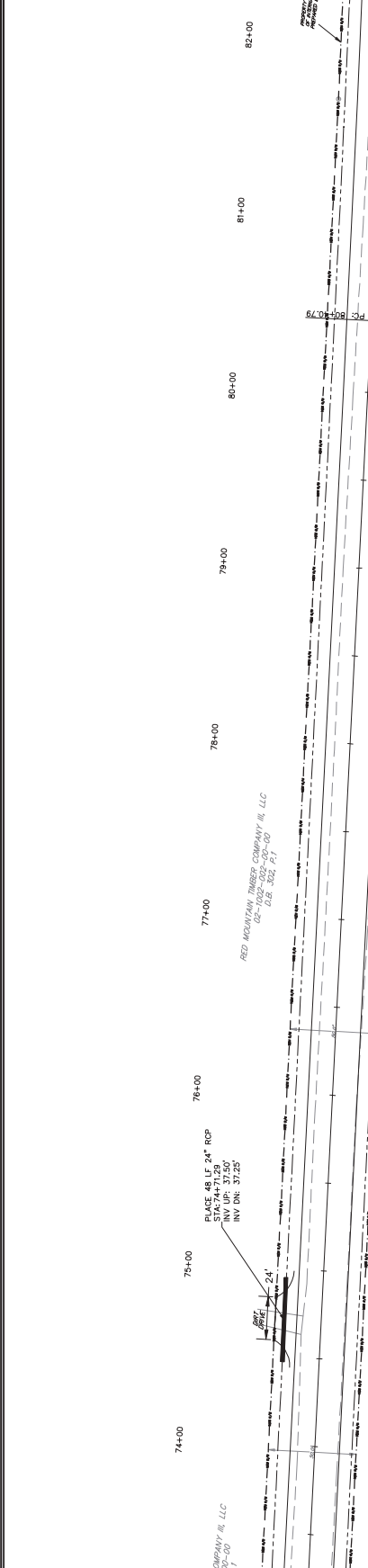
PROJECT NO. 20-062
 PLAN & PROFILE
 5 OF 14
DENNIS

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: G0004.31
 SCALE: 1" = 30'
 SHEET: 10

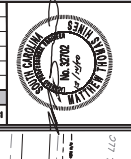






| Station | Existing Ground Elevation (ft) | Finished Grade Elevation (ft) |
|---------|--------------------------------|-------------------------------|
| 73+00 | 40.32 | 40.32 |
| 74+00 | 39.53 | 39.53 |
| 75+00 | 38.70 | 38.70 |
| 76+00 | 38.25 | 38.25 |
| 77+00 | 37.64 | 37.64 |
| 78+00 | 37.4 | 37.4 |
| 79+00 | 37.0 | 37.0 |
| 80+00 | 36.3 | 36.3 |
| 81+00 | 35.53 | 35.53 |
| 82+00 | 35.2 | 35.2 |

| REV. # | DATE | DESCRIPTION |
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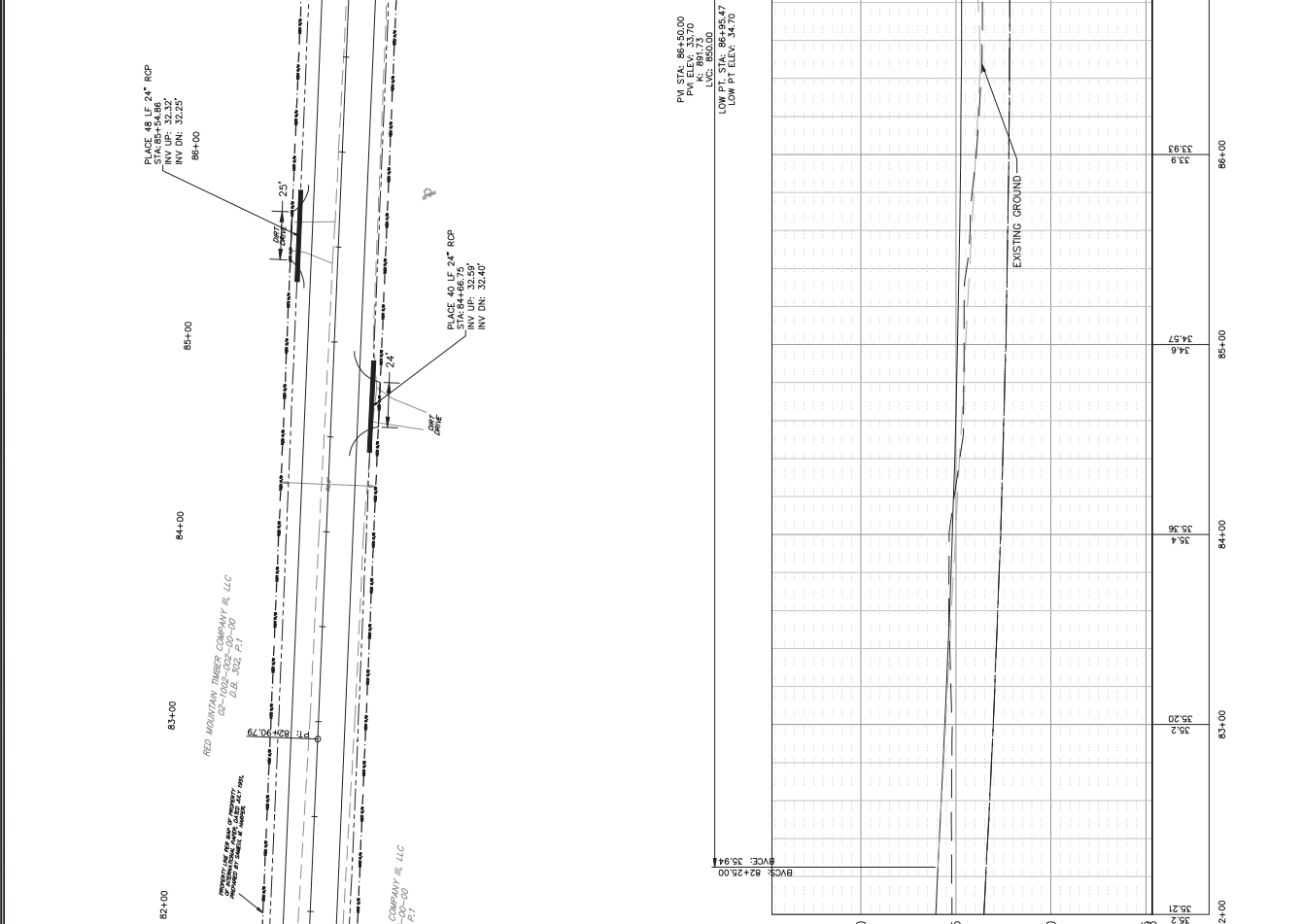
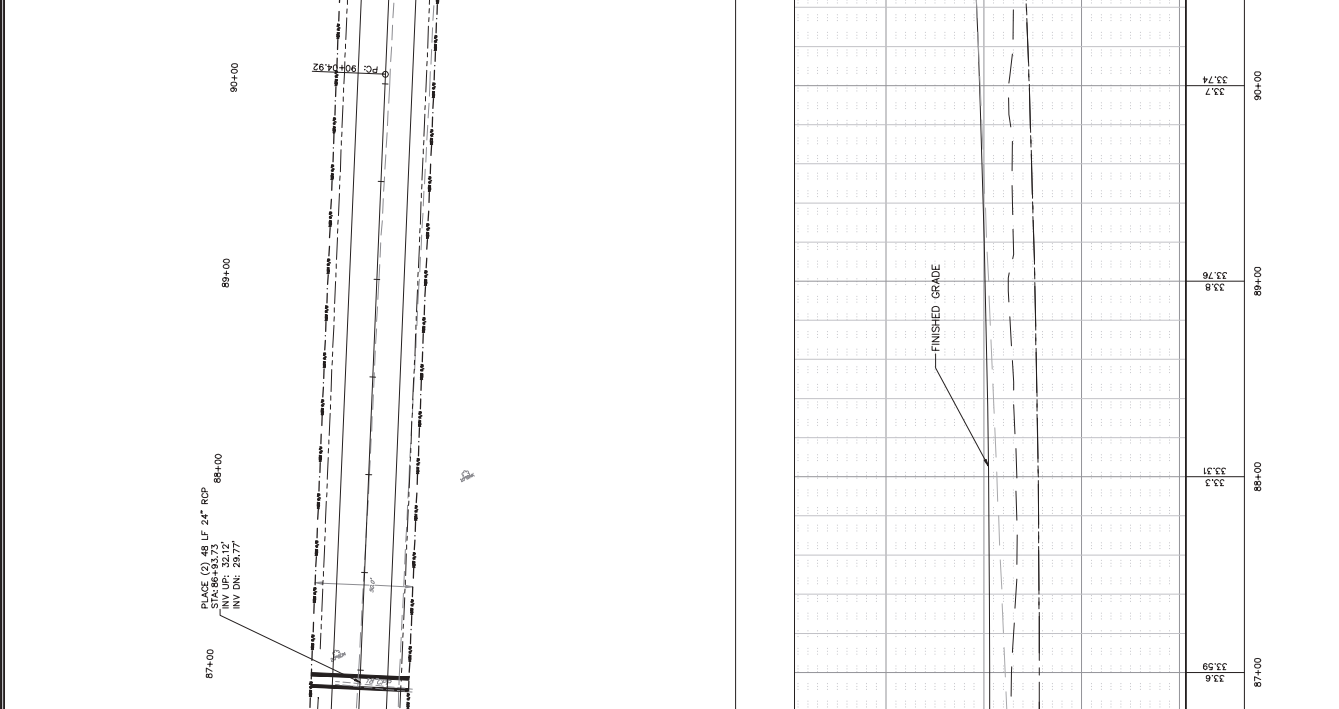
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| DESIGNED | J. M. DENNIS |
| DRAWN | |
| CHECKED | |
| IN CHARGE | |
| DATE | |
| PROJECT | |
| LOCATION | |
| SCALE | |
| SHEET | |

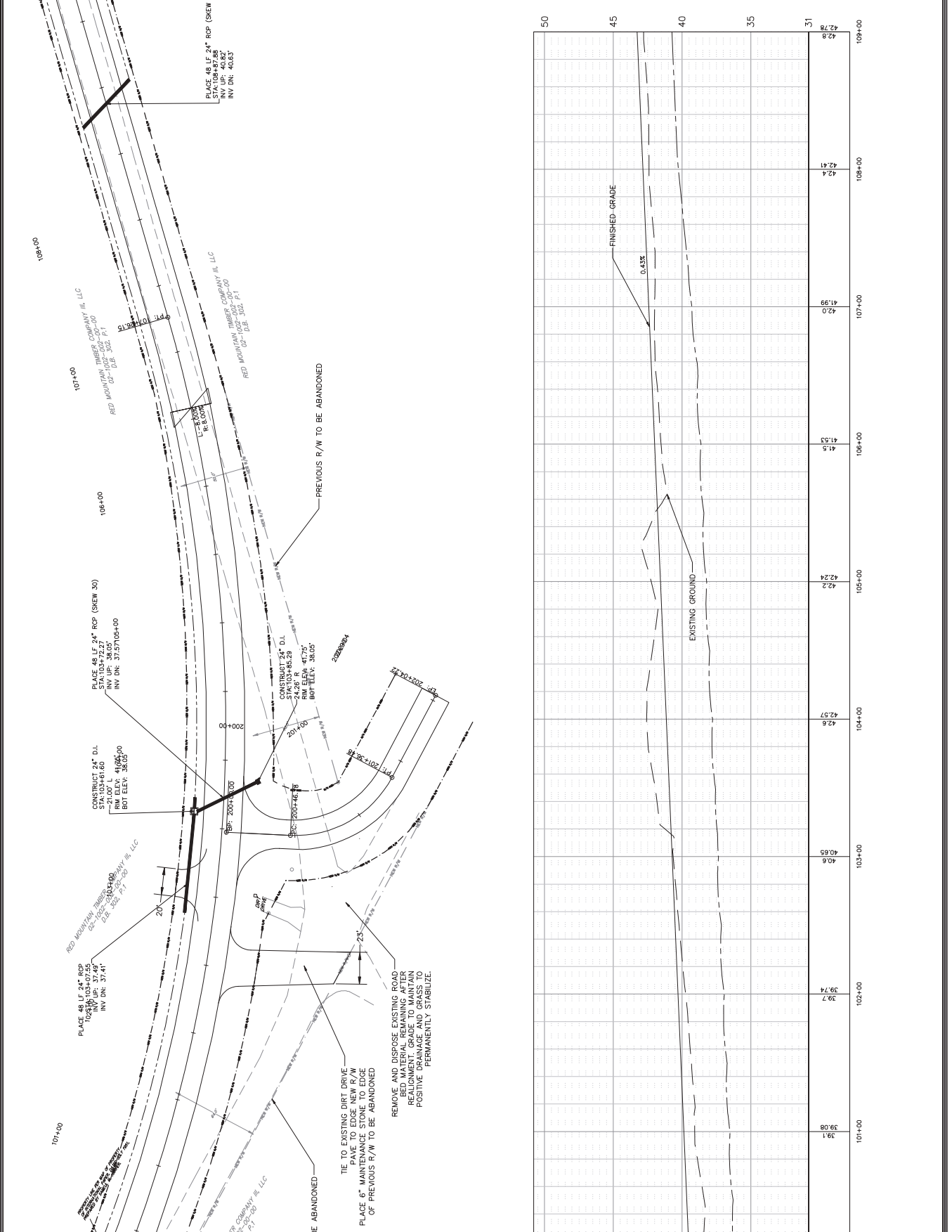
IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
 G0004.31
 SCALE
 1" = 30'
 SHEET
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RED MOUNTAIN TIMBER COMPANY
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 D.B. 202, P.1





| STATION | ELEVATION |
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| 101+00 | 39.08 |
| 102+00 | 39.74 |
| 103+00 | 40.65 |
| 104+00 | 42.6 |
| 105+00 | 42.24 |
| 106+00 | 41.5 |
| 107+00 | 41.99 |
| 108+00 | 42.41 |
| 109+00 | 42.78 |

PROJECT ID: G0004.31
SCALE: 1" = 30'
SHEET: 16

IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD
11 OF 14
PLAN & PROFILE

FOR GEORGETOWN COUNTY
GEORGETOWN COUNTY, SOUTH CAROLINA

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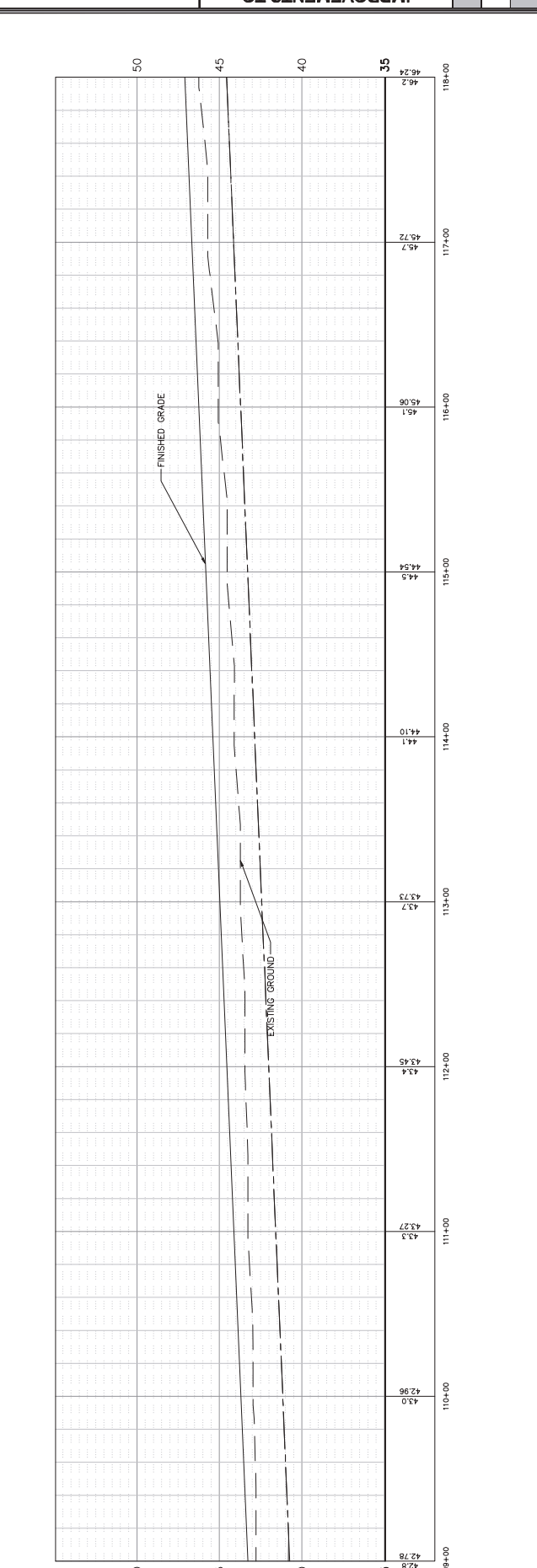
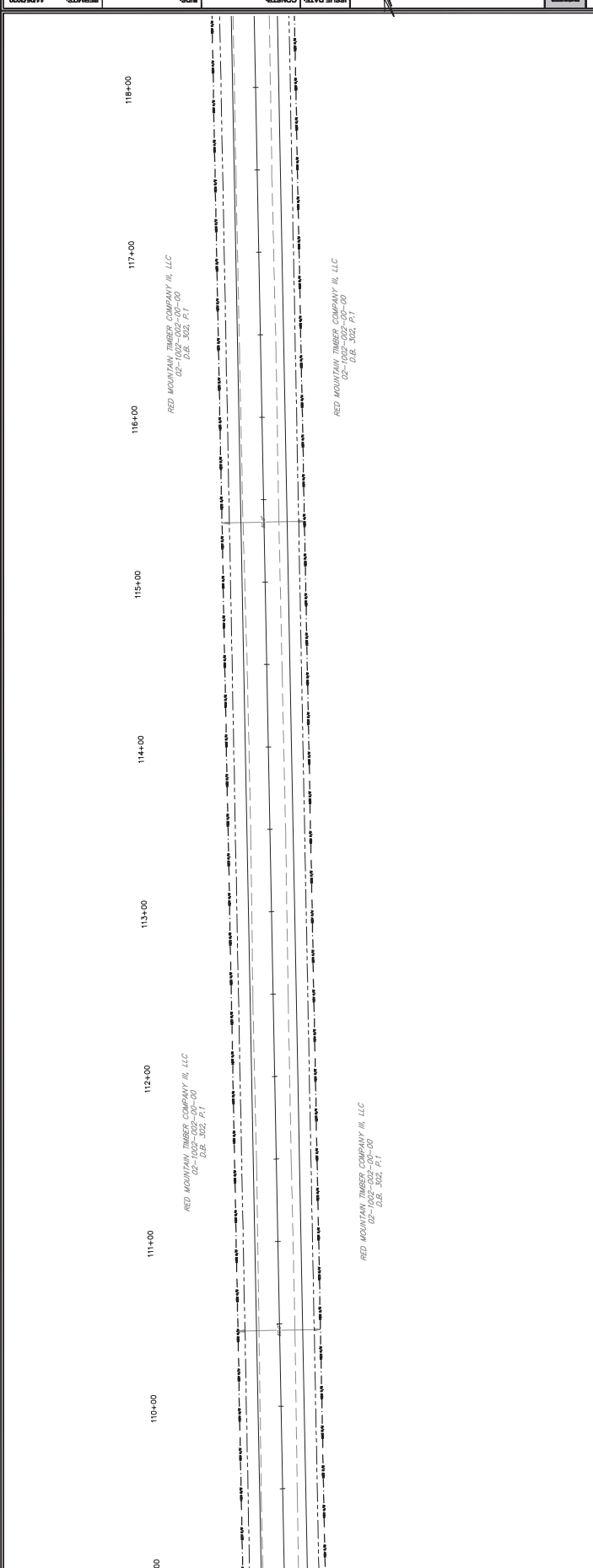


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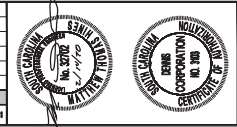
PLAN & PROFILE
 12 OF 14
DENNIS
 GEORGETOWN COUNTY, SOUTH CAROLINA

**IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY**

PROJECT ID
G0004.31
 SCALE
1" = 30'
 SHEET
17



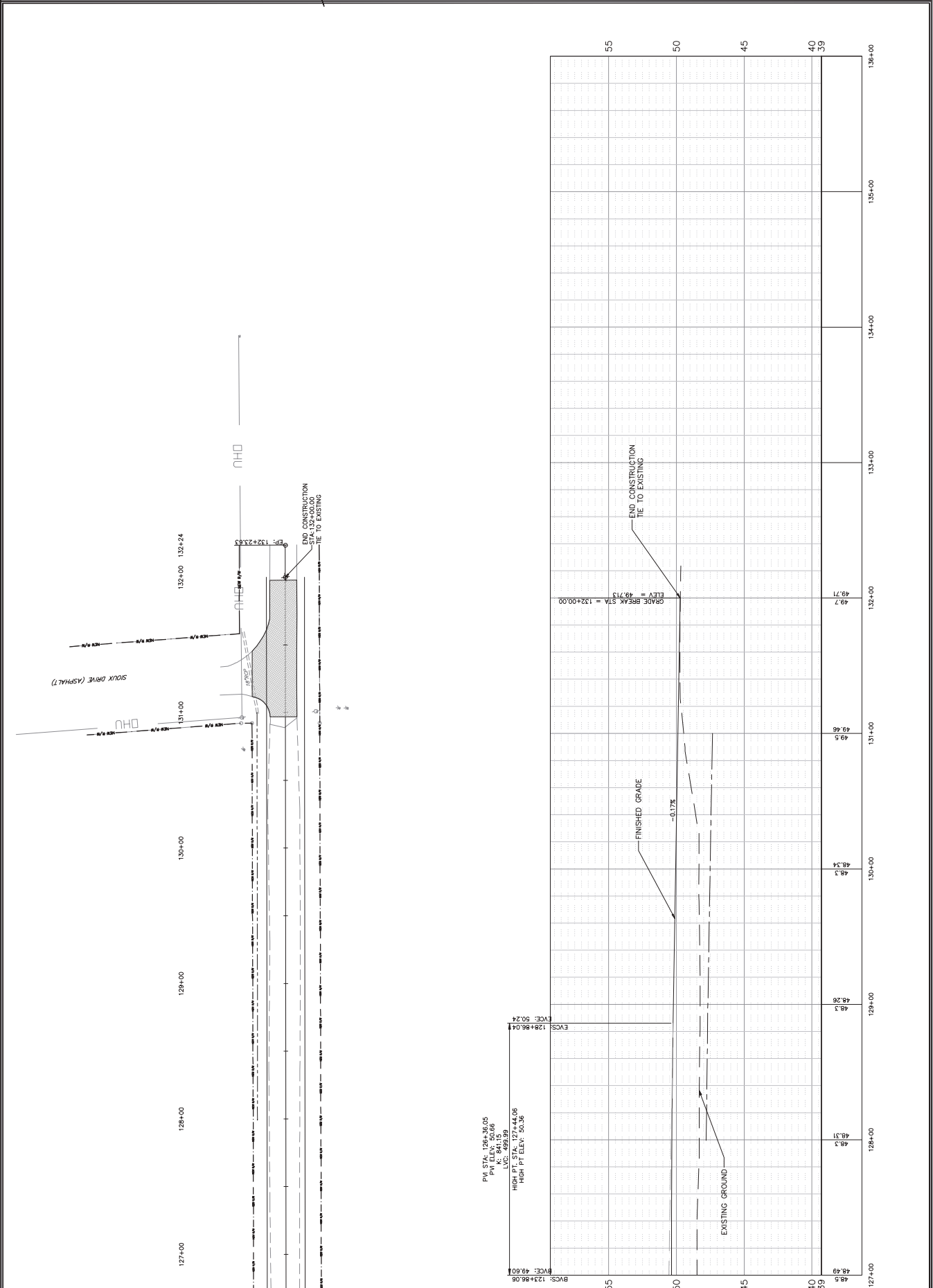
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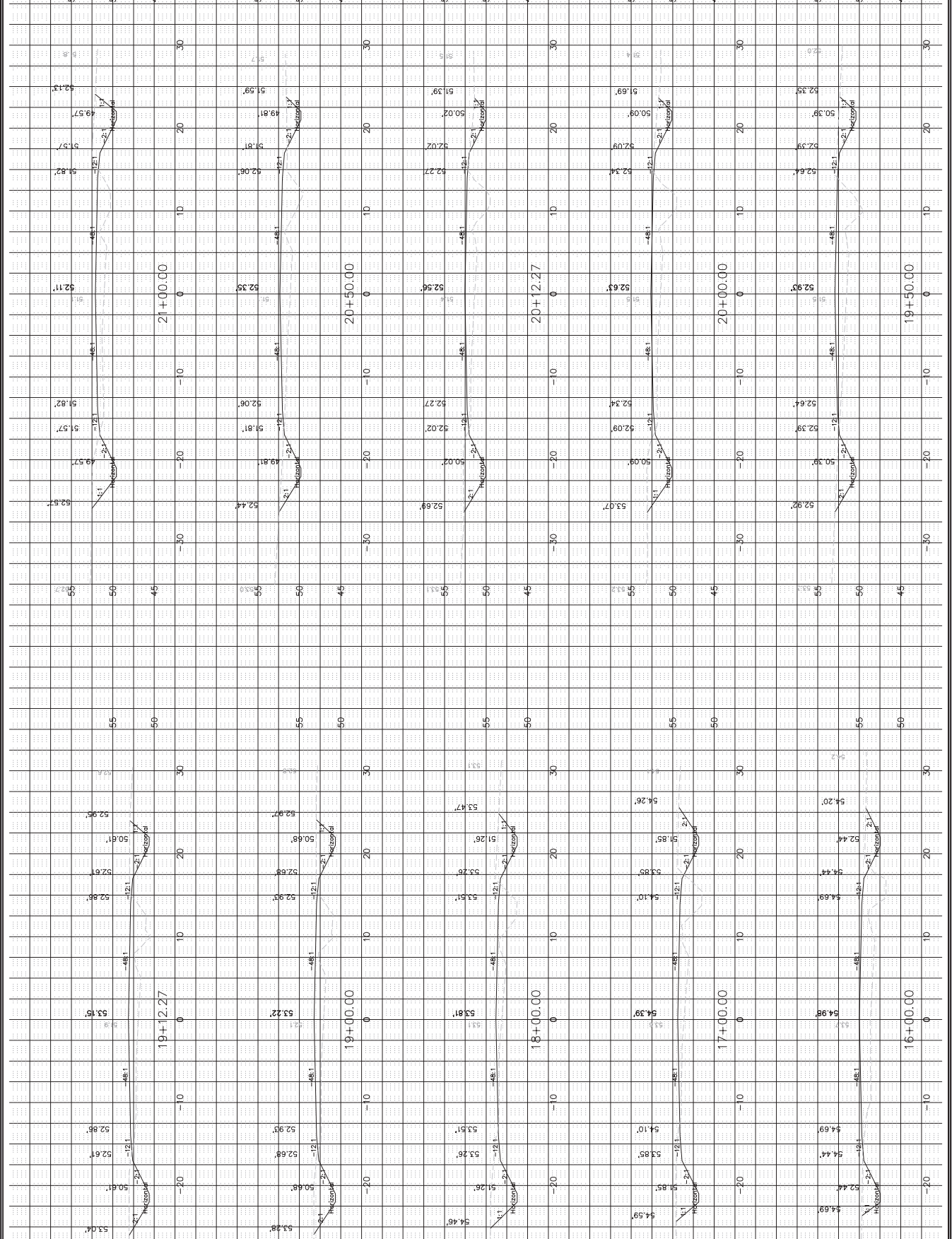


PROJECT ID: **DENNIS**
 14 OF 14
 PLAN & PROFILE

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: **G0004.31**
 SCALE: **1" = 30'**
 SHEET: **19**





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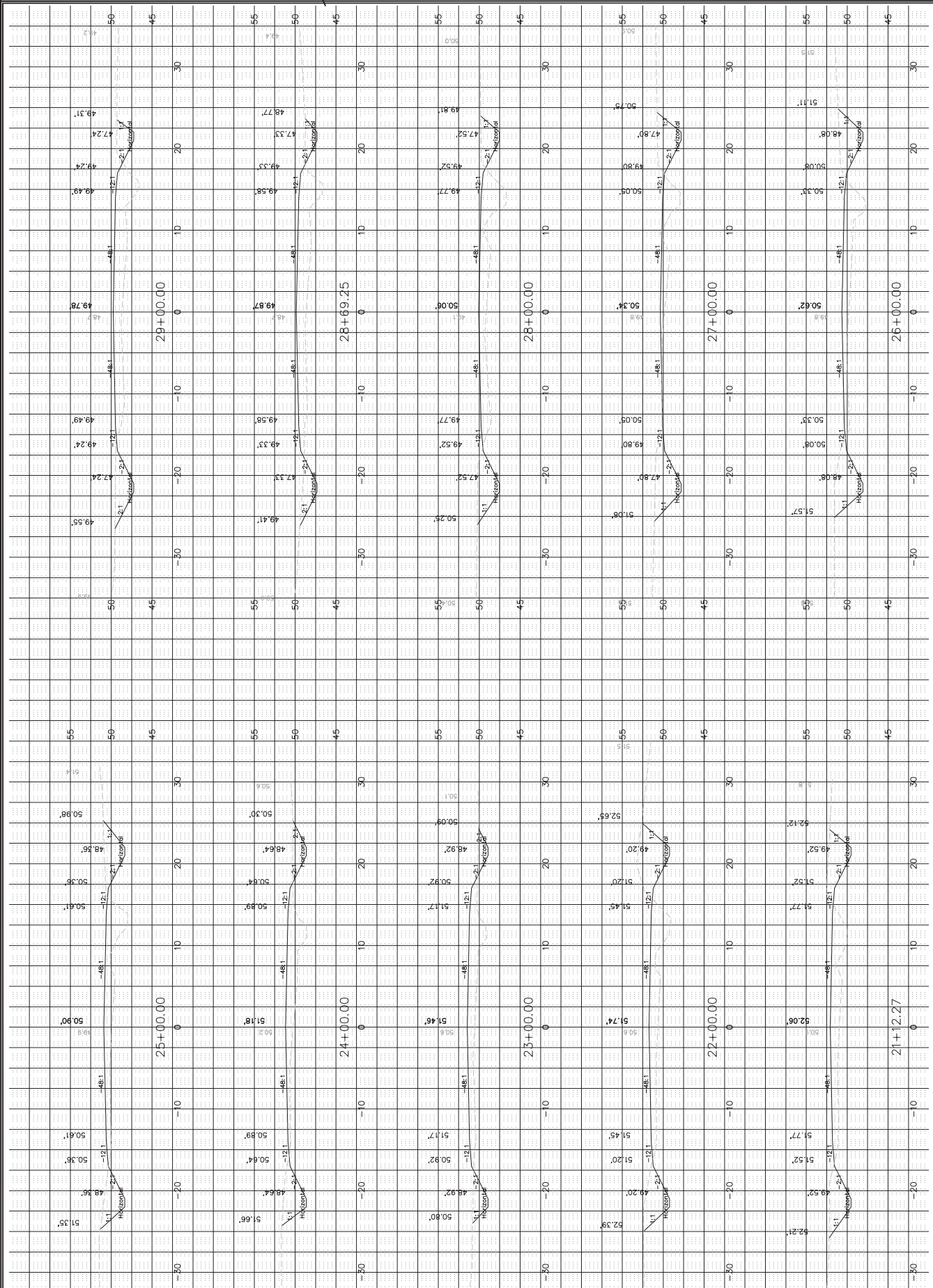
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IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
G0004.31
 SCALE
1" = 5'
 SHEET
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CROSS SECTIONS

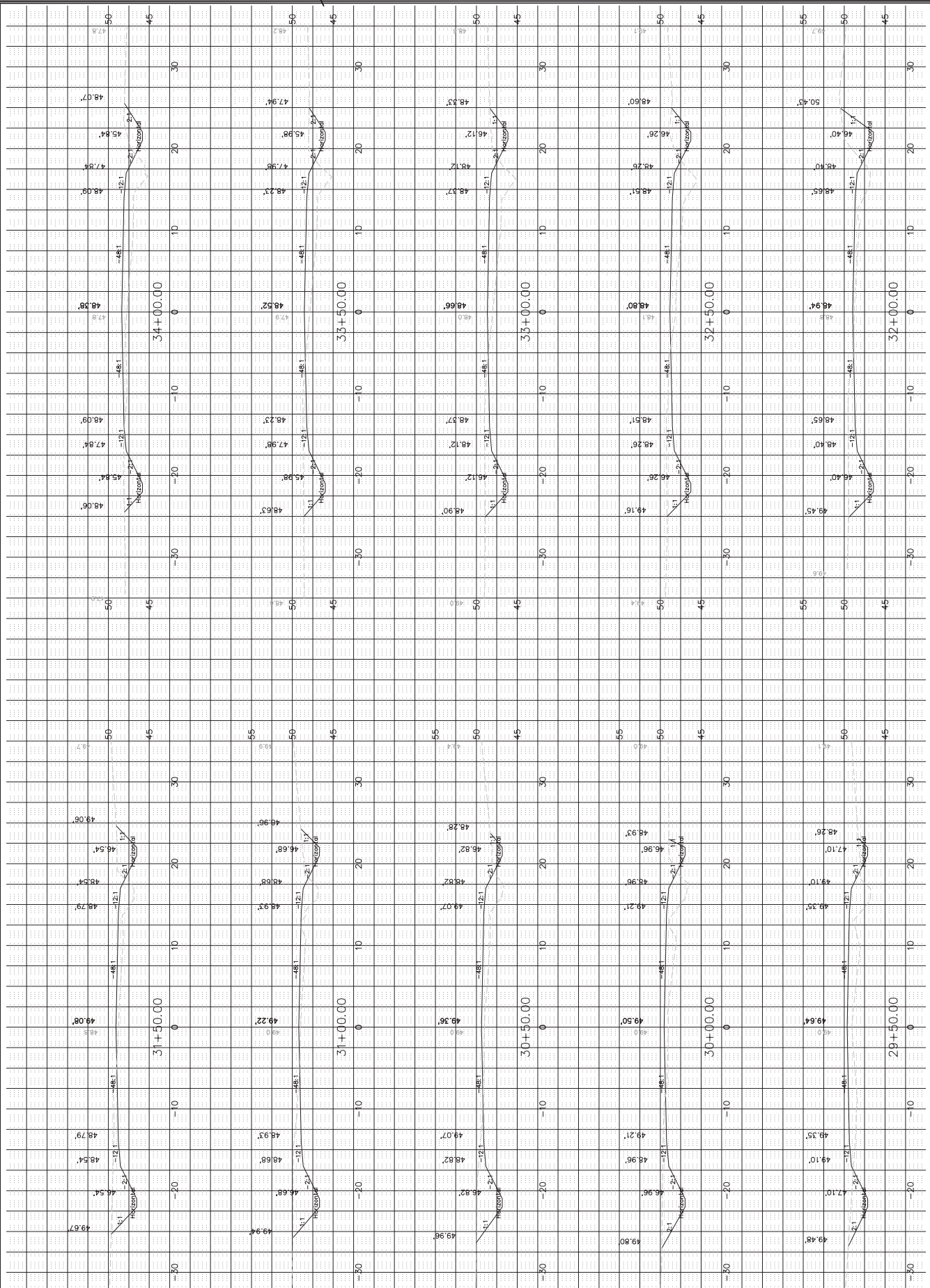
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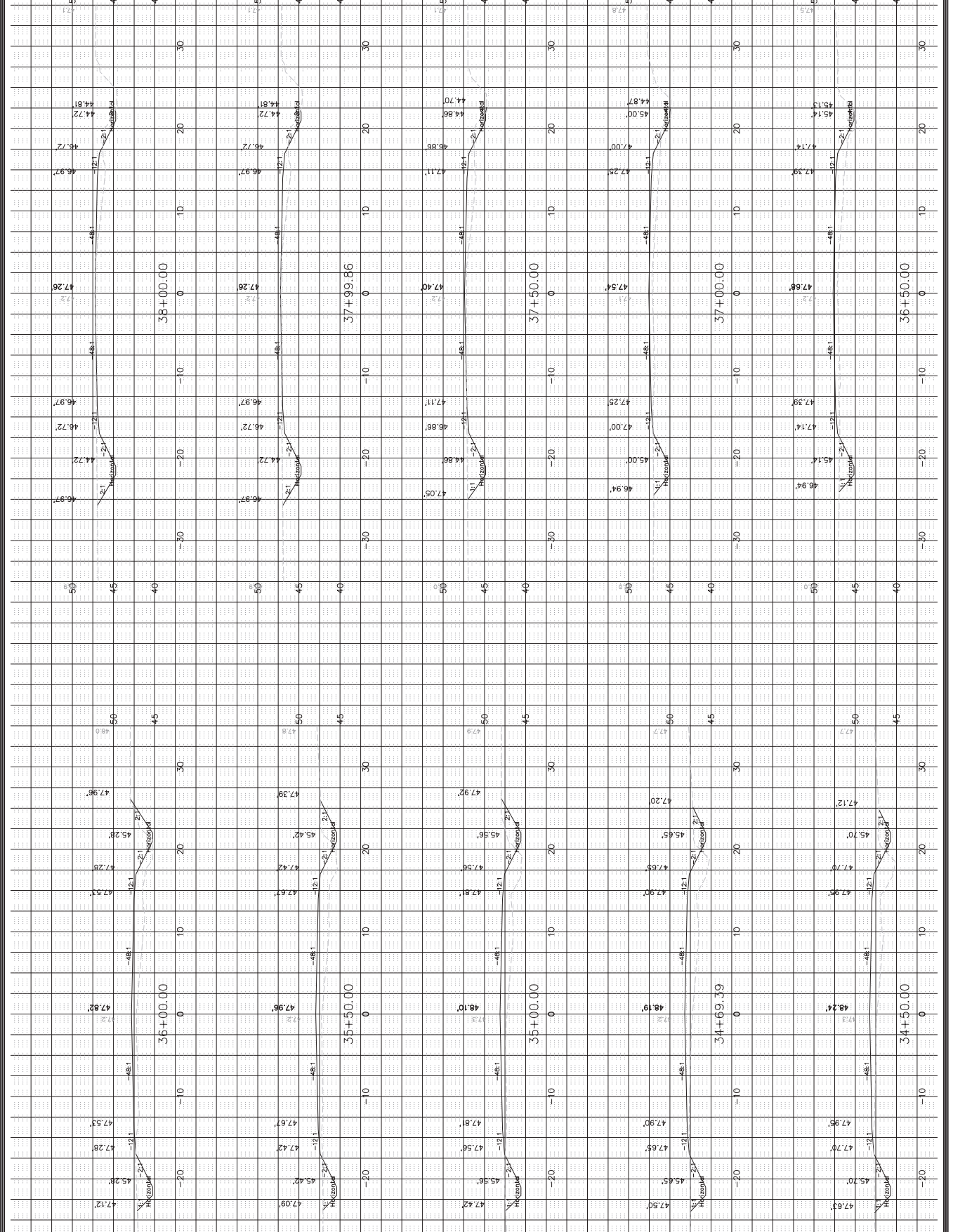
FOR GEORGETOWN COUNTY
SOUTH CAROLINA

PROJECT ID
G0004.31

SCALE
1" = 5'

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DENNIS

CORPORATION

INCORPORATED IN SOUTH CAROLINA

CROSS SECTIONS

IMPROVEMENTS TO

INDIAN HUT ROAD AND

AMOS ROAD

FOR GEORGETOWN COUNTY

PROJECT ID

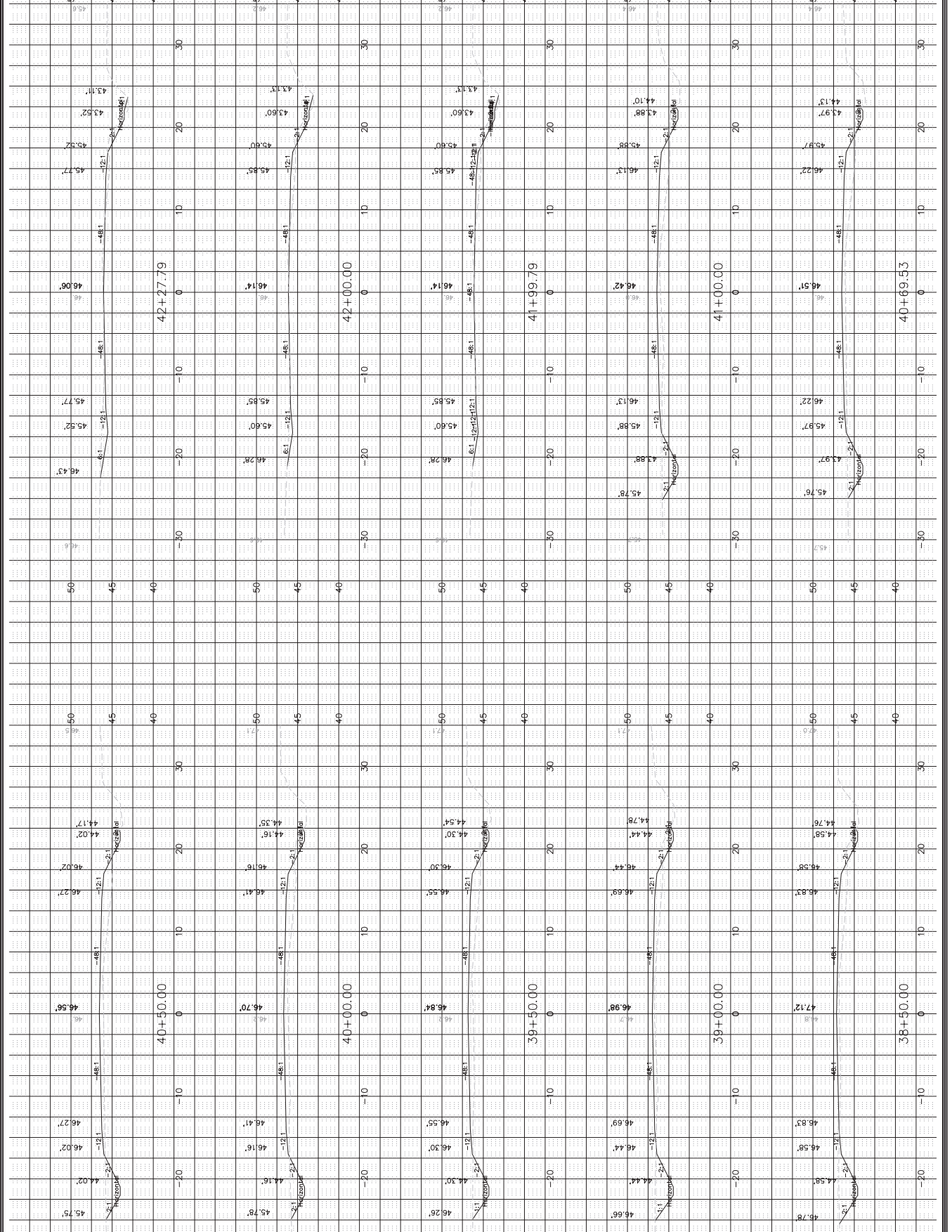
G0004.31

SCALE

1" = 5'

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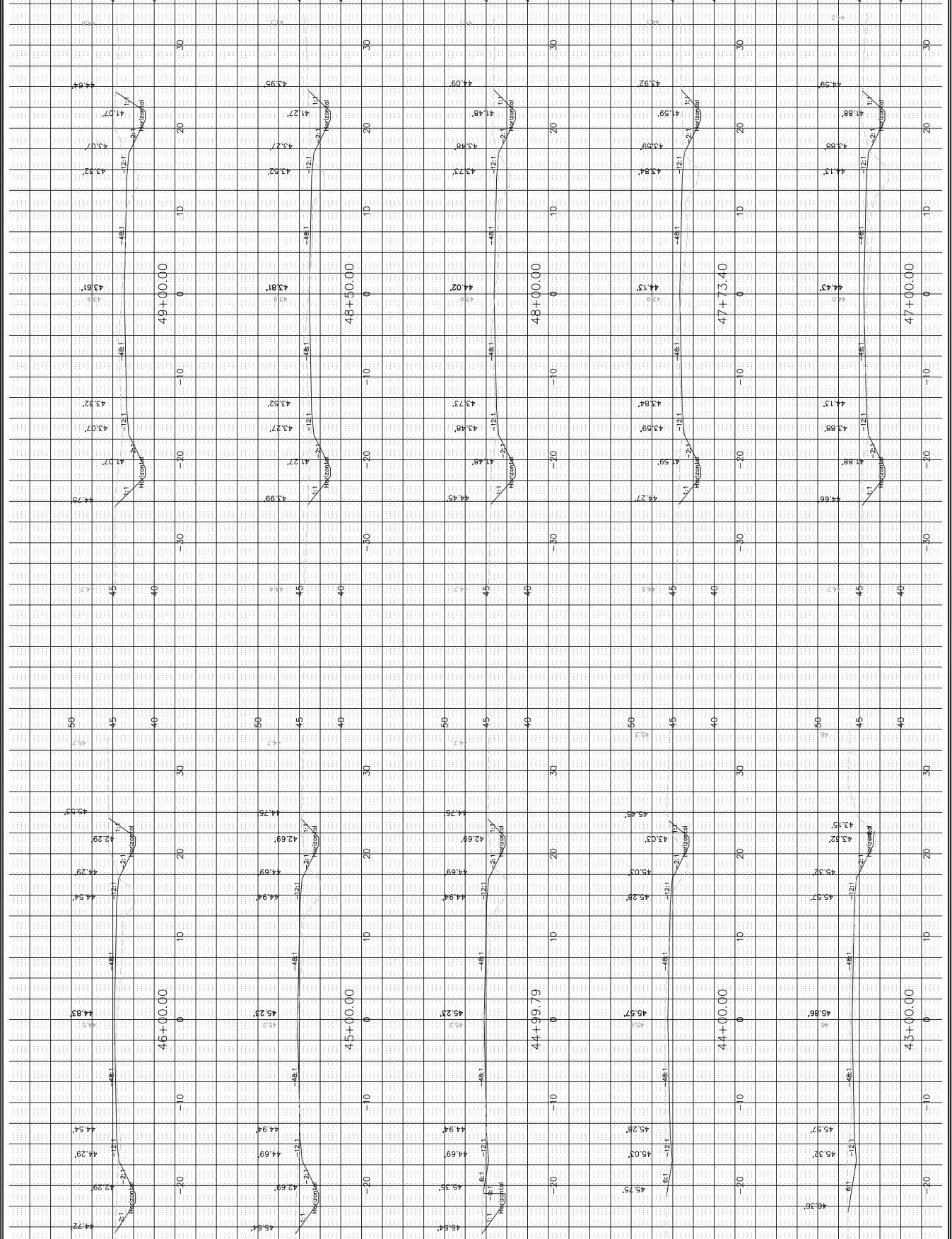
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CROSS SECTIONS

DENNIS

ENGINEERING CORPORATION

1000 W. MARKET STREET
GEORGETOWN, SOUTH CAROLINA 29526

**IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD**

FOR GEORGETOWN COUNTY

PROJECT ID: G0004.31

SCALE: 1" = 5'

SHEET: X7

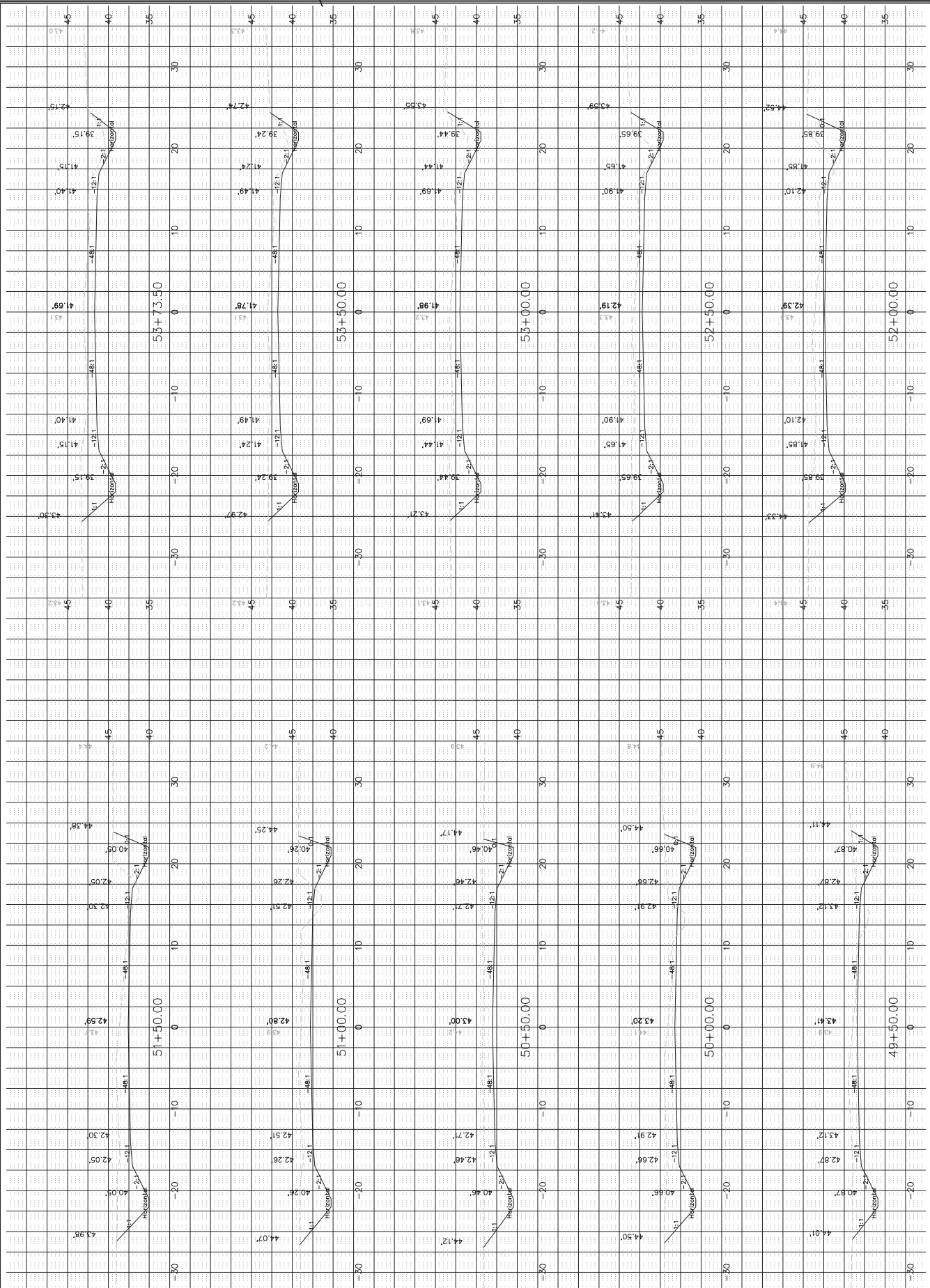
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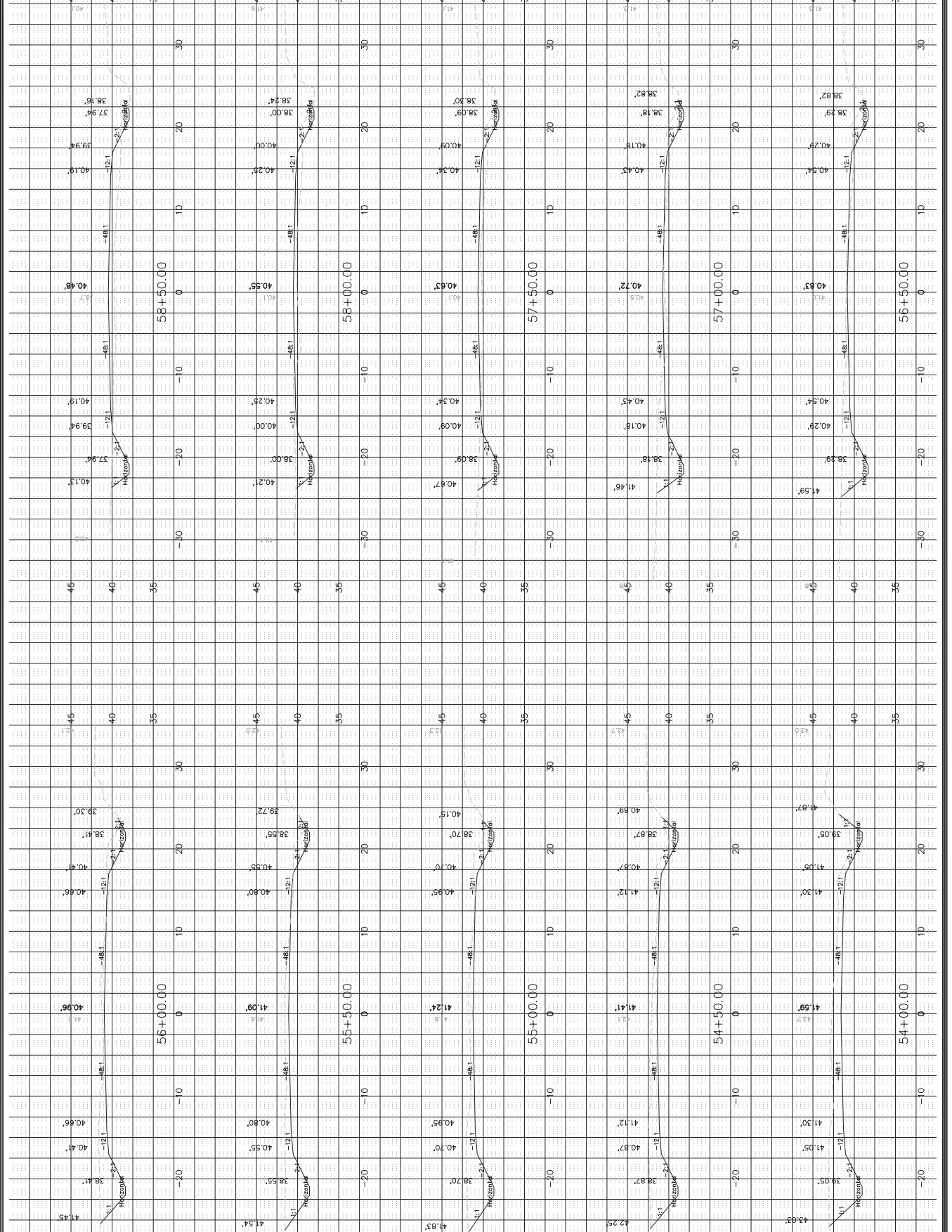


DENNIS
 CROSS SECTIONS
 PROJECT NO. 20-062

**IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD**
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: G0004.31
 SCALE: 1" = 5'
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STATE OF SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SOUTH CAROLINA ENGINEERING CORPORATION
INCORPORATED IN 1935

DENNIS

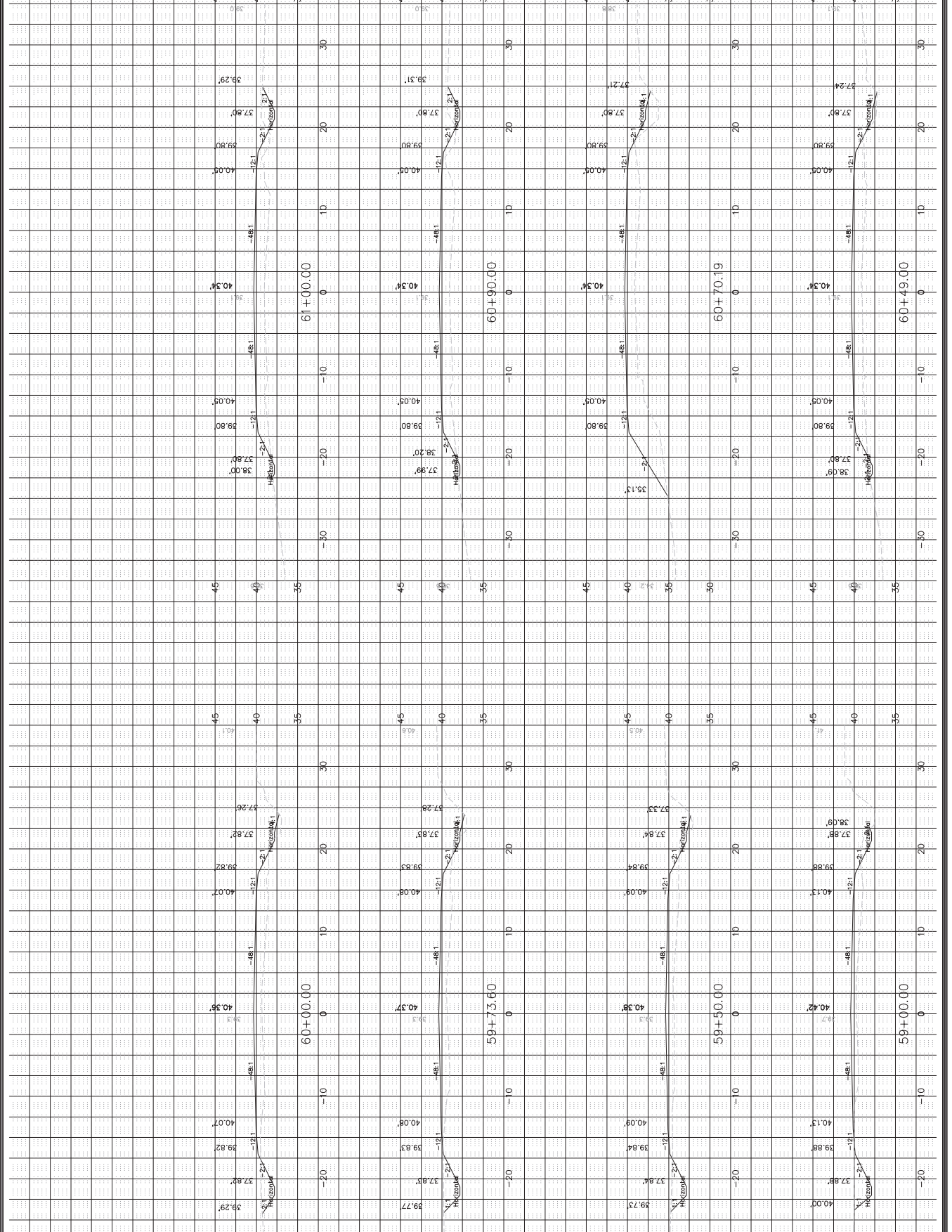
PROJECT NO. 20-062

SECTION NO. 198

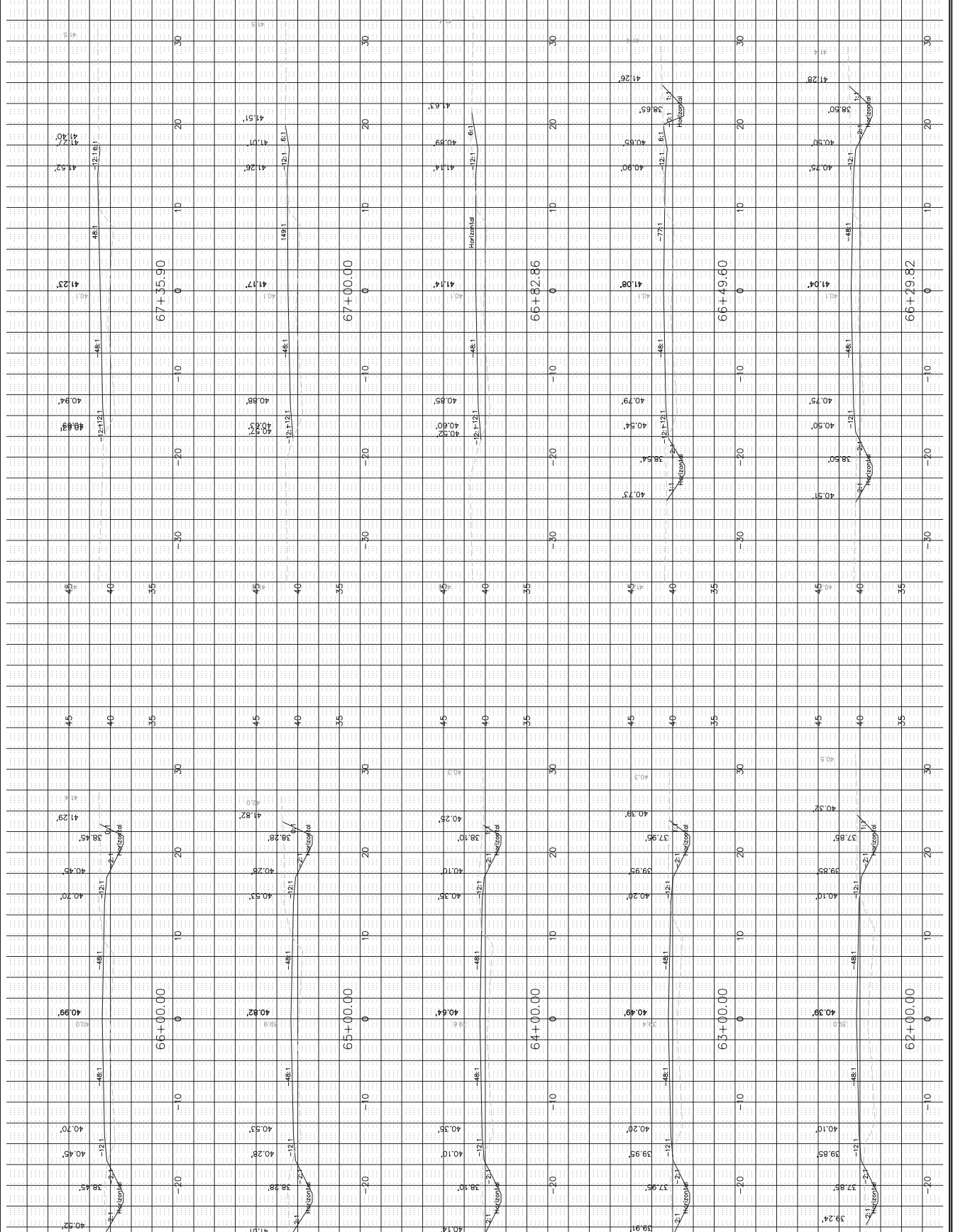
DATE: 11/05/2020

**IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD
FOR GEORGETOWN COUNTY**

PROJECT ID: G0004.31
SCALE: 1" = 5'
SHEET: X9



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| STATE OF SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION | CITY OF GEORGETOWN ENGINEERING DEPARTMENT | SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT ID: G0004.31 | SCALE: 1" = 5' SHEET: X10 | IMPROVEMENTS TO INDIAN HUT ROAD AND AMOS ROAD FOR GEORGETOWN COUNTY SOUTH CAROLINA |
| CROSS SECTIONS | DENNIS | PROJECT ID: G0004.31 SCALE: 1" = 5' SHEET: X10 | | |



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PROJECT ID: G0004.31
 SCALE: 1" = 5'
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IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

DENNIS
 CONSULTANTS

CROSS SECTIONS

ISSUE DATE: 11/05/2020
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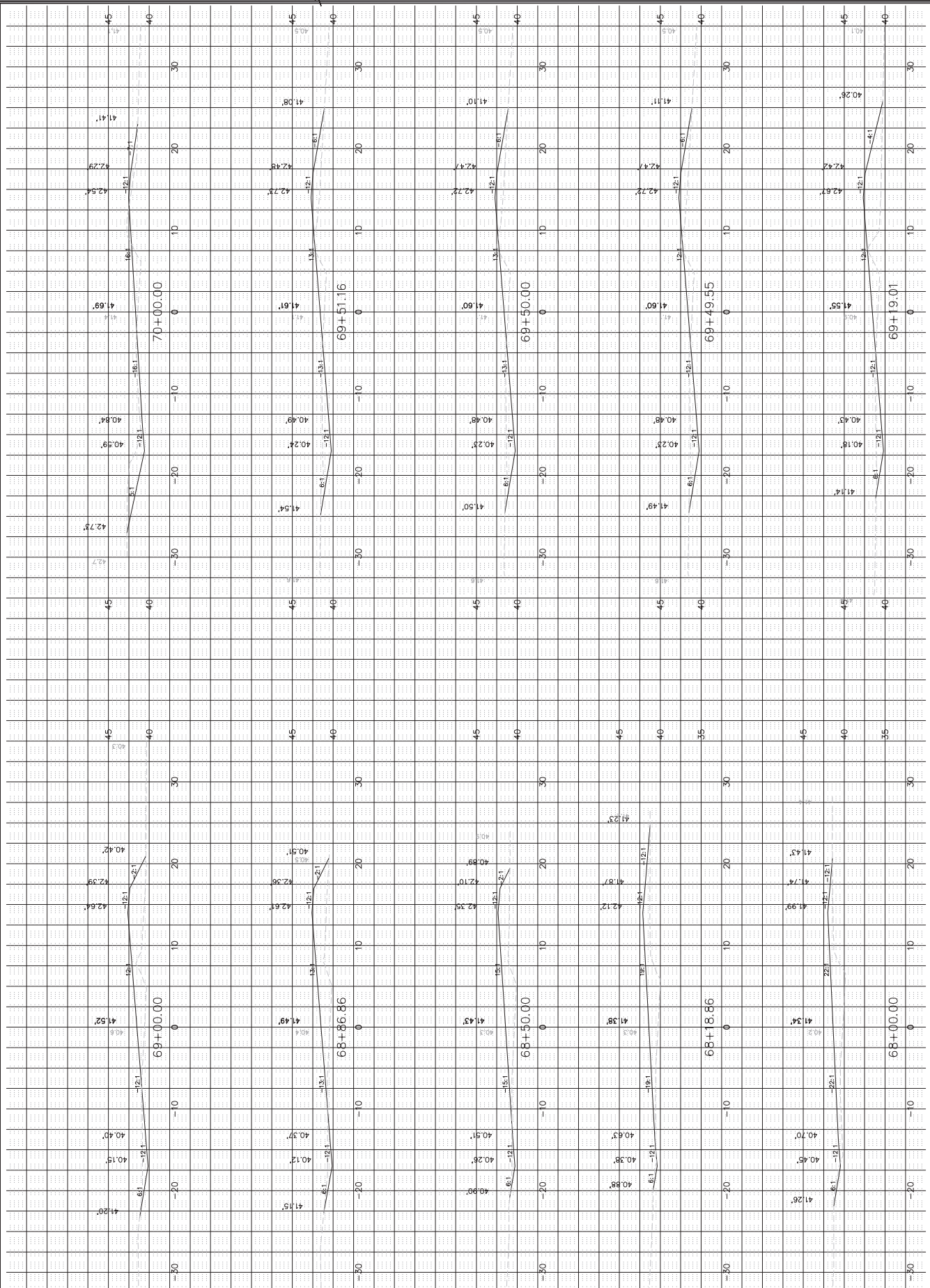


PROJECT NO. 20-062
 SHEET NO. 213

DENNIS
 ENGINEERING & ARCHITECTURE
 1100 S. HARRIS ST.
 GEORGETOWN, NC 27938
 PHONE: 252-781-1100
 FAX: 252-781-1101
 WWW.DENNIS-ENGINEERING.COM

CROSS SECTIONS
 IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: G0004.31
 SCALE: 1" = 5'
 SHEET: X12



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CROSS SECTIONS

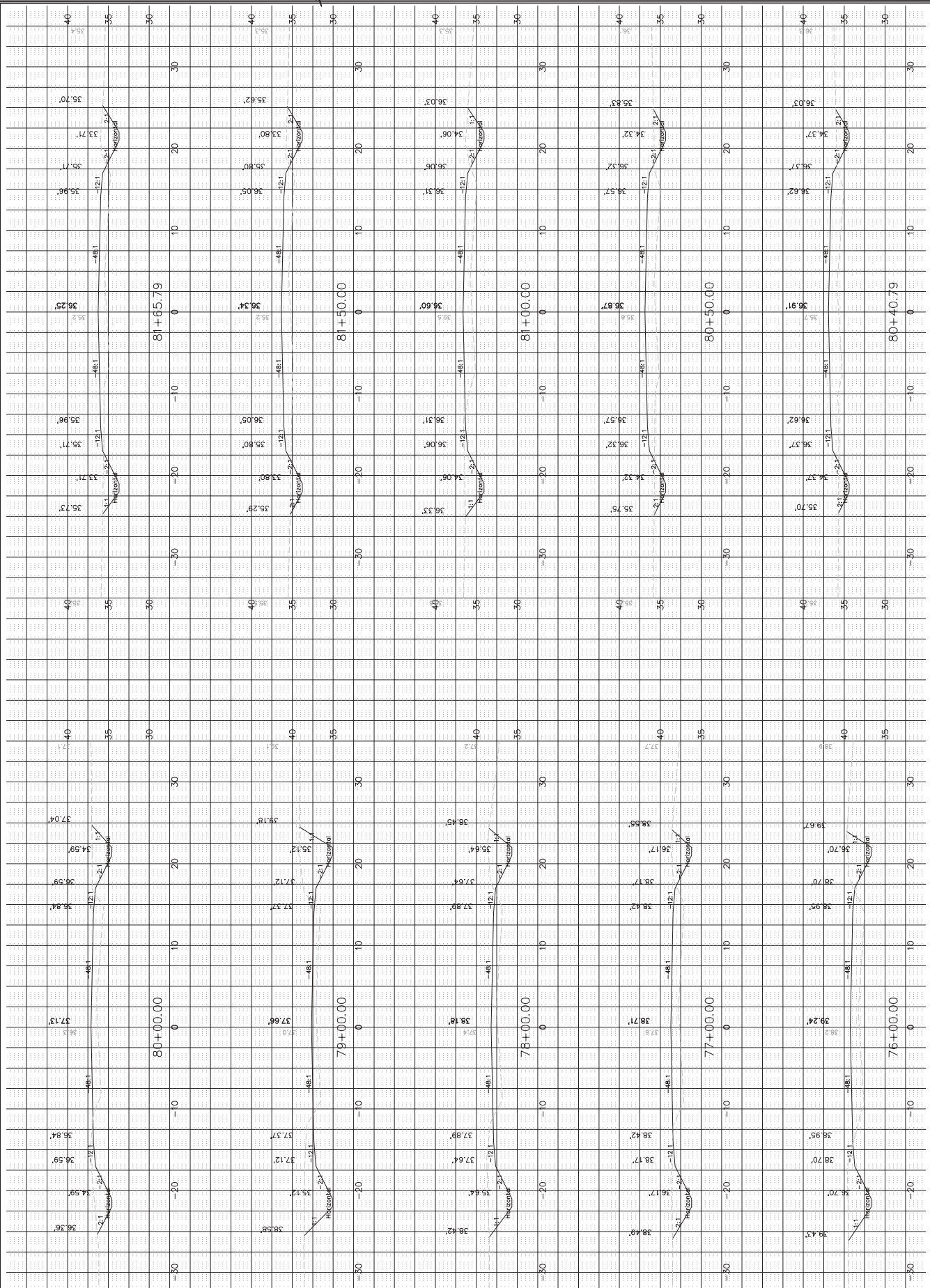
DENNIS

FOR GEORGETOWN COUNTY
SOUTH CAROLINA

PROJECT ID
G0004.31

SCALE
1" = 5'

SHEET
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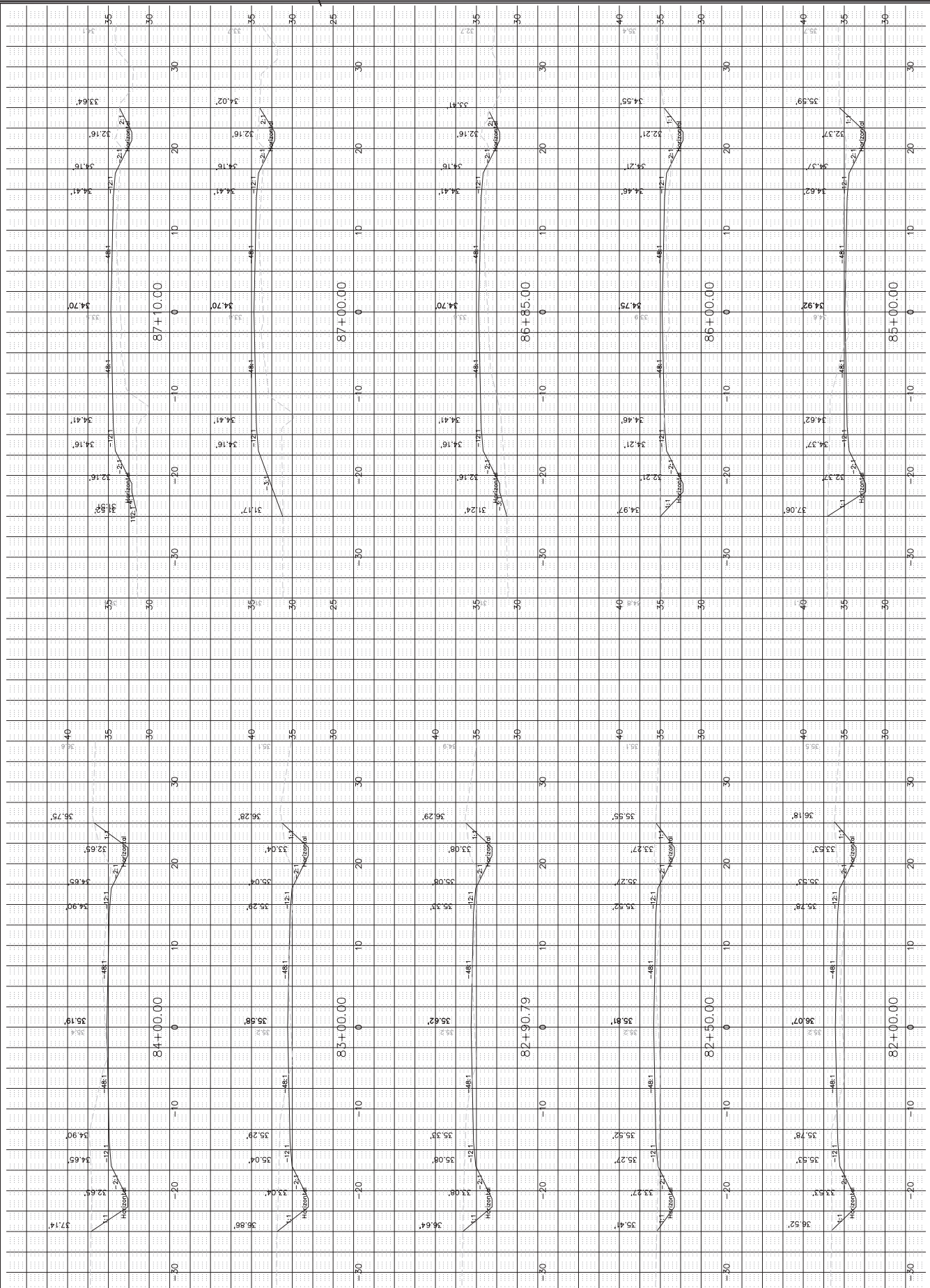


BRIDGE
 E. MARKS
 S. BARNER
 L. BARNER
 C. DENNIS

CROSS SECTIONS

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
 G0004.31
 SCALE
 1" = 5'
 SHEET
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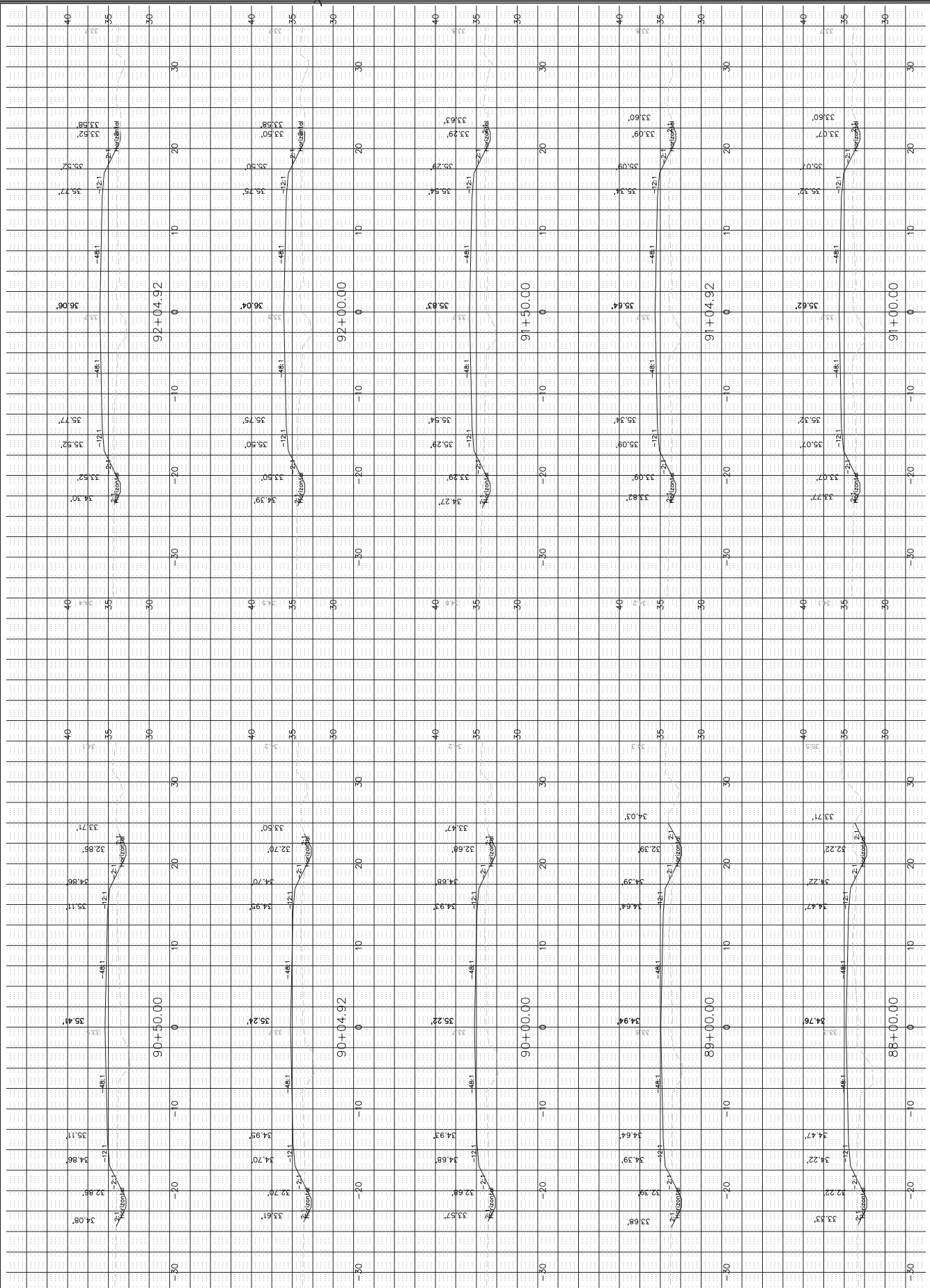
**IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD**

GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
G0004.31

SCALE
1" = 5'

SHEET
X16



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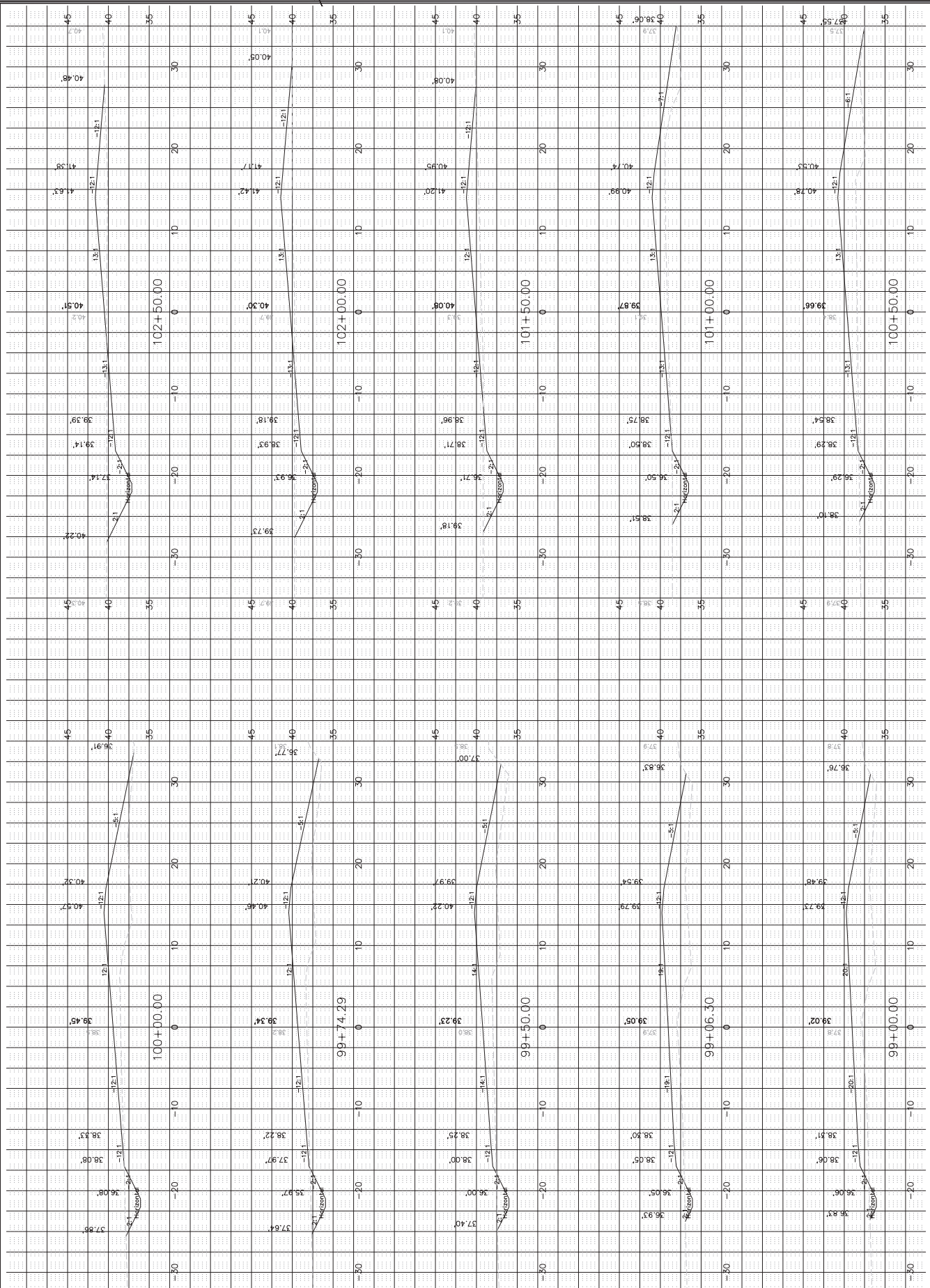


REGISTERED PROFESSIONAL ENGINEER
 SOUTH CAROLINA
 NO. 100
 EXPIRES 08/2012

REGISTERED PROFESSIONAL ENGINEER
 SOUTH CAROLINA
 NO. 2072
 EXPIRES 08/2012

IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
 G0004.31
 SCALE
 1" = 5'
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 X18



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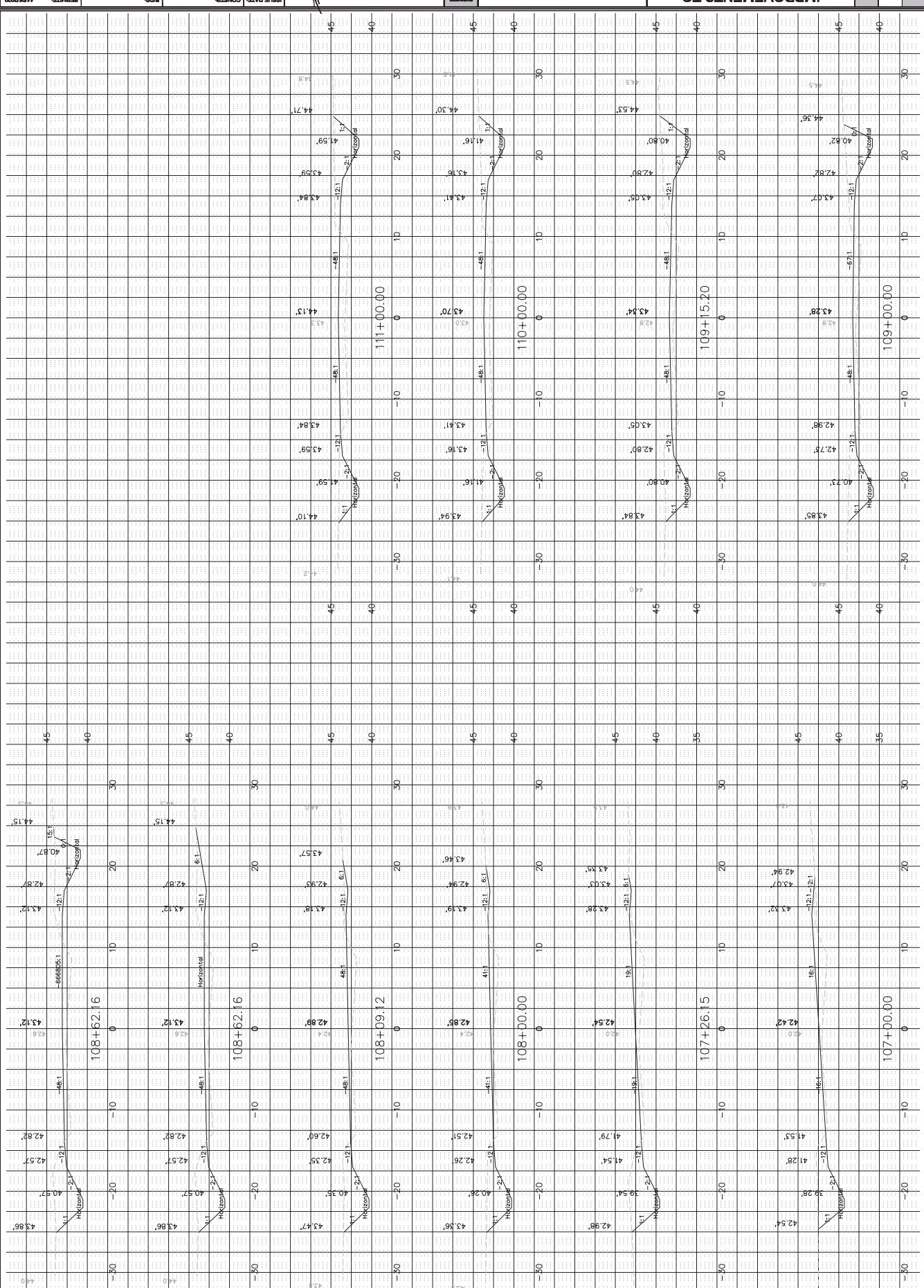
CROSS SECTIONS

DENNIS

GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: G0004.31
 SCALE: 1" = 5'
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IMPROVEMENTS TO INDIAN HUT ROAD AND AMOS ROAD



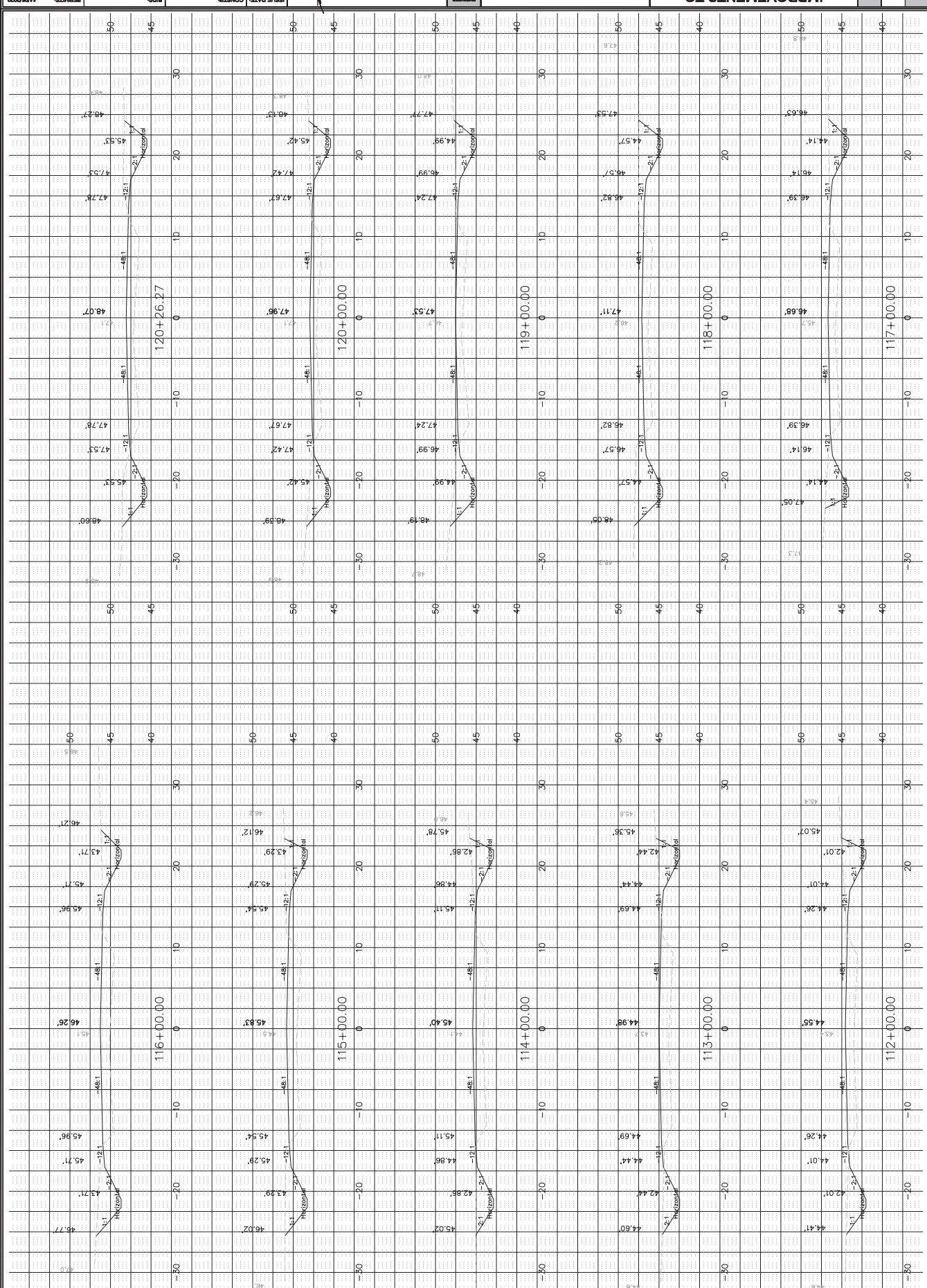
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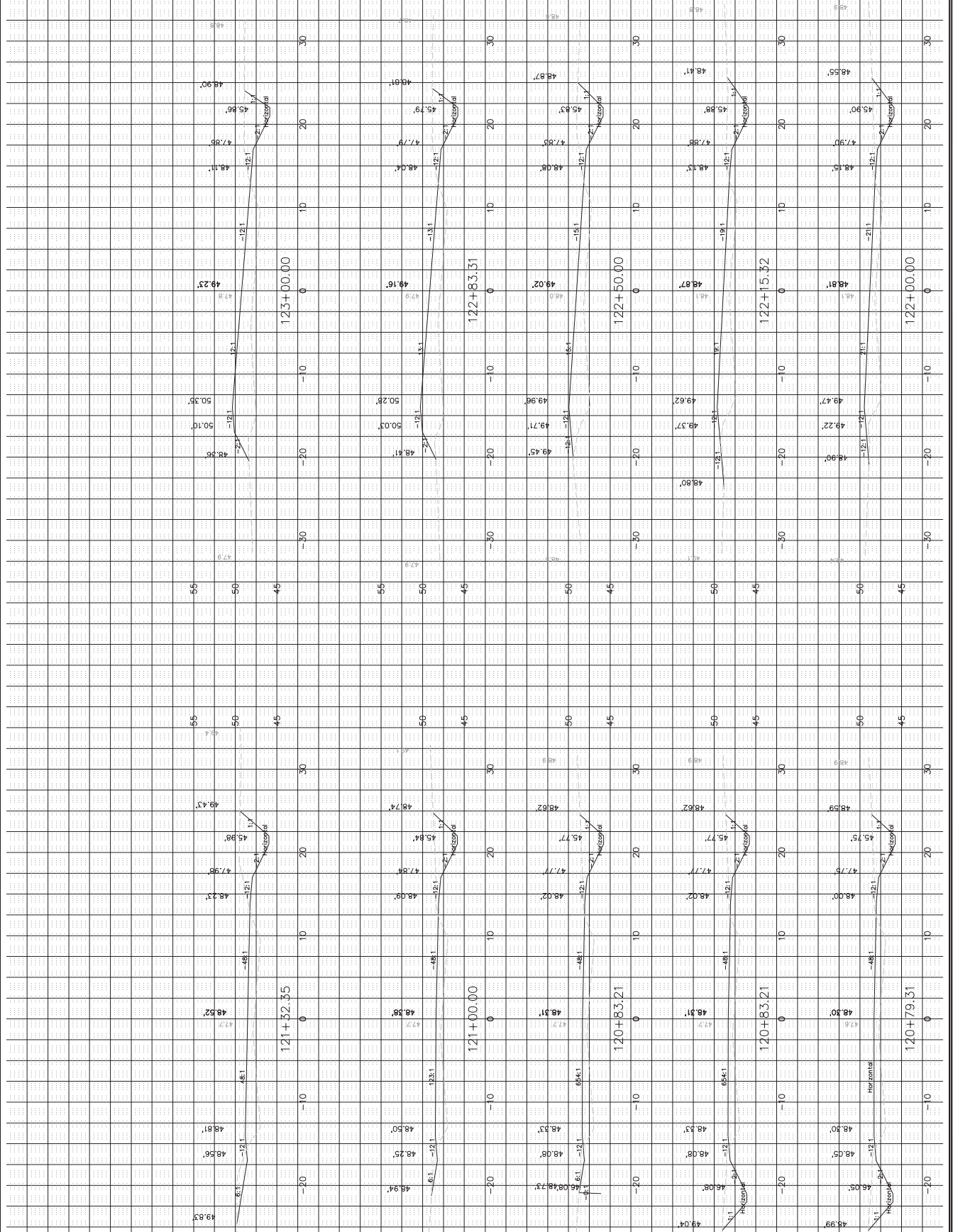


DENNIS ENGINEERING CORPORATION
 1100 S. W. 10th St.
 Ft. Lauderdale, FL 33304
 (954) 571-1100
 FAX (954) 571-1101
 www.denniseng.com

CROSS SECTIONS
 IMPROVEMENTS TO
 INDIAN HUT ROAD AND
 AMOS ROAD
 FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
G0004.31
 SCALE
1" = 5'
 SHEET
X21





Bid No. 20-062, Project Manual
Georgetown County, South Carolina
Page 211 of 213

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CROSS SECTIONS

**IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD**

FOR GEORGETOWN COUNTY
GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID
G0004.31

SCALE
1" = 5'

SHEET
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CROSS SECTIONS
IMPROVEMENTS TO
INDIAN HUT ROAD AND
AMOS ROAD
FOR GEORGETOWN COUNTY
 GEORGETOWN COUNTY, SOUTH CAROLINA

PROJECT ID: G0004.31
 SCALE: 1" = 5'
 SHEET: X23

