

OFFICE OF THE COUNTY PUBLIC WORKS DIRECTOR

Sumter County
Sumter, South Carolina
29153

1289 NORTH MAIN STREET TELEPHONE: 436-2241 FAX: 436-2245

INVITATION TO BID

The Sumter County Public Works is soliciting separate sealed bids from qualified vendors for the following projects:

PAVING OF SUMTER COUNTY ROADS: KEYSTONE ROAD & CANNERY ROAD, AND JOSH WELLS ROAD

Bids will be received until **10:00 A.M. Wednesday, October 9, 2024** in the Sumter County Public Works Conference Room located at 1289 North Main Street, Sumter, South Carolina 29153.

Plans and bid documents may be obtained from:

Sumter County Public Works 1289 North Main Street

Sumter, South Carolina 29153

Email: khyatt@sumtercountysc.org

Phone: (803) 436-2241

Or Davis & Floyd, Inc.

240 Stoneridge Dr., Suite 305

Columbia, SC 29210

Email: twarren@davisfloyd.com

Phone: (803) 256-4121

Any written questions should be emailed to twarren@davisfloyd.com no later than Friday October 4, 2024 at 4:00 pm.

The County of Sumter reserves the right to reject any or all bids. The County of Sumter reserves the right to waive any or all technicalities.

Mandatory Pre-bid Meeting
Wednesday October 2nd @ 10:00 am
Meet at Public Works Office
1289 N. Main St. Sumter. SC 29153

INFORMATION FOR BIDDERS

1. RECEIPT AND OPENING OF BIDS

Sumter County, South Carolina (herein called the "Owner") invites bids on the forms attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner in the Sumter County Public Works Conference Room located at 1289 North Main Street, Sumter, South Carolina 29153, on **Wednesday October 9, 2024** at 10:00 a.m., at which time said bids will be publicly opened and read aloud. The envelope containing the bids must be sealed, addressed to Sumter County Public Works, located at 1289 North Main Street, Sumter, South Carolina, 29153 and designated as Bid for "PAVING OF SUMTER COUNTY ROADS – Package 16". The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities. The Owner may reject any and all bids. The Owner reserves the right to negotiate with the lowest, responsive Bidder. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof.

2. PREPARATION OF BID

Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in ink or typewritten.

Bids which are incomplete, unbalanced, conditional or obscure, or which contain additions not called for, erasures, alterations, or irregularities of any kind, or which do not comply with the information for Bidders, may be rejected at the option of the Owner.

The correct total amount bid for the completed work is defined as the correct sum total of the amounts bid for the individual items in the Bid. The correct amount bid for each unit price item is defined as the correct product of the quantity listed for the item by the unit price bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, Bidder's address, Contractor's License Number, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified above.

3. SUBCONTRACTS

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner. A list of subcontractors must be provided with the bid form.

4. MODIFICATION

Any bidder may modify his bid by written or telegraphic communication (which then shall include facsimile transmission) at any time prior to the scheduled time for receipt of bids, provided such telegraphic communication is received by the Owner prior to closing time, and provided further the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the Bidder was mailed prior to the closing time. The telegraphic communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two days from the closing time, no consideration will be given to the telegraphic modification.

5. METHOD OF BIDDING

The Owner invites the following bid (s): lump sum.

6. QUALIFICATION OF BIDDER

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be acceptable. Each bidder must furnish the following information at or before bid opening (negative or "not applicable" responses and explanation therefore required):

(A) Professional Qualifications

- 1. The number, experience, and professional qualifications of the company personnel that will be directly and indirectly involved with this project.
- 2. Range of company services available to client.
- 3. Company history, including date firm was established.
- 4. Availability of advisory staff and proximity of firm to job site.

- 5. Company philosophy regarding customer service.
- (B) Prior Specific Experience on This Type Project
 - 1. Documentation of experience in road construction and paving.
- (C) Time Frame to Start
 - 1. Successful bidder will begin project on the date set by the County and the Vendor.
- (D) <u>Time Frame to Complete:</u> **June 1, 2025**.
- (E) Sub-Contractors and Specialty to be Utilized on Project

Respondents should identify Sub-Contractors, address, and specialty.

- (F) References
 - 1. Provide references for each of the following disciplines listed (preferably 3 each) or explain absence thereof: Roadway Construction
 - 2. Provide specific mailing address, contact person, and Telephone number (s) of each reference.

While a response is required for the information requested above, the requested information does not constitute requirements for a Bidder to be deemed "qualified" but shall be considered along with other information by Owner in making such determination.

7. BID SECURITY OR BOND

Each bid must be accompanied by cash, certified check of the Bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the Bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of five percent (5%) of the bid. Such cash, checks, or bid bonds will be returned to all except the three lowest Bidders within three days after the opening of bids, and the remaining cash, checks, or bid bonds will be returned promptly after the Owner and the accepted Bidder have executed the contract, or, if no award has been made within 30 days after the date of the opening of bids, upon demand of the Bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

8. <u>LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT</u>

The successful Bidder, upon his failure or refusal to execute and deliver the contract and bonds required within ten (10) days after they have received notice of the acceptance of their bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid.

9. TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within the number of consecutive calendar days thereafter as indicated on the Bid Form for each consecutive calendar day thereafter as hereinafter provide in General Conditions. Bidder must agree also to pay as liquidated damages, the sum of \$100.00 for each consecutive day thereafter as hereafter provided in the Scope of Work. Deadline for completion is June 1, 2025.

10. CONDITIONS OF WORK

Each Bidder must inform himself fully of the conditions relating to the scope of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible, the Contractor in carrying out his work must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

11. ADDENDA AND INTERPRETATION

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any Bidder orally. Each request for such interpretation should be in writing, address to Sumter County Public Works located at 1289 North Main Street, Sumter, South Carolina 29153 or via email. To be given consideration, the request must be received by 4:00 pm October 4, 2024. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

12. PERFORMANCE BOND

Simultaneously with his delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract, as specified in General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company, bond shall be countersigned by an agent residing in South Carolina, and the said surety shall be satisfactory to the Owner, The Performance and Payment Bond shall be in the amount of 100% of the contract amount.

13. POWER OF ATTORNEY

Attorneys—in—Fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

14. NOTICE OF SPECIAL CONDITIONS

Attention is particularly called to those parts of the contract documents and specifications, which deal with the following:

(a.) Insurance requirements

15. LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable State Laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full. City/County of Sumter Business license will be required to perform this work and must be acquired within 5-7 days of the award of the contract. Project only and/or annual renewal business licenses will both meet this requirement.

16. METHOD OF AWARD

The contract, if awarded, will be awarded to the lowest responsive bidder deemed qualified by the Owner.

17. OBLIGATION OF BIDDER

At the time of the opening of bids, each Bidder will be presumed to have inspected the site and to have read and be thoroughly familiar with the plans and contract documents, including all addenda. The failure or omission of any Bidder to examine any form, instrument or document shall in no way relieve any Bidder from any obligation in respect to his bid.

19. CERTIFICATE OF INSURANCE

- A. Certificates of insurance to be provided by the successful bidder at his own expense and shall be included in the return bid package. The insurance shall be written on an Occurrence basis and shall remain in effect without interruption for the duration of the Project, until final payment, or while correcting, removing, or replacing defective work, whichever is later.
- B. The certificates shall apply to the Agreement by indicating the Project and naming the Owner as an "Additional Insured", or by attachment of a policy amendment.
- C. The insurance shall be written and so listed on the certificate for coverage not less than the following limits, or greater if required by law:

1. Commercial General Liability:

a. General Aggregate \$600,000

2. Business Automobile Liability: (including all owned, non-owned and hired vehicles):

a. Combined Single Limit \$600,00

3. Worker's Compensation:

a. State Statutory

b. Employer's Liability \$100,000 per accident

D. All required insurance shall be written such that the Insured is the Proposer.

20. CERTIFICATION REGARDING ILLEGAL IMMIGRATION

By signing your bid, the contractor certifies that you will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agree to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable to you and your subcontractors or sub-subcontractors; or (b) that you and your subcontractors of 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." You agree to include in any contracts with your subcontractors language requiring your 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.

21. MINORITY PARTICIPATION

Is the bidder a South Carolina Certified Minority Business? [] Yes [] No
Is the bidder a Minority Business certified by another governmental entity? [] Yes [] No
If so, please list the certifying governmental entity:
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?
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?
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.)

For a list of certified minority firms, please consult the Minority Business Directory, which is available at the following URL: http://www.govoepp.state.sc.us/osmba/ [04-4015-1]

22. <u>TAX CREDIT FOR SUBCONTRACTING WITH DISADVANTAGEG SMALL BUSINESSES (JAN 2008)</u>

Pursuant to Section 12-6-3350, a taxpayer having a contract with this State who subcontracts with a socially and economically disadvantaged small business is eligible for an income tax credit equal to four percent of the payments to that subcontractor for work pursuant to the contract. The subcontractor must be certified as a socially and economically disadvantaged small business as defined in Section 11-35-5010 and regulations pursuant to it. The credit is limited to a maximum of fifty thousand dollars annually. A taxpayer is eligible to claim the credit for ten consecutive taxable years beginning with the taxable year in which the first payment is made to the subcontractor that qualifies for the credit. After the above ten consecutive taxable years, the taxpayer is no longer eligible for the credit. A taxpayer claiming the credit shall maintain evidence of work performed for the contract by the subcontractor. The credit may be claimed on Form TC-2, "Minority Business Credit." A copy of the subcontractor's certificate from the Governor's Office of Small and Minority Business (OSMBA) is to be attached to the contractor's income tax return. Questions regarding the tax credit and how to file are to be referred to: SC Department of Revenue, Research and Review, Phone: (803) 898-5786, Fax: (803) 898-5888. Questions regarding subcontractor certification are to be referred to: Governor's Office of Small and Minority Business Assistance, Phone: (803) 734-0657, Fax: (803) 734-2498. [02-2A135-1]

BID FORM

SUMTER COUNTY, SOUTH CAROLINA

DATE:
BID OF
(Hereinafter called "Bidder"), a South Carolina corporation doing business as
TO: Sumter County Sumter County, South Carolina (hereinafter called "Owner")
Gentlemen:
The bidder in compliance with your invitation for bids for the paving of County dirt roads, having examined the plans and specifications with related documents and the site of the proposed work, and being related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, material, labor and supplies to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this bid is a part.
Bidder acknowledges receipt of the following addendum:
Bidder agrees to perform all of the duties outlined in "Scope of Work" Described in the specifications and shown on the plans for the following lump sum price:
\$Lump Sum Amount in Numbers
Early oan Amount in Nambers
\$Lump Sum Amount in Words

The above lump sum price shall include all labor, material, bailing, shoring, removal, overhead, profit, insurance, mobilization, etc., to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informality in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within 10 days and deliver a Surety Bond or Bonds (5% of total bid amount of Lump Sum) of the General Conditions. The bid security attached in the sum of

' '	•	,
	Dollars	Cents
) is to become the property of ecuted within the time above set forth expense to the Owner caused therel	
Respectfully submitt	ed:	
BY:		
SEAL (IF BID IS BY	A CORPORATION)	
		
Busir	ness Address	

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned		
	as Principal, and	
	as Surety are hereby held and	
firmly bound unto	as Owner in the pena	
sum oftruly	for the payment of which, well and	
to be made, we hereby jointly and severally administrators,	bind ourselves, our heirs, executors,	
successors, and assigns. Signed, this	day of The conditions of the	
above obligation is such that whereas the P	rincipal has submitted to	
a certain l	Bid attached hereto and made a part hereof to	
enter into a contract in writing, for the consti	ruction of	

PAVING OF SUMTER COUNTY ROADS

NOW THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder, shall, in no event, exceed the penal amount of this obligation as herein stated.

BID BOND CONTINUED

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

	L.S.	
	Surety	
SEAL	Signed	

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that (Name of Contractor) (Address of Contractor) a Corporation, hereinafter called Principal, and (Name of Surety) (Address of Surety) hereinafter called Surety, are held and firmly bound unto (Name of Owner) (Address of Owner) hereinafter called Owner, in the penal sum of) in lawful money of the United States, for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the , 20 , a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said contract the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

each one of which shall be deemed ar	ent is executed in three (3) counterparts, original, this theday of
, 20	
	Principal
(Principal) Secretary	
(SEAL)	Ву
	(Address)
Witness as to Principal	
(Address)	
ATTEST:	(Surety) By
(Surety) Secretary	
(SEAL)	
Witness as to Surety	(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

NOTE: Bond must be countersigned by a South Carolina resident agent.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that (Name of Contractor) (Address of Contractor) a Corporation, hereinafter called Principal, and (Name of Surety) (Address of Surety) hereinafter called Surety, are held and firmly bound unto (Name of Owner) (Address of Owner) hereinafter called Owner, in the penal sum of Dollars,) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors administrators and successors, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the of ____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

is theday	e (3) counterparts, each one
Ву	
	(Address)
<u> </u>	
Ву	(Surety)
<u> </u>	(Address)
	is theday Principal By

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

NOTE: Bond must be countersigned by a South Carolina resident agent.

SCOPE OF WORK - PAVING OF SUMTER COUNTY ROADS

1. Contractor to furnish all labor, equipment and materials to grade, drain and pave 2.279 miles of county roads according to the plans and specifications titled "Plan and Profile of Proposed County Roads: Keystone Road & Cannery Road", and "Plan and Profile of Proposed County Roads: Josh Wells Road" by Davis & Floyd, Inc.

	Length
	in
Name	Miles
Josh Wells Road	0.177
Keystone Road	0.731
Cannery Road	1.371
Total	2.279

- 2. All work shall be performed according to the South Carolina State Highway Department Standard Specifications for Highway Construction Latest Edition and the attached Special Provisions.
- 3. *Contractor* to pave typical section per plans and specifications.
- 4. All metal pipes shall be replaced with RCP pipe (Class III), UNO.
- 5. *Contractor* is responsible for all lines, stakes and grades. Contractor shall stake the R/W for utility relocation purposes.
- 6. All driveways will be paved by *contractor* to right-of-way line.
- 7. Contractor must back up asphalt with topsoil and hydro-seed disturbed areas. Use of on-site excavations for back-up is acceptable if material can meet the requirements of topsoil. County shall approve use of on-site materials prior to their use.
- 8. *Contractor* shall perform the requirements of this bid in a manner as to minimize any inconvenience to the residents of the above-named roads.
- 9. Contractor shall implement erosion and sediment control measures to prevent the transfer of suspended solids and/or chemical solutions off-site, and to prevent excessive siltation of existing drainage pipes, culverts, streams, and ditches. The contractor shall routinely inspect and maintain these devices.
- 10. Contractor shall cut cores at random locations as directed by Sumter County for verification of adequate asphalt depths prior to final acceptance of asphalt pavement. (Assume 5 per road)
- 11. Completion date: **June 1, 2025.** Payment for completed work will be made to *Contractor* monthly upon approval of Davis & Floyd and Public Works staff.

SPECIAL PROVISIONS

SUMTER COUNTY

Paving of Sumter County Roads: Keystone Road & Cannery Road, and Josh Wells Road

This project is to be constructed under the South Carolina Department of Transportation's Specifications for Highway Construction Edition of 2007 and the following Special Provisions.

This project will be constructed under the direct supervision of the Sumter County Public Works.

1) ERRATA TO 2007 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION:

See attached Supplemental Specification dated January 1, 2018.

2) DIVISION 100: STANDARD DRAWINGS:

The Bidders are hereby advised that this project shall be constructed using the Current Standard Drawings with all updates effective at the time of the letting. The Standard Drawings are available for download at https://www.scdot.org/business/standard-drawings.aspx. All drawings that are updated are labeled with their effective letting date in red.

All references in the plans, standard specifications, supplemental specifications, supplemental technical specifications or special provisions to drawings under the previous numbering system (prior to 2007) are hereby updated to the new drawing numbers. Refer to sheets 000-205-01 through 000-205-07 to find new drawing numbers when looking for references to older drawing numbers. "Old sheet numbers" are also visible on the website when using the full set of drawings "current" search and are sortable by clicking the header "Old Sheet #" on the results page. Be aware that some older drawings now span over multiple pages due to detailing changes.

3) SECTION 101: SUBSTANTIAL COMPLETION OF WORK

Section 101.3.76 is hereby replaced with the following:

101.3.76 Substantial Completion of Work

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 items have been installed in reasonable conformance with the plans and specifications over the entire length of the project, and all lanes of traffic are open to the public in their final configuration with the final applications of pavement markings with the only remaining work to be performed being punch list items.

4) SECTION 102: PROPOSAL ITEMS AND QUANTITIES:

Contractors will be responsible for developing necessary labor, material and quantities needed for the Lump Sum bid.

5) <u>SECTION 105: CONSTRUCTION STAKES, LINES AND GRADES:</u>

Section 105.80 of the Standard Specifications is amended to the extent that the contractor will be responsible for this work.

The contractor will be required to provide all the layouts necessary to construct the elements of this project. The engineer will assist with providing adequate reference points to the center line of the existing roadway.

The Contractor shall provide field personnel and set all additional stakes for this project, which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary benchmarks, necessary to secure a correct layout of the work. The Contractor will not be required to determine the property line between properties.

The contractor shall be responsible for having the finished work substantially conform to the typical section and dimensions called for in the construction specifications and/ or plans. All work performed for this project must remain within the existing R/W or established easements on each roadway. Any inspection or checking of the Contractor's layout by the engineer and the acceptance of all or any part of it shall not relieve the Contractor of his responsibility to secure the required dimensions, existing grades, and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and benchmarks and shall have them reset at his expense when any are damaged, lost, displaced or removed. The Contractor shall use competent personnel and suitable equipment for the layout work required. The Contractor shall not engage the services of any person or persons in the employment of the South Carolina Department of Transportation or Sumter County for the performance of any work covered by this item.

The County and/or Engineer will make random checks of the Contractor's staking to determine if the work is within conformance with the construction specifications and/or plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.

The cost of the above work will be considered as incidental to the project and no additional compensation will be allowed.

If during the course of staking or construction work, unforeseen utilities and/or field conditions arise which conflict with construction, the Contractor shall immediately notify the County/Engineer. The County/Engineer will review the Contractor's findings and adjust the lines and grades accordingly or make arrangements for the utility to relocate its facilities. The resulting adjustments will be provided to the Contractor so that his survey crew can perform the adjusted work. Required adjusted staking as described above shall be considered a normal consequence of construction. No additional compensation will be due to the Contractor for this work, or for any delays due to adjustments to staking.

6) SECTION 106: CONSTRUCTION QUALITY CONTROL AND ASSURANCE TESTING

The Contractor shall be responsible for retaining an independent firm for all required sampling and testing. All sample and test results shall be submitted to and approved by the County and/or Engineer prior to continuation of work. The owner shall provide construction quality assurance testing required for this project, except for MANUFACTURERS MATERIALS CERTIFICATIONS AND CERTIFIED TEST REPORTS as required by the provision included below.

7) <u>SECTION 106: QUALIFIED PRODUCT LISTINGS</u>

All references to "Approval Sheet" or "Approval Policy" are to be replaced with "Qualified Products Listings (QPL)" and "Qualified Products Policies (QPP)" respectively. This change includes all references in the SCDOT Standard Drawings, SCDOT Standard Specifications, SCDOT Supplemental Specifications, SCDOT Special Provisions, SCDOT Supplemental

Technical Specifications, SCDOT Internet and Intranet websites, and all other documents produced by SCDOT.

8) <u>SECTION 107: APPLICATION OF DAVIS-BACON AND RELATED ACTS TO INDEPENDENT TRUCK DRIVERS AND MISCELLANEOUS CONSTRUCTION ACTIVITIES:</u> See attached Addendum dated June 13, 1990.

9) <u>SECTION 107: COORDINATION OF UTILITY RELOCATION WORK WITH HIGHWAY CONSTRUCTION:</u>

As it is not economically feasible to complete the rearrangement of all utility conflicts in advance of the roadway construction, such rearrangements may be underway concurrently with construction.

It shall be the responsibility of the contractor to inspect the site for potential utility conflicts.

It is the responsibility of the Contractor to call Palmetto Utility Protection Service at 811 or 1-888-721-7877 three (3) days prior to work so that existing utilities can be properly marked.

10) DISADVANTAGED BUSINESS ENTERPRISE (DBE):

See SUMTER COUNTY invitation to bid.

11) <u>SECTION 107: CONTRACT PROVISION TO REQUIRE CERTIFICATION AND COMPLIANCE CONCERNING ILLEGAL ALIENS:</u>

See SUMTER COUNTY invitation to bid.

12) SECTION 108: PROSECUTION OF THE RESURFACING WORK:

It is the County's intention that work on the roads in this contract be performed in a sequential manner. Once a construction activity (paving, shoulder work) has started on a road, the Contractor will continue this activity until it is complete before moving to another road. In the event the Contractor elects to use multiple crews on this project, work may proceed on more than one road, however in no case will construction activities be initiated on more roads than the number of work crews engaged in the work without the approval of the Project Engineer.

13) SECTION 108: PAVING OPERATIONS:

The asphalt overlay shall be applied in two separate and distinct operations, each operation representing about one-half of the roadway width and traffic shall be maintained continuously. Unless otherwise directed by the County/Engineer, paving operations shall be scheduled such that the longitudinal joint exposed to traffic shall not extend beyond the length of pavement placed in one normal days operation (or 3 miles, whichever is greater) before dropping back to bring the adjacent lane forward.

14) <u>SECTION 108: CONTRACT TIME AND DETERMINATION AND EXTENSION OF CONTRACT TIME:</u>

See SUMTER COUNTY invitation to bid.

15) SECTION 108: FAILURE TO COMPLETE THE WORK ON TIME:

See SUMTER COUNTY invitation to bid.

16) SECTION 109: DRIVEWAYS:

The mainline paving and majority of driveway tie-ins are intended to be performed in a single operation. A small portion of the driveway will need to be paved in order to avoid damage to

the mainline edge of pavement. This will be accomplished by attempting to tie the driveways in within 4 to 6 feet of the edge of mainline pavement. All driveways will not fit this template and attention needs to be given to safety and drainage. Some drives will need to be paved beyond the 6 foot mark in order to tie to existing driveways or to provide safe access to the roadway and to prevent drainage or dragging issues. These instances will be closely evaluated and aprons shall be constructed as directed by the County. County only intends to pave driveway to the existing County R/W. GABC stone may be required for construction and maintenance of driveways and during construction.

17) SECTION 109: RETAINAGE:

If the Contractor's progress is judged to be delinquent or portions of the work are defective, Sumter County reserves the right to withhold retainage. The total amount retained will be sufficient to cover anticipated liquidated damages and the cost to correct defective work.

18) SECTION 109: PROMPT PAYMENT CLAUSE:

See attached Supplemental Specification dated July 1, 2017.

19) SECTION 301: ROADWAY TYPICAL SECTION:

Clearing and grubbing for the dirt road construction shall be performed only in selected areas to construct the roadway and clear ditches as needed. All work performed for this project must remain within the existing County R/W or easement on each roadway. Contractor is responsible for maintaining the centerline of the widened road based upon the survey stakes, and/or property pins (see attached area maps and property information). The roadway dimensions will be field checked by the County/Engineer and will be constructed in accordance with standard construction specifications. Grading shall be completed by the Contractor to provide for the width of driving surface specified within the plans. Roadway shoulders shall be graded to have adequate sheet flow toward new curb and gutter. Existing drainage ditches will be stabilized within the right of way if necessary to provide adequate drainage from the roadway to the existing outfalls and ditches during construction. Shoulder widths and pavement widths may vary slightly due to field conditions and impacts beyond the right of way (upon approval by County/Engineer and property owners). The Sumter County Public Works Director or designee will be the final authority on any shoulder or pavement variations. The contractor is responsible to replace/reset any property corner by a registered land surveyor that is lost or disturbed.

20) SECTION 305: GABC Stone:

GABC used on this project shall conform to the gradation requirements of Section 305, macadam base.

21) SECTION 400: HOT MIX ASPHALT QUALITY ASSURANCE:

Supplemental Technical Specification SC-M-400 shall be used for Asphalt Construction. Section 3.9 of SC-M-400 will not apply. Contractor shall cut cores at random locations as directed by Sumter County for verification of adequate asphalt depths prior to final acceptance of asphalt pavement.

22) SECTION 400: ROADWAY PAVING:

The road base for the dirt road paving projects is to consist of eight (8) inches of GABC within the roadway width and built to SCDOT standard specifications Section 305, Macadam Base. Contractor, however, shall make the following adjustments to those specifications:

A proof-roll compaction test will be required. The proof-roll shall be completed with a loaded tandem axle truck with at least 15 tons of material. A Sumter County official or designee must

be present to witness and approve the test. Any failures in the base course are to be excavated and replaced with suitable material.

Hot Mix Asphalt Surface Course Type C (200 #/SY) will be placed after the GABC as a final riding surface. The hot mix asphalt surface course will be placed in accordance with Section 403 of the SCDOT Standard Specifications (including tack coat).

Section 406.4.1 restriction of surface treatment between the dates of October 15 and March 15 will be amended to only require the ambient temperature of 60 degrees or higher to be applied. The application of the asphalt surface treatment will be at the discretion of Sumter County.

23) SECTION 401: RATE OF APPLICATION:

The 200 pounds per square yard specified are set up as an average rate of application. The Engineer may direct variations wherever conditions warrant.

24) <u>SECTION 401: DRESSING OF SHOULDERS:</u>

Prior to the placement of asphalt mixtures on existing roadways, the contractor will be required to remove all vegetation adjacent to the edge of pavement which impedes the placement of the asphalt mixture to the specified width. The contractor shall also remove and dispose of all excess asphalt which is disturbed during minor grading for widening or during removal of debris or grass from existing surface during preparation of surface for new lift. After the asphalt mixture has been placed, the contractor shall blade the disturbed material to the extent that the shoulder is left in a neat and presentable condition. All excess material shall be removed from the project. No direct payment shall be made for this work; all costs are to be included in the price of other items of work.

25) SECTION 401: TRANSPORTATION AND DELIVERY OF MIXES:

See attached Supplemental Specification dated July 1, 2010.

26) DIVISION 600: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES:

The Contractor is advised that all work involving design or installation of traffic control devices, including but not limited to signs, pavement markings, elements of work zone traffic control, signals, etc., shall be in compliance with the FHWA's Manual on Uniform Traffic Control Devices (MUTCD), latest edition. The latest edition is defined as the edition that the Traffic Engineering Division of SCDOT recognizes as having been officially adopted (Engineering Directive, Memorandum 19) at the time the project is let, unless stated otherwise in the Special Provisions.

27) SECTION 600: TRAFFIC CONTROL:

The Contractor shall execute the item of Traffic Control as required by the Standard Specifications, the plans, the Standard Drawings For Road Construction, these special provisions, all supplemental specifications, the MUTCD, and the Engineer. This is an amendment to the Standard Specifications to require the following:

GENERAL REGULATIONS -

These special provisions shall have priority to the plans and comply with the requirements of the MUTCD and the standard specifications. Revisions to the traffic control plan through modifications of the special provisions and the plans shall require approval by the department. Final approval of any revisions to the traffic control plan shall be pending upon review by the Director of Traffic Engineering.

Install and utilize changeable message signs in all lane closures installed on high volume high-speed multilane roadways. Use of changeable message signs in lane closures installed on low volume low speed multilane roadways is optional unless otherwise directed by the plans and the Engineer. Install and use a changeable message sign within a lane closure setup as directed by the Standard Drawings for Road Construction. When a lane closures is not present for any time to exceed 24 hours, remove the changeable message sign from the roadway. Place the sign in a predetermined area on the project site, as approved by the Engineer, where the sign is not visible to passing motorists. The preprogrammed messages utilized shall be in accordance with the Standard Drawings for Road Construction when used as part of the traffic control set-up for lane closures. Only those messages pertinent to the requirements of the traffic control situation and the traffic conditions are permitted for display on a changeable message sign at all times. At no time will the messages displayed on a changeable message sign duplicate the legends on the permanent construction signs.

During operation of changeable message signs, place the changeable message sign on the shoulder of the roadway no closer than 6 feet between the sign and the near edge of the adjacent travel lane. When the sign location is within 30' of the near edge of a travel lane open to traffic, supplement the sign location with no less than 5 portable plastic drums placed between the sign and the adjacent travel lane for delineation of the sign location. Install and maintain the drums no closer than 3 feet from the near edge of the adjacent travel lane. This requirement for delineation of the sign location shall apply during all times the sign location is within 30' of the near edge of a travel lane open to traffic, including times of operation and non-operation. Oversized cones are prohibited as a substitute for the portable plastic drums during this application.

All signs mounted on portable sign supports shall have a minimum mounting height of 5' from the ground to the bottom of the sign. All signs mounted on ground mounted u-channel posts shall have a minimum mounting height of 7' from the ground to the bottom of the sign. Temporary "Exit" signs (M1025-00) shall be located within each temporary gore during lane closures on multilane roadways. Mount these signs a minimum of 7' from the pavement surface to the bottom of the sign in accordance with the requirements of the MUTCD.

When covering signs with opaque materials, the Department prohibits attaching a covering material to the face of the sign with tape or a similar product or any method that will leave a residue on the retro reflective sheeting. Residue from tape or similar products, as well as many methods utilized to remove such residue, damages the effective reflectivity of the sign. Therefore, contact of tape or a similar product with the retro reflective sheeting will require replacement of the sign. Cost for replacement of a sign damaged by improper covering methods will be considered incidental to providing and maintaining the sign; no additional payment will be made.

Overlays are prohibited on all rigid construction signs. The legends and borders on all rigid construction signs shall be either reversed screened or direct applied.

Signs not illustrated on the typical traffic control standard drawings designated for permanent construction signs shall be considered temporary and shall be included in the lump sum price bid item for "Traffic Control" unless otherwise specified.

Install and maintain any necessary detour signing as specified by the typical traffic control standard drawings designated for detour signing, Part VI of the MUTCD, these Special Provisions, and the Engineer. The lump sum price bid item for "Traffic Control" includes payment for installation and maintenance of the detour signing.

The Contractor shall maintain the travel patterns as directed by the traffic control plans and shall execute construction schedules expeditiously. The Contractor shall provide the

Resident Engineer with no less than a two-week prior notification of changes in traffic patterns.

During nighttime flagging operations, flaggers shall wear a safety vest and safety pants that comply with the requirements of ANSI / ISEA 107-2004 standard performance for Class 3 risk exposure or latest revisions and a fluorescent hard hat. The safety vest and the safety pants shall be retro reflectorized and the color of the background material of the safety vest and safety pants shall be fluorescent orange-red or fluorescent yellow-green.

During nighttime flagging operations, the contractor shall illuminate each flagger station with any combination of portable lights, standard electric lights, existing street lights, etc., that will provide a minimum illumination level of 108 Lx or 10 fc.

During nighttime flagging operations, supplement the array of advance warning signs with a changeable message sign for each approach. These changeable message signs are not required during daytime flagging operations. Install the changeable message signs 500' in advance of the advance warning sign arrays. Messages should be "Flagger Ahead" and "Prepare To Stop".

Upon completion of the final riding surface on each road, the Contractor will be allowed up to 3 working days to begin eliminating shoulder drop-offs greater than 2" and continue the work until these drop-offs are eliminated.

During paving operations, the Department requires lane closures at all times where grade elevation differences and drop-offs greater than 2" exist adjacent to or between the travel lanes of a roadway opened to traffic, unless otherwise specified by these special provisions. Maintain lane closure restrictions at all times unless otherwise directed by these special provisions.

During surface planing and milling operations, the department requires lane closures at all times where grade elevation differences and drop-offs greater than 1" exist adjacent to or between the travel lanes of a roadway open to traffic, unless otherwise specified by these special provisions. If this grade elevation difference exceeds 1", mill the adjacent travel lanes or pave the milled travel lanes as necessary to eliminate these grade elevation differences before opening the travel lanes to traffic at these locations. Maintain lane closure restrictions at all times unless otherwise directed by these special provisions.

During the paving operations, the length of roadway with an acceptable grade elevation difference less than or equal to 2" shall not exceed 2 miles. During the surface planing operations, the length of roadway with an acceptable grade elevation difference less than or equal to 1" shall not exceed 2 miles.

LANE CLOSURE RESTRICTIONS -

The Contractor shall install all lane closures as directed by the 2007 Standard Specifications for Highway Construction, the Standard Drawings for Road Construction, these special provisions, the MUTCD, and the Engineer. The Contractor shall close the travel lanes of two-lane two-way roadways by installing flagging operations. The Contractor shall close the travel lanes of multilane roadways as directed by the typical traffic control standard drawings designated for lane closures on primary routes.

The Department prohibits lane closures on primary routes during any time of the day that traffic volumes exceed 800 vehicles per hour per direction. The Department reserves the right to suspend a lane closure if any resulting traffic backups are deemed excessive by the Engineer. Maintain all lane closure restrictions as directed by the plans, these special provisions, and the Engineer.

Flagging operations are considered to be lane closures for two-lane two-way operations and shall be subject to all restrictions for lane closures as specified by this contract.

Lane closures, including flagging operations, are restricted to maximum distances of 2 miles. Install all lane closures according to the typical traffic control standard drawings. On occasions when daytime lane closures must be extended into the nighttime hours, substitute the nighttime lane closure standards for the daytime lane closure standards.

The Department reserves the right to suspend a lane closure if any resulting traffic backups are deemed excessive by the Engineer. Maintain all lane closure restrictions as directed by the Standard Specifications, these special provisions, and the Engineer.

LANE CLOSURE RESTRICTIONS - (EXTENDED HOLIDAY PERIODS) -

The Department reserves the right to restrict the installation of lane closures on interstates and high volume primary routes when the presence of a lane closure will seriously hinder normal traffic flow during extended holiday periods. An extended holiday period is hereby defined as those days preceding and following the holiday that experience significant increases in the volume of traffic due to the holiday as determined by the Department. Also, the Department reserves the right to increase an extended holiday period if excessive traffic disruptions occur during those days prior to and after the established extended holiday period. Extended holiday periods include but are not limited to the week of Easter, the week of Thanksgiving, the weeks before and after the 4th of July, and the weeks before and after Christmas. The Department recommends the Contractor submit inquiries to the Engineer regarding specific days of an extended holiday period 90 days prior to the holiday. The Contractor should make these inquiries annually due to the progressive nature of the calendar.

The specific days and dates listed below are modifications to sub-section 601.1.3 of the 2007 Standard Specifications for Highway Construction and apply to this project.

The District Engineering Administrator may reduce or extend the extended holiday lane closure prohibitions listed below as necessary.

EXTENDED HOLIDAY LANE CLOSURE PROHIBITIONS

HOLIDAY DURATION

EASTER 10:00 AM SUNDAY PRIOR – 6:00 AM TUESDAY AFTER

JULY 4TH NO LESS THAN 7 DAYS PRIOR – NO LESS THAN 7 DAYS AFTER

(Specific Dates Per Engineer)

(Recommend Contractor request specific dates 90 days prior)

THANKSGIVING 10:00 AM SUNDAY PRIOR – 6:00 AM TUESDAY AFTER

CHRISTMAS NO LESS THAN 7 DAYS PRIOR – 6:00 AM JANUARY 3RD

(Specific Dates Per Engineer)

(Recommend Contractor request specific dates 90 days prior)

SHOULDER CLOSURE RESTRICTIONS -

On interstate highways, the Department prohibits the Contractor from conducting work within the limits of a paved shoulder or within 10' of the near edge of an adjacent travel lane under a shoulder closure. All work that may require the presence of personnel, tools, equipment, materials, vehicles, etc., within the limits of a paved shoulder or within 10' of the near edge of an adjacent travel lane shall be conducted under a lane closure.

On primary and secondary roadways, the Department prohibits the Contractor from conducting work within 1' or less of the near edge of an adjacent travel lane under a shoulder closure. All work that may require the presence of personnel, tools, equipment, materials, vehicles, etc., within 1' of the near edge of an adjacent travel lane shall be conducted under a lane closure.

The Contractor shall install all shoulder closures as directed by the typical traffic control standard drawings, "Traffic Control--Drawing No. 610-205-00" through "Traffic Control--Drawing No. 610-330-00@ and the Engineer. Substitution of the portable plastic drums with oversized cones during nighttime shoulder closures is PROHIBITED.

GUARDRAIL REPLACEMENT -

The Contractor shall replace any length of guardrail removed within 48 hours of the removal or within the same working day if the guardrail is at a bridge location where bridge piers or a similar type of hazard is present. The area subject to the requirement for replacement in the same working day shall be from a point 100' in advance of the first bridge pier on the approach to the bridge location to a point 10' beyond the last pier at the same location.

The guardrail replacement operations are subject to all lane closure and shoulder closure restrictions.

The Contractor may remove more guardrail than can be replaced in the same day unless the guardrail is in place to provide protection for bridge piers. Upon removal of the guardrail, the Contractor shall maintain no less than a shoulder closure in place at each guardrail replacement location until the guardrail replacement operation is completed for that location.

The Contractor shall install and maintain lane closures or shoulder closures as necessary until the removed guardrail is replaced. If the Contractor is unable to conduct the guardrail replacement operation under a shoulder closure within the requirements of these special provisions, the Contractor shall replace the shoulder closure with a lane closure prior to beginning the work. However, all lane closure and shoulder closure restrictions shall be maintained.

TYPICAL TRAFFIC CONTROL STANDARD DRAWINGS -

The typical traffic control standard drawings of the "Standard Drawings for Road Construction", although compliant with the MUTCD, shall take precedence over the MUTCD. The typical traffic control standard drawings of the "Standard Drawings for Road Construction" shall apply to all projects let to contract.

Install the permanent construction signs as shown on the typical traffic control standard drawings designated for permanent construction signing.

ADDENDUMS

Traffic Control Pay Items

(Addendums to the "2007 Standard Specifications for Highway Construction")

(A) Trailer-Mounted Changeable Message Signs -

Sub-section 606.5 Measurement (paragraph 2) -

Trailer-mounted changeable message signs are included in the lump sum item for Traffic Control in accordance with **Subsections 107.12** and **601.5** of the "2007 Standard Specifications for Highway Construction". No separate measurement will be made for trailer-mounted changeable message signs unless the contract includes a specific pay item for trailer-mounted changeable message signs.

The Contractor shall provide, install, operate, and maintain the trailer-mounted changeable message sign per traffic control set-up as directed by the Plans, the "Standard Drawings for Road Construction", these Special Provisions, the Specifications, and the Engineer.

Sub-section 606.6 Payment (paragraph 2) -

In addition to Subsections 107.12 and 601.6, the payment for Traffic Control is full compensation for providing, installing, removing, relocating, operating, and maintaining trailer mounted advance warning arrow panels and trailer-mounted changeable message signs as specified or directed and includes providing the units' primary power source; repairing or replacing damaged or malfunctioning units within the specified time; providing traffic control necessary for installing, operating, and maintaining the units; and all other materials, labor, hardware, equipment, tools, supplies, transportation, incidentals, and any miscellaneous items necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other items of the Contract.

Sub-section 606.6 Payment (paragraph 3) -

Disregard this paragraph unless the Contract includes a specific pay item for trailer-mounted changeable message signs.

(B) Construction -

Sub-section 601.4.2 Construction Vehicles (paragraph 2) -

When working within the rights-of-way of access-controlled roadways such as Interstate highways, the Contractor's vehicles may only change direction of travel at interchanges. These vehicles are prohibited from crossing the roadway from right side to median or vice versa. Use a flagger to control the Contractor's vehicles when these vehicles attempt to enter the roadway from a closed lane or the median area. Ensure that the flagger does not stop traffic, cause traffic to change lanes, or affect traffic in any manner. The Contractor's vehicles may not disrupt the normal flow of traffic or enter the travel lane of the roadway until a sufficient gap is present.

The Contractor shall have flaggers available to control all construction vehicles entering or crossing the travel lanes of secondary and primary routes. The RCE shall determine the necessity of these flaggers for control of these construction vehicles. The RCE shall consider sight distance, vertical and horizontal curves of the roadway, prevailing speeds of traffic, frequency of construction vehicles entering or crossing the roadway, and other site conditions that may impact the safety of the workers and motorists when determining the necessity of these flaggers. Ensure that these flaggers do not stop traffic, cause traffic to change lanes, or affect traffic in any manner. The Contractor's vehicles may not disrupt the normal flow of traffic or enter the travel lane of the roadway until a sufficient gap is present.

(C) Category I Traffic Control Devices -

*** (Effective on all projects let to contract after May 1, 2010) *** Sub-section 603.2.2 Oversized Traffic Cones (paragraph 6) -

Reflectorize each oversized traffic cone with 4 retro reflective bands: 2 orange and 2 white retro reflective bands. Alternate the orange and white retro reflective bands, with the top band always being orange. Make each retro reflective band not less than 6 inches wide. Utilize Type III – Microprismatic retro reflective sheeting for retroreflectorization on all projects let to contract after May 1, 2010 unless otherwise specified. Separate each retro reflective band with not more than a 2-inch non-reflectorized area. Do not splice the retro reflective sheeting to create the 6-inch retro reflective bands. Apply the retro reflective sheeting directly to the cone surface. Do not apply the retro reflective sheeting over a pre-existing layer of retro reflective sheeting.

Sub-section 603.2.3 Portable Plastic Drums (paragraph 3) -

Reflectorize each drum with Type III – Microprismatic retro reflective sheeting: 2 orange and 2 white retro reflective bands, 6 inches wide on all projects let to contract after May 1, 2010 unless otherwise specified. Alternate the orange and white retro reflective bands with the top band always being orange. Ensure that any non-reflectorized area between the orange and white retro reflective bands does not exceed 2 inches. Do not splice the retro reflective sheeting to create the 6-inch retro reflective bands. Apply the retro reflective sheeting directly to the drum surface. Do not apply the retro reflective sheeting over a pre-existing layer of retro reflective sheeting.

(D) Truck-Mounted Attenuator -

Sub-section 605.4.2.2 Truck-Mounted Attenuators (paragraph 6) -

Attach each truck-mounted attenuator to the rear of a truck with a minimum gross vehicular weight (GVM) of 15,000 pounds (actual weight). If the addition of supplemental weight to the vehicle as ballast is necessary, contain the material within a structure constructed of steel. Construct this steel structure to have a minimum of four sides and a bottom. A top is optional. Bolt this structure to the frame of the truck. Utilize a sufficient number of fasteners for attachment of the steel structure to the frame of the truck to ensure the structure will not part from the frame of the truck during an impact upon the attached truck mounted attenuator. Utilize either dry loose sand or steel reinforced concrete for ballast material within the steel structure to achieve the necessary weight. The ballast material shall remain contained within the confines of the steel structure and shall not protrude from the steel structure in any manner.

(E)Flagging Operations -

Sub-section 610.4.1.1 Flagging Operations (paragraph 1) -

Use a flagging operation to control the flow of traffic when two opposing directions of traffic must share a common travel lane. A flagging operation may be necessary during a lane closure on a two-lane two-way roadway, an intermittent ramp closure or an intermittent encroachment of equipment onto a portion of the roadway. Utilize flagging operations to direct traffic around work activities and maintain continuous traffic flow at reduced speeds when determined to be appropriate by the RCE. As stated above, flagging operations shall direct traffic around the work activities and maintain continuous traffic flow; therefore, stopped traffic shall not be required to stop for time durations greater than those listed below unless otherwise directed by the RCE.

LENGTH OF CLOSURE MAXIMUM TIME DURATION FOR STOPPED TRAFFIC

1 MILE or LESS 5 Minutes
1 to 2 MILES 7 ½ Minutes

If the work activities require traffic to be stopped for periods greater than 5 to 7 ½ minutes as stated above, consider alternate work methods, conducting work activities during times of lowest traffic volumes such as during the hours of darkness or complete road closure with detour installation.

PERMANENT CONSTRUCTION SIGNS -

Install the permanent construction signs as shown on the typical traffic control standard drawing, A Typical I Traffic Control--Drawing No. 605-010-02". SCHEMES ARE NOTED ON THE PLANS

Pay Items

Payment for Traffic Control does not include payment for permanent construction signs. Separate payment shall be made for this item. Measurement and payment for this item shall be as follows:

PERMANENT CONSTRUCTION SIGNS -

This item consists of the signs that are erected at the termini of the project before any work begins and remain in place until the project is completed except in a case of contiguous projects; all other signs shall be considered temporary.

Each sign assembly consisting of construction signs designated by WC20 as the first designator shall be supplemented with orange flags and lights as necessary. The sign assemblies shall be supplemented with two orange flags (18 inches by 18 inches) at all times. These sign assemblies shall be supplemented with Type AA@ low intensity flashing warning lights as well on projects that require construction activities, lane closures, and/or modifications of existing traffic patterns during the hours of darkness and/or where required by the Plans.

Method of Measurement:

The signs, erected on suitable supports, will be measured by the actual square feet of panel installed. No deduction will be made for corner radii.

Basis of Payment:

Payment for signs measured per square foot shall be full compensation for fabrication of the sign panel with proper sheeting and legend, erection on galvanized 3 lb. U-Section posts per departmental specifications, furnishing of all mounting hardware, handling, and maintenance until project is completed.

28) SECTION 610: WORK ZONE CONTROL PROCEDURES:

The first sentence of Section 610.3 of the 2007 Standard Specifications is hereby revised to:

"Ensure that background color of personal protective apparel is either fluorescent Yellow-Green or fluorescent Orange-Red, and meets ANSI Standard 107-2004 National Standard for High Visibility Apparel Class 2 (or Class 3 as necessary) Performance Criteria, or latest edition."

Note #12 of Standard Drawing 610-005-00 is hereby revised to:

"During nighttime flagging operations, flaggers shall wear a Safety Vest and Safety Pants meeting ANSI Standard 107-2004 National Standard for High Visibility Apparel Class 3 Performance Criteria, or Latest Edition, and a Hardhat. The color of the apparel background material shall be either fluorescent Yellow-Green or fluorescent Orange-Red."

29) SECTION 714: DRAINAGE PIPES:

All existing driveway pipes will be replaced with Class III reinforced concrete pipe, UNO. All pipe installations will be backfilled with native material, compacted in lifts, and pass a proof-roll test for approval. Installation shall match existing grade as closely as possible. The contractor shall provide adequate notice to the owners of his schedule for driveway improvements and for how long access to the driveway may be closed. The contractor will replace all crosslines with the same sized reinforced concrete pipe at the same grade, location, and elevation of the existing crosslines (unless instructed otherwise by the Engineer). Riprap shall be placed at both ends of each driveway and crossline pipe (but not within the existing ditch at the locations where permit requirements are indicated in the plans).

30) SECTION 810: CO-PERMITEE AGREEMENT & CONTRACTOR CERTIFICATION:

See attached Co-Permittee Agreement & Contractor Certification Form. In accordance with the NPDES General Permit (effective September 1, 2006), all Contractors and Subcontractors must sign the Co-Permittee Agreement or the Contractor Certification, based on work being performed, prior to beginning work. Section 1 of the form must be signed by all Contractors and Sub-contractors performing land disturbing activities. This applies to all clearing and grubbing, grading operations, drainage installation, curb and gutter, sidewalk, bridge construction, culvert construction, erosion control, seeding, utilities, etc. Section 2 must be signed by all Contractors and Sub-contractors performing non-land disturbing activities. A Contractor or Sub-contractor that has not signed the agreement will not be permitted to perform work on this project. No additional compensation will be made in association with this agreement.

31) SECTION 815: EROSION CONTROL MEASURES:

In addition to the erosion control measures specified in the Plans, Standard Specifications, Supplemental Technical Specifications and the Special Provisions, the Contractor is advised that all land disturbing activities (clearing and grubbing, excavation, borrow and fill) are subject to the requirements set forth in the following regulations:

 South Carolina Code of Regulations 63-380, Standard Plan for Erosion, Sediment, and Stormwater Runoff Control. The regulation may be viewed at the following Internet web address:

http://www.scstatehouse.net/coderegs/c063.htm

Conduct an Erosion and Sediment Control Inspection by an appointed Certified Erosion Prevention and Sediment Control Inspector (CEPSCI) from the Contractor at least every 7-calendar days. Correct deficiencies noted during these inspections within the assigned priority period. If deficiencies are not corrected within this timeframe, the County will stop all work (except erosion and sediment control measures) until the deficiencies are corrected.

Give special attention to critical areas within the project limits (i.e., running streams, water bodies, wetlands, etc.). In these areas, the County may direct the Contractor to undertake immediate corrective action, but in no case allow these deficiencies to remain unresolved more than 7 days or 48 hours in accordance with their assigned priority after being identified during the Erosion and Sediment Control Inspection.

Closely follow the grading operations with the seeding operations. Shape and prepare the slopes for seeding as the grading progresses. Unless the County grants prior written approval, limit the amount of surface area exposed by land disturbing activities to 750,000 square feet. Commence seeding operations within 7 days following completion of construction activities within an area.

Initiate stabilization measures within 7 days for an area where construction activities will be temporarily or permanently ceased for 21 days or longer.

Coordinate the installation of all other permanent erosion control items with the grading and seeding operations. These items include, but are not limited to, asphalt gutter and riprap. Construct gutter work before or promptly after the seeding is performed. Place riprap at the ends of pipe immediately after the pipe is laid and promptly install riprap ditch checks after ditch work has been performed.

Failure to adequately comply with the provisions as detailed above or any other required erosion control measures will result in stoppage of all contract operations (except erosion and sediment

control measures) until corrective action has been taken. Additional sanctions may be invoked by the SCDHEC in accordance with their authority

32) EXISTING STRUCTURES/MATERIALS:

The Contractor shall be solely responsible for the removal and disposal of any and all excess material while completing the work on this contract. Such materials include, but are not limited to clearing old debris, pipe, trees, vegetation, and excess soil material (shoulder grading). Contractor shall contact property owners and relocate any items within the maintenance easement (fencing, landscaping, etc.) to the edge of the easement. All existing mailboxes shall be relocated by the Contractor and installed in accordance with United States Postal Service specifications.

33) EMERGENCY CONTACT:

The Contractor shall furnish Sumter County with the name and phone number of a person who can be contacted 24 hours a day in case of an emergency. This person may be called to go to the job site to reestablish erosion control measures, clean sediment basins, catch basins or dry wells if necessary.

34) PERMITS AND LICENSES:

It is the responsibility of the Contractor to obtain any licenses and/or permits required to complete the work in this contract. No additional compensation will be due to the Contractor for this work, or for any delays due to acquisition of the permits and/or licenses.

SUPPLEMENTAL SPECIFICATION

January 1, 2018

ERRATA TO 2007 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

Make the changes listed below to correct errata in the SDCOT 2007 Standard Specifications for Highway Construction:

DIVISION 100 GENERAL PROVISIONS

SECTION 101 DEFINITIONS AND TERMS

Subsection 101.2 Abbreviations and Acronyms

Amend the table of SCDOT OFFICIALS AND OFFICES as follows:

	DELETIONS		REPLACEMENTS
BDE*	Bridge Design Engineer	PSE*	Preconstruction Support Engineer
BDGE*	Bridge Design	GDSE*	Geotechnical Design Support
	Geotechnical Engineer		Engineer
SHE*	State Highway Engineer	DSE*	Deputy Secretary for Engineering

^{*}Wherever it appears in the text, replace the deleted abbreviation with the new abbreviation.

SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS

Subsection 102.8 Irregular Bids

Paragraph 2, item E, first sentence; delete the word "the" after the word "When".

SECTION 105 CONTROL OF WORK

Subsection 105.6 Cooperation with Utilities

Paragraph 1, last sentence; change the word "THE" to "the".

DIVISION 200 EARTHWORK

SECTION 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Subsection 202.5 Measurement

Paragraph 5, second bullet; change the words "Brick sidewalk" to "Concrete, brick or stone sidewalks".

SECTION 204 STRUCTURE EXCAVATION

Subsection 204.2.1.2 Structure Excavation for Culverts

Paragraph 1, at the end of the first sentence; change "Subsection 204.4" to "Subsection 204.5".

DIVISION 400 ASPHALT PAVEMENTS

SECTION 401 HOT MIXED ASPHALT (HMA) PAVEMENT

Subsection 401.2.1.2 Liquid Anti-Stripping Agent

Paragraph 1, first sentence; delete the period at the end of the sentence and add "and SC-M-406.".

Subsection 401.2.5 Material for Full Depth Patching

Paragraph 1, delete and replace with the following:

"Use an approved SCDOT Intermediate Type C mix for all Full Depth Patching."

Subsection 401.5 Measurement

After paragraph 10, add the following paragraph:

The measurement of Prime Coat is the number of gallons of asphalt material applied to the completed and accepted base course.

Subsection 401.6 Payment

After paragraph 12, add the following paragraph:

"The payment for Prime Coat is at the contract unit price for Prime Coat and includes compensation for all labor, equipment, tools, maintenance, and incidentals necessary to complete that work."

Subsection 401.6 Payment

Paragraph 13, Table of Pay Items

Change paragraph reference number "13" to "14" and add the following Pay Item:

Item No.	Pay Item	Unit
4010005	Prime Coat	GAL

SECTION 403 HMA SURFACE COURSE

Subsection 403.5 Measurement

Paragraph 1, first sentence; change "HMA Intermediate Course" to "HMA Surface Course".

Subsection 403.6 Payment

Paragraph 1, first sentence; change "HMA Intermediate Course" to "HMA Surface Course".

SECTION 407 ASPHALT SURFACE TREATMENT – DOUBLE TREATMENT

Subsection 407.5 Measurement

Paragraph 1, first sentence; add the word "is" after "(Double Treatment Type (1, 2, 3, 4, or 5))".

SECTION 408 ASPHALT SURFACE TREATMENT – TRIPLE TREATMENT

Subsection 408.5 Measurement

Paragraph 1, first sentence; add the word "is" after "(Triple Treatment Type (1 or 2))".

DIVISION 600 MAINTENANCE AND TRAFFIC CONTROL

SECTION 625 PERMANENT PAVEMENT MARKINGS FAST DRY WATERBOURNE PAINT

Subsection 625.2.2.4.11 Lead Content

Paragraph 1, first sentence; change 6% to 0.06%.

SECTION 627 THERMOPLASTIC PAVEMENT MARKINGS

Subsection 627.4.10 Inspection and Acceptance of Work

Paragraph 2, first sentence; change "period of 90 days" to "period of 180 days".

Subsection 627.4.10 Inspection and Acceptance of Work

Paragraph 2, second sentence; change "90-day observation period" to "180-day observation period".

Subsection 627.4.10 Inspection and Acceptance of Work

Paragraph 3, first sentence; change "90-day period" to "180-day period".

DIVISION 700 STRUCTURES

SECTION 709 STRUCTURAL STEEL

Subsection 709.4.3.5.2 Submittals and Notification

Paragraph 1, delete the last two sentences and replace them with, "The Department's review and acceptance are required before any field welding will be permitted."

Subsection 709.6.3 Pay Items (page 650)

Subsection heading number; change subsection heading number from "709.6.3" to "709.6.4".

SECTION 712 DRILLED SHAFTS AND DRILLED PILE FOUNDATIONS

Subsection 712.4.4 Dry Construction Method

Paragraph 2, last sentence in A; change "Drilled Shaft Report" to "Drilled Shaft Log".

Subsection 712.4.10.4 Excavation Cleanliness

Paragraph 1, last sentence; change "Drilled Shaft Report" to "Drilled Shaft Log".

Subsection 712.4.10.6 Shaft Load Test

Change first paragraph reference number from "2" to "1".

Subsection 712.6.10 Drilled Pile Set-Up

Insert paragraph reference number "1" to the left of the first paragraph.

SECTION 723 DECK JOINT STRIP SEAL

Subsection 723.1 Description

Insert paragraph reference number "3" to the left of the third paragraph.

SECTION 726 BRIDGE DECK REHABILITATION

Subsection 726.4.1 General

Insert paragraph reference number "1" to the left of the first paragraph.

Subsection 723.4.6 Full Depth Patching (page 790)

Subsection heading number; change subsection heading number from "723.4.6" to "726.4.6"

Subsection 726.6.8 Concrete Overlay (Latex) or (Portland Cement) (page 802)

Paragraph 2, the equation is changed to AP=CP X (ACS/RCS) ^ 2

SECTION 727 CROSSHOLE SONIC LOGGING OF DRILLED SHAFT FOUNDATIONS

Subsection 726.6 Payment (page 807)

Subsection heading number; change subsection heading number from "726.6" to "727.6"

DIVISION 800 INCIDENTAL CONSTRUCTION

SECTION 805 GUARDRAIL

Subsection 805.5 Measurement

Paragraph 4; amend as follows:

"The quantity for the pay item 8053000 Additional Length Guardrail Post is the length of required post installed in excess of the standard length post based on the system being installed, measured by the linear foot (LF), complete, and accepted."

SECTION 815 EROSION CONTROL

Subsection 815.1 Description

Paragraph 1, first sentence; change "temporary flexible pipe" to "temporary pipe".

Subsection 815.5 Measurement

Paragraph 13; delete the first sentence and replace it with the following sentence: "The quantity for Temporary Pipe Slope Drains is measured and paid for in accordance with **Subsections 803.5** and **803.6** respectively."

Subsection 815.5 Measurement

Delete paragraph 19.

Subsection 815.6 Payment

After paragraph 15, add the following paragraph:

Payment for Removal of Silt Retained by Silt Fence is full compensation for removing and disposing of sediment deposits accumulated by silt fences as specified or directed and includes all materials, labor, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other terms of the Contract.

Subsection 815.6 Payment

Change original paragraph number "16" to "17".

Subsection 815.6 Payment

Pay Item table; change the Unit for Item No. 8156214 to "EA".

INDEX:

Amend as follows:

Page I-3, after "Bridge Deck Rehabilitation, measurement and payment:" Delete page 807.

Page I-12, after "Letting:"

Replace page 19 with page 9.

Page I-13, after "Overhead Sign Structure:" Replace page 488 with page 495.

Page I-15, after "Proof Rolling:"

Delete page 98.

Page I-18, after "Structural Steel, turned and ribbed bolts:" Replace page 624 with page 625.

Page I-19, after "Waterproofing, bridge deck:" Delete page 907.

Page I-20, after "Working Drawings:" Replace page 543 with page 779.

SUPPLEMENTAL SPECIFICATION

July 1, 2010

Subsection 401.4.17, Transportation and Delivery of Mixes, of the Standard Specification will be deleted in its entirety and replaced with the following:

Transport the HMA from the plant to the point of use in vehicles meeting the requirements of Subsection 401.3.7. Do not permit any load of HMA to leave the plant so late in the day that it cannot be spread, finished, and compacted during daylight of that same day unless an approved artificial lighting system is provided. Ensure that HMA mixtures containing the asphalt binder grades below are produced and delivered to the jobsite within the acceptance range listed in the table below with exception that Base C and D mixtures will be produced and delivered at a temperature range of 240°-275° F. The mix temperatures will be checked using SC-T-84. Ensure the HMA mixtures are held within the acceptance range based on Binder Performance Grade in the Job Mix Formula. Deliver mixture within the acceptance range for temperature to assist in obtaining density requirements which provide smooth riding pavements with uniform texture.

Binder Performance Grade	Acceptance Range (°F)
PG 64-22	265°-325°
PG 70-22	285°-335°
PG 76-22	300°-350°

Note: This temperature specification does not apply to WMA (SC-M-408). Refer to the HMA Contractor's QC Plan for mix acceptance range based on selected asphalt plant WMA technologies.

SUPPLEMENTAL SPECIFICATION

June 13, 1990

<u>APPLICATION OF DAVIS-BACON AND RELATED ACTS TO INDEPENDENT</u> TRUCK DRIVERS AND MISCELLANEOUS CONSTRUCTION ACTIVITIES

The Davis-Bacon and Related Acts apply when:

- A Contractor or Subcontractor hires a trucking firm or fleet of trucks to haul materials from a plant, pit, or quarry, which has been established specifically to serve (or nearly so) a particular project or projects covered by Davis-Bacon and Related Acts.
- 2) A Contractor or Subcontractor hires a trucking firm or fleet of trucks to haul material from a non-commercial stockpile or non-commercial storage site outside the limits of the project to the project site.
- 3) A Contractor or Subcontractor hires a trucking firm or fleet of trucks to haul excavated materials away from a Davis-Bacon covered project.
- 4) A contractor or Subcontractor rents or leases equipment with an operator to perform work as called for under a Davis-Bacon construction contract.
- 5) A common carrier is used for the transportation of materials from an exclusive material supply facility to fulfill the specific need of a construction contract.

The fleet owner is not considered a Subcontractor with regard to the 70% subcontracting limitations and would not have to be approved as a Subcontractor. However, payrolls must be submitted by truck fleet owner covering the truck drivers, and all requirements such as predetermined wages, overtime, etc., are applicable. Legitimate owner-operators (truck owner driving his own truck) must appear on the payroll by name and notation "truck Owner Operator" with no hours, etc. shown.

The Davis-Bacon and Related Acts do not apply when:

- 1) A Contractor or Subcontractor hires a trucking firm or fleet of trucks to haul materials from a commercial plant, pit, or quarry which had previously been established for commercial use and regularly sell materials to the general public.
- 2) A Contractor or Subcontractor hires a trucking firm or fleet of trucks to haul materials from an established commercial plant, pit, or quarry to a stockpile outside the limits of the project.
- 3) Bona fide owner-operators of trucks, who are independent contractors, use their own equipment to haul materials to or from or on a Davis-Bacon covered project. (One man-One truck)

The fleet owner is not considered a Subcontractor with regard to the 70% subcontracting limitation and would not have to be approved as a Subcontractor.

SUPPLEMENTAL SPECIFICATION

July 1, 2017

PROMPT PAYMENT CLAUSE

- (1) Subject to the provisions on retainage provided in Paragraph (2) below, when a subcontractor has satisfactorily performed a work item of the subcontract, the Contractor must pay the subcontractor for the work item within seven (7) calendar days of the Contractor's receipt of payment from SUMTER COUNTY. A subcontractor shall be considered to have "satisfactorily performed a work item of the subcontract" when SUMTER COUNTY pays the Contractor for that work item. In the case of a second or third tier subcontractor, the 7-day time period begins to run when the 1st tier subcontractor receives payment from the Contractor or when the 2nd tier subcontractor receives payment from the 1st tier subcontractor.
- (2) The Contractor may withhold as retainage up to five (5%) percent of a subcontractor's payment until satisfactory completion of all work items of the subcontract. "Satisfactory completion of all work items of the subcontract" shall mean when SUMTER COUNTY accepts the last work item of the subcontract. The Contractor must release to the subcontractor any retainage withheld within seven (7) calendar days from the date the Contractor receives payment from SUMTER COUNTY for the last work item of the subcontract or within seven (7) days from SUMTER COUNTY's acceptance of the last work item of the subcontract, whichever is the latest to occur. However, upon documentation of good cause provided by the contractor and written concurrence by the Director of Construction, the Contractor may continue to withhold the 5% retainage.
- (3) Prior to receiving payment of each monthly estimate, the Contractor shall (a) certify to SUMTER COUNTY that the construction estimate is complete and that its subcontractors have been paid for work covered by previous estimates, for which they are entitled to be paid, in accordance with paragraphs (1) and (2) above, and (b) submit verification that Contractor has received similar certifications or evidence from its subcontractors that lower tier subcontractors have been paid in accordance with paragraph (1). No payment will be made to Contractor unless such documentation/certification is received or SUMTER COUNTY has issued written approval for delayed payment and required status reports as follows:
- (i) The obligation to promptly pay subcontractors (all tiers) or to release retainage does not arise if there is a legitimate subcontract dispute with first tier and/or lower tier subcontractors. If there is a subcontract dispute, the Contractor may submit a written request to SUMTER COUNTY to approve a delay in payment to the subcontractor which shall explain the nature of the dispute and identify relevant subcontract provisions as support. The explanation may include those reasons set forth in the SC Prompt Pay Act (S.C. Code Section 29-6-40). Payment to the subcontractor shall not be withheld without prior SUMTER COUNTY written approval.
- (ii) Contractor shall submit a status report of the dispute in each monthly progress payment. The status report shall contain:
- justification for the continuation of nonpayment in the form of a pending judicial proceedings, alternate dispute resolution (ADR) process or administrative proceedings, as evidence of why the delay shall continue; or
- a certification that the matter is resolved and payment has been issued to the subcontractor (first tier and/or lower tier subcontractors).

- (4) Failure to comply with any of the above provisions shall constitute a material breach of the contract and shall result in one or more of the following sanctions: (1) no further payments to the Contractor unless and until compliance is achieved; (2) monetary sanctions; and/or (3) the Contractor being declared in default and being subject to termination pursuant to Section 108.10 of the Standard Specifications.
- (5) Any subcontractor who believes it is due payment in accordance with the Prompt Payment Clause may request information from the servicing Resident Construction Engineer (RCE) as to whether and when payment for the subcontractor's work has been made to the Contractor. If payment has been made to the Contractor, and a subcontractor certifies to the RCE that the subcontractor has not been paid within seven (7) calendar days of SUMTER COUNTY's payment to the Contractor or paid as provided in paragraph (1) for sub-tiers, the RCE will notify the Director of Construction. If SUMTER COUNTY has not approved the delay in payment pursuant to paragraph 3 above, appropriate remedies set forth in paragraph (4) will be applied. On federally funded projects, the subcontractor may contact the Federal Highway Administration should SUMTER COUNTY fail to address the non-payment issue.
- (6) The Contractor agrees by submitting this bid or proposal that it will include this clause titled "PROMPT PAYMENT CLAUSE," provided by Sumter County, without modification, in all subcontracts with its subcontractors. Contractor is responsible for requiring all of its subcontractors to include this PROMPT PAYMENT CLAUSE in all lower tier subcontracts. If Contractor knowingly enters or knowingly allows a subcontractor or lower tier subcontractor to enter into a subcontract without the PROMPT PAYMENT CLAUSE, SUMTER COUNTY may apply the appropriate remedies set forth in paragraph (4) or pursue other available remedies, including breach of contract.

LEVEL SPREADER

PART 1 GENERAL

1.1 RELATED DOCUMENTS

1.1.1 Requirements of the General and Supplemental Conditions apply to all Work in this Section. Provide all labor, materials, equipment, and services indicated on the Drawings, or specified herein, or reasonably necessary for or incidental to a complete job.

1.2 DESCRIPTION OF WORK

1.2.1 The work shall include construction of level spreader as specified herein and to the dimensions, section(s) and notations as shown on the Drawings. Construction shall be to the lines and grades as shown on the Drawings and/or as directed by the Engineer.

1.3 QUALITY ASSURANCE

- 1.3.1 REFERENCE STANDARDS: Unless otherwise indicated, all referenced standards shall be the latest edition available at the time of bidding. Any requirements of these specifications shall in no way invalidate the minimum requirements of the referenced standards.
 - 1.3.1.1 SCDHEC South Carolina DHEC Storm Water Management BMP Handbook (2005)
 - 1.3.1.2 SCDOT SC-M-815-9 Supplemental Technical Specification for Rolled Erosion Control Products (RECP)

PART 2 PRODUCTS

- 2.1 Turf Reinforcement Matting (TRM):
 - 2.1.1 Design the lip of the level spreader with a Turf Reinforcement Mat (TRM) able to withstand 5-lbs./ft shear stress (TRM Type 2 or greater)

PART 3 EXECUTION

- 3.1 Installation:
 - 3.1.1 A diversion berm of 1-foot in height should be installed adjacent to the diversion channels
 - 3.1.2 Care must be taken during construction to ensure the lower lip of the structure is level. If there are any depressions in the lip, flow will tend to concentrate at these points and erosion will occur, resulting in the failure of the outlet. Avoid the problem by using a TRM along the exit lip of the level spreader.
 - 3.1.3 Extend the TRM below the lip and bury it at least 6-inches within the spreader, and extend at least 12-inches beyond the lip on the outside of the spreader.
 - 3.1.4 Install the grade of the channel transition for the last 20-feet before entering the level spreader less than or equal to 1 percent.

- 3.1.5 Install the crest of the overflow level (o percent grade) to ensure uniform spreading of runoff.
- 3.2 Inspection and Maintenance:
 - 3.2.1 The spreader should be inspected every 7 days and within 24-hours after each rainfall event that produces ½-inches or more of precipitation to ensure that it is functioning correctly.
 - 3.2.1 The contractor should avoid the placement of any material on the structure or prevent construction traffic across the structure.
 - 3.2.2 If the spreader is damaged by construction traffic, it should be immediately repaired.

(End of Level Spreader Special Provision)

Level Spreader

Plan Symbol



Description

A level spreader is a permanent outlet for dikes and diversions consisting of an excavated channel constructed at zero grade across a slope that converts concentrated runoff to sheet flow and releases it onto areas stabilized by existing vegetation. Sediment-laden waters **should not** be directed towards level spreaders.

When and Where to Use It

Construct level spreaders on undisturbed areas that are stabilized by existing vegetation and where concentrated flows are anticipated to occur. Diversion channels call for a stable outlet for concentrated storm water flows. The level spreader is used for this purpose if the runoff is relatively free of sediment. If properly constructed, level spreaders significantly reduce the velocity of concentrated storm water and spread it uniformly over a stable undisturbed area.

Design Criteria

Design the grade of the channel transition for the last 20-feet before entering the level spreader less than or equal to 1 percent. The crest of the overflow is level (0 percent grade) to ensure uniform spreading of runoff.

Design the lip of the level spreader with a Turf Reinforcement Mat (TRM) able to withstand 5-lbs./ft shear stress.

Determine the spreader dimensions by estimating the flow expected from the 10-year, 24-hour design storm (Q_{10}). The maximum flow into the spreader should not exceed 30 cfs.

- The minimum width of the spreader is 6-feet.
- Design a minimum uniform depth of 0.5-feet across the entire length the of the spreader as measured from the crest of the lip.
- The maximum design the slope of the undisturbed outlet is 10 percent.

Installation

Care must be taken during construction to ensure the lower lip of the structure is level.

If there are any depressions in the lip, flow will tend to concentrate at these points and erosion will occur, resulting in failure of the outlet. Avoid the problem by using a grade board, a gravel lip or a TRM along the exit lip of the level spreader.

Extend the TRM 10-feet below the lip and bury it at least 6- inches within the spreader, and extend at least 12-inches beyond the lip on the outside of the spreader.

Install the grade of the channel transition for the last 20-feet before entering the level spreader less than or equal to 1 percent.

Install the crest of the overflow level (0 percent grade) to ensure uniform spreading of runoff.

Inspection and Maintenance

- The spreader should be inspected every 7 days and within 24-hours after each rainfall event that produces ½-inches or more of precipitation to ensure that it is functioning correctly.
- The contractor should avoid the placement of any material on the structure or prevent construction traffic across the structure.
- If the spreader is damaged by construction traffic, it should be immediately repaired.



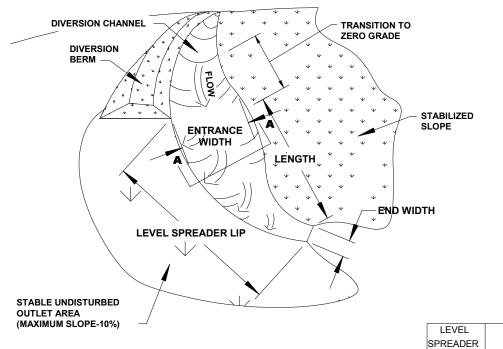




Level Spreader

Preventive Measures and Troubleshooting Guide

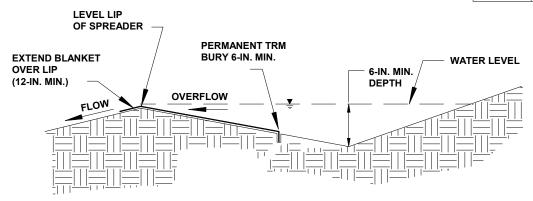
Field Condition	Common Solutions
Spreader is damaged by construction traffic.	Repair immediately.
Water is channelizing and causing erosion.	Make sure level spreader lip was installed correctly, with a 0% grade to ensure a uniform distribution of flow, Repair immediately, as needed.
Too much sediment has accumulated.	Remove accumulated sediment to recover capacity. A sediment forebay may need to be constructed at the inlet of the level spreader.



LEVEL SPREADER

LEVEL	Q	ENTRANCE	LENGTH	END	SPREADER LIP	DEPTH
SPREADER	(cfs)	WIDTH (ft)	(ft)	WIDTH (ft)	LENGTH (ft)	(ft)
15'						

PERSPECTIVE VIEW



SECTION A-A

South Carolina Department of Health and Environmental Control

LEVEL SPREADER

standard drawing no. RC-04 PAGE 1 of 2

NOT TO SCALE

 $\frac{\text{JULY 31, 2005}}{\text{DATE}}$

Level Spreader

Description

A level spreader is a permanent outlet for dikes and diversions consisting of an excavated channel constructed at zero grade across a slope that converts concentrated runoff to sheet flow and releases it onto areas stabilized by existing vegetation. Sediment—laden waters should not be directed towards level spreaders.

When and Where to Use It:

Level spreaders should be constructed on undisturbed areas that are stabilized by existing vegetation and where concentrated flows are anticipated to occur. Diversion channels call for a stable outlet for concentrated storm water flows. The level spreader can be used for this purpose if the runoff is relatively free of sediment.

If properly constructed, the level spreader will significantly reduce the velocity of concentrated storm water and spread it uniformly over a stable undisturbed area.

Design Criteria:

The lip of the level spreader should consist of a permanent Turf Reinforcement Mat (TRM) able to withstand 5-lbs/ft shear stress. The TRM should extend 10-feet below the lip and be buried at least 6-inches within the spreader, and extend at least 12-inches beyond the lip on the outside of the spreader.

Installation:

Care must be taken during construction to ensure the lower lip of the structure is level.

If there are any depressions in the lip, flow will tend to concentrate at these points and erosion will occur, resulting in failure of the outlet. This problem may be avoided by using a grade board, a gravel lip or a TRM along the exit lip of the level spreader.

If a TRM is used, it should extend 10—feet below the lip and be buried at least 6—inches within the spreader, and extend at least 12—inches beyond the lip on the outside of the spreader.

The grade of the channel transition for the last 20-feet before entering the level spreader should be less than or equal to 1 percent.

The crest of the overflow should be level (O percent grade) to ensure uniform spreading of runoff.

Inspection and Maintenance:

The spreader should be inspected every seven days and within 24—hours after each rainfall event that produces ½—inches or more of precipitation to ensure that it is functioning correctly.

The contractor should avoid the placement of any material on the structure or prevent construction traffic across the structure.

If the spreader is damaged by construction traffic, it should be immediately repaired.

South Carolina Department of Health and Environmental Control

LEVEL SPREADER

standard drawing no. RC-04 PAGE 2 of 2

GENERAL NOTES

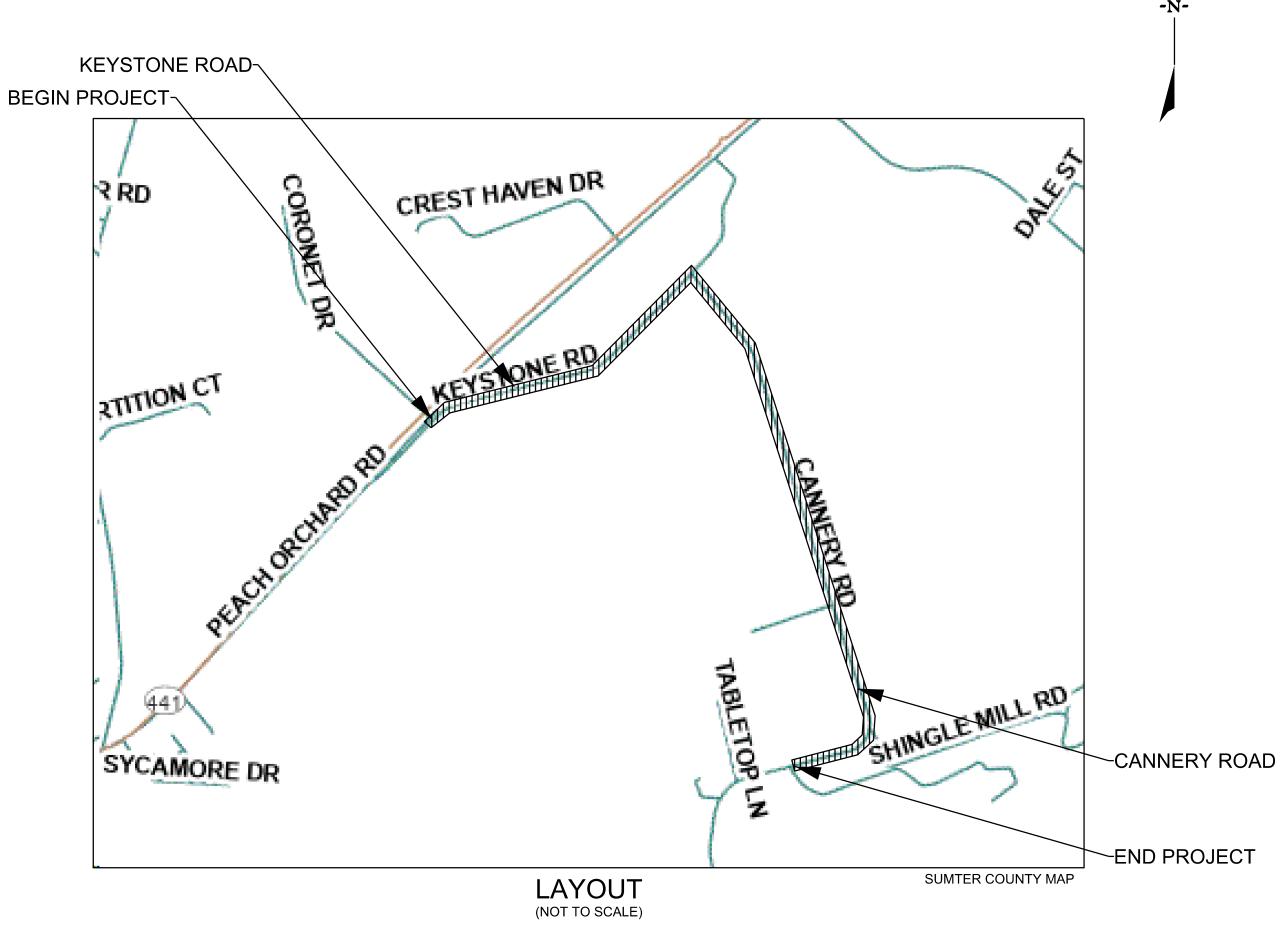
JULY 31, 2005

	TOTAL SHEETS	68
XP1-XP2	Crossline Pipe Sheets	2
X1-X38	Cross Section Sheets	36
7B	Top of Curb Sheets	1
6A-16A	Drainage Sheets	10
6-16	Plan and Profile Sheets	11
5A-5F	Reference Data Sheets	6
3	Typical Sections	1
1	Title Sheet	1
SHEET#	DESCRIPTION	SHEET TOTALS

SUMTER COUNTY

PLAN AND PROFILE OF PROPOSED COUNTY ROAD

KEYSTONE ROAD & CANNERY ROAD



NPDES PERMIT INFORMATION

ROAD NAME KEYSTONE ROAD ROUTE SHEET TOTAL NO. NO. SHEETS

Disturbed Area = 8.32 Acre(s)

Project Area = 16.86 Acre(s)

Approximate Location of Roadway is 34° 03' 37.5" N

80° 25' 12.8" W

CONSTRUCTION PLANS FED. ROAD STATE COUNTY

LOCATION MAP

-PROJECT

34° 02' 54.6" N 80° 24' 19.5" W

> Hydraulic and NPDES Design provided by

DAVIS & FLOYD, INC.

(803) 256-4121

DAVIS & FLOYD

SINCE 1954

SCDOT CONSTRUCTION NOTES

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR UTILIZING ALL APPLICABLE AND CURRENT SCDOT STANDARD DRAWINGS INCLUDING, BUT NOT LIMITED TO, THE DRAWINGS REFERENCED WITHIN THESE PLANS AND THE APPROVED PERMIT PACKAGE.
- 2. UPON SUBSTANTIAL PROJECT COMPLETION, CONTRACTOR TO CLEAR EXISTING CULVERTS/PIPES, CATCH BASINS, AND DITCHES ALONG FRONTAGE AND DOWNSTREAM AS NECESSARY TO ACHIEVE POSITIVE DRAINAGE.
- 3. ALL PROPOSED OR RELOCATED SIGNAGE SHALL BE PLACED OR REPLACED IN ACCORDANCE WITH SECTION 650-000 AND INSTALLED ON SCDOT APPROVED BREAKAWAY SIGN SUPPORTS AS DETAILED IN SECTION 654-000 IN THE SCDOT STANDARD DRAWINGS.
- 4. PAVEMENT TRANSITION BETWEEN MILLED SURFACE AT BUTT JOINTS SHALL BE TIED-IN SMOOTHLY AND SHALL BE FREE OF "BUMPS".

GENERAL CONSTRUCTION NOTES

- 1. THE UNDERGROUND UTILITIES ARE IN THEIR APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITIES LOCATED PRIOR TO CONSTRUCTION.
- ACCESS TO RESIDENCES AND BUSINESSES SHALL BE MAINTAINED TO THE MAXIMUM EXTENT POSSIBLE DURING WORKING HOURS. FULL ACCESS SHALL BE PROVIDED AT THE END OF EACH WORK DAY.
- 3. SHRUBS, SMALL TREES, AND OTHER ITEMS WITHIN THE RIGHT-OF-WAY WHICH NEED TO BE MOVED SHALL BE CAREFULLY REMOVED AND TURNED OVER TO THE PROPERTY OWNER. FENCES, MAIL BOXES, AND SIGNS SHALL BE RELOCATED BY THE CONTRACTOR. CONTRACTOR SHALL STAKE R/W PRIOR TO CONSTRUCTION TO VERIFY RELOCATIONS.
- 4. MANHOLE COVERS AND VALVE BOXES SHALL BE ADJUSTED TO THE FINISHED
- 5. ELEVATIONS ARE BASED ON THE NAVD 1988 USING SOUTH CAROLINA GEODETIC SOCIETY'S VIRTUAL REFERENCE NETWORK.
- 6. ALL DRIVEWAYS ARE SUBJECT TO ADJUSTMENT BY SUMTER COUNTY.
- 7. ALL RCP PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.

RAILROAD INVOLVEMENT?

YES/(NO)

- 8. CONTRACTOR WILL BE RESPONSIBLE FOR ALL LINES, STAKES, AND GRADES. CONTRACTOR SHALL STAKE R/W PRIOR TO CONSTRUCTION TO VERIFY RELOCATIONS.
- 9. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT THE TRANSFER OF SUSPENDED SOLIDS AND/OR CHEMICAL SOLUTIONS OFF-SITE, AND TO PREVENT EXCESSIVE SILTATION OF EXISTING DRAINAGE PIPES, CULVERTS, STREAMS, AND DITCHES. THE CONTRACTOR SHALL ROUTINELY INSPECT AND MAINTAIN THESE DEVICES.

3 DAYS BEFORE DIGGING IN **SOUTH CAROLINA**

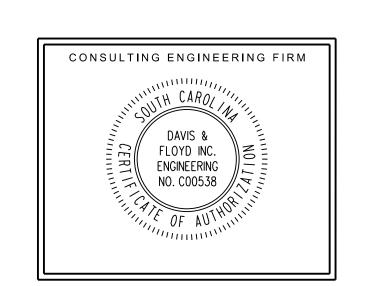
CALL 811

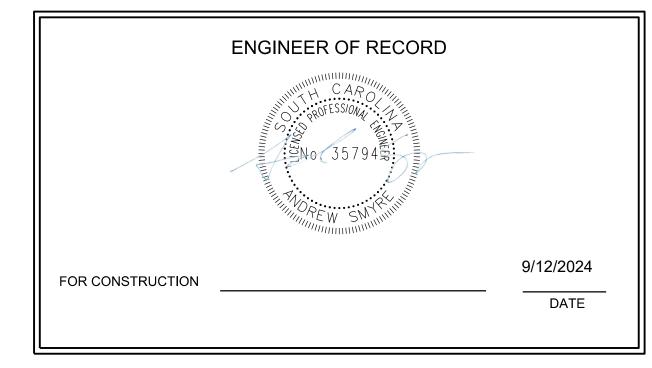
SOUTH CAROLINA 811 (SC811) WWW.SC811.COM ALL UTILITIES MAY NOT BE A MEMBER OF SC811

KEYSTONE CANNERY ROAD ROAD STA. 10+12.35 STA. 100+10.00 TO TO STA. 48+71.22 STA. 172+49.47 TOTAL

NET LENGTH OF ROADWAY	0.731	MILES	1.371	MILES	2.102	MILES
NET LENGTH OF BRIDGES	0.000	MILES	0.000	MILES	0.000	MILES
NET LENGTH OF PROJECT	0.731	MILES	1.371	MILES	2.102	MILES
LENGTH OF EXCEPTIONS	0.000	MILES	0.000	MILES	0.000	MILES
GROSS LENGTH OF PROJECT	0.731	MILES	1.371	MILES	2.102	MILES

EQUALITIES IN STATIONING NONE

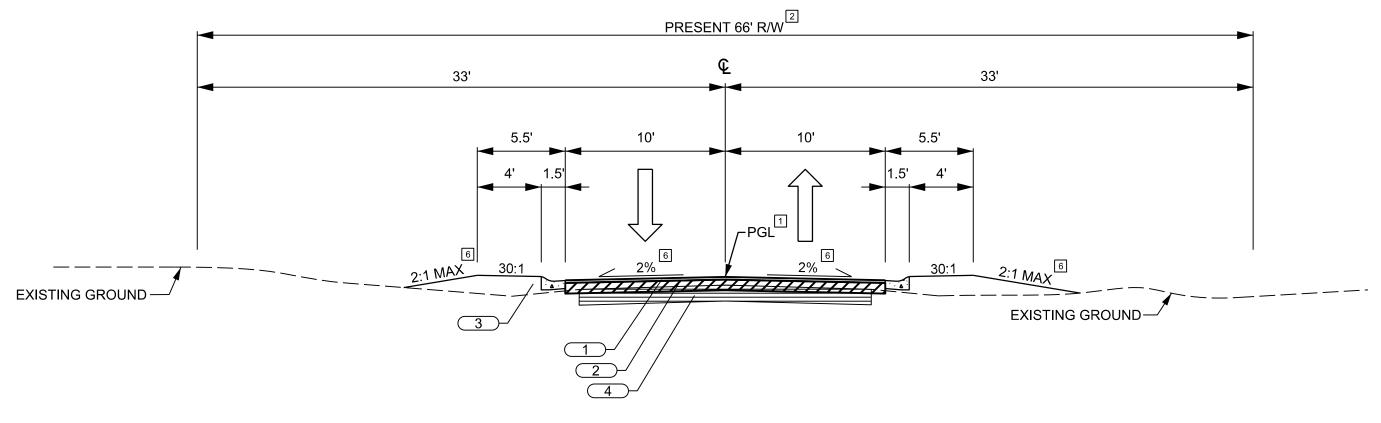




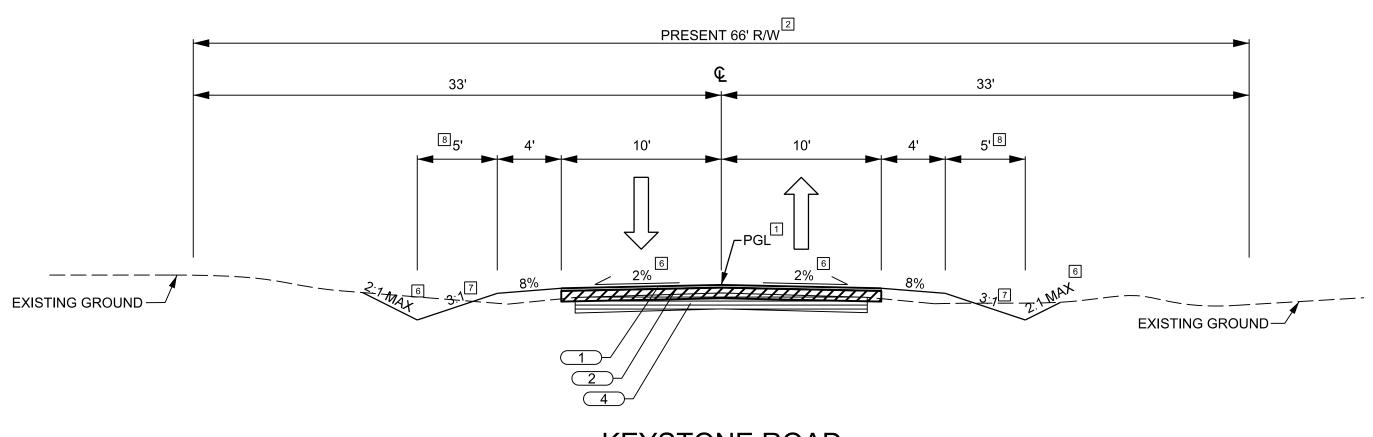
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ALE: I TABLE: IT DRIVER:

TYPICAL SECTION OF IMPROVEMENT SUMTER COUNTY



KEYSTONE ROAD FROM STA 32+20.00 TO STA 40+00.00



KEYSTONE ROAD FROM STA 10+12.35 TO STA 32+20.00 FROM STA 40+00.00 TO STA 48+71.22 **CANNERY ROAD** FROM STA 100+10.00 TO STA 172+49.47

NOTES:

- 1. PGL PROPOSED GRADE LINE.
- 2. SEE PLANS FOR LOCATION OF PRESENT RIGHT-OF-WAY.
- 3. DRIVEWAY WIDTH SHOWN IS TYPICAL. IF A PERMANENT DRIVEWAY EXISTS MATCH EXISTING WIDTH.
- 4. BI-DIRECTIONAL RAISED PAVEMENT MARKERS SHALL BE PLACED EVERY 80' ALONG THE CENTERLINE IN ACCORDANCE WITH SCDOT STANDARD DRAWING 630-105-00.
- 5. PLACE 1.5' OGEE CURB & GUTTER PER SCDOT STANDARD DRAWING 720-105-01 DETAIL 3.
- 6. PAVEMENT SLOPES AND SHOULDER SLOPES MAY VARY FROM THOSE SHOWN IN TYPICAL SECTIONS. (SEE CROSS SECTIONS)
- 7. USE 2:1 DITCH FORESLOPES FOR THE FOLLOWING SECTIONS: **CANNERY ROAD:**

RIGHT: STA. 102+00.00 TO STA. 107+00.00 LEFT: STA. 105+00.00 TO STA. 107+00.00

8. DITCH WIDTHS VARY IN SPECIAL DITCH SECTIONS BELOW. **KEYSTONE ROAD:**

RIGHT: STA. 10+30.50 TO STA. 13+00.00

STA. 40+00.00 TO STA. 41+30.00

STA. 43+00.00 TO STA. 47+96.00

LEFT: STA. 10+30.50 TO STA. 13+00.00

STA. 40+00.00 TO STA. 41+30.00

STA. 43+00.00 TO STA. 48+92.06

CANNERY ROAD:

RIGHT: STA. 100+27.46 TO STA. 102+00.00

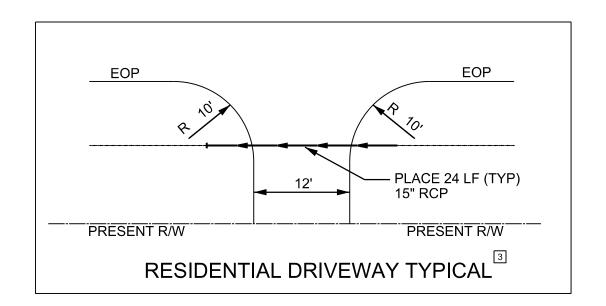
STA. 142+00.00 TO STA. 146+00.00

STA. 159+00.00 TO STA. 162+00.00

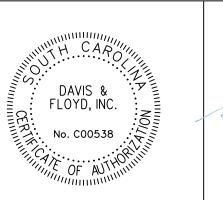
LEFT: STA. 100+18.00 TO STA. 105+00.00

STA. 141+00.00 TO STA. 146+50.00 STA. 159+00.00 TO STA. 162+50.00

ASPHALT DRIVEWAY MAILBOX — PRESENT R/W PRESENT R/W RESIDENTIAL DRIVEWAY TYPICAL



FROM STA. TO STA. KEYSTONE ROAD 30 MPH 10+12.35 48+71.22 CANNERY ROAD 30 MPH 100+10.00 172+49.47





SUITE 305 COLUMBIA, SC 29210 (803) 256-4121 DAVIS & FLOYD

SINCE 1954

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KEYS				1
	DESCRIPTION OF REVISION	DATE	BY	REV. NO.
SCALE N.T.S.	DRAWN BY <u>SJK</u> CHECKED BY <u>AMS</u>	SJK	NED BY	DESIG

TYPICAL SECTION STONE ROAD, CANNERY ROAD

PLOT SIZE = $22" \times 34"$

SUMTER COUNTY

ROAD FUNCTIONAL CLASSIFICATION

200 PSY ASPHALT SURFACE TYPE C

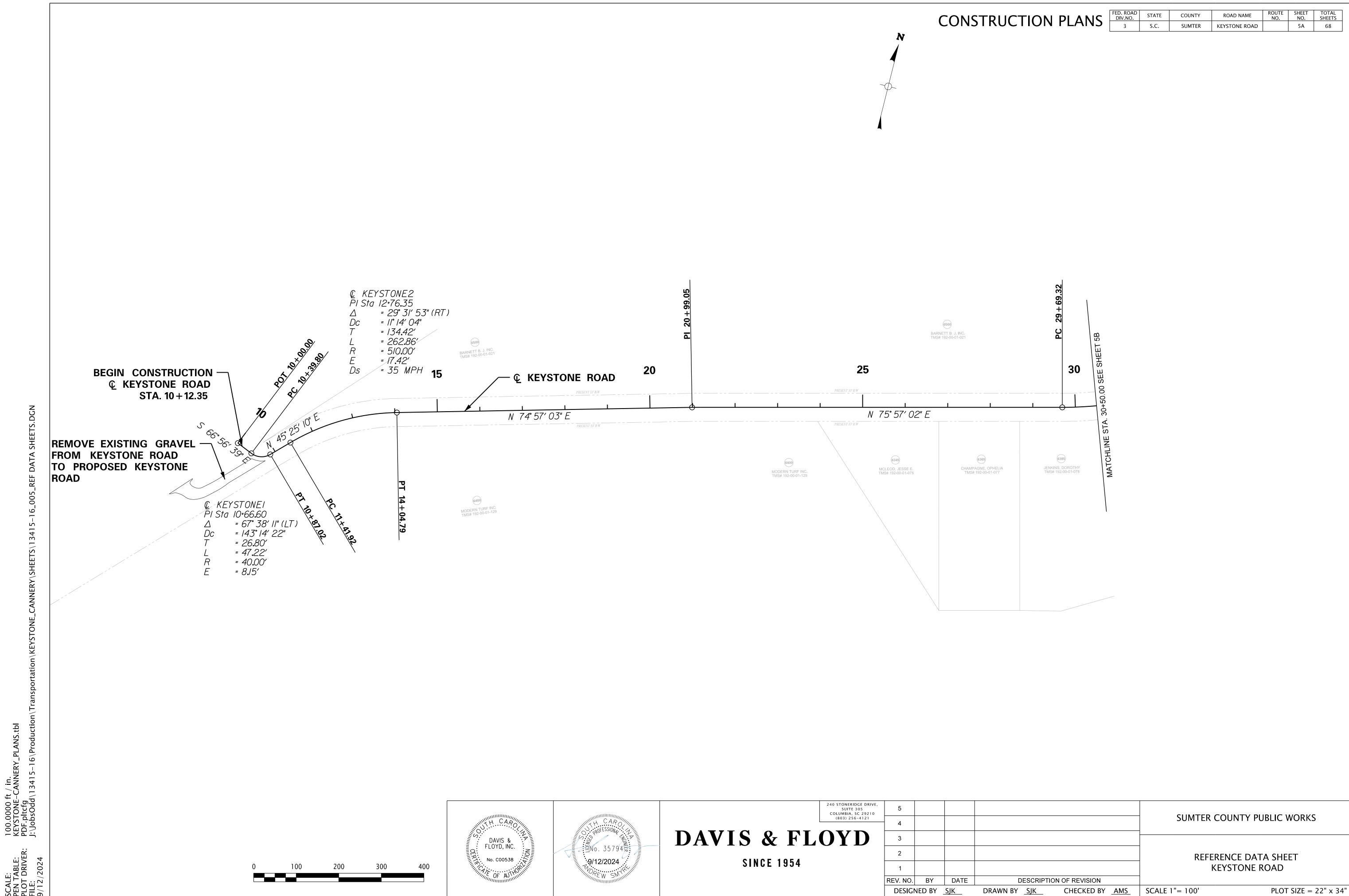
8" CR-14 - COMPACTED TO 95%

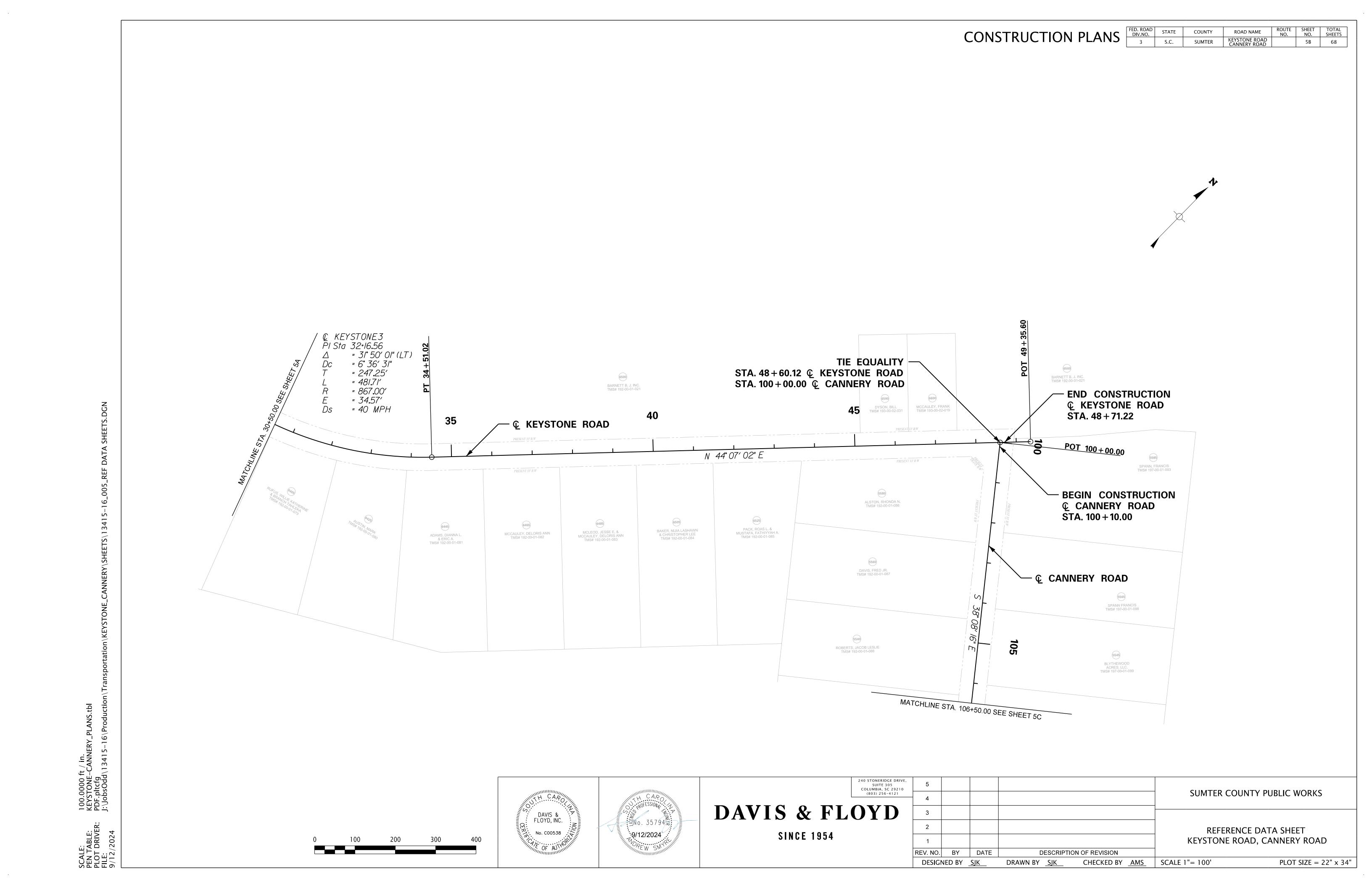
1.5' OGEE CURB & GUTTER 5

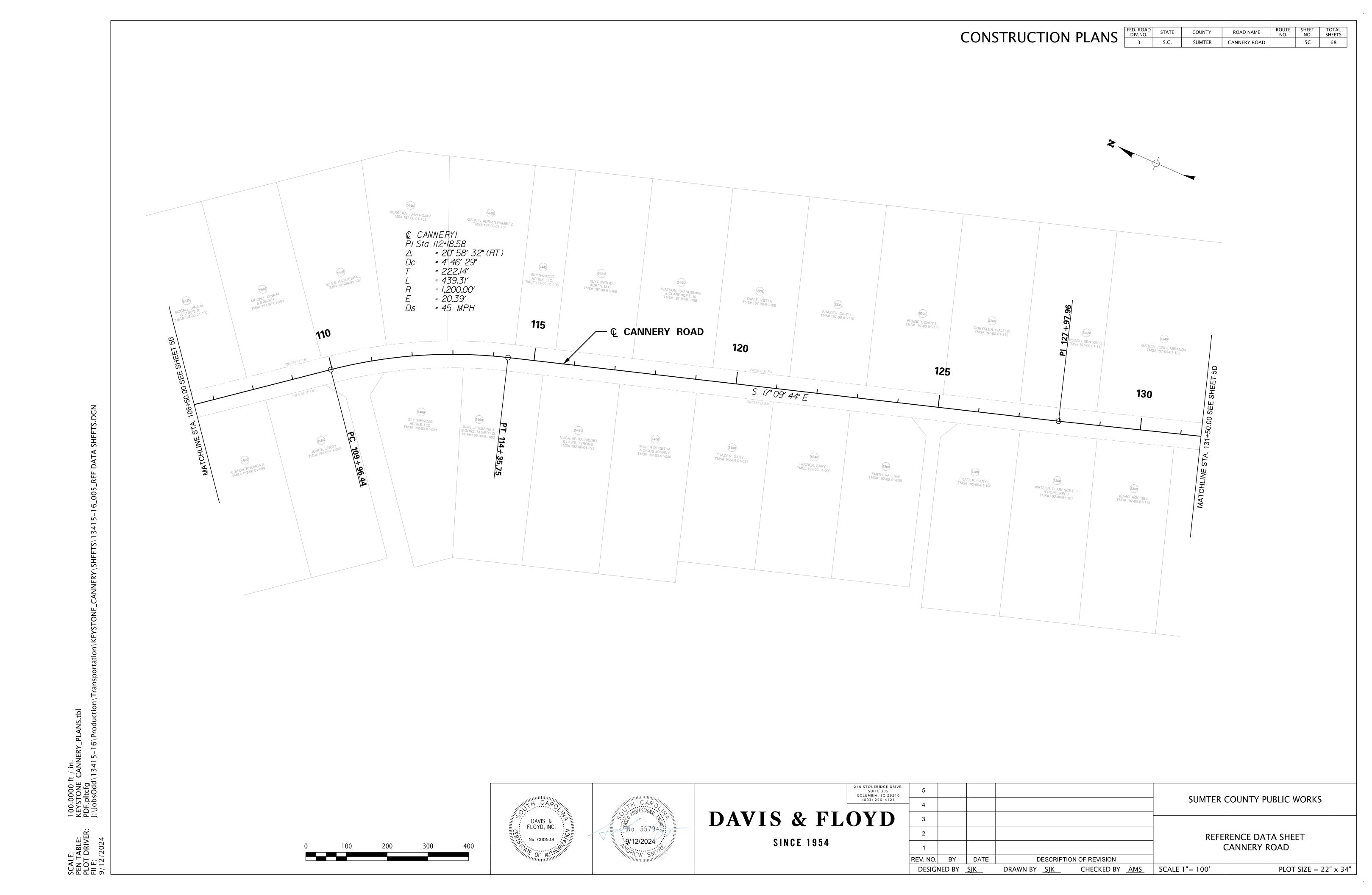
EXISTING DIRT ROAD

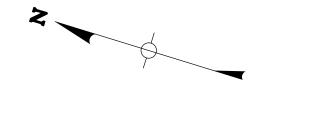
KEYSTONE ROAD - RURAL LOCAL

CANNERY ROAD - RURAL LOCAL











100.0000 ft / in. KEYSTONE–CANNERY_PLANS.tbl PDF.pltcfg J:\JobsOdd\13415–16\Production`

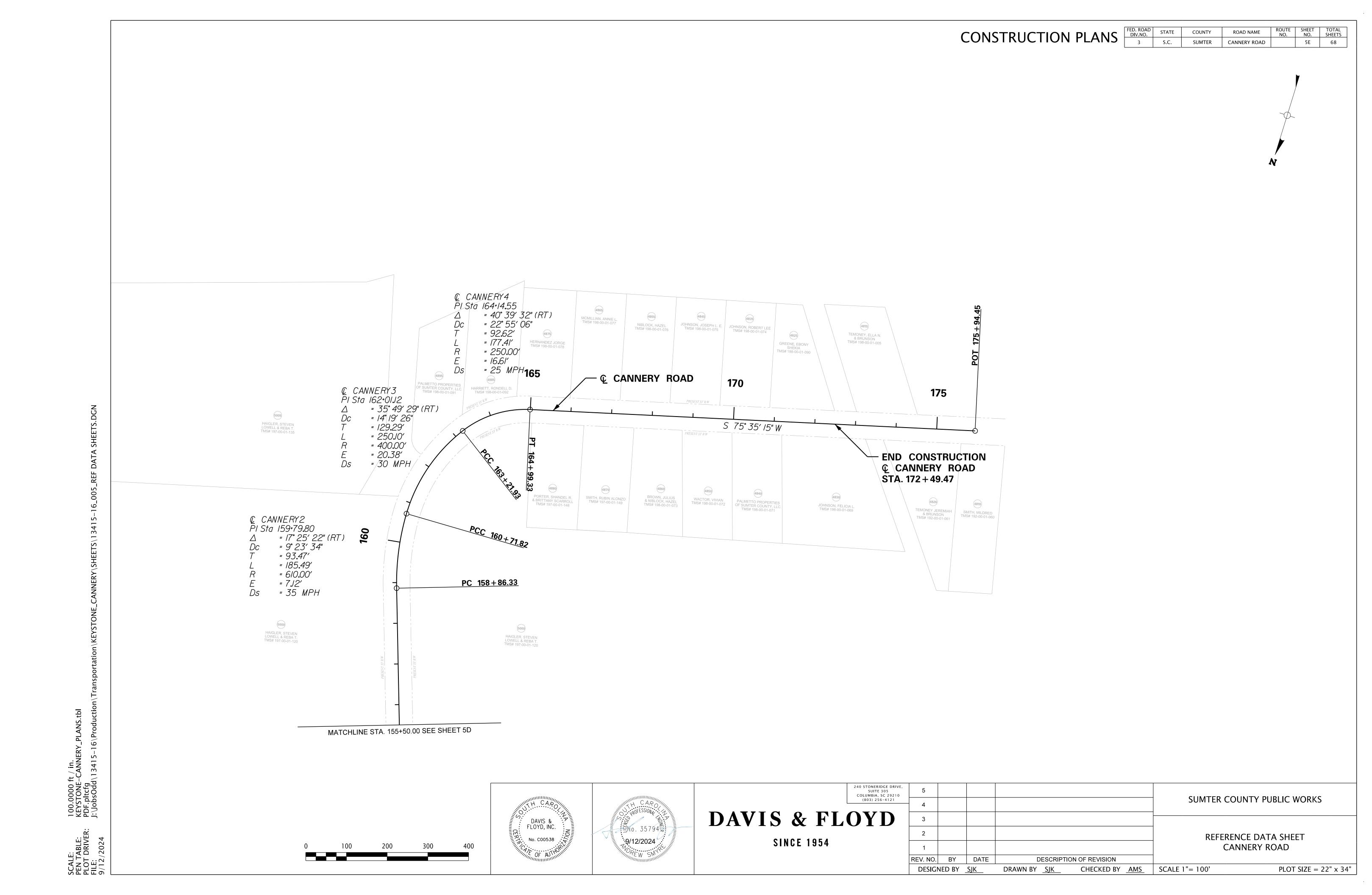






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SINCE 1954	

CUNTED COUNTY BURLIC WORKS									5
SUMTER COUNTY PUBLIC WORKS									4
									3
REFERENCE DATA SHEET									2
CANNERY ROAD									1
			REVISION	CRIPTION OF	DE:		DATE	BY	EV. NO.
- 1"= 100' PLOT SIZE = 22	s sc	Α	HECKED BY	IK CH	3Y :	DRAWN BY	SIK	NED BY	DESIG



Curve Data

Curve KEYSTONE1 P.I. Station 10+66.60 N

Point 1000

810,752.3176 E 2,175,615.8705 Delta = $67^{\circ}38' \cdot 10.69'' (LT)$

Degree = 143°14' 22.02" Tangent = Length 47.2190 Radius = 40.0000 8.1459 External =

Long Chord = Mid. Ord. = 44.5247 6.7677 810,762.8117 E 2,175,591.2148 810,771.1261 E 2,175,634.9563 P.C. Station 10+39.80 N P.T. Station 10+87.02 N N 810,799.6166 E 2,175,606.8799

Back = S 66°56' 39.38" E Ahead = N $45^{\circ}25'$ 09.93" E Chord Bear = N 79°14' 15.27" E

Course from PT KEYSTONE1 to PC KEYSTONE2 N 45°25' 09.93" E Dist 54.9037

Curve Data

Curve KEYSTONE2

12+76.35 N 810,904.0154 E 2,175,769.8057 Delta = 29°31' 53.02" (RT)

Degree = $11^{\circ}14' 04.08'$ 134.4212 Tangent = 262.8642 Length = Radius = External = 17.4174 Long Chord = 259.9642

Mid. Ord. = 16.8422 810,809.6636 E 2,175,674.0623 810,938.9177 E 2,175,899.6167 11+41.92 N P.C. Station 14+04.79 N P.T. Station

N 810,446.4090 E 2,176,032.0372 = N 45°25' 09.93" E Ahead = N $74^{\circ}57'$ 02.95" E

Chord Bear = $N 60^{\circ}11' 06.44'' E$

Course from PT KEYSTONE2 to 1001 N 74°57' 02.95" E Dist 694.2654

N 811,119.1823 E 2,176,570.0711 Sta 20+99.05

Course from 1001 to PC KEYSTONE3 N 75°57' 02.47" E Dist 870.2614

Curve Data

Curve KEYSTONE3

32+16.56 N 811,390.4651 E 2,177,654.1510 P.I. Station Delta = $31^{\circ}50' \ 00.96'' \ (LT)$

Degree = 6°36' 30.64"` 247.2463 Tangent = 481.7062 Length 867.0000 Radius =

External = 34.5652 475.5343 Long Chord = Mid. Ord. = 33.2400

29+69.32 N 811,330.4443 E 2,177,414.3005 34+51.02 N 811,567.9679 E 2,177,826.2658 P.C. Station P.T. Station N 812,171.5099 E 2,177,203.8302

= N 75°57' 02.47" E Ahead = N $44^{\circ}07' 01.50'' E$ Chord Bear = $N 60^{\circ}02' 01.98'' E$

Course from PT KEYSTONE3 to 1002 N 44°07' 01.50" E Dist 1,484.5751

Point 1002 N 812,633.7722 E 2,178,859.7185 Sta 49+35.60

______ Ending chain KEYSTONE description

Beginning chain CANNERY description

Point 1003 N 812,579.5845 E 2,178,807.1755 Sta 100+00.00

Course from 1003 to PC CANNERY1 S 38°08' 16.00" E Dist 996.4353

Curve Data

Curve CANNERY1 P.I. Station 112+18.58 N 811,621.1392 E 2,179,559.7137 $= 20^{\circ}58' 32.03'' (RT)$

Degree = $4^{\circ}46' 28.73''$ 222.1422 Tangent Length 439.3112 Radius = 1,200.0000 20.3881 External = Long Chord = Mid. Ord. = 436.8620 20.0475

109+96.44 N 811,795.8602 E 2,179,422.5287 114+35.75 N 811,408.8883 E 2,179,625.2629 P.C. Station P.T. Station N 811,054.7947 E 2,178,478.6951 = S 38°08' 16.00" E

Ahead = S 17°09' 43.98" E Chord Bear = S 27°38' 59.99" E

Course from PT CANNERY1 to 1004 S 17°09' 43.98" E Dist 1,362.2102

N 810,107.3330 E 2,180,027.2212 Sta 127+97.96

Course from 1004 to 1005 S 17°43' 15.77" E Dist 1,706.3857

N 808,481.9158 E 2,180,546.6160 Sta 145+04.34

Course from 1005 to PC CANNERY2 S 18°19' 07.05" E Dist 1,381.9901

Curve Data

Curve CANNERY2 159+79.80 N 807,081.2300 E 2,181,010.3538 P.I. Station

= 17°25' 21.78" (RT) Degree = 9°23' 33.90"` Tangent = Length = 185.4911 Radius = 610.0000 External = 7.1192

Long Chord = Mid. Ord. = 184.7773 7.0370 P.C. Station 158+86.33 N 807,169.9603 E 2,180,980.9770 806,987.7745 E 2,181,011.8152 P.T. Station 160+71.82 N N 806,978.2366 E 2,180,401.8898

= S 18°19' 07.05" E Ahead = $S 0^{\circ}53' 45.27'' E$ Chord Bear = S 9°36' 26.16" E

Curve Data

Curve CANNERY3 P.I. Station 162+01.12 N 806,858.4989 E 2,181,013.8368

Delta = 35°49' 28.71" (RT) Degree = $14^{\circ}19' 26.20"$ 129.2915 Tangent = 250.1032 Length = 400.0000 Radius = External = 20.3764 Long Chord = 246.0490

Mid. Ord. = 19.3887 160+71.82 N 806,987.7745 E 2,181,011.8152 163+21.93 N 806,752.4973 E 2,180,939.8100 P.C. Station P.T. Station N 806,981.5202 E 2,180,611.8641

Back = S 0°53' 45.27" E Ahead = S 34°55' 43.44" W Chord Bear = S 17°00' 59.08" W Curve Data

Curve CANNERY4 164+14.55 N 806,676.5584 E 2,180,886.7777 P.I. Station Delta = 40°39' 31.78" (RT)

ROUTE SHEET TOTAL NO. NO. SHEETS

5F

ROAD NAME

KEYSTONE ROAD CANNERY ROAD

SUMTER

Degree = $22^{\circ}55' 05.92"$ Tangent = Length 177.4076 250.0000 Radius = 16.6067 External = Long Chord = 173.7085

CONSTRUCTION PLANS

Mid.Ord. =15.5723 P.C. Station 806,752.4973 E 2,180,939.8100 163+21.93 N P.T. Station 164+99.33 N 806,653.5043 E 2,180,797.0689 N 806,895.6366 E 2,180,734.8438

= S 34°55' 43.44" W = S 75°35' 15.22" W Chord Bear = $S 55^{\circ}15' 29.33'' W$

Course from PT CANNERY4 to 1006 S 75°35' 15.22" W Dist 1.095.1202

N 806,380.9287 E 2,179,736.4130 Sta 175+94.45

______ **Ending chain CANNERY description**

DAVIS & FLOYD, INC. No. C00538



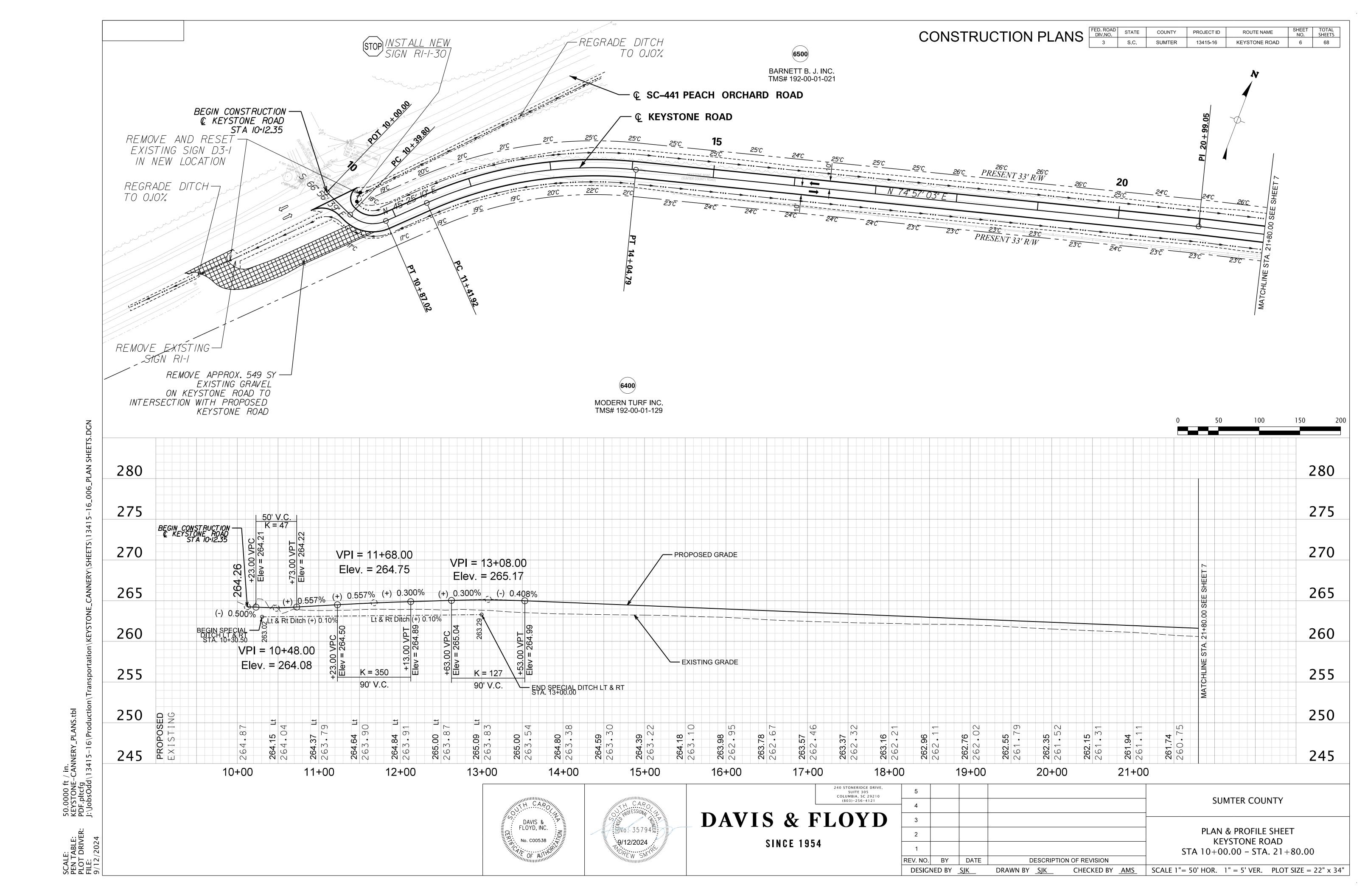
DAVIS & FLOYD

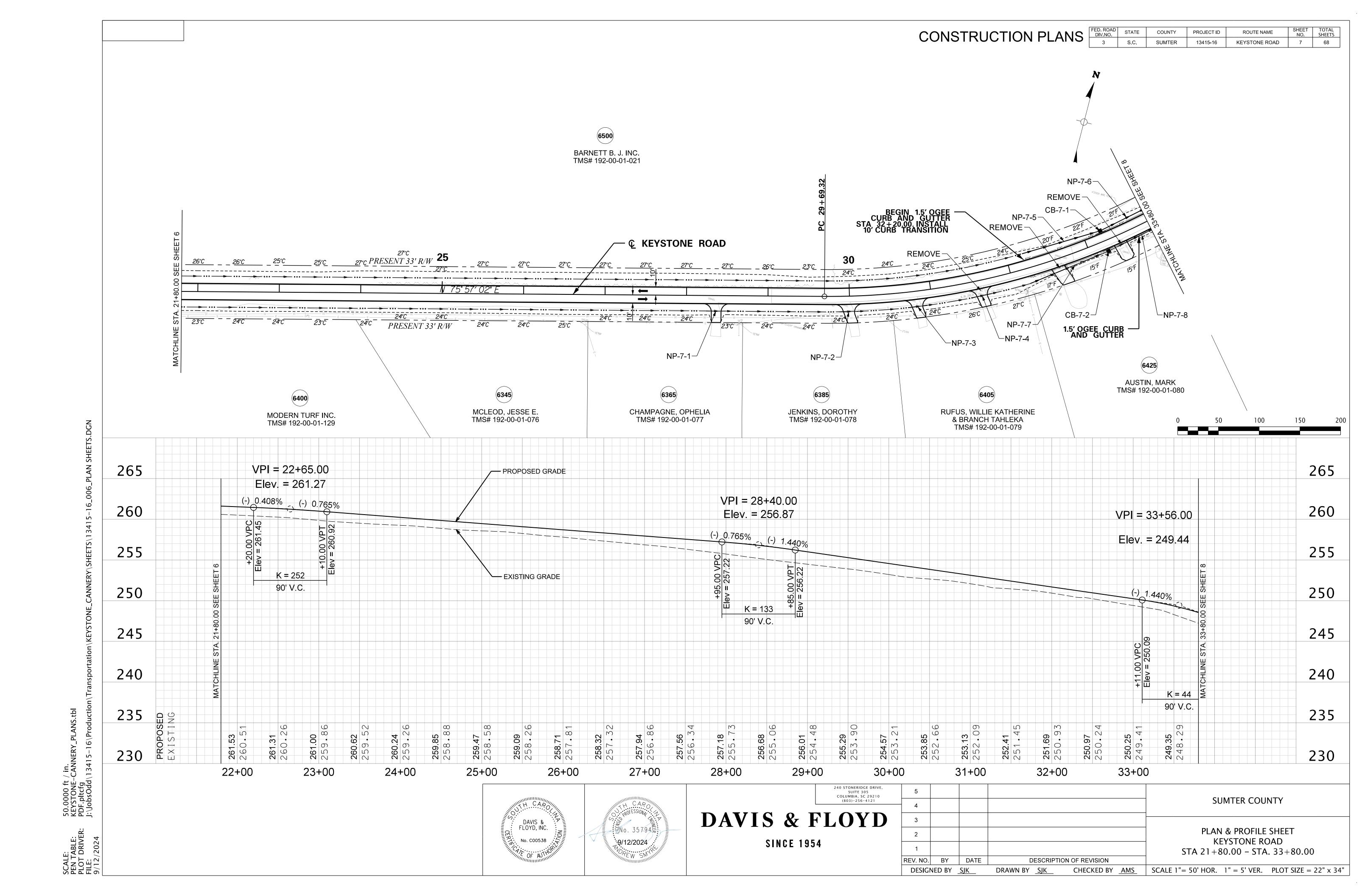
SINCE 1954

COLUMBIA, SC 29210

SUMTER COUNTY PUBLIC WORKS REFERENCE DATA SHEET CHAIN DESCRIPTIONS REV. NO. BY DATE DESCRIPTION OF REVISION DESIGNED BY SJK DRAWN BY SJK CHECKED BY AMS | SCALE 1"= 100' PLOT SIZE = $22" \times 34"$

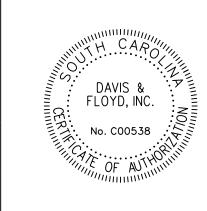
100.0000 ft / in. KEYSTONE–CANNERY_PLANS.tbl PDF.pltcfg J:\JobsOdd\13415–16\Production





	Smooth Wall Pipe														
ID		Geometry					Upstre	am		Downstream				Fill Height	
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)	Min (ft)	
-	NP-7-1	15	1	24	1.08	N/A	Ditch Rt	28+24.00	254.78	N/A	Ditch Rt	28+48.00	254.52	_	
-	NP-7-2	15	1	24	1.42	N/A	Ditch Rt	29+87.00	252.57	N/A	Ditch Rt	30+10.50	252.23	-	
-	NP-7-3	15	1	24	1.42	N/A	Ditch Rt	30+70.00	251.37	N/A	Ditch Rt	30+93.50	251.03	-	
-	NP-7-4	15	1	24	1.42	N/A	Ditch Rt	31+48.50	250.24	N/A	Ditch Rt	31+72.00	249.90	-	
Network LT	NP-7-5	18	1	100	1.49	N/A	Ditch Lt	32+20.00	248.40	CB-7-1	Type 16	33+22.00	246.91	1.33	
Network LT	NP-7-6	18	1	108	2.89	CB-7-1	Type 16	33+22.00	246.91	CB-8-1	Type 16	34+32.00	243.79	1.32	
Network RT	NP-7-7	18	1	104	1.43	N/A	Ditch Rt	32+20.00	248.40	CB-7-2	Type 16	33+22.00	246.91	1.33	
Network RT	NP-7-8	18	1	112	2.79	CB-7-2	Type 16	33+22.00	246.91	CB-8-5	Type 16	34+32.00	243.79	1.32	

	Stormwater Structures												
Node ID	Reference	Node	Node	Inlot Type	Rim	Invert In (ft)		Invert Out (ft)					
	Alignment	Station	Offset	Inlet Type	Elevation	IIIVert	111 (11)	Invert Out (ft)					
CB-7-1	Keystone	33+22.00	11.50' LT	Type 16 CB	249.95	18"	246.91	18"	246.91				
CB-7-2	Keystone	33+22.00	11.50' RT	Type 16 CB	249.95	18"	246.91	18"	246.91				





DAVIS & FLOYD SINCE 1954

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 REV. NO.
 BY
 DATE
 DESCRIPTION OF REVISION

DRAWN BY <u>SJK</u>

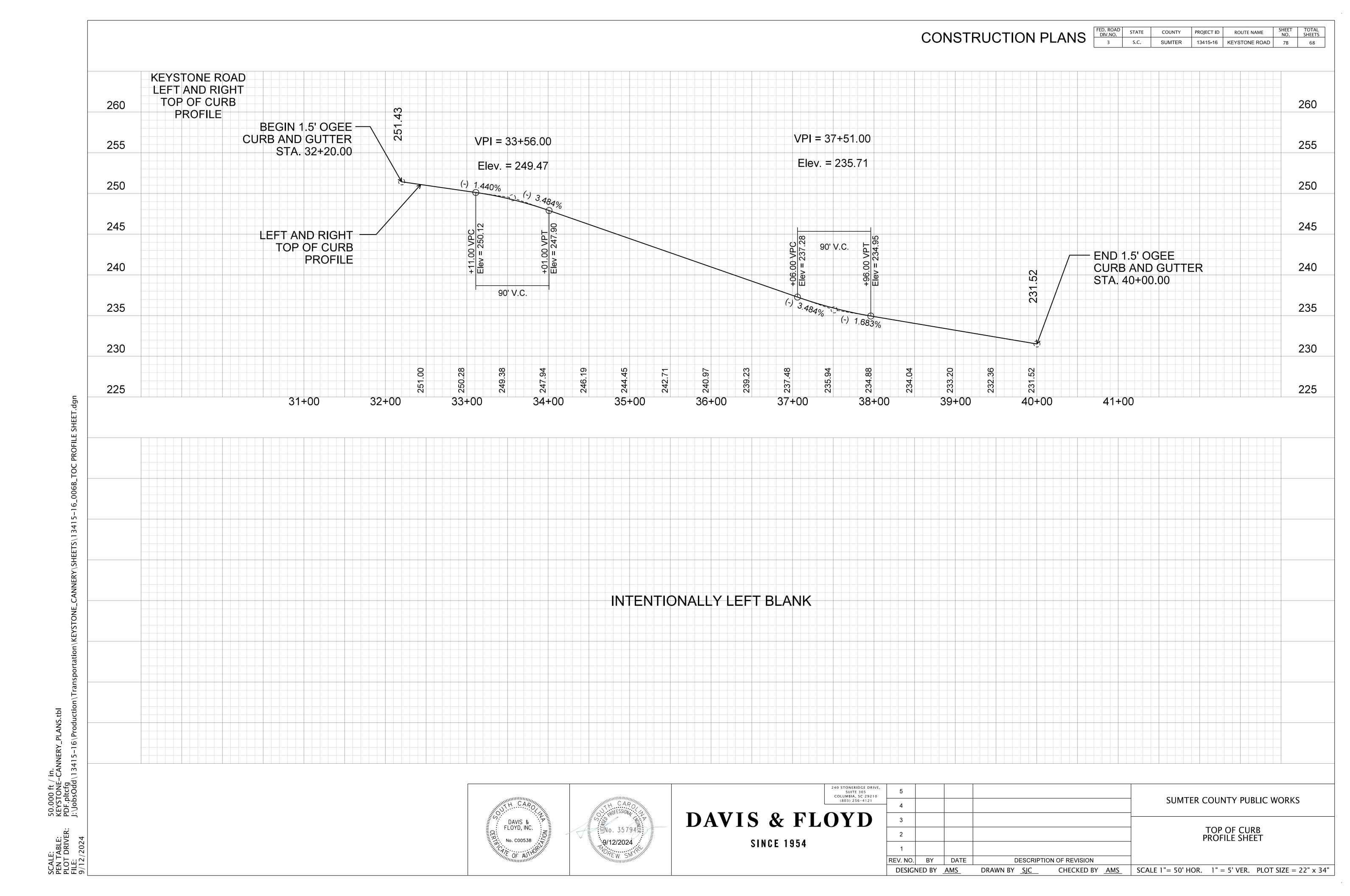
DESIGNED BY SJK

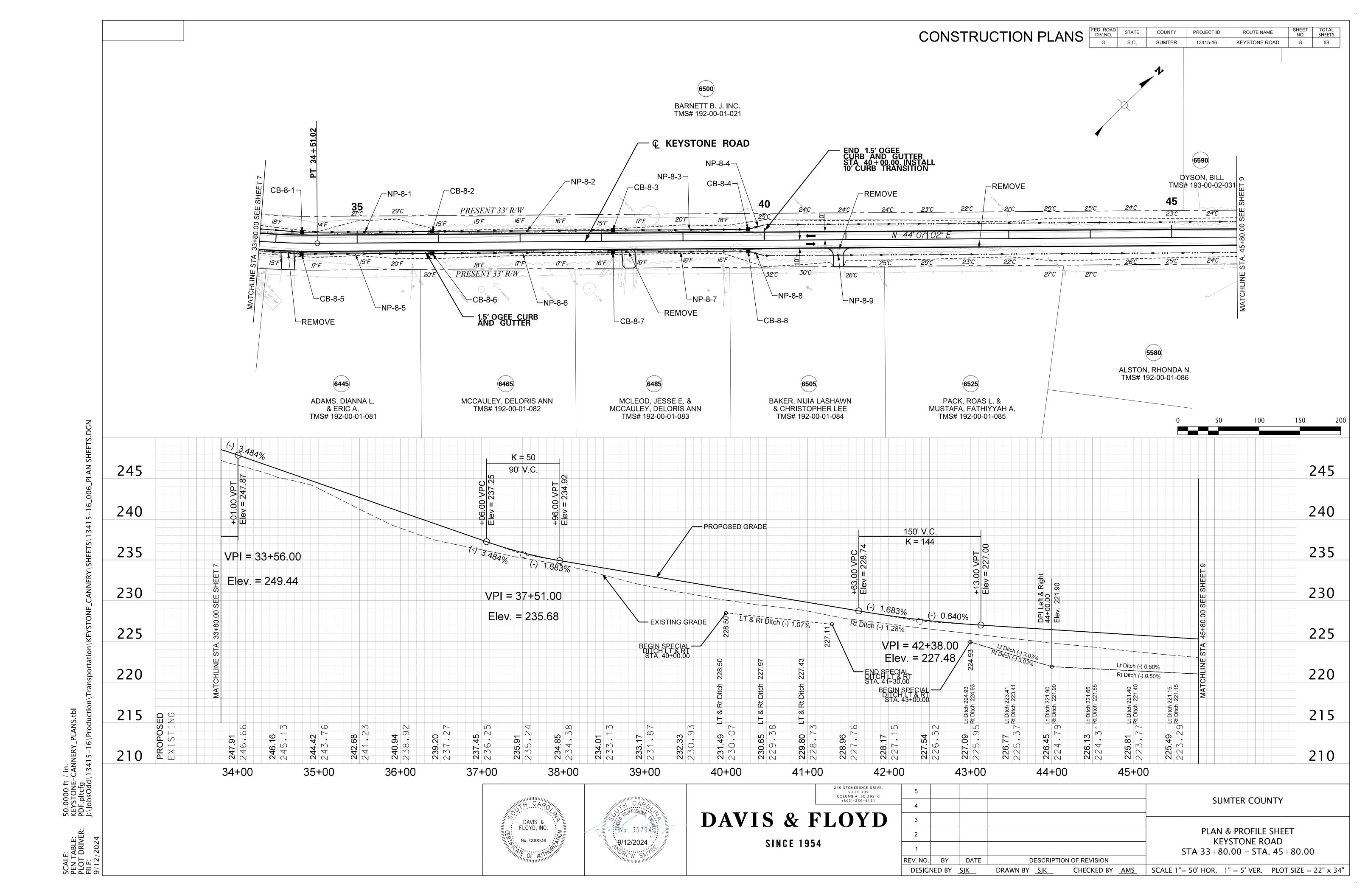
DRAINAGE SHEET KEYSTONE ROAD STA 21+80.00 – STA. 33+80.00

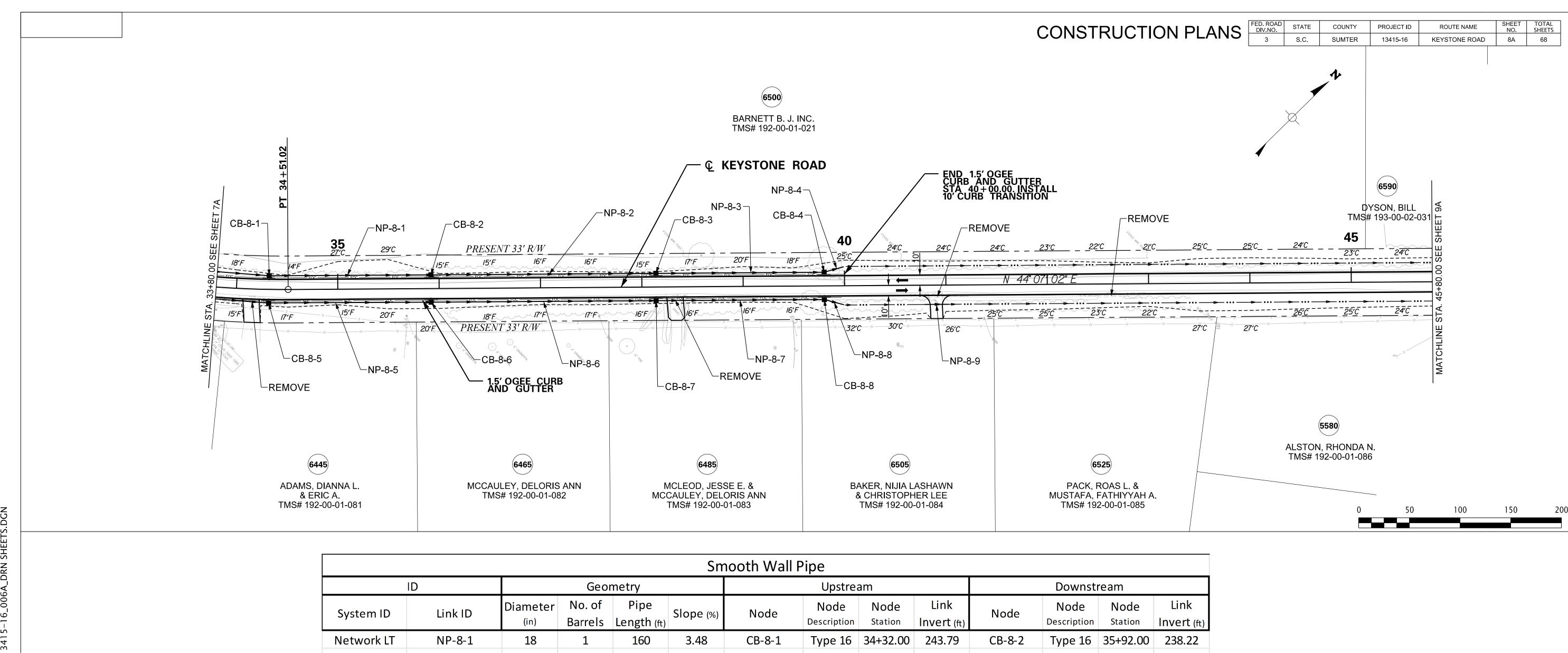
SUMTER COUNTY

SCALE: 50.000 PEN TABLE: KEYST PLOT DRIVER: PDF.pl FILE: J:\Jobs

CHECKED BY AMS SCALE 1"= 50' HOR. PLOT SIZE = 22" x 34"

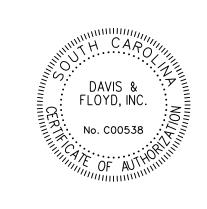






	Smooth Wall Pipe													
	ID		Geo	metry		Upstream					Downst	ream		
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)	
Network LT	NP-8-1	18	1	160	3.48	CB-8-1	Type 16	34+32.00	243.79	CB-8-2	Type 16	35+92.00	238.22	
Network LT	NP-8-2	18	1	222	2.97	CB-8-2	Type 16	35+92.00	238.22	CB-8-3	Type 16	38+14.00	231.62	
Network LT	NP-8-3	18	1	166	1.69	CB-8-3	Type 16	38+14.00	231.62	CB-8-4	Type 16	39+80.00	228.82	
Network LT	NP-8-4	18	1	20	1.60	CB-8-4	Type 16	39+80.00	228.82	N/A	Ditch LT	39+99.30	228.50	
Network RT	NP-8-5	18	1	160	3.48	CB-8-5	Type 16	34+32.00	243.79	CB-8-6	Type 16	35+92.00	238.22	
Network RT	NP-8-6	18	1	222	2.97	CB-8-6	Type 16	35+92.00	238.22	CB-8-7	Type 16	38+14.00	231.62	
Network RT	NP-8-7	18	1	166	1.69	CB-8-7	Type 16	38+14.00	231.62	CB-8-8	Type 16	39+80.00	228.82	
Network RT	NP-8-8	18	1	20	1.60	CB-8-8	Type 16	39+80.00	228.82	N/A	Ditch RT	39+99.30	228.50	
-	NP-8-9	18	1	24	1.08	N/A	Ditch RT	40+79.00	227.66	N/A	Ditch RT	41+03.00	227.40	

			2.00	, , .	10011111 10	.,0.00		, , .	D 10011
Node ID	Reference Alignment		Node Offset	Inlet Type	Rim Elevation	Invert	:In (ft)	Invert (Out (ft)
CB-8-1	Keystone	34+32.00	11.50' LT	Type 16 CB	246.82	18"	243.79	18"	243.79
CB-8-2	Keystone	35+92.00	11.50' LT	Type 16 CB	241.25	18"	238.22	18"	238.22
CB-8-3	Keystone	38+14.00	11.50' LT	Type 16 CB	234.65	18"	231.62	18"	231.62
CB-8-4	Keystone	39+80.00	11.50' LT	Type 16 CB	231.85	18"	228.82	18"	228.82
CB-8-5	Keystone	34+32.00	11.50' RT	Type 16 CB	246.82	18"	243.79	18"	243.79
CB-8-6	Keystone	35+92.00	11.50' RT	Type 16 CB	241.25	18"	238.22	18"	238.22
CB-8-7	Keystone	38+14.00	11.50' RT	Type 16 CB	234.65	18"	231.62	18"	231.62
CB-8-8	Keystone	39+80.00	11.50' RT	Type 16 CB	231.85	18"	228.82	18"	228.82



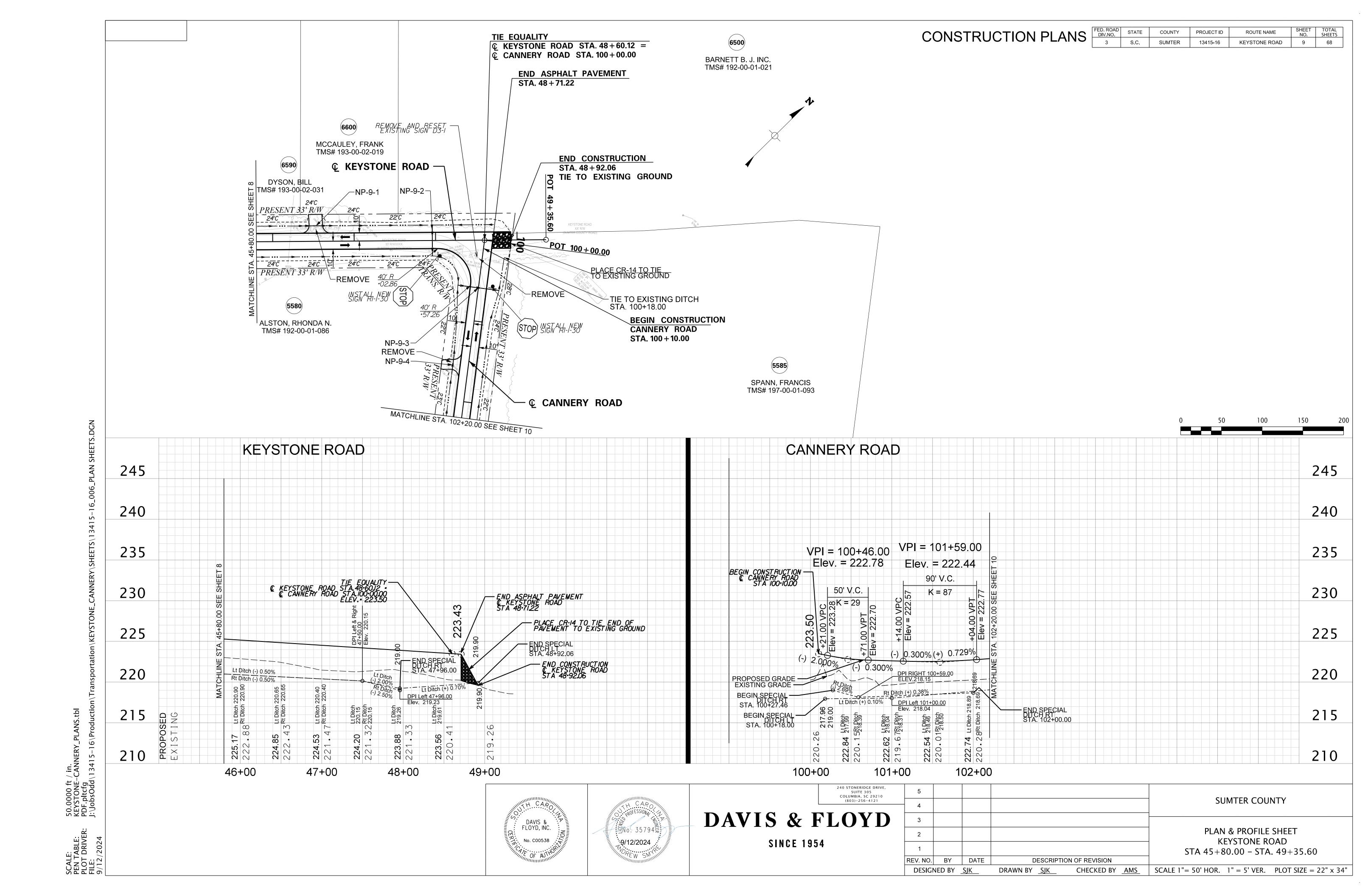


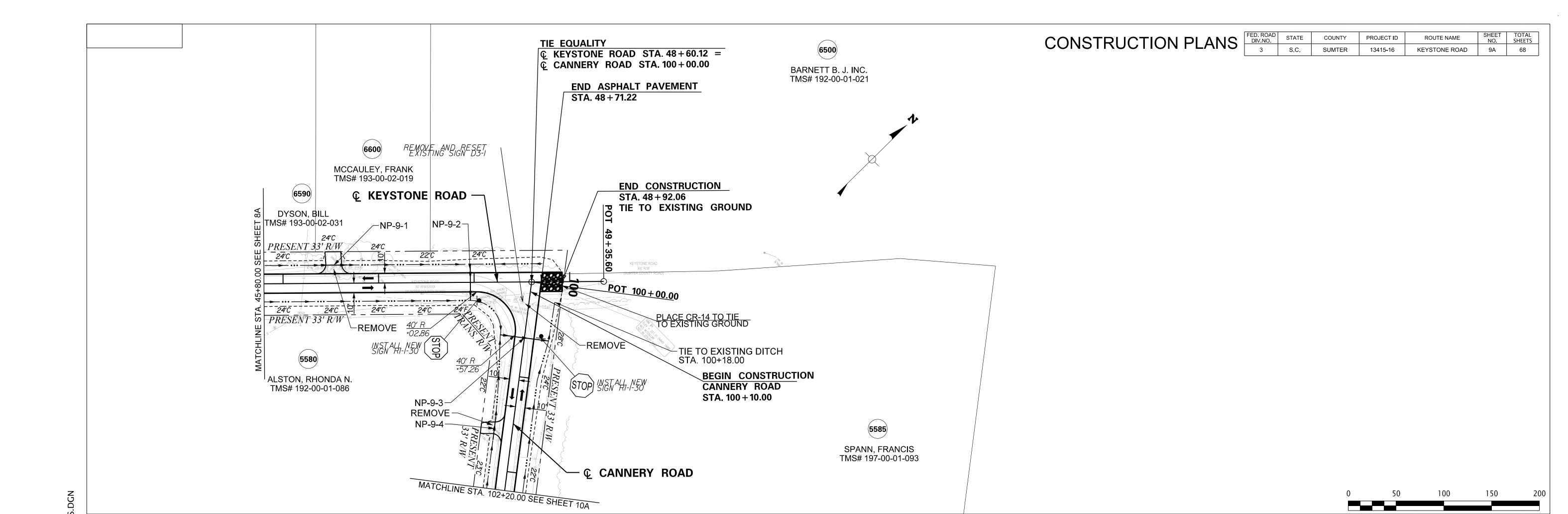
240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD

SINCE 1954

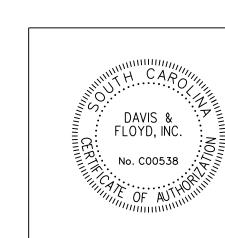
5							CII	MATER COUNTY
4							SU	MTER COUNTY
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2								AINAGE SHEET
1								YSTONE ROAD 0.00 – STA. 45+
REV. NO.	BY	DATE	D	ESCRIPTION	OF REVISION			
DESIGN	NED BY	SJK	DRAWN BY	SJK	CHECKED BY	AMS	SCALE 1"= 50' HOR.	PLOT

RAINAGE SHEET EYSTONE ROAD 0.00 - STA. 45+80.00 PLOT SIZE = 22" x 34"





	Smooth Wall Pipe														
	ID		Geoi	metry			Upstream				Downstream				
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)		
-	NP-9-1	18	1	28	0.50	N/A	Ditch LT	46+39.00	220.71	N/A	Ditch LT	46+67.00	220.57		
-	NP-9-2	24	1	46	0.50	N/A	Ditch LT	47+96.00	219.23	N/A	Ditch RT	47+96.00	219.00		
-	NP-9-3	24	1	51	0.30	N/A	Ditch RT	100+59.00	218.15	N/A	Ditch LT	100+59.00	218.00		
-	NP-9-4	15	1	24	0.38	N/A	Ditch RT	101+69.00	218.57	N/A	Ditch RT	101+45.00	218.48		



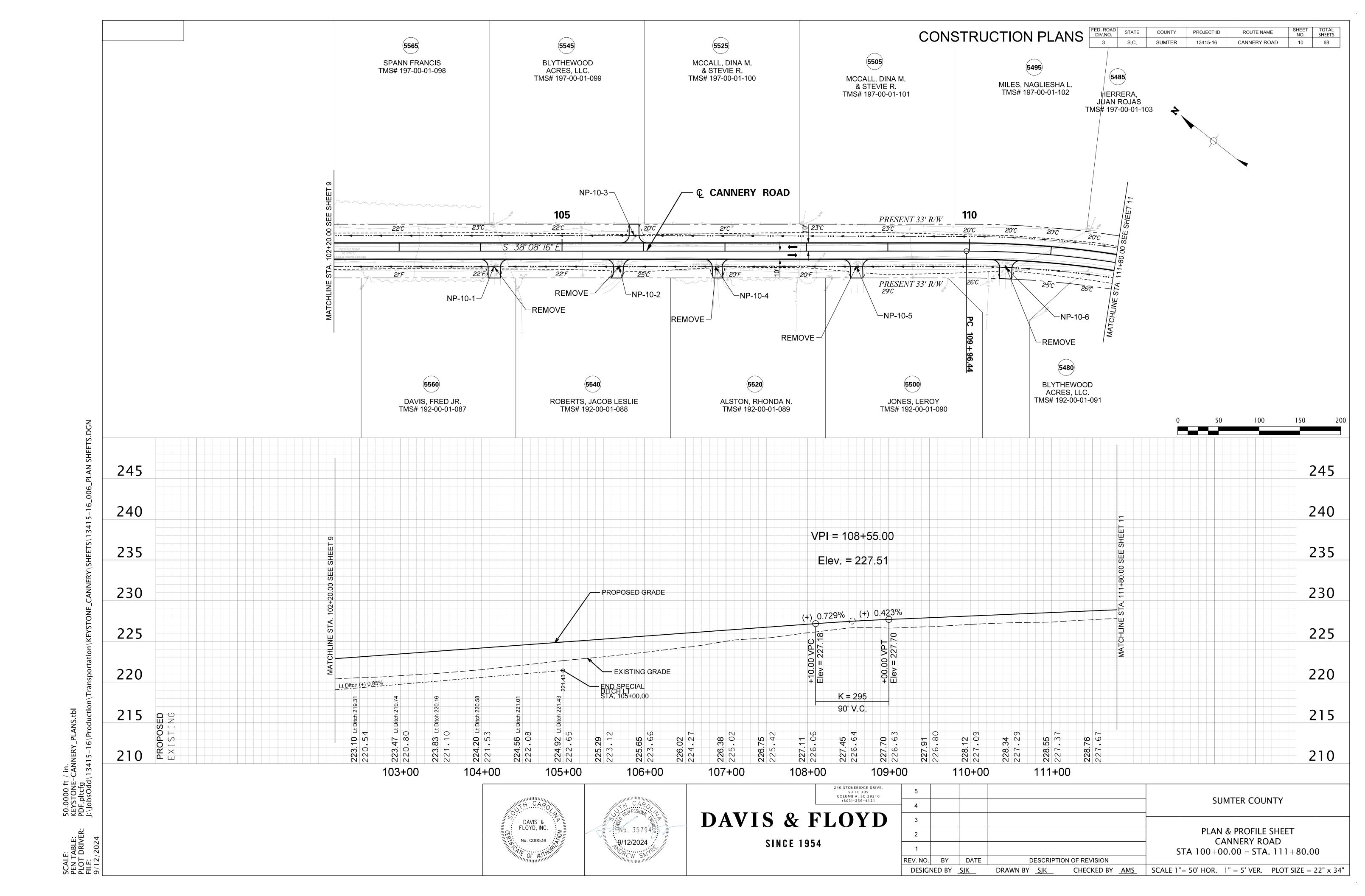


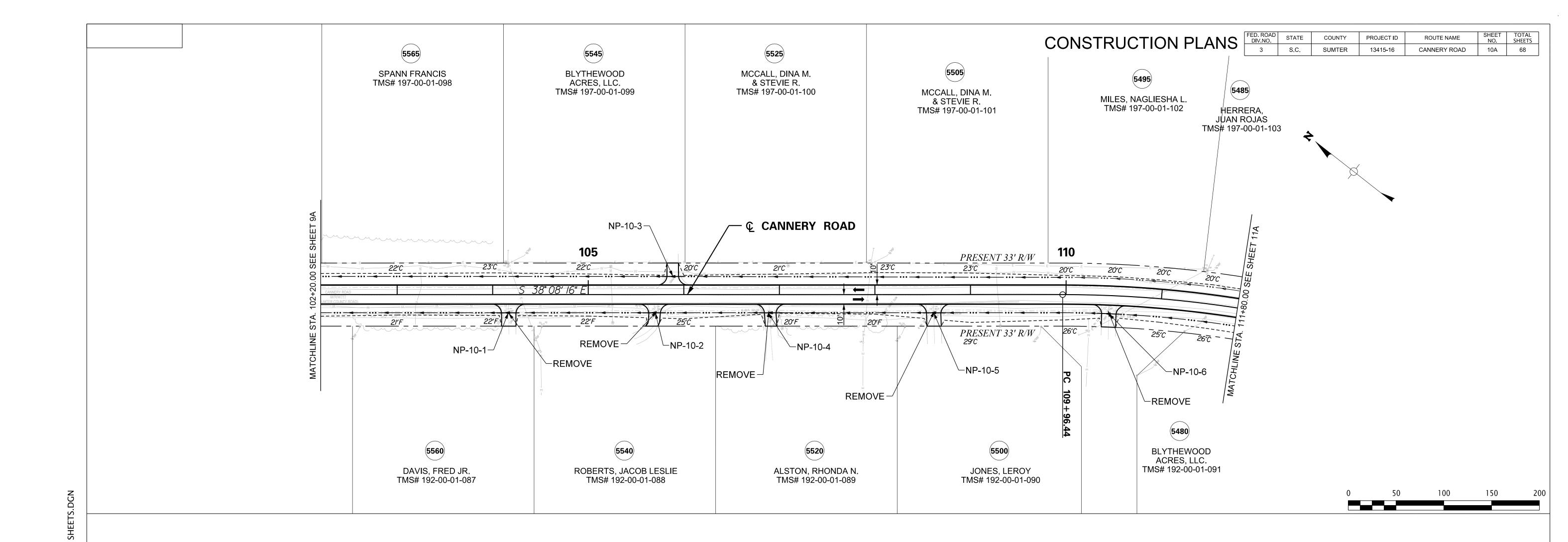
240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD **SINCE 1954**

REV. NO. BY DATE DESCRIPTION OF REVISION DESIGNED BY SJK DRAWN BY SJK CHECKED BY AMS SCALE 1"= 50' HOR.

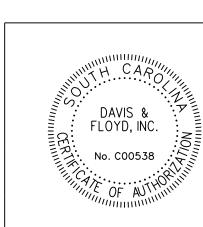
SUMTER COUNTY DRAINAGE SHEET **KEYSTONE ROAD** STA 45+80.00 - STA. 49+35.60

PLOT SIZE = $22" \times 34"$





	Smooth Wall Pipe													
	ID		Geor	metry			Upstre	am			Downst	ream		
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)	
-	NP-10-1	15	1	24	0.67	N/A	Ditch RT	104+28.00	220.61	N/A	Ditch RT	104+04.00	220.45	
-	NP-10-2	15	1	24	1.21	N/A	Ditch RT	105+81.00	222.38	N/A	Ditch RT	105+57.00	222.09	
-	NP-10-3	15	1	24	1.08	N/A	Ditch LT	106+01.00	222.80	N/A	Ditch LT	105+77.00	222.54	
-	NP-10-4	15	1	24	1.21	N/A	Ditch RT	107+03.00	223.85	N/A	Ditch RT	106+79.00	223.56	
-	NP-10-5	15	1	24	0.42	N/A	Ditch RT	108+74.00	225.40	N/A	Ditch RT	108+50.00	225.30	
-	NP-10-6	15	1	24	0.42	N/A	Ditch RT	110+57.40	226.18	N/A	Ditch RT	110+33.00	226.08	





DAVIS & FLOYD SINCE 1954

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		TION OF REVISION	DESCRIP	DATE	BY	REV. NO.
SCALE 1	<u>AMS</u>	CHECKED BY	DRAWN BY <u>SJK</u>	SJK	NED BY _	DESIGI

DRAINAGE SHEET

CANNERY ROAD

STA 100+00.00 - STA. 111+80.00

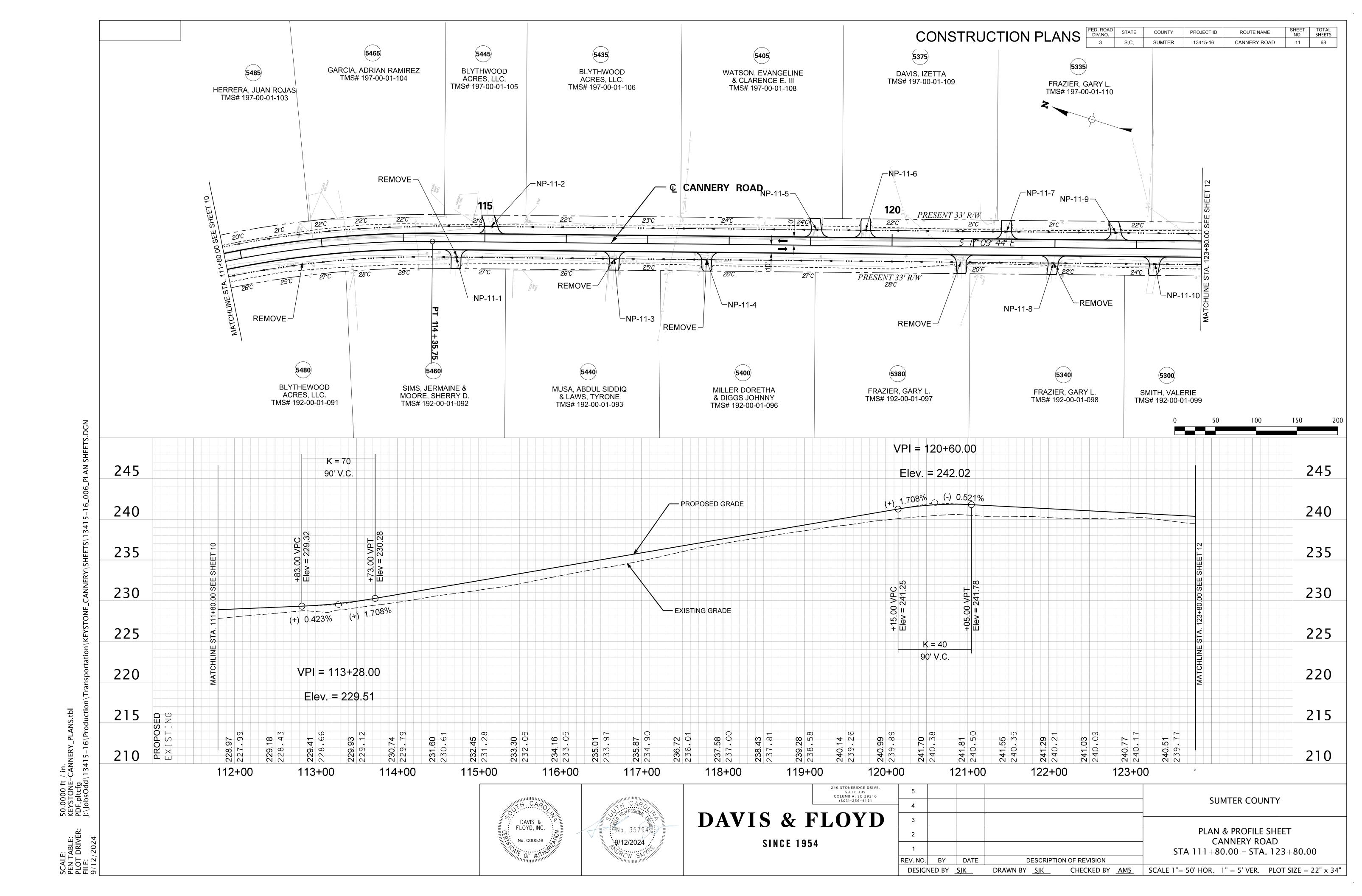
OF REVISION

CHECKED BY AMS | SCALE 1"= 50' HOR. | PLOT SIZE = 22" x 34"

SUMTER COUNTY

REYSTONE-CANNERY_PLANS.tbl R: PDF.pltcfg J:\JobsOdd\13415-16\Production\Transportation\KE

EN TABLE: KEYS LOT DRIVER: PDF. ILE: J:\Jo



					Sm	nooth Wall	Pipe						
	ID Geometry						Upstre	am			Downst	ream	
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)
-	NP-11-1	15	1	24	1.71	N/A	Ditch RT	114+77.00	229.87	N/A	Ditch RT	114+53.00	229.46
-	NP-11-2	15	1	24	1.67	N/A	Ditch LT	115+20.00	230.60	N/A	Ditch LT	114+96.00	230.20
-	NP-11-3	15	1	24	1.71	N/A	Ditch RT	116+72.00	233.20	N/A	Ditch RT	116+48.00	232.79
-	NP-11-4	15	1	24	1.67	N/A	Ditch RT	117+84.00	235.11	N/A	Ditch RT	117+60.00	234.71
-	NP-11-5	15	1	24	1.71	N/A	Ditch LT	119+19.00	237.42	N/A	Ditch LT	118+95.00	237.01
-	NP-11-6	15	1	24	1.71	N/A	Ditch LT	119+79.00	238.45	N/A	Ditch LT	119+55.00	238.04
-	NP-11-7	15	1	24	0.54	N/A	Ditch LT	121+28.00	239.48	N/A	Ditch LT	121+52.00	239.35
-	NP-11-8	15	1	24	0.50	N/A	Ditch RT	121+86.00	239.17	N/A	Ditch RT	122+10.00	239.05
-	NP-11-9	15	1	24	0.50	N/A	Ditch LT	122+63.00	238.77	N/A	Ditch LT	122+87.00	238.65
-	NP-11-10	15	1	24	0.50	N/A	Ditch RT	123+11.00	238.52	N/A	Ditch RT	123+35.00	238.40

DAVIS & FLOYD, INC.



240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD **SINCE 1954**

REV. NO. BY DATE

DESIGNED BY SJK

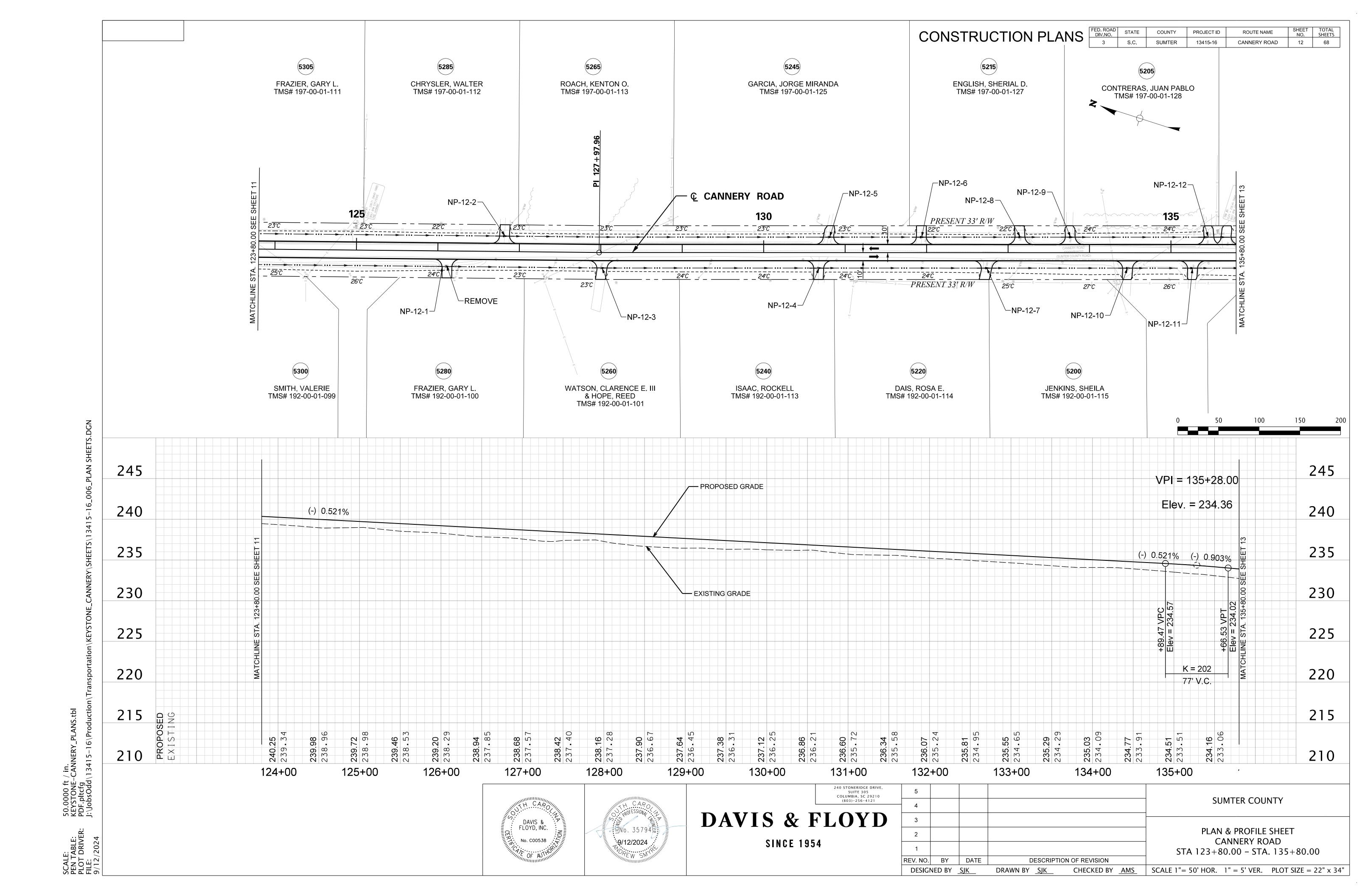
DESCRIPTION OF REVISION

DRAWN BY SJK

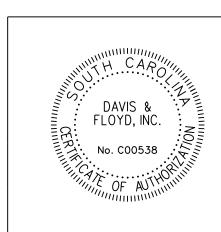
DRAINAGE SHEET CANNERY ROAD

SUMTER COUNTY

STA 111+80.00 - STA. 123+80.00 CHECKED BY AMS SCALE 1"= 50' HOR. PLOT SIZE = $22" \times 34"$



	Smooth Wall Pipe													
	ID Geometry					Upstream				Downstream				
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)	
-	NP-12-1	15	1	24	0.54	N/A	Ditch RT	125+99.00	237.02	N/A	Ditch RT	126+23.00	236.89	
_	NP-12-2	15	1	24	0.50	N/A	Ditch LT	126+70.00	236.65	N/A	Ditch LT	126+94.00	236.53	
-	NP-12-3	15	1	24	0.54	N/A	Ditch RT	127+90.00	236.03	N/A	Ditch RT	128+14.00	235.90	
-	NP-12-4	15	1	24	0.54	N/A	Ditch RT	130+56.00	234.64	N/A	Ditch RT	130+80.00	234.51	
_	NP-12-5	15	1	24	0.50	N/A	Ditch LT	130+69.00	234.57	N/A	Ditch LT	130+93.00	234.45	
-	NP-12-6	15	1	24	0.50	N/A	Ditch LT	131+82.00	233.98	N/A	Ditch LT	132+06.00	233.86	
-	NP-12-7	15	1	24	0.50	N/A	Ditch RT	132+62.00	233.56	N/A	Ditch RT	132+86.00	233.44	
-	NP-12-8	15	1	24	0.50	N/A	Ditch LT	133+03.00	233.35	N/A	Ditch LT	133+27.00	233.23	
-	NP-12-9	15	1	24	0.54	N/A	Ditch LT	133+65.00	233.03	N/A	Ditch LT	133+89.00	232.90	
-	NP-12-10	15	1	24	0.50	N/A	Ditch RT	134+35.00	232.66	N/A	Ditch RT	134+59.00	232.54	
-	NP-12-11	15	1	24	0.75	N/A	Ditch RT	135+14.00	232.23	N/A	Ditch RT	135+38.00	232.05	
-	NP-12-12	15	1	46	0.83	N/A	Ditch LT	135+35.50	232.07	N/A	Ditch LT	135+78.50	231.69	





DAVIS & FLOYD

SINCE 1954

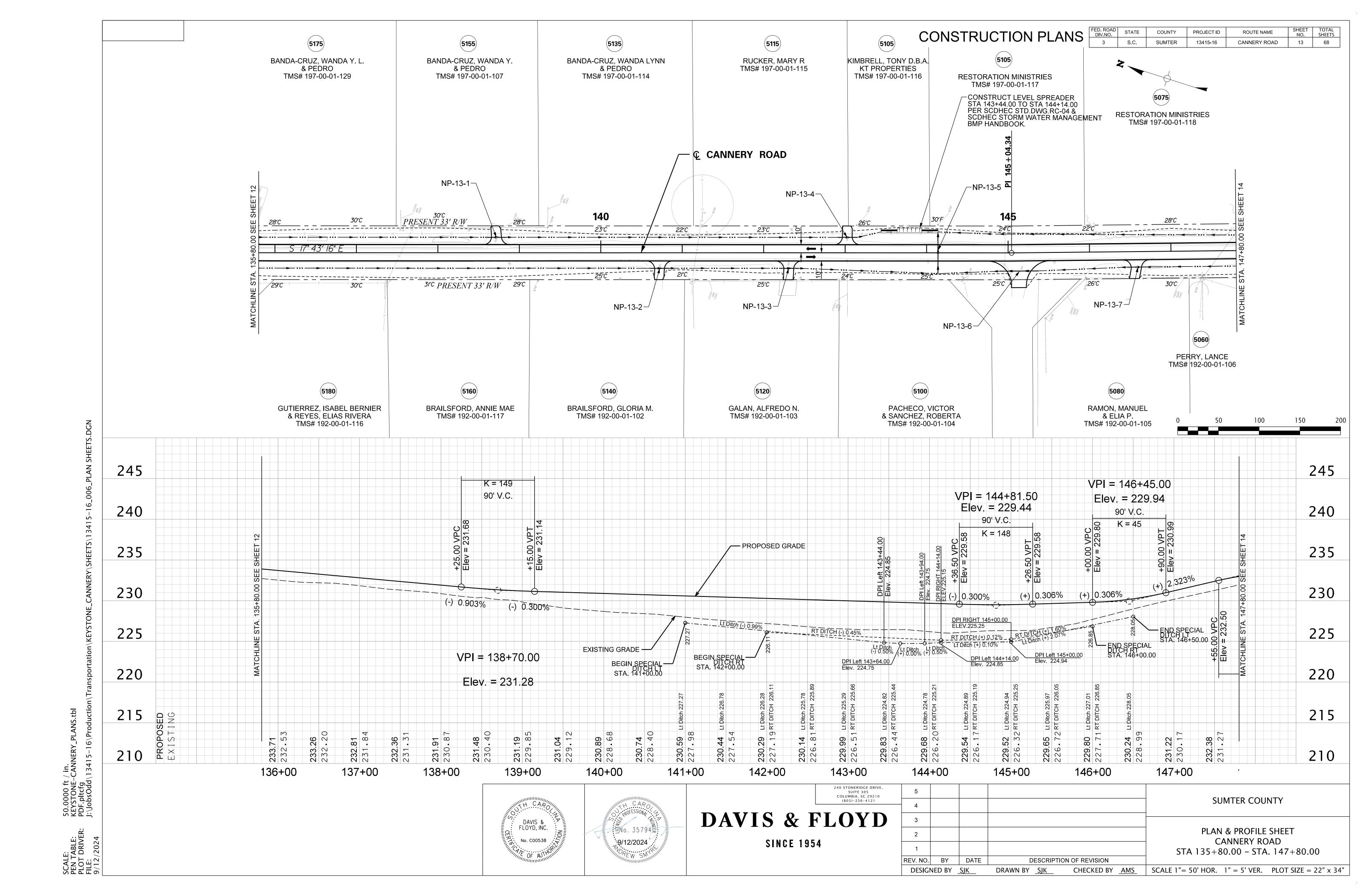
DRAINAGE SHEET CANNERY ROAD 23+80.00 – STA. 135+80.0

SUMTER COUNTY

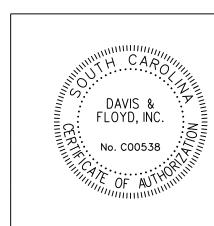
CANNERY ROAD STA 123+80.00 - STA. 135+80.00 1"= 50' HOR. PLOT SIZE = 22" x 34"

SOURCE IN THE STONE CANNERY_PLANS.tbl
/ER: PDF.pltcfg
J:\JobsOdd\13415–16\Production\Transportation\KEYSTONI

SCALE: PEN TABLE: KE' PLOT DRIVER: PD FILE: J:∖\



	Smooth Wall Pipe													
	ID		Geoi	metry			Upstre	am			Downst	ream		
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)	
_	NP-13-1	15	1	24	0.92	N/A	Ditch LT	138+60.00	229.18	N/A	Ditch LT	138+84.00	228.96	
_	NP-13-2	15	1	24	0.88	N/A	Ditch RT	140+60.00	227.37	N/A	Ditch RT	140+84.00	227.16	
_	NP-13-3	15	1	24	0.42	N/A	Ditch RT	142+19.00	226.02	N/A	Ditch RT	142+43.00	225.92	
_	NP-13-4	15	1	24	1.00	N/A	Ditch LT	142+91.00	225.38	N/A	Ditch LT	143+15.00	225.14	
-	NP-13-5	24	1	51	0.30	N/A	Ditch RT	144+14.00	225.15	N/A	Ditch LT	144+14.00	225.00	
_	NP-13-6	15	1	48	1.27	N/A	Ditch RT	145+37.30	225.85	N/A	Ditch RT	144+89.50	225.24	
-	NP-13-7	15	1	24	2.29	N/A	Ditch RT	146+70.00	228.33	N/A	Ditch RT	146+46.00	227.78	

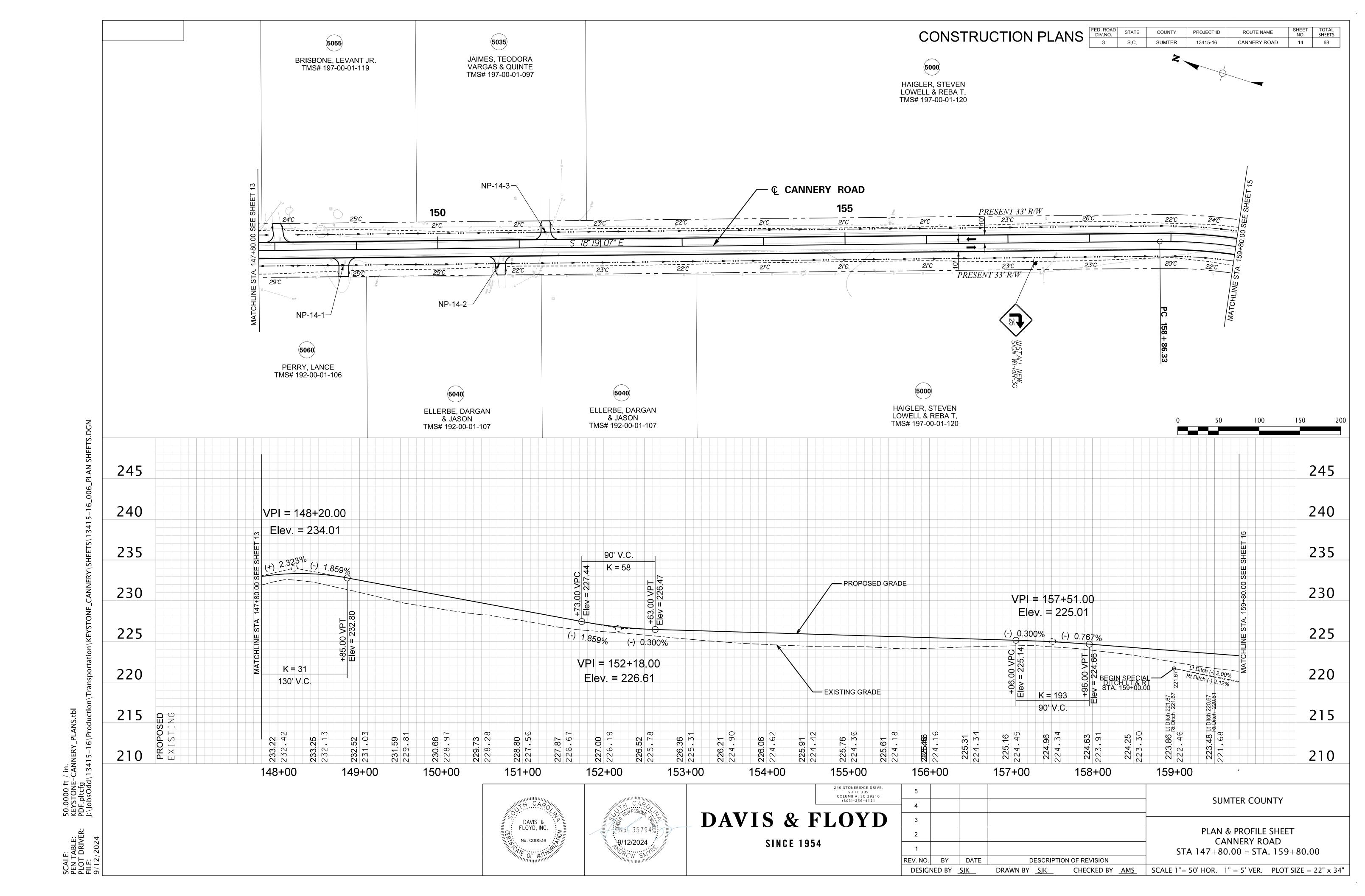


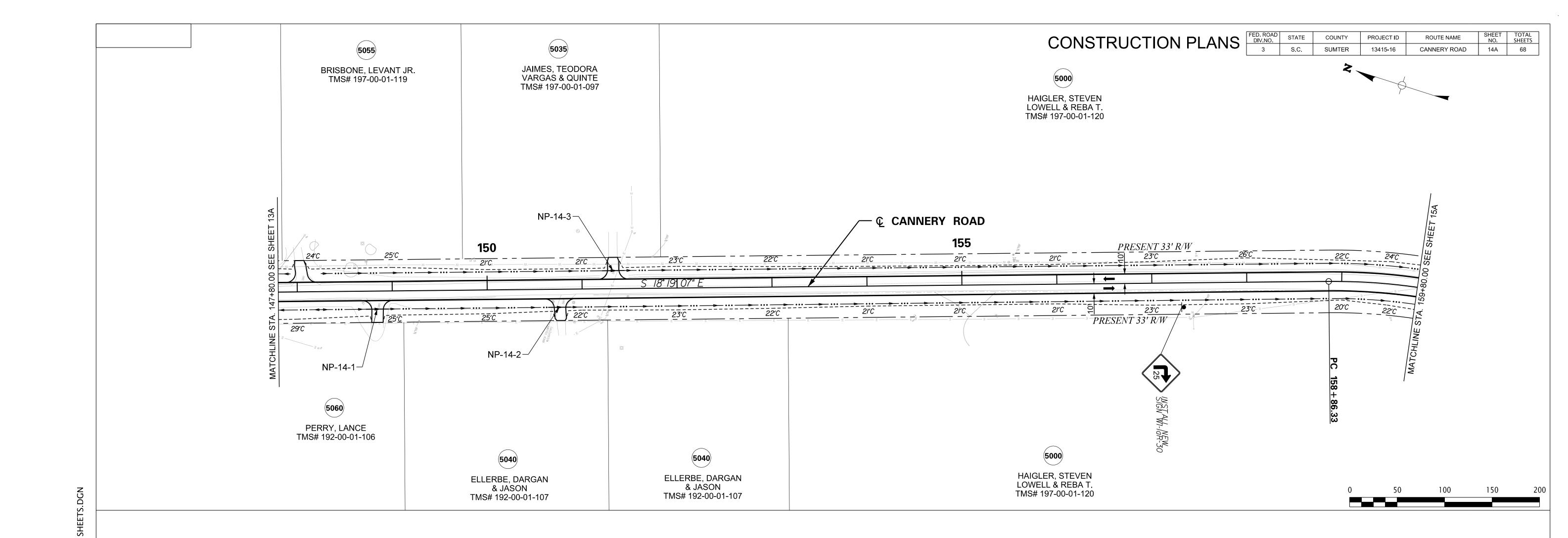


240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD **SINCE 1954**

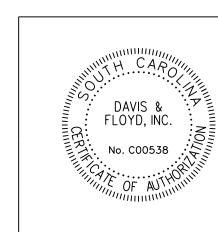
SUMTER COUNTY DRAINAGE SHEET CANNERY ROAD STA 135+80.00 - STA. 147+80.00 REV. NO. BY DATE DESCRIPTION OF REVISION DESIGNED BY SJK DRAWN BY SJK CHECKED BY AMS SCALE 1"= 50' HOR.

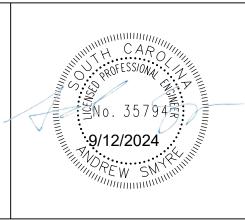
PLOT SIZE = $22" \times 34"$





Smooth Wall Pipe													
	ID	Geometry			Upstream				Downstream				
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)
-	NP-14-1	15	1	24	1.83	N/A	Ditch RT	148+72.00	230.85	N/A	Ditch RT	148+96.00	230.41
-	NP-14-2	15	1	24	1.83	N/A	Ditch RT	150+64.00	227.28	N/A	Ditch RT	150+88.00	226.84
-	NP-14-3	15	1	24	1.83	N/A	Ditch LT	151+21.00	226.22	N/A	Ditch LT	151+45.00	225.78





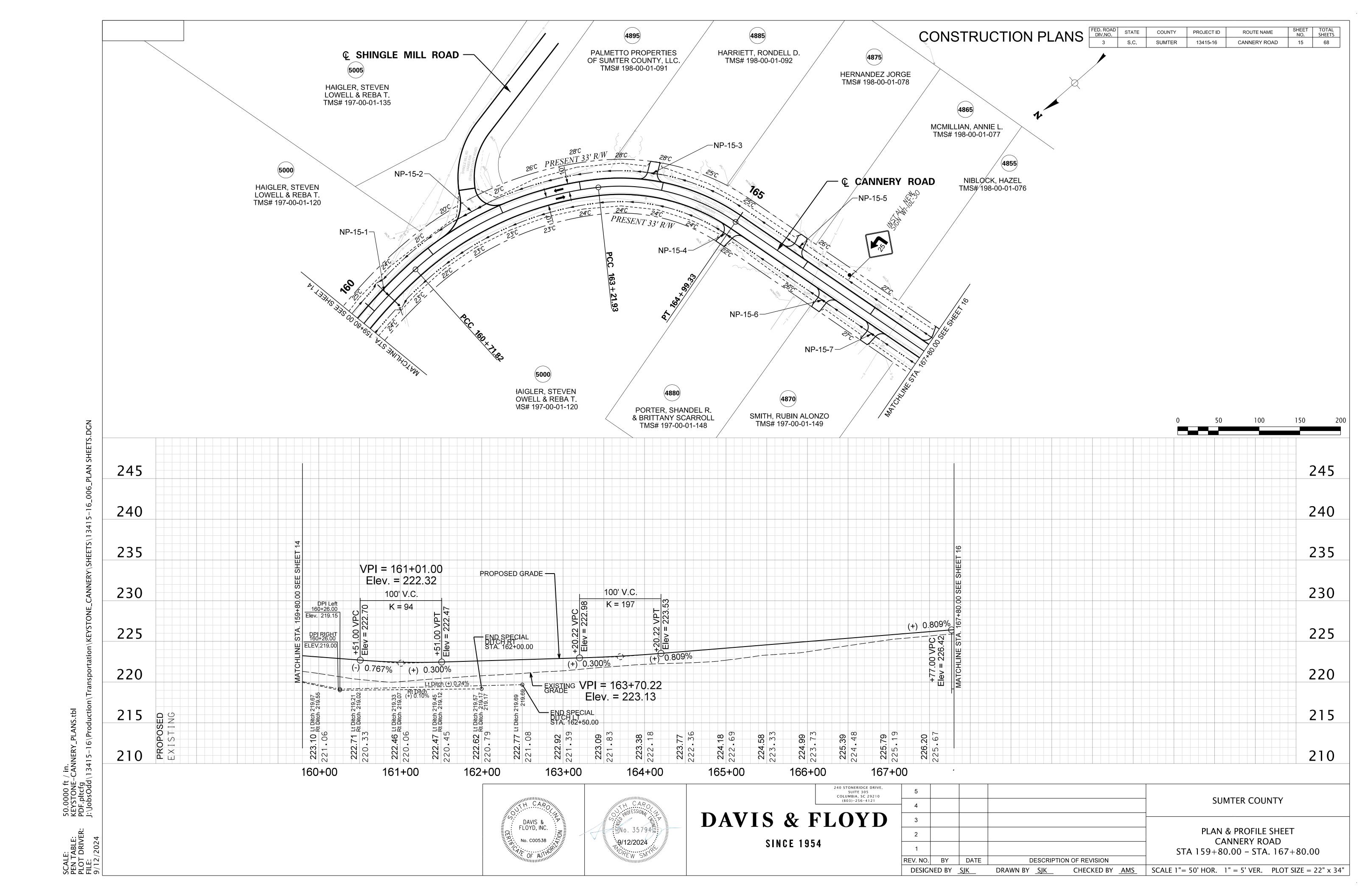
240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD **SINCE 1954**

REV. NO. BY DATE DESCRIPTION OF REVISION DESIGNED BY SJK DRAWN BY <u>SJK</u> CHECKED BY AMS SCALE 1"= 50' HOR.

DRAINAGE SHEET CANNERY ROAD STA 147+80.00 - STA. 159+80.00

PLOT SIZE = $22" \times 34"$

SUMTER COUNTY



Smooth Wall Pipe													
	ID	Geometry					Upstre	am		Downstream			
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)
-	NP-15-1	18	1	48	0.31	N/A	Ditch LT	160+26.00	219.15	N/A	Ditch RT	160+26.00	219.00
-	NP-15-2	15	1	54	0.22	N/A	Ditch LT	161+93.60	219.55	N/A	Ditch LT	161+42.00	219.43
-	NP-15-3	15	1	24	0.58	N/A	Ditch LT	163+96.80	220.60	N/A	Ditch LT	163+74.50	220.46
-	NP-15-4	15	1	24	0.67	N/A	Ditch RT	165+13.80	221.33	N/A	Ditch RT	164+89.00	221.17
-	NP-15-5	15	1	24	0.63	N/A	Ditch LT	165+93.00	221.82	N/A	Ditch LT	165+69.00	221.67
-	NP-15-6	15	1	24	0.58	N/A	Ditch RT	166+54.00	222.19	N/A	Ditch RT	166+30.00	222.05
-	NP-15-7	15	1	24	0.63	N/A	Ditch RT	167+27.00	222.65	N/A	Ditch RT	167+03.00	222.50

DAVIS & FLOYD, INC.



240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD

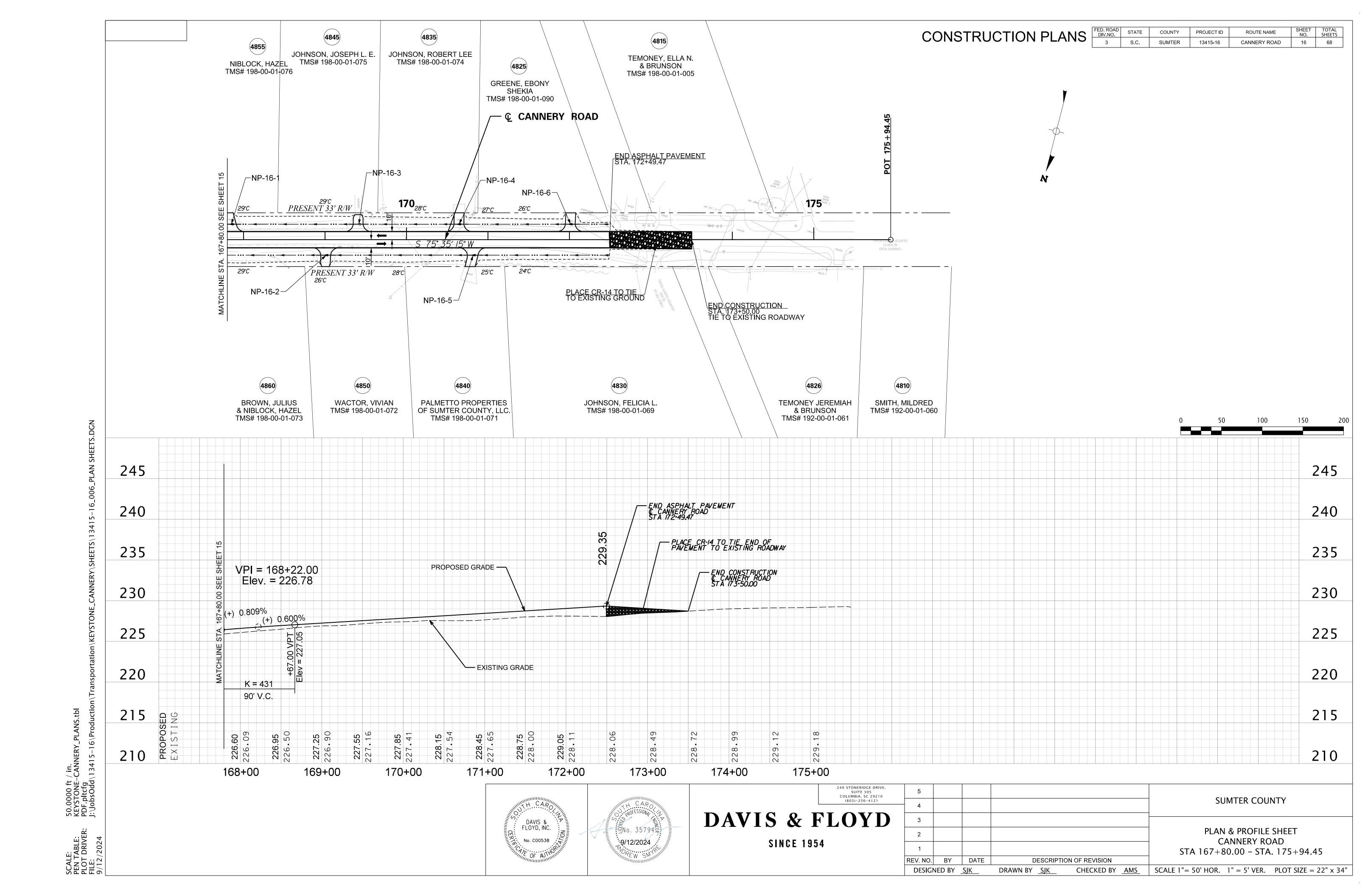
SINCE 1954

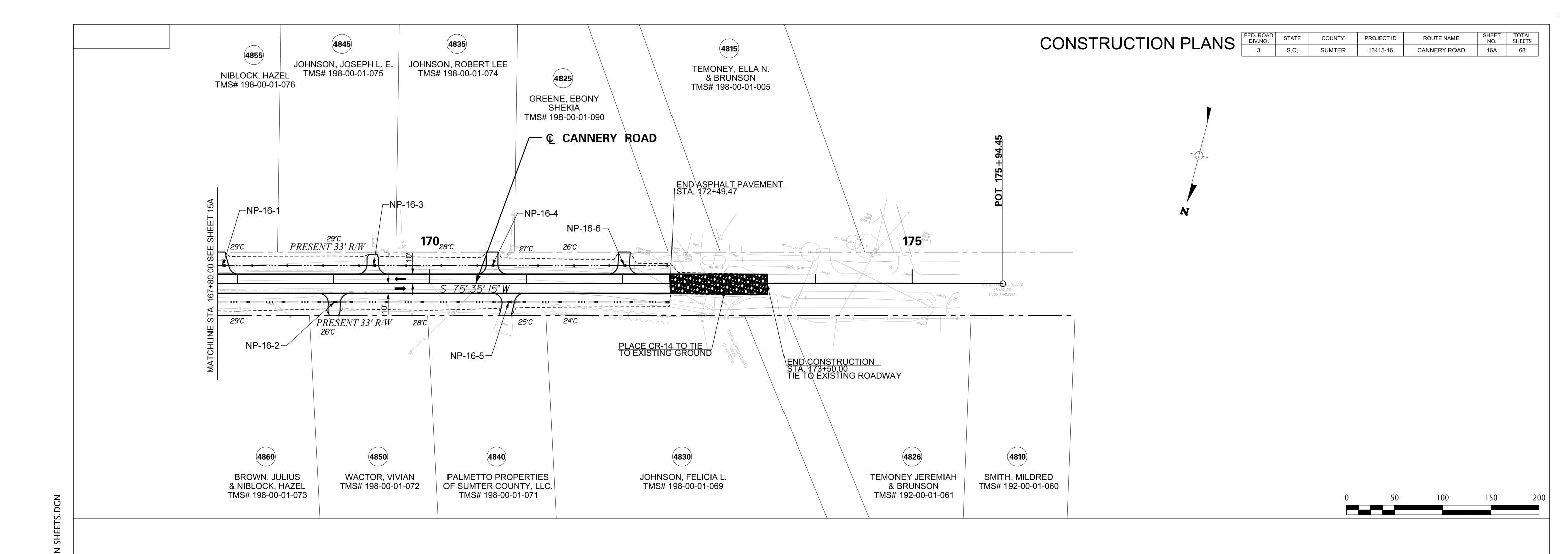
				5	
				4	
				3	
				2	
STA				1	
	DESCRIPTION OF REVISION	DATE	BY	REV. NO.	
SCALE 1"=	DRAWN BY <u>SJK</u> CHECKED BY <u>AMS</u>	SJK	NED BY	DESIG	

DRAINAGE SHEET CANNERY ROAD

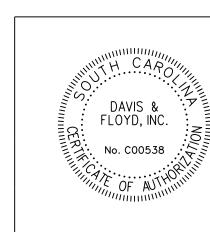
SUMTER COUNTY

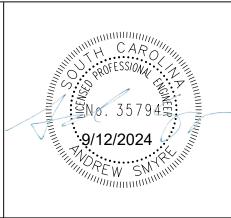
STA 159+80.00 - STA. 167+80.00 '= 50' HOR. PLOT SIZE = 22" x 34"





Smooth Wall Pipe													
	Geometry					Upstre	am		Downstream				
System ID	Link ID	Diameter (in)	No. of Barrels	Pipe Length (ft)	Slope (%)	Node	Node Description	Node Station	Link Invert (ft)	Node	Node Description	Node Station	Link Invert (ft)
-	NP-16-1	15	1	54	0.30	N/A	Ditch LT	167+97.00	223.08	N/A	Ditch LT	167+73.00	222.92
-	NP-16-2	15	1	24	0.63	N/A	Ditch RT	169+13.00	223.80	N/A	Ditch RT	168+89.00	223.65
-	NP-16-3	15	1	24	0.58	N/A	Ditch LT	169+53.00	224.04	N/A	Ditch LT	169+29.00	223.90
-	NP-16-4	15	1	24	0.58	N/A	Ditch LT	170+76.00	224.80	N/A	Ditch LT	170+52.00	224.66
-	NP-16-5	15	1	24	0.62	N/A	Ditch RT	170+94.00	224.92	N/A	Ditch RT	170+70.00	224.77
-	NP-16-6	15	1	24	0.63	N/A	Ditch LT	172+13.00	225.65	N/A	Ditch LT	171+89.00	225.50





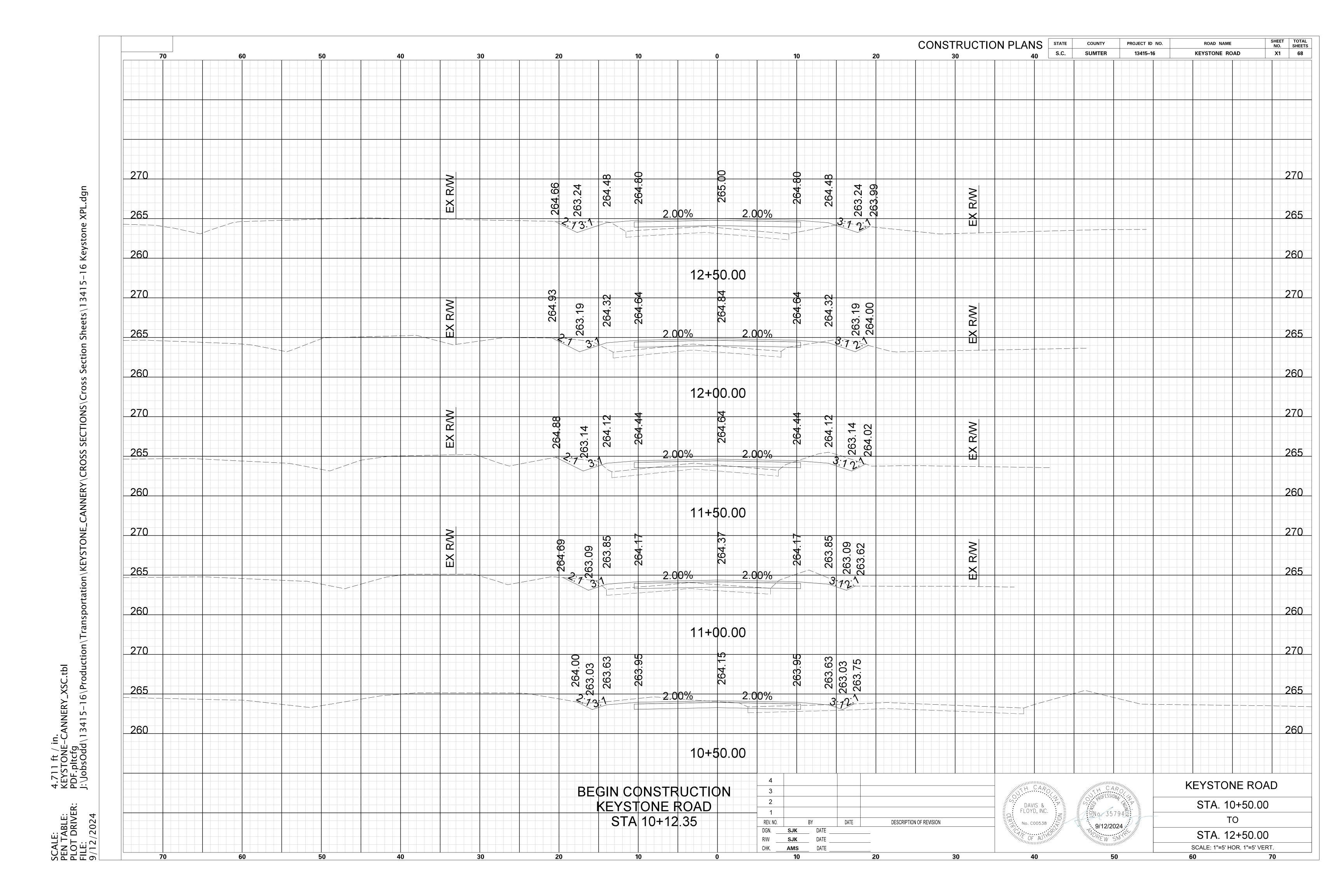
240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803)-256-4121 DAVIS & FLOYD **SINCE 1954**

REV. NO. BY DATE DESCRIPTION OF REVISION DESIGNED BY SJK DRAWN BY SJK

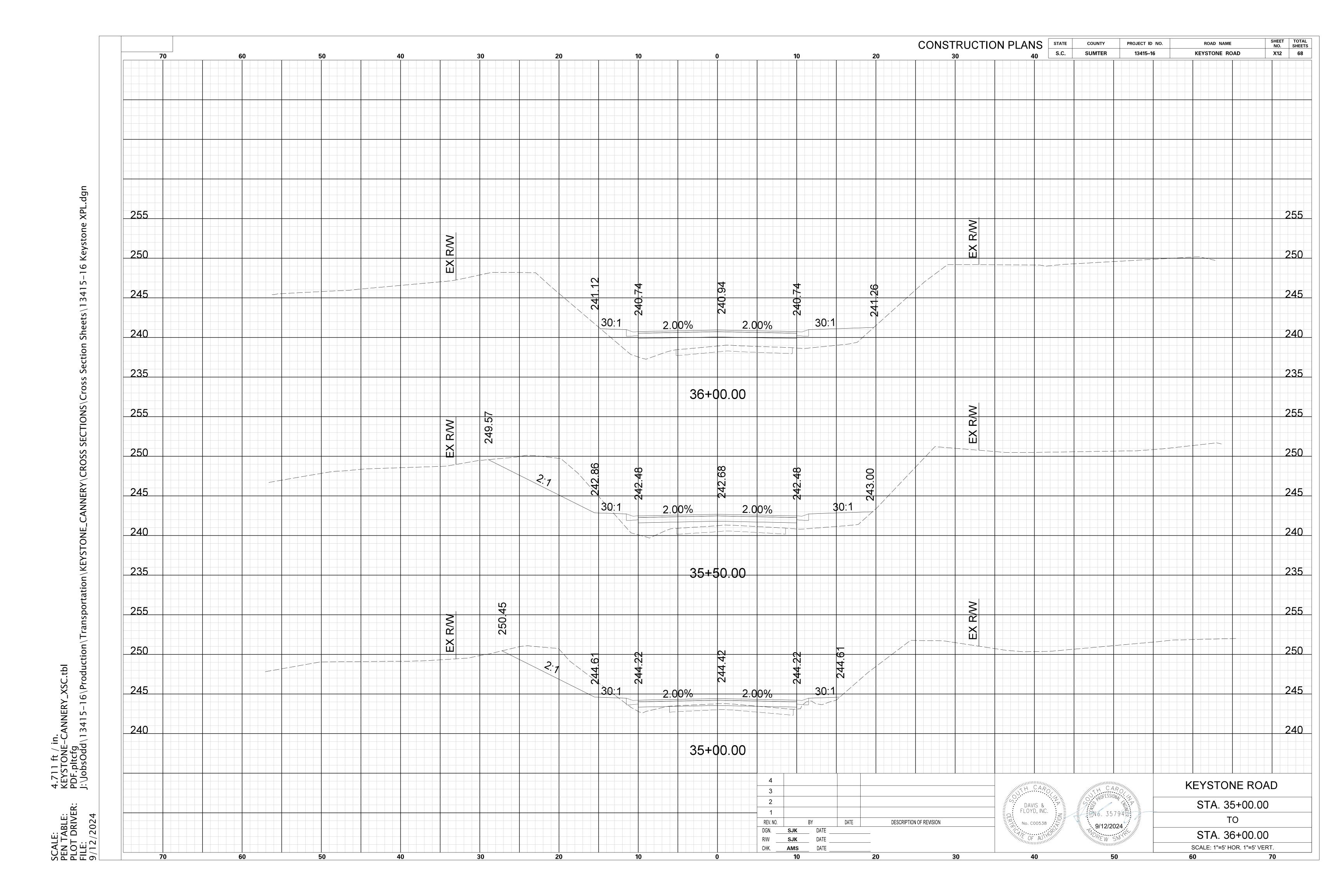
DRAINAGE SHEET CANNERY ROAD STA 167+80.00 - STA. 175+94.45

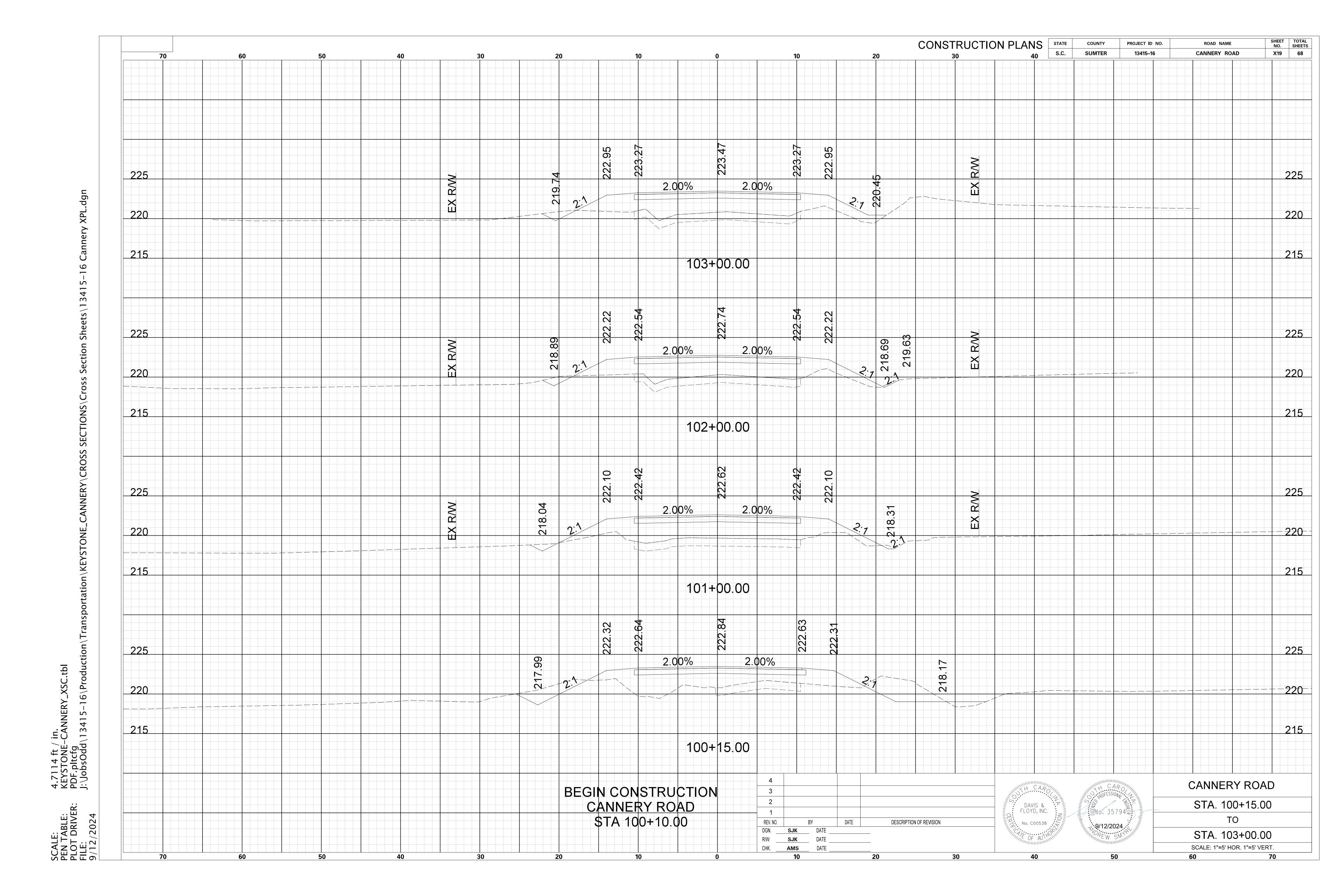
SUMTER COUNTY

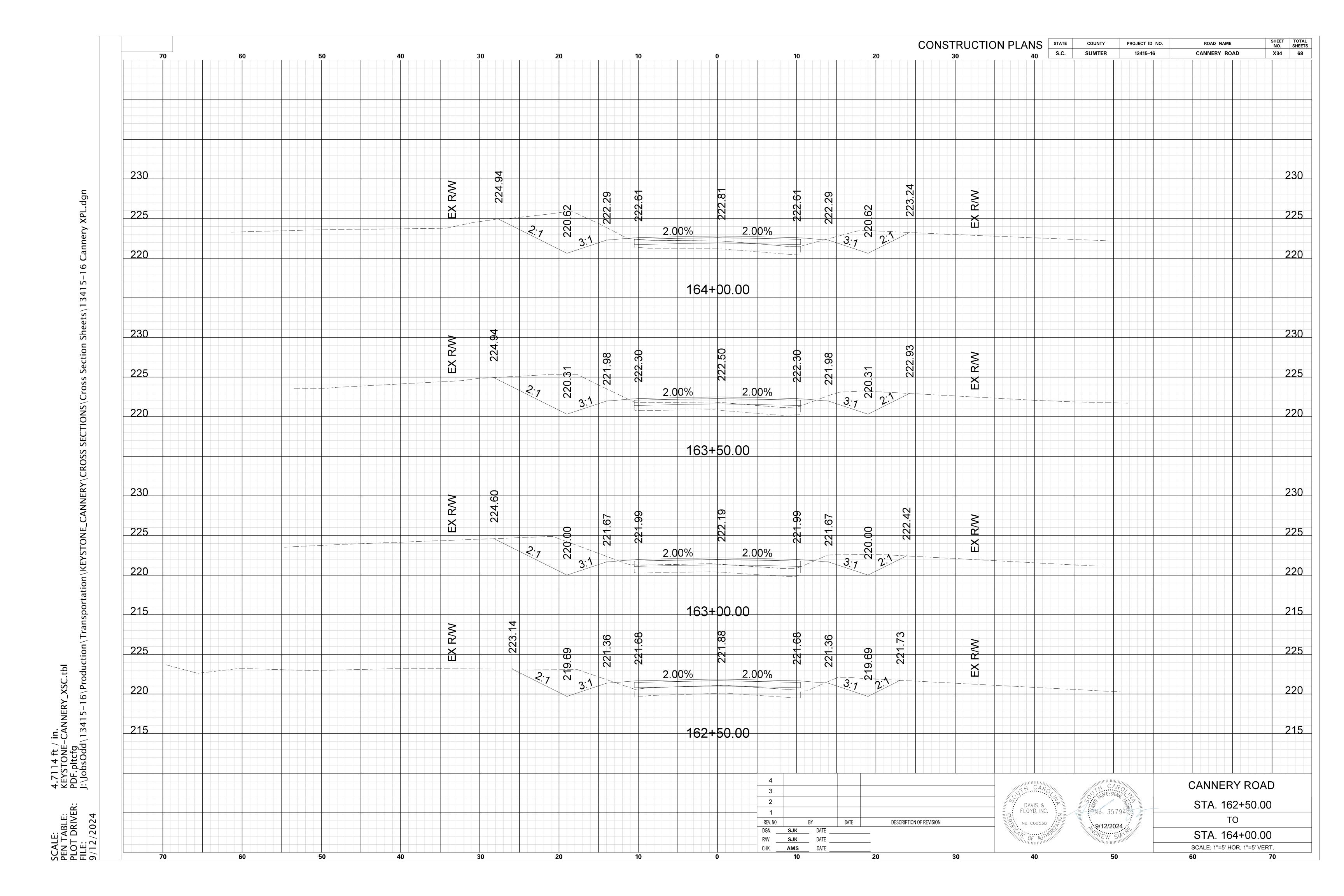
CHECKED BY AMS SCALE 1"= 50' HOR. PLOT SIZE = $22" \times 34"$



SCALE:
PEN TABLE:
PLOT DRIVER:
FILE:
9/12/2024





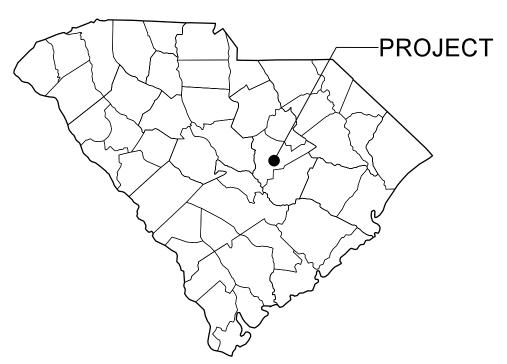


SHEET#	DESCRIPTION	SHEET TOTALS
1	Title Sheet	1
3	Typical Sections	1
5	Reference Data Sheets	1
6-7	Plan and Profile Sheets	2
X1-X6	Cross Section Sheets	6
	TOTAL SHEETS	11

SUMTER COUNTY

PLAN AND PROFILE OF PROPOSED COUNTY ROAD

JOSH WELLS ROAD



CONSTRUCTION PLANS

LOCATION MAP N.T.S.

NPDES PERMIT INFORMATION Disturbed Area = 0.52 Acre(s) Project Area = 0.87 Acre(s) Approximate Location of Roadway is 33°52'16.6"N 80°21'48,2"W 33°52'23.3"N 80°21'49.0"W Longitude

ROAD NAME JOSH WELLS ROAD

FED. ROAD STATE COUNTY

Hydraulic and NPDES Design provided by

DAVIS & FLOYD, INC.

-PROJECT LIMITS JOSH WELLS ROAD STA. 50 + 14.81 TO 53 + 73.60 STA. 100 + 61.84 TO 106 + 38.86

(803) 256-4121 DAVIS & FLOYD

SINCE 1954

Pocalla Springs **58**)

JOSH WELLS ROAD TOTAL **NET LENGTH OF ROADWAY** 0.177 MILES 0.177 MILES 0.000 MILES 0.000 MILES NET LENGTH OF BRIDGES 0.177 MILES NET LENGTH OF PROJECT 0.177 MILES 0.000 MILES LENGTH OF EXCEPTIONS 0.000 MILES

LAYOUT

(NOT TO SCALE)

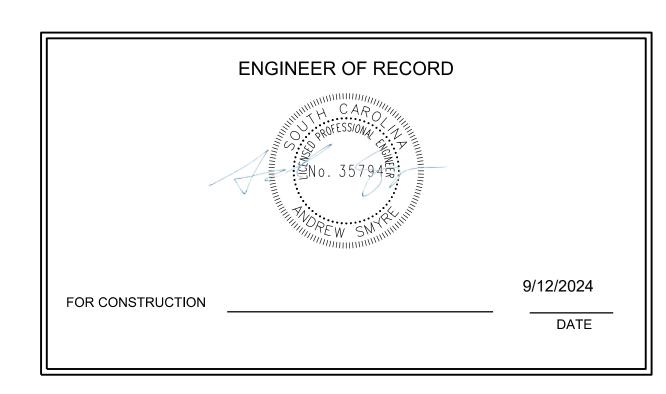
3 DAYS BEFORE DIGGING IN **SOUTH CAROLINA**

RAILROAD INVOLVEMENT? YES/(NO)

SOUTH CAROLINA 811 (SC811) WWW.SC811.COM

CALL 811

EQUALITIES IN STATIONING NONE



SCDOT CONSTRUCTION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR UTILIZING ALL APPLICABLE AND CURRENT SCDOT STANDARD DRAWINGS INCLUDING, BUT NOT LIMITED TO, THE DRAWINGS REFERENCED WITHIN THESE PLANS AND THE APPROVED PERMIT PACKAGE.

2. UPON SUBSTANTIAL PROJECT COMPLETION, CONTRACTOR TO CLEAR EXISTING CULVERTS/PIPES, CATCH BASINS, AND DITCHES ALONG FRONTAGE AND DOWNSTREAM AS NECESSARY TO ACHIEVE POSITIVE DRAINAGE.

3. ALL PROPOSED OR RELOCATED SIGNAGE SHALL BE PLACED OR REPLACED IN ACCORDANCE WITH SECTION 650+000 AND INSTALLED ON SCDOT APPROVED BREAKAWAY SIGN SUPPORTS AS DETAILED IN SECTION 654-000 IN THE SCDOT STANDARD DRAWINGS.

4. PAVEMENT TRANSITION BETWEEN MILLED SURFACE AT BUTT JOINTS SHALL BE TIED-IN SMOOTHLY AND SHALL BE FREE OF "BUMPS".

GENERAL CONSTRUCTION NOTES

- 1. THE UNDERGROUND UTILITIES ARE IN THEIR APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITIES LOCATED PRIOR TO CONSTRUCTION.
- ACCESS TO RESIDENCES AND BUSINESSES SHALL BE MAINTAINED TO THE MAXIMUM EXTENT POSSIBLE DURING WORKING HOURS. FULL ACCESS SHALL
- 3. SHRUBS, SMALL TREES, AND OTHER ITEMS WITHIN THE RIGHT-OF-WAY WHICH NEED TO BE MOVED SHALL BE CAREFULLY REMOVED AND TURNED OVER TO THE PROPERTY OWNER. FENCES, MAIL BOXES, AND SIGNS SHALL BE RELOCATED BY THE CONTRACTOR. CONTRACTOR SHALL STAKE R/W PRIOR TO CONSTRUCTION TO VERIFY RELOCATIONS.
- 4. MANHOLE COVERS AND VALVE BOXES SHALL BE ADJUSTED TO THE FINISHED
- 5. ELEVATIONS ARE BASED ON THE NAVD 1988 USING SOUTH CAROLINA GEODETIC SOCIETY'S VIRTUAL REFERENCE NETWORK.
- 7. ALL RCP PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.

8. CONTRACTOR WILL BE RESPONSIBLE FOR ALL LINES, STAKES, AND GRADES. CONTRACTOR SHALL STAKE R/W PRIOR TO CONSTRUCTION TO VERIFY RELOCATIONS.

9. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT THE TRANSFER OF SUSPENDED SOLIDS AND/OR CHEMICAL SOLUTIONS OFF-SITE, AND TO PREVENT EXCESSIVE SILTATION OF EXISTING DRAINAGE PIPES, CULVERTS, STREAMS, AND DITCHES. THE CONTRACTOR SHALL ROUTINELY INSPECT AND

ALL UTILITIES MAY NOT BE A MEMBER OF SC811

BE PROVIDED AT THE END OF EACH WORK DAY.

6. ALL DRIVEWAYS ARE SUBJECT TO ADJUSTMENT BY SUMTER COUNTY.

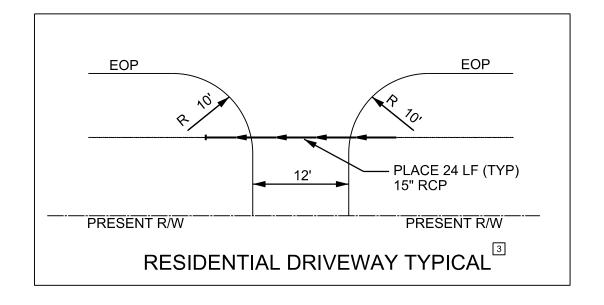
MAINTAIN THESE DEVICES.

GROSS LENGTH OF PROJECT

0.177 MILES 0.177 MILES

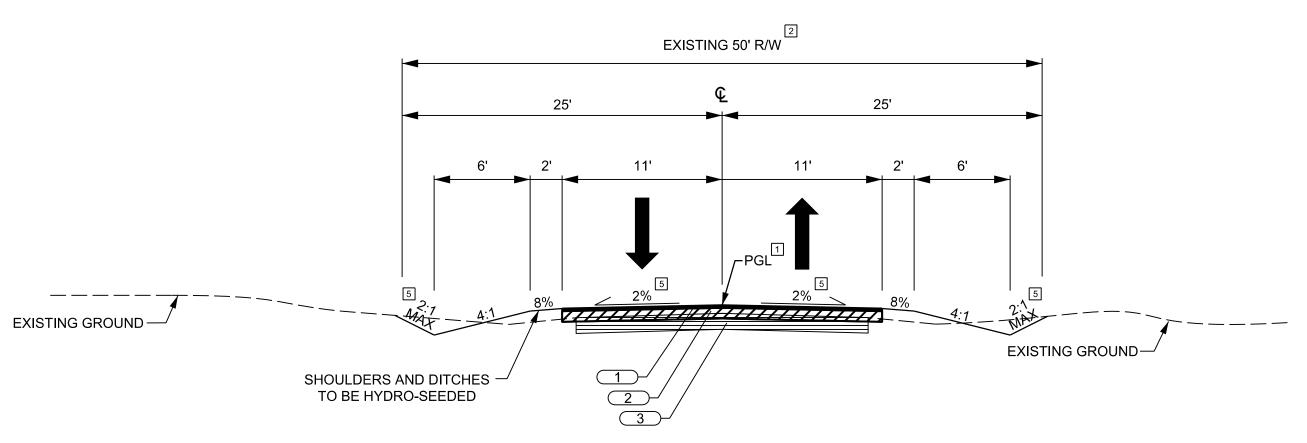
NOTES:

- 1. PGL PROPOSED GRADE LINE.
- 2. SEE PLANS FOR LOCATION OF EXISTING RIGHT-OF-WAY.
- 3. DRIVEWAY WIDTH SHOWN IS TYPICAL. IF A PERMANENT DRIVEWAY EXISTS MATCH EXISTING WIDTH.
- 4. BI-DIRECTIONAL RAISED PAVEMENT MARKERS SHALL BE
 PLACED EVERY 80' ALONG THE CENTERLINE IN ACCORDANCE
 WITH SCDOT STANDARD DRAWING 630-105-00.
- 5. PAVEMENT SLOPES AND SHOULDER SLOPES MAY VARY FROM THOSE SHOWN IN TYPICAL SECTIONS. (SEE CROSS SECTIONS)

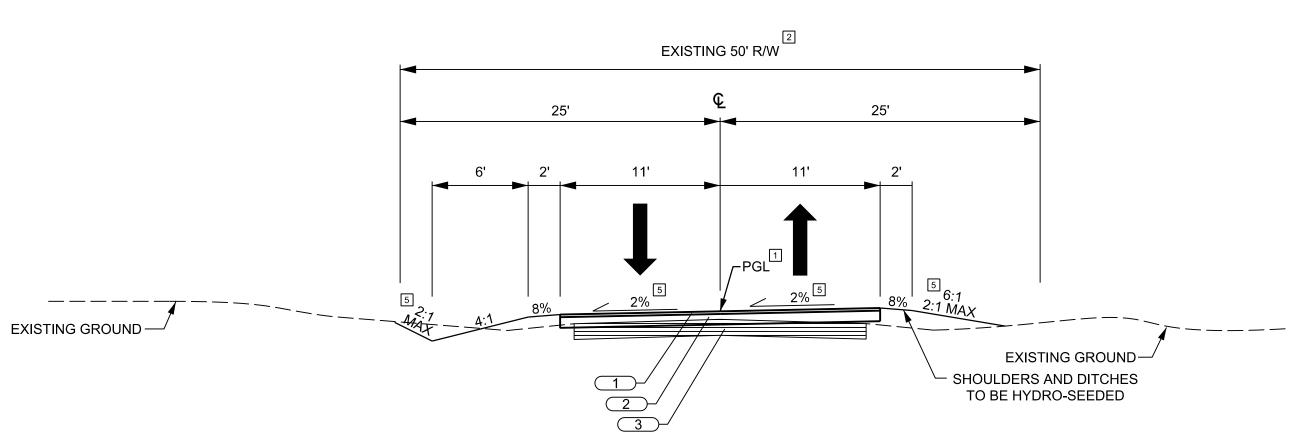


MENT

TYPICAL SECTION OF IMPROVEMENT SUMTER COUNTY



JOSH WELLS ROAD A FROM STA. 50+14.81 TO STA. 53+73.60



JOSH WELLS ROAD B FROM STA. 100+61.84 TO STA. 106+38.86

ROAD FUNCTIONAL CLASSIFICATION JOSH WELLS ROAD - URBAN LOCAL						
	200 PSY ASPHALT SURFACE TYPE C					
2 (///)	8" CR-14 - COMPACTED TO 95%					

EXISTING DIRT ROAD

	ROUTE		
ESIGN SPEED	FROM STA.	TO STA.	
J(OSH WELLS RO	DAD	
25 MPH	50+14.81	53+73.60] ;
J(1111		
25 MPH	100+61.84	106+38.86	=
			HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
			1

AS DIRECTED BY ENGINEER
REMOVE 8" OF EXISTING SHOULDER
BACKFILL WITH SOIL AGGREGATE SUBBASE
COURSE (CR-14)

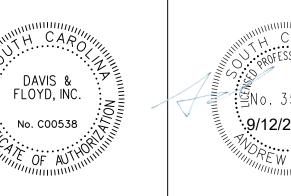
EXISTING -

DIRT ROAD

DETAIL 'A'

CR-14 MUCKING DETAIL

EXISTING GROUND ——





DAVIS & FLOYD

S & FLOYD	;
011105 4054	:
SINCE 1954	
	REV
	1

240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210

5						G.11.4-		
4						SUMTER COUNTY PUBLIC WORKS		
3								
2						TYPICAL SECTION		
1							JOSH WELLS ROAD	
REV. NO.	BY	DATE	DESCRIPTIO	N OF REVISION				
DESIGNED BY ZAM DRAWN BY PLD CHECKED BY ALM		SCALE N.T.S.	PLOT SIZE = 22" x 34					

FED. ROAD DIV.NO.	STATE	COUNTY	ROAD NAME	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	SUMTER	JOSH WELLS ROAD		5	11

CONTROL POINTS

	00111110211011110								
PT ID	NORTHING	EASTING	ELEV.	DESCRIPTION					
TBM#1	742011.194	2193173.091	160.35	RRSPIKE IN UP 53F56					
TBM#2	742764.235	2193040.396	149.94	RRSPIKE IN LP 6PD39					

COORDINATES-SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM.
ALL DISTANCES AS SHOWN ON PLANS ARE GRID DISTANCES.
NO COMBINED SCALE FACTOR WAS USED FOR THIS PROJECT.

Beginning chain JOSHW A description

Point JWA1 N 742,047.68 E 2,193,185.06 Sta 50+00.00

Course from JWA1 to JWA2 N 50° 39′ 30.03″ E Dist 400.00

Point JWA2 742,301.26 E 2,193,494.41 Sta 54+00.00

Ending chain JOSHW A description

Beginning chain JOSHW B description

742,801.87 E 2,193,112.58 Sta Point JWB1 100+00.00

Course from JWB1 to PC JOSHW B1 S 22° 45′ 29.97" E Dist 439.00

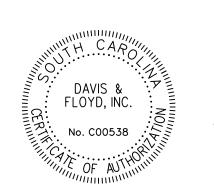
Curve Data *----*

			·	• •	*1*		
Curve JOSHW P.I. Statio		104+8	34.89	N	742,354.73	E	2,193,300.16
Delta	=	_	5.00" ((L T)			
Degree	=	28° 38′ 52	2.40"				
Tangent	=	Δ	15.89				
Length	=	C	0.22				
Radius	=	20	00.00				
External	=		5.20				
Long Chord	=	8	39.46				
Mid. Ord.	=		5.07				
P.C. Statio			39.00	N	742,397.05		2,193,282.4
P.T. Statio	on	105+2	29.22	N	742,324.39		2,193,334.59
C • C •	_		- 11 -	N	742,474.42	E	2,193,466.84
Back	_		7" E				
Ahead		48° 36′ 15•9	· —				
Chord Bear	= S	35° 40′ 52.9) ('' E				
			4D 0 6	400 76/ 4	5 07" E Dic+ 1	00 70	
$I \cap I \cap$				/I U U U X I_	6 U / L II C + 1		

Course from PT JOSHW B1 to JWB2 S 48° 36′ 15.97″ E Dist 120.78

Point JWB2 742,244.52 E 2,193,425.19 Sta 106+50.00

Ending chain JOSHW B description



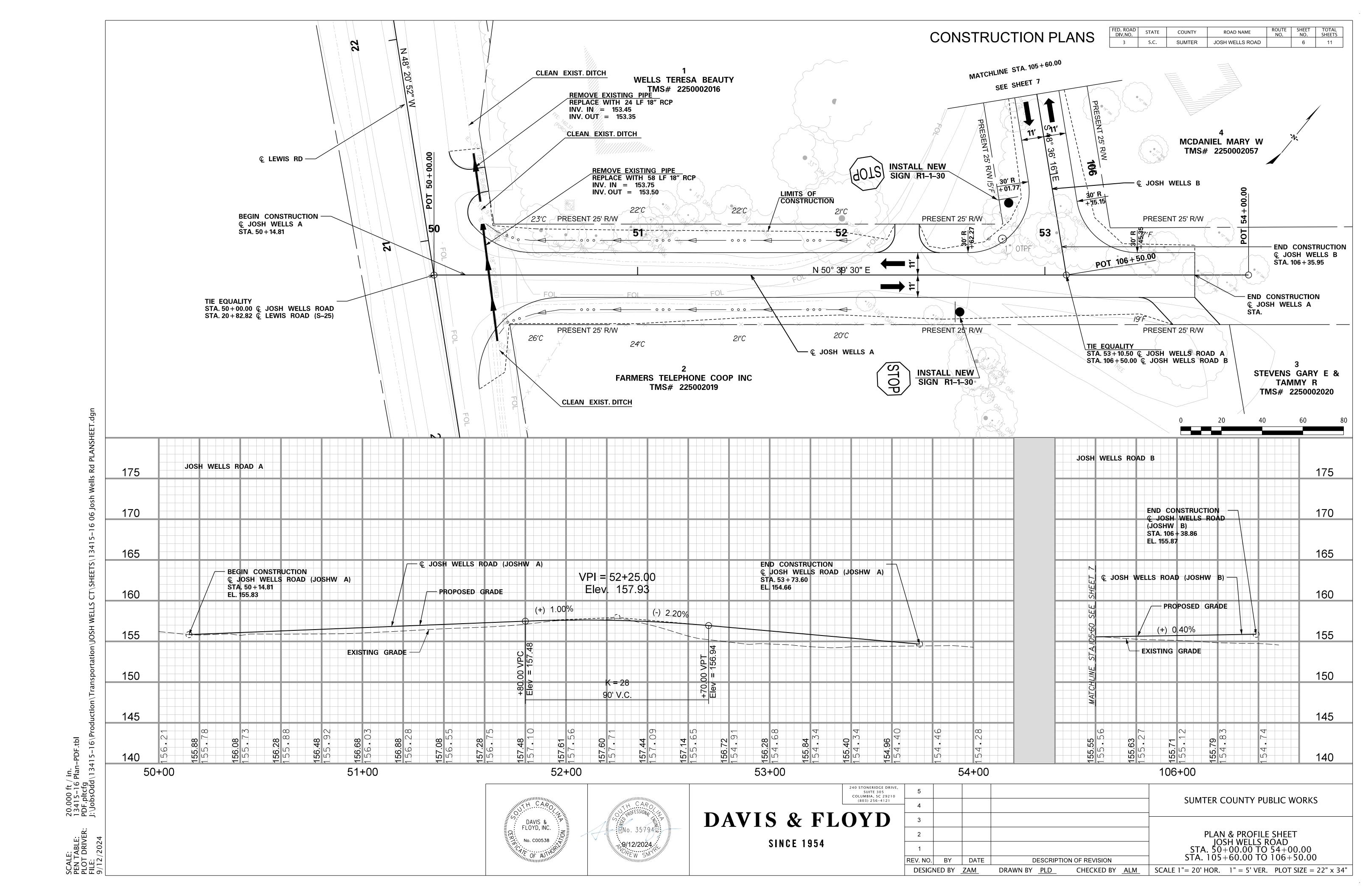


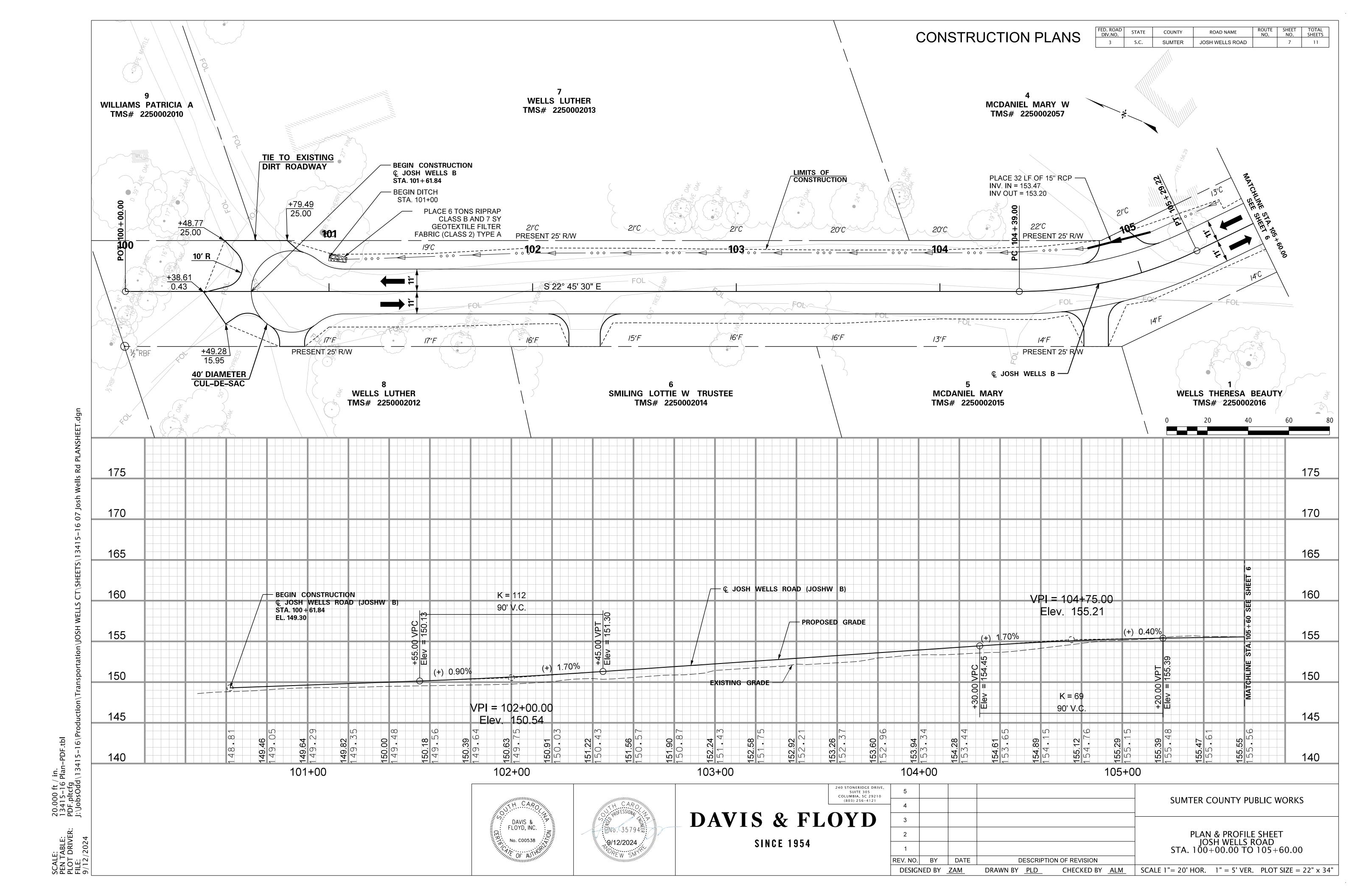
240 STONERIDGE DRIVE, SUITE 305 COLUMBIA, SC 29210 (803) 256-4121 DAVIS & FLOYD **SINCE 1954**

5					CUNITED COL	INITY BUBLIC MODIC
4					SUMTER COU	INTY PUBLIC WORKS
3						
2					REFEREN	CE DATA SHEET
1					JOSH	WELLS ROAD
V. NO. BY	DATE	DESCRIPTIO	N OF REVISION			
DESIGNED B	V 7ΔM	DRAWN RY PLD	CHECKED BY	ΔΙΜ	SCALE 1"- 100'	PLOT SIZE = 22

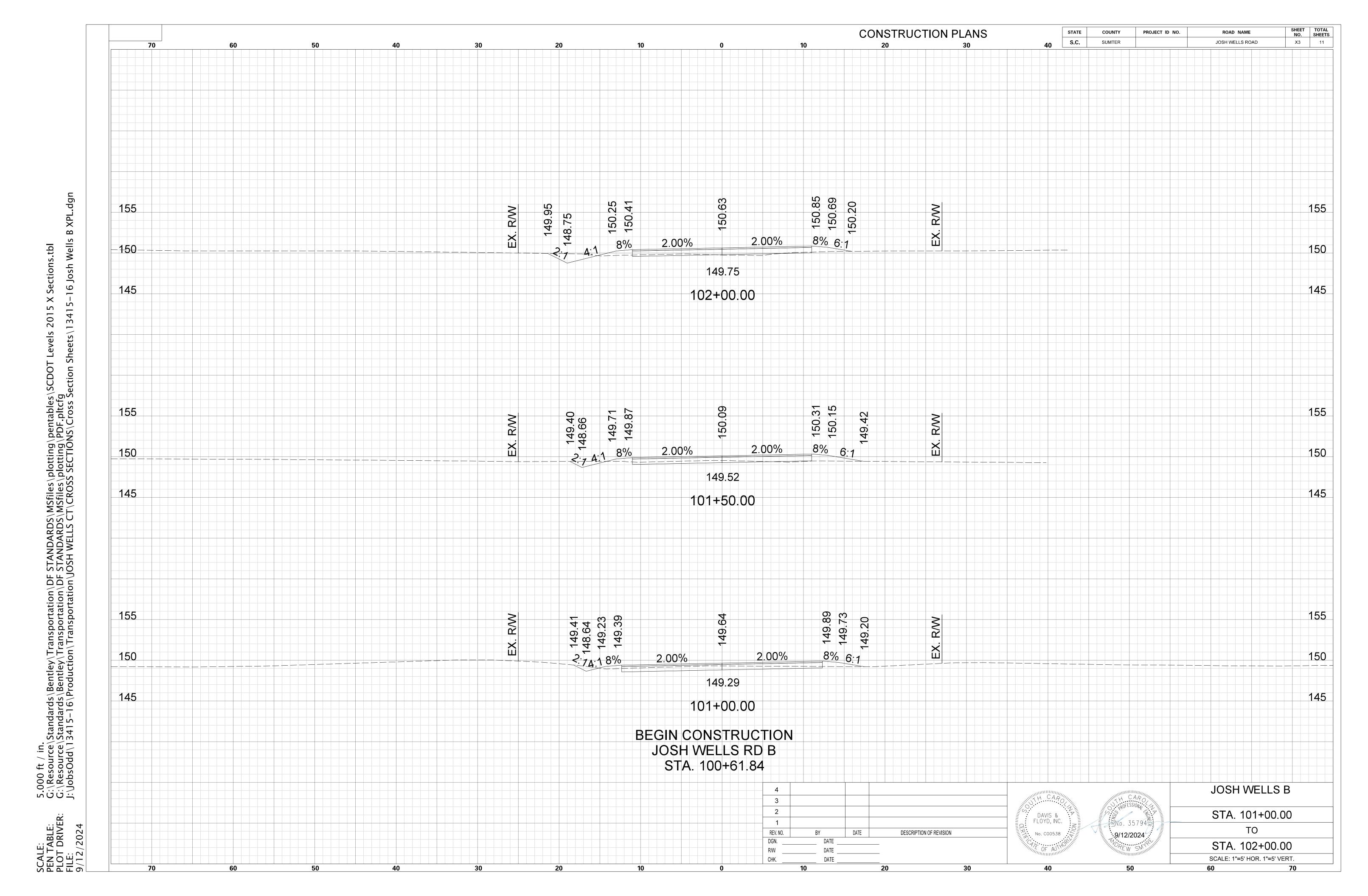
PLOT SIZE = $22" \times 34"$

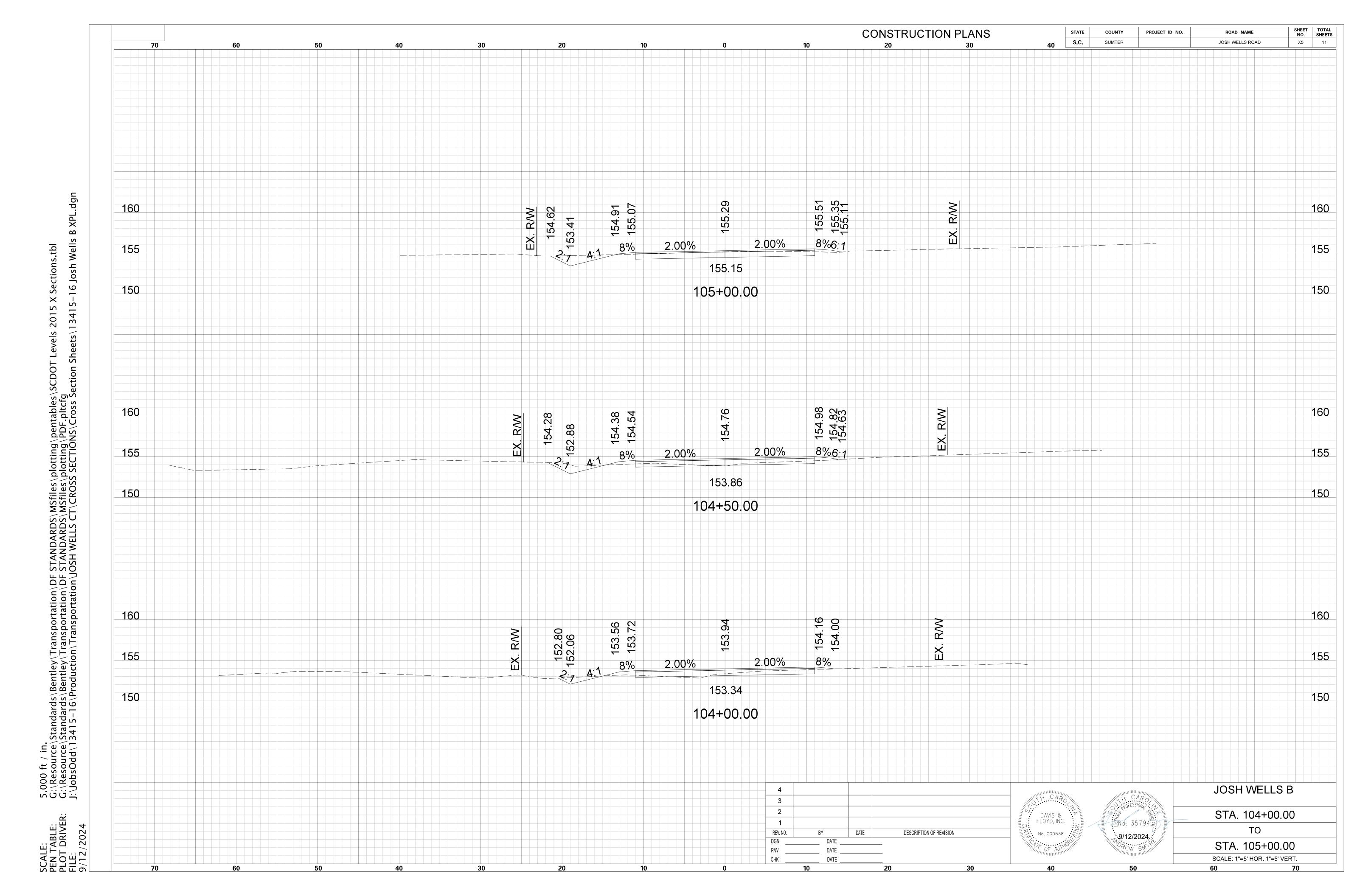
100.000 ft / in. 13415–16 Plan–PDF.tbl PDF.pltcfg J:\JobsOdd\13415–16\Prc





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5.000 ft / in. G:\Resource\Standards\Bentley\Transportation\DF STANDARDS\MSfiles\plotting\pentables\SCDOT Levels 2015 X Sections.tbl G:\Resource\Standards\Bentley\Transportation\DF STANDARDS\MSfiles\plotting\PDF.pltcfg J:\JobsOdd\13415–16\Production\Transportation\JOSH WELLS CT\CROSS SECTIONS\Cross Section Sheets\13415–16\Production\Transportation\JOSH WELLS CT\CROSS SECTIONS\Cross Section