Request for Proposal (RFP)

For

Camelot Sewer Extension Project

Issued: September 3, 2025

Submittals Due: October 10, 2025 by **11:00AM** EST

Contact: Sherry L Bodden Purchasing Coordinator

E-mail: **sbodden@goosecreeksc.gov**

Introduction

This Request for Proposal is set forth to detail requirements and conditions for providing sewer main installation and services for the City of Goose Creek. The utility contractor shall perform the required installation in this area and shall be qualified to complete and efficient utility main extension including all labor and supervision.

The award will be granted for one (1) year. Extensions are at the discretion of the City and will be based on annual expenses and performance of service. The successful proposer shall possess sufficient resources to ensure that the sewer installation and closeout is met on a timely basis.

Scope of Service

This project involves the planning, permitting, and construction of a sanitary sewer extension and improvements at Camelot Drive/S. Goose Creek Blvd. The extension will connect to the existing sewer system at Camelot Drive and to the opposite (eastern) side of S. Goose Creek Blvd and serve approximately 7 parcels. All work will be done within existing DOT and Berkeley County ROW/easements and will require boring under S. Goose Creek Blvd.

Mandatory Requirements

Bidders are required to attend a pre bid meeting to be held at City Hall Council Chambers, 519 N. Goose Creek Blvd, Bldg. B, Goose Creek, SC 29445 on September 17, 2025, at 11:00AM EST.

Guaranty Bond

The bidder to whom the contract is awarded will be awarded will be required to execute the Agreement and obtain the Performance Bond and Payment Bond, each in the sum of the full amount of the contract price, within ten (10) calendar days from the date when the Notice of Award is delivered to the bidder.

The Bonds must be duly executed and acknowledged by the Bidder as principal and by a corporate surety company qualified to do business under the laws of State of South Carolina and satisfactory to the Owner as surety, for the faithful performance of the contract and payment for labor and materials. The premiums for such bonds shall be paid by the contractor.

Each Bond must be irrevocable, and valid for two years beyond the date of final acceptance of the project.

Examination of Drawings and Specifications

Each bidder shall carefully examine drawings and specifications, and all addenda or other revisions thereto and thoroughly familiarize himself with the detailed requirements thereof prior to submitting a bid. If any bidder is in doubt as to the true meaning of any part of the drawings, specifications, or other documents, or if any error, discrepancy, conflict, or omission is noted, the bidder shall immediately contact the owner in writing and request clarification. The owner will clarify the intent of the documents and/or correct such error, discrepancy, conflict, or omission, and will notify all bidders by addendum in cases where the extent of work or cost thereof will be appreciably affected. No allowance will be made after bids are received for oversight by bidder.

Information Not Guaranteed

All information given on the drawings or in the contact documents relating to subsurface conditions, existing structures, location of utilities, sewer inverts, or other information on existing facilities is from the best sources at present available to the owner. All such information is furnished only for the information and convenience of the bidders.

It is agreed and understood that the owner does not warrant or guarantee that the conditions, pipes, or other structures encountered during construction will be the same as those indicated on the drawings or in the contract documents. The bidder must satisfy himself regarding the character, quantities, and conditions of the various materials and the work to be done. It further is agreed and understood that the bidder or the contractor will not use any of the information available to him or obtained in any examination made by in any manner as a basis or ground of claim or demand of any nature against the owner or engineer, arising from or materials or structures encountered during the construction work, except as may otherwise provided for in the contract documents.

If any work is [performed by the contractor, or any subcontractor, prior to adequate verification of applicable data, a resultant extra cost for adjustment of work necessary to conform to existing conditions, or damage to existing facilities, shall be assumed by the contractor without reimbursement of compensation by the owner.

Proposal Outline and Requirements

The Request for Proposal must include the following information in this specific order:

a) Cover Page
b) Transmittal Letter
c) Copy of necessary licenses to perform the scope of work.
d) Contact person within the Business to receive all RFP communications.
e) Provide a Conflict-of-Interest Statement that the business, its sub-contractors have no conflicts of interest with the City of Goose Creek, any of the City's employees, and that no member of the proposed business has a family member employed, elected, or appointed to any public position with the City of Goose Creek who may have influence over this Bid or would benefit financially by the selection of this business.
f) Each Attachment

Cover Page

The cover page of the proposal should include the Title "Request for Proposal – Camelot Sewer Extension – RFP # 25-009". The cover page should include the Firm's name, address, telephone number, the name of the primary contact person, and the date of the proposal.

Transmittal Letter

The signed letter of transmittal should briefly state the proposer's understanding of the work to be done, the commitment to perform the work within the time period, a statement why the proposer believes itself to be the best qualified to perform the work and a statement that the proposal is a firm and irrevocable offer for ninety (90) days. The signer must have the authority to bind the proposer to the submitted proposal.

Acceptance or Rejection of Bids

The owner reserves the right to reject any and all bids when such rejections is in the interest of the owner; to reject the bid of a bidder who has previously failed to perform properly or complete on time contracts of similar nature; and to reject the bid of a bidder who is not, in the opinion of the Engineer or owner, in a position to perform the contract. The owner reserves the right to waive any informalities and technicalities in bidding. The owner may also accept or reject any of the alternates that may be set forth on the bid.

Bid Schedule

RFP Issued	September 3, 2025	
Pre-Bid Meeting	September 17, 2025	11:00AM EST
Deadline for Questions	September 30, 2025	by 2:00PM EST
Addenda issued	by October 3, 2025	by 5:00PM EST
Proposals Due	October 10, 2025	by 11:00AM EST

Questions Should Be Directed to

Sherry L Bodden
Purchasing Coordinator
sbodden@goosecreeksc.gov

Work in State and County Right-of-Ways

The owner will obtain the necessary easements and permits for construction across City, County and State Highway rights-of-way. The contractor shall abide by all rules, regulations, and requirements of these agencies regarding construction under this contract, including the giving of notices, provisions for inspections, and employment of such methods of construction as may be required. Wherever these specifications govern, and these specifications shall be modified to such extent as necessary to conform to the said rules, regulations, and requirements. Wherever additional cost is incurred due to requirements of these agencies, such additional periods of maintenance, special features of construction, etc., all such costs shall be included in the prices bid. No additional compensation will be allowed for such costs after award of the contract.

How to Submit

Proposals can be submitted via mail, delivery, and electronic.

Mail Delivery:	Hand Delivery:
City of Goose Creek Attn: Sherry Bodden, Purchasing Coordinator RFP – Camelot Sewer Extension – RFP #25-009 PO Box 1768 Goose Creek, SC 29445	City of Goose Creek Attn: Sherry Bodden, Purchasing Coordinator RFP – Camelot Sewer Extension – RFP #25-009 519 N Goose Creek Blvd., Bldg. B Goose Creek, SC 29445

Electronic Delivery:

sbodden@goosecreeksc.gov or on a flash drive
Submit three (3) hard copies and 1 electronic copy in PDF format in one (1) file named as (company name, RFP Camelot Sewer Extension Project. All proposals must be received no later than October 10, 2025, by 11:00 AM EST. and the city is not responsible for electronic delivery via email.

I. INSURANCE REQUIREMENTS FOR PROFESSIONAL CONTRACTS

A. Indemnity Provision:
   1. Contractor assumes entire responsibility and liability for losses, expenses, demands and claims in connection with or arising out of injury, or alleged injury (including death) to any person, or damage, or alleged damage to property of The City of Goose Creek or others sustained or alleged to have been sustained in connection with or to have arisen out of or resulting from the performance of the work/service by the contractor, his subcontractors, agents and employees, including losses, expenses or damages sustained by The City of Goose Creek, and agrees to indemnify and hold harmless The City of Goose Creek, its officials, employees or volunteers from any and all such losses, expenses, damages, demands and claims and agrees to defend any suit or action brought against them, or any of them, based on any such alleged injury or damage, and to pay all damages, cost and expenses in connection therewith or resulting there from. As an integral part of this agreement, contractor agrees to purchase and maintain during the life of this contract, contractual liability insurance in the amount required in the general liability insurance requirements and to furnish proper evidence thereof.

B. Insurance Requirements for contractors
   1. Commercial General Liability coverage providing premises/operations and Products/Completed Operations and workers' compensation insurance:
      a. Contractor will procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the contractor, his agents, representatives, employees or subcontractors. The cost of such insurance will be included in Contractors bid.
   2. Minimum scope of insurance coverage will be at least as broad as:
      a. Insurance Services Office form number CG 0001 (Ed. 10/93) covering Commercial General Liability, X, C and U exclusions must be removed if blasting, collapse or underground exposures exist in the work to be done.
      b. Insurance Services Office form number CA 0001 (Ed. 12/93), Code 1 ("any auto").
      c. Workers' Compensation insurance as required by the laws of the State of South Carolina and Employers' Liability Insurance.
      d. See Section II for requirements for Professional Liability Insurance.
   3. Minimum limits of insurance contractor will maintain limits no less than:
      a. Commercial General Liability limits for bodily injury, personal injury, or property damage $ 1,000,000 per occurrence $ 2,000,000 aggregate and a minimum limit of $1,000,000 for products/completed operations.
      b. Automobile Liability: $ 1,000,000 combined single limit per accident for bodily injury and property damage.
      c. Workers' Compensation and Employers' Liability: Workers' Compensation limits as required by the laws of the State of South Carolina and Employers' Liability limits of $1,000,000/$1,000,000/$1,000,000 per accident.
      d. See Section II for requirements for Professional Liability Insurance.
   4. Deductible and self insured retention's must be declared to and approved by the City of Goose Creek.
   5. The policies are to contain, or be endorsed to contain, the following provisions:
      a. General Liability and Automobile Liability Coverage's
         1) Policy will show the City of Goose Creek as an Additional Insured.
         2) The City of Goose Creek, its officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the contractor; products and completed operations of the contractor; premises owned, leased or used by the contractor; or automobiles owned, leased, hired or borrowed by

the contractor. The coverage will contain no special limitation on the scope of protection afforded to The City of Goose Creek, its officials, employees or volunteers.

3) The contractor's insurance coverage will be primary insurance as respects The City of Goose Creek, its officials, employees and volunteers. Any insurance or self-insurance maintained by The City of Goose Creek, its officials, employees or volunteers will be in excess of contractor's and will not contribute with it.
4) Any failure to comply with reporting provisions of the policies will not affect coverage provided The City of Goose Creek, its officials, employees and volunteers.
5) Coverage will state that contractor's insurance will apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
    a. Each insurance policy required by this clause will be endorsed to state that coverage will not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt request, has been given to the City of Goose Creek.
    b. If subcontractors are used the contractor will include all subcontractors as insured under its policies or will furnish separate certificates and endorsements for each subcontractor. All coverage's for subcontractors will be subject to all of the requirements stated herein.

C. PROPERTY INSURANCE

1. The contractor will purchase and maintain "all risk" property insurance on the insurable portion of the project. This insurance will include The City of Goose Creek, the contractor and subcontractors and will be written on a 100% completed value basis, such insurance to remain in force until the project is completed and accepted by The City of Goose Creek. If not covered under the "all risk" insurance, the contractor will effect and maintain similar property insurance on portion of the project stored off the site or in transit when such portions of the project are to be included in any application for payment.
2. The contractor will file two certified copies of all property insurance policies with the City of Goose Creek before exposure to loss can occur. The policies should be forwarded to:

    The City of Goose Creek
    Finance Director
    PO Drawer 1768
    Goose Creek, South Carolina 29445

3. If the City of Goose Creek is damaged by the failure of the contractor to maintain such insurance and to so notify the City of Goose Creek, then the contractor will bear all reasonable costs properly attributable thereto.

D. <u>ACCEPTABILITY OF INSURANCE</u>

1. All insurance policies will be written by insurers licensed to do business in the state of South Carolina. It is realized that certain business activities may not be readily insurable by admitted carriers. If insurance is written by non-admitted carriers whose names appear on the current listing of approved and non-admitted carriers prepared by the State of South Carolina Department of Insurance, such carriers will be favorably considered assuming they meet all requirements. Non-admitted carriers should be so identified on the Certificate of Insurance form. The City of Goose Creek reserves the right to reject any and all certificates or policies issued by insurers with a Best's rating less than A-.

II. ADDITIONAL INSURANCE REQUIREMENTS FOR PROFESSIONAL CONTRACTS

A. The City of Goose Creek while engaging the services of any professional will require the professional to comply with the standard insurance requirements for contractors and, additionally, to maintain during the life of the contract and to provide evidence of professional liability insurance, errors and omissions insurance, malpractice insurance or similar insurance by whatever title known. Such insurance must comply with Section I B of the general requirements and be written in an amount not less than $ 1,000,000 limit. If coverage is written on a claims-made form The City of Goose Creek may require the continuation of coverage for a period of time after completion of the contract or may require an extended reporting period if the policy is cancelled after the term of the contract.

III. ADDITIONAL REQUIREMENTS FOR CONSTRUCTION CONTRACTS

A. All construction contracts and/or major projects, over $25, 000, will require a payment and performance bond.

Said notices and certificates of insurance will be provided to:

City of Goose Creek
Purchasing Coordinator
PO Drawer 1768
Goose Creek, SC 29445

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____)

County of _____)

that _____, being first duly sworn, deposes and says that:

(1) He/She is _____of _____,the Bidder that has submitted the attached Bid:

(2) He/She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid:

(3) Such Bid is genuine and is not a collusive or sham Bid:

(4) Neither the said Bidder nor any of its officers, partners, owner, agents, representative, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Goose Creek or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representative, owners, employees, or parties in interest, including this affiant.

_____
(Signed)

_____
(Title)

Sworn to and subscribed before me at _____ State of_____

this _____ day of _____ 20___.

Addendum Acknowledgement

Bidder acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into its bid.

Addendum #	Date	Signature
Addendum 1		
Addendum 2		
Addendum 3		
Addendum 4		

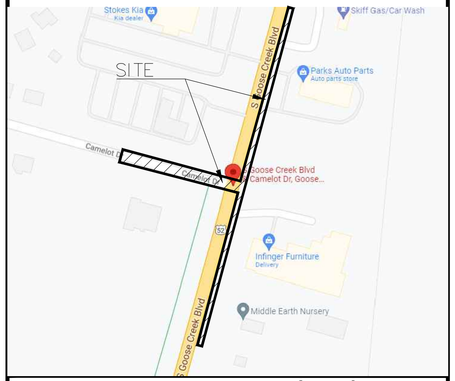
Goose Creek Blvd Sewer Extension			**Contractor (Company Name)**		
Goose Creek SC			**Address**		
Initial Owner: City of Goose Creek					
Final Owner: Berkeley County Water & Sewer					
		Estimated		(Example) Unit	Extended
Item No.	Description	Qty. *	Unit	Price	Price
ITEM 1	Mobilization	0.00	NA	$0.00	$0.00
ITEM 2	Clearing & Grading(Camelot)	0.00	AC	$0.00	$0.00
ITEM 3	Class 2 Bedding Material (if needed)	0.00	CY	$0.00	$0.00
ITEM 4	Sewer Gravity Main – 8" PVC SDR 26 (3'-6')	0.00	LF	$0.00	$0.00
ITEM 5	Sewer Gravity Main – 8" PVC SDR 26 (6'-15')	0.00	LF	$0.00	$0.00
ITEM 6	Sewer Gravity Main – 8" PVC C900 (>15')	0.00	LF	$0.00	$0.00
ITEM 7	Sewer Force Main - 4" C900	0.00	LF	$0.00	$0.00
ITEM 8	Manhole – 48" Gravity Manhole (0'-6')	0.00	EA	$0.00	$0.00
ITEM 9	Manhole – 60" Gravity Manhole (7'-15')	0.00	EA	$0.00	$0.00
ITEM 10	Tie to Existing Sewer – MH Connection	0.00	EA	$0.00	$0.00
ITEM 11	Jack & Bore (18" Steel Casing)	0.00	LF	$0.00	$0.00
ITEM 12	SCDOT Storm drain modifications or replacement	0.00	LS	$0.00	$0.00
ITEM 13	Box Trench for deep trenching (Camelot)	0.00	LF	$0.00	$0.00
ITEM 14	Site Stabilization for deep trenching (Goose Creek Blvd)	0.00	LF	$0.00	$0.00
ITEM 15	Erosion Control (silt fence, Temp BMPs, Inlet Protection)	0.00	LF	$0.00	$0.00
ITEM 16	Intermediate Stabilization, Seeding/Sod	0.00	AC	$0.00	$0.00
ITEM 17	As-Built Survey	0.00	EA	$0.00	$0.00
ITEM 18	Testing	0.00	EA	$0.00	$0.00
ITEM 19	CCTV Sewer Main (BCWSA Spec)	0.00	LF	$0.00	$0.00
ITEM 20	Restrained Joint DIP sewer (carrier in casing)	0.00	LF	$0.00	$0.00
ITEM 21	Preservation/Relocation of existing services during construction	0.00	LS	$0.00	$0.00
ITEM 22	Final Stabilization (hydroseed)	0.00	AC	$0.00	$0.00
ITEM 23	Additional Expenses (contingencies)	0.00	LS	$0.00	$0.00
Total Base Bid (Items 1-23, Inclusive)					$0.00

GOOSE CREEK BLVD.

SEWER EXTENSION

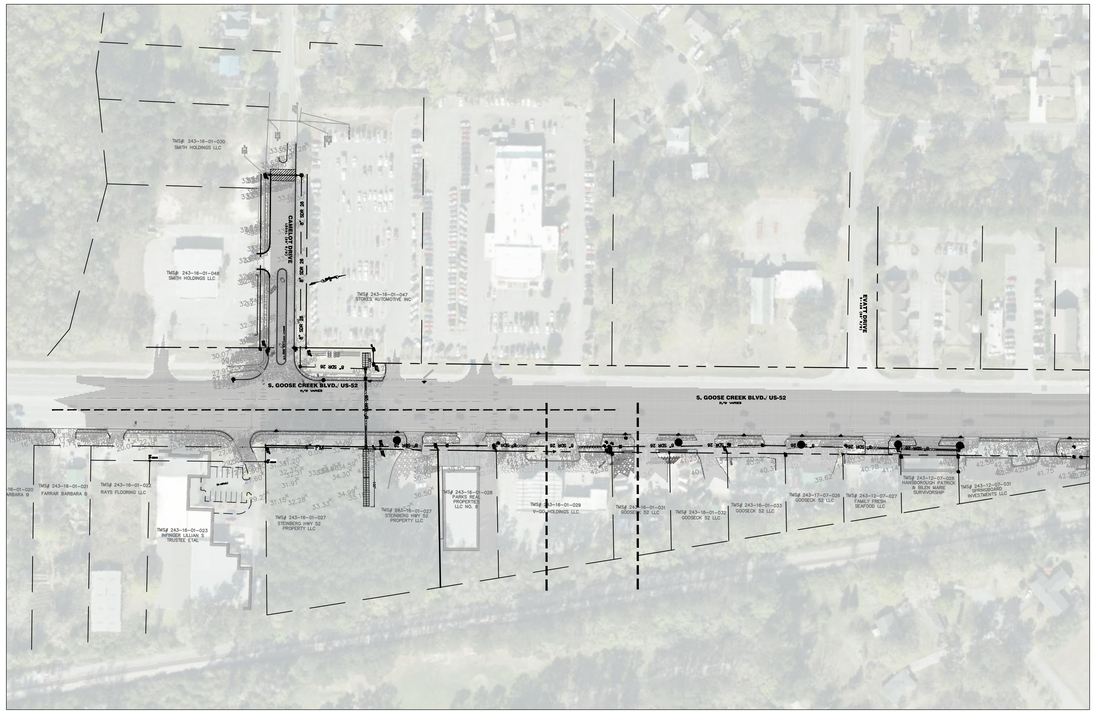
S. GOOSE CREEK BLVD. & CAMELOT DRIVE

GOOSE CREEK, SC 29445



LOCATION MAP (NTS)

PROJECT NARRATIVE:
THE CITY OF GOOSE CREEK PROPOSES TO INSTALL A SEWER EXTENSION & MAKE UTILITY IMPROVEMENTS WITHIN SCDOT R/W ALONG S. GOOSE CREEK BLVD. & CAMELOT DRIVE.



OWNER:
CITY OF GOOSE CREEK
519 N. GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445
CONTACT: ALEXIS KISER
843.797.6220

SURVEYOR:
MICHAEL S. SHULSE SURVEYING, LLC
1210 RIVERS REACH DR.
WANDO, SC 29492
CONTACT: MICHAEL S. SHULSE, PLS.
843.296.1607

ENGINEER:
EARTHSOURCE ENGINEERING
962 HOUSTON NORTHCUTT BLVD
MOUNT PLEASANT, SC 29464
CONTACT: ERIC R. LADSON, EIT
843.881.0525

SHEET INDEX

SITE AND CIVIL DRAWINGS

DESCRIPTION	SHEET NUMBER
COVER SHEET	
PLAT	1 OF 1
GENERAL NOTES	C-001
MASTER UTILITY LAYOUT	C-100
UTILITY LAYOUT	C-400
UTILITY LAYOUT	C-401
UTILITY LAYOUT	C-402
UTILITY PROFILES	C-403
UTILITY PROFILES	C-404
UTILITY PROFILES	C-405
CONSTRUCTION DETAILS (UTILITY)	C-500
CONSTRUCTION DETAILS (TRAFFIC CONTROL & STORM)	C-501
INITIAL SWPPP PLAN	SWPPP 1.1
INITIAL SWPPP PLAN	SWPPP 1.2
INITIAL SWPPP PLAN	SWPPP 1.3
FINAL SWPPP PLAN	SWPPP 2.1
FINAL SWPPP PLAN	SWPPP 2.2
FINAL SWPPP PLAN	SWPPP 2.3
CONSTRUCTION DETAILS (EROSION CONTROL)	SWPPP 3

SITE DATA:
TMS#: R/W, 243-16-01-027
LOT SIZE: N/A
LIMITS OF DISTURBANCE: 1.00 ACRES
CAMELOT R/W: 0.14 ACRES
GOOSE CREEK BLVD R/W: 0.85 ACRES
TMS# 243-16-01-027: 0.01 ACRES
FLOOD ZONE: 'X'
FIRM PANEL#: 45015C0685E
DATE: 12/07/2018
ZONED: R/W, GC
SDR-26 SEWER MAIN: 1,775 LF
4" FORCE MAIN: 200 LF

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR. ELEV.=27.06' DATUM: NAVD 88

CONTACTS:

	TELEPHONE:
CITY OF GOOSE CREEK PLANNING, DIRECTOR	
MS. KENDRA WISE	(843) 797-6220
CITY OF GOOSE CREEK PLANNING, SPECIALIST	
MS. BRENDA MONEER	(843) 797-6220
BERKELEY COUNTY ENGINEERING	
MR. JONATHAN STROBEL	(843) 719-4411
CITY OF GOOSE CREEK PUBLIC WORKS	
MR. CHUCK DENSON, PE	(843) 824-2200
BERKELEY COUNTY WATER & SANITATION	
MR. CHARLES CLARK	(843) 719-2312

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 31251
02.27.25
REGISTERED
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD.
SEWER EXTENSION
GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445
COVER

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	08.24.23	PER BCWS COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	05.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.21.24	PER CITY OF GOOSE CREEK COMMENTS	JWD
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWD
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
Cover

SITE DATA

SITE DATA:
TMS#: R/W, 243-16-01-027
LOT SIZE: N/A
LIMITS OF DISTURBANCE: 1.00 ACRES
CAMELOT R/W: 0.14 ACRES
GOOSE CREEK BLVD R/W: 0.85 ACRES
TMS#: 243-16-01-027: 0.01 ACRES
ZONED: R/W, GC
SDR-26 SEWER MAIN: 1,775 LF
4" FORCE MAIN: 200 LF

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

GENERAL CLEARING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL TREES TO BE PROTECTED AND IS TO PROTECT THESE TREES AS SPECIFIED IN THE TREE PROTECTION DETAIL.
2. THE CONTRACTOR SHALL MEET WITH THE PROJECT'S LANDSCAPE DESIGNER PRIOR TO CONSTRUCTION TO COORDINATE EXISTING VEGETATION TO REMAIN.
3. ANYTHING REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR ACCORDING TO THE MUNICIPALITIES REQUIREMENTS.
4. REMOVAL OF VEGETATION OUTSIDE OF WHAT IS DEPICTED ON THESE PLANS IS PROHIBITED UNLESS DISCUSSED WITH BOTH THE ENGINEER AND THE MUNICIPALITY.
5. SITE WORK IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. ANY WILLFUL OR ACCIDENTAL DESTRUCTION OF PROTECTED VEGETATION WILL REQUIRE MITIGATION APPROVED BY THE ENGINEER, OWNER, AND THE MUNICIPALITY.
6. THE APPROVAL OF ALL TREE BARRICADES WILL BE REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE ALL UTILITIES WITHIN THE PROJECT AREA.
8. CONTRACTOR TO ENSURE THE PROTECTION OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO WATER MAIN(S), SERVICE LATERAL(S), VALVE BOX(ES), FIRE HYDRANT(S), SEWER MAIN(S), SEWER STRUCTURE(S), ETC. THROUGHOUT ALL PHASES OF CONSTRUCTION. IF ANY EXISTING UTILITY ITEM IS DAMAGED OR DESTROYED, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE SAID ITEM(S) WITH THE SAME OR SIMILARLY APPROVED EQUIVALENT.

GENERAL SITE NOTES

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND DETERMINE IF THERE ARE ANY DISCREPANCIES FROM THE PLANS PRIOR TO CONSTRUCTION. IF ANY PROBLEMS ARE FOUND, CONTRACTOR IS TO CONTACT EARTHSOURCE ENGINEERING.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS WHICH ARE TYPICALLY TO EDGE OF ASPHALT, FACE OF CURB.
3. CONTRACTOR TO FOLLOW AND UTILIZE ALL SCDOT SAFETY AND TRAFFIC CONTROL GUIDELINES SET FORTH BY MUTCD FOR ALL WORK PERFORMED IN THE RIGHT-OF-WAY. CONTRACTOR TO COORDINATE AND CALL FOR INSPECTIONS AS SPECIFIED IN THE PERMIT.
4. CONTRACTOR IS TO CUT A CLEAN EDGE ALONG EXISTING PAVEMENT PRIOR TO REPLACING DRIVEWAYS. NEW ASPHALT, BASE MATERIAL, AND PAVEMENT CONSTRUCTION METHODS SHALL MEET MINIMUM REQUIREMENTS OF THE SCDOT.
5. ALL TRAFFIC SIGNAGE AND STREET MARKINGS IN THE RIGHT-OF-WAY SHALL USE REFLECTIVE SHEETING THAT MEETS THE REQUIREMENTS OF ASTM 04956-09. OBTAIN SHEETING FROM MANUFACTURERS PRE-QUALIFIED IN ACCORDANCE WITH SCOOT QUALIFIED PRODUCT POLICY 20 AND WHO APPEAR IN THE CURRENT EDITION OF SCOOT QUALIFIED PRODUCTS LIST 20.
6. A MINIMUM OF TYPE III REFLECTIVE SHEETING (BEADED OR MICROPRISMATIC) ARE TO BE USED ON ALL HIGHWAY
7. THE UTILITY SERVICE PROVIDER/CITY OF GOOSE CREEK NEEDS TO PROVIDE A MAINTENANCE AGREEMENT FOR THE CONFLICT BOX.

GENERAL PAVING & GRADING NOTES

1. CONTRACTOR TO VERIFY ALL ELEVATIONS, GRADES, AND DRAINAGE STRUCTURES PRIOR TO CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES, PLEASE CONTACT THE ENGINEER.
2. CONTRACTOR SHALL FOLLOW THE CONSTRUCTION SEQUENCE ON THE DETAIL SHEET C-**001** TO PREVENT STORMWATER AND SEDIMENT FROM LEAVING THE SITE.
3. WATER ENCOUNTERED WHILE TRENCHING FOR UTILITIES MUST BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE DISCHARGING OFF SITE. PUMP INTAKES SHOULD HAVE A FLOAT OR SIT ON A BED OF ROCK TO PREVENT DREDGING AND THE DISCHARGE SHOULD BE THROUGH AN ENERGY DISSIPATER AND/OR SEDIMENT TRAP.
4. CONTRACTOR SHALL ENSURE THAT ALL EXISTING DRAINAGE STRUCTURES WITHIN THE ADJACENT RIGHT-OF-WAYS AND INGRESS/EGRESS EASEMENTS SHALL CONTINUE TO FUNCTION DURING ALL PHASES OF CONSTRUCTION.
5. ALL EXISTING DRAINAGE STRUCTURES ARE TO BE CLEANED AND MAINTAINED AND SHALL REMAIN OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
6. POST-CONSTRUCTION MAINTENANCE OF THE ON-SITE STORMWATER SYSTEM SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
7. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS ARE TO BE STABILIZED. DAMAGED OR INEFFECTIVE EROSION CONTROL DEVICES SHALL BE REPAIRED OR REPLACED AS NECESSARY.

SWPPP CONTROL NOTES

EROSION CONTROL NOTES:

1. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
   - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
   - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C REG. 72-300 ET SEQ. AND SCR100000.
8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE;
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).
16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
   - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
   - WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK NOT TO EXCEED NINE(9) CALENDAR DAYS AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

SEQUENCE OF CONSTRUCTION

SEQUENCE OF CONSTRUCTION (LINEAR UTILITY)

(PERMITTING)
1. RECEIVE NPDES COVERAGE FROM DES.
2. RECEIVE CAA APPROVAL AND APPROVED PLANS FROM BERKELEY COUNTY.

(PRE CONTSTRUCTION)
3. CONDUCT PRE-CONSTRUCTION MEETING CONFERENCE AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.
4. NOTIFY SCDES EQC OFFICE OR OCRM 48 HOURS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.

(PHASE I - SWPPP INITIAL)
5. PERFORM CLEARING AND GRUBBING AS NECESSARY FOR INSTALLATION OF PERIMETER/EROSION CONTROL MEASURES.
6. INSTALLATION OF PERIMETER CONTROLS (SILT FENCE, ETC).

(PHASE II - SWPPP CONSTRUCTION)
7. BEGIN UTILITY INSTALLATIONS, STARTING WITH JACK & BORE ACROSS GOOSE CREEK BLVD.
8. BEGIN CLEARING, GRUBBING, AND EXCAVATING IN THE OF THE APPROVED LIMITS OF DISTURBANCE OF CAMELOT R/W. BEGIN UTILITY INSTALLATION ALONG CAMELOT DRIVE. CONTRACTOR TO PROVIDE INTERMEDIATE STABILIZATION WITH TEMPORARY SEEDING AFTER INSTALLATION.
9. BEGIN CLEARING, GRUBBING, AND EXCAVATING IN THE OF THE APPROVED LIMITS OF DISTURBANCE OF GOOSE CREEK BLVD R/W. BEGIN UTILITY INSTALLATION ALONG GOOSE CREEK BLVD, WORKING IN SECTIONS BETWEEN MANHOLES. CONTRACTOR TO PROVIDE INTERMEDIATE STABILIZATION WITH TEMPORARY SEEDING AFTER INSTALLATION.
10. COMPLETE FINE GRADING, REPLACEMENT OF CURBS, WALKS, PAVEMENT, ETC.

(PHASE III - SWPPP STABILIZATION)
11. COMPLETE PERMANENT/FINAL SOIL STABILIZATION.
12. REMOVAL OF TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AFTER THE ENTIRE AREA DRAINAGE TO EACH MEASURE IS PERMANENTLY STABILIZED.
13. PERFORM AS-BUILT SURVEYS OF UTILITIES AND SUBMIT TO BERKELEY COUNTY AND DES FOR ACCEPTANCE.

(POST CONSTRUCTION)
14. SUBMIT NOTICE OF TERMINATION (NOT) TO SCDES.

WQMS IMPAIRMENT NOTES

SITE-SPECIFIC REQUIREMENTS

THIS CONSTRUCTION SITE'S DISCHARGES DRAIN INTO WOS THAT IS EITHER IMPAIRED OR HAS AN ESTABLISHED TMDL FOR THE FOLLOWING IMPAIRMENT(S): CHLA,TURBIDITY. THE NEAREST DHEC WATER QUALITY MONITORING STATIONS (WQMS) ARE AS FOLLOWS: MD-114, RL-10104, RL-19259. DUE TO THE POSSIBILITY OF POLLUTANTS IN CONSTRUCTION STORMWATER DISCHARGES FROM THIS SITE THAT MAY CONTRIBUTE TO ANY OF THESE IMPAIRMENTS, THE FOLLOWING MUST BE CONDUCTED THROUGHOUT THE LIFESPAN OF ALL LAND-DISTURBING ACTIVITIES AT THIS SITE:

- MONTHLY INSPECTION OF THE CONSTRUCTION SITE'S OUTFALLS;
- BIWEEKLY INSPECTIONS OF ALL THE PRIMARY SEDIMENT CONTROL BMPS;
- EMPLOYEE TRAINING/ACKNOWLEDGEMENT DURING THE PRE-CONSTRUCTION MEETING;
- INSTALLATION OF ADDITIONAL BMPS TO MEET THE WATER QUALITY STANDARDS (AS DIRECTED BY THE SWPPP PREPARER AND AS APPROVED BY THE REGULATING AGENCY); AND
- ALL SEDIMENT CONTROL BMPS HAVE BEEN DESIGNED TO MEET OR EXCEED AN 80% TRAPPING EFFICIENCY.

IMPAIRMENTS EFFECTED BY CONSTRUCTION SITE DISCHARGES AND METHODS TO CONTROL POTENTIAL POLLUTANTS CAUSING OR CONTRIBUTING TO THE IMPAIRMENTS

1. TURBIDITY: TURBIDITY CAN BE GENERALLY DEFINED AS THE "CLOUDINESS" OF A WATERBODY AND MAY BE CAUSED BY THE GROWTH OF AQUATIC PHYTOPLANKTON AND THE PRESENCE OF SUSPENDED SOLIDS IN THE WATER COLUMN. IN SC, A WATER QUALITY STANDARD FOR TURBIDITY IS APPLICABLE TO ALL WATERS OF THE STATE (SEE R. 61-68 D. 11. FOR NUMERIC TARGETS BY WATERBODY CLASSIFICATION). TURBIDITY LEVELS THAT EXCEED THE WATER QUALITY STANDARD MAY REDUCE LIGHT PENETRATION, THEREBY INHIBITING AQUATIC FLORA GROWTH, AND MAY REDUCE THE ABILITY OF FAUNA, SUCH AS FISH, TO ABSORB OXYGEN ACROSS THEIR GILLS.

   ADDRESS BY: EXAMPLES INCLUDE LIMITING THE AMOUNT OF DISTURBED AREA, DESIGNING SEDIMENT CONTROL BMPS TO REMOVE THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, IMMEDIATE STABILIZATION OF DISTURBED AREAS, AND OTHER PRACTICES MAY BE UTILIZED TO CONTROL THE DISCHARGE OF SEDIMENT FROM CONSTRUCTION SITES.

2. CHLOROPHYLL-A (CHLA): CHLA IS A PIGMENT PRESENT IN THE CELLS OF PHOTOSYNTHETIC FLORA AND SOME ALGAL SPECIES. THE PRESENCE OF CHLA IN AN AQUATIC ENVIRONMENT IS A WATER QUALITY INDICATOR OF THE OVERALL PRODUCTIVITY IN THE AQUATIC SYSTEM. CHLA IS LINKED TO THE LEVELS OF TP, TN AND LIGHT PENETRATION IN THE WATER COLUMN. IN SC, A WATER QUALITY STANDARD FOR CHLA IS APPLICABLE TO LAKES GREATER THAN 40 ACRES (SEE R. 61-68 D. 11. FOR NUMERIC AND NARRATIVE TARGETS). CHLA LEVELS THAT EXCEED THE WATER QUALITY STANDARD MAY SUGGEST THAT OTHER UNDESIRABLE WATER QUALITY IMPACTS ARE PRESENT AS THE AQUATIC SYSTEM MAY BE TOO PRODUCTIVE TO SUPPORT THE PROPAGATION OF AN OVERALL BALANCED, INDIGENOUS AQUATIC COMMUNITY. EXCESS NUTRIENTS MAY DISCHARGE FROM A CONSTRUCTION SITE DURING TEMPORARY AND FINAL STABILIZATION. LIMITING THE AMOUNT OF PHOSPHORUS AND NITROGEN APPLIED WHILE ESTABLISHING VEGETATION WILL PREVENT EXCESSIVE LEVELS OF CHLA IN RECEIVING WATERS.

   ADDRESS BY: EXAMPLES INCLUDE THAT THE SOIL SHOULD BE TESTED TO DETERMINE THE QUANTITY OF THE NUTRIENTS PRESENT IN THE SOIL AND THE CORRECT AMOUNT THAT NEEDS TO BE ADDED SO THAT IT IS ABSORBED BY THE VEGETATION.

UTILITY NOTES

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED WITHIN THE PROJECTED AREA OF WORK ON SITE AND OFF. WHERE SUCH UTILITIES ARE FOUND, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATION OF FOUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.
2. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON A COMBINATION OF THE SURVEYOR'S FIELD LOCATION AND RESEARCH OF RECORDS FROM VARIOUS UTILITY COMPANIES. THESE LOCATIONS ARE BY NO MEANS EXACT OR COMPLETE.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE UNDERGROUND UTILITIES THAT MAY EXIST.
4. THE CONTRACTOR IS TO NOTIFY THE OWNER/UTILITY COMPANY BEFORE ANY UTILITIES ARE CONNECTED OR DISCONNECTED.
5. PER BEC COORDINATION, NO POWER POLES ARE REQUIRED TO BE RELOCATED. HOWEVER, IF CONTRACTOR HAS CONCERNS IN THE FIELD, PLEASE CONTACT KEVIN MIMS WITH BEC AT 843.899.8442

SEWER NOTES:

1. SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH "TEN STATES STANDARDS," SC DHEC AND BCWS REGULATIONS.
2. ALL SANITARY SEWER SERVICES SHALL BE LAID ON A MINIMUM SLOPE OF 0.5% AND SHALL BE 6" PVC UNLESS INDIDENCES NOTED IN NOTE NO. 10 OCCUR, OR OTHERWISE SPECIFIED.
3. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH BCWS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND IN THE FIELD OR ON THE DRAWINGS PRIOR TO BEGINNING OR CONTINUING WORK. ANY DEVIATIONS FROM THE CONSTRUCTION PLANS SHALL NEED TO BE APPROVED IN WRITING BY BCWS.
5. CONNECTION TO EXISTING SEWER SYSTEM SHALL BE MADE IN THE PRESENCE OF BCWS INSPECTOR WITH AT LEAST 72 HOURS ADVANCED NOTICE.
6. CONTRACTOR SHALL PLACE 6" SERVICES AND STUB UP TO EXISTING GRADE. CONCRETE COLLARS SHALL BE PLACED AROUND 6" CLEAN OUT. FOR FUTURE CUSTOMERS. THE CONTRACTOR SHALL PLACE 4" CONNECTIONS CAPPED OFF.
7. WATERTIGHT RINGS AND COVERS SHALL BE INSTALLED ON MANHOLES IN SIDEWALK, AREAS AFFECTED BY STREET RUNOFF OR BELOW THE 100 YEAR FLOOD ELEVATION. MANHOLE COVER SHALL BE INSTALLED COMPLETELY WITHIN OR COMPLETELY OUT OF PAVED AREAS (INCLUDING SIDEWALKS).
8. MANHOLES RECEIVING FORCE MAIN DISCHARGE SHALL BE COATED WITH APPROVED EPOXY LINER AS WELL AS THE NEXT DOWNSTREAM MANHOLE, UNLESS OTHERWISE DIRECTED BY BCWS. ADDITIONAL MANHOLES MAY ALSO BE REQUIRED BASED ON PROXIMITY. ALL MANHOLES REGARDLESS IF NEW OR EXISTING, IF COATED WITH EPOXY LINER MUST HAVE COMPOSITE FRAME AND COVER INSTALLED.
9. ALL MAIN LINE GRAVITY INSIDE DROP MANHOLES SHALL BE COATED WITH APPROVED EPOXY LINER AND REQUIRE COMPOSITE FRAME AND COVERS. SEE BCWS APPROVED PARTS LIST APPENDIX F29 FOR LINING PRODUCTS. INSIDE DROP MANHOLES MAY UTILIZE BOWL CONFIGURATION IN LIEU OF TRADITIONAL TEE DROP.
10. ALL DUCTILE IRON PIPES, JOINTS AND FITTINGS SHALL BE LINED WITH APPROVED EPOXY COATING. SEE BCWS APPROVED PARTS LIST APPENDIX F29 FOR LINING PRODUCTS.
11. SDR-26 PVC OR DR18 C900 IN STEEL CASING SHALL BE USED WHEN:
    - CROSSING BENEATH STORM DRAINAGE PIPE WITH LESS THAN 2' OF CLEARANCE;
    - FLOWABLE FILL USE BASED ON BCWS REVIEW AND APPROVAL.
12. SELECTION OF PIPE MATERIALS SHALL COMPLY WITH THE FOLLOWING:
    - LESS THAN THREE (<3') OF COVER: APPROVED EPOXY COATED CLASS 52 DIP; BASED ON REVIEW AND APPROVAL BY BCWS
    - GREATER THAN 3 FEET BUT LESS THAN 15 FEET (>3' BUT <15') IN DEPTH: SDR-26 PVC AND IN ACCORDANCE WITH CROSSING REQUIREMENTS LISTED ABOVE;
    - GREATER THAN 15 FEET BUT LESS THAN 24 FEET (>15' BUT <24') IN DEPTH: DR-18 C900 PVC;
13. SEWER SERVICE CONNECTIONS LOCATED AT DEPTHS GREATER THAN 15' SHALL BE MADE WITH SOLID MOLDED C900 FITTINGS FOR 8" GRAVITY MAINS. P401 LINED DIP TEE TO BE INSTALLED FOR GRAVITY MAINS 10" OR GREATER.
14. CLEAN OUTS SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY OR GENERAL UTILITY EASEMENT (GUE) AND HAVE A MINIMUM OF 18" SEPARATION FROM SIDEWALKS. INSTALL CLEAN OUTS AT THE COMMON PROPERTY CORNER UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS.
15. CONTRACTOR SHALL KEEP A RED-LINED SET OF THE CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
16. UPON COMPLETION OF CONSTRUCTION OF THE SEWER SYSTEM, A MINIMUM 30 DAYS AFTER ALL PIPE HAS BEEN INSTALLED THE FOLLOWING APPROVAL PROCEDURE MUST BE FOLLOWED; FOLLOWED:
    A. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED TESTS AND INSPECTIONS WITH BCWS AT LEAST 72 HOURS IN ADVANCE.
    B. THE CONTRACTOR SHALL CONDUCT A PRELIMINARY INSPECTION TO LOCATE ANY DEFECTS AND DETERMINE WHEN THE SEWER SYSTEM IS READY FOR TESTS AND FINAL INSPECTION. PRIOR TO INSPECTION, THE SEWER SYSTEM SHALL BE FLUSHED AND CLEANED OF DEBRIS.
    C. THE ENGINEER SHALL SCHEDULE LOW PRESSURE AIR TEST AND DEFLECTION TEST WITH BCWS. DEFLECTION TEST SHALL BE CONDUCTED PRIOR TO LOW PRESSURE AIR TEST.
    D. THE CONTRACTOR SHALL SUPPLY TO THE OWNER'S ENGINEER AN AS-BUILT SURVEY, INCLUDING THE SERVICE LATERAL INFORMATION, THE LOCATIONS OF WHICH SHALL HAVE BEEN STAKED IN THE FIELD.
    E. A SET OF PRELIMINARY RECORD DRAWINGS SHALL BE PROVIDED TO BCWS INSPECTOR FOR CCTV INSPECTION VIDEO REVIEW.
    F. CCTV INSPECTION VIDEOS SHALL BE SUBMITTED FOR BCWS REVIEW. ANY NECESSARY REPAIRS ARE TO BE COMPLETED PRIOR TO SCHEDULING A FINAL INSPECTION.
    G. THE ENGINEER SHALL SUBMIT THE TEST RESULTS, RECORD DRAWINGS, CONTINUITY TEST CERTIFICATION LETTER AND ALL OTHER REQUIRED DOCUMENTS TO BCWS FOR REVIEW AND APPROVAL.
    H. THE ENGINEER SHALL SCHEDULE A FINAL INSPECTION WITH BCWS AT LEAST 72 HOURS IN ADVANCE.
    I. THE INSPECTION SITE MUST MEET ALL MINIMUM CRITERIA IDENTIFIED IN BCWS STANDARD SPECIFICATIONS PRIOR TO SCHEDULING FINAL INSPECTION NOTED IN APPENDIX G SECTION 02731 SANITARY GRAVITY SEWER LINE TESTING SECTION 3.
16. LIMESTONE IS NOT AN APPROVED EMBEDMENT MATERIAL. USE #57 GRANITE, AIR COOLED BLAST FURNACE SLAG OR APPROVED MATERIALS LISTED IN BCWS SPECIFICATIONS.
17. MJ SLEEVES OR APPROVED ADAPTERS SHALL BE USED TO TRANSITION BETWEEN PVC AND DIP. FERNCO OR SIMILAR COUPLINGS ARE NOT ALLOWED. ONLY EXCEPTION TO USE OF FERNCO ON GRAVITY SEWER IS WHEN INSIDE DROP BOWL CONFIGURATION IS INSTALLED.

SEWER PANEL 8

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/2023

EARTHSOURCE ENGINEERING

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
EARTHSOURCE ENGINEERING No. C01075

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 31250 02.27.25
KEVIN MICHAEL BERRIGAN

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

GENERAL NOTES

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.09.23	PER BCWS COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	05.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	08.14.24	PER CITY OF GOOSE CREEK COMMENTS	JMD
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	ERL
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

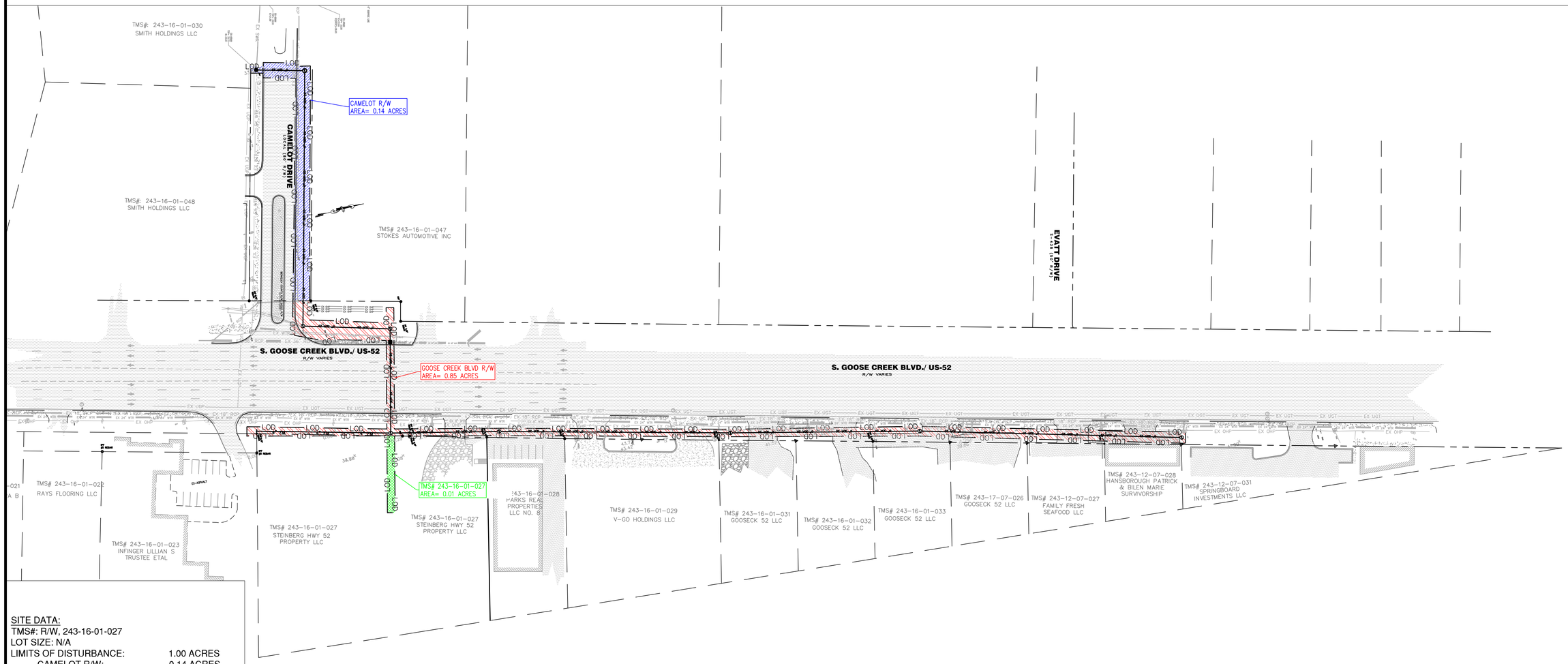
SHEET NUMBER C-001

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY
- EDGE OF PAVEMENT
- R/W LINE
- IRON PIPE FOUND
- IRON PIPE SET
- EX WTR — EXISTING WATER MAIN
- EX SWR — EXISTING SEWER MAIN
- EX 18" RCP — EXISTING 18" RCP DRAINLINE
- EXISTING SEWER MANHOLE
- EXISTING WATER VAULT
- EXISTING WATER METER
- EXISTING COMMUNICATIONS VAULT
- EXISTING ELECTRIC VAULT
- EXISTING TEL. CABINET
- EXISTING STORM VAULT
- EXISTING LIGHT POLE
- 8" SDR 26 — PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED BORING PIT
- PROPOSED DEMOLITION
- LOD — LIMITS OF DISTURBANCE

- CAMELOT R/W LOD: 0.14 ACRES
- GOOSE CREEK BLVD R/W LOD: 0.85 ACRES
- TMS#: 243-16-01-027 LOD: 0.01 ACRES

LIMITS OF DISTURBANCE = 1.00 ACRES



SITE DATA:
TMS#: R/W, 243-16-01-027
LOT SIZE: N/A
LIMITS OF DISTURBANCE: 1.00 ACRES
CAMELOT R/W: 0.14 ACRES
GOOSE CREEK BLVD R/W: 0.85 ACRES
TMS#: 243-16-01-027: 0.01 ACRES
ZONED: R/W, GC
SDR-26 SEWER MAIN: 1,775 LF
4" FORCE MAIN: 200 LF

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

N.T.S.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING
No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
No. 21215
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

MASTER UTILITY LAYOUT

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER BCWS/ENGINEERING COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO.
22-124

FINAL CONSTRUCTION DRAWINGS

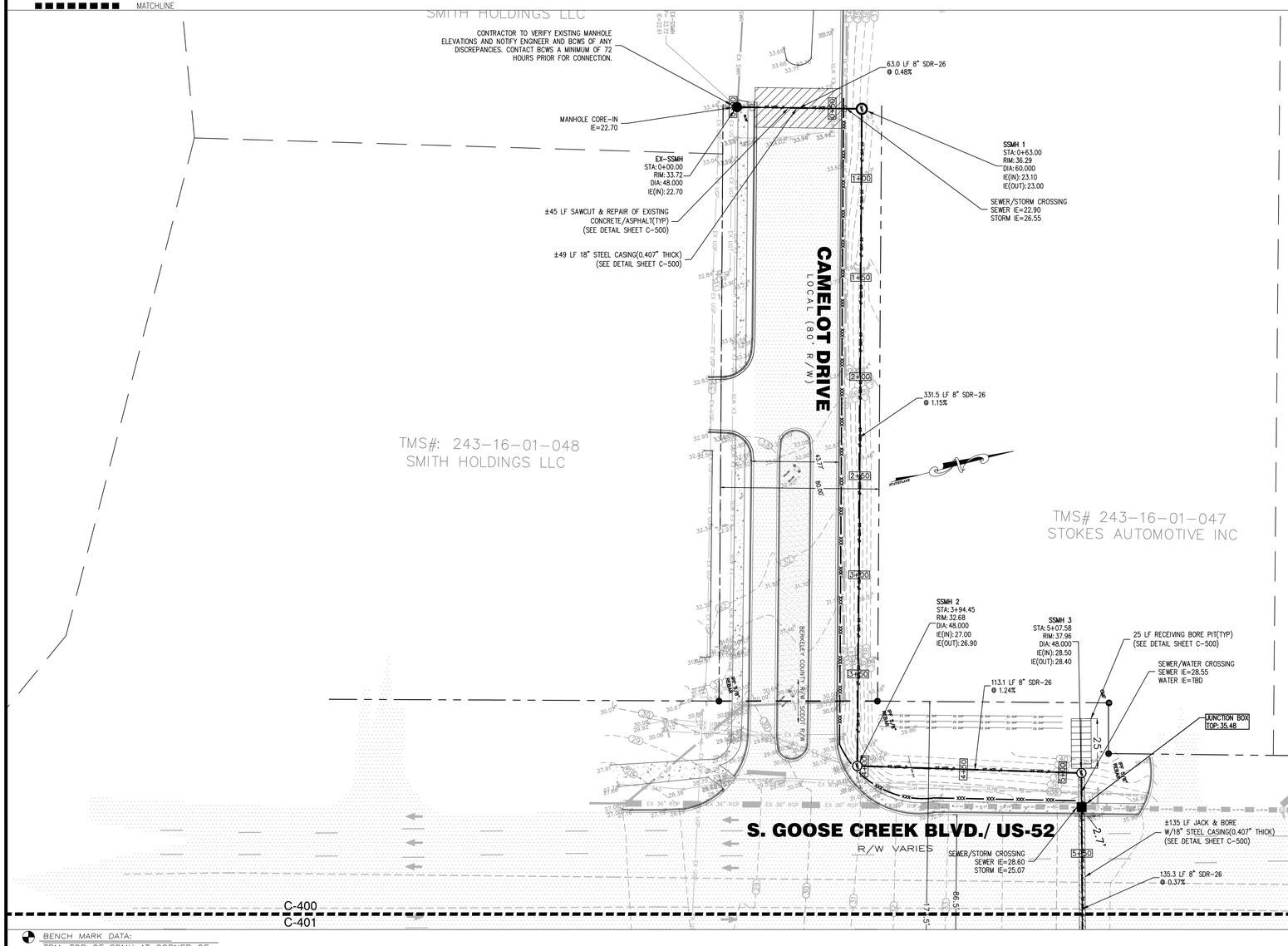
SHEET NUMBER
C-100

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY
- EDGE OF PAVEMENT
- R/W LINE
- IRON PIPE FOUND
- IRON PIPE SET
- EX WTR — EXISTING WATER MAIN
- EX SWR — EXISTING SEWER MAIN
- EX 18" RCP — EXISTING 18" RCP DRAINLINE
- (S) EXISTING SEWER MANHOLE
- [W] EXISTING WATER VAULT
- (W) EXISTING WATER METER
- [C] EXISTING COMMUNICATIONS VAULT
- [E] EXISTING ELECTRIC VAULT
- EXISTING TEL. CABINET
- [D] EXISTING STORM VAULT
- EXISTING LIGHT POLE
- 8" SDR 26 — PROPOSED SEWER MAIN
- (SMH) PROPOSED SEWER MANHOLE
- PROPOSED BCWS SEWER EASEMENT
- PROPOSED BORING PIT
- PROPOSED SAWCUT AND REPAIR
- PROPOSED JACK & BORE
- MATCHLINE

SITE NOTES:

1) CONTRACTOR TO VERIFY UNDERGROUND UTILITY LOCATIONS AND DEPTH PRIOR TO BEGINNING JACK & BORE CONSTRUCTION. NOTIFY ENGINEER & BCWS OF ANY DISCREPANCIES.
2) PER BCWS SPECIFICATIONS, EPOXY COATING REQUIRED FOR THE MANHOLE RECEIVING THE FM AND THE NEXT ADJACENT MANHOLES (MANHOLES #3,#4,#5).
3) ALL AFFECTED DRIVEWAYS WHERE OPEN CUTTING IS PROPOSED WILL BE REPLACED WITH NEW PAVING(SEE BCWS DETAIL COMMON PANEL #6 SHEET C-500)
4) NO ON-SITE STOCKPILE AREA PROPOSED.
5) EXISTING PINE TREES IN CAMELOT DRIVE R/W TO BE REMOVED AS NECESSARY.
6) PER BCWS, NO SERVICES ARE STUBBED WITHIN THE SCOPE OF THIS PROJECT.



BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

South 811 Carolina

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 21215
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

UTILITY LAYOUT

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.02.24	PER BCWS/SCDOT COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWG
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWG
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER C-400

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY
- EDGE OF PAVEMENT
- R/W LINE
- IRON PIPE FOUND
- IRON PIPE SET
- EX WTR — EXISTING WATER MAIN
- EX SWR — EXISTING SEWER MAIN
- EX 18" RCP — EXISTING 18" RCP DRAINLINE
- EXISTING SEWER MANHOLE
- EXISTING WATER VAULT
- EXISTING WATER METER
- EXISTING COMMUNICATIONS VAULT
- EXISTING ELECTRIC VAULT
- EXISTING TEL. CABINET
- EXISTING STORM VAULT
- EXISTING LIGHT POLE
- 8" SDR 26 — PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED BCWS SEWER EASEMENT
- PROPOSED BORING PIT
- PROPOSED SAWCUT AND REPAIR
- PROPOSED JACK & BORE
- MATCHLINE

SITE NOTES:

1) CONTRACTOR TO VERIFY UNDERGROUND UTILITY LOCATIONS AND DEPTH PRIOR TO BEGINNING JACK & BORE CONSTRUCTION. NOTIFY ENGINEER & BCWS OF ANY DISCREPANCIES.
2) PER BCWS SPECIFICATIONS, EPOXY COATING REQUIRED FOR THE MANHOLE RECEIVING THE FM AND THE NEXT ADJACENT MANHOLES (MANHOLES #3,#4,#5).
3) ALL AFFECTED DRIVEWAYS WHERE OPEN CUTTING IS PROPOSED WILL BE REPLACED WITH NEW PAVING(SEE BCWS DETAIL COMMON PANEL #6 SHEET C-500)
4) NO ON-SITE STOCKPILE AREA PROPOSED.
5) EXISTING PINE TREES IN CAMELOT DRIVE R/W TO BE REMOVED AS NECESSARY.
6) PER BCWS, NO SERVICES ARE STUBBED WITHIN THE SCOPE OF THIS PROJECT.

South811 Carolina

CAMELOT DRIVE
LOCAL (80' R/W)

S. GOOSE CREEK BLVD./ US-52
R/W VARIES

TMS# 243-16-01-047
STOKES AUTOMOTIVE INC

TMS# 243-16-01-022
RAYS FLOORING LLC

TMS# 243-16-01-023
INFINGER LILLIAN S
TRUSTEE ETAL

TMS# 243-16-01-027
STEINBERG HWY 52
PROPERTY LLC

TMS# 243-16-01-028
PARKS REAL
PROPERTIES
LLC NO. 8

TMS# 243-16-01-029
V-G HOLDINGS LLC

C-400
C-401
C-402

±150 LF 4" FORCE MAIN @-3.52% SLOPE

±25 LF 4" FORCE MAIN @1.00% SLOPE

IPF #5 REBAR

EX-ASPHALT PROPOSED INACTIVE FORCE MAIN TO BE CAPPED OFF FOR FUTURE USE

SSMH 4
STA:0+00.00
RIM: 33.65
DIA: 48.000
IE(IN): 29.10
IE(OUT): 29.00

140.8 LF 8" SDR-26 @ 1.10%

SSMH 5
STA:1+40.75
RIM: 39.26
DIA: 48.000
IE(IN): 30.75
IE(OUT): 30.65

300.0 LF 8" SDR-26 @ 0.50%

SSMH 6
STA: 4+40.75
RIM: 42.41
DIA: 48.000
IE(IN): 32.35
IE(OUT): 32.25

(1) EXISTING WATER METER (TO BE RELOCATED)

(1) EXISTING GRINDER PUMP (TO REMAIN PROTECTED) (2 LF SEPARATION REQUIRED)

±132 LF SAWCUT & REPAIR OF EXISTING CONCRETE/ASPHALT(TYP) (SEE DETAIL SHEET C-500)

(2) EXISTING WATER METERS (TO BE RELOCATED)

±35 LF SAWCUT & REPAIR OF EXISTING CONCRETE/ASPHALT(TYP) (SEE DETAIL SHEET C-500)

±40 LF SAWCUT & REPAIR OF EXISTING CONCRETE/ASPHALT(TYP) (SEE DETAIL SHEET C-500)

(4) EXISTING BOLLARDS (TO BE REMOVED)

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING
No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
No. 21215
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

UTILITY LAYOUT

NO.	DATE	REVISIONS	BY
1.	07.27.23	PER BCWS COMMENTS	ERL
2.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
3.	11.09.23	PER BCWS COMMENTS	ERL
4.	01.04.24	PER BCWS/SCDOT COMMENTS	ERL
5.	02.02.24	PER BCWS COMMENTS	ERL
6.	02.07.24	PER BCWS COMMENTS	ERL
7.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
8.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
9.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
10.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER C-401

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY
- EDGE OF PAVEMENT
- R/W LINE
- IRON PIPE FOUND
- IRON PIPE SET
- EX WTR — EXISTING WATER MAIN
- EX SWR — EXISTING SEWER MAIN
- EX 18" RCP — EXISTING 18" RCP DRAINLINE
- (S) EXISTING SEWER MANHOLE
- [W] EXISTING WATER VAULT
- (W) EXISTING WATER METER
- [C] EXISTING COMMUNICATIONS VAULT
- [E] EXISTING ELECTRIC VAULT
- EXISTING TEL. CABINET
- [D] EXISTING STORM VAULT
- EXISTING LIGHT POLE
- 8" SDR 26 — PROPOSED SEWER MAIN
- (SMH) PROPOSED SEWER MANHOLE
- PROPOSED BCWS SEWER EASEMENT
- PROPOSED BORING PIT
- PROPOSED DEMOLITION
- PROPOSED JACK & BORE
- MATCHLINE

SITE NOTES:

1) CONTRACTOR TO VERIFY UNDERGROUND UTILITY LOCATIONS AND DEPTH PRIOR TO BEGINNING JACK & BORE CONSTRUCTION. NOTIFY ENGINEER & BCWS OF ANY DISCREPANCIES.
2) PER BCWS SPECIFICATIONS, EPOXY COATING REQUIRED FOR THE MANHOLE RECEIVING THE FM AND THE NEXT ADJACENT MANHOLES (MANHOLES #3,#4,#5).
3) ALL AFFECTED DRIVEWAYS WHERE OPEN CUTTING IS PROPOSED WILL BE REPLACED WITH NEW PAVING(SEE BCWS DETAIL COMMON PANEL #6 SHEET C-500)
4) NO ON-SITE STOCKPILE AREA PROPOSED.
5) EXISTING PINE TREES IN CAMELOT DRIVE R/W TO BE REMOVED AS NECESSARY.
6) PER BCWS, NO SERVICES ARE STUBBED WITHIN THE SCOPE OF THIS PROJECT.

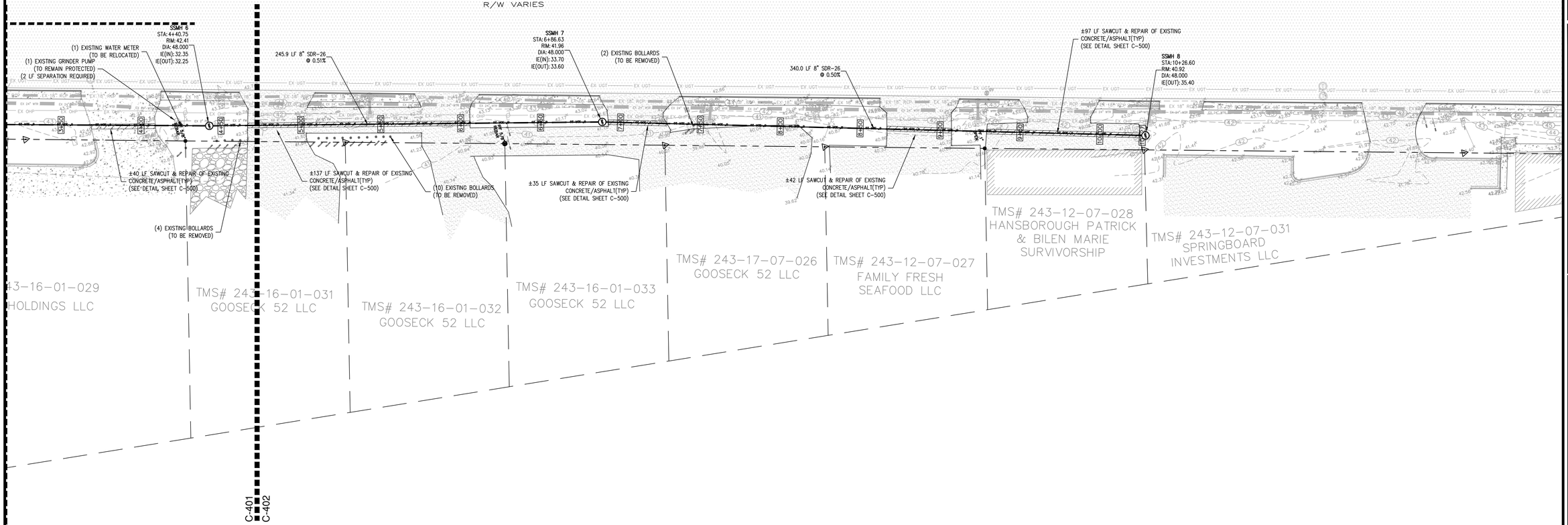
SPECIAL NOTES:

1) ALL EXISTING UTILITIES TO REMAIN IN SERVICE DURING CONSTRUCTION

South811 Carolina

S. GOOSE CREEK BLVD./ US-52

R/W VARIES



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GRAPHIC SCALE
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1 inch = 30 ft.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 21215
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD,
GOOSE CREEK, SC 29445

UTILITY LAYOUT

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.15.24	PER BCWS/ENGINEERING COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWD
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWD
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

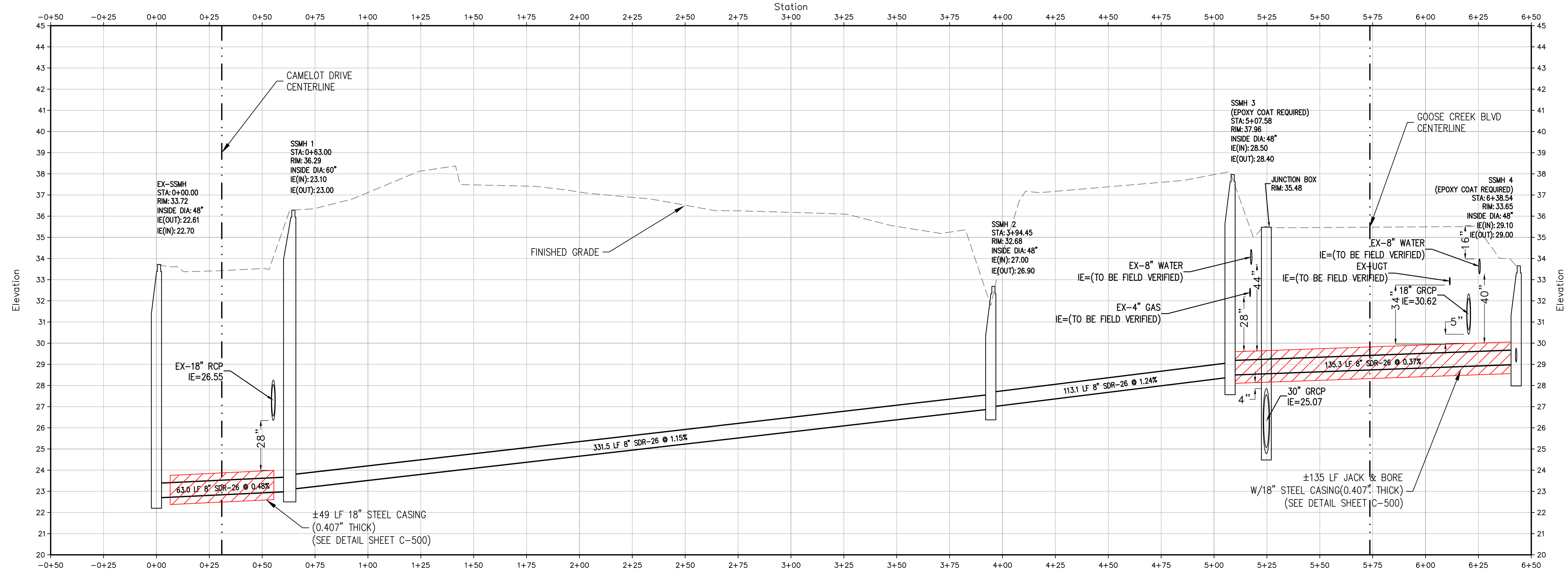
FINAL CONSTRUCTION DRAWINGS

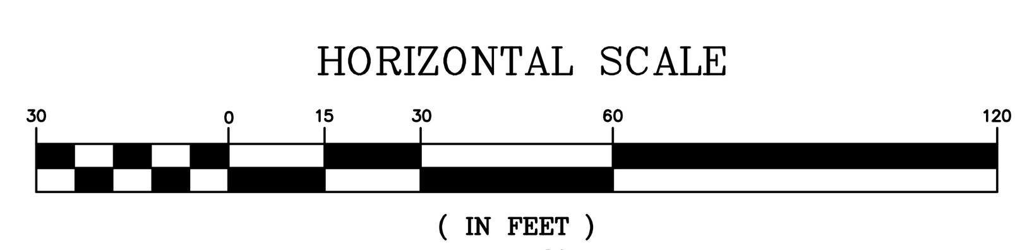
SHEET NUMBER
C-402

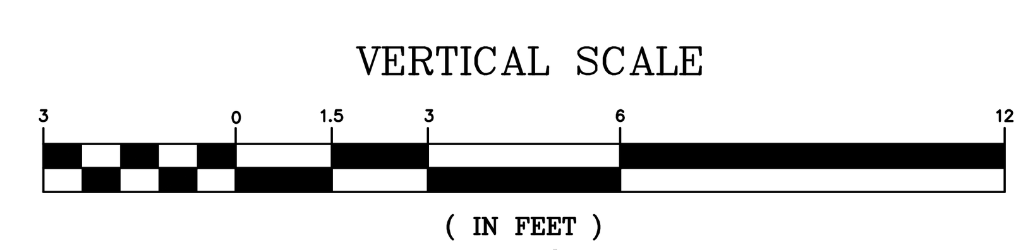
SITE NOTES:

1) CONTRACTOR TO VERIFY UNDERGROUND UTILITY LOCATIONS AND DEPTH PRIOR TO BEGINNING JACK & BORE CONSTRUCTION. NOTIFY ENGINEER & BCWS OF ANY DISCREPANCIES.
2) PER BCWS SPECIFICATIONS, EPOXY COATING REQUIRED FOR THE MANHOLE RECEIVING THE FM AND THE NEXT ADJACENT MANHOLES (MANHOLES #3,#4,#5).

CL PROFILE VIEW OF CAMELOT CROSSING







EARTHSOURCE ENGINEERING

SOUTH CAROLINA ★ EARTHSOURCE ENGINEERING No. C01075 ★ CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER REGISTERED No. 21253 02.27.25 KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

UTILITY PROFILES

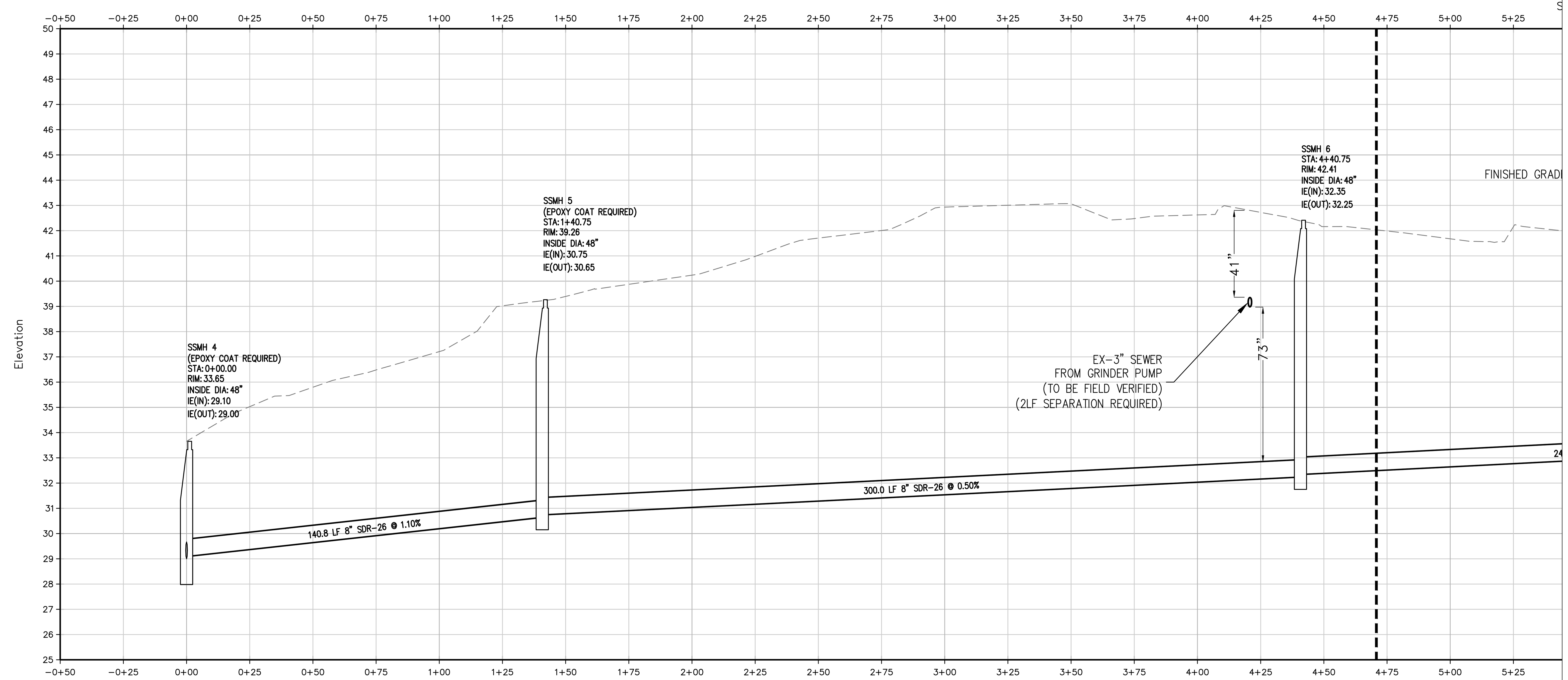
NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO.
22-124

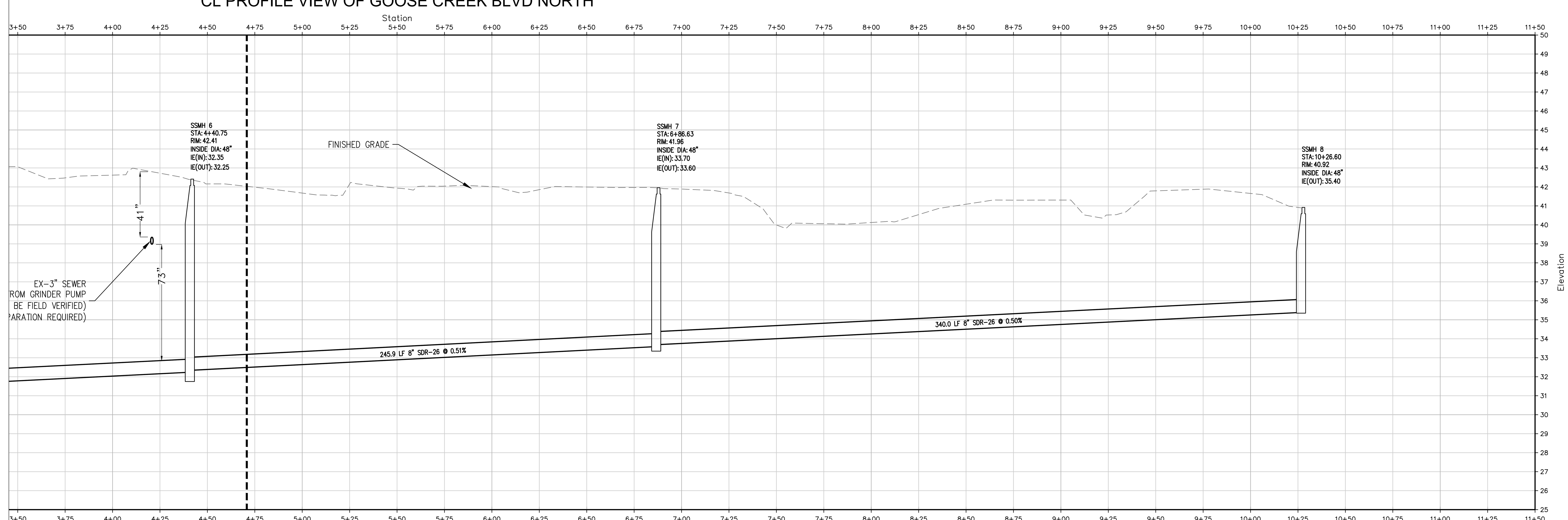
FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
C-403

CL PROFILE VIEW OF GO



CL PROFILE VIEW OF GOOSE CREEK BLVD NORTH



HORIZONTAL SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VERTICAL SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 ft.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA ★ EARTHSOURCE ENGINEERING No. C01075 ★ CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL NO. 21253 02.27.25 REGISTERED ENGINEER KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

UTILITY PROFILES

NO.	DATE	REVISIONS	BY
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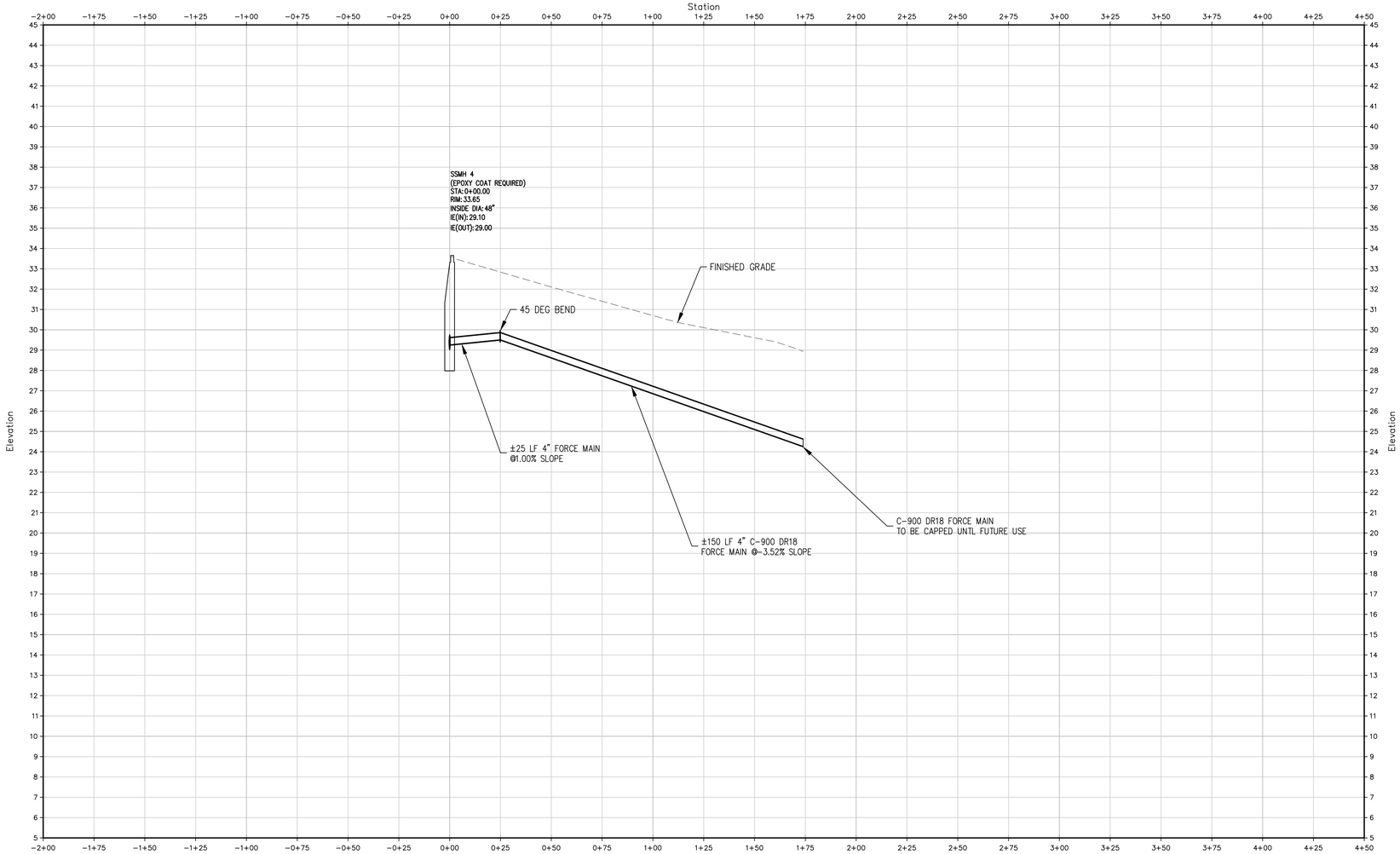
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO.
22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
C-404

CL PROFILE VIEW OF GOOSE CREEK BLVD SOUTH



HORIZONTAL SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VERTICAL SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 ft.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 31250
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD.
SEWER EXTENSION
GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

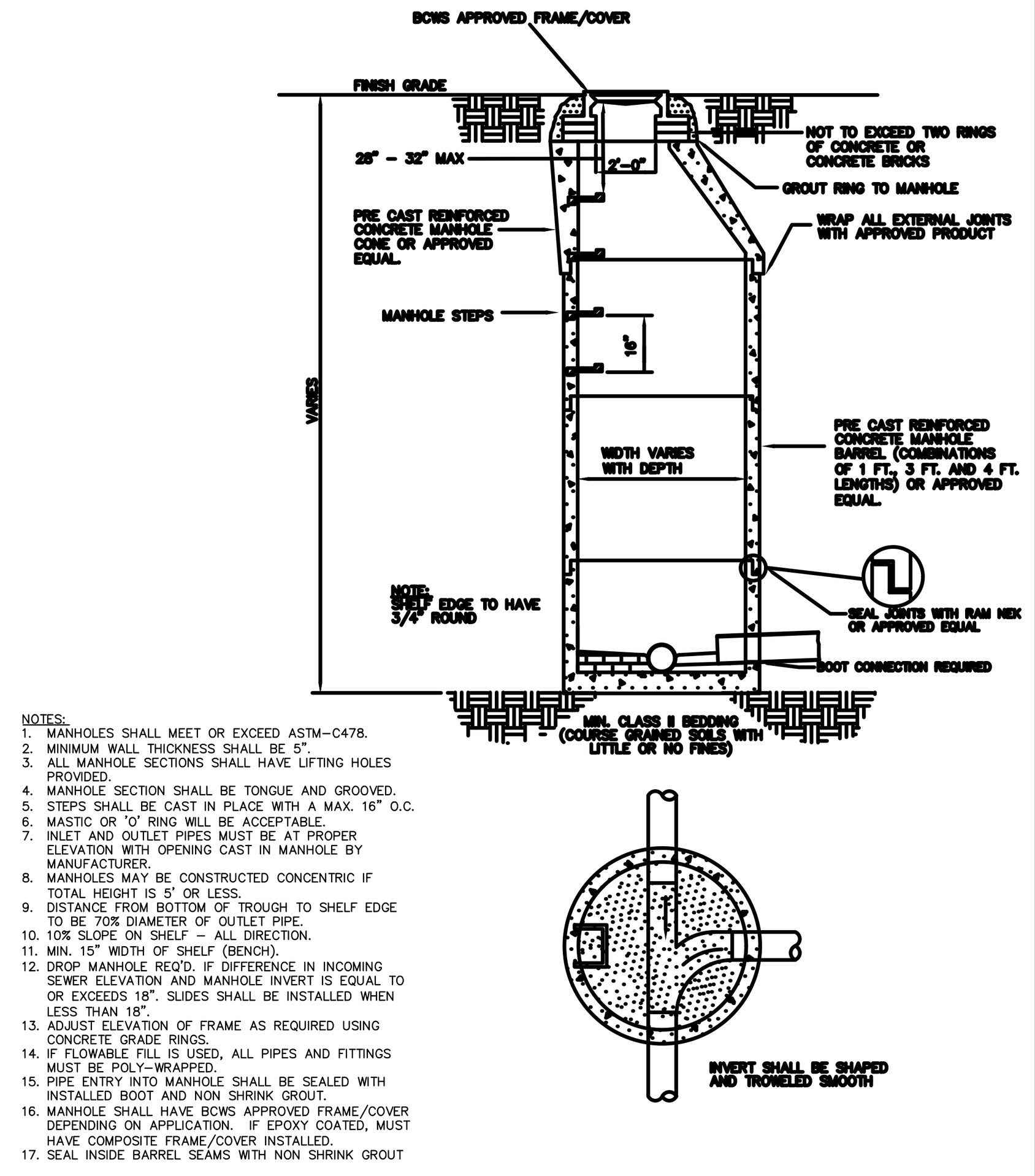
UTILITY PROFILES

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS COMMENTS	ERL
4.	11.08.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	05.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	01.14.25	PER CITY OF GOOSE CREEK COMMENTS	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO.
22-124

FINAL CONSTRUCTION DRAWINGS

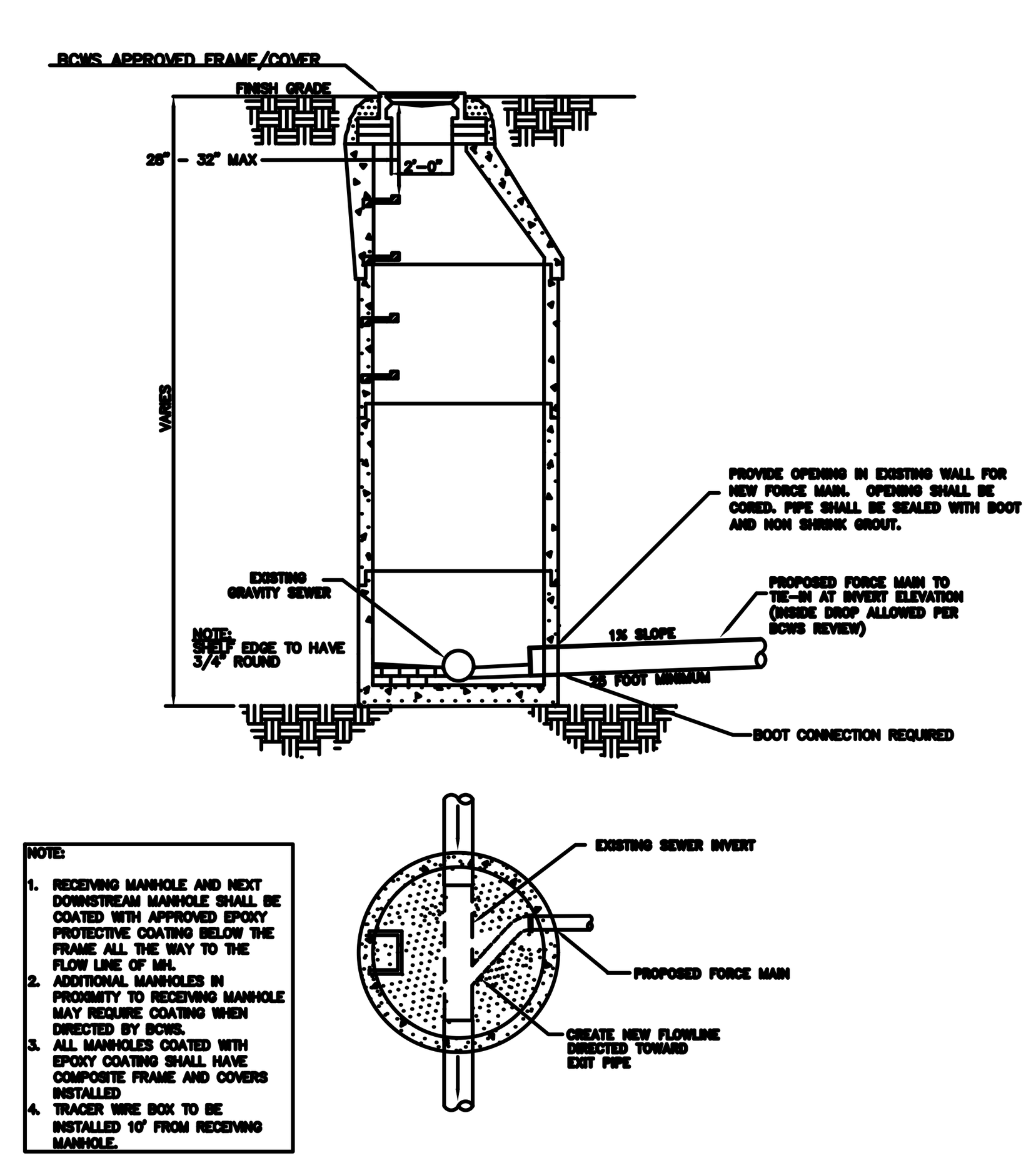
SHEET NUMBER
C-405



PRECAST CONCRETE MANHOLE
NOT TO SCALE

SEWER PANEL 2A

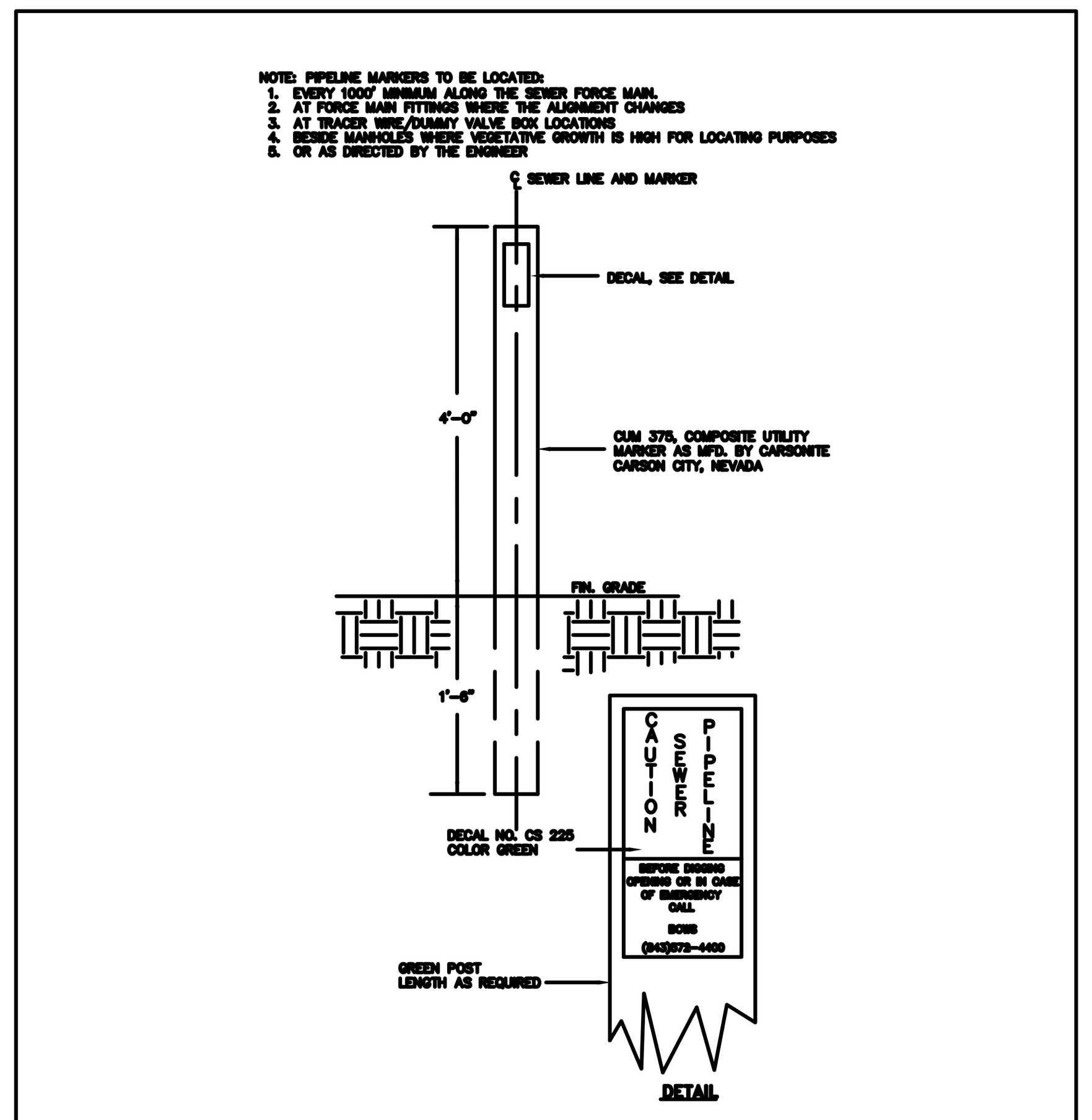
BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/23



NEW FORCE MAIN TO EXISTING MANHOLE CONNECTION
NOT TO SCALE

SEWER PANEL 2C

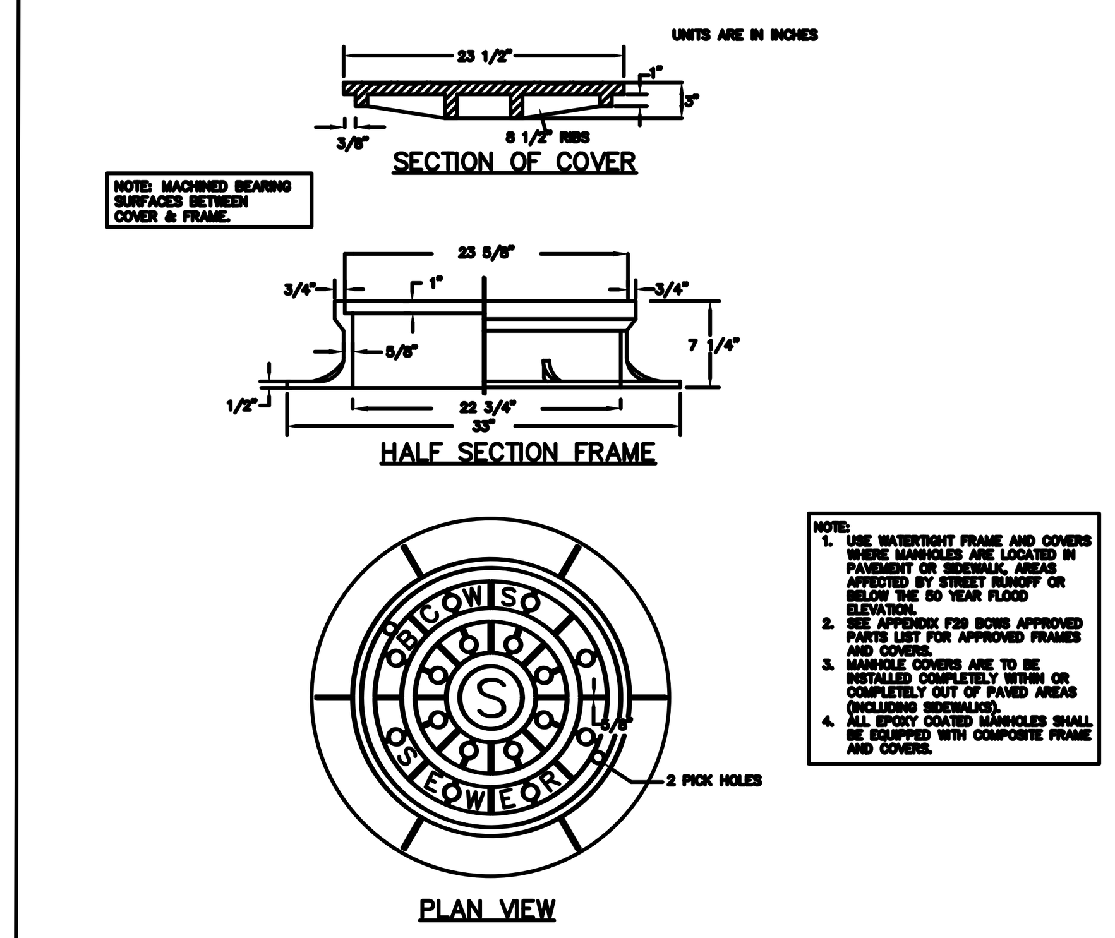
BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/23



SEWER LINE MARKER
NOT TO SCALE

SEWER PANEL 2E

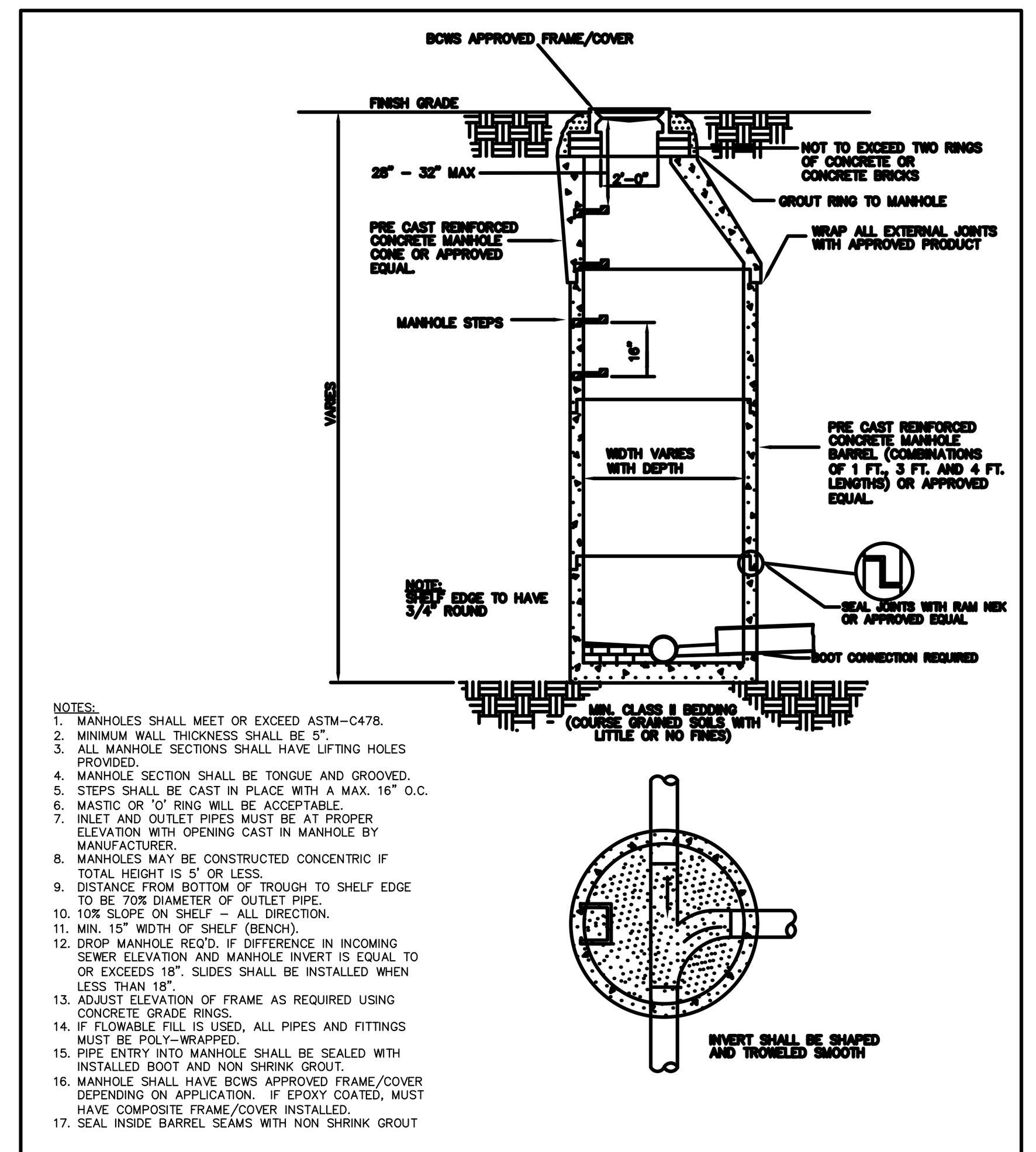
BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/23



TYPICAL MANHOLE FRAME AND COVER
NOT TO SCALE

SEWER PANEL 2H

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/23



PRECAST CONCRETE MANHOLE
NOT TO SCALE

SEWER PANEL 2A

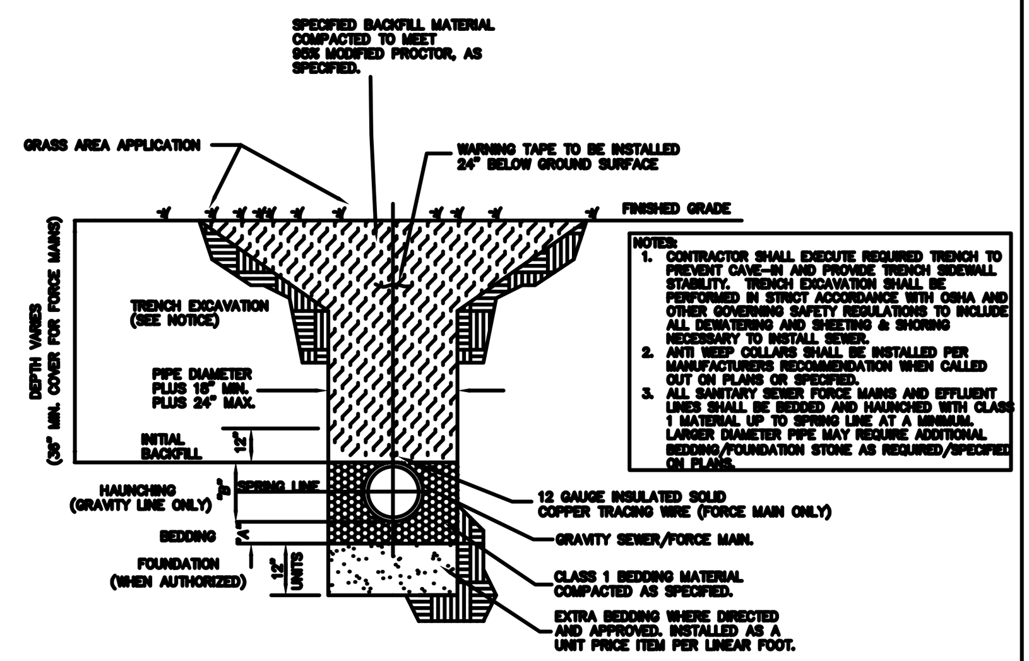
BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/23

SEWER NOTES:

1. SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH "TEN STATES STANDARDS," SC DHEC AND BCWS REGULATIONS.
2. ALL SANITARY SEWER SERVICES SHALL BE LAID ON A MINIMUM SLOPE OF 0.5% AND SHALL BE 6" PVC UNLESS INCIDENCES NOTED IN NOTE NO. 10 OCCUR, OR OTHERWISE SPECIFIED.
3. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH BCWS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND IN THE FIELD OR ON THE DRAWINGS PRIOR TO BEGINNING OR CONTINUING WORK. ANY DEVIATIONS FROM THE CONSTRUCTION PLANS SHALL NEED TO BE APPROVED IN WRITING BY BCWS.
5. CONNECTION TO EXISTING SEWER SYSTEM SHALL BE MADE IN THE PRESENCE OF BCWS INSPECTOR WITH AT LEAST 72 HOURS ADVANCED NOTICE.
6. CONTRACTOR SHALL PLACE 6" SERVICES AND STUB UP TO EXISTING GRADE. CONCRETE COLLARS SHALL BE PLACED AROUND 6" CLEAN OUT. FOR FUTURE CUSTOMERS THE CONTRACTOR SHALL PLACE 4" CONNECTIONS CAPPED OFF.
7. WATERTIGHT RINGS AND COVERS SHALL BE INSTALLED ON MANHOLES IN SIDEWALK, AREAS AFFECTED BY STREET RUNOFF OR BELOW THE 50 YEAR FLOOD ELEVATION. MANHOLE COVER SHALL BE INSTALLED COMPLETELY WITHIN OR COMPLETELY OUT OF PAVED AREAS (INCLUDING SIDEWALKS).
8. MANHOLES RECEIVING FORCE MAIN DISCHARGE SHALL BE COATED WITH APPROVED EPOXY LINER AS WELL AS THE NEXT DOWNSTREAM MANHOLE, UNLESS OTHERWISE DIRECTED BY BCWS. ADDITIONAL MANHOLES MAY ALSO BE REQUIRED BASED ON PROXIMITY. ALL MANHOLES REGARDLESS IF NEW OR EXISTING, IF COATED WITH EPOXY LINER MUST HAVE COMPOSITE FRAME AND COVER INSTALLED.
9. ALL MAIN LINE GRAVITY INSIDE DROP MANHOLES SHALL BE COATED WITH APPROVED EPOXY LINER AND REQUIRE COMPOSITE FRAME AND COVERS. SEE BCWS APPROVED PARTS LIST APPENDIX F29 FOR LINING PRODUCTS. INSIDE DROP MANHOLES MAY UTILIZE BOWL CONFIGURATION IN LIEU OF TRADITIONAL TEE DROP.
10. ALL DUCTILE IRON PIPES, JOINTS AND FITTINGS SHALL BE LINED WITH APPROVED EPOXY COATING. SEE BCWS APPROVED PARTS LIST APPENDIX F29 FOR LINING PRODUCTS.
11. SDR-26 PVC OR DR18 C900 IN STEEL CASING SHALL BE USED WHEN:
    - CROSSING BENEATH STORM DRAINAGE PIPE WITH LESS THAN 2' OF CLEARANCE;
    - FLOWABLE FILL USE BASED ON BCWS REVIEW AND APPROVAL.
12. SELECTION OF PIPE MATERIALS SHALL COMPLY WITH THE FOLLOWING:
    - LESS THAN THREE (<3') OF COVER: APPROVED EPOXY COATED CLASS 52 DIP; BASED ON REVIEW AND APPROVAL BY BCWS
    - GREATER THAN 3 FEET BUT LESS THAN 15 FEET (>3' BUT <15') IN DEPTH: SDR-26 PVC AND IN ACCORDANCE WITH CROSSING REQUIREMENTS LISTED ABOVE;
    - GREATER THAN 15 FEET BUT LESS THAN 24 FEET (>15' BUT <24') IN DEPTH: DR-18 C900 PVC;
13. SEWER SERVICE CONNECTIONS LOCATED AT DEPTHS GREATER THAN 15' SHALL BE MADE WITH SOLID MOLDED C900 FITTINGS FOR 8" GRAVITY MAINS. P401 LINED DIP TEE TO BE INSTALLED FOR GRAVITY MAINS 10" OR GREATER.
14. CLEAN OUTS SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY OR GENERAL UTILITY EASEMENT (GUE) AND HAVE A MINIMUM OF 18" SEPARATION FROM SIDEWALKS. INSTALL CLEAN OUTS AT THE COMMON PROPERTY CORNER UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS.
15. CONTRACTOR SHALL KEEP A RED-LINED SET OF THE CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
16. UPON COMPLETION OF CONSTRUCTION OF THE SEWER SYSTEM, A MINIMUM 30 DAYS AFTER ALL PIPE HAS BEEN INSTALLED THE FOLLOWING APPROVAL PROCEDURE MUST BE FOLLOWED: FOLLOWED:
    A. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED TESTS AND INSPECTIONS WITH BCWS AT LEAST 72 HOURS IN ADVANCE.
    B. THE CONTRACTOR SHALL CONDUCT A PRELIMINARY INSPECTION TO LOCATE ANY DEFECTS AND DETERMINE WHEN THE SEWER SYSTEM IS READY FOR TESTS AND FINAL INSPECTION. PRIOR TO INSPECTION, THE SEWER SYSTEM SHALL BE FLUSHED AND CLEANED OF DEBRIS.
    C. THE ENGINEER SHALL SCHEDULE LOW PRESSURE AIR TEST AND DEFLECTION TEST WITH BCWS. DEFLECTION TEST SHALL BE CONDUCTED PRIOR TO LOW PRESSURE AIR TEST.
    D. THE CONTRACTOR SHALL SUPPLY TO THE OWNER'S ENGINEER AN AS-BUILT SURVEY, INCLUDING THE SERVICE LATERAL INFORMATION, THE LOCATIONS OF WHICH SHALL HAVE BEEN STAKED IN THE FIELD.
    E. A SET OF PRELIMINARY RECORD DRAWINGS SHALL BE PROVIDED TO BCWS INSPECTOR FOR CCTV INSPECTION VIDEO REVIEW.
    F. CCTV INSPECTION VIDEOS SHALL BE SUBMITTED FOR BCWS REVIEW. ANY NECESSARY REPAIRS ARE TO BE COMPLETED PRIOR TO SCHEDULING A FINAL INSPECTION.
    G. THE ENGINEER SHALL SUBMIT THE TEST RESULTS, RECORD DRAWINGS, CONTINUITY TEST CERTIFICATION LETTER AND ALL OTHER REQUIRED DOCUMENTS TO BCWS FOR REVIEW AND APPROVAL.
    H. THE ENGINEER SHALL SCHEDULE A FINAL INSPECTION WITH BCWS AT LEAST 72 HOURS IN ADVANCE.
    I. THE INSPECTION SITE MUST MEET ALL MINIMUM CRITERIA IDENTIFIED IN BCWS STANDARD SPECIFICATIONS PRIOR TO SCHEDULING FINAL INSPECTION NOTED IN APPENDIX G SECTION 02731 SANITARY GRAVITY SEWER LINE TESTING SECTION 3.
16. LIMESTONE IS NOT AN APPROVED EMBEDMENT MATERIAL. USE #57 GRANITE, AIR COOLED BLAST FURNACE SLAG OR APPROVED MATERIALS LISTED IN BCWS SPECIFICATIONS.
17. MJ SLEEVES OR APPROVED ADAPTERS SHALL BE USED TO TRANSITION BETWEEN PVC AND DIP. FERNCO OR SIMILAR COUPLINGS ARE NOT ALLOWED. ONLY EXCEPTION TO USE OF FERNCO ON GRAVITY SEWER IS WHEN INSIDE DROP BOWL CONFIGURATION IS INSTALLED.

SEWER PANEL 8

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/2023



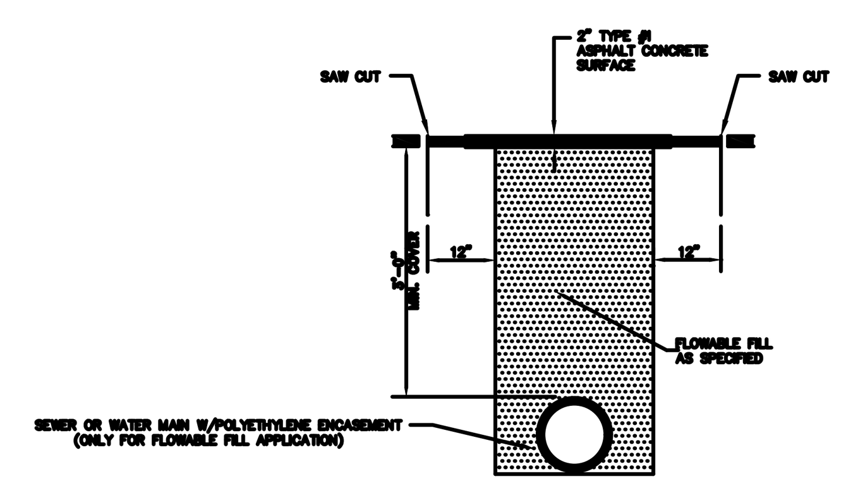
DEPTH SCHEDULE FOR HAUNCHING (GRAVITY LINE ONLY) AND BEDDING				
PIPE ø	4"-10"	12"-18"	24"	36"
"A"	6"	8"	10"	12"
"B"	TO TOP OF PIPE		20"	27"

EMBEDMENT COMPACTION SHALL BE THE MINIMUM DENSITIES INDICATED IN TABLE 2 OF ASTM D2321-LR.

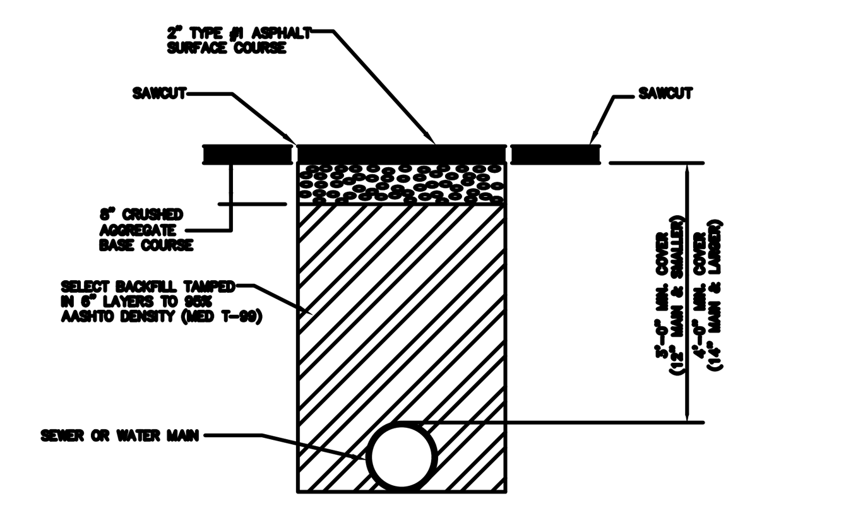
FORCE MAIN/EFFLUENT/GRAVITY LINE TRENCH DETAIL
NOT TO SCALE

SEWER PANEL 4

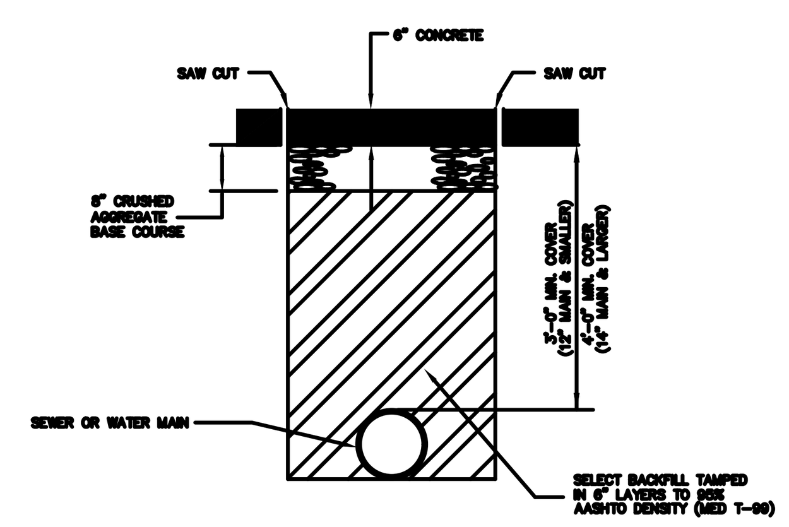
BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 04/25/2023



ROADWAY PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE



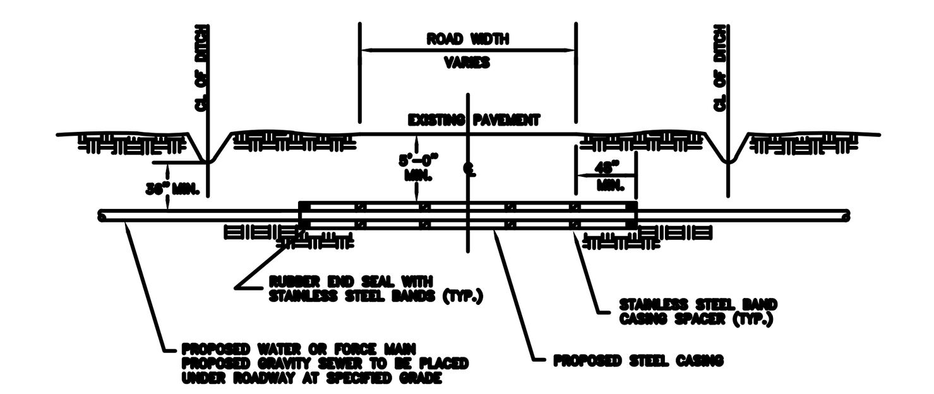
ASPHALT DRIVEWAY PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE



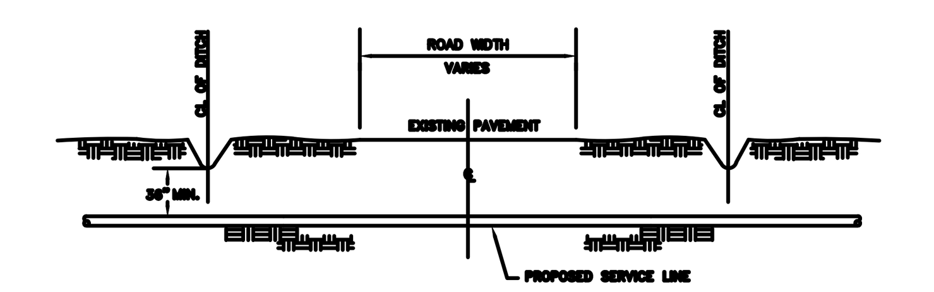
CONCRETE DRIVEWAY PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE

PAVEMENT REPLACEMENT SECTIONS
COMMON PANEL 6

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 08/01/08



TYPICAL BORE AND JACK
NOT TO SCALE



TYPICAL SERVICE BORE
NOT TO SCALE

COMMON PANEL 5

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 08/01/08

EARTHSOURCE
ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 21252
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

CONSTRUCTION DETAILS (UTILITIES)

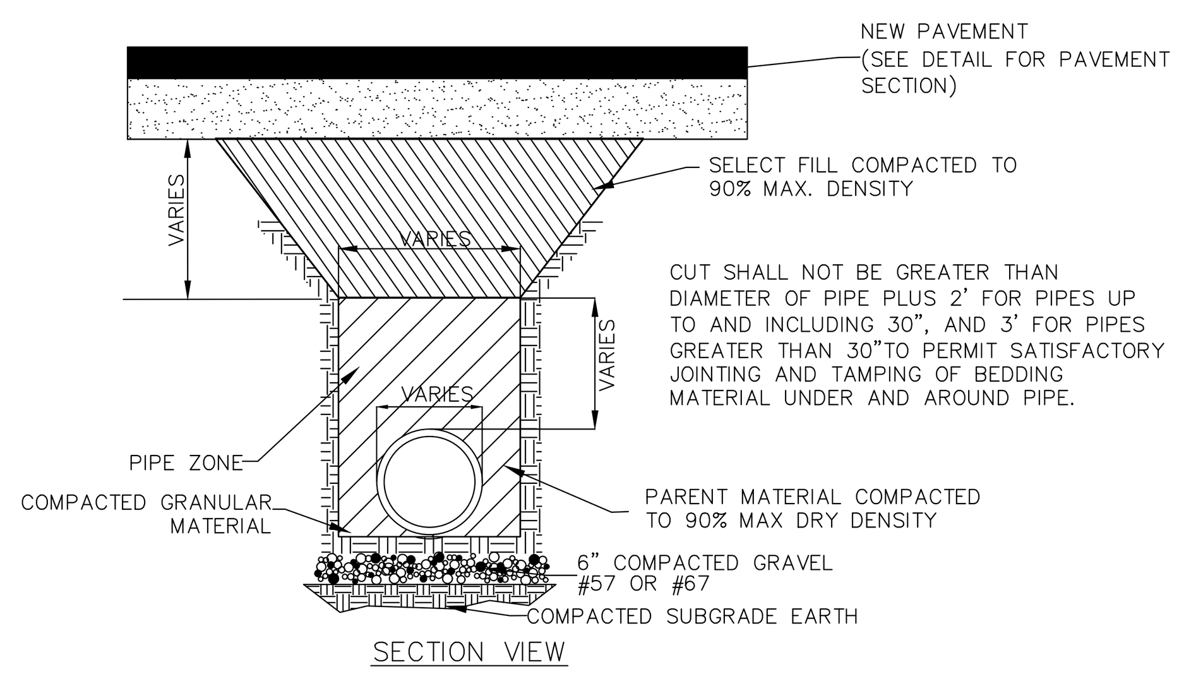
REVISIONS

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO.
22-124

FINAL CONSTRUCTION DRAWINGS

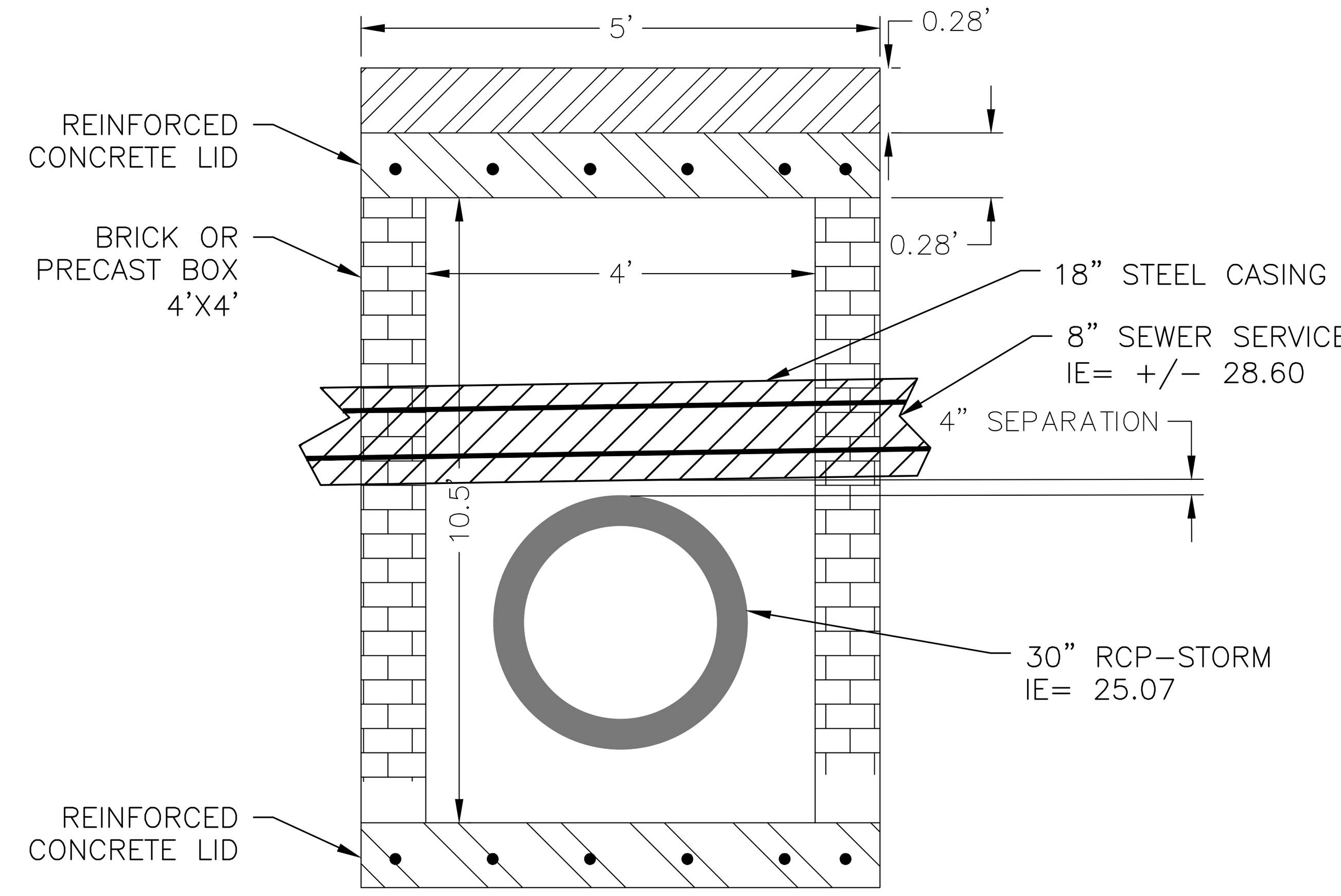
SHEET NUMBER
C-500



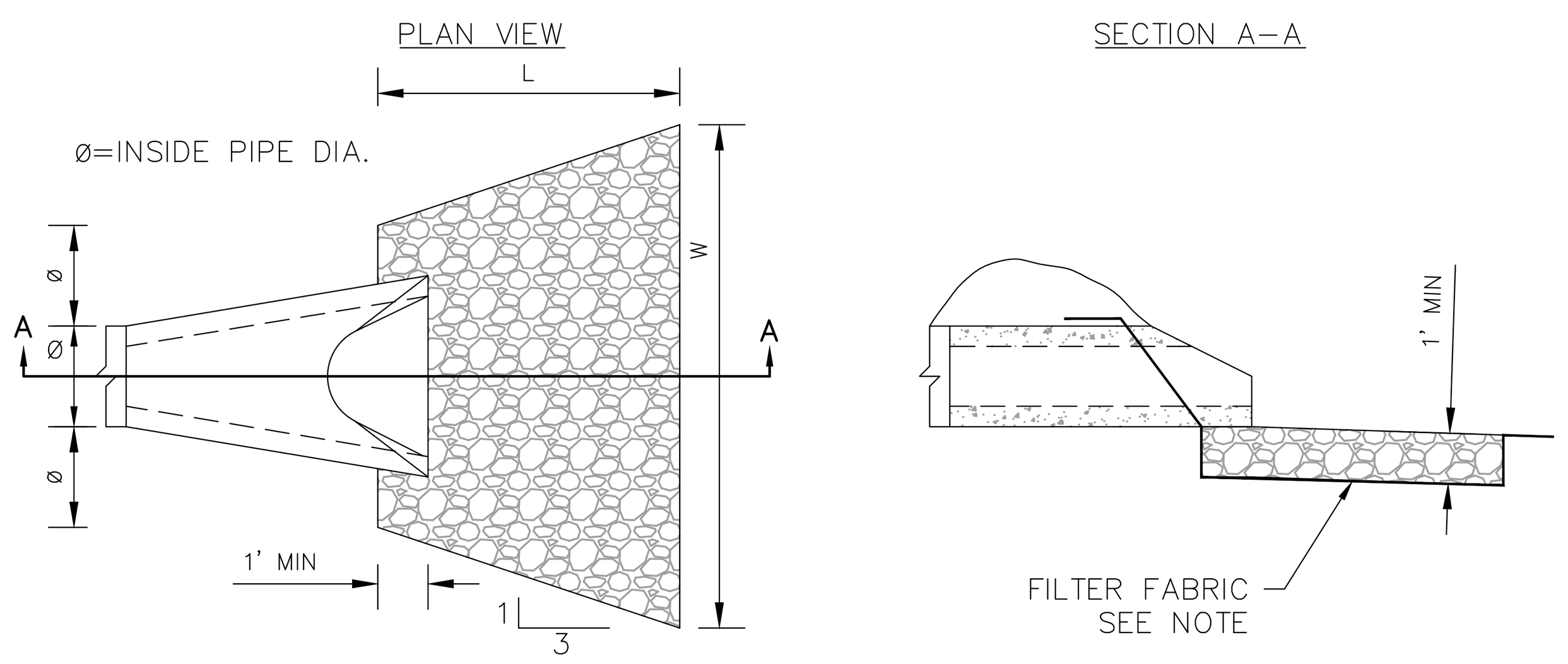
NOTE:

1. ALL STORM PIPE SHALL BE REINFORCED CONCRETE PIPE(RCP), CONFORMING TO ASTM C-76 CLASS III, UNLESS OTHERWISE NOTED.
2. PIPE JOINTS TO BE WITH O-RING RUBBER GASKETS(ASTM C443). SEE PLANS FOR PIPE JOINTING. JOINTS SHALL BE WRAPPED WITH FILTER FABRIC, MIN. 18" IN WIDTH.
3. 6" COMPACTED GRAVEL AGREGATE OF #57 OR #67.
4. CONTRACTOR TO FIELD VERIFY SOIL SUTIBILITY FOR PIPE SUBGRADE COMPACTION. IF NECESARY MUKING OF SUBGRADE IS REQUIRED TO ACHIEVE 95% COMPACTION (MAX THEORETICAL DENSITY)

RCP STORM LINE BEDDING
(NOT TO SCALE)



JUNCTION BOX DETAIL
(NOT TO SCALE)



NOTES

1. A FILTER FABRIC, AMOCO 4557 NONWOVEN GEOTEXTILE OR APPROVED EQUIAL IS REQUIRED BETWEEN THE RIP-RAP AND SOIL FOUNDATION
2. CLASS I ANGULAR RIP-RAP SHALL BE USED FOR PIPES LESS THAN 54" DIAMETER. CLASS II ANGULAR RIP-RAP SHALL BE USED AT 54" PIPE.

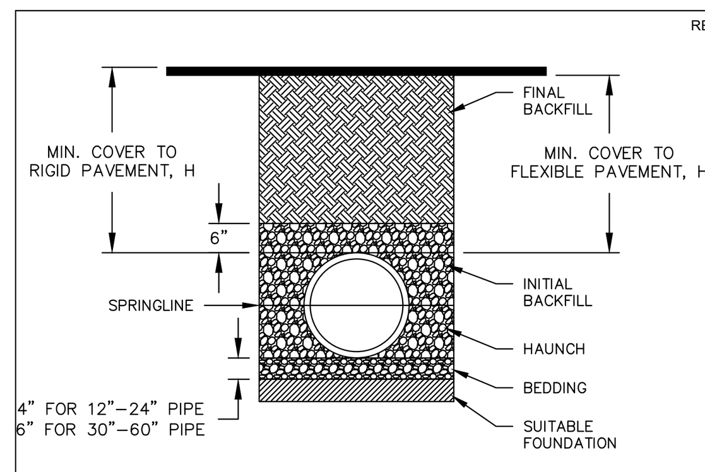
RIP-RAP DIMENSIONS

Ø	L	W
18"	6'	8.5'
24"	8'	11.5'
30"	10'	14.5'
36"	12'	17'
42"	14'	20'
54"	16'	23'

RIP-RAP CLASS

	I	II
D15	4.5"	7"
D50	6.5"	9.5"
D85	9"	13"
D100	12"	18"

TYPICAL PIPE OUTLET W/ STONE RIP-RAP
(NOT TO SCALE)



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4" (100mm)	21" (533mm)
6" (150mm)	23" (584mm)
8" (200mm)	26" (660mm)
10" (250mm)	28" (711mm)
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS**

PIPE DIAM.	SURFACE LIVE LOADING CONDITION H-25	HEAVY CONSTRUCTION (75T AXLE LAOD) *
12" - 48" (300mm - 1200mm)	12" (305mm)	48" (1219mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
**SEE BACKFILL REQUIREMENTS IN NOTE 6.

MAXIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	CLASS I COMPACTED	CLASS I DUMPED	CLASS II 95%	CLASS II 90%	CLASS III 95%
4" (100mm)	34 (10.4m)	16 (4.9m)	23 (7.0m)	16 (4.9m)	17 (5.2m)
6" (150mm)	40 (12.2m)	19 (5.8m)	27 (8.2m)	19 (5.8m)	20 (6.1m)
8" (200mm)	30 (9.1m)	14 (4.3m)	21 (6.4m)	14 (4.3m)	15 (4.6m)
10" (250mm)	34 (10.4m)	16 (4.9m)	23 (7.0m)	16 (4.9m)	17 (5.2m)
12" (300mm)	35 (10.7m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	18 (5.5m)
15" (375mm)	37 (11.3m)	18 (5.5m)	25 (7.6m)	18 (5.5m)	19 (5.8m)
18" (450mm)	32 (9.8m)	15 (4.6m)	22 (6.7m)	15 (4.6m)	16 (4.9m)
24" (600mm)	27 (8.2m)	13 (4.0m)	19 (5.8m)	13 (4.0m)	14 (4.3m)
30" (750mm)	22 (6.7m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	11 (3.4m)
36" (900mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	12 (3.7m)	13 (4.0m)
42" (1050mm)	24 (7.3m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)
48" (1200mm)	23 (7.0m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	12 (3.7m)
60" (1500mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	12 (3.7m)	13 (4.0m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE,
UNIT WEIGHT OF SOIL (Ys) = 120 PCF

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

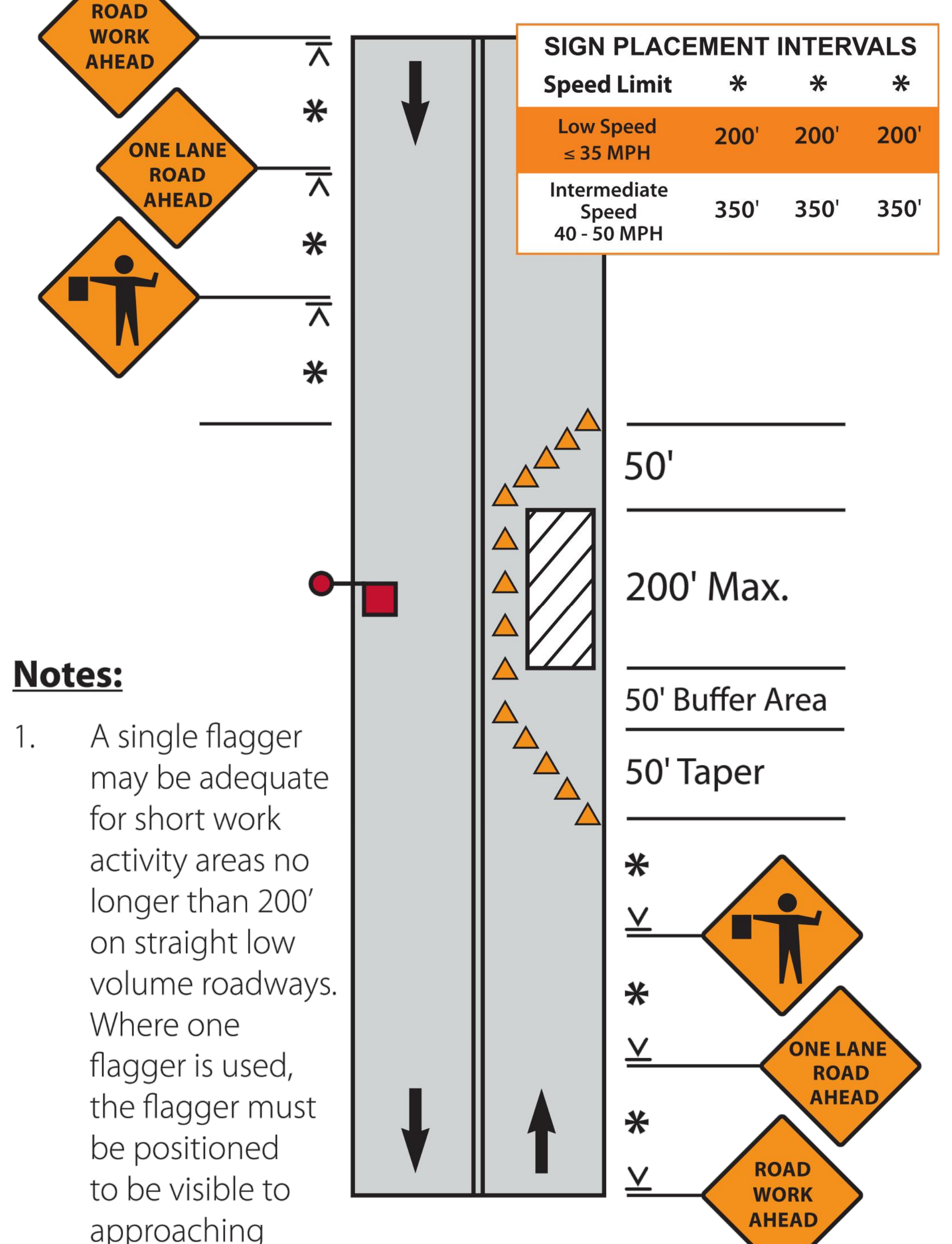
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

DRAWING NUMBER:
ADS ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
DRAWN BY: DATE: CK'D BY: SCALE: NTS

HDPE PIPE TRENCH DETAIL
(NOT TO SCALE)

Lane Closure on a Two-Lane, Low-Volume Road
(One-Flagger Operation)



Notes:

1. A single flagger may be adequate for short work activity areas no longer than 200' on straight low volume roadways. Where one flagger is used, the flagger must be positioned to be visible to approaching traffic from both directions. Standing on the shoulder directly opposite the work area, the flagger directs traffic with the STOP/SLOW paddle.
2. A single flagger operation is restricted to daytime hours ONLY.
3. For low speed (35 MPH or less) conditions, a 200-foot sign spacing may be used. For speeds of 40 to 50 MPH a 350-foot sign spacing may be used.
4. An array of 3 advance warning signs is required in each direction. This sign array will include "Road Work Ahead", "One Lane Road Ahead", and "Flagger" symbol sign.

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Flagging Procedures

Properly Trained Flaggers

- Provide clear messages to drivers as shown
- Allow distance for drivers to react
- Coordinate with other flaggers

Properly Equipped Flaggers

- Approved sign paddles
- Approved safety vest and hat
- Approved safety vest and safety pants that comply with ANSI/ISEA 107-2004 standard performance for Class 3 risk exposure during nighttime flagging operations
- Retroreflective night equipment

Proper Flagging Stations

- Good approach sight distance
- Highly visible to traffic
- Never stand in a moving traffic lane

Proper Advance Warning

- Always use warning signs
- Allow reaction distance from signs
- Remove signs when not flagging

Flags should only be used in emergency situations. Flags used for signaling shall be a minimum of 24" x 24", red in color, and mounted on a staff about 3' long.

50

EARTHSOURCE ENGINEERING

SOUTH CAROLINA ★ EARTHSOURCE ENGINEERING No. C01075 ★ CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 21253 02.27.25 KEVIN MICHAEL BERRY REGISTERED

GOOSE CREEK BLVD. SEWER EXTENSION
GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

CONSTRUCTION DETAILS (TRAFFIC CONTROL & STORM)

REVISIONS

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
C-501

LEGEND:

- EXISTING DRAINAGE FLOW
- SILT FENCE (SF)
- FILTER FABRIC INLET PROTECTION TYPE A
- TYPE F INLET PROTECTION
- LOD — LIMITS OF DISTURBANCE
- GRAVEL CONSTRUCTION EXIT (CE)
- MATCHLINE

SEQUENCE OF CONSTRUCTION

1. RECEIVE NPDES COVERAGE FROM DHEC.
2. CONDUCT PRE–CONSTRUCTION MEETING (ON–SITE IF MORE THAN 10 ACRES ARE TO BE DISTURBED AND THE PROJECT IS NON–LINEAR).
3. NOTIFY DHEC EQC OFFICE OR OCRM 48 HOURS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.
4. INSTALL CONSTRUCTION ENTRANCE(S) AND BEGIN MAINTENANCE OF SEDIMENT CONTROLS AS NECESSARY. CONTINUE MAINTENANCE UNTIL ALL FINAL STABILIZATION MEASURES ARE IN PLACE AND REMOVAL OF CONTROLS IS APPROVED BY THE DESIGNATED AUTHORITY.
5. CLEAR AND GRUB FOR THE INSTALLATION OF PERIMETER CONTROLS.
6. INSTALL TREE PROTECTION AS APPLICABLE.
7. DEMOLISH AND REMOVE EXISTING STRUCTURES, HARDSCAPES, AND DEBRIS AS APPLICABLE.
8. CLEAR, GRUB, AND GRADE FOR ACCESS TO AND INSTALLATION OF BASINS/TRAPS/PONDS AS APPLICABLE.

STOCKPILE & CONSTRUCTION DEBRIS MANAGEMENT NOTES

1. LITTER, CONSTRUCTION DEBRIS, CONCRETE WASHOUT, OILS, FUELS, AND BUILDING PRODUCTS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORMWATER DISCHARGES.
2. SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCKPILE AREAS AND SHALL BE CHECKED AFTER EACH RAIN EVENT AND AT THE END OF EACH WORKING DAY. SILT FENCE SHALL BE MAINTAINED AT ALL TIMES. A DESIGNATED STOCKPILE AREA IS SHOWN ON THIS PLAN.
3. ALL CONSTRUCTION WASTE MATERIALS EXPECTED TO BE STORED ON–SITE SHALL BE CONTROLLED BY PROPER STORAGE PRACTICES SUCH AS ROLL –OFF CONTAINERS. A SPILL PREVENTION PLAN MUST BE ESTABLISHED BY THE CONTRACTOR THAT MINIMIZE EXPOSURE OF THESE WASTE. MATERIALS TO STORMWATER DISCHARGES.

INITIAL LAND DISTURBANCE PHASE NOTES

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE INITIAL LAND DISTURBANCE PHASE.

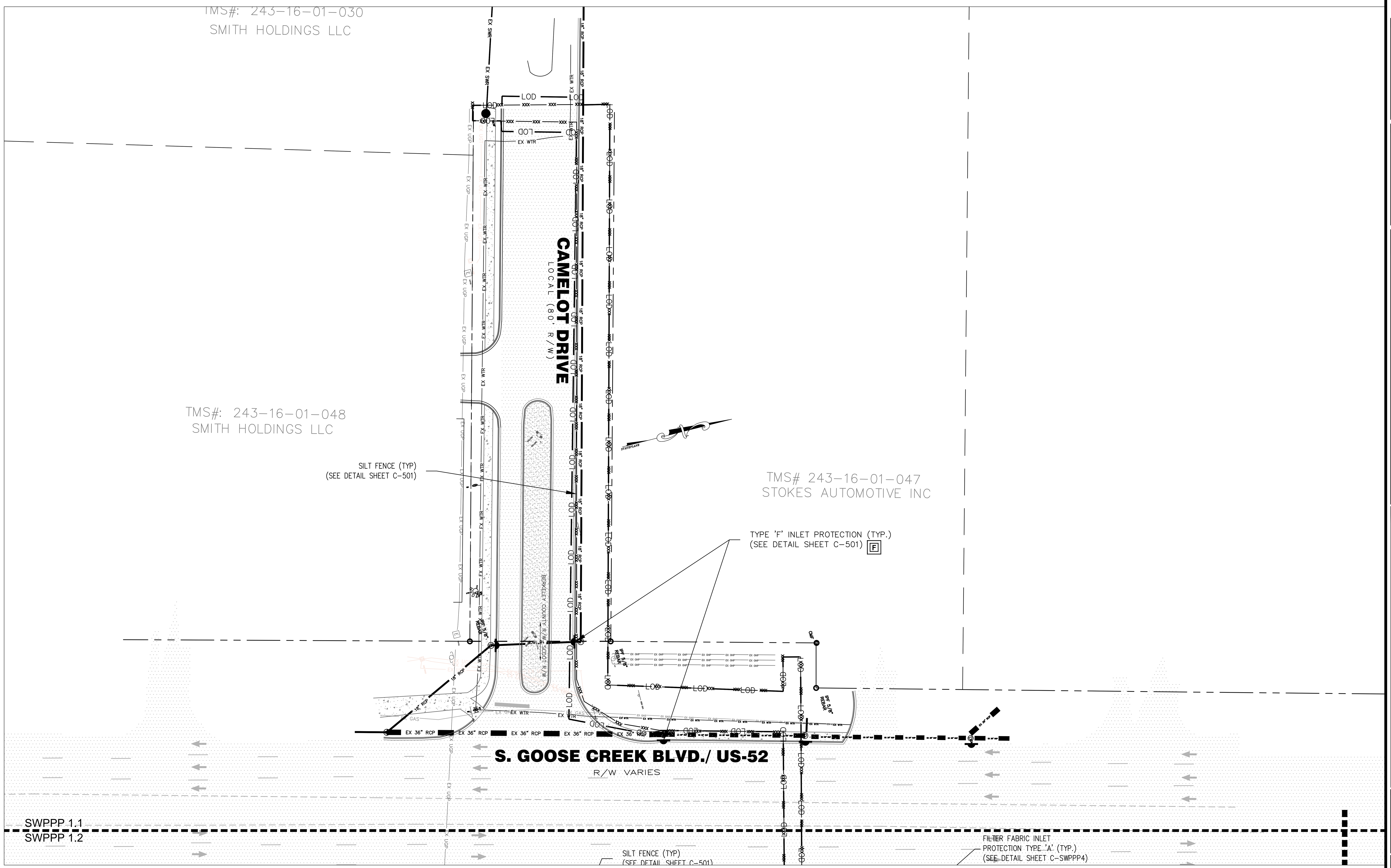
1. THE CONSTRUCTION ENTRANCE SHALL BE PLACED AS SHOWN ON THE PLANS.
2. IMMEDIATELY AFTER THE ESTABLISHMENT OF THE CONSTRUCTION ENTRANCE, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVIcES SHALL BE INSTALLED AS SHOWN ON THE INITIAL PHASE OF CONSTRUCTION PLANS.
3. SILT FENCE, WHETHER REGULAR, REINFORCED, OR DOUBLE ROW OF EITHER SHALL BE INSTALLED AT THE PERIMETER OF THE LAND DISTURBANCE. THE SILT FENCE SHOULD BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT SHOULD BE REMOVED WHEN ACCUMULATION REACHES 1/2 HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.
4. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM DRAINAGE STRUCTURES AS SHOWN ON THE PLAN.
5. STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS NECESSARY.
6. TEMPORARY DIVERSION DITCHES SHALL BE INSTALLED TO DIRECT FLOW TO THE BASINS/TRAPS/PONDS UNTIL ROUGH GRADING RE–DIRECTS FLOWS AS NECESSARY.
7. TREE PROTECTION FENCING SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE AND MAINTAINED UNTIL FINAL LANDSCAPING IS INSTALLED. ANY FAILURES OF SAID FENCING SHALL BE REPAIRED IMMEDIATELY.
8. NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.
9. TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE CEASING.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT AND AT THE END OF EACH WORKING DAY. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF THE SEDIMENT ACCUMULATION HAS REACHED THE CAPACITY OF THE DEVICE.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLE ONTO PUBLIC RIGHTS–OF–WAY OR INTO STORM DRAINAGE SHALL BE IMMEDIATELY REMOVED.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF EROSION CONTROL MEASURES SHOWN ON THE PLANS DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE ON–SITE INSPECTOR OR ENGINEER.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.



BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA — EARTHSOURCE ENGINEERING No. C01075 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 21253 — 02.27.25 — KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION
GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

INITIAL SWPPP PLAN

REVISIONS

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP1.1

LEGEND:

- EXISTING DRAINAGE FLOW
- SILT FENCE (SF)
- FILTER FABRIC INLET PROTECTION TYPE A
- TYPE F INLET PROTECTION
- LOD — LIMITS OF DISTURBANCE
- GRAVEL CONSTRUCTION EXIT (GE)
- MATCHLINE

SEQUENCE OF CONSTRUCTION

1. RECEIVE NPDES COVERAGE FROM DHEC.
2. CONDUCT PRE-CONSTRUCTION MEETING (ON-SITE IF MORE THAN 10 ACRES ARE TO BE DISTURBED AND THE PROJECT IS NON-LINEAR).
3. NOTIFY DHEC EQC OFFICE OR OCRM 48 HOURS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.
4. INSTALL CONSTRUCTION ENTRANCE(S) AND BEGIN MAINTENANCE OF SEDIMENT CONTROLS AS NECESSARY. CONTINUE MAINTENANCE UNTIL ALL FINAL STABILIZATION MEASURES ARE IN PLACE AND REMOVAL OF CONTROLS IS APPROVED BY THE DESIGNATED AUTHORITY.
5. CLEAR AND GRUB FOR THE INSTALLATION OF PERIMETER CONTROLS.
6. INSTALL TREE PROTECTION AS APPLICABLE.
7. DEMOLISH AND REMOVE EXISTING STRUCTURES, HARDSCAPES, AND DEBRIS AS APPLICABLE.
8. CLEAR, GRUB, AND GRADE FOR ACCESS TO AND INSTALLATION OF BASINS/TRAPS/PONDS AS APPLICABLE.

STOCKPILE & CONSTRUCTION DEBRIS MANAGEMENT NOTES

1. LITTER, CONSTRUCTION DEBRIS, CONCRETE WASHOUT, OILS, FUELS, AND BUILDING PRODUCTS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORMWATER DISCHARGES.
2. SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCKPILE AREAS AND SHALL BE CHECKED AFTER EACH RAIN EVENT AND AT THE END OF EACH WORKING DAY. SILT FENCE SHALL BE MAINTAINED AT ALL TIMES. A DESIGNATED STOCKPILE AREA IS SHOWN ON THIS PLAN.
3. ALL CONSTRUCTION WASTE MATERIALS EXPECTED TO BE STORED ON-SITE SHALL BE CONTROLLED BY PROPER STORAGE PRACTICES SUCH AS ROLL -OFF CONTAINERS. A SPILL PREVENTION PLAN MUST BE ESTABLISHED BY THE CONTRACTOR THAT MINIMIZE EXPOSURE OF THESE WASTE. MATERIALS TO STORMWATER DISCHARGES.

INITIAL LAND DISTURBANCE PHASE NOTES

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE INITIAL LAND DISTURBANCE PHASE.

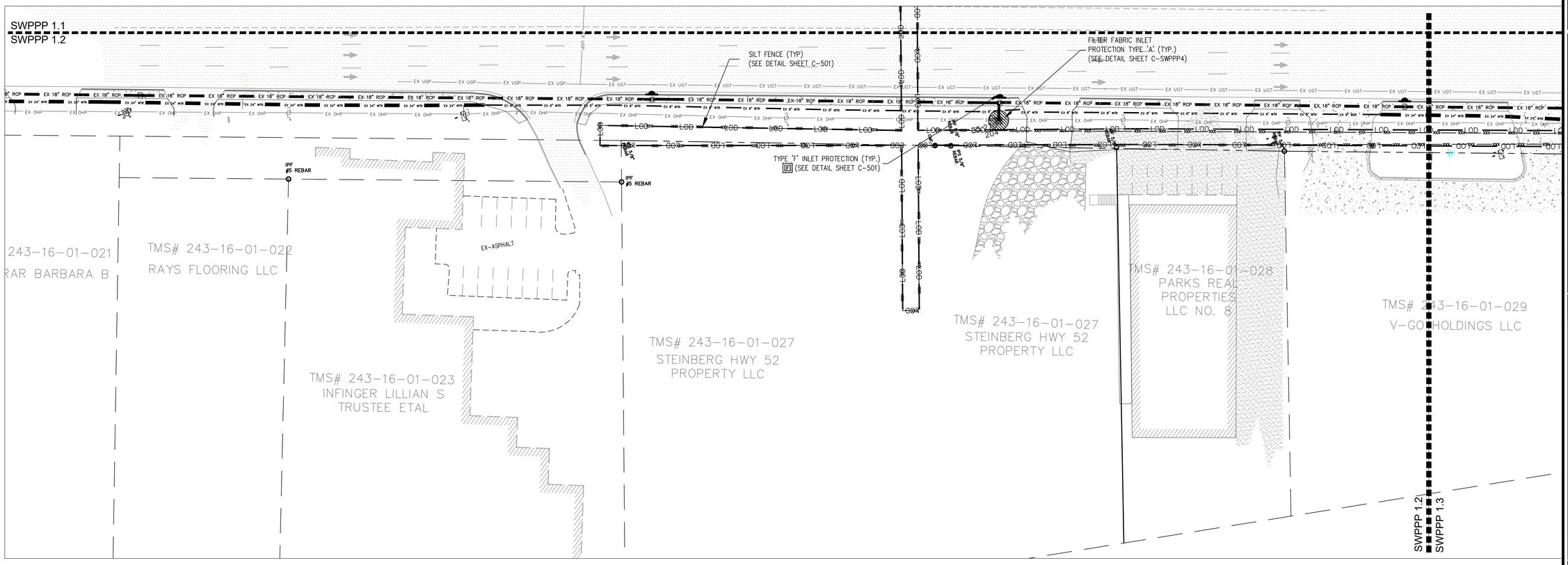
1. THE CONSTRUCTION ENTRANCE SHALL BE PLACED AS SHOWN ON THE PLANS.
2. IMMEDIATELY AFTER THE ESTABLISHMENT OF THE CONSTRUCTION ENTRANCE, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE INITIAL PHASE OF CONSTRUCTION PLANS.
3. SILT FENCE, WHETHER REGULAR, REINFORCED, OR DOUBLE ROW OF EITHER SHALL BE INSTALLED AT THE PERIMETER OF THE LAND DISTURBANCE. THE SILT FENCE SHOULD BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT SHOULD BE REMOVED WHEN ACCUMULATION REACHES 1/2 HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.
4. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM DRAINAGE STRUCTURES AS SHOWN ON THE PLAN.
5. STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS NECESSARY.
6. TEMPORARY DIVERSION DITCHES SHALL BE INSTALLED TO DIRECT FLOW TO THE BASINS/TRAPS/PONDS UNTIL ROUGH GRADING RE-DIRECTS FLOWS AS NECESSARY.
7. TREE PROTECTION FENCING SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE AND MAINTAINED UNTIL FINAL LANDSCAPING IS INSTALLED. ANY FAILURES OF SAID FENCING SHALL BE REPAIRED IMMEDIATELY.
8. NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.
9. TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE CEASING.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT AND AT THE END OF EACH WORKING DAY. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF THE SEDIMENT ACCUMULATION HAS REACHED THE CAPACITY OF THE DEVICE.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLE ONTO PUBLIC RIGHTS-OF-WAY OR INTO STORM DRAINAGE SHALL BE IMMEDIATELY REMOVED.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF EROSION CONTROL MEASURES SHOWN ON THE PLANS DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE ON-SITE INSPECTOR OR ENGINEER.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
No. 31250
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

INITIAL SWPPP PLAN

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.09.23	PER BCWS COMMENTS	ERL
4.	11.08.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SCDOT COMMENTS	JWD
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	ERL
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP1.2

LEGEND:

- EXISTING DRAINAGE FLOW
- SILT FENCE (SF)
- FILTER FABRIC INLET PROTECTION TYPE A
- TYPE F INLET PROTECTION
- LOD — LIMITS OF DISTURBANCE
- GRAVEL CONSTRUCTION EXIT (CE)
- MATCHLINE

SEQUENCE OF CONSTRUCTION

1. RECEIVE NPDES COVERAGE FROM DHEC.
2. CONDUCT PRE-CONSTRUCTION MEETING (ON-SITE IF MORE THAN 10 ACRES ARE TO BE DISTURBED AND THE PROJECT IS NON-LINEAR).
3. NOTIFY DHEC EQC OFFICE OR OCRM 48 HOURS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.
4. INSTALL CONSTRUCTION ENTRANCE(S) AND BEGIN MAINTENANCE OF SEDIMENT CONTROLS AS NECESSARY. CONTINUE MAINTENANCE UNTIL ALL FINAL STABILIZATION MEASURES ARE IN PLACE AND REMOVAL OF CONTROLS IS APPROVED BY THE DESIGNATED AUTHORITY.
5. CLEAR AND GRUB FOR THE INSTALLATION OF PERIMETER CONTROLS.
6. INSTALL TREE PROTECTION AS APPLICABLE.
7. DEMOLISH AND REMOVE EXISTING STRUCTURES, HARDSCAPES, AND DEBRIS AS APPLICABLE.
8. CLEAR, GRUB, AND GRADE FOR ACCESS TO AND INSTALLATION OF BASINS/TRAPS/PONDS AS APPLICABLE.

STOCKPILE & CONSTRUCTION DEBRIS MANAGEMENT NOTES

1. LITTER, CONSTRUCTION DEBRIS, CONCRETE WASHOUT, OILS, FUELS, AND BUILDING PRODUCTS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORMWATER DISCHARGES.
2. SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCKPILE AREAS AND SHALL BE CHECKED AFTER EACH RAIN EVENT AND AT THE END OF EACH WORKING DAY. SILT FENCE SHALL BE MAINTAINED AT ALL TIMES. A DESIGNATED STOCKPILE AREA IS SHOWN ON THIS PLAN.
3. ALL CONSTRUCTION WASTE MATERIALS EXPECTED TO BE STORED ON-SITE SHALL BE CONTROLLED BY PROPER STORAGE PRACTICES SUCH AS ROLL-OFF CONTAINERS. A SPILL PREVENTION PLAN MUST BE ESTABLISHED BY THE CONTRACTOR THAT MINIMIZE EXPOSURE OF THESE WASTE. MATERIALS TO STORMWATER DISCHARGES.

INITIAL LAND DISTURBANCE PHASE NOTES

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE INITIAL LAND DISTURBANCE PHASE.

1. THE CONSTRUCTION ENTRANCE SHALL BE PLACED AS SHOWN ON THE PLANS.
2. IMMEDIATELY AFTER THE ESTABLISHMENT OF THE CONSTRUCTION ENTRANCE, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVIcES SHALL BE INSTALLED AS SHOWN ON THE INITIAL PHASE OF CONSTRUCTION PLANS.
3. SILT FENCE, WHETHER REGULAR, REINFORCED, OR DOUBLE ROW OF EITHER SHALL BE INSTALLED AT THE PERIMETER OF THE LAND DISTURBANCE. THE SILT FENCE SHOULD BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT SHOULD BE REMOVED WHEN ACCUMULATION REACHES 1/2 HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.
4. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM DRAINAGE STRUCTURES AS SHOWN ON THE PLAN.
5. STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS NECESSARY.
6. TEMPORARY DIVERSION DITCHES SHALL BE INSTALLED TO DIRECT FLOW TO THE BASINS/TRAPS/PONDS UNTIL ROUGH GRADING RE-DIRECTS FLOWS AS NECESSARY.
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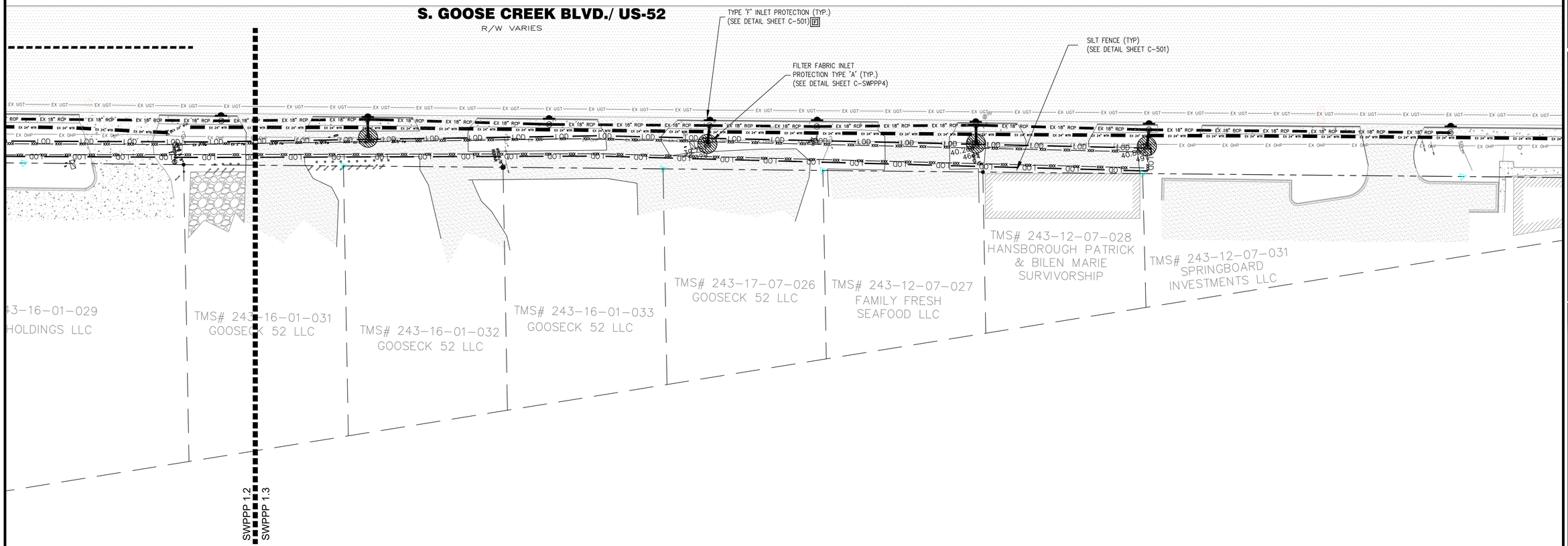
8. NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.
9. TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE CEASING.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT AND AT THE END OF EACH WORKING DAY. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF THE SEDIMENT ACCUMULATION HAS REACHED THE CAPACITY OF THE DEVICE.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLE ONTO PUBLIC RIGHTS-OF-WAY OR INTO STORM DRAINAGE SHALL BE IMMEDIATELY REMOVED.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF EROSION CONTROL MEASURES SHOWN ON THE PLANS DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE ON-SITE INSPECTOR OR ENGINEER.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

South 811 Carolina

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 31250 02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

INITIAL SWPPP PLAN

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS COMMENTS	ERL
4.	11.08.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SCDHEC/BCWS REVIEW	JWD
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWD
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP1.3

LEGEND:

- PROPOSED DRAINAGE FLOW
- SILT FENCE (SF)
- RIP RAP
- CONCRETE WASHOUT (CW)
- TYPE 'F' CURB INLET PROTECTION (F)
- TEMPORARY SEEDING (Ts)
- FILTER FABRIC INLET PROTECTION TYPE A
- GRAVEL CONSTRUCTION EXIT (GE)
- MATCHLINE

TEMPORARY MAINTENANCE PLAN AND SCHEDULE:

SILT FENCE

1. THE KEY TO FUNCTIONAL SILT FENCE IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
2. REGULAR INSPECTIONS OF SILT FENCE SHALL BE CONDUCTED ONCE EVERY CALENDAR WEEK AND, AS RECOMMENDED, WITHIN 24-HOURS AFTER EACH RAINFALL EVENt THAT PRODUCES 1/2-INCH OR MORE OF PRECIPITATION.
3. ATTENTION TO SEDIMENT ACCUMULATIONS ALONG THE SILT FENCE IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.
4. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE SILT FENCE.
5. REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
6. CHECK FOR AREAS WHERE STORMWATER RUNOFF HAS ERODED A CHANNEL BENEATH THE SILT FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED DUE TO RUNOFF OVERTOPPING THE SILT FENCE. INSTALL CHECKS/TIE-BACKS AND/OR REINSTALL SILT FENCE, AS NECESSARY.
7. CHECK FOR TEARS WITHIN THE SILT FENCE, AREAS WHERE SILT FENCE HAS BEGUN TO DECOMPOSE, AND FOR ANY OTHER CIRCUMSTANCE THAT MAY RENDER THE SILT FENCE INEFFECTIVE. REMOVE DAMAGED SILT FENCE AND REINSTALL NEW SILT FENCE IMMEDIATELY.
8. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND ONCE IT IS REMOVED, THE RESULTING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED.

INLET FILTERS

INSTALLATION INSTRUCTIONS:

1. REMOVE GRATE FROM THE DRAINAGE STRUCTURE.
2. CLEAN STONE AND DIRT FROM LEDGE (LIP) OF DRAINAGE STRUCTURE.
3. DROP THE FLEXSTORM INLET FILTER THROUGH THE CLEAR OPENING SUCH THAT THE HANGERS REST FIRMLY ON THE LIP OF THE STRUCTURE.
4. REPLACE THE GRATE AND CONFIRM IT IS NOT ELEVATED MORE THAN 1/8", THE THICKMESS OF THE STEEL HANGERS.

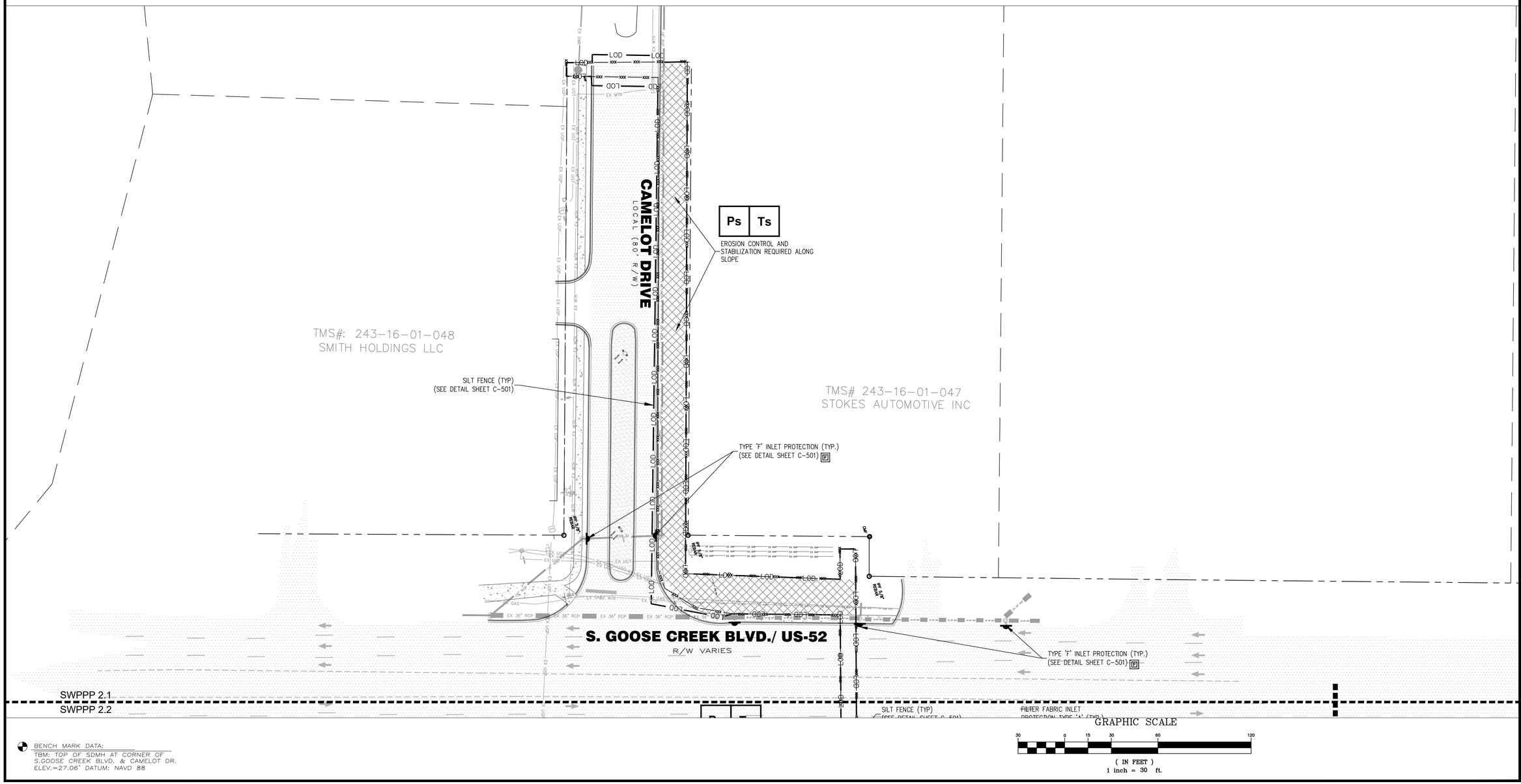
FREQUENCY OF INSPECTIONS:

1. INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT >1/2".
2. POST CONSTRUCTION INSPECTIONS SHOULD OCCUR 4 TIMES PER YEAR. IN SNOWFALL AFFECTED REGIONS ADDITIONAL INSPECTIONS SHOULD TAKE PLACE BEFORE AND AFTER SNOWFALL SEASON.
3. INDUSTRIAL APPLICATION SITE INSPECTIONS (LOADING RAMPS, WASH RACKS, MAINTENANCE FACILITIES) SHOULD OCCUR ON A REGULARLY SCHEDULED BASIS NO LESS THAN 3 TIMES/YEAR.

MAINTENANCE GUIDELINE:

1. EMPTY THE SEDIMENT BAG IF MORE THAN HALF FILLED WITH SEDIMENT AND DEBRIS, OR AS DIRECTED.
2. REMOVE THE GRATE, ENGAGE THE LIFTING BARS WITH THE FLEXSTORM REMOVAL TOOL, AND LIFT FROM DRAINAGE STRUCTURE.
3. DISPOSE OF SEDIMENT OR DEBRIS AS DIRECTED BY THE ENGINEER OR MAINTENANCE CONTRACT.
4. AN INDUSTRIAL VACUUM CAN BE USED TO COLLECT SEDIMENT.
5. REMOVE CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
6. REPLACE BAG IS TORN OR PUNCTURED TO>1/2" DIAMETER ON LOWER HALF OF BAG.

811 Know what's below. Call before you dig.



BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR. ELEV.=27.06' DATUM: NAVD 88

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
No. 31250
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

FINAL SWPPP PLAN

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.09.23	PER BCWS COMMENTS	ERL
4.	11.08.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	05.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	01.24.25	PER CITY OF GOOSE CREEK COMMENTS	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP2.1

LEGEND:

- PROPOSED DRAINAGE FLOW
- SILT FENCE (SF)
- RIP RAP
- CONCRETE WASHOUT (CW)
- TYPE "F" CURB INLET PROTECTION (F)
- TEMPORARY SEEDING (Ts)
- TYPE A INLET PROTECTION (A)
- GRAVEL CONSTRUCTION EXIT (CE)
- MATCHLINE

TEMPORARY MAINTENANCE PLAN AND SCHEDULE:

SILT FENCE

1. THE KEY TO FUNCTIONAL SILT FENCE IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
2. REGULAR INSPECTIONS OF SILT FENCE SHALL BE CONDUCTED ONCE EVERY CALENDAR WEEK AND, AS RECOMMENDED, WITHIN 24-HOURS AFTER EACH RAINFALL EVENt THAT PRODUCES 1/2-INCH OR MORE OF PRECIPITATION.
3. ATTENTION TO SEDIMENT ACCUMULATIONS ALONG THE SILT FENCE IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.
4. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE SILT FENCE.
5. REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
6. CHECK FOR AREAS WHERE STORMWATER RUNOFF HAS ERODED A CHANNEL BENEATH THE SILT FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED DUE TO RUNOFF OVERTOPPING THE SILT FENCE. INSTALL CHECKS/TIE-BACKS AND/OR REINSTALL SILT FENCE, AS NECESSARY.
7. CHECK FOR TEARS WITHIN THE SILT FENCE, AREAS WHERE SILT FENCE HAS BEGUN TO DECOMPOSE, AND FOR ANY OTHER CIRCUMSTANCE THAT MAY RENDER THE SILT FENCE INEFFECTIVE. REMOVE DAMAGED SILT FENCE AND REINSTALL NEW SILT FENCE IMMEDIATELY.
8. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND ONCE IT IS REMOVED, THE RESULTING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED.

INLET FILTERS

INSTALLATION INSTRUCTIONS:

1. REMOVE GRATE FROM THE DRAINAGE STRUCTURE.
2. CLEAN STONE AND DIRT FROM LEDGE (LIP) OF DRAINAGE STRUCTURE.
3. DROP THE FLEXSTORM INLET FILTER THROUGH THE CLEAR OPENING SUCH THAT THE HANGERS REST FIRMLY ON THE LIP OF THE STRUCTURE.
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6. REPLACE BAG IS TORN OR PUNCTURED TO>1/2" DIAMETER ON LOWER HALF OF BAG.

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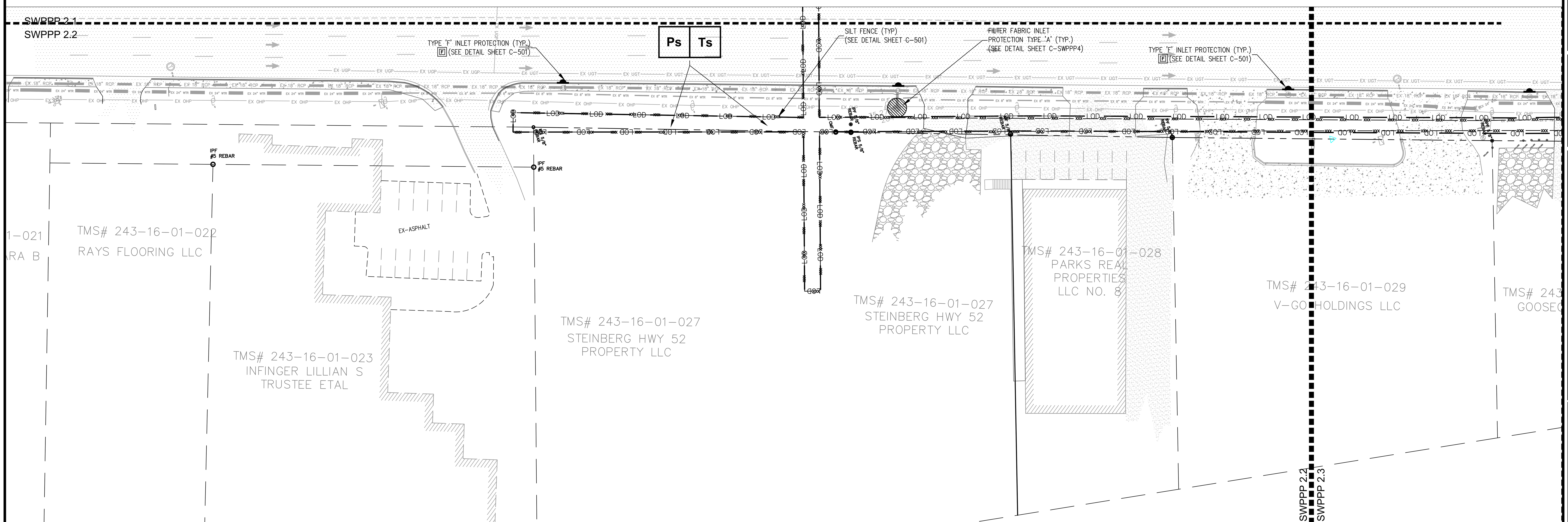

GRAPHIC SCALE

30 0 15 30 60 120

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BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 21252
02.27.25
KEVIN MICHAEL BERRY
REGISTERED

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

FINAL SWPPP PLAN

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
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4.	11.09.23	PER BCWS COMMENTS	ERL
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DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP2.2

LEGEND:

- PROPOSED DRAINAGE FLOW
- SILT FENCE (SF)
- RIP RAP
- CONCRETE WASHOUT (CW)
- TYPE 'F' CURB INLET PROTECTION (F)
- TEMPORARY SEEDING (Ts)
- TYPE A INLET PROTECTION (A)
- GRAVEL CONSTRUCTION EXIT (Co)
- MATCHLINE

TEMPORARY MAINTENANCE PLAN AND SCHEDULE:

SILT FENCE

1. THE KEY TO FUNCTIONAL SILT FENCE IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
2. REGULAR INSPECTIONS OF SILT FENCE SHALL BE CONDUCTED ONCE EVERY CALENDAR WEEK AND, AS RECOMMENDED, WITHIN 24–HOURS AFTER EACH RAINFALL EVENt THAT PRODUCES 1/2–INCH OR MORE OF PRECIPITATION.
3. ATTENTION TO SEDIMENT ACCUMULATIONS ALONG THE SILT FENCE IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.
4. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE SILT FENCE.
5. REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
6. CHECK FOR AREAS WHERE STORMWATER RUNOFF HAS ERODED A CHANNEL BENEATH THE SILT FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED DUE TO RUNOFF OVERTOPPING THE SILT FENCE. INSTALL CHECKS/TIE–BACKS AND/OR REINSTALL SILT FENCE, AS NECESSARY.
7. CHECK FOR TEARS WITHIN THE SILT FENCE, AREAS WHERE SILT FENCE HAS BEGUN TO DECOMPOSE, AND FOR ANY OTHER CIRCUMSTANCE THAT MAY RENDER THE SILT FENCE INEFFECTIVE. REMOVE DAMAGED SILT FENCE AND REINSTALL NEW SILT FENCE IMMEDIATELY.
8. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND ONCE IT IS REMOVED, THE RESULTING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED.

INLET FILTERS

INSTALLATION INSTRUCTIONS:

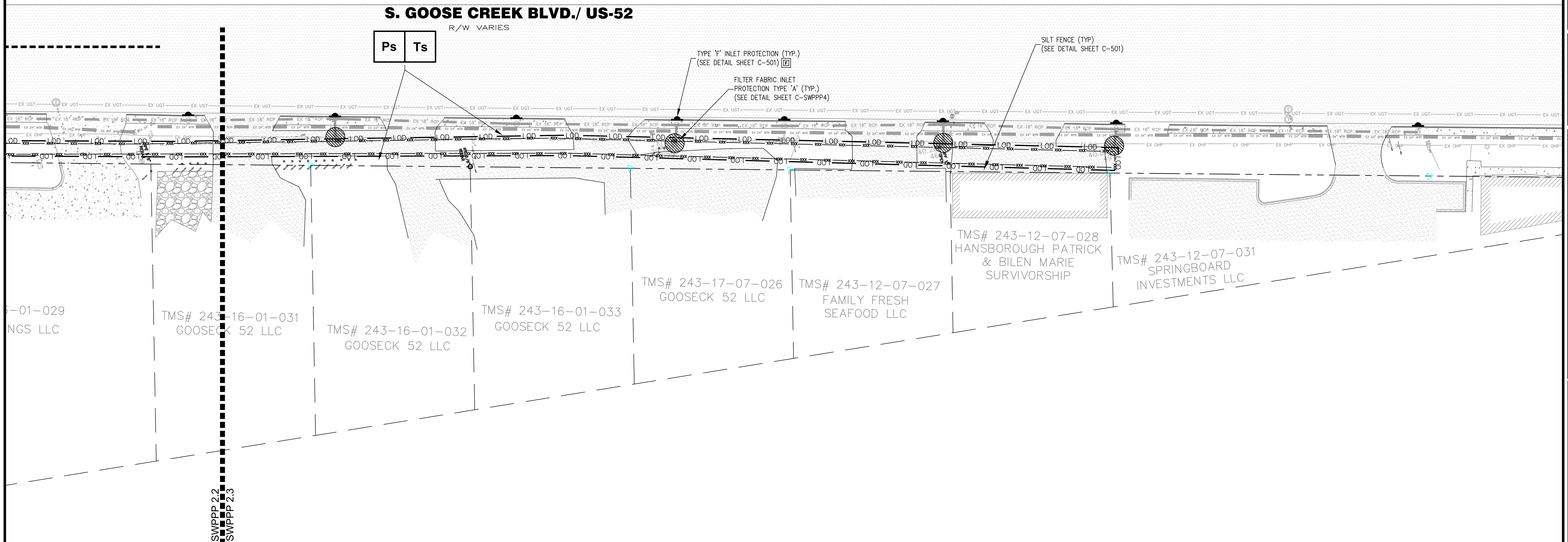
1. REMOVE GRATE FROM THE DRAINAGE STRUCTURE.
2. CLEAN STONE AND DIRT FROM LEDGE (LIP) OF DRAINAGE STRUCTURE.
3. DROP THE FLEXSTORM INLET FILTER THROUGH THE CLEAR OPENING SUCH THAT THE HANGERS REST FIRMLY ON THE LIP OF THE STRUCTURE.
4. REPLACE THE GRATE AND CONFIRM IT IS NOT ELEVATED MORE THAN 1/8", THE THICKMESS OF THE STEEL HANGERS.

FREQUENCY OF INSPECTIONS:

1. INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT >1/2".
2. POST CONSTRUCTION INSPECTIONS SHOULD OCCUR 4 TIMES PER YEAR. IN SNOWFALL AFFECTED REGIONS ADDITIONAL INSPECTIONS SHOULD TAKE PLACE BEFORE AND AFTER SNOWFALL SEASON.
3. INDUSTRIAL APPLICATION SITE INSPECTIONS (LOADING RAMPS, WASH RACKS, MAINTENANCE FACILITIES) SHOULD OCCUR ON A REGULARLY SCHEDULED BASIS NO LESS THAN 3 TIMES/YEAR.

MAINTENANCE GUIDELINE:

1. EMPTY THE SEDIMENT BAG IF MORE THAN HALF FILLED WITH SEDIMENT AND DEBRIS, OR AS DIRECTED.
2. REMOVE THE GRATE, ENGAGE THE LIFTING BARS WITH THE FLEXSTORM REMOVAL TOOL, AND LIFT FROM DRAINAGE STRUCTURE.
3. DISPOSE OF SEDIMENT OR DEBRIS AS DIRECTED BY THE ENGINEER OR MAINTENANCE CONTRACT.
4. AN INDUSTRIAL VACUUM CAN BE USED TO COLLECT SEDIMENT.
5. REMOVE CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
6. REPLACE BAG IS TORN OR PUNCTURED TO>1/2" DIAMETER ON LOWER HALF OF BAG.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR.
ELEV.=27.06' DATUM: NAVD 88

EARTHSOURCE ENGINEERING

SOUTH CAROLINA ★ EARTHSOURCE ENGINEERING No. C01075 ★ CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 21253 02.27.25 KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

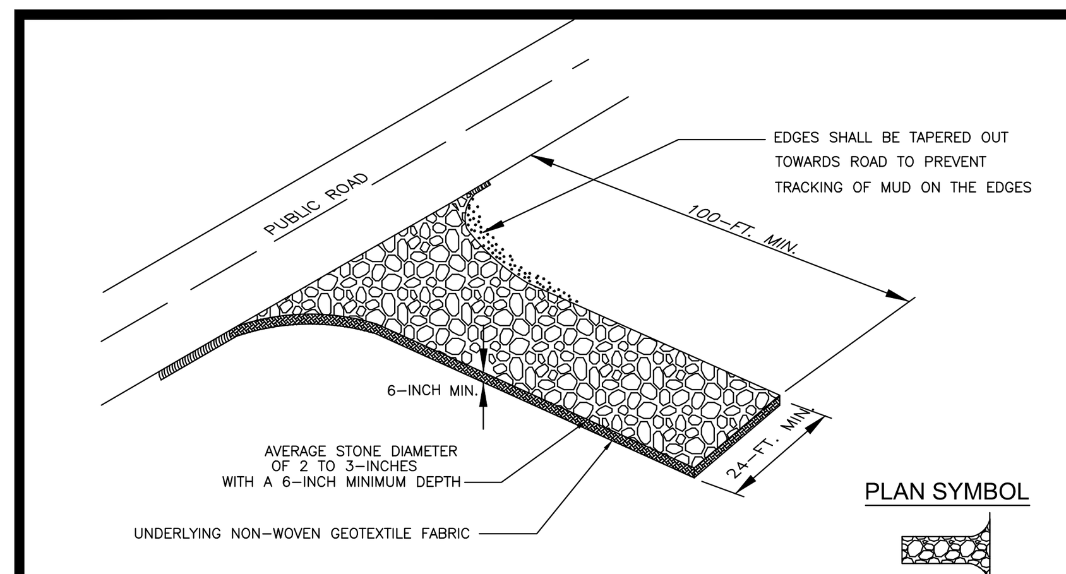
FINAL SWPPP PLAN

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO.
22-124

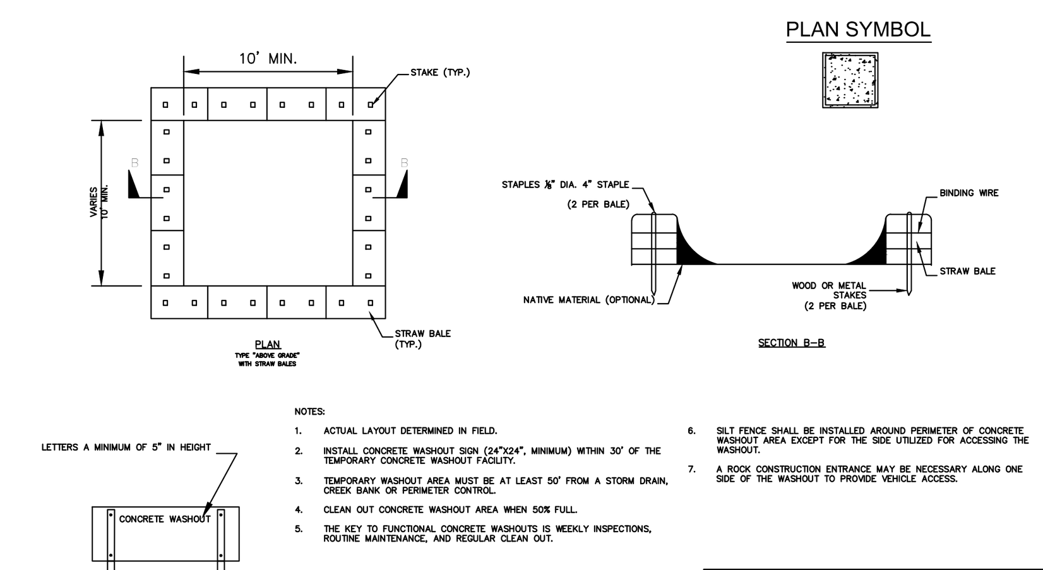
FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP2.3

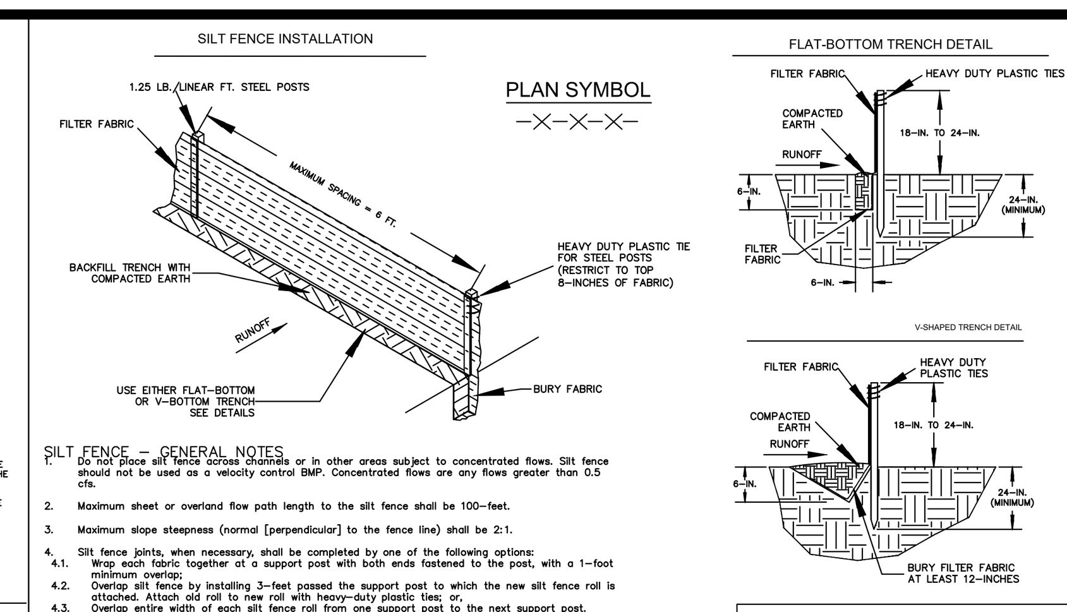


SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	100 FEET
ROCK PAD STONE SIZE	D = 2-3 INCHES

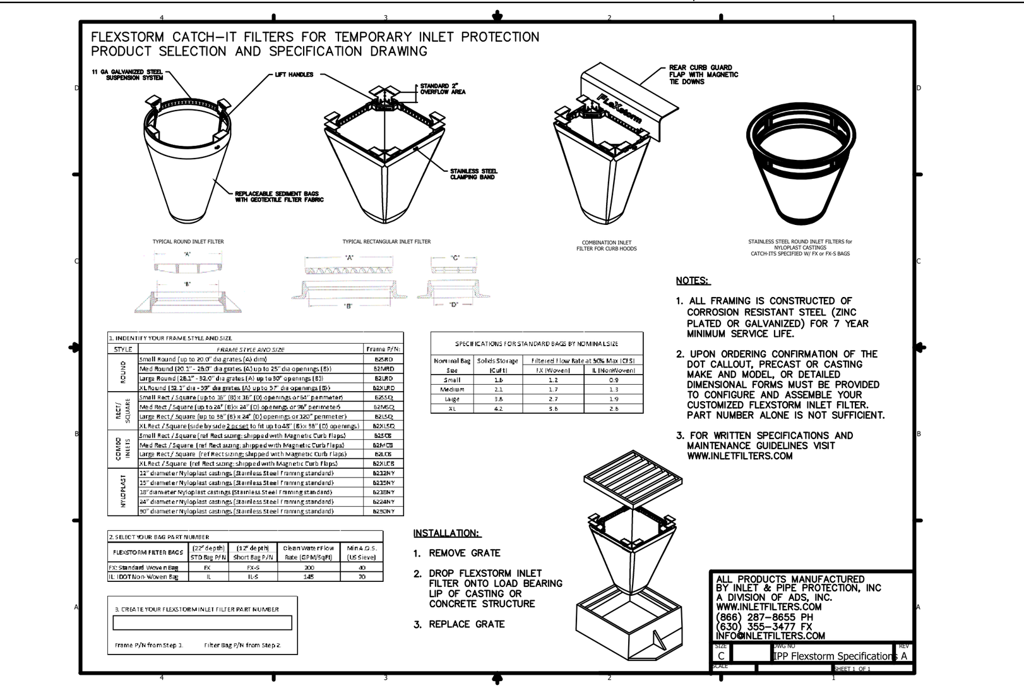
South Carolina Department of Health and Environmental Control
Co CONSTRUCTION ENTRANCE
SC-06 PAGE 1 of 2
NOT TO SCALE — FEBRUARY 2014



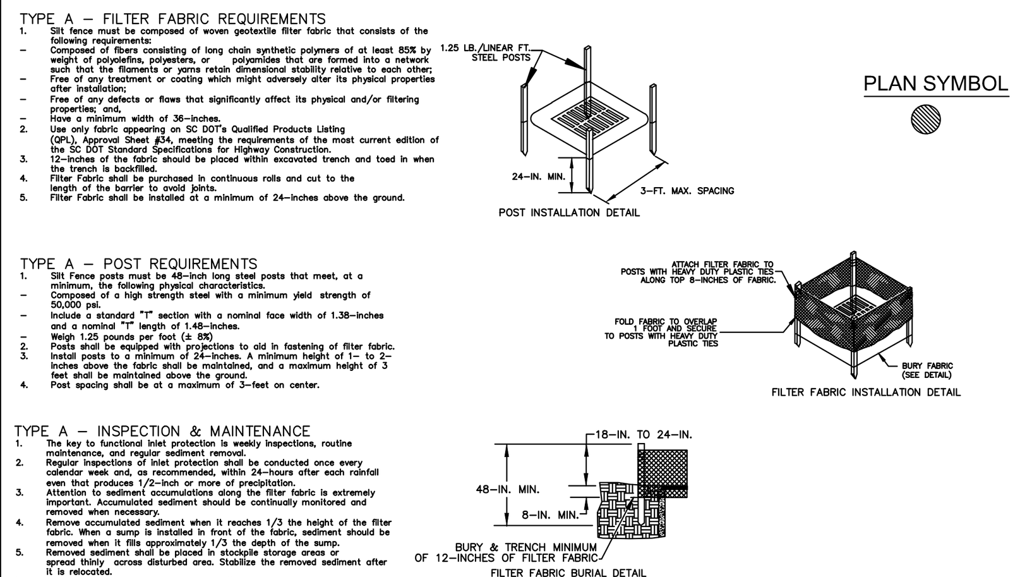
South Carolina Department of Health and Environmental Control
CONCRETE WASHOUT
STRAW BALES OF ABOVE GROUND
RC-07 PAGE 1 of 1
NOT TO SCALE — FEBRUARY 2014



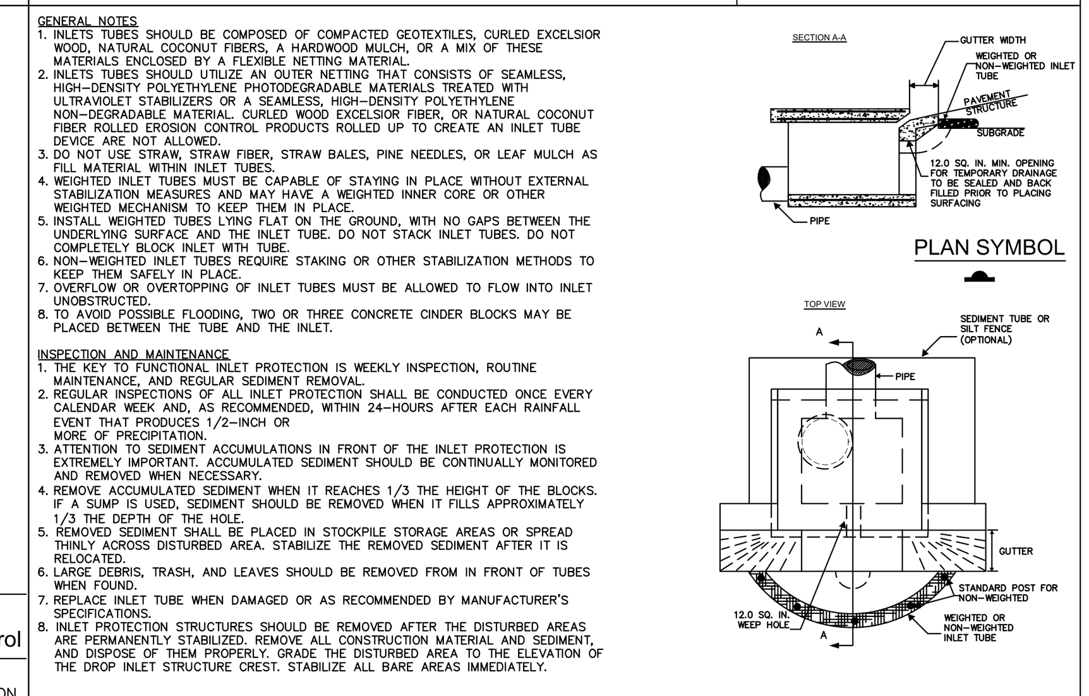
South Carolina Department of Health and Environmental Control
SF SILT FENCE
SC-03 Page 1 of 2
NOT TO SCALE — FEBRUARY 2014



FLEXSTORM TEMP. INLET PROTECTION
(NOT TO SCALE)



South Carolina Department of Health and Environmental Control
Type A
FILTER FABRIC INLET PROTECTION
SC-07 PAGE 1 of 2
NOT TO SCALE



"TYPE F" INLET TUBE PROTECTION
(NOT TO SCALE)

Ts TEMPORARY SEEDING SPECIFICATION

Table 3.12 Temporary Cover (Annuals)

COMMON NAME[3]	BOTANICAL NAME	APPROVED SITE(S)	PLANTING RATE (lbs/acre)	Planting Dates* JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SELECT ONE															
Crimson Clover[1]	Trifolium incarnatum	Shoulders, Slopes, or Medians	20									■	■	■	
Korean Lespedeza[1] (unhulled = hull present)	Lespedeza stipulacea	Shoulders, Slopes	60	■	■	■	■								
Kobe Lespedeza[1] (unhulled = hull present)	Lespedeza striata	Shoulders, Slopes	60	■	■	■	■								
Browntop Millet	Panicum ramosum	Slopes	50			■	■	■	■	■	■				
German Millet (Foxtail Millet)	Setaria italica	Slopes	40				■	■	■	■	■				
Oats	Avena sativa	Slopes	150									■	■	■	
Hairy Vetch[1]	Vicia villosa	Shoulders, Slopes, or Medians	50								■	■	■		
Pearl Millet	Pennisetum glaucum	Shoulders, Slopes, or Medians	50			■	■	■	■	■	■				
Sudangrass	Sorghum bicolor	Shoulders, Slopes, or Medians	60			■	■	■	■	■	■				
Barley	Hordeum vulgare	Shoulders, Slopes, or Medians	190									■	■	■	
Wheat	Triticum spp.	Shoulders, Slopes, or Medians	100								■	■	■	■	■
Rye Grain[2]	Secale cereale	Shoulders, Slopes, or Medians	55	■	■	■					■	■	■	■	■

1Only use pre-inoculated legumes or an appropriate inoculant with the seed at planting.
2**Rye Grain:** *Do not use Annual Italian Rye Grass (Lolium multiforum).*
3If the Common Name of the seed listed in Table 1, Table 2 or Table 3 is not available, use seed with the listed Botanical Name.
** Months shaded in gray represent applicable planting dates.*

Ps PERMANENT SEEDING SPECIFICATION

Table 3.14 Permanent Vegetation Schedule

COMMON NAME[5]	BOTANICAL NAME	APPROVED SITE(S)	PLANTING RATE (lbs/acre)	Planting Dates* JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TURF-TYPE GRASSES (SELECT ONE)															
Bahiagrass1	Paspalum notatum	Slopes	30			■	■	■	■	■	■				
Common Bermudagrass[2] (hulled = hull absent)	Cynodon dactylon	Shoulders, Slopes, or Medians	25			■	■	■	■	■					
Common Bermudagrass[2] (unhulled = hull present)	Cynodon dactylon	Shoulders, Slopes, or Medians	30	■	■							■	■	■	■
Carpet Grass	Axonopus affinis	Shoulders, Slopes or Medians	15			■	■	■	■	■	■				
Tall Fescue	Festuca aruninacea	Shoulders, Slopes, or Medians	50	■	■						■	■	■	■	■
Centipedegrass	Eremochloa ophiuroides	Shoulders, Medians	10			■	■	■	■						
GRASSES															
Weeping Lovegrass	Erograstis curvula	Slopes	5		■	■	■	■	■	■					
Indiangrass	Sorghastrum nutans	Slopes	10	■	■	■	■	■	■				■	■	■
Little Bluestem	Andropogon scoparius	Slopes	10	■	■	■	■	■					■	■	■
Coastal Panicgrass	Panicum amarum	Slopes	20		■	■	■	■	■						
Switchgrass	Panicum virgatum	Slopes	9	■	■	■	■	■					■	■	■
Perennial Rye Grass[3]	Lolium perrene	Shoulders, Slopes, or Medians	15	■							■				■
Switchgrass	Panicum virgatum	Slopes	9	■	■	■	■	■					■	■	■
Perennial Rye Grass[3]	Lolium perrene	Shoulders, Slopes, or Medians	15	■							■				■
Virginia Wild Rye	Elymus virginicus	Shoulders, Slopes, or Medians	6		■	■						■	■	■	
LEGUMES[4]															
White Clover	Trifolium repens	Shoulders, Slopes	5								■	■	■	■	
Sericea Lespedeza (Scarified seed)	Lespedeza cuneta	Slopes	50			■	■	■	■	■					
Sericea Lespedeza (Unscarified seed)	Lespedeza cuneta	Slopes	80	■	■	■	■	■	■	■	■	■	■	■	■

1**Bahiagrass:** Bahiagrass may be used as an optional turf-type permanent cover at the discretion of the RCE. ** Months shaded in gray represent applicable planting dates.*
2**Common Bermudagrass:** *Do not use Giant Bermudagrass (NK-37).*
3**Perennial Rye Grass:** *Do not use Annual Italian Rye grass (Lolium multiforum).*
4Only use pre-inoculated legumes or use an appropriate inoculant with the seed at planting.
5If the Common Name of the seed listed in Table 1, Table 2 or Table 3 is not available, use seed with the listed Botanical Name.

Table 3.15 Permanent Cover Nurse Crops (Annuals)

COMMON NAME2	BOTANICAL NAME	APPROVED SITE(S)	PLANTING RATE (lbs/acre)	Planting Dates* JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SELECT ONE															
Crimson Clover[1]	Trifolium incarnatum	Shoulder, Slopes	20									■	■	■	
Korean Lespedeza[1]	Lespedeza stipulacea	Shoulders, Slopes	30	■	■	■	■								
Korean Lespedeza[1] (unhulled = hull present)	Lespedeza stipulacea	Shoulders, Slopes	30	■	■	■	■								
Kobe Lespedeza[1]	Lespedeza striata	Shoulders, Slopes	30	■	■	■	■								
Kobe Lespedeza[1] (unhulled = hull present)	Lespedeza striata	Shoulders, Slopes	30	■	■	■	■								
Browntop Millet	Panicum ramosum	Slopes	10			■	■	■	■	■	■				
German Millet (Foxtail Millet)	Setaria italica	Slopes	25				■	■	■	■	■				
Japanese Millet	Echinochloa crusgalli	Slopes	10			■	■	■	■	■	■				
Oats	Avena sativa	Slopes	10									■	■	■	
Hairy Vetch1	Vicia villosa	Shoulders, Slopes, or Medians	1								■	■	■		

1Only use pre-inoculated legumes or an appropriate inoculant with the seed at planting.
2If the Common Name of the seed listed in Table 1, Table 2 or Table 3 is not available, use seed with the listed Botanical Name.

Months shaded in gray represent applicable planting dates.
For details on mixes consult the Clemson University Home and Garden Information Center at (888) 656-9988 (9 AM to 1 PM) or at http://www.clemson.edu/extension/hgic/

VEGETATIVE MEASURES

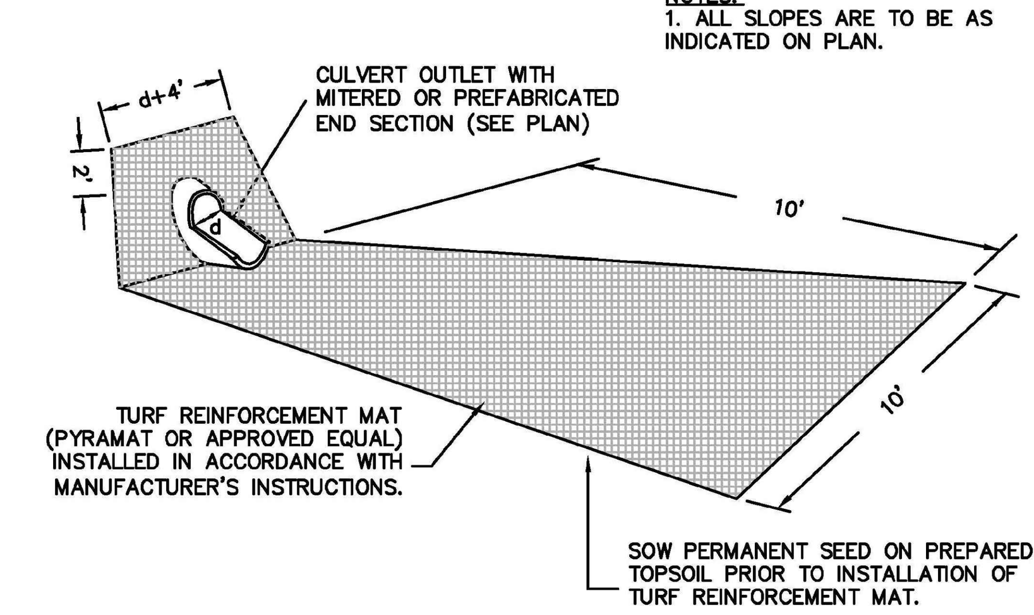
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ts	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ts	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ps	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)		Ps	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, sod or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Mb	EROSION CONTROL MATTING AND BLANKETS		Mb	The installation of a protective covering (blanket) or soil stabilization mat on a prepared planting area of a steep slope, channel, or shoreline.
Pm	POLY-CRYLAMIDE (PAM)		Pm	The land application of product containing anionic polyacrylamide (PAM) as temporary soil binding agents to reduce soil erosion.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Tb	TACKIFIERS AND BINDERS		Tb	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		Co (Label)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION		Cr	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL		Dc	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE		Dn1 (Label)	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE		Dn2 (Label)	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING		Fr	A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE		Gr	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL		Re (Label)	A wall installed to stabilize out and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING		Rt (Label)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
SF	SEDIMENT BARRIER/SILT FENCE		SF	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sr	TEMPORARY STREAM CROSSING		Sr (Label)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION		St	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING		Su	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.

TURF MAT OUTLET PROTECTION

NOTES:
1. ALL SLOPES ARE TO BE AS INDICATED ON PLAN.



EARTHSOURCE ENGINEERING

SOUTH CAROLINA — EARTHSOURCE ENGINEERING No. C01075 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — NO. 21253 — 02.27.25 — KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

CONSTRUCTION DETAILS (EROSION CONTROL)

REVISIONS

NO.	DATE	REVISIONS	BY
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.19.23	PER BCWS/SCDOT COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER SENIOR ENGINEER REVIEW	JWO
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWO
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
SWPPP-3

EARTHSOURCE ENGINEERING

CIVIL ENGINEERING | SITE PLANNING | LANDSCAPE DESIGN | LEED DESIGN

Comprehensive/On-Site Storm Water Pollution Prevention Plan (C-SWPPP/OS-SWPPP)

for the development of

Goose Creek Blvd Sewer Extension

Berkeley County, SC
Earthsource Project #22-124

May 2, 2025

Primary Permitee:
City of Goose Creek
519 N Goose Creek Blvd
Goose Creek, SC 29445

SWPPP Prepared by:
Kevin M. Berry, PE #21253
962 Houston Northcutt Blvd., Suite 200
Mount Pleasant, SC 29464
843-881-0525

Table of Contents

C-SWPPP is acronym for Comprehensive Storm Water Pollution Prevention Plan
****OS-SWPPP is acronym for On-Site Storm Water Pollution Prevention Plan***

Section 1 PROJECT OVERVIEW

1.1 Narrative (CGP Section 3.2.1)

Construction Activities and BMP Summary

This project scope includes the development of a sewer network along Camelot Drive and Goose Creek Blvd in Goose Creek, SC. The development includes the construction of a new masterplan sewer system to serve current and future development along Goose Creek Blvd. A portion of this project is in Berkeley County MS4 (0.15 acres) while the other portion (0.85 acres) is in the DOT right of way. The total amount of disturbance is approximately 1.00-acres. The land disturbance permit for this project will include the entire disturbed areas as depicted on the plans.

Perimeter Control BMPs will be installed prior to the initiation and used during the lifespan of all construction activities, until final stabilization is reached.

This site is in Flood Zone 'X' according to the FEMA Firm Panel #U5015C 0685E, dated December 7, 2018. The construction activities at this site will be implemented in 3 distinct Erosion Prevention and Sediment Control Phases. The first phase includes the initial installation of perimeter controls, and sediment control BMPs. The second phase includes the bulk of the construction activities. The final phase, Phase 3, includes the final stabilization of the site.

Pre-Development Conditions

The existing hydrological conditions consists of one main watershed which drains to the Goose Creek Reservoir via an existing drainage system and ultimately to the Cooper River. The existing site is mostly developed and impervious with type 'C' and 'D' soils.

Post-Development Conditions

The development includes the construction of a new masterplan sewer system to serve current and future development along Goose Creek Blvd. A portion of this project is in Berkeley County MS4 (0.15 acres) while the other portion (0.85 acres) is in the DOT right of way. The total amount of disturbance is approximately 1.00-acres. This work is mainly returning to the ground cover back to existing conditions. Pre and Post Construction flows will remain the same. Due to the lack of increase in impervious coverage to the site, no onsite stormwater system is proposed. The land disturbance permit for this project will include the entire disturbed areas as depicted on the plans. To the best of our knowledge, information, and belief, the calculations performed by Earthsource Engineering, we do not anticipate any adverse impacts to the downstream water bodies as a result of this development.

Flooding Issues

To the best of our knowledge, information, and belief, we do not anticipate this project negatively impacting the existing watershed.

1.2 Stormwater Management and Sediment Control (CGP Section 3.2.2)

Erosion Prevention BMPs

As the existing site is cleared, grubbed and graded to the proposed contours shown on the construction site plans, erosion prevention BMPs shall be placed throughout the construction site to aid in the prevention of sediment-laden stormwater runoff. These BMPs shall be focused in areas with high potential of erosion, areas preceding infiltration practices, and shall be applied to all steep slopes. That is slopes equal to or greater than **3H:1V**.

Each erosion prevention measure shall be selected on a site-specific basis and details have been provided on the construction site plans. The plans identify all proposed Erosion Prevention BMPs and the recommended installation, maintenance, and inspection procedures.

Examples of Erosion Prevention BMPs are, but are not limited to, surface roughening, temporary seeding, erosion control blankets, turf reinforcement mats, sodding, riprap, outlet protection, dust control, and polyacrylamide (PAM). Information on the design and proper use of Erosion Prevention BMPs can be located in the SC DHEC's BMP Handbook.

Sediment Control BMPs

Sediment Control BMPs are designed to remove some of the sediment accumulated within stormwater runoff, to the best extent practicable. These BMPs help prevent sediment impacts to adjacent properties and water bodies from stormwater discharges originating from construction sites.

Typically these BMPs are placed near each of the site's outfalls and are installed prior to clearing and grubbing of the site (before large areas of soil are exposed). However, these BMPs can also be located throughout the construction site and, in these circumstances, are installed after mass grading has occurred. Placement, sizing and modifications of Sediment Control BMPs should be left to the SWPPP preparer and/or the Site Engineer. **Contractors must consult the SWPPP Preparer as listed at the front of this SWPPP before making any significant changes to these BMPs**.

Each sediment control BMP shall be selected on a site-specific basis. Examples of Sediment Control BMPs are, but are not limited to sediment traps, sediment basins, silt fence, rock check dams, rock sediment dikes, sediment tubes, and inlet protection. Please consult SC DHEC's BMP Handbook for more information on Sediment Control BMPs.

Structural Control BMPs and Floodplain Placement

This site-specific SWPPP utilizes the following structural control BMPs: **silt fence, inlet protection**. These practices have been designed to either divert flows from exposed soils to retain/detain flows, and to otherwise limit the runoff and the discharge of pollutants from disturbed areas of the construction site.

Throughout the lifespan of the construction project these BMPs will be installed and maintained, as required by the SWPPP and the construction site plans, until final stabilization has been achieved for the areas draining to each BMP. Upon final stabilization, each structural control BMP must be modified to the post-construction conditions shown within the approved construction site plans or removed, if the structural BMP was a temporary structure.

Any Structural Control BMPs that are being proposed within the 100-yr floodplains will require approval from the local regulating agency, since SC DHEC does not have the authority to regulate within the associated flood plains. Approvals from the local agency will be located in **Appendix C, Additional Approvals/Certifications** of this SWPPP. If the required approval is not located in this SWPPP, please contact the Primary Permitee listed on the title sheet of this SWPPP before performing work within the floodplain.

Construction Entrances and Dust Control

All access areas into and out of the limits of disturbance, as shown on the construction site plans, are required to be equipped with a construction entrance. The use of this BMP will limit the amount of sediment being transported by construction vehicles onto existing roadways or other impervious areas. Any tracked sediment, along with any attached pollutants, deposited on impervious areas could be washed downstream during the next rain event. Each construction entrance must be installed as shown in the details section of the construction site plans.

If a new entrance or exit is required, that is not shown on the plans, install the construction entrance as noted by the construction entrance detail, mark the location on the plans and make a record of this minor modification in the SWPPP's modification log, which is located within one of the appendices of the On-site SWPPP.

Each stabilized construction entrance should be used in conjunction with Street Sweeping measures if it becomes apparent that sediment is still being tracked onto adjacent impervious areas, even with the use of the construction entrance.

During extremely dry conditions, drought, and/or excessive winds, the construction site should be treated for dust control to prevent the suspension of fine sediment particles into the air, being carried offsite, and deposited on adjacent properties or surface waters. This practice may not be directly called out for on the construction site plans. A water tanker used to spray the soil down may be an effective way to prevent excessive dust at a construction site.

Water Quality BMPs During Construction

Site-specific water quality BMPs (e.g., sediment basins, sediment traps, rock check dams, and rock sediment dikes) must be installed prior to the mass clearing, grubbing and grading of the site, and must be kept in functioning order throughout the lifespan of all construction activities. Each of these BMPs must be maintained and inspected until all areas draining to these BMPs have reached final stabilization, approved by the construction site inspector or the SWPPP Preparer, and recorded within the stabilization log located as an appendix of the On-site SWPPP.

The location, installation procedures, and maintenance procedures for each water quality BMP can be found within the approved construction site plans.

Post-Construction Water Quality

All construction sites disturbing 5 acres or more, including construction activities associated with Larger Common Plans disturbing 5 acres or more (for sites located within an MS4 this may be 1 acre or more), must be designed to treat water quality post-construction. These water quality controls must be installed and stabilized prior to terminating coverage under the CGP. These controls will require routine maintenance to remain functional; this is to be conducted by the Primary Permitee or the entity that accepts responsibility for these structures once construction has been completed. Additional information, including permanent maintenance and inspection procedures, can be found in **Appendix B** of the OS-SWPPP or within the construction site plans.

Upon final stabilization, each construction site will have to make the transition from temporary BMPs to permanent BMPs. This transition may include the conversion of a sediment basin to a detention basin, a sediment trap to a bioretention area, or diversion swales to permanently vegetated swales. All post-construction (permanent) water quality and water quantity BMPs are identified in the final phase of the Erosion and Sediment Control located within the construction site plans.

Other Stormwater Management Procedures

Based on the nature, conditions, and/or procedures associated with this construction site, the following items must be followed and adopted by all those conducting land disturbing activities at this site:

- All construction debris must be stockpiled in designated areas, which have been provided with the proper BMPs to prevent the discharge of pollutants through stormwater runoff from building or other similar materials off-site or into surface waters.
- Any additional waste material or stockpile material (i.e., soil and mulch) must also be stored in the designated areas as shown on the Construction Site Plans or as the contractor, responsible for day-day activities at this site, deems appropriate. Silt fence or an approved equal shall surround all stockpiled materials.
- All parties conducting work at this construction site must be informed of and make note of pollutant sources, both industrial and construction, at this site, and be informed of all controls and measures the will be implemented to prevent the discharge of these pollutants in stormwater runoff.
- Any additional non-stormwater discharges, as referenced in the CGP, should be eliminated, or reduced to the maximum extent feasible. All unpreventable non-stormwater discharges shall be treated through the approved stormwater management system before release off-site. Following is a list of allowable non-stormwater discharges:
    - Fire hydrant flushing
    - Wash water without detergents
    - Water used for dust control
    - Potable water
    - Building wash down water without detergents
    - Uncontaminated pavement wash water
    - Uncontaminated condensation from mechanical equipment
    - Uncontaminated ground or spring water
    - Water from foundation of footing drains
    - Uncontaminated excavation dewatering
    - Landscape irrigation.

- The soils in the Project Area consist of Duplin fine sandy loam, Lynchburg fine sandy loam and Goldsboro loamy sand. This project will disturb approximately 1.00-acres and best management practices will also be used to help control sediment runoff from the site during construction. These include, but are not limited to, silt fence, construction entrance, stone check dams, inlet protection and outlet stabilization.

1.3 Sequence of Construction (Linear Utility)

(PERMITTING)

1. Receive NPDES coverage from DES.
2. Receive CAA Approval and approved plans from Berkeley County.

(PRE CONTSTRUCTION)

3. Conduct pre-construction meeting conference at least 48 hours prior to starting construction.
4. Notify SCDES EQC office or OCRM 48 hours prior to beginning land disturbing activities.

(PHASE I - SWPPP INITIAL)

5. Perform clearing and grubbing as necessary for installation of perimeter/erosion control measures.
6. Installation of Perimeter Controls (Silt fence, etc).

(PHASE II - SWPPP CONSTRUCTION)

7. Begin utility installations, starting with jack & bore across Goose Creek Blvd.
8. Begin clearing, grubbing, and excavating in the of the approved limits of disturbance of Camelot R/W. Begin utility installation along Camelot Drive. Contractor to provide intermediate stabilization with temporary seeding after installation.
9. Begin clearing, grubbing, and excavating in the of the approved limits of disturbance of Goose Creek Blvd R/W. Begin utility installation along Goose Creek Blvd, working in sections between manholes. Contractor to provide intermediate stabilization with temporary seeding after installation.
10. Complete fine grading, replacement of curbs, walks, pavement, etc.

(PHASE III – SWPPP STABILIZATION)

11. Complete permanent/final soil stabilization.
12. Removal of temporary sediment and erosion control measures after the entire area drainage to each measure is permanently stabilized.
13. Perform as-built surveys of utilities and submit to Berkeley County and DES for acceptance.

(POST CONSTRUCTION)

14. Submit Notice of Termination (NOT) to SCDES.

1.4 Non-Numeric Effluent Limits

Stormwater Volume and Velocity Control

During the implementation of construction activities, all parties performing work at this construction site whose work may affect the implementation of the SWPPP must be informed of and directed on how to comply with this Non-Numeric Effluent Limit, which requires the management of stormwater runoff **within** the construction site and at **each outfall**. The purpose of this requirement is to control the stormwater volume and velocity at these locations to minimize erosion.

Specifically, each responsible party should be made aware of the practices that have been or should be implemented at the construction site to accomplish these particular stormwater management practices. Below is a list of practices that may be utilized within the disturbed area and at each outfall at construction sites to control stormwater volume and velocity:

Volume Control

- Limiting the amount of disturbed area and exposed soils
- Staging and/or Phasing of the Construction Sequence.
- Sediment Basins and Sediment Traps
- Diverting off-site flow around the construction site.
- Controlling the Drainage Patterns within the Construction Site.
- Temporary Stabilization of Disturbed Areas.

Velocity Control

- Surface Roughening and/or other Slope Stabilization Practices.
- Level Spreaders, Riprap Plunge Pools and/or other Velocity Dissipation BMPS located at the Construction Site's and Sediment Basin Outfalls.
- Use of Rock Checks, Sediment Tubes, Etc. in Temporary Diversions Swales and Ditches.
- Use of Erosion Control Blankets, Turf Reinforcement Mats, and other Non-Vegetative BMPs that can be used to Quickly Stabilize Disturbed Areas.

The SWPPP Preparer/Engineer should approve any modifications (Additional BMPs or Changes to Existing BMPs) to address the management of stormwater volume and velocity prior to implementation. All approved SWPPPs that were issued coverage under the CGP should include ample BMPs and other control measures to address this specific Non-Numeric Effluent Limit.

Soil Exposure, Compaction and Preservation

Throughout construction activities, **the amount of soil exposed during construction should be kept to a minimum**. This may be accomplished by minimizing the amount the disturbed area within the permitted Limits of Disturbance (shown on the approved construction site plans) to only that which is necessary to complete the proposed work. For areas that have already been disturbed and where construction activities will not begin for a period of 14 days or more, temporary stabilization techniques must be implemented.

Prior to implementation of any major grading activities, **topsoil is to be preserved** by placing it in areas designated for stockpiling until final grades are reached. Each stockpile must be equipped with proper sediment and erosion controls to preserve the topsoil and protect adjacent areas from impacts. Once final grades have been reached, the preserved topsoil should be utilized to apply to areas identified for stabilization. Topsoil contains nutrients and organisms that aid in the growth of vegetation.

The **Compaction of Soil** should also be minimized to the degree practicable during grading activities. This is especially important during the replacement of topsoil to aid in a quick establishment of vegetative cover. Compaction of soil may also reduce rainfall's ability to infiltrate into the soil, increasing the amount of stormwater runoff.

Soil Stabilization

Throughout construction activities, soil stabilization techniques are to be initiated as soon as practicable whenever any clearing, grading, excavating, or other land-disturbing activities have permanently or temporarily ceased on any portion of the construction site and will not resume for a period exceeding 14 calendar days. For areas where initiating stabilization measures is infeasible, (e.g., where snow cover, frozen ground, or drought conditions preclude stabilization), initiate vegetative or non-vegetative stabilization measures as soon as practicable.

Steep Slopes (Slopes of 30% grade or greater)

All disturbed steep slopes (30% grade, ~3H:1V, or greater), and steep slopes to be created through grading activities must be managed in a fashion that limits the potential of erosion along the slopes. All parties whose work is/was responsible for the creation/disturbance of steep slopes must comply with the following items:

- **Minimize the Disturbance** of all steep slopes, when possible.
- **Divert Concentrated or Channelized Flows** of stormwater away from and around steep slope disturbances.
- **Use Specialized BMP Controls** including temporary and permanent seeding with soil binders, erosion control blankets, surface roughening, reducing continuous slope length with terracing or diversions, gradient terraces, interceptor dikes and swales, grass-lined channels, pipe slope drains, subsurface drains, level spreaders, check dams, seep berms, and triangular silt dikes to minimize erosion.
- **Initiate Stabilization Measures** as soon as practicable on any disturbed steep slope areas where construction activities have permanently or temporarily ceased, and will not resume for a period exceeding 7 calendar days.
- **A Vegetative and/or Non-Vegetative Cover** must be established within 3 working days from the time that stabilization measures were initiated.

Stabilization of steep slopes should be a priority for those performing work at the construction site. At the very least, runoff control BMPs should be implemented to transport stormwater runoff from the top of the slope to the toe of the slope. An example of this is to install diversion swales along the top of slope and direct the runoff towards

pipe slopes drains to transports the runoff to the toe of the slope. All pipe slope drain outlets are to be equipped proper outlet protection.

Sediment Discharge Minimization

Permitees, Contractors, and all other parties responsible for conducting land-disturbing activities are required to install and maintain all erosion and sediment BMPs that are identified on the approved construction site plans. These BMPs have been designed and approved to address such factors as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soils particle sizes expected to be present on the construction site. **Proper installation, inspection, and maintenance will allow these BMPs to operate at maximum efficiencies in order to minimize sediment discharges to the maximum extent practical.**

Pollutant Discharge Minimization

Permitees, Contractors, and all other parties responsible for conducting land-disturbing activities are required to install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, the following items must be implemented:

- **Minimize the discharge of pollutants from dewatering trenches and excavations** by managing runoff with the appropriate controls. Otherwise these discharges are prohibited;
- **Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters**. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- **Minimize the exposure of building materials, building products, construction wastes, trash,** landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
- **Minimize the discharge of pollutants from spills and leaks** and implement chemical spill and leak prevention and response procedures.

Prohibited Discharges

Permitees, Contractors, and all other responsible parties for conducting land-disturbing activities are prohibited to discharges, from the construction site, the following items:

- **Wastewater from washout of concrete**, unless managed by an appropriate control;
- **Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials**;
- **Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance**; and
- **Soaps or solvents used in vehicle and equipment washing**.

1.5 Buffer Zone Management

Buffer Zone Information

This project does not contain a buffer required to the best of our knowledge, information and belief.

All construction sites that contain or are adjacent to surface waters must provide a vegetated buffer of at least 30 linear feet, or 45 linear feet when the surface water is classified as a Sensitive Waters (Section 3.2.4.C of South Carolina's CGP). This requirement is only applicable during construction. Work may conducted within the buffer area once all disturbed areas discharging towards the buffer zone have had final stabilization measures implemented. This work must have been included within the SWPPP at the time of coverage approval.

Buffer Zones Requirements should be explained in detail during the Pre-Construction Conference. These details should include the outlining of the exact location of where the buffer starts and ends, the sediment and erosion controls precluding the buffer and all other general information pertinent to maintaining the buffer zone area during construction.

All contractors and sub-contractors shall be made aware of the buffer zones and establish a work procedure that preserves and protects these areas. The buffer zones should be flagged prior to any perimeter control placement and, most importantly, before mass clearing and grubbing. These areas must also be inspected during construction for areas of excessive sediment impacts, which may need to be removed if sediment impacts are evident within the buffer zone.

In the event that a portion of a buffer is accidentally disturbed, the contractor shall temporarily stabilize the area as soon as possible and consult with the construction site's inspector, permitee, and/or engineer on the installation of any additional sediment control or erosion prevention measure to protect the portion of the buffer still undisturbed.

1.6 Certification Statement

"I have placed my signature and seal on the design documents submitted signifying that I accept responsibility for the design of the system. Further, I certify to the best of my knowledge and belief that the design is consistent with the requirements of Title 48, Chapter 14 of the Code of Laws of SC, 1976 as amended, pursuant to Regulation 72-300 et seq. (if applicable), and in accordance with the terms and conditions of SCR100000."

Name _____

Title _____

Date _____

Section 2

SITE FEATURES AND SENSITIVE AREAS

2.1 Sources of Pollution

Throughout construction activities, each permitee, contractor, and person responsible for conducting work will need to ensure that sources of pollution are managed to prevent their discharge from the construction site. Expected pollution sources during construction have been identified in **Table 2.1-A**, but due to the nature of construction activities, it is often tough to predict all pollution sources that may appear throughout the life of a construction project. For that reason, the following table has also been provided to help all those performing work at this construction site identify possible sources of pollution

Stormwater runoff subjected to the identified pollution sources must be treated by the appropriate BMPs as directed by this SWPPP.

In the event that any additional sources of pollution are identified during construction, the person(s) with day-to-day operational control at the site is to add the new source(s) to **Table 2.1-A** and consult with the SWPPP Preparer to properly address this source and to prevent the discharge of its pollutant through stormwater runoff.

Table 2.1-A: Potential Sources of Pollution

Source	Material or Chemical	Location*	Appropriate Control Measures
Loose soil exposed/disturbed during clearing, grubbing and grading activities	Sediment	All areas within the Limits of Disturbance	As directed by the construction Plans. This includes Silt Fence, sediment tubes, sediment basins, and sediment traps.
Areas where construction equipment are cleaned, a.k.a. concrete washout	Heavy Metals & pH	Located adjacent to each construction entrance	Concrete Washout Basin as shown on sheet C-8 of the plans.
Water encountered during trenching	Nutrients & Sediment	In and around any trenching activities.	Direct water into impoundments such as basins or traps to allow for the sedimentation of the listed pollutants.
Paving Operations	Sediment & Trash	All areas to be paved.	Inlet protection.
Material Delivery and Storage Areas	Nutrients, pH, Sediment, Heavy Metals, oils & grease	All areas used as storage areas	Silt fence and/or sediment dikes
Equipment fueling and maintenance areas	Metals, hydrocarbons, oils and greases	Areas surrounding fuel tanks	Provide secondary containments, locate in upland areas. Repair leaking and broken hoses.

Paints	Metal oxides, stoddard solvent, talc, calcium-carbonate, arsenic	Throughout site, primarily in areas of building construction	Washwater should be contained and is prohibited from being discharged

***Area where material/chemical is used on site.**

2.2 Surface Waters

Runoff is routed to the existing drainage system. From there, runoff will leave the existing drainage system to the Goose Creek Reservoir and ultimately to the Cooper River.

2.3 Impairments and TMDLs

Some Waters of the State (WoS) have been identified as not meeting the State's water quality standards for recreational swimming, fish consumption, aquatic life use, and/or shellfish harvesting for one or more pollutants even after controls for point and nonpoint source pollution have been put in place. These waterbodies have been classified as "impaired." Once these waterbodies have been identified they are listed on the State's 303(d) List of Impaired Waterbodies. South Carolina lists impairments as "stations" where samples were taken along a waterbody.

The most recently-approved 303(d) list can be found at the following link:

http://www.scdhec.gov/environment/water/tmdl/index.htm#4

After a pre-determined period of time, DHEC is obliged to develop a Total Maximum Daily Load (TMDL) for the pollutant of concern for each impaired station listed on the 303(d) List. A TMDL is the amount of a single pollutant (such as bacteria, nutrients, metals) that can enter a waterbody on daily basis and that waterbody still meet water quality standards. "TMDL" refers to both a calculation of a pollutant entering a waterbody as well as the document containing this calculation along with source assessments, watershed and land use information, reductions and allocations information, implementation and other relevant information, maps, figures, and pictures.

Once a TMDL has been developed and approved by the EPA, the impaired WoS is removed from the 303(d) list. A separate list is maintained for WoS with approved TMDLs.

Any construction site whose discharges are released into a WoS listed on the 303(d) List or for which an EPA-approved TMDL has been developed must address the specific pollutant set forth in the TMDL and/or potential pollutants for the impairment. The SWPPP must include a description of BMPs to address these pollutants.

The primary permitee and/or contractor must ensure that the construction site discharges remain in compliance with the State's water quality standards. To do so, these parties will have to ensure the function of all approved BMPs to handle the specific pollutant.

Construction Stormwater Discharges are expected to contain pollutants that contribute and/or can cause the following impairments to receiving water bodies: BIO (Macroinvertebrate Community), Turbidity, TP (Total Phosphorus), TN (Total Nitrogen), CHLA (Chlorophyll-a), and Fecal Coliform in waters classified for Shellfish Harvesting in the coastal zone. The presence of any of these impairments in receiving waters will require approval control of the site's construction stormwater discharges. Information on each of these impairments and how to treat stormwater runoff for these impairments has been provided below.

Impairment Sources and Prevention

Construction sites can contribute to these impairments directly through the release of excess soil and/or nutrients within stormwater runoff. For this reason, proper sediment and erosion control BMPs should be implemented and the design of the stormwater management systems, during both construction and post-construction, should address the control of stormwater runoff. A reduction in the volume released or the rate at which this volume is released can significantly improve the quality of stormwater runoff and limit the amount of the pollutants that contribute to the above listed impairments.

As an example, sediment basins and/or traps should be used during construction to allow for sedimentation of soils/nutrients, and to control the release of stormwater into the impaired water body. Vegetated Detention and Infiltration structures should be implemented as post-construction BMPs to control stormwater volumes. Caution is advised when using fertilizers to reach Final Stabilization; excess fertilizer can contributes to each of the above listed impairments.

Site-Specific Requirements

This construction site's discharges drain into WoS that is either Impaired or has an established TMDL for the following impairment(s): **CHLA, TURBIDITY**. The nearest DES Water Quality Monitoring Stations (WQMS) are as follows: MD-114, RL-10104, RL-19259. Due to the possibility of pollutants in construction stormwater discharges from this site that may contribute to any of these impairments, the following must be conducted throughout the lifespan of all land-disturbing activities at this site:

- Monthly inspection of the construction site's outfalls;
- Biweekly inspections of all the primary sediment control BMPs;
- Employee training/acknowledgement during the Pre-Construction Meeting;
- Installation of additional BMPs to meet the water quality standards (as directed by the SWPPP preparer and as approved by the regulating agency); and
- All sediment control BMPs have been designed to meet or exceed an 80% trapping efficiency.

Impairments Effected by Construction Site Discharges and Methods to Control Potential Pollutants Causing or Contributing to the Impairments

1. **Turbidity:** Turbidity can be generally defined as the "cloudiness" of a waterbody and may be caused by the growth of aquatic phytoplankton and the presence of suspended solids in the water column. In SC, a water quality standard for turbidity is applicable to all waters of the State (see R. 61-68 D. 11. for numeric targets by waterbody classification). Turbidity levels that exceed the water quality standard may reduce light penetration, thereby inhibiting aquatic flora growth, and may reduce the ability of fauna, such as fish, to absorb oxygen across their gills.

   Address by: Examples include limiting the amount of disturbed area, designing sediment control BMPs to remove the maximum amount of sediment possible, immediate stabilization of disturbed areas, and other practices may be utilized to control the discharge of sediment from construction sites.

2. **Chlorophyll-a (CHLA):** CHLA is a pigment present in the cells of photosynthetic flora and some algal species. The presence of CHLA in an aquatic environment is a water quality indicator of the overall productivity in the aquatic system. CHLA is linked to the levels of TP, TN and light penetration in the water column. In SC, a water quality standard for CHLA is applicable to lakes greater than 40 acres (see R. 61-68 D. 11. for numeric and narrative targets). CHLA levels that exceed the water quality standard may suggest that other undesirable water quality impacts are present as the aquatic system may be too productive to support the propagation of an overall balanced, indigenous aquatic community. Excess nutrients may discharge from a construction site during temporary and final stabilization. Limiting the amount of phosphorus and nitrogen applied while establishing vegetation will prevent excessive levels of CHLA in receiving waters.

   Address by: Examples include that the soil should be tested to determine the quantity of the nutrients present in the soil and the correct amount that needs to be added so that it is absorbed by the vegetation.

Additionally post-construction BMPs may be required to be installed, once final stabilization is reached, to address any established TMDL or Impairment once construction operations have been completed.

2.4 Critical Areas (CZC only)

No critical areas or wetlands on site.

Section 3

Compliance Requirements

3.1 SWPPP Availability

The SWPPP, including the site map(s), must be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that will result in discharges that will cause, have the reasonable potential to cause, or contribute to violations of SC Water Quality Standards.

The SWPPP must be amended if during inspections or investigations by site staff, or by local, state, tribal or federal officials, it is determined that the SWPPP is ineffective in either eliminating, when reasonably possible, or significantly minimizing pollutants in storm water discharges from the construction site.

Based on the results of an inspection, the SWPPP must be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP must be completed within seven (7) calendar days following the inspection. Implementation of these additional or modified BMPs must be accomplished as described in SCR 100000.

All design modifications of the SWPPP must be made in accordance with SCR 100000.

The SWPPP update log and records are retained in Appendix G.

3.2 Pre-Construction Conferences

Introductions - Introduce everyone attending including their name, organization, title and role on the project.

Site Issues - Clarify the project premises address (and PO Box or mailing address, if different) and the field office phone number and fax number. Clarify the prime contractor's planned layout of the construction yard including the location of office trailers and storage trailers, entry and exist points, location of existing underground utilities, existence of any potential underground hazards. Discuss survey responsibilities (owner and prime contractor).

Explain the plans and "rules" for on-site conduct: access roads, delivery truck access routes, which gate(s) will be used for entry (including possible dual gates), when it is appropriate to enter the prime project trailer, what other trailers are permitted on site, project site signage rules and requirements, planned temporary or partial street closures, location of employee parking, location of public transportation, how laborers are to make telephone calls, location of toilets, security systems, lighting, special safety fencing, etc.

Permits - Review which permits are required and who is responsible for obtaining them and paying for them. Clarify the agencies from which the permits will be obtained

including addresses, phone and fax numbers, internet application sites (if available) and contact persons.

Final Construction Documents - Clarify for all parties which sets of plans, specs and amendments are final for construction and assure all are "on the same page". Also inquire among the parties as to the existence of any previously undisclosed or un-shared soils reports, environment reports and requirements and/or any other relevant reports and studies.

Phasing & Milestones - Review the contract requirements.

Pre-mobilization Requirements - Review all items which are required prior to mobilization, possibly these include owner approvals of safety plans, contractor quality control plans, interim CPM schedules and so forth.

Submittals - Review and agree on the master list of submittals and shop drawings required in the Specifications (this becomes the Master Submittal Lot). Clarify the contractually required procedures as well as other agreed-upon procedures for this process including the number of copies to be submitted. Clarify the amount of time the owner/designer has to review and approve the submittals and shop drawings per the General Conditions. Discuss how to expedite the process and agree up on a monitoring program (perhaps weekly meetings with owner, designer, construction manager, general contractor and relevant subcontractors). Use this opportunity to emphasize the importance of timely submittals as a way of avoiding project delay. If known, clarify which submittals and shop drawings are on the project's CPM critical path. Assure all appropriate information is recorded on the CPM schedule (it is recommended that each submittal appears two activities tied logically to their successors).

Mobilization Plan - Describe the prime contractor's plan for mobilizing, including any phasing involved and how various timing elements might affect various parties.

Work Constraints - Review any legal, local or contractual restraints on work hours, travel, noise (including noise ordinances), special consideration for adjacent property owners and neighbors.

Relocation Plans - Review the requirements for relocation of existing utilities, buildings, or other physical items, plus any planned service interruptions including any restrictions on service interruptions.

Safety Plan - Review the prime's safety plans, the date of the upcoming pre-construction safety meeting, any project-specific safety requirements, location of first aid kits and how to contact emergency services, location of nearest hospitals and first aid clinics, provisions for substance abuse testing, requirements for subcontractor submittals of safety plans, etc. Use this opportunity to emphasize the central importance of safety on this project.

Inspection plans - Review who will be inspecting what, when and how. Consider setting up a future meeting with the chief inspector and the subcontractor foremen to review the reasonable inspector expectations and requirements. Clarify who will perform periodic life safety inspections and who is in charge of compliance with local, state and national codes.

Testing plans - Review what testing is required at construction phasing milestones and upon completion of construction. Identify what testing will be done in-house vs. by outside firms, and identify who is responsible for calling for the testing and who will perform the testing (including company names, contact persons, phone and fax numbers and email addresses), identify what notification times are required (e.g. often elevator testing requires a 14-day notice). Clarify who will pay for the various tests. Explain and agree upon what rep01ts are required, any specific format required, number of copies, distribution lists, etc. Assure this information is recorded on the CPM schedule.

Owner-furnished Items - Review the owner's plans for furnishing materials and/or equipment as well as possible separate prime contracts between the owner and other parties. Assure this information is recorded on the CPM schedule.

Drawing Log - Clarify who is responsible for maintaining the project drawing log as well as as-built drawings. Discuss how the designers and constructors will interact - set the tone for a friendly exchange of information. Clarify where the onsite as-builts will be available to subcontractors.

Daily Reports - Clarify which persons are expected to create a daily report and how that report will be maintained and shared with others. It is recommended that the prime contractor and owner swap daily reports (e.g. the rep01t of the superintendent and the inspector). Agree upon the format to be used. Discuss and clarify how report writers should incorporate subjective comments regarding problems, progress, potential change issues, etc. and what limits should be placed on "casual language".

Communication and Correspondence - Discuss and agree upon a communication plan including voice communication (via radio and telephone), email, and informal and formal written communication and when to use one vs. the other. Decide what logs and files will be maintained of such communication.

RFI Process - Discuss how Requests For Information will be processed and what time frames for review and response can be expected. It is prudent to establish and agree upon a "priority system" for handling RFIs. For example, "Priority 1" indicates an answer is needed in 24 hours; "Priority 2" = 3 days, "Priority 3" =one week, "Priority 4" =two to three weeks. Decide on how often the owner, designer and prime contractor and impacted subcontractors and suppliers will meet to review outstanding RFIs (weekly is best). Use this as an opportunity to clarify to all parties the importance of the smooth, effective RFI process. It may also be prudent to review the RFI form and remind patties how the prime contractor and designer expect the RFI form to be filled out (e.g. list the drawing page number and detail number, spec section, exact location of the issue, suggested solutions if any, exact date the response is needed, etc.).

Change Order Process - Describe the steps and requirements in the change order process. Clarify who is authorized to issue change orders and the dollar limitations of those persons, if any. Clarify who is the prime contractor's authorized representative for negotiation of change orders. Discuss and agree now on labor and equipment rates, percentages for overhead and profit, small tools, and, if possible, the daily rates for the

prime and each subcontractor for field extended overhead and home office extended overhead (or a future date by which these daily rates will be made available to the owner). Establish a recurring weekly meeting to review pending or proposed change orders; this meeting will be attended by the authorized representatives of the owner, designer, prime contractor and affected subcontractors. Its purpose is to keep the process moving and to expedite change issues and resolve disagreements.

Dispute Resolution Processes - Review the contractual processes for resolution of disputes. Discuss what alternative dispute resolution mechanisms are in place - such as partnering, Dispute Review Board, mediation, arbitration- and the adequacy of these (or the likely dangers if none are in place). If the parties feel that the contractual mechanisms may not be sufficient for this project, discuss what additional tools should be made available to the parties - knowing that disputes in construction are as common as fish in the ocean. This is a good opportunity for the owner and prime contractor to set the tone for fast, fair and friendly resolution of disputes on this project.

Payment Requisitions - Review and discuss the contractual requirements for payment requisitions as well as the prime contractor's additional requirements of subcontractors. This is a good time to establish a monthly pre-review of the proposed pay request, attended by the chief inspector, prime contractor project manager, owner's representative, designer representative and possibly the lender, if in the private sector. Review any required or proposed certification process to be used to assure timely payment. Assure that preliminary lien notices have been filed, where appropriate, and according to local law.

3.3 Inspection Requirements

Inspection Schedule

All sediment and erosion controls shall be inspected by qualified personnel at least once every seven (7) calendar days. Any damage found shall be repaired immediately.

Inspection Personnel

Inspections must be conducted by qualified personnel (provided by the Operator or cooperatively by multiple Operators). For Projects that disturb more than 2 acres, "Qualified personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction Site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity. This person must be either the preparer of the SWPPP or an individual who is under the direct supervision of the preparer of the approved SWPPP and who meets the requirements in this paragraph or an individual who has been certified through a Construction Site Inspector Certification Course (CEPSCI - Certified Erosion Prevention and Sediment Control Inspector Program) that has been approved by DHEC. Inspections may also be conducted by a person with a registration

equivalent to the registration of the preparer of the SWPPP and who meets the qualifications of this paragraph or an individual who is under the direct supervision of the person with an equivalent registration and who meets the requirements in this paragraph. For Projects that disturb 2 acres or less, the permitee or his designee may perform these inspections provided the preparer of the SWPPP or someone with a registration equivalent to that of the preparer of the SWPPP explains the SWPPP including implementation along with the inspection requirements to the person who will be conducting the inspections.

NOTE: Each inspector shall sign a certification before starting any inspections of the project site. All inspector certifications shall be kept on file with SWPPP documents.

Inspection Procedures

Summarize the general inspection routine of structural and non-structural BMPs for the project site. All sediment and erosion control devices shall be inspected every seven (7) days. If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable.

3.4 Maintenance Requirements

Maintenance Procedures

If necessary, slopes, which exceed eight (8) vertical feet, should be stabilized with synthetic or vegetative mats, in addition to hydro seeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.

All sediment and erosion control devices shall be inspected by qualified personnel every seven (7) days. If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable.

Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove any sediments before being pumped back into any waters of the State.

All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.

The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.

Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with SC Reg. 72-300 et seq. and SCR 100000.

Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment-laden water to appropriate traps or stable outlets.

All waters of the State (WoS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50-foot buffer can't be maintained between the disturbed area and all WoS. A 10-foot buffer should be maintained between the last row of silt fence and all WoS.

Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

3.5 Record Keeping

Copies of the SWPPP and all documentation required by this CGP, including records of all data used to complete the NOI, must be retained for at least three (3) years from the date that the CGP coverage expires or is terminated. This period may be extended by written request of SC DHEC or the local MS4 at any time.

Inspection Record Keeping

Inspection records shall describe current conditions, repair or replacement requirements based on the inspection procedures described above and the individual requirements of the BMPs. Recommended actions related to the findings of inspections should be stated.

Records are to be kept by the contractor of record.

The inspection log and records are retained in Appendix E.

Maintenance Record Keeping

Maintenance schedule for temporary and permanent structures is as follows:

(a) The developer, through his contractors, is responsible for maintenance of all temporary structures according to the schedule stated in the note below until all construction is complete.

(b) After all permanent structures are completed; the storm water system shall be the responsibility of the owner, who will then be responsible for maintenance and inspection of the system.

If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable. Records are to be kept with the site plans or the assigned on site supervisor.

The maintenance log and records are retained in Appendix G.

3.6 Final Stabilization

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below.

• Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable.

• Where construction activity on a portion of the Site is temporarily ceased, and earth disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the Site.

Removal of temporary sediment & control measures after entire area draining to the structure is finally stabilized (the department recommends that the project owner/operator have the SWPPP preparer or registration equivalent). Approval of the removal of temporary structures.

Perform as-built surveys of all sewer pipes and structures and submit to DES or MS4 for acceptance.

Submit notice of termination (NOT) to DES as appropriate.

Appendix A

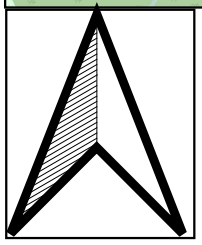
Site Maps

LOCATION MAP (NTS)

EARTHSOURCE ENGINEERING

Project Name: GOOSE CREEK BLVD SEWER EXT.	
Address: GOOSE CREEK BLVD. & CAMELOT DR.	
Date: 05.05.25	Scale: N/A

Goose Creek Blvd Sewer Extension
TMS#:243-16-01-027, R/W
Berkeley (SC) - Topographic Quad
Year - 2023
Paper Source - Topographic 1:24,000
Coverage - Berkeley (SC)
Latitude/Longitude: 32°59'43"N 80°02'22"W



EARTHSOURCE ENGINEERING
CIVIL ENGINEERING | SITE PLANNING
LANDSCAPE DESIGN | LEED DESIGN

0 750 1,500 ft

www.earthsourceeng.com

Hydrologic Soil Group—Berkeley County, South Carolina
(Goose Creek Blvd Sewer Ext.)

Map Scale: 1:2,720 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Berkeley County, South Carolina
Survey Area Data: Version 19, Aug 29, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 15, 2022—Jun 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DuB	Duplin fine sandy loam, 2 to 6 percent slopes	C/D	0.9	27.5%
GoA	Goldsboro loamy sand, 0 to 2 percent slopes	C	1.6	48.1%
Ly	Lynchburg fine sandy loam, 0 to 2 percent slopes	B/D	0.8	24.4%
Totals for Area of Interest			**3.4**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

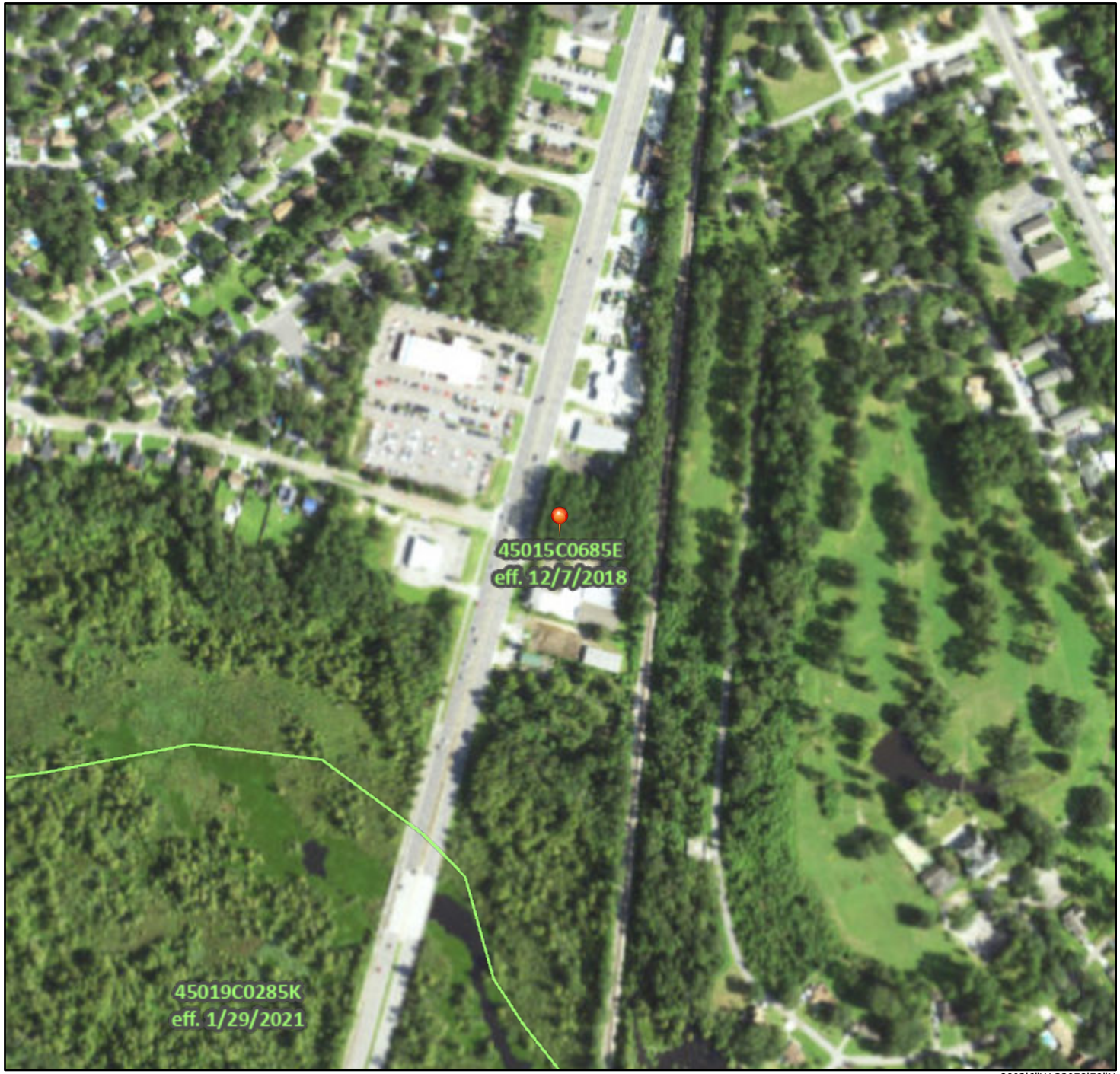
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

National Flood Hazard Layer FIRMette

FEMA

80°2'44"W 32°59'30"N



80°2'6"W 32°58'59"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/15/2022 at 11:38 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix B

SWPP/Construction Plans

Appendix C

Drainage Report

EARTHSOURCE
ENGINEERING

Drainage Narrative
Goose Creek Blvd Sewer Extension
Camelot Drive/ S. Goose Creek Blvd
Berkeley County, SC

The following is a drainage and erosion control narrative of the above referenced site construction activity. The City of Goose Creek proposes to install a sewer extension at the intersection of Camelot Drive and South Goose Creek Blvd. The installation will include approximately 1775 8" gravity sewer and 200 linear feet of 4" force main sewer. Total land disturbance for the site is 1.00 acres.

The construction activity is 1 acre and is within ½ mile from receiving waterbody. For this reason, a DHEC 2617 application has been completed for the project. This work is mainly returning to the ground cover back to existing conditions. Pre and Post Construction flows will remain the same. Due to the lack of increase in impervious coverage to the site, no onsite stormwater system is proposed. All runoff from the area will continue to flow and discharge to the Goose Creek Reservoir which drains to Goose Creek and ultimately to Cooper River.

The site will meet all State and local requirements for stormwater erosion controls by implementation of initial stabilization measures as shown on civil plans. Upon completion of the site work the site will be stabilized per the stormwater plans with permanent pervious hard surface and grass ground cover. Please accept this letter as a complete site/drainage and erosion control narrative for the proposed construction activity, and the discharge of stormwater runoff.

Respectfully Submitted,

Kevin M. Berry, PE
Civil Engineer

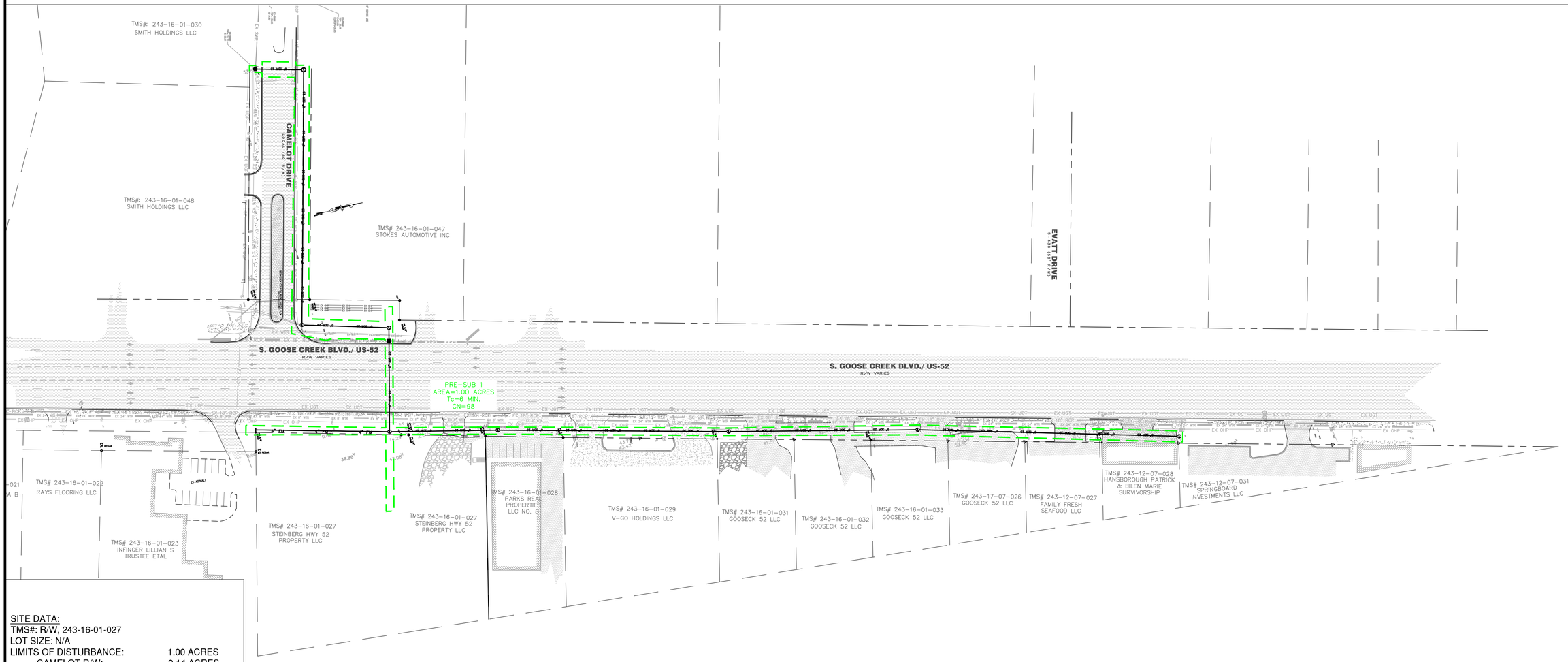
962 Houston N.Cutt Boulevard, Suite 200
Mount Pleasant, SC 29464
Telephone (843) 881-0525
www.EarthSourceEng.com

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY
- EDGE OF PAVEMENT
- R/W LINE
- IRON PIPE FOUND
- IRON PIPE SET
- EX WTR — EXISTING WATER MAIN
- EX SWR — EXISTING SEWER MAIN
- EX 18" RCP — EXISTING 18" RCP DRAINLINE
- EXISTING SEWER MANHOLE
- EXISTING WATER VAULT
- EXISTING WATER METER
- EXISTING COMMUNICATIONS VAULT
- EXISTING ELECTRIC VAULT
- EXISTING TEL. CABINET
- EXISTING STORM VAULT
- EXISTING LIGHT POLE
- 8" SDR 26 — PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED BORING PIT
- PROPOSED DEMOLITION
- LOD — LIMITS OF DISTURBANCE

- CAMELOT R/W LOD: 0.14 ACRES
- GOOSE CREEK BLVD R/W LOD: 0.85 ACRES
- TMS#: 243-16-01-027 LOD: 0.01 ACRES

LIMITS OF DISTURBANCE = 1.00 ACRES



SITE DATA:
TMS#: R/W, 243-16-01-027
LOT SIZE: N/A
LIMITS OF DISTURBANCE: 1.00 ACRES
CAMELOT R/W: 0.14 ACRES
GOOSE CREEK BLVD R/W: 0.85 ACRES
TMS#: 243-16-01-027: 0.01 ACRES
ZONED: R/W, GC
SDR-26 SEWER MAIN: 1,775 LF
4" FORCE MAIN: 200 LF

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR. ELEV.=27.06' DATUM: NAVD 88

N.T.S.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
No. 112
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

PRE-SUB AREAS

NO.	DATE	REVISIONS	BY
1.	06.27.23	PER BCWS COMMENTS	ERL
2.	07.27.23	PER BCWS COMMENTS	ERL
3.	10.09.23	PER BCWS COMMENTS	ERL
4.	11.09.23	PER BCWS COMMENTS	ERL
5.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
6.	02.02.24	PER BCWS COMMENTS	ERL
7.	02.07.24	PER BCWS COMMENTS	ERL
8.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
9.	05.24.24	PER CITY OF GOOSE CREEK COMMENTS	JWD
10.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWD
11.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

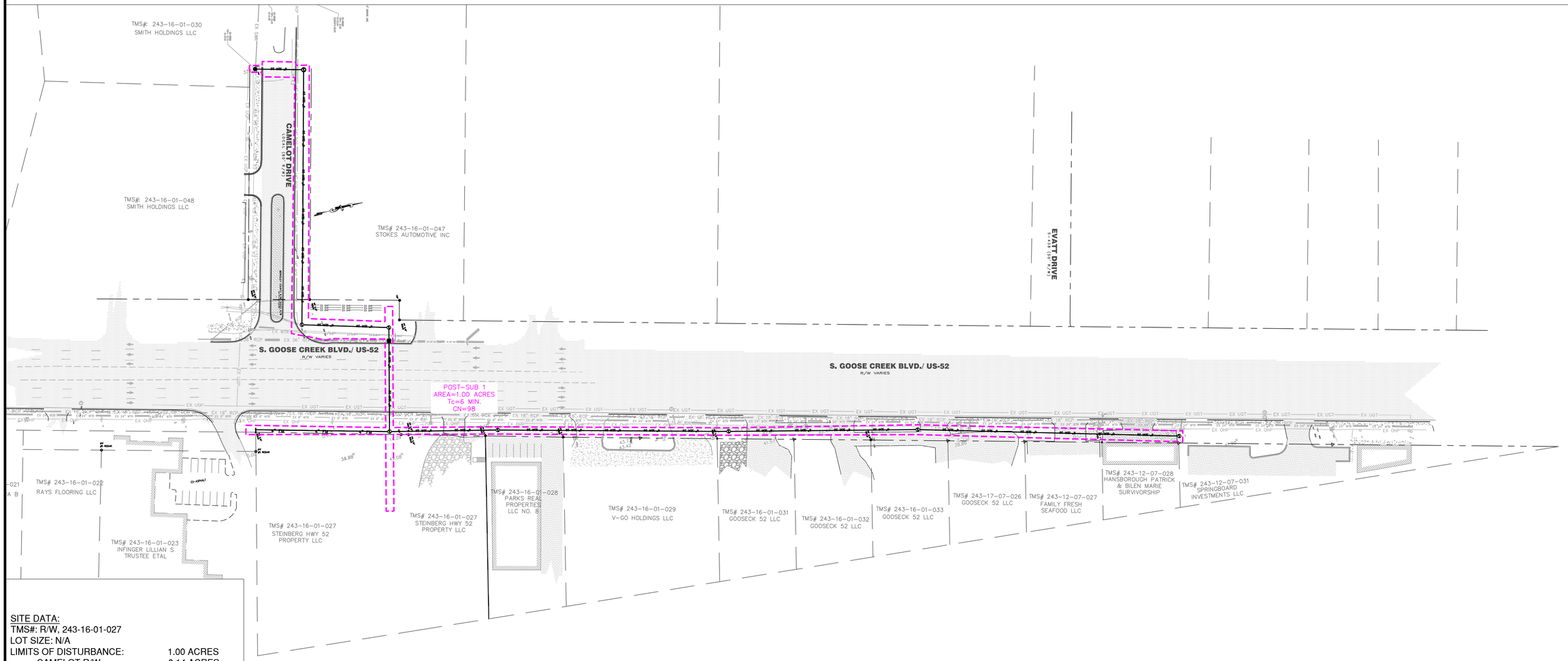
SHEET NUMBER
PRE-SUB AREA

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY
- EDGE OF PAVEMENT
- R/W LINE
- IRON PIPE FOUND
- IRON PIPE SET
- EX WTR — EXISTING WATER MAIN
- EX SWR — EXISTING SEWER MAIN
- EX 18" RCP — EXISTING 18" RCP DRAINLINE
- EXISTING SEWER MANHOLE
- EXISTING WATER VAULT
- EXISTING WATER METER
- EXISTING COMMUNICATIONS VAULT
- EXISTING ELECTRIC VAULT
- EXISTING TEL. CABINET
- EXISTING STORM VAULT
- EXISTING LIGHT POLE
- 8" SDR 26 — PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED BORING PIT
- PROPOSED DEMOLITION
- LOD — LIMITS OF DISTURBANCE

- CAMELOT R/W LOD: 0.14 ACRES
- GOOSE CREEK BLVD R/W LOD: 0.85 ACRES
- TMS#: 243-16-01-027 LOD: 0.01 ACRES

LIMITS OF DISTURBANCE = 1.00 ACRES



SITE DATA:
TMS#: R/W, 243-16-01-027
LOT SIZE: N/A

LIMITS OF DISTURBANCE:	1.00 ACRES
CAMELOT R/W:	0.14 ACRES
GOOSE CREEK BLVD R/W:	0.85 ACRES
TMS#: 243-16-01-027:	0.01 ACRES

ZONED: R/W, GC
SDR-26 SEWER MAIN: 1,775 LF
4" FORCE MAIN: 200 LF

BENCH MARK DATA:
TBM: TOP OF SDMH AT CORNER OF S.GOOSE CREEK BLVD. & CAMELOT DR. ELEV.=27.06' DATUM: NAVD 88

N.T.S.

EARTHSOURCE ENGINEERING

SOUTH CAROLINA
EARTHSOURCE ENGINEERING No. C01075
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
REG. NO. 31259
02.27.25
KEVIN MICHAEL BERRY

GOOSE CREEK BLVD. SEWER EXTENSION

GOOSE CREEK BLVD.
GOOSE CREEK, SC 29445

POST-SUB AREAS

NO.	DATE	REVISIONS	BY
1.	07.27.23	PER BCWS COMMENTS	ERL
2.	10.03.23	PER BCWS COMMENTS	ERL
3.	11.09.23	PER BCWS COMMENTS	ERL
4.	01.12.24	PER ENGINEERING/BCWS COMMENTS	ERL
5.	02.02.24	PER BCWS COMMENTS	ERL
6.	02.07.24	PER BCWS COMMENTS	ERL
7.	03.01.24	PER CITY OF GOOSE CREEK COORDINATION	ERL
8.	05.24.24	PER CITY OF GOOSE CREEK REVIEW	JWD
9.	01.31.25	PER BCWS/ENGINEERING COMMENTS	JWD
10.	02.27.25	PER BCWS/ENGINEERING/ROADS & BRIDGES COMMENTS	ERL

DRAWN: ERL
CHECKED: KMB
DATE: 02.07.24
JOB NO. 22-124

FINAL CONSTRUCTION DRAWINGS

SHEET NUMBER
POST-SUB AREA

Appendix D

Additional Approvals/Certifications

Appendix E

Inspection Log and Reports

SWPPP Inspection Log			
Name of Construction Site	**Location of Construction Site**		
Date of Inspection	**Inspector Name**	**Does Inspection Report require maintenance of installed BMPs?**	
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No

SWPPP Inspection Log (Continued)			
Date of Inspection	**Inspector Name**	**Does Inspection Report require maintenance of installed BMPs?**	
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No
		☐ Yes	☐ No

Appendix F

Rainfall Log and Reports

SWPPP Rainfall Records (January - June)										Year:	
January	Rainfall	February	Rainfall	March	Rainfall	April	Rainfall	May	Rainfall	June	Rainfall
1		1		1		1		1		1	
2		2		2		2		2		2	
3		3		3		3		3		3	
4		4		4		4		4		4	
5		5		5		5		5		5	
6		6		6		6		6		6	
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25		25		25		25		25		25	
26		26		26		26		26		26	
27		27		27		27		27		27	
28		28		28		28		28		28	
29		29		29		29		29		29	
30				30		30		30		30	
31				31				31			

SWPPP Rainfall Records (July - December)										Year:	
July	Rainfall	August	Rainfall	September	Rainfall	October	Rainfall	November	Rainfall	December	Rainfall
1		1		1		1		1		1	
2		2		2		2		2		2	
3		3		3		3		3		3	
4		4		4		4		4		4	
5		5		5		5		5		5	
6		6		6		6		6		6	
7		7		7		7		7		7	
8		8		8		8		8		8	
9		9		9		9		9		9	
10		10		10		10		10		10	
11		11		11		11		11		11	
12		12		12		12		12		12	
13		13		13		13		13		13	
14		14		14		14		14		14	
15		15		15		15		15		15	
16		16		16		16		16		16	
17		17		17		17		17		17	
18		18		18		18		18		18	
19		19		19		19		19		19	
20		20		20		20		20		20	
21		21		21		21		21		21	
22		22		22		22		22		22	
23		23		23		23		23		23	
24		24		24		24		24		24	
25		25		25		25		25		25	
26		26		26		26		26		26	
27		27		27		27		27		27	
28		28		28		28		28		28	
29		29		29		29		29		29	
30		30		30		30		30		30	
31		31				31				31	

Appendix G

Additional Site Logs and Records

SWPPP Pre-Construction Conference Attendance Log

Date & Time	Description/Outline and Name of the Presenter of SWPPP and Site Requirements

Name	Company	Signature

SWPPP Pre-Construction Conference Attendance Log (Continued)

Name	Company	Signature

SWPPP Contractor & Sub-Contractor Log

Name of Construction Site	Location of Construction Site

Company/Individual Name		Work Responsibilities
1.)		
Start Date:		
Completion Date:		
2.)		
Start Date:		
Completion Date:		
3.)		
Start Date:		
Completion Date:		
4.)		
Start Date:		
Completion Date:		
5.)		
Start Date:		
Completion Date:		
6.)		
Start Date:		
Completion Date:		
7.)		
Start Date:		
Completion Date:		
8.)		
Start Date:		
Completion Date:		
9.)		
Start Date:		
Completion Date:		
10.)		
Start Date:		
Completion Date:		

SWPPP Contractor & Sub-Contractor Log (Continued)		
11.)		
Start Date:		
Completion Date:		
12.)		
Start Date:		
Completion Date:		
13.)		
Start Date:		
Completion Date:		
14.)		
Start Date:		
Completion Date:		
15.)		
Start Date:		
Completion Date:		
16.)		
Start Date:		
Completion Date:		
17.)		
Start Date:		
Completion Date:		
18.)		
Start Date:		
Completion Date:		
19.)		
Start Date:		
Completion Date:		
20.)		
Start Date:		
Completion Date:		
21.)		
Start Date:		
Completion Date:		

SWPPP Modification Log				
Name of Construction Site		Location of Construction Site		
Type of Modification		Description of Modification		Location of Modification
☐ Major	☐ Minor			
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		Description of Modification		Location of Modification
☐ Major	☐ Minor			
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		Description of Modification		Location of Modification
☐ Major	☐ Minor			
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		Description of Modification		Location of Modification
☐ Major	☐ Minor			
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		Description of Modification		Location of Modification
☐ Major	☐ Minor			
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	

SWPPP Modification Log (Continued)

Name of Construction Site	Location of Construction Site

Type of Modification		Description of Modification		Location of Modification
☐ Major ☐ Minor				
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		**Description of Modification**		**Location of Modification**
☐ Major ☐ Minor				
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		**Description of Modification**		**Location of Modification**
☐ Major ☐ Minor				
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		**Description of Modification**		**Location of Modification**
☐ Major ☐ Minor				
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	
Type of Modification		**Description of Modification**		**Location of Modification**
☐ Major ☐ Minor				
Start Date:				
Completion Date:				
Reason for Modifications:			Approved/Implemented By:	

SWPPP Soil Stabilization Log

Name of Construction Site	Location of Construction Site

Type of Stabilization		Description of Stabilization		Location of Stabilization
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	

SWPPP Modification Log (Continued)

Name of Construction Site	Location of Construction Site

Type of Stabilization		Description of Stabilization		Location of Stabilization
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	
Type of Stabilization		**Description of Stabilization**		**Location of Stabilization**
☐ Final ☐ Temporary				
Initiate Date:				
Completion Date:				
Additional work proposed for this area:			Inspection Frequency for Stabilized Area:	

Appendix H

Construction General Permit SCR100000

A copy of the NPDES General Permit for Stormwater Discharges from Construction Activities (SCR100000) can be found at the following address:

http://www.scdhec.gov/environment/water/swater/docs/CGP-permit.pdf