

**CITY OF ISLE OF PALMS, SOUTH CAROLINA
REQUEST FOR BIDS (RFB) 2026-07
ISLE OF PALMS MARINA PARKING LOT IMPROVEMENTS**

The City of Isle of Palms is seeking bids from qualified contractors to redevelop and modify the parking lot and driveways at the Isle of Palms Marina site, 50 41st Avenue. The work includes demolition and asphalt milling, grading and drainage improvements, asphalt pavement and asphalt-millings parking areas, ADA parking and access improvements, concrete work, curbing, gates, fencing, signage, pavement markings, erosion control, and related site improvements shown in the attached plans prepared by Cline Engineering and dated July 29, 2026.

Because the site is an operational restaurant, time is of the essence and the timeframe to get work completed is important. The chosen contractor will have the time between January 1, 2027 and February 28, 2027 to complete all of the work associated with this project.

A Bid Form is included in this RFB package. Bidders shall review the complete RFB, the attached plans, all notes and details, existing site conditions, and any addenda, and shall include in the Base Bid all costs necessary to complete the work except items specifically identified as Bid Alternates. The successful contractor will be responsible for completing the accepted work for the lump-sum Base Bid and any alternates accepted by the City, subject only to written change orders approved in accordance with the contract.

This request is being made and awarded pursuant to the City's procurement ordinance. The City reserves the right to reject any and all bids and to waive irregularities.

Bids should be submitted to the following:

Douglas Kerr
City Administrator
City of Isle of Palms
1207 Palm Boulevard
Post Office Box 508
Isle of Palms, South Carolina 29451

Deadline for Questions

The deadline for questions is 5:00 p.m., Eastern Time, September 18, 2026. Bidders should send questions regarding this Request for Bids to Douglas Kerr in writing or by email to dkerr@isleofpalms.gov. Questions received before this deadline will be

answered by addendum posted on the City's website at <http://www.isleofpalms.gov/requests-for-bids-proposals>. Questions received after this deadline will not be answered.

If an addendum is issued, Bidders must acknowledge receipt of the addendum with their bid.

Deadline for Submissions

The deadline for submission and public bid opening is 10:00 a.m., local time, September 25, 2026. Bids will be received at City Hall, 1207 Palm Boulevard, Isle of Palms, South Carolina 29451, in a sealed envelope and will be publicly opened at 10:00 a.m. in City Hall. Sealed envelopes must be clearly marked "RFB 2026-07 - Isle of Palms Marina Parking Lot Improvements" and include one (1) hard copy and one (1) electronic copy saved to a USB flash drive. It will be the responsibility of the bidders to verify receipt by the City.

Bids may be delivered by hand or by mail, but no bid shall be considered which is not actually received by the City at the place, date and time appointed by the City and the City shall not be responsible for any failure, misdirection, delay or error resulting from the selection by any bidder of any particular means of delivery.

Proprietary and/or Confidential Information: Your bid is a public document under the South Carolina Freedom of Information Act (FOIA), except as to information that may be treated as confidential as an exception to disclosure under the FOIA. If you cannot agree to this standard, please do not submit your bid. All information that is to be treated as confidential and/or proprietary must be CLEARLY identified, and each page containing confidential and/or proprietary information, in whole or in part, must be stamped and/or denoted as CONFIDENTIAL, in bold, in a font of at least 12-point type, in the upper right-hand corner of the page. All information not so denoted and identified will be subject to disclosure by the City.

Bidders acknowledge and agree that the City will not be liable for any costs, expenses, losses, damages (including damages for loss of anticipated profit) or liabilities incurred by the respondent or any member of the respondent's organization as a result of, or arising out of, submitting a bid, negotiating changes, or due to the City's acceptance or non-acceptance of the bid or the rejection of any and all bids. Bidders are responsible for submission of accurate, adequate and clear descriptions of the information requests. Neither issuance of the RFB, preparation and submission of a response, nor the subsequent receipt and evaluation of any response by the City of Isle of Palms will commit the City to award a contract to any respondent even if all the requirements in the RFB have been met.

Bidders must have or be able to procure an Isle of Palms Business License.

Contractors considering submission under this RFB will be expected to have read and be prepared to enter into the attached contract, which is a part of this RFB. The City of Isle of Palms reserves the right to accept or reject any and all bids, or any parts thereof; to waive irregularities or informalities in any bid received to allow the bid to be considered; to negotiate terms and conditions with Bidders; and to select a Bidder or to cancel in whole or in part this RFB, if it is in the best interest of the City to do so. Bids determined not to be in compliance with the provisions of this RFB and applicable laws and/or regulations will not be processed.

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

Scope of Work

A site visit to the project site at 50 41st Avenue is encouraged.

The Scope of Work for the project includes, but is not limited to, the following:

- Perform the complete redevelopment of the existing parking lot and driveways at the Isle of Palms Marina, 50 41st Avenue, in accordance with the attached Cline Engineering plans titled "IOP Master Plan," Job No. 22047, dated July 29, 2026, including all notes, details, and specifications.
- Provide mobilization, survey and layout, utility locating, protection of existing facilities, site safety, temporary access, traffic control, and maintenance of an ADA-compliant public route throughout construction.
- Install and maintain the construction entrance, silt fence, inlet protection, and all temporary and permanent erosion and sediment-control measures; stabilize and restore all disturbed areas.
- Sawcut and mill existing asphalt and remove and legally dispose of pavement, curbing, fencing, signage, vegetation, debris, and other items shown to be removed or affected by the work.

- Perform excavation, subgrade preparation, proof-rolling, undercutting as required, fill placement, compaction, grading, and fine grading to the lines, grades, slopes, and elevations shown on the plans.
- Construct the proposed asphalt drive aisles, paved ADA parking areas, pavement transitions, and tie-ins in accordance with the pavement sections and details.
- Construct the proposed asphalt-millings parking areas and all associated base and subgrade preparation.
- Construct concrete sidewalks, thickened pavement edges, parking islands, and other concrete improvements shown on the plans.
- Lay out and stripe parking spaces, ADA spaces and access aisles, directional arrows, fire lanes, and other pavement markings, and install ADA, Do Not Enter, Islander 71, and other required signage.
- Modify the existing catch basin to a grate inlet, install permanent FlexStorm woven inlet filter bags at the locations shown, and complete all related grading and drainage work.
- Protect and coordinate with existing utilities and structures, and adjust or relocate facilities only where required by the plans and field conditions. No new utility improvements are proposed.
- Provide separate prices for Bid Alternate No. 1 - installation of a Barracuda water quality unit to replace the existing drainage box and tie into the existing system - and Bid Alternate No. 2 - installation of 8-inch-high by 12-inch-wide ribbon curb at the locations identified on the plans.
- Provide all labor, materials, equipment, supervision, permits, licenses, testing coordination, freight, taxes, disposal, cleanup, closeout documentation, and other incidentals necessary for a complete and accepted project.

The chosen contractor shall provide all materials, equipment, supplies, freight, state sales tax, labor, supervision, permits, disposal, testing coordination, and incidentals necessary to complete the work.

Time is of the essence for this project, and all work associated with this RFB must be substantially completed between the dates of January 1, 2027 and February 28, 2027. The restaurant will have to be able to use the parking lot for the project to be considered substantially completed.

Bid Format

In responding to this request, contractors shall provide a lump-sum Base Bid and separate prices for each Bid Alternate on the attached "BID FORM."

If any addendum is issued, the contractor must acknowledge receipt by listing each addendum on the BID FORM.

In addition to submitting the completed BID FORM, contractors submitting bids should provide examples of experience with similar projects. Provide a brief description of similar projects of comparable size and complexity for which the Bidder provided construction services within the past five (5) years. Limit information to no more than five (5) projects.

All such descriptions should include:

1. Project location.
2. Description of work performed.
3. Description of original project budget versus actual cost.
4. Name and contact information for a reference with knowledge of the Bidder's work on the specified project.

Provide the name of the Contractor and, if possible, the names and bids of all subcontractors that will be part of the Bidder's Team, and identify the specific work each subcontractor will perform. Once the City issues a contract, no change in subcontractors assigned to the project will be permitted without prior written approval from the City.

Evaluation Criteria

The City will evaluate bids based on the factors outlined within this RFB and the City's procurement ordinance, which shall be applied to all eligible, responsive bids in selecting the successful contractor. The City reserves the right to disqualify any bid from a bidder it deems as non-responsive and/or non-responsible. The City reserves the right to make such investigations of the Bidders as it deems appropriate.

Award of any contract may be made without discussion with Bidders after bids are received. The City reserves the right to cease contract negotiations if it is determined that the Bidder cannot perform the services specified in their response.

Recommendation of award for contract will be made based not only on price, which is an important factor, but also on quality of bid, qualifications, experience, technical expertise, references and ability to execute the work. After careful evaluation, the Public Facilities Committee may make a recommendation to City Council for award of a contract or City Council will decide to award a contract without a recommendation.

BID FORM

BID OF: _____

(Contractor)

BID TO: The City of Isle of Palms

PROJECT NAME: Isle of Palms Marina Parking Lot Improvements

PROJECT NUMBER: RFB 2026-07

BID DATE: _____

BASE BID AGREEMENT

The undersigned, having examined all the Bidding Documents, including all Addenda, shall execute the entire Work in the Bidding Documents described as the Base Bid for the lump sum of:

Dollars

(\$ _____) which sum is hereafter called the BASE BID.

BID ALTERNATES

ALTERNATE NO. 1 - Barracuda water quality unit: Add to Base Bid
_____ Dollars (\$_____).

ALTERNATE NO. 2 - 8-inch x 12-inch ribbon curb: Add to Base Bid
_____ Dollars (\$_____).

DATE FOR COMMENCEMENT AND SUBSTANTIAL COMPLETION

The Date for Commencement shall be established in the Notice to Proceed. The Contractor shall not incur any expense until the contract has been awarded. An award requires that either the Contract be signed by both the awarding authority and the contractor or a Notice to Proceed is executed.

All work for the Project shall be substantially completed (as evidenced by the date on the CERTIFICATE OF SUBSTANTIAL COMPLETION) within 90 (90) calendar days from the date set forth in the NOTICE TO PROCEED, subject to adjustments as provided in the Contract Documents.

Final completion of all work shall be performed within the period between January 1, 2027 and February 28, 2027: FIFTY-NINE (59) calendar days from the scheduled contract time for substantial completion, subject to adjustments as provided in the Contract Documents.

The undersigned further agrees that from the compensation to be paid, the owner may retain as liquidated damages the sum of two thousand dollars (\$2,000) for each calendar day the actual contract time for Substantial Completion for the project exceeds the specified or adjusted contract time for Substantial Completion as provided in the Contract Documents. Liquidated damages will be incurred everyday after February 28, 2027 that the restaurant does not have the ability to park in the new parking area.

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

Marina Parking Lot Improvements

WHEREAS, Contractor was the successful bidder under the City's RFB 2026-07 for the Isle of Palms Marina Parking Lot Improvements; and

THEREFORE, in consideration of the mutual covenants and promises set forth herein,

1. SCOPE OF WORK.

B. Contractor agrees to use its best skill and attention and be solely responsible for all means, methods, techniques, sequences, and procedures in the performance of the work on the Project. Contractor hereby warrants to City that all work on the Project shall be performed in a good and workmanlike manner. Contractor agrees to comply with all applicable federal, state and local laws, rules and regulations regarding all work performed by Contractor pursuant to this Agreement.

2. **CONTRACT PRICE.** For all work under this Agreement, including any Bid Alternates accepted by the City, City agrees to pay Contractor the sum of

_____ (\$_____) Dollars, payable in accordance with the Contract Documents.

3. CHANGE ORDERS. The City has the right to require alterations or changes ("Change Orders") to the Project and in such case Contractor agrees to make such alterations or changes; provided, however, that the details and additional cost or credit of such Change Order must be agreed to by the City and Contractor in writing prior to the commencement of the Change Order.

4. COMPLETION SCHEDULE. TIME IS OF THE ESSENCE. Contractor agrees to substantially complete the Project within sixty (60) calendar days from the date set forth in the Notice to Proceed. Provided, however, that if performance by Contractor is delayed for reasons or causes beyond Contractor's control (including, but not limited to, acts of God, weather conditions, unforeseen site conditions, labor or material shortages, delays caused by City, and casualty losses), the Project completion date shall be extended as provided in the Contract Documents.

5. INSURANCE. Contractor agrees to maintain comprehensive general liability insurance coverage on the work under the Project in an amount not less than \$1,000,000.00 per person, \$2,000,000.00 per claim, and \$250,000.00 per claim for property damage. Contractor also agrees to maintain worker's compensation coverage on its employees as required by the State of South Carolina workers' compensation laws. All insurance coverage required hereunder shall be with companies approved in advance by City, who shall be named as an additional insured on all such policies. Proof of such insurance shall be provided to City prior to commencement of any work by Contractor.

6. PERMITS, FEES AND LICENSES. Contractor agrees to apply for, obtain and pay for all permits, fees, licenses and inspections by governmental agencies necessary for the Contractor's proper performance and completion of the Project, including, but not limited to, a City business license.

7. INDEMNIFICATION. Contractor agrees to hold harmless and indemnify City and its officers, agents and employees from and against any loss or damage, including all reasonable attorney's fees and expenses, incurred as a result of any and all claims, demands, causes of action, suits, judgments, fines or penalties (including but not limited to all fees and expenses incurred as a result of death or injury to persons or for loss of or damage to property) arising out of or in connection with Contractor's performance of the work under this Agreement.

8. SITE INVESTIGATION. Contractor acknowledges that Contractor has inspected the service areas, has determined the nature of the work and the difficulties and

facilities attending performance of the work, and all other matters which Contractor contemplates may in any way affect the work under this Agreement.

9. **BINDING ARBITRATION.** Any dispute or controversy arising under or in connection with this Agreement shall be submitted to binding arbitration in accordance with the requirements of the South Carolina Uniform Arbitration Act as then in effect ("SCUAA"). All arbitration proceedings shall be conducted in Charleston County, South Carolina. The arbitrators shall be selected as provided in the SCUAA, and the arbitrators shall render a decision on any dispute within ninety (90) days after the last of the arbitrators has been selected. If any party to this Agreement fails to select an arbitrator with regard to any dispute submitted to Arbitration under this Section within thirty (30) days after receiving notice of the submission to arbitration of such dispute, then the other party or parties shall select an arbitrator for such nonselecting party, and the decision of the arbitrators shall be final and binding upon all the parties to the dispute, their personal representatives, legal representatives, heirs, successors and assigns. The prevailing party in any such proceeding shall be entitled to reimbursement by the losing party, in addition to any damages awarded, for all reasonable costs and expenses, including attorney's fees, incurred in any such proceeding, including all trial and appellate levels. Nothing contained in this Section shall preclude either party from seeking injunctive relief through a court of competent jurisdiction in connection with the Arbitration, and the prevailing party shall also be entitled to reimbursement by the losing party for all reasonable fees and costs, including attorney's fees, incurred in the proceedings seeking injunctive relief.

10. **BREACH.**

A. In the event that either party breaches any provision of this Agreement, and the same continues for a period of seven (7) days after receipt of written notice thereof, then the nonbreaching party may exercise any and all remedies at law or in equity regarding the breach of this Agreement. Without prejudice to any other rights or remedies available for the said breach, the non-breaching party may terminate this Agreement and cease further performance under this Agreement.

B. Unless authorized by this Agreement, if the Contractor completely ceases work on the Project for a period of fifteen (15) days, or defaults or persistently fails or neglects to carry out the Project, the City may, after seven (7) days' written notice to the Contractor, complete the Project and if the unpaid balance of the contract price exceeds the City's actual cost of completing the Project, such excess shall be paid to the Contractor, but if such expense exceeds the unpaid balance, the Contractor shall pay the difference to the City.

11. **EFFECT OF WAIVER OR CONSENT.** A waiver or consent, express or implied, to or of any breach or default by a party in the performance of its obligations under this

Agreement is not a consent or waiver to or of any other breach or default in the performance by that party of the same or any other obligations of that party with respect to this Agreement. Failure on the part of a party to complain of any act of the other party or to declare a party in default with respect to this Agreement, irrespective of how long that failure continues, does not constitute a waiver by that party of its rights with respect to that default until the applicable statute-of-limitation period has run.

12. SUB-CONTRACT OR ASSIGNMENT. Contractor agrees not to enter into any subcontracts or assignments pertaining to the performance of all or any part of this Agreement, either voluntarily or by operation of law, without prior written approval of City.

13. BINDING AGREEMENT. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

14. GOVERNING LAW; SEVERABILITY. This Agreement is governed by and shall be construed and interpreted in accordance with the laws of the State of South Carolina. If any provision of this Agreement is held invalid or unenforceable to any extent by a court of competent jurisdiction, the remainder of this Agreement is not affected thereby and that provision shall be enforced to the greatest extent permitted by law.

15. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement between the parties hereto relating to the subject matter hereof, and supersedes and nullifies all prior or contemporaneous contracts, agreements, understandings or representations, whether oral or written, which are not expressly stated in this agreement. Neither party is relying upon any representation not expressly contained herein. This Agreement may be amended and modified from time to time only upon the written mutual consent of City and Contractor.

16. SECTION HEADINGS. The headings of Sections or paragraphs used in this Agreement have been inserted for convenience only and are not to be used in determining the contents contained herein.

IN WITNESS WHEREOF, the City and Contractor have hereunto set their hands and seals, by and through the undersigned officers, as of the day and year first above written.

WITNESS:

Contractor:

(#1 as to Contractor)

By: _____

(#2 as to Contractor)

Title: _____

The City of Isle of Palms, S.C.:

(#1 as to City)

By: _____

(#2 as to City)

Title: _____

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PLOT DATE: 29/08/2026 10:53:44 AM FILE LOCATION: S:\2025\2026\424050\PROJECT\DRAWINGS\SP7.037

SITE DEVELOPMENT PLANS
FOR

IOP MASTER PLAN

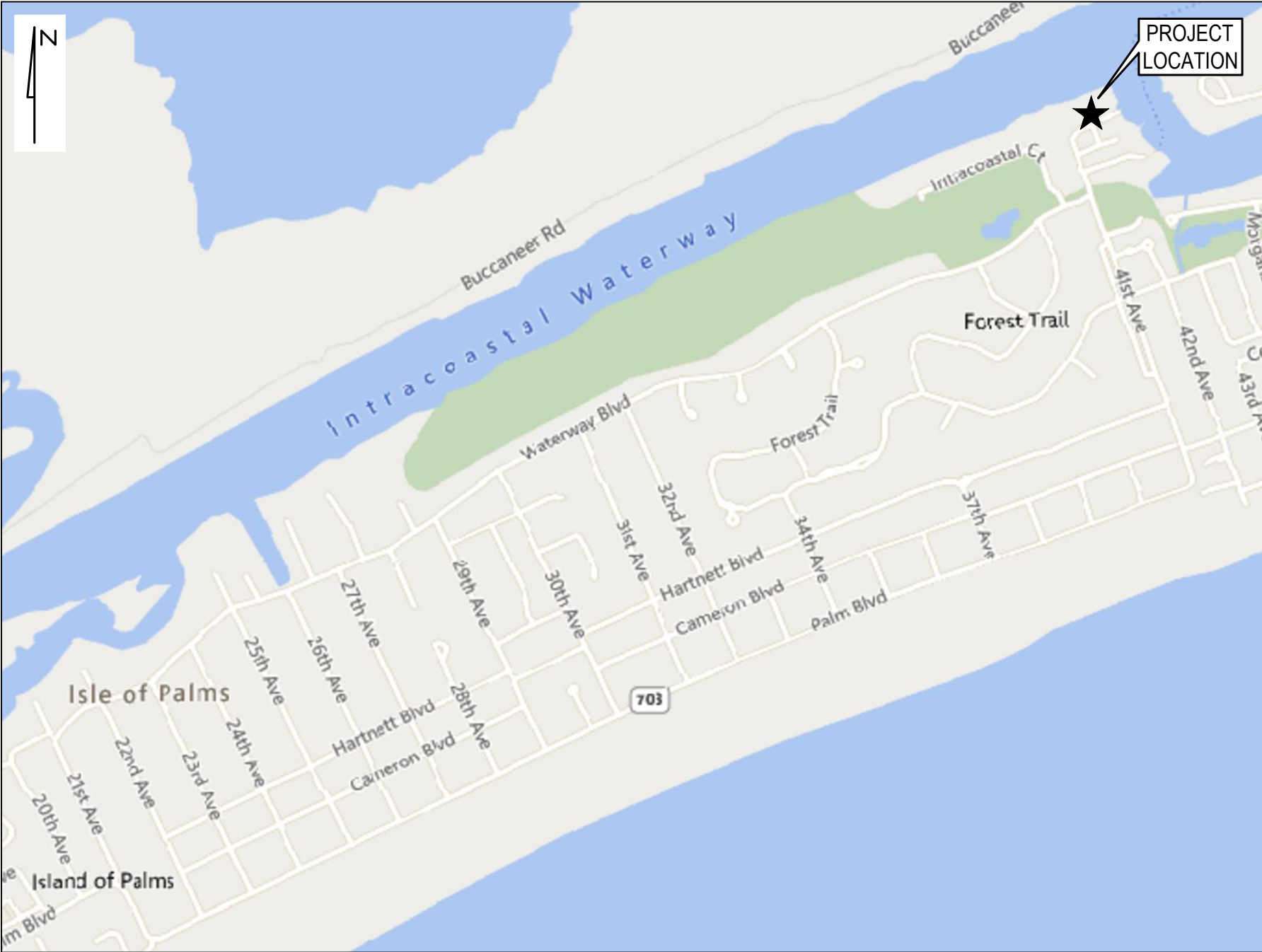
50 41ST AVENUE
ISLE OF PALMS, SOUTH CAROLINA

SITE CONTACTS		
CLIENT	CIVIL ENGINEER MATTHEW CLINE, P.E. CLINE ENGINEERING P.O. BOX 21204 CHARLESTON, SC 29413 PHONE (843) 991-7239	PROJECT SURVEYOR
CITY OF ISLE OF PALMS DOUGLAS KERR PO DRAWER 508 ISLE OF PALMS, SC 29451 PHONE (843) 886-6428	SOUTH CAROLINA EROSION CONTROL S.C.D.E.S. B.C.M. STORMWATER DIVISION 1362 McMILLAN AVE. SUITE 400 CHARLESTON, SC 29405 PHONE (843) 953-0200	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION DISTRICT 6 6355 FAIN BLVD. NORTH CHARLESTON, SC 29406 PHONE (843) 740-1667

ADA COMPLIANCE
THE PUBLIC RIGHT-OF-WAY MUST REMAIN ADA COMPLIANT DURING CONSTRUCTION OR AN ALTERNATIVE ROUTE MUST BE PROVIDED. IT IS THE OWNERS RESPONSIBILITY TO REPAIR ALL DAMAGED SIDEWALKS TO REINSTATE AN ADA ACCESSIBLE ROUTE.

PROJECT DESCRIPTION
SITE IMPROVEMENTS WILL CONSIST OF THE REDEVELOPMENT OF PARKING LOT AND DRIVEWAYS.

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
G-1	COVER
G-2	GENERAL NOTES
G-3	GENERAL NOTES
V-1	SITE CONDITIONS
C-1	SITE PLAN
C-2	DEMOLITION AND SWPPP
C-3	GRADING AND DRAINAGE PLAN
C-4	UTILITY PLAN
C-5	CONSTRUCTION DETAILS
C-6	CONSTRUCTION DETAILS
C-7	CONSTRUCTION DETAILS



VICINITY MAP
SCALE 1" = 1000'

PROJECT MANAGER

DRAWN BY

PROJECT DATE

SHEET NUMBER

MDL

ASLR

AUGUST 2025

2041

IOP MASTER PLAN

COVER

50 41ST AVENUE
ISLE OF PALMS, SOUTH CAROLINA

G-1

CLINE
ENGINEERING

PROFESSIONAL DESIGN CONSULTING

CLINE ENGINEERING, INC.
No. 4072
CERTIFICATE OF AUTHORITY

CLINE ENGINEERING, INC.
No. 26304
07/29/2026
Professional Engineer

ISSUED FOR REVIEW AND APPROVAL

07/29/2026

A

REV

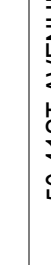
DATE

DESCRIPTION

DRAWN

APPRV.

[illegible]

PROJECT MANAGER		MDC ASJR				
DRAWN BY		AUGUST 2022				
PROJECT DATE		22041				
CDE NUMBER						
SHEET NUMBER						
G-2						
TOP MASTER PLAN						
GENERAL NOTES						
50 41ST AVENUE ISLE OF PALMS, SOUTH CAROLINA						
						
PROFESSIONAL DESIGN CONSULTING						
 						
		REV.	DATE	DESCRIPTION	DRAWN	APPV.
A	07/29/2026					
		ISSUED FOR REVIEW AND APPROVAL			--	MDC

[illegible][illegible]

1. ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS. ALL MATERIALS AND PRODUCTS THAT CONTACT POTABLE WATER MUST BE THIRD PARTY CERTIFIED AS MEETING THE SPECIFICATIONS OF ANSIS/NSF STANDARD 61. ALL PIPING MATERIALS AND INSTALLATION SHALL MEET THE APPROVAL OF THE LOCAL AUTHORITY AND THE STATE HEALTH AUTHORITY.
2. ALL DUCTILE IRON PIPE (DIP) SHALL BE PRESSURE CLASS "300" CONFORMING TO AWWA C151. ALL FITTINGS SHALL BE EITHER MECHANICAL OR PUSH ON JOINT AND SHALL COMPLY WITH AWWA C110. ALL CHLORIDE WATER LINES 4" AND SMALLER SHALL BE CLASS 300-50R21 CONFORMING TO ASTM D2247 AND ASTM D-1784. WATER LINES 6" AND LARGER SHALL BE CLASS 235, DR18, 8" EAGLE OR APPROVED EQUIV CONFORMING TO AWWA C900 AND N.S.F. APPROVED. DETECTABLE TAP WITH THE WORDS "CAUTION: WATERLINE BURIED BELOW" SHALL BE INSTALLED @ 12" ABOVE THE PIPE.
3. SEAMLESS COPPER (95.3 T) AND SMALLER SHALL BE TYPE "K" ROLL FORM TO COMPLY WITH ASTM B-88, LATEST REVISION AND SHALL BE INSTALLED WITH WROUGHT COPPER (T6-T3 ANTIMONY SOLDER JOINT) FITTINGS IN ACCORDANCE WITH ASTM B16.22.
4. ALL WATER LINES SHALL BE PRESSURE TESTED TO 1.5 TIMES THE MAXIMUM WORKING PRESSURE, 150 PSIG (MINIMUM), CLEANED, STERILIZED, AND FLUSHED UNTIL TWO SUCCESSIVE SATISFACTORY WATER BACTERIOLOGICAL SAMPLES TAKEN AT LEAST 24 HOURS APART ARE OBTAINED. THE SAMPLES SHALL BE ANALYZED BY A STATE APPROVED LABORATORY. THE WATER SHALL MEET BOTH COLORFUL AND NON-COLORFUL REQUIREMENTS. ALL BACKFLOW PREVENTION DEVICES SHALL BE INSPECTED AND CERTIFIED BY A LICENSED INSPECTOR.
5. ALL FIRE HYDRANTS SHALL COMPLY WITH AWWA C902 AND MEET THE APPROVAL OF THE LOCAL WATER AUTHORITY.
6. GATE VALVES SHALL COMPLY WITH AWWA C500, 175 PSIG WORKING PRESSURE AND MEET THE APPROVAL OF THE LOCAL WATER AUTHORITY.
7. A MINIMUM OF A DOUBLE CHECK VALVE (BACKFLOW PREVENTOR) ASSEMBLY SHALL BE INSTALLED ON ALL LINES DEDICATED FOR FIRE LINE SPRINKLER SYSTEMS IN A MANNER ACCEPTABLE TO THE LOCAL AUTHORITY. A BACKFLOW PREVENTION DEVICE MEETING STATE AND LOCAL REQUIREMENTS SHALL BE INSTALLED ON ALL DOMESTIC WATER LINES.
8. ALL PIPE MATERIAL, SOLDER AND FLUX SHALL BE LEAD FREE (LESS THAN 0.2% LEAD IN SOLDER AND FLUX AND LESS THAN 0.5% LEAD IN PIPES AND FITTINGS). LUBRICANTS WHICH WILL SUPPORT MICROBIOLOGICAL GROWTH SHALL NOT BE USED FOR SLIP JOINTS. VEGETABLE SHORTENING SHALL NOT BE USED TO LUBRICATE JOINTS. NATURAL RUBBER OR OTHER MATERIAL WHICH WILL SUPPORT MICROBIOLOGICAL GROWTH MAY NOT BE USED FOR ANY GASKETS, O-RINGS, AND OTHER PRODUCTS USED FOR JOINTING PIPES, SETTING METERS OR VALVES, OR OTHER APPURTENANCES WHICH WILL EXPOSE THE MATERIAL TO THE WATER.
9. ALL WATER LINES SHALL BE INSPECTED BY THE UTILITY COMPANY AND THE ENGINEER AND CERTIFIED TO THE STATE HEALTH AUTHORITY BEFORE ACCEPTANCE AND A PERMIT TO OPERATE WILL BE ISSUED AS REQUIRED.
10. ALL WATER LINE SHALL HAVE A MINIMUM 3' COVER.
11. WATER LINE SHALL BE INSTALLED AFTER SANITARY SEWER LINES ARE COMPLETE WHERE THEY CROSS. CONTRACTOR SHALL MAINTAIN A 10 HORIZONTAL AND VERTICAL CLEARANCE OF WATER AND SEWER LINES. ALL WATER LINES SHALL CROSS ABOVE SEWER LINES.
12. CONTRACTOR SHALL INCLUDE COST OF METER AND TAP FEES IN PROPOSAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL EXCAVATION, COORDINATION AND SCHEDULING OF TAPS. THE CONTRACTOR WILL INSTALL MATERIALS, WATER METER AND BOX AS FURNISHED BY THE LOCAL AUTHORITY AND INSTALL SERVICES LINE TO WITHIN 5' OF BUILDING AS INDICATED ON THE DRAWINGS.
13. THE CONTRACTOR WILL FOLLOW PROCEDURES AS DIRECTED TO FLUSH, STERILIZE AND FURNISH WATER SAMPLES FOR TESTING AS PER AWWA 651 UNTIL APPROVAL IS GRANTED BY THE STATE HEALTH AUTHORITY AND THE LOCAL WATER SYSTEM. A PERMIT TO OPERATE WILL NOT BE ISSUED UNTIL THE COMPLETED WATER SYSTEM MEETS ALL REQUIRED STATE AND LOCAL APPROVALS. THE CONTRACTOR IS RESPONSIBLE TO FURNISH THE OWNER WITH A COMPLETED AND APPROVED WATER SYSTEM ALONG WITH A SET OF APPROVED AS-BUILT DRAWINGS IN A FORMAT ACCEPTABLE TO THE LOCAL UTILITY AUTHORITY.

1. ALL CONSTRUCTION SHALL BE PER THE LOCAL SEWER UTILITY REQUIREMENTS AND SPECIFICATIONS.
2. THE PLUMBER IS RESPONSIBLE FOR SETTING INVERT ELEVATIONS, PIPE SLOPES, ETC MEETING ALL LOCAL AND STATE CODES.
3. EACH JOINT MUST BE CLEARLY AND LEGIBLY MARKED WITH THE MANUFACTURER'S NAME OR IDENTIFYING SYMBOL WITH THE LETTERS E.S. APPEARING ON THE EXTERIOR OF THE PIPE NEAR THE SOCKET.
4. A MINIMUM OF 3 FEET OF COVER SHALL BE MAINTAINED OVER ALL PVC PIPE LINES.
5. WATER LINES SHALL BE INSTALLED AFTER ALL GRAVITY SEWER LINES ARE INSTALLED.
6. THIS CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING WORK. CONTACT WATER, TELEPHONE, POWER AND GAS COMPANY BEFORE EXCAVATION IS BEGUN.
7. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEY WORK NECESSARY TO STAKE SEWER LINES. THE CENTERLINE AND ALL CLEANOUT LOCATIONS SHALL BE STAKED IN THE FIELD. THE OWNER'S SURVEY WILL SET ALL LOT CORNERS. THE CONTRACTOR SHALL PROTECT ALL PROPERTY MARKERS.
8. ALL UTILITY TRENCHES SHALL BE THOROUGHLY COMPACTED TO PREVENT SETTLEMENT AND DAMAGE TO FUTURE PAVEMENT AND STRUCTURES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO EXISTING ROADS USED BY HIS OPERATION. THE CONTRACTOR SHALL REMOVE MUD AND DEBRIS FROM HIGHWAY AND NOT ALLOW DUST TO BECOME A NUISANCE OR SAFETY HAZARD.
10. ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED TO LINES AND GRADES SHOWN AS DETAILED ON THE DRAWING. THE CONTRACTOR SHALL PROVIDE STANDARD MANHOLES OR CLEAN-OUTS AT ALL BENDS AND CHANGES IN GRADE IN SEWER LINES AND CONNECTIONS TO EXISTING SEWER LINES. PIPE BEDDING AND BACKFILL SHALL BE CAREFULLY CONTROLLED. ALL SANITARY SEWER WORK SHALL COMPLY WITH LOCAL CODES AN ORDINANCES. THE ENGINEER HAS THE LOCAL AUTHORITY AND THE STATE HEALTH AUTHORITY MUST INSPECT ALL SEWER WORK AS REQUIRED BEFORE BEING PUT IN SERVICE.
11. ALL WORK SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND INSTRUCTIONS GIVEN BY THE OWNER'S REPRESENTATIVE, THE STATE HEALTH AUTHORITY AND THE LOCAL GOVERNING AUTHORITY.
12. ALL SEWER LINES IN RELATION TO WATER LINES MUST CONFORM TO "TEN STATES STANDARDS", SECTION 38.3, 1990 EDITION. AT A MINIMUM, MAINTAIN A MINIMUM OF 10" HORIZONTAL AND 2" VERTICAL SEPARATION BETWEEN THE WATER AND SANITARY SEWER LINES. WATER LINES SHALL CROSS OVER SANITARY SEWER LINES.
13. CONTRACTOR TO ASSUME CLASS "B" BEDDING FOR SDR 26 PVC IN HIS BID PROPOSAL. CLASS "A" BEDDING WILL BE PAID FOR AS AN "EXTRA" SHOULD FIELD CONDITIONS REQUIRE THIS BEDDING.
14. COUPLINGS SHALL BE EASTERN STANDARD SEWER REPAIR COUPLINGS AS MANUFACTURED BY MISSION RUBBER COMPANY, INC. CATALOG NO. 4048-807 (8640) 0410 (0636), OR 412-6229 (2636), OR AS MANUFACTURED BY FERROCO JUNT SEALER CO., FERNDALE, MICHIGAN, OR APPROVED EQUAL.
15. SANITARY SEWER SERVICES SHALL BE INSTALLED PER DETAILS. LOCATION OF SERVICE LINES SHALL BE MEASURED FROM MANHOLES AND FURNISHED WITH "AS-BUILT" DRAWINGS TO THE ENGINEER. EACH BUILDING SHALL HAVE (1) "R" OR "F" MINIMUM LINE, AS SPECIFIED FOR ON THE DRAWINGS, BROUGHT TO WITHIN 5' OF THE BUILDING. SERVICE LINES SHALL BE INSTALLED AS REQUIRED ON PLANS. FURNISH SLOPE AND CLEANOUT SPACINGS SHALL 1.0% FOR 5' AND 0.3% FOR 4' DRIVES.
16. ALL WATER AND SEWER LINE BACKFILL SHALL BE COMPACTED TO 95% STD. PROCTOR BY CONTRACTOR. THE OWNER SHALL TEST COMPACTION.
17. THE OWNER SHALL PAY ALL SEWER TAP FEES TO THE LOCAL GOVERNING AUTHORITY. THE CONTRACTOR SHALL COORDINATE WITH LOCAL AUTHORITY ON SEWER TAPS.
18. THIS CONTRACTOR SHALL SHORE TRENCH EXCAVATION AND USE PIPE BOX TO COMPLY WITH ALL OSHA SAFETY REGULATIONS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE JOB SITE SAFETY AND COMPLY WITH ALL SAFETY REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR HIS MEANS AND METHODS OF CONSTRUCTION.
19. POLYETHYLENE GLYCOL (PE) 8" AND LARGER SHALL CONFORM TO ASTM D-3304. SDR 26, INSTALLED IN ACCORDANCE WITH ASTM D-2321. ELLIPTICAL JOINT SHALL COMPLY WITH ASTM D-2322. SDR 26 SHALL BE INSTALLED IN CLASS "B" BEDDING AS DETAILED ON THE DRAWINGS. PVC SEWER 8" AND SMALLER JOINT SHALL CONFORM TO SCHEDULE 40.
20. DUCTILE IRON SHALL BE PRESSURE CLASS "350" CONFORMING TO AWWA C151. FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS. JOINTS IN DIP AT THE CREEK CROSSING SHALL BE RESTRAINED FROM MOVEMENT (LO-KIGHT OR APPROVED EQUAL).
21. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL SEWER AUTHORITY AND DETERMINING THE REQUIREMENTS AND PROCEDURES FOR OBTAINING THE AUTHORITY'S APPROVAL OF THE SEWER SYSTEM PRIOR TO SUBMITTING A PRICE TO THE OWNER. THE DETAILS AND SPECIFICATIONS OF THE LOCAL SEWER AUTHORITY SHALL GOVERN.
22. MANHOLE FRAME AND COVER SHALL BE MF-11 AND MC-18 RESPECTIVELY AS MANUFACTURED BY SUMTER MACHINERY COMPANY OR SEWER AUTHORITY APPROVED EQUAL. FRAME SHALL WEIGH 208 POUNDS AND COVER SHALL WEIGH 120 POUNDS. ALL SURFACES OF FRAME AND COVER SHALL BE BITUMINOUS COATED.
23. STEPS SHALL BE COPOLYMER POLYPROPYLENE PLASTIC, REINFORCED WITH 1/2" GRADE 60 REINFORCEMENT OR SEWER DISTRICT APPROVED (IF ALLOWED BY LOCAL AUTHORITY).
24. ALL SANITARY SEWER LINES SHALL BE AIR TESTED AND MUST CONFORM TO ASTM C828, LATEST REVISION.
25. ALL FLEXIBLE AND SEMI-RIGID PIPE SHALL BE TESTED BY PULLING A MANDREL, GONDO GO, DEVICE BY HAND NO LESSER THAN 30 DAYS AFTER THE TRENCHING HAS BEEN COMPLETELY BACKFILLED. THE MAXIMUM ALLOWABLE DEFLECTION SHALL NOT EXCEED 5 PERCENT OF NOMINAL INSIDE DIAMETER.
26. CONTRACTOR SHALL NOT USE THE NEW SEWER LINE TO EXISTING MANHOLE UNTIL ALL CONSTRUCTION IS APPROVED, TESTED AND ACCEPTED BY THE LOCAL GOVERNING AUTHORITY.
27. A PRE-CONSTRUCTION CONFERENCE WITH THE CONTRACTOR, SEWER AUTHORITY, STATE HEALTH AUTHORITY, AND THE ENGINEER WILL BE HELD PRIOR TO SEWER LINE CONSTRUCTION. CONTRACTOR SHALL SET UP PRE-CONSTRUCTION CONFERENCE WITH CITY.
28. THE CONTRACTOR SHALL GRASS ALL RIGHT-OF-WAY IN ACCORDANCE WITH SPECIFICATIONS FOR GRASSING.
29. ALL SEWER LINE WORK SHALL BE "APPROVED" BY THE STATE HEALTH AND LOCAL AUTHORITY, AND "APPROVED" AS-BUILT DRAWINGS SHALL BE FURNISH TO THE OWNER BEFORE CONTRACTOR RECEIVES FINAL PAYMENT.
30. THE CONTRACTOR SHALL NOT PERFORM ANY WORK UNTIL HE HAS OBTAINED COPIES OF ALL NECESSARY ENCROACHMENT AND CONSTRUCTION PERMITS.

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 DRAIN DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS SUFFICIENT 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 SET FORTH 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, 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. DISTURBED AREAS MUST BE 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. SEC AND SCD10000.

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 STROOPKIES OF FREELY 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 (3:1 OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 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 BMP'S (SEDIMENT BASIN, FILTER BAG, ETC.).

16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:

- WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MAINTAINED 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 AND MUST BE CONDUCTED USING THE FOLLOWING STABILIZATION IS REACHED IN ALL AREAS OF CONSTRUCTION SITE.

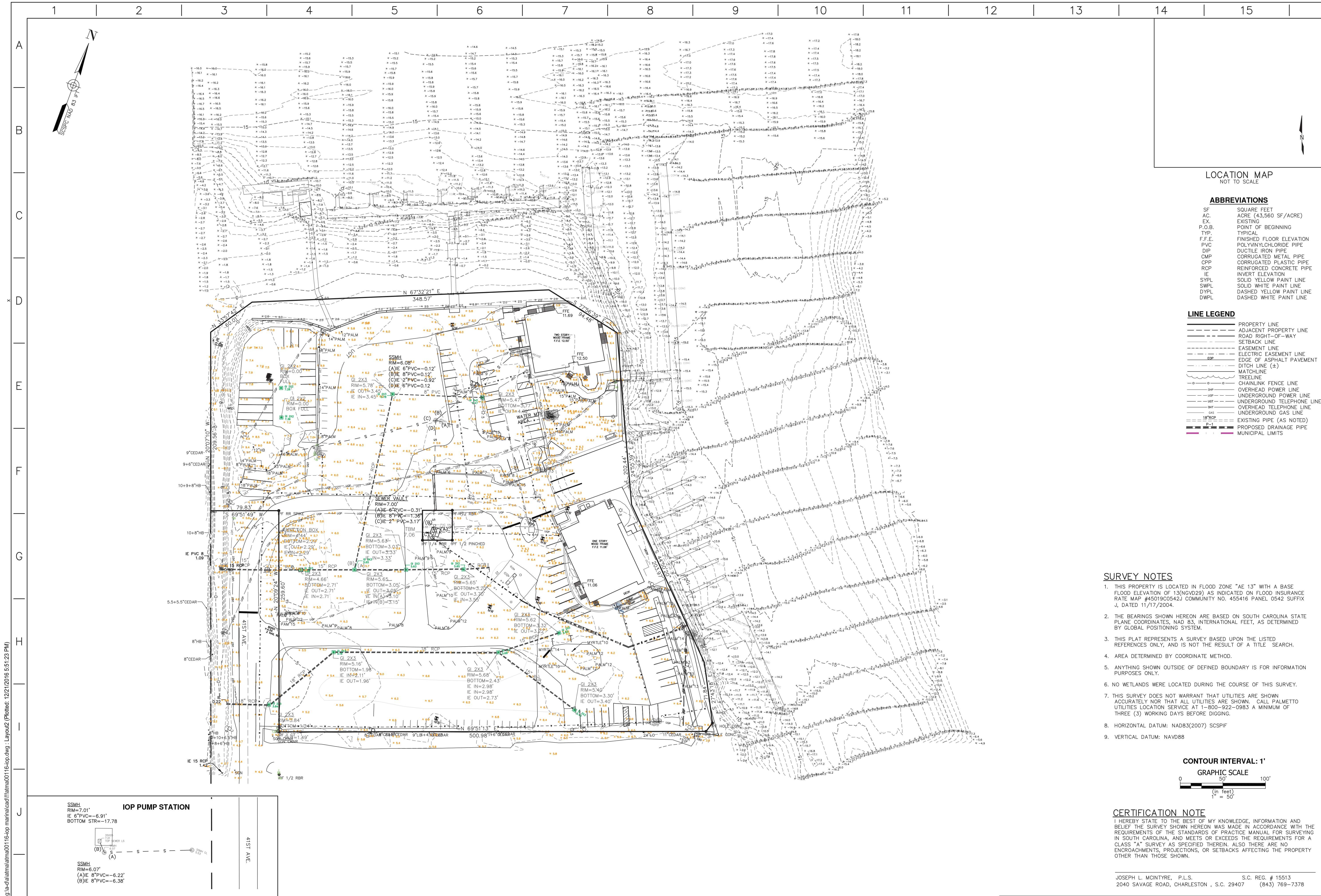
18. IF EXISTING BMP'S NEED TO BE MODIFIED OR IF ADDITIONAL BMP'S ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR THE STATE WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMP'S MUST BE IMPLEMENTED AS SOON AS NECESSARILY 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-LEADER PROJECTS THAT DISTURB 10 ACRES OR MORE. THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS PROVIDED OTHERWISE.

1. ALL RIP RAP FOR CHECK DAMS, EMERGENCY SPILLWAYS, AND OUTLET STABILIZATION PROTECTION TO BE UNDERLAIN WITH FILTER FABRIC. ALL RIP RAP SHALL BE DUMPED RIP RAP IN ACCORDANCE WITH THE SOUTH CAROLINA STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION LATEST EDITION. RIP RAP SHALL BE LARGER THAN 4 INCHES.
2. ASPHALT DESIGN SHALL BE DONE BY GEOTECHNICAL ENGINEER. CONTRACTOR TO COORDINATE WITH OWNER FOR ASPHALT SPECIFICATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ITS REQUIRED FOR BORROW AREA (IF NEEDED).
4. ALL EROSION CONTROL FOR STOCKPILING OF DIRT SHALL COMPLY WITH SCDES STANDARDS.
5. SEDIMENT MUST BE REMOVED FROM SEDIMENT CONTROL Dike WHEN SEDIMENT REACHED 50% OF THE SEDIMENT STORAGE VOLUME OR THE TOP OF THE CLEAN-OUT DITCH, WHICHEVER IS LESS.
6. ALL SLOPES DRAINING OFF SITE (NOT THROUGH POND) TO BE GRASSED AND STABILIZED WITH EROSION CONTROL BLANKETS.

	MORE OR LESS
Ø	DIAMETER
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS
Ac	ACRE
ADA	AMERICANS WITH DISABILITY ACT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BM	BENCHMARK
BMP	EROSION CONTROL BEST MANAGEMENT PRACTICES
BOW	BOTTOM OF WALL
C&G	CURB AND GUTTER
CB	CATCH BASIN
CIP	CAST IN PLACE
CL	CENTERLINE
CY	CUBIC YARD
DBH	DIAMETER BREAST HEIGHT
DES	DEPARTMENT OF ENVIRONMENTAL SERVICES
DIP	DUCTILE IRON PIPE
E	EAST
E.G.	EXAMPLE GIVEN
EL	ELEVATION
ETC	ETCETERA
FDC	FIRE DEPARTMENT CONNECTION
FFE	FINISHED FLOOR ELEVATION
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FIRM	FLOOD INSURANCE RATE MAP
FPE	FINISHED PAD ELEVATION
FT	FEET (LENGTH)
H	HORIZONTAL
HDPE	HIGH-DENSITY POLYETHYLENE
HP	HIGH POINT
IBC	INTERNATIONAL BUILDING CODE
IE	INVERT ELEVATION
INV	INVERT
LBS	POUNDS
LF	LINEAR FEET (LENGTH)
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
MPCE	MATCH PRE-CONSTRUCTION ELEVATION
MS4s	STORMWATER DISCHARGE FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
NE	NORTHEAST
NO.	NUMBER
NSF	NATIONAL SANITATION FOUNDATION
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	PRECAST
PVC	POLYVINYLCHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RW	RIGHT OF WAY
PSF	POUNDS PER SQUARE FOOT (PRESSURE)
PSI	POUNDS PER SQUARE INCH (PRESSURE)
PSIG	POUNDS PER SQUARE INCH GUAGE
S	SOUTH
SCDES	SOUTH CAROLINA DEPARTMENT OF ENVIRONMENTAL SERVICES
SCDOT	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
SE	SOUTHEAST
SF	SQUARE FEET
STA	STATION
STD.	STANDARD
SW	SOUTHWEST
TC	TOP OF CURB
TP	TOP OF PAVEMENT
TOW	TOP OF WALL
TYP	TYPICAL
V	VERTICAL
VCP	VITRIFIED CLAY PIPE
W	WEST
WWF	WELDED WIRE FABRIC
THERE MAY BE ADDITIONAL ABBREVIATIONS USED IN THESE PLANS. PLEASE CONTACT ENGINEER IF ANY ABBREVIATION IS UNDEFINED OR UNCLEAR.	

EXISTING	PROPOSED	DESCRIPTION
		BENCHMARK
		INLET PROTECTION TYPE A
		INLET PROTECTION TYPE F
		INLET PROTECTION TYPE E
		SILT SACK INLET PROTECTION
		GUTTER EEL INLET PROTECTION
		ROCK CHECK DAM
		ROCK SEDIMENT DIKE
		ROCK OUTLET STABILIZATION
		CONCRETE WASHOUT
		STORM DRAINAGE - MISCELLANEOUS
		STORM DRAINAGE - CATCH BASIN TYPE 16
		STORM DRAINAGE - CATCH BASIN TYPE 9
		STORM DRAINAGE - DROP INLET
		STORM DRAINAGE - JUNCTION BOX
		SANITARY SEWER MANHOLE
		SEWER CLEANOUT
		FIRE HYDRANT
		WATER METER
		WATER VALVE
		REDUCER
		LIGHT POLE
		IRON PIN
		SIGN
		UTILITY POLE
		ELECTRICAL BOX
		ELECTRICAL MANHOLE
		CABLE BOX
		TELEPHONE BOX
		TELEPHONE MANHOLE
		PARKING COUNT
		PARKING ISLAND
		FIRE DEPARTMENT CONNECTION
		POST INDICATOR VALVE
		TREE
		TREE - TO BE RELOCATED
		TREE - TO BE REMOVED
		LIMITS OF DISTURBANCE
		PROPERTY BOUNDARY
		ADJACENT/INTERNAL PROPERTY LINES
		BUFFER
		EASEMENT
		SETBACK
		WETLANDS
		CENTERLINE
		TURBIDITY BARRIER
		DIVERSION BERM
		DIVERSION DITCH
XG		GAS
		HOSE PULL
XOC		OVERHEAD CABLE
XOE		OVERHEAD ELECTRIC
XOT		OVERHEAD TELEPHONE
		PERMANENT DIVERSION DITCH
		ROOF DRAIN
		REINFORCED SILT FENCE
XD		STORM DRAINAGE
XS		SANITARY SEWER
		SILT FENCE
		SUBSURFACE DRAIN
		TREE PROTECTION BARRICADE
		TEMPORARY DIVERSION DITCH
		TREE PROTECTION
XC		UNDERGROUND COMMUNICATION
XE		UNDERGROUND ELECTRIC
XW		WATER
XX		FIRE SERVICE
		FENCE
		WETLANDS
		UTILITY LINE, PIPE, OR CURB TO BE DEMOLISHED
		ENTITY TO BE DEMOLISHED
		ASPHALT PAVEMENT (LIGHT DUTY)
		ASPHALT PAVEMENT (HEAVY DUTY)
		CONCRETE PAVEMENT
		BRICK PAVEMENT OR HARDSCAPE
		GRAVEL PAVEMENT



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TOPOGRAPHIC SURVEY

ISLE OF PALMS MARINA

CHARLESTON COUNTY, SOUTH CAROLINA

DATE SURVEYED

NOVEMBER 2016

FB

135

LAST REVISED

12/21/2016

DRAWING FILENAME

!!atma00116-IOP.dwg

DRAWN/CHECKED

JLM

APPROVED/PLOTTED

JLM

PROJECT NUMBER

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SHEET NUMBER

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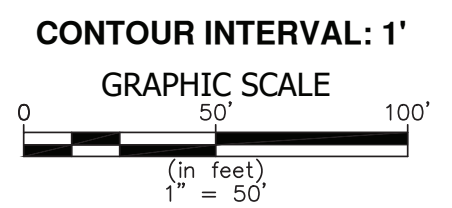
PROJECT NUMBER

ATMA00116

SHEET NUMBER

1

- SURVEY NOTES**
- THIS PROPERTY IS LOCATED IN FLOOD ZONE "AE 13" WITH A BASE FLOOD ELEVATION OF 13' (NGVD29) AS INDICATED ON FLOOD INSURANCE RATE MAP #4501000542J COMMUNITY NO. 455416 PANEL 0542 SUFFIX J, DATED 11/17/2004.
 - THE BEARINGS SHOWN HEREON ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATES, NAD 83, INTERNATIONAL FEET, AS DETERMINED BY GLOBAL POSITIONING SYSTEM.
 - THIS PLAT REPRESENTS A SURVEY BASED UPON THE LISTED REFERENCES ONLY, AND IS NOT THE RESULT OF A TITLE SEARCH.
 - AREA DETERMINED BY COORDINATE METHOD.
 - ANYTHING SHOWN OUTSIDE OF DEFINED BOUNDARY IS FOR INFORMATION PURPOSES ONLY.
 - NO WETLANDS WERE LOCATED DURING THE COURSE OF THIS SURVEY.
 - THIS SURVEY DOES NOT WARRANT THAT UTILITIES ARE SHOWN ACCURATELY NOR THAT ALL UTILITIES ARE SHOWN. CALL PALMETTO UTILITIES LOCATION SERVICE AT 1-800-922-0983 A MINIMUM OF THREE (3) WORKING DAYS BEFORE DIGGING.
 - HORIZONTAL DATUM: NAD83(2011) SCSP1F
 - VERTICAL DATUM: NAVD88



CERTIFICATION NOTE

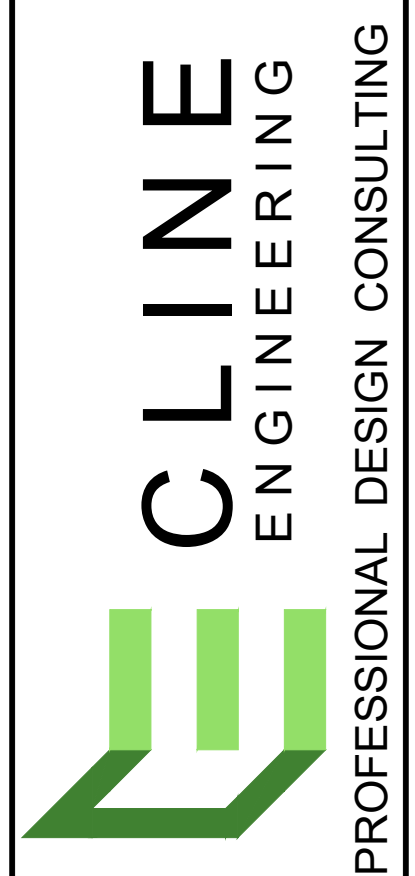
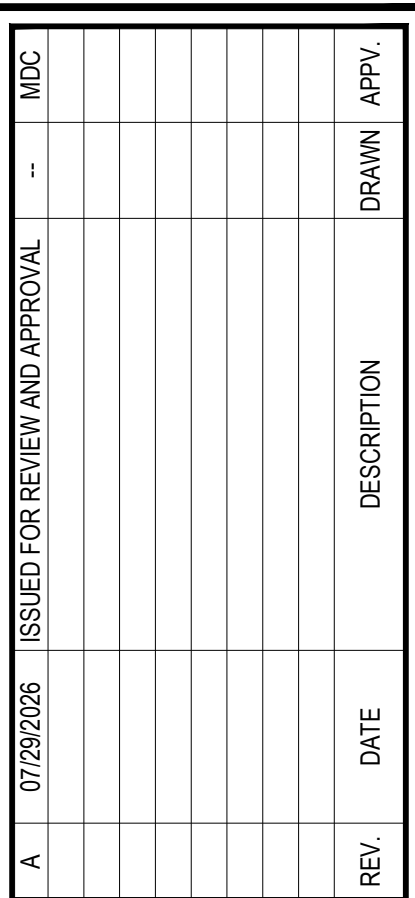
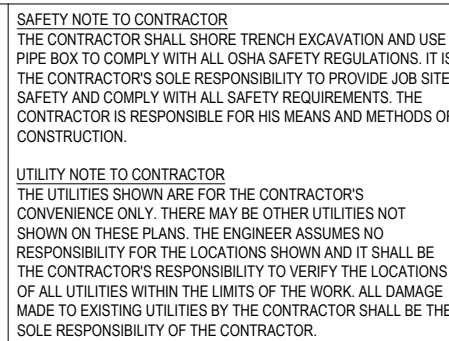
I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN. ALSO THERE ARE NO ENCROACHMENTS, PROJECTIONS, OR SETBACKS AFFECTING THE PROPERTY OTHER THAN THOSE SHOWN.

JOSEPH L. MCINTYRE, P.L.S. S.C. REG. # 15513
2040 SAVAGE ROAD, CHARLESTON, S.C. 29407 (843) 769-7378

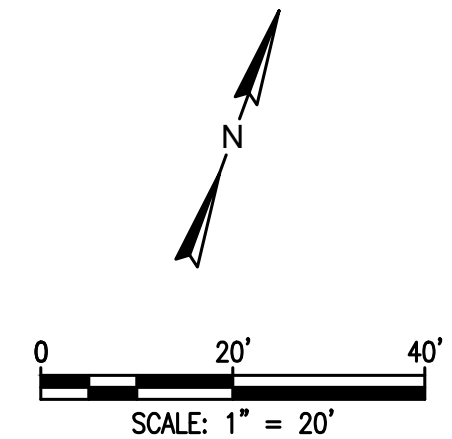
SITE CONDITIONS DATA PROVIDED TO CLIENT BY ENGINEERING BY OTHERS. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.

SITE CONDITIONS

SHEET NUMBER
V-1



TOP MASTER PLAN		50 41ST AVENUE ISLE OF PALMS, SOUTH CAROLINA	
SITE PLAN			
PROJECT MANAGER		MDC	
DRAWN BY		A.J.R.	
PROJECT DATE		AUGUST 2002	
CED NUMBER		2004T	
SHEET NUMBER			
C-1			



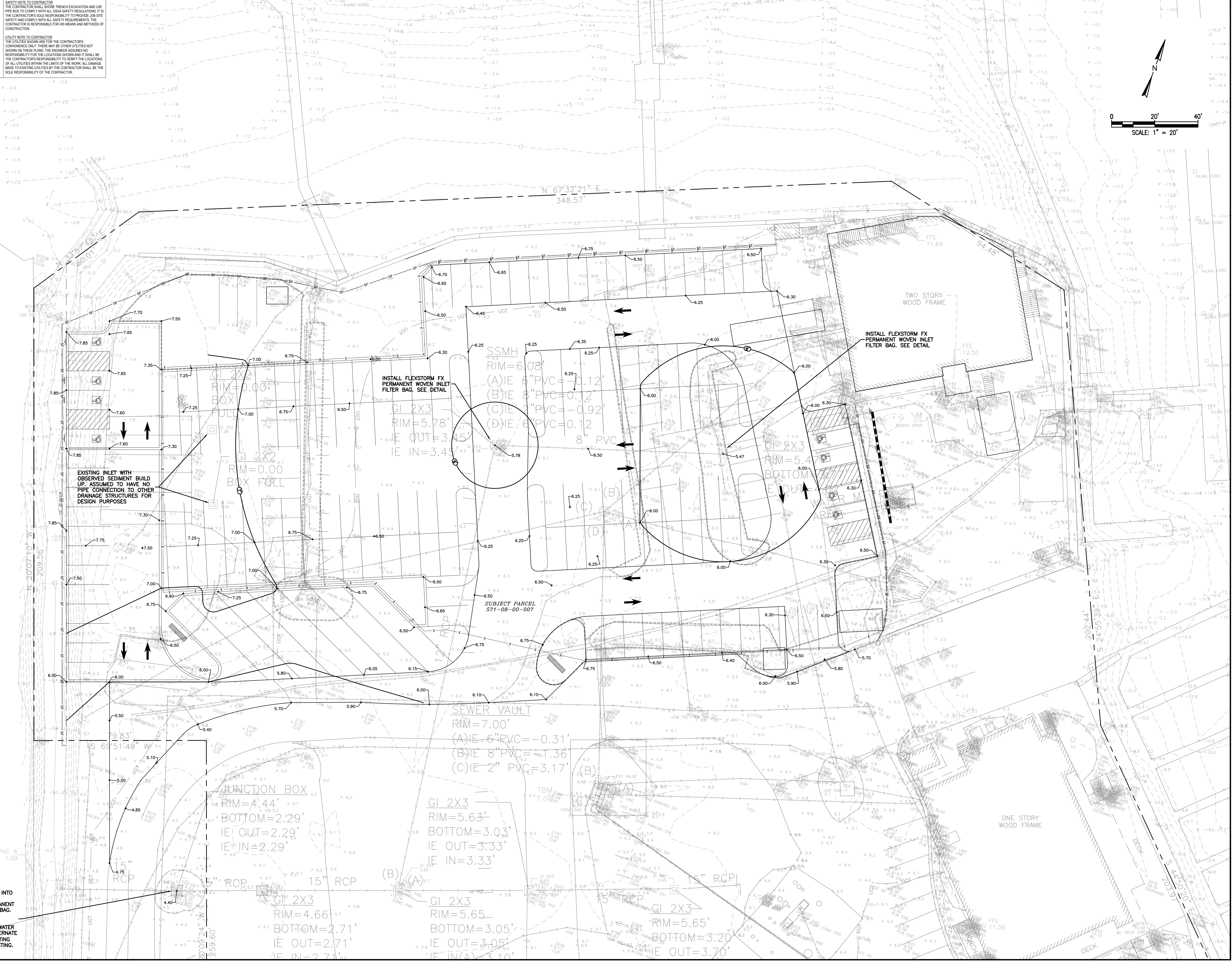
IOP MASTER PLAN		PROJECT MANAGER		MOY
DEMOLITION AND SWPPP		DRAWN BY		AJUR
		PROJECT DATE		AUGUST 2022
5041ST AVENUE ISLE OF PALMS, SOUTH CAROLINA		JOB NUMBER		22047
SHEET NUMBER				
C-2				

THIS DRAWING AND ASSOCIATED OUTFILES ARE AN INSTRUMENT OF SERVICE AND THE PROPERTY OF CLINE ENGINEERING, INC. AND SHALL NOT BE USED OR REPRODUCED IN ANY WAY OTHER THAN AUTHORIZED BY CLINE ENGINEERING, INC. IN WRITING.
PLOT DATE: 2/20/2026 10:59 AM FILE LOCATION: X:\2026\2647\2647\PROJECT\DRAWINGS\PD-033



SAFETY NOTE TO CONTRACTOR
THE CONTRACTOR SHALL SHORE TRENCH EXCAVATION AND USE PIPE BOX TO COMPLY WITH ALL OSHA SAFETY REGULATIONS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE JOB SITE SAFETY AND COMPLY WITH ALL SAFETY REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR HIS MEANS AND METHODS OF CONSTRUCTION.

UTILITY NOTE TO CONTRACTOR
THE UTILITIES SHOWN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



MDC		ISSUED FOR REVIEW AND APPROVAL		DESCRIPTION		DATE		REV	
A	07/29/2026								

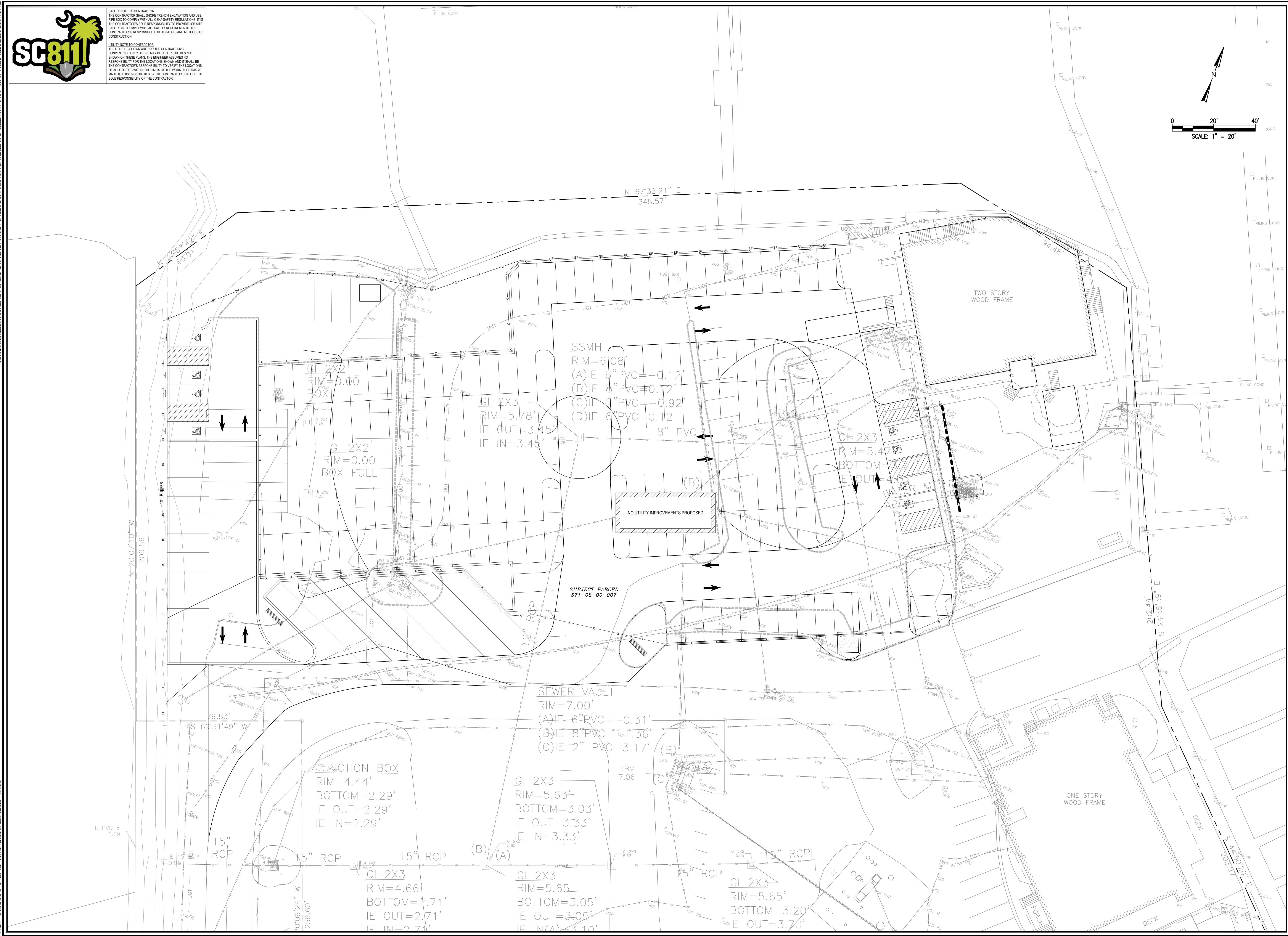
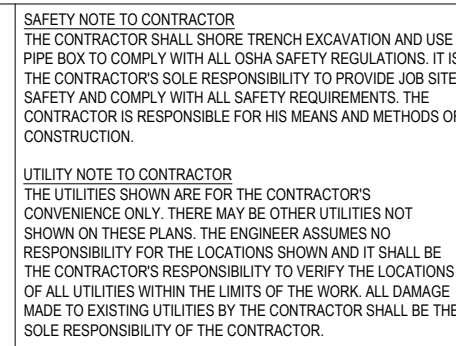
CLINE ENGINEERING
PROFESSIONAL DESIGN CONSULTING

GRADING AND DRAINAGE PLAN
50 41ST AVENUE
ISLE OF PALMS, SOUTH CAROLINA

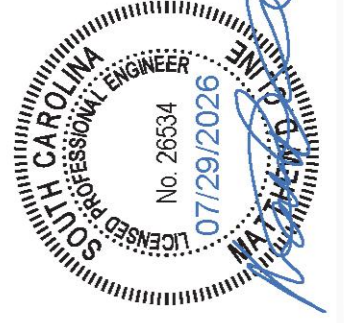
PROJECT MANAGER	MDC
DRAWN BY	ASJR
PROJECT DATE	AUGUST 2023
FOR NUMBER	2241

SHEET NUMBER

C-3



A.	07/29/2026	ISSUED FOR REVIEW AND APPROVAL	--	MDC
REV.	DATE	DESCRIPTION	DRAWN	APPR.

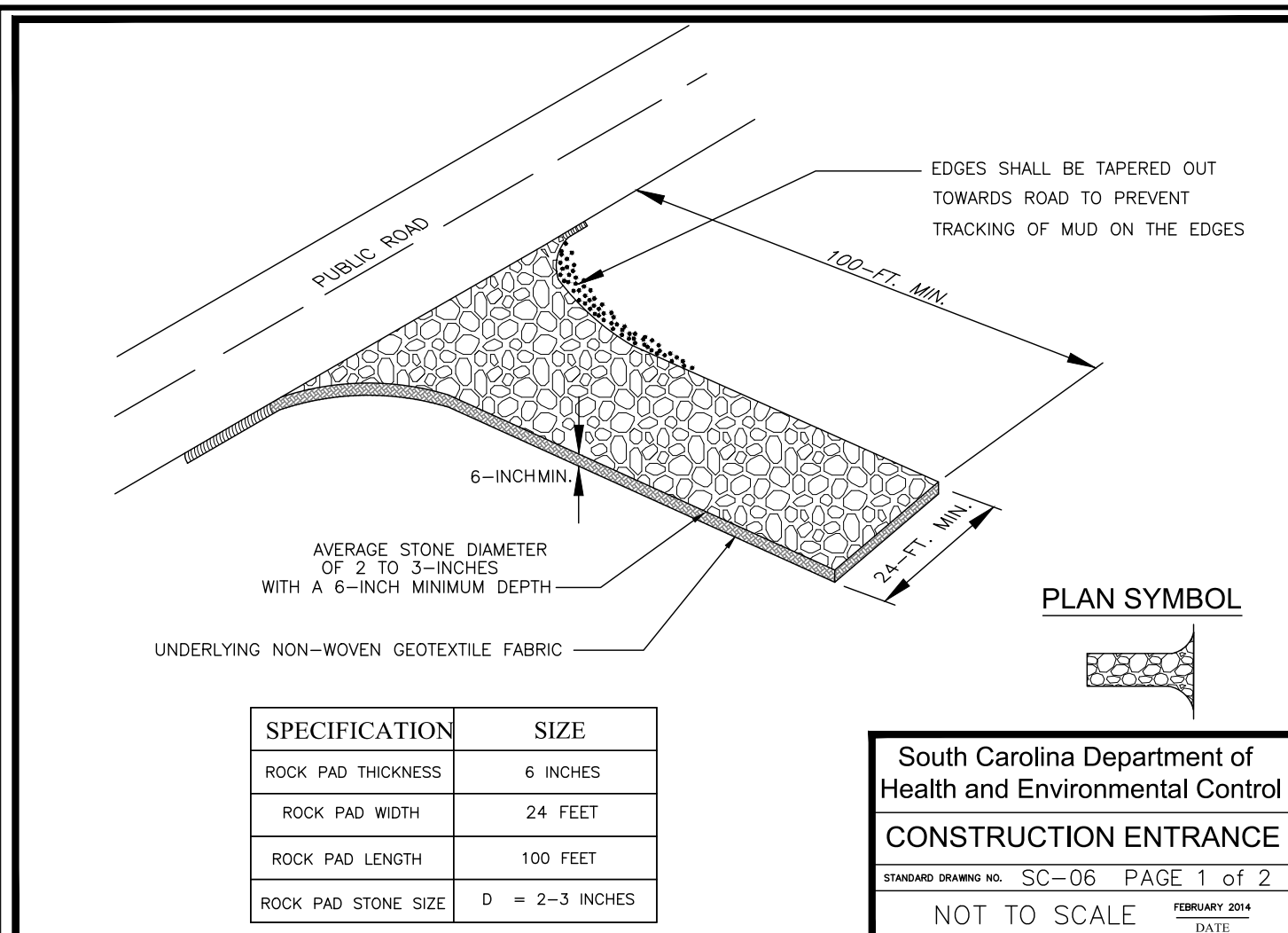


CLINE
ENGINEERING
PROFESSIONAL DESIGN CONSULTING

IOP MASTER PLAN
UTILITY PLAN
50 41ST AVENUE
ISLE OF PALMS, SOUTH CAROLINA

PROJECT MANAGER	MDC
DRAWN BY	AJ/R
PROJECT DATE	AUGUST 2022
JOB NUMBER	22047

SHEET NUMBER
C-4



- ### CONSTRUCTION ENTRANCE – GENERAL NOTES

 1. Stabilized construction entrances should be used at all points where traffic will cross/ingress a construction site and/or provide a non-erosive or any impervious surfaces, such as parking lots.
 2. Install a rubber or geotextile fabric prior to placing any stone.
 3. Install a culvert pipe across the entrance when needed to provide positive drainage.
 4. The entrance shall consist of 2-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
 5. Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints.
 6. The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.
 7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
 8. Limestone may not be used for the stone pad.

CONSTR. ENTRANCE – INSPECTION & MAINTENANCE

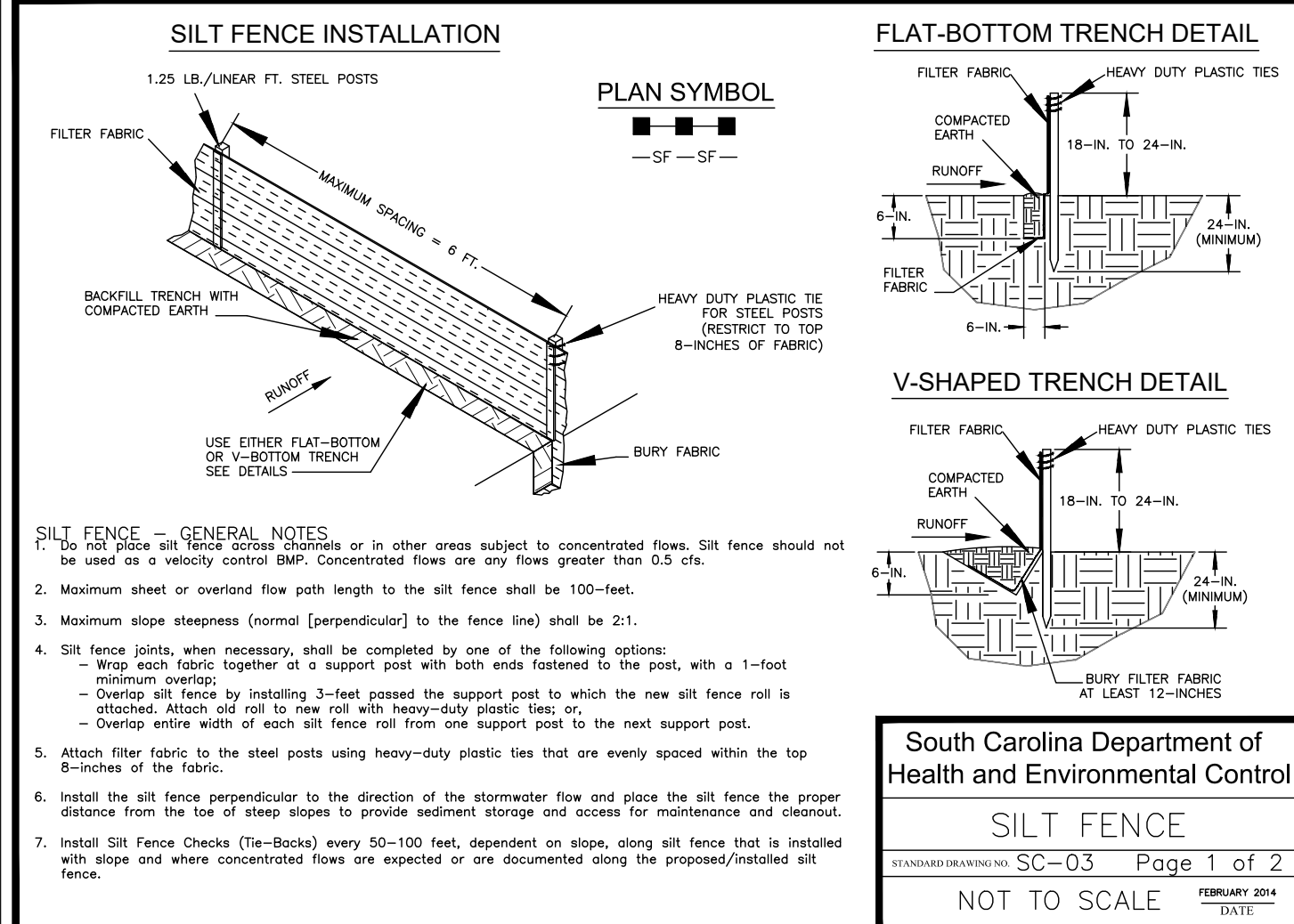
 1. The key to functional construction entrances is weekly maintenance. Regular maintenance includes regular removal of debris.
 2. Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
 3. During regular inspections, check for mud and sediment buildup and pore clogging. Inspection frequencies may need to be more frequent during long periods of wet weather.
 4. Reshape the stone pad as necessary for drainage and runoff control.
 5. Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrainer fails to reduce the amount of mud being carried off-site by vehicles. Frequent washing will reduce the useful life of the stone pad.
 6. Immediately remove mud and sediment tracked or washed onto adjacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
 7. During maintenance activities, any broken pavement should be repaired immediately.
 8. Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation shall replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve post-construction.

South Carolina Department of
Health and Environmental Control

CONSTRUCTION ENTRANCE

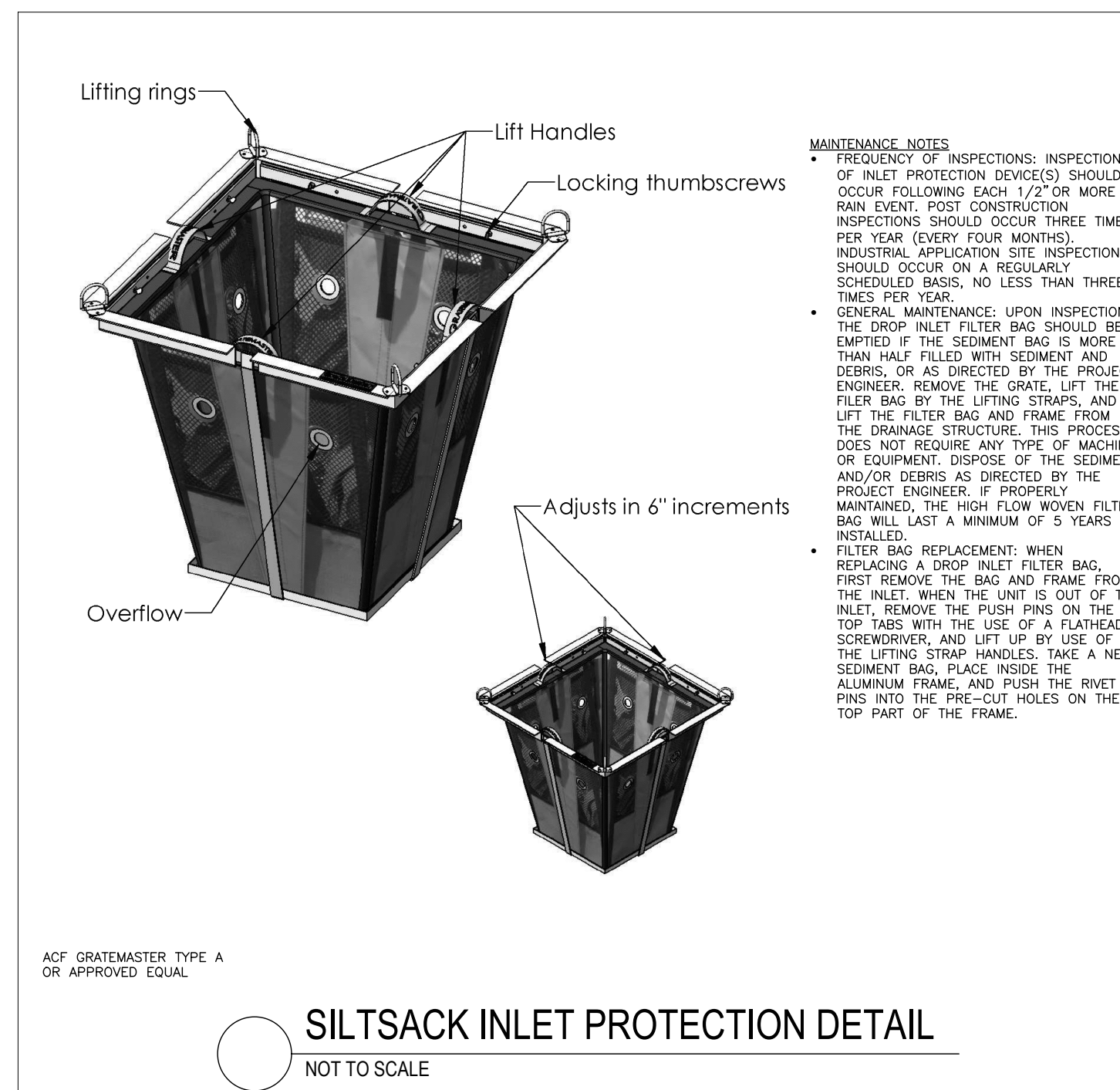
STANDARD DRAWING NO. SC-06 PAGE 2 of 2

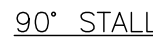
GENERAL NOTES FEBRUARY 2014



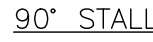
- ## SILT FENCE – POST REQUIREMENTS
1. **Silt fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics:**
- Composed of a standard steel section with a minimum yield strength of 36,000 psi.
 - Include a 1/2" thick section with a nominal face width of 1.38-inches in length. The 1/2" thick length of 1.48-inches.
 - Weigh 1.25 pounds per foot (± 8%).
2. Posts shall be equipped with projection to aid in fastening of fabric.
3. Steel posts may need to have a metal soil stabilization plate welded near the base when installed along slopes or on square inches and be. The plate of 10-gauge steel, or a minimum of 1/8" thick, must be attached to the post. The plate must be a minimum of 12-inches long and 6-inches wide.
4. Install posts to a minimum of 24-inches. A minimum height of 1 – 12-inches above the fabric shall be maintained, and a maximum height of 3 feet above the fabric. Posts should be driven down into the ground.
5. Post spacing shall be at a maximum of 6-feet on center.
- ## SILT FENCE – FABRIC REQUIREMENTS
1. Silt fence must be composed of woven geotextile filter fabric that consists of the following characteristics:
- Composed of fibers consisting of long chain synthetic polymers of polypropylene, polyethylene, or polyester.
 - Composed of polypropylene, polyethylene, or polyester that are fused into a network such that the filaments or yarns retain dimensional stability relative to their original size.
 - Free of any inclusions or flaws which might adversely affect its physical properties after installation.
2. Filter Fabric should be tested and found to significantly affect its physical and/or filtering properties: within
- 12-inches of 36-inches.
3. Use only filter fabric meeting or exceeding the following:
- Approval Sheet #34, approved by the South Carolina Department of the SC DOT Special Specifications for Highway Construction.
4. 12-inches of the fabric should be placed within excavated trench and tined in when the trench is backfilled.
5. Filter Fabric shall be purchased in continuous runs and cut to the length of the barrier to install joints.
6. Filter Fabric shall be installed at a minimum of 24-inches above the ground.
- ## SILT FENCE – INSPECTION & MAINTENANCE
1. The key to functional silt fence is weedy inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of silt fence shall be conducted once every calendar week end, or, 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, or, where the fence has stopped or collapsed due to sediment.
5. Remove sediment shall be placed in isolation 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 stopped or collapsed due to sediment overtopping the silt fence. Install check-banks/b-locks 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.
- South Carolina Department of**

South Carolina Department of Health and Environmental Control	
SILT FENCE	
STANDARD DRAWING NO. SC-03	PAGE 2 of 2
GENERAL NOTES	FEBRUARY 2014 DATE



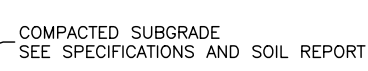


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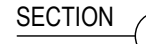
** USE 5' WIDE LOADING ZONE FOR ALL ADA PARKING SPACES

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NOT TO SCALE

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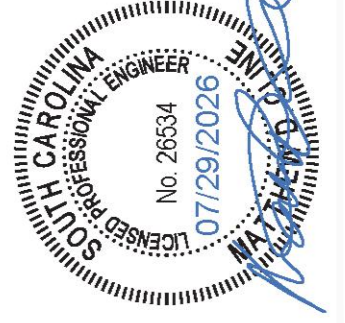


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2. INSTALLED ON MINIMUM 3LB/FT. U-CHANNEL POST.



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MDC

CLINE
ENGINEERING
PROFESSIONAL DESIGN CONSULTING

50 41ST AVENUE
ISLE OF PALMS, SOUTH CAROLINA

PROJECT MANAGER	MD
DRAWN BY	AJJ
PROJECT DATE	AUGUST 202
JOB NUMBER	200

SHEET NUMBER

C-6

