

# Pender County Planning and Community Development

## Planning Division

805 S. Walker Street  
PO Box 1519  
Burgaw, NC 28425



Phone: 910-259-1202  
Fax: 910-259-1295  
[www.pendercountync.gov](http://www.pendercountync.gov)

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## Blake Farm Wastewater Treatment Pond Major Site Development Plan

**Case Number:** SDP 2023-354

**Application Type:** Major Site Development Plan

**Applicant:** McKim & Creed, Inc.

**Owners:** Blake Farm Pond, LLC

**Location:** West of US HWY 17 within the Blake Farm development

**Property ID #(s):** 3271-08-8507-0000

**Description:** Constructing a holding pond associated with the existing wastewater treatment plant owned and operated by Pluris Hampstead, LLC.

**Current Zoning:** PD, Planned Development

**Technical Review Committee Meeting:**  
Thursday, August 3, 2023

**Planning Board Meeting**  
N/A

**Application Materials**  
Application Packet  
Major Site Development Plan

# **APPLICATION PACKET**

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## MAJOR AND MINOR SITE DEVELOPMENT APPLICATION

THIS SECTION FOR OFFICE USE					
<b>Date:</b>	<b>Permit Number:</b> SDP2023-354	<b>Permit Fee:</b> \$250	<b>Invoice Number:</b>		
<b>*Zoning Approval ONLY: YES / NO</b>		<b>Final Zoning Compliance Approved: YES / NO / N/A</b>			
<b>Type of Site Development Plan:</b>		<input checked="" type="checkbox"/> Major	<input type="checkbox"/> Minor		
SECTION 1: GENERAL INFORMATION					
<b>Applicant's Name:</b>	McKim & Creed, Inc.	<b>Property Owner's Name:</b>	Blake Farm Pond, LLC		
<b>Applicant's Address:</b>	243 N Front Street	<b>Property Owner's Address:</b>	1022 Ashes Drive, Suite 201		
<b>City, State, &amp; Zip</b>	Wilmington, NC 28401	<b>City, State, &amp; Zip</b>	Wilmington, NC 28405		
<b>Phone Number:</b>	910.343.1048	<b>Phone Number:</b>	910 799-8755		
<b>Email Address:</b>	tlivick@mckimcreed.com	<b>Email Address:</b>	mike@mcooklaw.com		
<b>Legal relationship of applicant to land owner:</b>		Consultant			
SECTION 2: PROJECT INFORMATION					
<b>PIN (Property Id #):</b>	3271-08-8507-000	<b>Total property acreage:</b>	10.14		
<b>Zoning :</b>	PD (Master Development Plan)	<b>Acreage to be disturbed:</b>	4.0		
<b>Directions to Site:</b>	From Wilmington, North on Hwy 17, left onto Sidbury Road, Right onto Hogans Trail (Dirt Road), follow dirt road to WWTP, site is at rear of WWTP. Alternately, continue past WWTP and turn right onto Corbett Spur Trail (dirt road), site is just before Duke Power Transmission Easement.				
<b>Lot Size:</b> N/A	<b>Sq Ft of Building:</b> N/A		<b>Building Height:</b> N/A		
<b>Setbacks</b>	<b>Front:</b>	<b>Side:</b>	<b>Rear:</b>		
<b>NAICS Code/Use:</b>	N/A				
<b>Business Name:</b>	Blake Farm Pond, LLC (Part of Pluris Hampstead, LLC WWTP Operation)				
<b>Describe activities to be undertaken on project site:</b>	This project intends to clear the limits of disturbance area (<4.0 acres) and excavate a pit as a first step towards permitting and constructing a holding pond associated with the adjacent wastewater treatment plant owned and operated by Pluris Hampstead, LLC.				
<b>Ownership:</b> <input checked="" type="checkbox"/> Private <input type="checkbox"/> Public	<b>Number of Employees:</b>	0	<b>Number of Members:</b>	0	<b>Seating Capacity:</b> N/A


*\*If the applicant is not the owner of the property, a notarized letter from the property owner may be required*

*\*Zoning approval is for the use being proposed ONLY, other department approvals may be required i.e. Fire Marshal, Environmental Health, Permitting, etc...*

**SECTION 4: ADDITIONAL COMMENTS**

Per correspondence with Planning Staff through June 14, 2023, this major site plan application is the most efficient administrative path such that once staff deems the plan compliant with the UDO, the E&SC land disturbance permit is in-hand, and a significant tree mitigation plan is confirmed, the project will be authorized to begin land clearing and grading work.

**SECTION 5: SIGNATURES**

Applicant:		Date:	
Owner:	<i>MANAGER OF BLAKE FARM POND, LLC</i>	Date:	7/5/23
Planning Staff:		Date:	

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## Major Site Development Plan Submission

Applications will be considered for the Technical Review Committee hearing and reviewed by Staff only when deemed complete. The application will be regarded as incomplete until the following items are received by the Planning and Community Development Staff.

1.  **Pre-submittal Meeting**  
Date of Meeting 6/14/2023 - email correspondence
2.  **Signed Application**
3.  **Payment**  
\$250
4.  **Paper Plan Sets** x15 11x17 not required per Justin Brantley, 7/7  
~~Two (2) 24 x 36, Fifteen (15) 11 x 17~~
5.  **Digital Submission**  
For all documents submitted in paper copy, bring a digital copy with paper submission.
6.  **Adjacent Property List**  
A list of names and addresses, as obtained from the county tax listings and tax abstract, to the owners of all properties located within 500-feet of the perimeter of the project bounds.
7.  **Adjacent Property Envelopes**  
The applicant shall provide a set of business envelopes addressed to each of the owners of all properties located within 500-feet of the perimeter of the project bounds and accompanied with the amount of postage required for first class postage.
8. (See Note) **Permits** E&SC Permit submitted to NCDEQ 7/7/2023  
Include any permits issued on the project including but not limited to: environmental, traffic, utility, or site specific conditions.
9.  **Site Plan Requirements**  
A prepared site plan in accordance with the Unified Development Ordinance standards Section 6.3, Pender County Collector Street Plan, Pender County Transportation Plan, other approved State of Federal Transportation Improvement Plan, or any other adopted plan in Pender County.  
(See Major Site Development Checklist)

I certify that all information presented in this application is accurate to the best of my knowledge.

Signature of Applicant

Handwritten signature of Trae Livick in blue ink.

Date July 7, 2023

Printed Name

Trae Livick

Staff Initials:

DLA

Date:

7/12/13



**PROJECT:** Blake Farm Pond

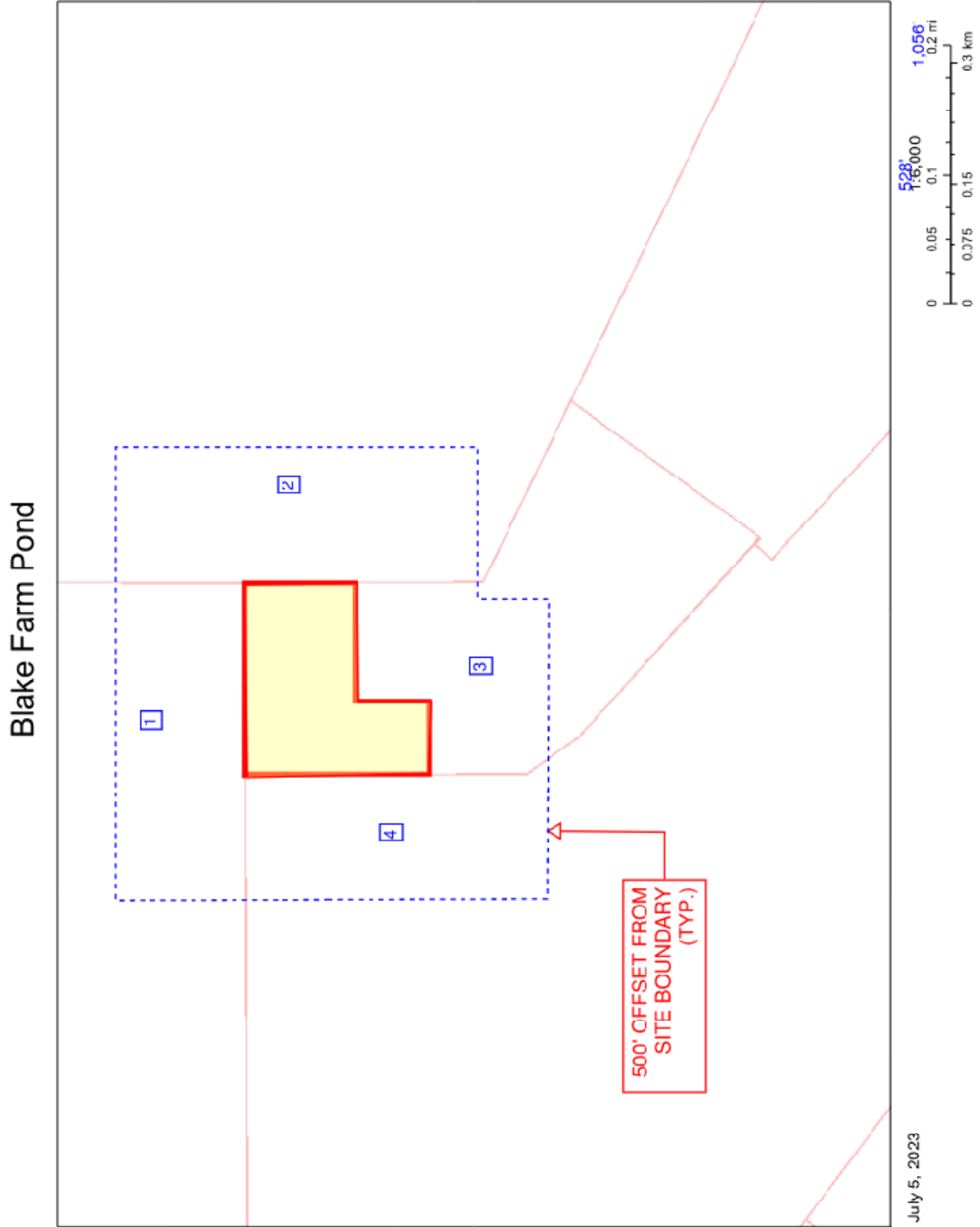
**DATE:** July 5, 2023

**RE:** Adjacent Property List

List of names and addresses, as obtained from the county tax listings and tax abstract, to the owners of all properties located within 500-feet of the perimeter of the project bounds is as follows:

PIN	EXHIBIT ID	NAME	ADDRESS	CITY	STATE	ZIP
3262-72-5914-0000	1	PENDER 1164, LLC	1202 EASTWOOD ROAD	WILMINGTON	NC	28403
3281-15-7192-0000	2	CORBETT, WILBUR R	928 COVE POINT LANE	TEGA CAY	SC	29708
3271-17-1644-000	3	PLURIS HAMPSTEAD, LLC	5950 BERKSHIRE LN, SUITE 800	DALLAS	TX	75201
3271-06-1762-0000	4	PENDER 1164, LLC	1202 EASTWOOD ROAD	WILMINGTON	NC	28403

EXHIBIT:



# **SITE PLAN**



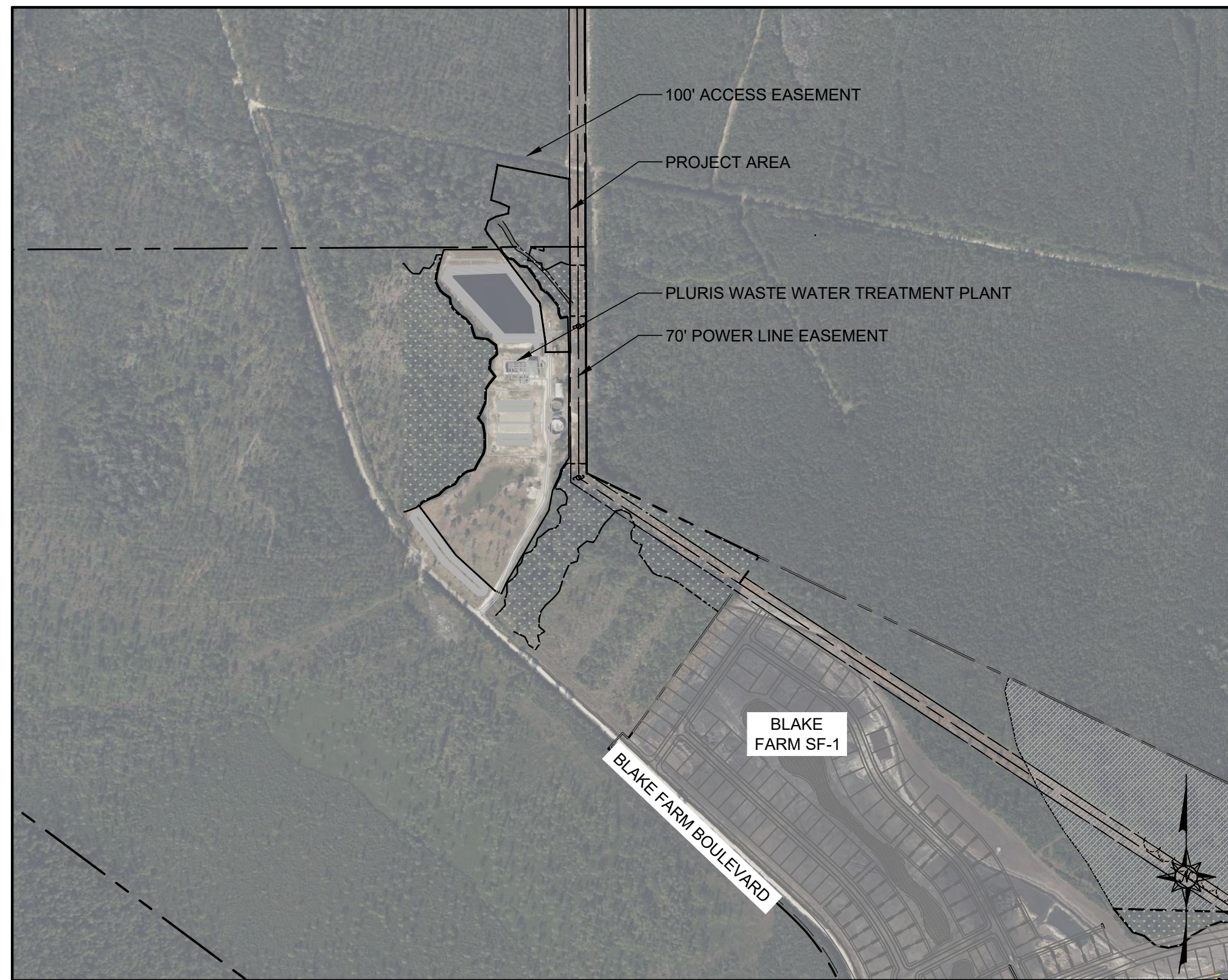
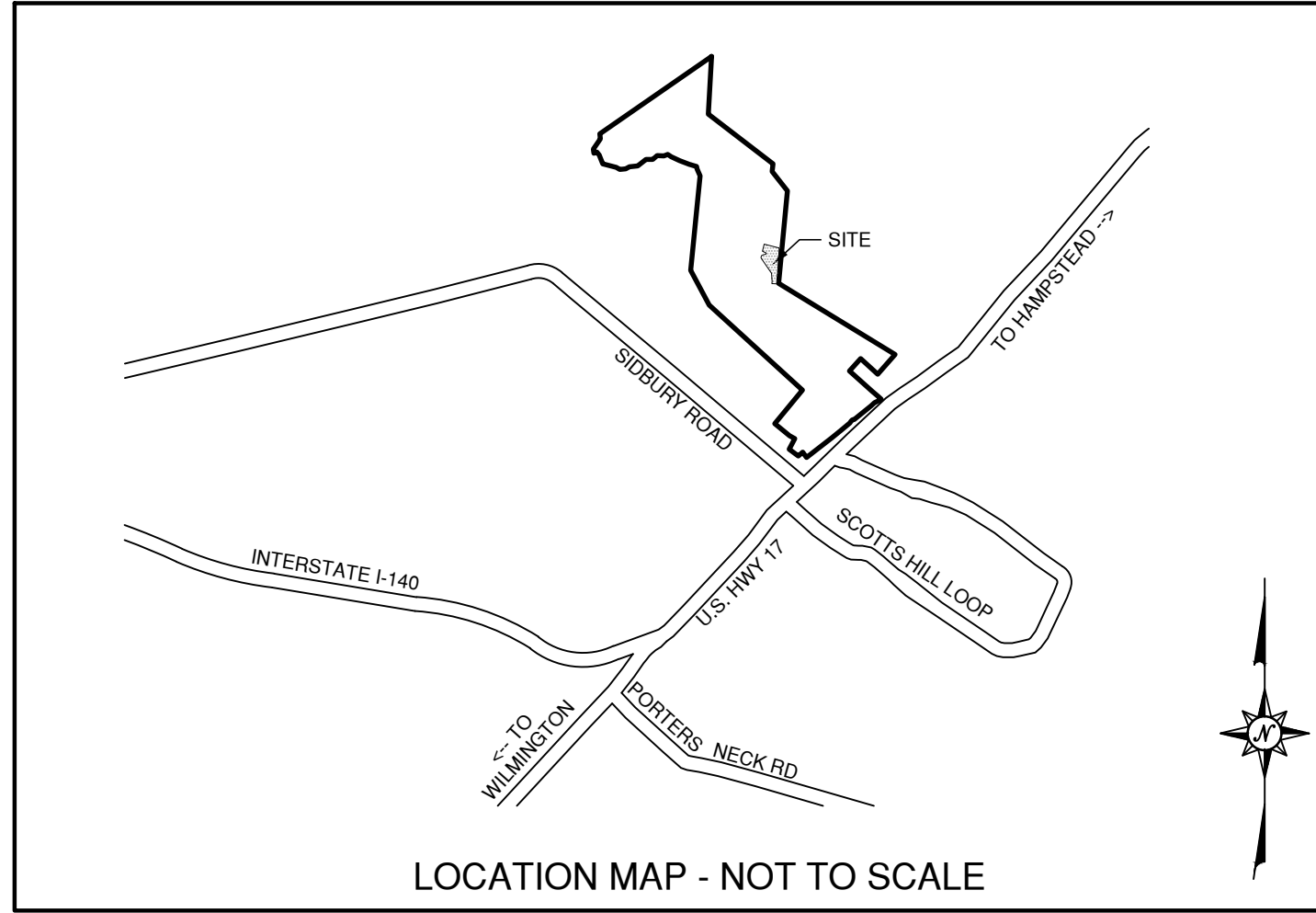
# BLAKE FARM POND

PENDER COUNTY, NC

## PERMIT DRAWINGS

PRELIMINARY - DO NOT USE  
FOR CONSTRUCTION

BLAKE FARM DEVELOPMENT PLAN  
PR-4-2015



SHEET LIST TABLE	
SHEET NUMBER	SHEET DESCRIPTION
C1.0	COVER
C2.0	EXISTING CONDITIONS AND TREE REMOVAL
C3.0	SITE & GRADING PLAN
C4.0	EROSION CONTROL PLAN - STAGE 1
C12.0	EROSION CONTROL DETAILS
C12.1	EROSION CONTROL DETAILS

### COUNTY AND AGENCY CONTACTS

**Pender County**  
Planning Department  
805 S Walker Street  
Burgaw, NC 28425  
(910)341-3255  
Contact: Justin Brantley  
Email: jbrantley@pendercountync.gov

**Pluris Hampstead, LLC**  
Sanitary Sewer  
1095 NC-210  
Sneads Ferry, NC 28460  
(910) 742-7404  
Contact: Nick Evans  
Email: nevens@plurisusa.com

**NCDENR**  
Sediment and Erosion Control  
127 N Cardinal Dr.  
Wilmington, NC 28405  
(910) 796-7215  
Contact: Dan Sams  
Email: dan.sams@ncdenr.gov

**NCDOT Division 3 - District 1**  
299 Wilmington Hwy  
Jacksonville, NC 28540  
(910) 455-3777

**Pender County Public Utilities**  
605 E Fremont St  
Burgaw, NC 28425  
(910) 259-0212  
Contact: Kenny Keel, Katie Leubner  
Email: kkeel@pendercountync.gov;  
kleubner@pendercountync.gov

**NCDENR**  
Division of Water Quality  
127 Cardinal Drive Ext.  
Wilmington, NC 28405  
(910) 796-7336  
Contact: Tyler Benson  
Email: Tyler.Benson@ncdenr.gov

**NCDENR**  
Division of Environmental Health  
Public Water Supply Section  
1634 Mail Service Center  
Raleigh, NC 27699-1634  
(919) 707-9051

### PROJECT CONTACTS

**OWNER:**  
BLAKE FARM POND, LLC  
511 NORTH TEJON STREET, SUITE 200  
COLORADO SPRINGS, CO 80903  
PHONE: (719) 623-1222

**CONTACT: MR. MICHAEL COOK**  
MIKE@MCOOKLAW.COM

**PREPARED BY:**  
MCKIM & CREED, INC  
243 NORTH FRONT ST  
WILMINGTON, NC 28401  
PHONE: (910)343-1048

**PROJECT ENGINEER: TRAE LIVICK, PE**  
TLIVICK@MCKIMCREED.COM

### PENDER COUNTY CERTIFICATIONS

**Certification of Submission**  
A copy of this plat has been submitted. Approval is subject to Review; this does not constitute an approval.  
Pender County Utilities: \_\_\_\_\_ Date: \_\_\_\_\_  
Pender County Environmental Health: \_\_\_\_\_ Date: \_\_\_\_\_  
Pender County Addressing Coordinator: \_\_\_\_\_ Date: \_\_\_\_\_  
Pender County Fire Marshal: \_\_\_\_\_ Date: \_\_\_\_\_

**Certification of Preliminary Plat Approval**  
Preliminary Plat Approved by Pender County for a Period of two (2) years subject to the Pender County Unified Development Ordinance requirements and conditions of approval.  
Planning Staff: \_\_\_\_\_ Date: \_\_\_\_\_

### PENDER COUNTY APPROVAL

APPROVED BY THE PENDER COUNTY UNIFIED DEVELOPMENT ORDINANCE ADMINISTRATOR.

\_\_\_\_\_ APPROVED DATE.

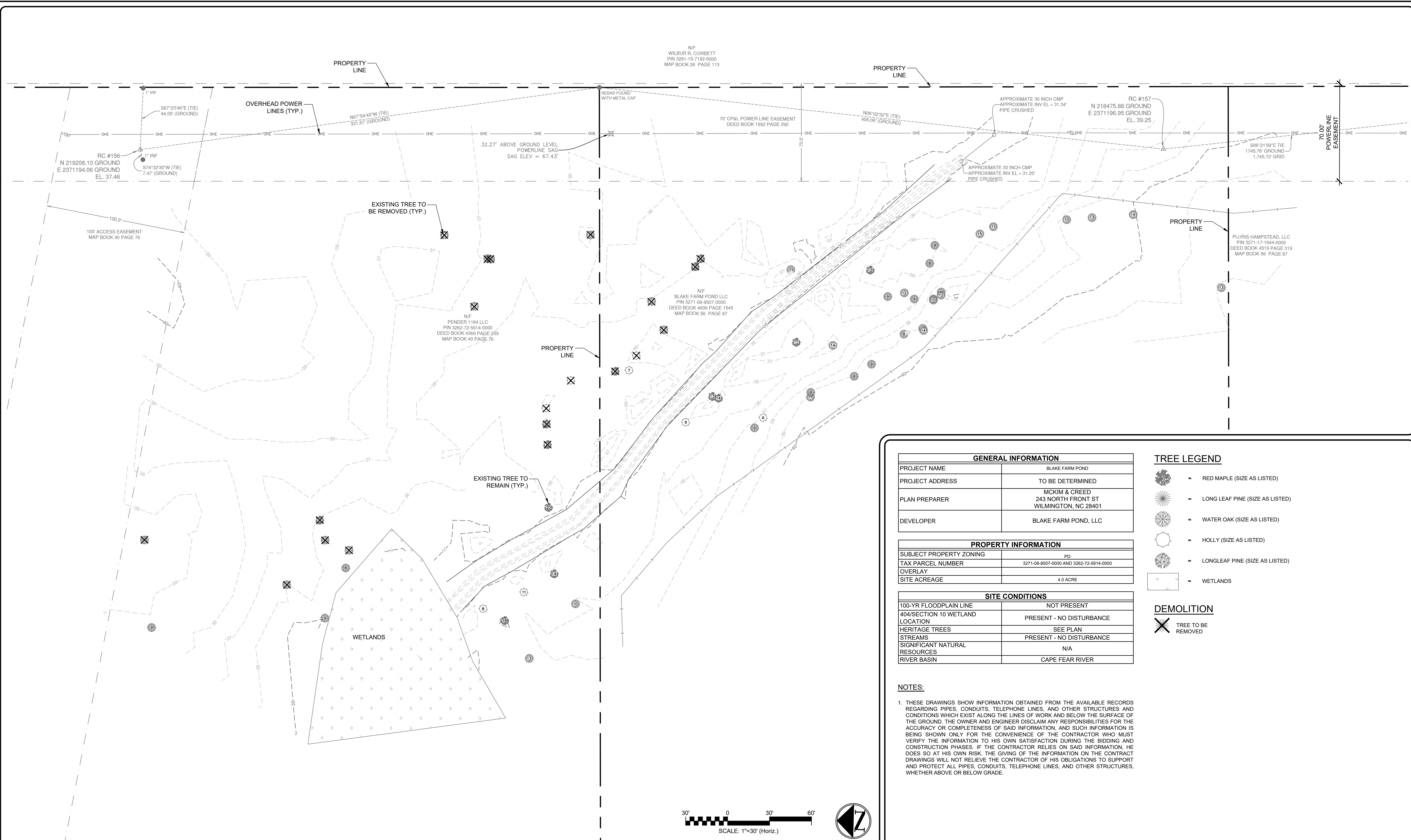
SITE PLAN IS VALID FOR TWO (2) YEARS FROM APPROVAL DATE.



243 North Front Street  
Wilmington, NC 28401  
Phone: (910) 343-1048  
LICENSE: F-1222  
www.mckimcreed.com



Know what's below.  
Call before you dig.



GENERAL INFORMATION	
PROJECT NAME	BLAKE FARM POND
PROJECT ADDRESS	TO BE DETERMINED
PLAN PREPARER	MCKIM & CREED 243 NORTH FRONT ST WILMINGTON, NC 28401
DEVELOPER	BLAKE FARM POND, LLC

PROPERTY INFORMATION	
SUBJECT PROPERTY ZONING	PD
TAX PARCEL NUMBER	3271-08-8507-0000 AND 3262-72-5914-0000
OVERLAY	
SITE ACREAGE	4.0 ACRE

SITE CONDITIONS	
100-YR FLOODPLAIN LINE	NOT PRESENT
404/SECTION 10 WETLAND LOCATION	PRESENT - NO DISTURBANCE
HERITAGE TREES	SEE PLAN
STREAMS	PRESENT - NO DISTURBANCE
SIGNIFICANT NATURAL RESOURCES	N/A
RIVER BASIN	CAPE FEAR RIVER

**TREE LEGEND**

- RED MAPLE (SIZE AS LISTED)
- LONG LEAF PINE (SIZE AS LISTED)
- WATER OAK (SIZE AS LISTED)
- HOLLY (SIZE AS LISTED)
- LONGLEAF PINE (SIZE AS LISTED)
- WETLANDS

**DEMOLITION**

- TREE TO BE REMOVED

**NOTES:**

- THESE DRAWINGS SHOW INFORMATION OBTAINED FROM THE AVAILABLE RECORDS REGARDING PIPES, CONDUITS, TELEPHONE LINES, AND OTHER STRUCTURES AND CONDITIONS WHICH EXIST ALONG THE LINES OF WORK AND BELOW THE SURFACE OF THE GROUND. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITIES FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION, AND SUCH INFORMATION IS BEING SHOWN ONLY FOR THE CONVENIENCE OF THE CONTRACTOR WHO MUST VERIFY THE INFORMATION TO HIS OWN SATISFACTION DURING THE BIDDING AND CONSTRUCTION PHASES. IF THE CONTRACTOR RELIES ON SAID INFORMATION, HE DOES SO AT HIS OWN RISK. THE GIVING OF THE INFORMATION ON THE CONTRACT DRAWINGS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO SUPPORT AND PROTECT ALL PIPES, CONDUITS, TELEPHONE LINES, AND OTHER STRUCTURES, WHETHER ABOVE OR BELOW GRADE.

2 EXISTING CONDITIONS AND TREE REMOVAL

1 LEGEND AND NOTES

REV. NO.	DESCRIPTIONS/REVISIONS	DATE

FOR REVIEW PURPOSES ONLY. NOT FOR CONSTRUCTION

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2023.07.07

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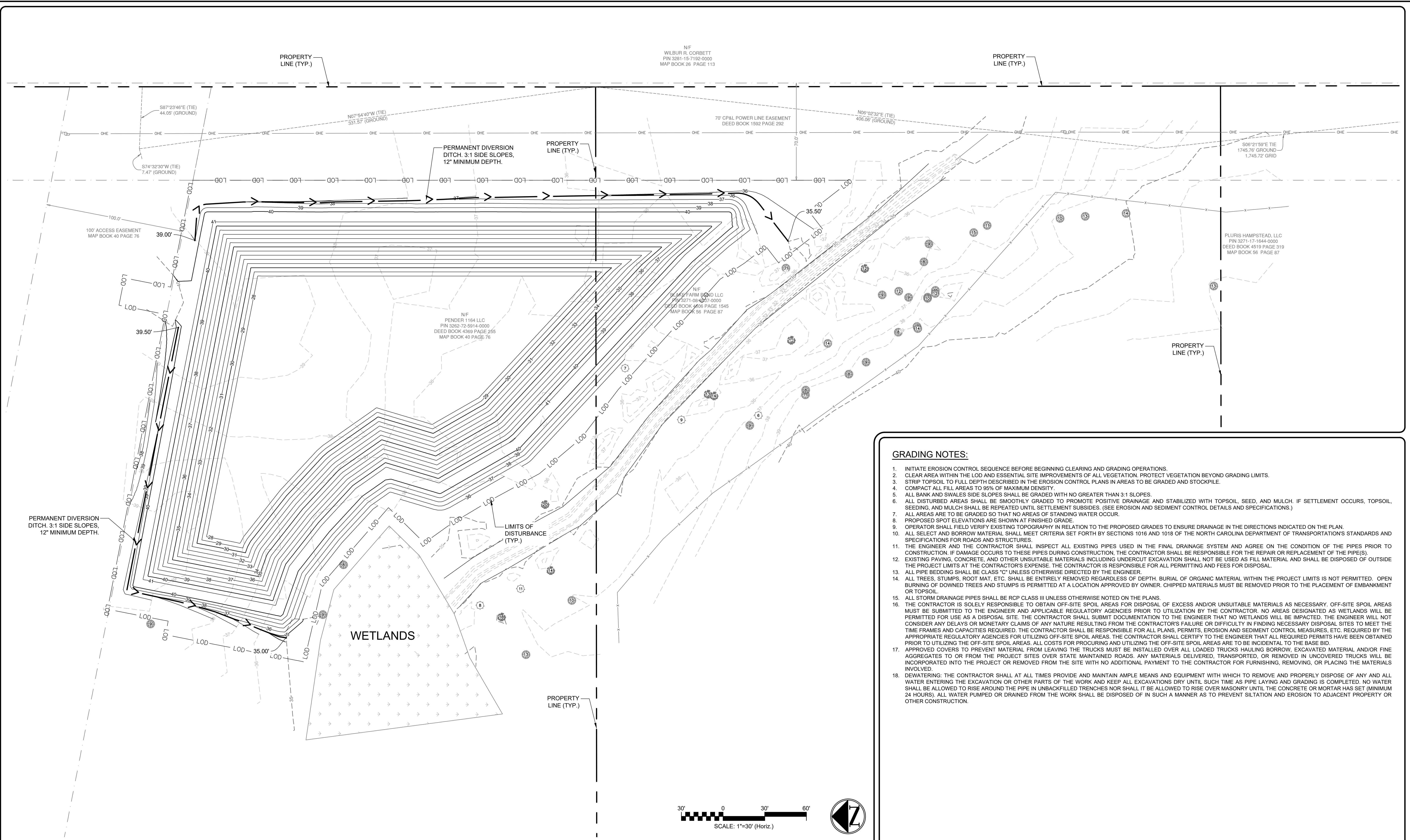
**BLAKE FARM POND, LLC**  
1022 ASHES DRIVE SUITE 201  
WILMINGTON, NC 28405

**BLAKE FARM POND**  
PENDER COUNTY, NORTH CAROLINA

**EXISTING CONDITIONS AND TREE REMOVAL**

DATE: 07/07/2023	SCALE: 1" = 30'
MCE PROJ. #: 09533-0001	HORIZONTAL: 1" = 30'
DRAWN: DCO/ALM	VERTICAL: N/A
DESIGNED: THL/DCO	REVISION: C2.0
CHECKED: THL	
PROJ. MGR: THL	

STATUS: PERMIT DRAWINGS



- GRADING NOTES:**
- INITIATE EROSION CONTROL SEQUENCE BEFORE BEGINNING CLEARING AND GRADING OPERATIONS.
  - CLEAR AREA WITHIN THE LOD AND ESSENTIAL SITE IMPROVEMENTS OF ALL VEGETATION. PROTECT VEGETATION BEYOND GRADING LIMITS.
  - STRIP TOPSOIL TO FULL DEPTH DESCRIBED IN THE EROSION CONTROL PLANS IN AREAS TO BE GRADED AND STOCKPILE.
  - COMPACT ALL FILL AREAS TO 95% OF MAXIMUM DENSITY.
  - ALL BANK AND SWALES SIDE SLOPES SHALL BE GRADED WITH NO GREATER THAN 3:1 SLOPES.
  - ALL DISTURBED AREAS SHALL BE SMOOTHLY GRADED TO PROMOTE POSITIVE DRAINAGE AND STABILIZED WITH TOPSOIL, SEED, AND MULCH. IF SETTLEMENT OCCURS, TOPSOIL, SEEDING, AND MULCH SHALL BE REPEATED UNTIL SETTLEMENT SUBSIDES. (SEE EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS.)
  - ALL AREAS ARE TO BE GRADED SO THAT NO AREAS OF STANDING WATER OCCUR.
  - PROPOSED SPOT ELEVATIONS ARE SHOWN AT FINISHED GRADE.
  - OPERATOR SHALL FIELD VERIFY EXISTING TOPOGRAPHY IN RELATION TO THE PROPOSED GRADES TO ENSURE DRAINAGE IN THE DIRECTIONS INDICATED ON THE PLAN.
  - ALL SELECT AND BORROW MATERIAL SHALL MEET CRITERIA SET FORTH BY SECTIONS 1016 AND 1018 OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS FOR ROADS AND STRUCTURES.
  - THE ENGINEER AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION OF THE PIPES PRIOR TO CONSTRUCTION. IF DAMAGE OCCURS TO THESE PIPES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE PIPE(S).
  - EXISTING PAVING, CONCRETE, AND OTHER UNSUITABLE MATERIALS INCLUDING UNDERCUT EXCAVATION SHALL NOT BE USED AS FILL MATERIAL AND SHALL BE DISPOSED OF OUTSIDE THE PROJECT LIMITS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING AND FEES FOR DISPOSAL.
  - ALL PIPE BEDDING SHALL BE CLASS "C" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - ALL TREES, STUMPS, ROOT MAT, ETC. SHALL BE ENTIRELY REMOVED REGARDLESS OF DEPTH. BURIAL OF ORGANIC MATERIAL WITHIN THE PROJECT LIMITS IS NOT PERMITTED. OPEN BURNING OF DOWNED TREES AND STUMPS IS PERMITTED AT A LOCATION APPROVED BY OWNER. CHIPPED MATERIALS MUST BE REMOVED PRIOR TO THE PLACEMENT OF EMBANKMENT OR TOPSOIL.
  - ALL STORM DRAINAGE PIPES SHALL BE RCP CLASS III UNLESS OTHERWISE NOTED ON THE PLANS.
  - THE CONTRACTOR IS SOLELY RESPONSIBLE TO OBTAIN OFF-SITE SPOIL AREAS FOR DISPOSAL OF EXCESS AND/OR UNSUITABLE MATERIALS AS NECESSARY. OFF-SITE SPOIL AREAS MUST BE SUBMITTED TO THE ENGINEER AND APPLICABLE REGULATORY AGENCIES PRIOR TO UTILIZATION BY THE CONTRACTOR. NO AREAS DESIGNATED AS WETLANDS WILL BE PERMITTED FOR USE AS A DISPOSAL SITE. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER THAT NO WETLANDS WILL BE IMPACTED. THE ENGINEER WILL NOT CONSIDER ANY DELAYS OR MONETARY CLAIMS OF ANY NATURE RESULTING FROM THE CONTRACTOR'S FAILURE OR DIFFICULTY IN FINDING NECESSARY DISPOSAL SITES TO MEET THE TIME FRAMES AND CAPACITIES REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PLANS, PERMITS, EROSION AND SEDIMENT CONTROL MEASURES, ETC. REQUIRED BY THE APPROPRIATE REGULATORY AGENCIES FOR UTILIZING OFF-SITE SPOIL AREAS. THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO UTILIZING THE OFF-SITE SPOIL AREAS. ALL COSTS FOR PROCURING AND UTILIZING THE OFF-SITE SPOIL AREAS ARE TO BE INCIDENTAL TO THE BASE BID.
  - APPROVED COVERS TO PREVENT MATERIAL FROM LEAVING THE TRUCKS MUST BE INSTALLED OVER ALL LOADED TRUCKS HAULING BORROW, EXCAVATED MATERIAL AND/OR FINE AGGREGATES TO OR FROM THE PROJECT SITES OVER STATE MAINTAINED ROADS. ANY MATERIALS DELIVERED, TRANSPORTED, OR REMOVED IN UNCOVERED TRUCKS WILL BE INCORPORATED INTO THE PROJECT OR REMOVED FROM THE SITE WITH NO ADDITIONAL PAYMENT TO THE CONTRACTOR FOR FURNISHING, REMOVING, OR PLACING THE MATERIALS INVOLVED.
  - DEWATERING: THE CONTRACTOR SHALL AT ALL TIMES PROVIDE AND MAINTAIN AMPLE MEANS AND EQUIPMENT WITH WHICH TO REMOVE AND PROPERLY DISPOSE OF ANY AND ALL WATER ENTERING THE EXCAVATION OR OTHER PARTS OF THE WORK AND KEEP ALL EXCAVATIONS DRY UNTIL SUCH TIME AS PIPE LAYING AND GRADING IS COMPLETED. NO WATER SHALL BE ALLOWED TO RISE AROUND THE PIPE IN UNBACKFILLED TRENCHES NOR SHALL IT BE ALLOWED TO RISE OVER MASONRY UNTIL THE CONCRETE OR MORTAR HAS SET (MINIMUM 24 HOURS). ALL WATER PUMPED OR DRAINED FROM THE WORK SHALL BE DISPOSED OF IN SUCH A MANNER AS TO PREVENT SILTATION AND EROSION TO ADJACENT PROPERTY OR OTHER CONSTRUCTION.

2 SITE & GRADING PLAN

1 LEGEND AND NOTES

REV NO.	DESCRIPTIONS / REVISIONS	DATE

FOR REVIEW PURPOSES ONLY. NOT FOR CONSTRUCTION.



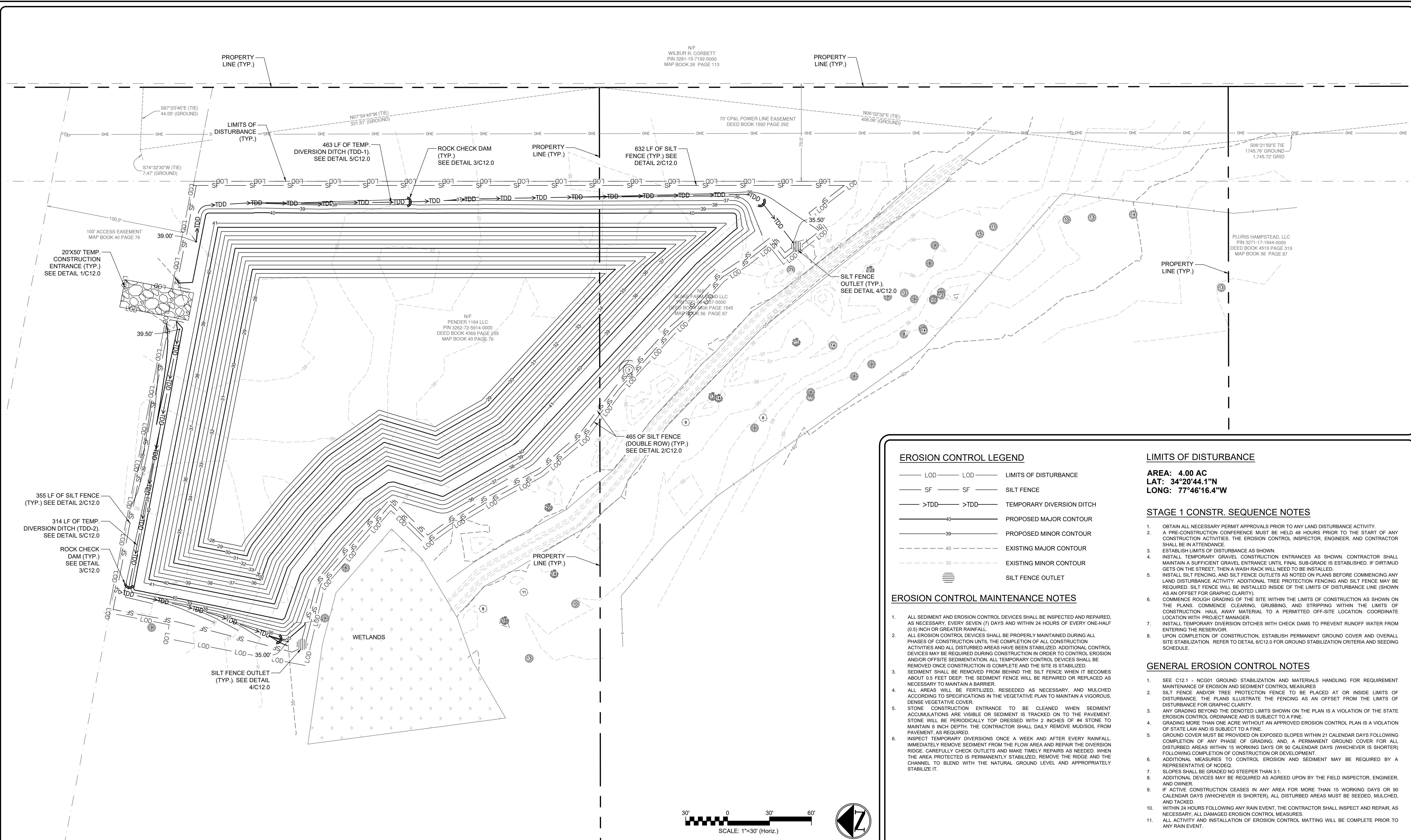
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**BLAKE FARM POND**  
 PENDER COUNTY, NORTH CAROLINA

**SITE & GRADING PLAN**

DATE: 07/07/2023	SCALE: 1" = 30'	C3.0
MCE PROJ. #: 09533-0001	HORIZONTAL: 1" = 30'	
DRAWN: DCO/ALM	VERTICAL: N/A	DRAWING NUMBER
DESIGNED: THL/DCO		
CHECKED: THL		
PROJ. MGR: THL		
STATUS: PERMIT DRAWINGS		



**EROSION CONTROL LEGEND**

- LOD — LOD — LIMITS OF DISTURBANCE
- SF — SF — SILT FENCE
- >TDD — >TDD — TEMPORARY DIVERSION DITCH
- 40 — 40 — PROPOSED MAJOR CONTOUR
- 39 — 39 — PROPOSED MINOR CONTOUR
- 40 — 40 — EXISTING MAJOR CONTOUR
- 39 — 39 — EXISTING MINOR CONTOUR
- [Symbol] — [Symbol] — SILT FENCE OUTLET

**EROSION CONTROL MAINTENANCE NOTES**

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF EVERY ONE-HALF (0.5) INCH OR GREATER RAINFALL.
2. 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.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 8 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS REQUIRED.
6. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.

**LIMITS OF DISTURBANCE**

**AREA: 4.00 AC**  
**LAT: 34°20'44.1"N**  
**LONG: 77°46'16.4"W**

**STAGE 1 CONSTR. SEQUENCE NOTES**

1. OBTAIN ALL NECESSARY PERMIT APPROVALS PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
2. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ENGINEER, AND CONTRACTOR SHALL BE IN ATTENDANCE.
3. ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
4. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCES AS SHOWN. CONTRACTOR SHALL MAINTAIN A SUFFICIENT GRAVEL ENTRANCE UNTIL FINAL SUB-GRADE IS ESTABLISHED. IF DIRT/MUD GETS ON THE STREET, THEN A WASH RACK WILL NEED TO BE INSTALLED.
5. INSTALL SILT FENCING, AND SILT FENCE OUTLETS AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. ADDITIONAL TREE PROTECTION FENCING AND SILT FENCE MAY BE REQUIRED. SILT FENCE WILL BE INSTALLED INSIDE OF THE LIMITS OF DISTURBANCE LINE (SHOWN AS AN OFFSET FOR GRAPHIC CLARITY).
6. COMMENCE ROUGH GRADING OF THE SITE WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS. COMMENCE CLEARING, GRUBBING, AND STRIPPING WITHIN THE LIMITS OF CONSTRUCTION. HAUL AWAY MATERIAL TO A PERMITTED OFF-SITE LOCATION. COORDINATE LOCATION WITH PROJECT MANAGER.
7. INSTALL TEMPORARY DIVERSION DITCHES WITH CHECK DAMS TO PREVENT RUNOFF WATER FROM ENTERING THE RESERVOIR.
8. UPON COMPLETION OF CONSTRUCTION, ESTABLISH PERMANENT GROUND COVER AND OVERALL SITE STABILIZATION. REFER TO DETAIL 6/C12.0 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.

**GENERAL EROSION CONTROL NOTES**

1. SEE C12.1 - NCG01 GROUND STABILIZATION AND MATERIALS HANDLING FOR REQUIREMENT MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES
2. SILT FENCE AND/OR TREE PROTECTION FENCE TO BE PLACED AT OR INSIDE LIMITS OF DISTURBANCE. THE PLANS ILLUSTRATE THE FENCING AS AN OFFSET FROM THE LIMITS OF DISTURBANCE FOR GRAPHIC CLARITY.
3. ANY GRADING BEYOND THE DEDICATED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE STATE EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
4. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF STATE LAW AND IS SUBJECT TO A FINE.
5. GROUND COVER MUST BE PROVIDED ON EXPOSED SLOPES WITHIN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING, AND, A PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NCEM.
7. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
8. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
9. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER), ALL DISTURBED AREAS MUST BE SEED, MULCHED, AND TACKED.
10. WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
11. ALL ACTIVITY AND INSTALLATION OF EROSION CONTROL MATTING WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.



**2 EROSION CONTROL PLAN - STAGE 1**

**1 LEGEND AND NOTES**

REV. NO.	DESCRIPTIONS / REVISIONS	DATE

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**MCKIM & CREED**  
 243 North Front Street  
 Wilmington, North Carolina 28401  
 Phone: (910)343-1048, Fax: (910)251-8282  
 License: F-1222  
 www.mckimcreed.com

**BLAKE FARM POND, LLC**  
 1022 ASHES DRIVE SUITE 201  
 WILMINGTON, NC 28405

**BLAKE FARM POND**  
 PENDER COUNTY, NORTH CAROLINA

**EROSION CONTROL PLAN - STAGE 1**

DATE: 07/07/2023	SCALE: 1"=30'	C4.0
MCE PROJ. #: 09533-0001	HORIZONTAL: 1"=30'	
DRAWN: DCO/ALM	VERTICAL: N/A	REVISION: ----
DESIGNED: THL/DCO		
CHECKED: THL		
PROJ. MGR: THL		
STATUS: PERMIT DRAWINGS		

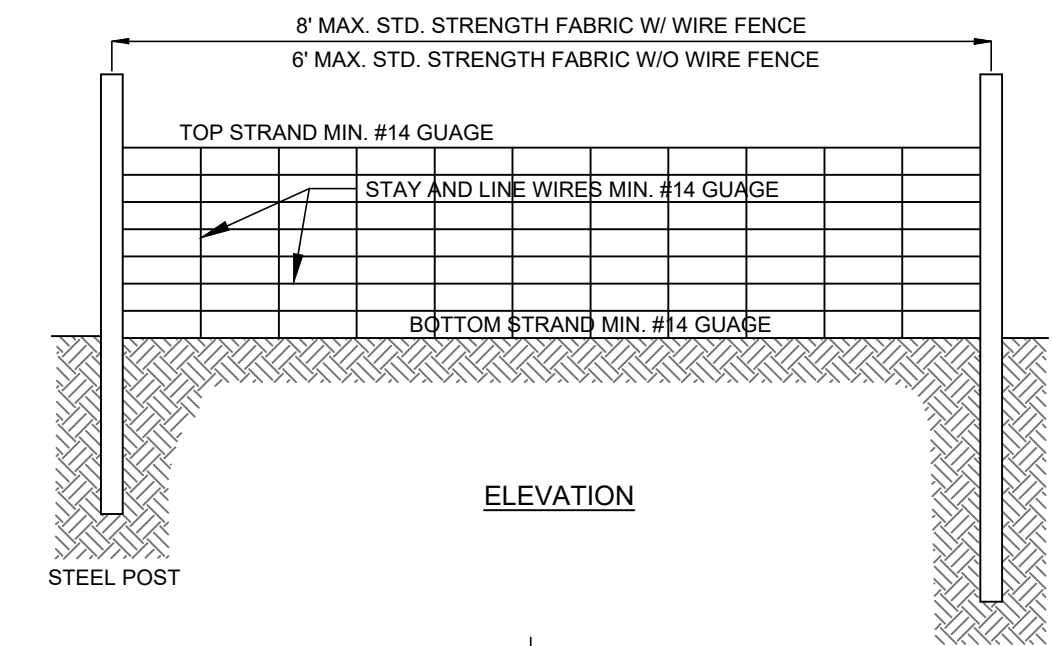
**SEEDBED PREPARATION:**

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTRANCE AREA TO 6 INCHES DEPTH.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW\*).
- CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
- APPLY:  
 AGRICULTURAL LIMESTONE - 2 TONS/ACRE  
 FERTILIZER - 1000 LBS/ACRE (10-10-10)  
 SUPERPHOSPHATE - 500 LBS/ACRE (20%)  
 MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)  
 ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE

PERMANENT SEEDING				
GRASS TYPE	AMOUNT/1000 S.F.	TIME OF SEEDING	INITIAL	
BERMUDA, COMMON	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10	
FESCUE, TALL (KENTUCKY 31)	5-7 LBS	JUNE - AUGUST FEB. - OCT.	25 LBS 10-10-10	
SERICA LESPEDEZA (SLOPES)	1-2 LBS	MARCH - APRIL	25 LBS 10-10-10	
TEMPORARY SEEDING				
GRASS TYPE	AMOUNT/1000 S.F.	TIME OF SEEDING	INITIAL	
RYE GRAIN	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10	
BROWNTOP MILLET	1-2 LBS	JUNE - AUGUST	25 LBS 10-10-10	

**TREE PROTECTION NOTES:**

- NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS.
- PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
- LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.
- ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
- NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.



**6 GENERAL NOTES**

N/A

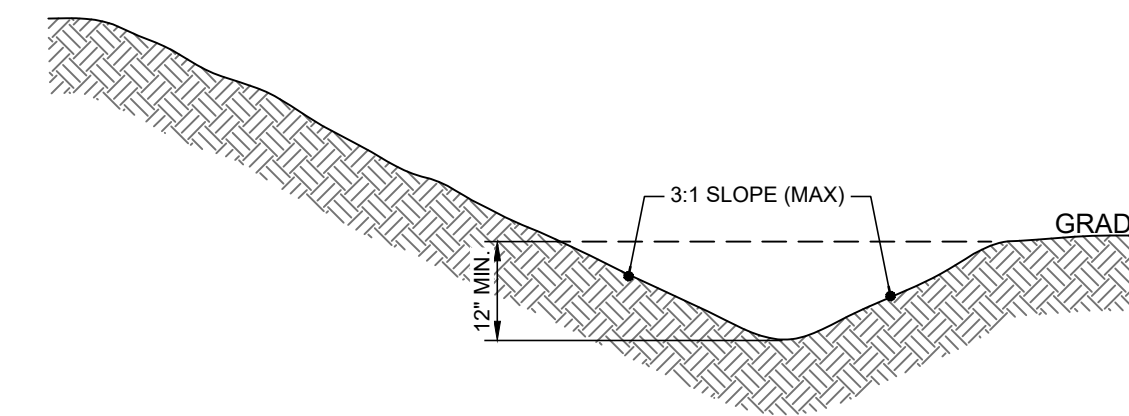
TDD NUMBER	DA (AC)	Q10 (CFS)	LENGTH (FT)	HIGH (FT)	LOW (FT)	ELEVATION DIF. (FT)	SLOPE (%)	INITIAL LINING	MANNING n	VELOCITY (FPS)	COMMENT
TDD 1	0.34	1.29	453	39.00	35.50	3.50	0.77	BARE EARTH	0.020	2.28	LINING REQ
TDD 2	0.12	0.47	313	39.50	35.00	4.50	1.44	BARE EARTH	0.020	2.24	LINING REQ

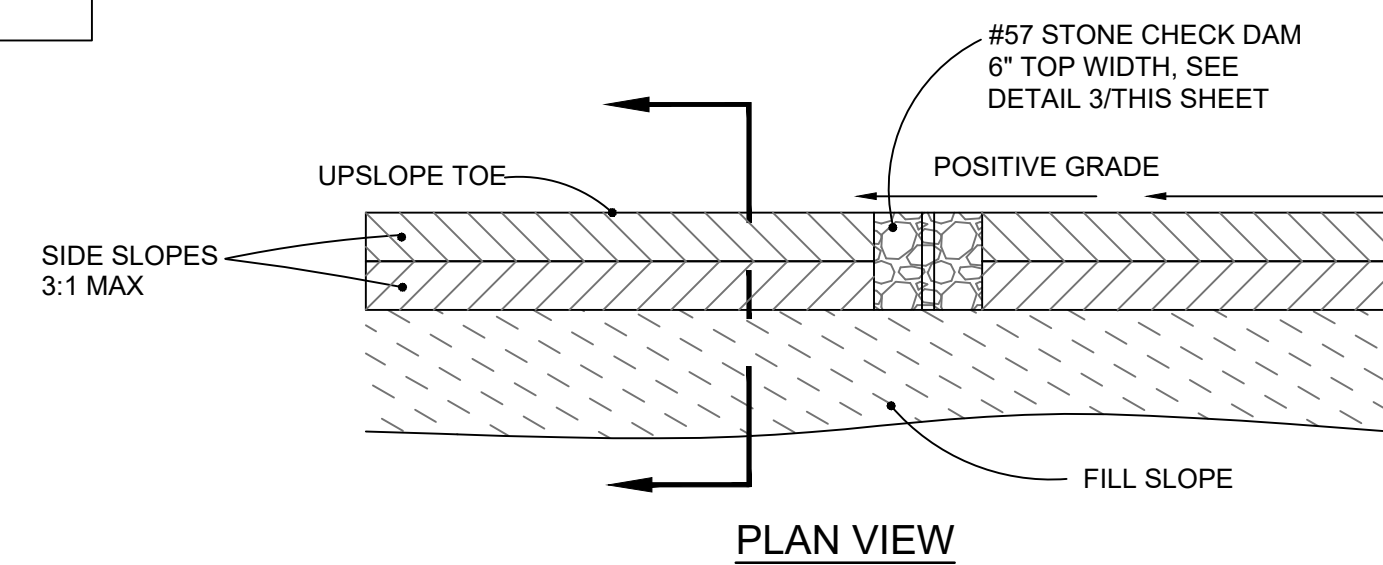
TDD NUMBER	SECONDARY LINING	MANNING n	VELOCITY (FPS)	COMMENT	WATER DEPTH (IN)	DITCH MIN. DEPTH (IN)	CHECK DAM SPACING (FT)	NUMBER REQUIRED	NUMBER PROVIDED
TDD 1	EXCELSIOR	0.035	1.50	EXCELSIOR OK	6.4	12	259	2	1
TDD 2	EXCELSIOR	0.035	1.47	EXCELSIOR OK	3.9	12	139	2	1

**NOTES:**

- TEMP. DIVERSION DITCHES SHALL DRAIN INTO SEDIMENT BASINS, AND SEDIMENT TRAPS AND NOT OFF-SITE AS SHOWN.
- LINING SHALL BE EXCELSIOR MATTING AND INSTALLED ACCORDING TO NCDENR STD. EROSION CONTROL PRACTICES.
- INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.



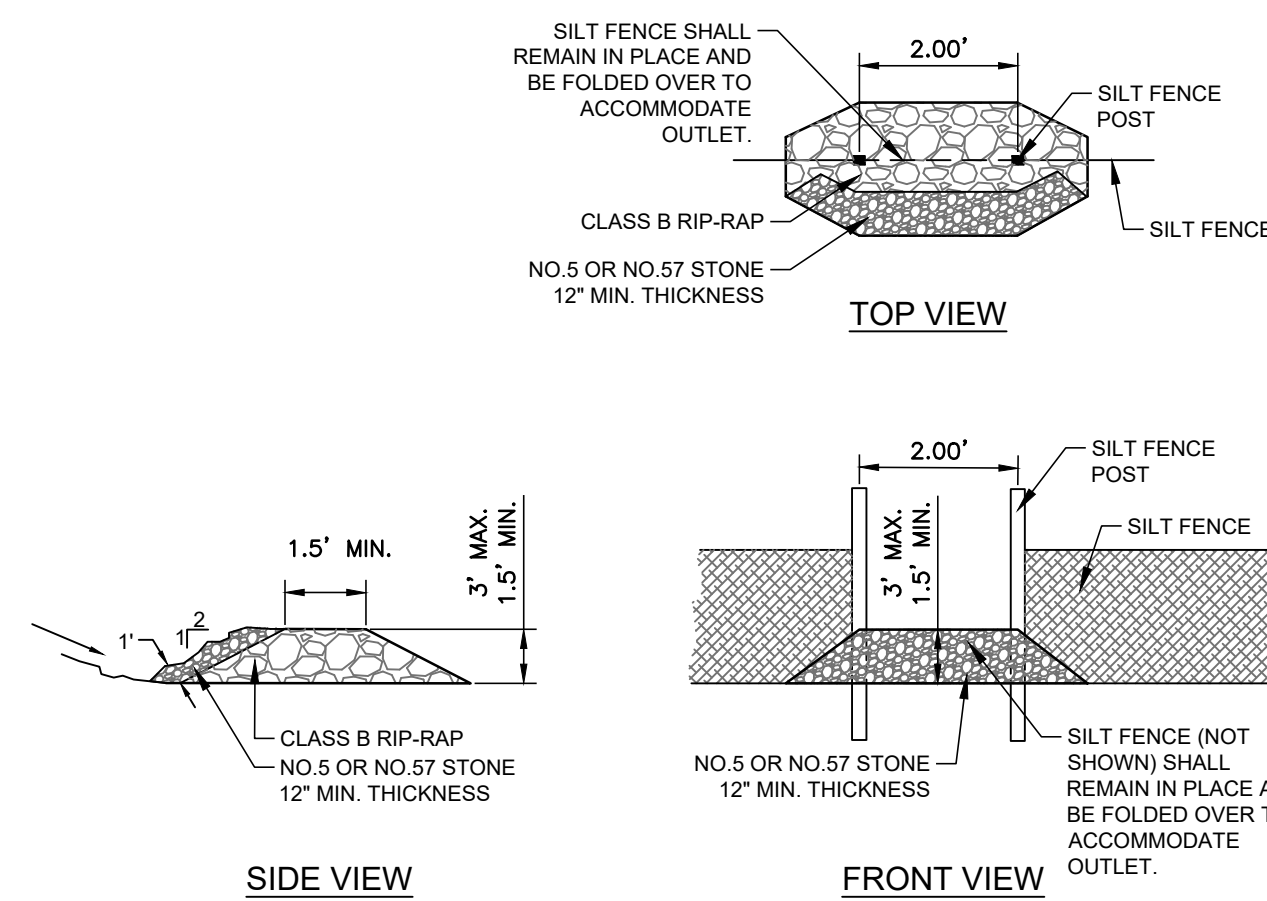
CROSS SECTION



PLAN VIEW

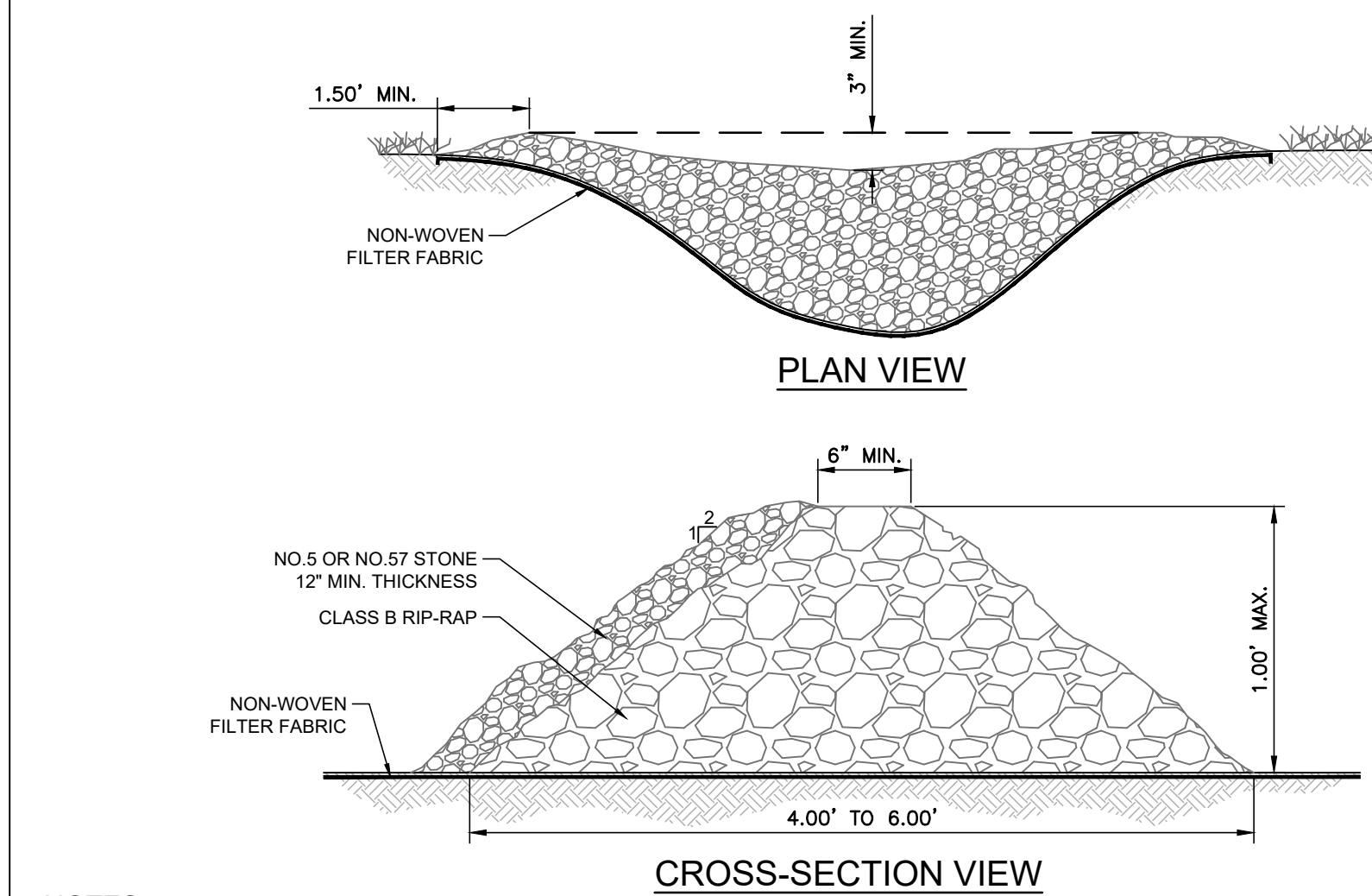
**5 TEMPORARY DIVERSION DITCHES**

NTS



**4 SILT FENCE OUTLET**

NTS



CROSS-SECTION VIEW

**NOTES:**

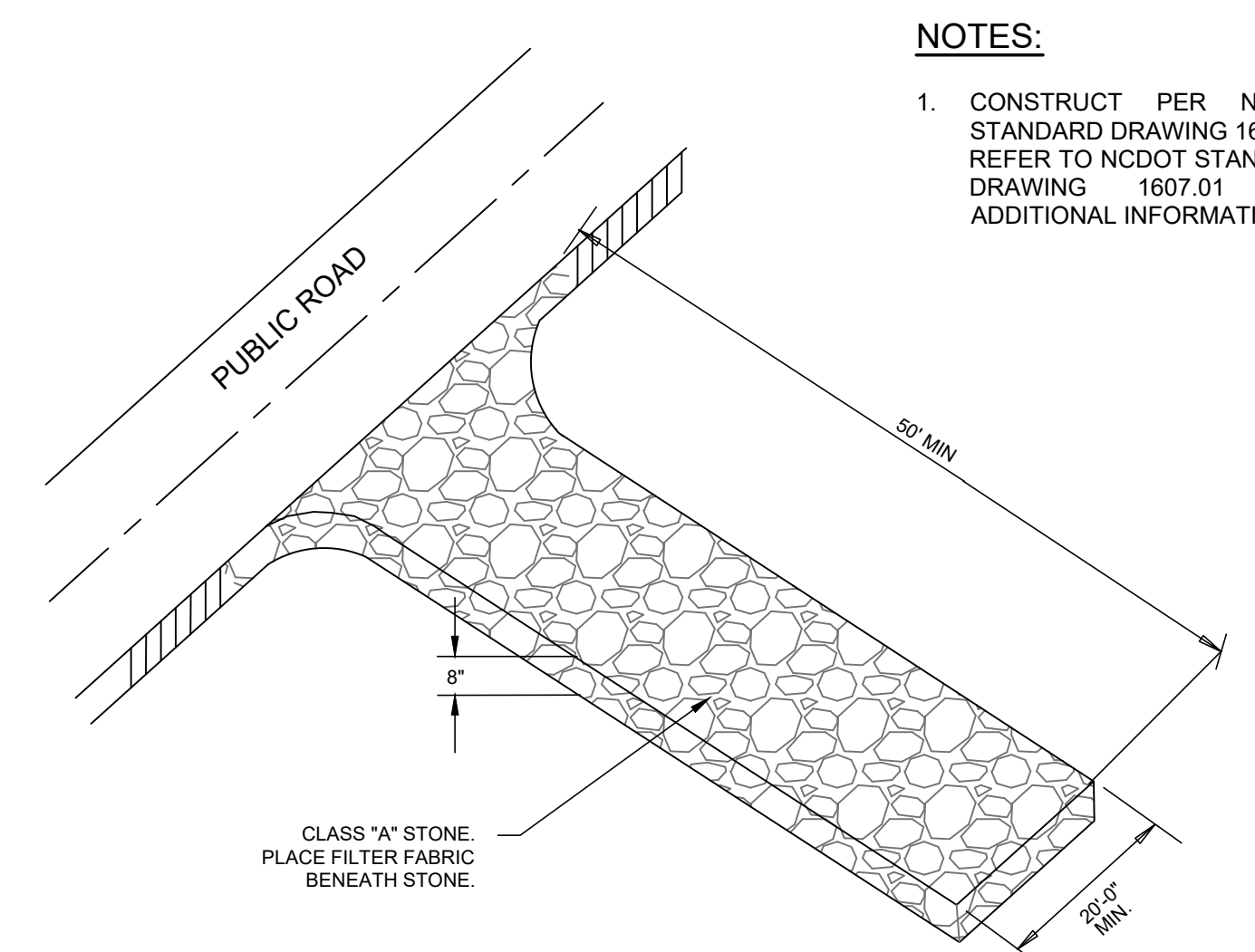
- PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
- KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
- EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
- SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAME AS THE TOE ELEVATION OF THE UPPER DAM.
- PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
- MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM DAM IS STABLE.
- ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

**3 CHECK DAM**

NTS

**2 TEMPORARY SILT FENCING**

NTS



**NOTES:**

- CONSTRUCT PER NCDOT STANDARD DRAWING 1607.01. REFER TO NCDOT STANDARD DRAWING 1607.01 FOR ADDITIONAL INFORMATION.

**1 CONSTRUCTION ENTRANCE**

NTS

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2023.07.07

**MCKIM & CREED**  
 243 North Front Street  
 Wilmington, North Carolina 28401  
 Phone: (910)343-1048, Fax: (910)251-8282  
 License: F-1222  
 www.mckimcreed.com

**BLAKE FARM POND, LLC**  
 1022 ASHES DRIVE SUITE 201  
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**BLAKE FARM POND**  
 PENDER COUNTY, NORTH CAROLINA  
**EROSION CONTROL DETAILS**

DATE: 07/07/2023	SCALE: C12.0
MCE PROJ. #: 09533-0001	HORIZONTAL: AS SHOWN
DRAWN: DCO/ALM	VERTICAL: N/A
DESIGNED: THL/DCO	DRAWING NUMBER: ----
CHECKED: THL	REVISION: ----
PROJ. MGR: THL	
STATUS: PERMIT DRAWINGS	

