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

Blake Farm Parcel R Application Information
Preliminary Plat

Case Number: SUBMAJ 2023-101

Application Type: Preliminary Plat

Applicant: McKim & Creed

Owners: D.R. Horton, Inc.

Location: West of US HWY 17 in Scotts Hill within the Blake Farm development.

Property ID #(s): 3262-72-5914-0000

Description: Residential development including 158 single family homes

Current Zoning: PD, Planned Development

Technical Review Committee Meeting
Thursday, November 2, 2023

Board of County Commissioners/Planning Board Meeting
N/A

Application Materials
Application
Site Plan

Pender County
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Planned Development & Residential Mixed Zoning Districts
Preliminary Plat 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 6/29/2023
2. ✓ **Signed Application**
3. ✓ **Payment**
   $500 plus $10 per lot for the first 100 lots/units, $5 per lot thereafter $1,790.00
4. ✓ **Paper Plan Sets**
   Two (2) 24 x 36, ~~Fifteen (15) 11 x 17~~ Two (2) 11x 17 Per DLA 8/2/23
5. ✓ **Digital Submission**
   For all documents submitted in paper copy, please 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 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. ✓ **Permits**
   Please include any permits issued on the project including but not limited to: environmental, traffic analysis, utility, or site specific conditions.
9. ✓ **Site Plan Requirements**
   A prepared site plan in accordance with the Unified Development Ordinance standards Section 6.4, 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 Preliminary Plat Checklist)

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

Signature of Applicant _____ Date 10-6-23

Printed Name Hastings Sartin, McKim & Creed, Inc.

Staff Initials: _____
Date: _____

APPLICATION FOR SUBDIVISION

THIS SECTION FOR OFFICE USE			
Application No.	SUB	**Date**	
Application Fee	$	**Invoice Number:**	
Master Plan Hearing Date		**Preliminary Plat Hearing Date**	

SECTION 1: APPLICANT INFORMATION

Applicant's Name:	Hastings Sartin, McKim & Creed, Inc.	**Owner's Name:**	D.R. Horton, Inc.
Applicant's Address:	243 North Front St	**Owner's Address:**	131 Racine Dr., Suite 201
City, State, & Zip	Wilmington, NC 28401	**City, State, & Zip**	Wilmington, NC 28403
Phone Number:	910-343-1048	**Phone Number:**	910-515-9561
Email Address:	hsartin@mckimcreed.com	**Email Address:**	elshelton@drhorton.com

Legal relationship of applicant to landowner:

SECTION 2: PROJECT INFORMATION

Preliminary Plat	☑ **Residential** *RP, PD, RM, MH District*	☐ **Mixed Use** *PD*	
Subdivision Type	☑ Major (11 lots or more)	☐ Minor (10 lots or less)	

Property Identification Number (PIN):	3262-72-5914-0000		
Zoning Classification:	PD	**Total property acreage:**	83.65
Number of Lots:	158	**Acreage to be disturbed:**	65.00
Water Provider:	Pender County Utilities	**Wastewater Provider:**	Pluris Hampstead

Additional Information:

2nd Owner: Pender 1164 LLC, 511 North Tejon Street, Suite 200, Colorado Springs, CO 80903

Contact Name: Michael C. Cook, P.C. Member, Ph: 719-632-1222, email: mike@mcooklaw.com

2nd Owner Signature:

SECTION 3: SIGNATURES

Applicant's Signature		**Date:**	10-3-23
Applicant's Printed Name:	Hastings Sartin, McKim & Creed, Inc.	**Date:**	10/3/23
Owner's Signature		**Date:**	10/3/23
Owner's Printed Name:	Ian Flannery, D.R. Horton, Inc.	**Date:**	

NOTICE TO APPLICANT

1. Applicant or agent authorized in writing must attend the public hearing.
2. Once the public hearing has been advertised, the case will be heard unless the applicant withdraws the application or unless the Planning Board or other authorized person agrees to table or delay the hearing.
3. All fees are non-refundable
4. A complete application packet must be submitted prior to the deadline in order to be placed on the next Planning Board Agenda

Office Use Only

☐	**Subdivision Fees:** *$500 + $10/lot-unit for the first 100 lots/units; $5/lot-unit thereafter (Major Subdivision)* *$150 + $10 per lot (Minor Subdivision)*	**Total Fee Calculation: $** $500 + ($10 x 100 lots)+ ($5 x 58 lots) = $ 1,790.00

Attachments Included with Application: (Please include # of copies)

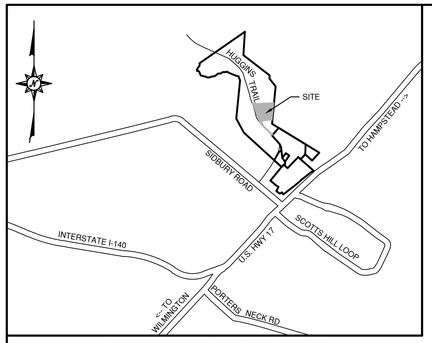
CD /other digital version	☐ Y ☐ N	Plan Sets	# of large	# of 11X17	Other documents/Reports	☐ Y ☐ N
Payment Method:	**Cash :** ☐ $_____		**Credit Card:** ☐ Master Card ☐ Visa		**Check:** ☑ Check # _____	
Application received by:					Date:	
Application completeness approved by:					Date:	
Date scheduled for public hearing:						

BLAKE FARM PARCEL R

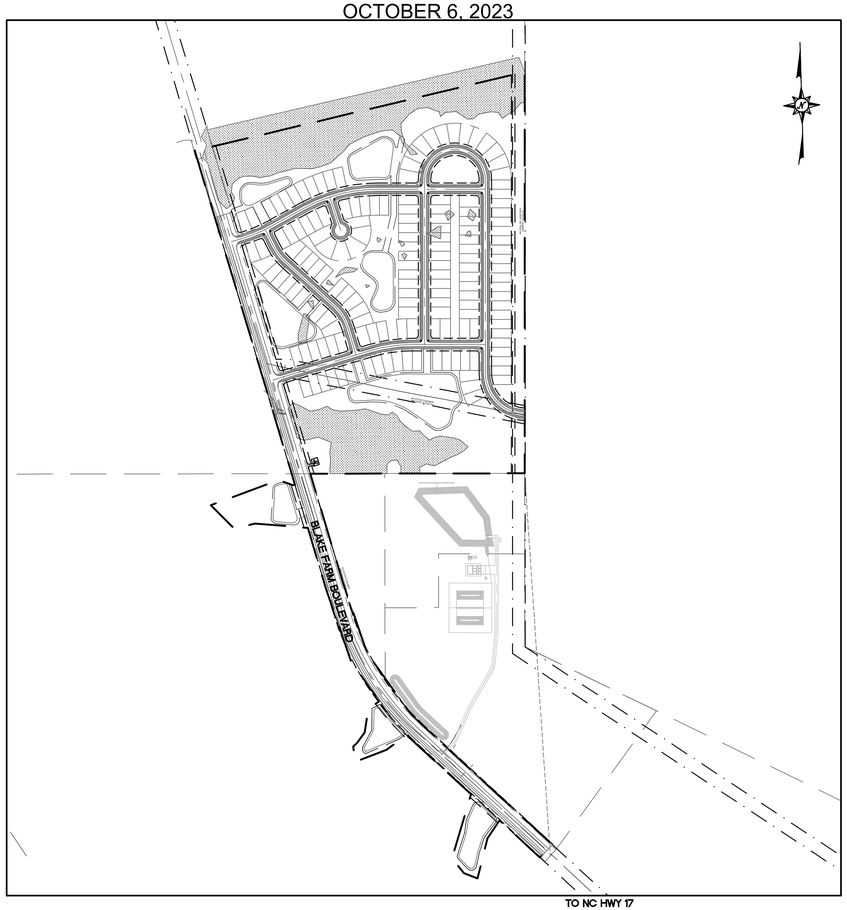
PENDER COUNTY, NC

TRC SUBMITTAL

OCTOBER 6, 2023



VICINITY MAP - NOT TO SCALE



VICINITY MAP
SCALE: 1" = 400'

COUNTY AND AGENCY CONTACTS

A. Pender County
Planning Department
805 S Walker Street
Burgaw, NC 28425
(910)341-3255
Contact: Daniel Adams
Email: dadams@pendercountync.gov

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

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

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

E. Pluris Hampstead, LLC
Sanitary Sewer
1095 NC-210
Sneads Ferry, NC 28460
(910) 328-6277
Contact: Nick Evans
Email: nevans@plurisusa.com

F. NCDOT Division 3 - District 1
299 Wilmington Hwy
Jacksonville, NC 28540
(910) 467-0508
Contact: Doug Racine
dracine@ncdot.gov

G. NCDENR
Division of Water Quality
127 Cardinal Drive Ext.
Wilmington, NC 28405
(910) 796-7387
Contact: Tyler Benson
Email: Tyler.Benson@ncdenr.gov

H. FIRE MARSHALL - PENDER COUNTY
Amy Burton
(910) 259-1441
aburton@pendercountync.gov

PROJECT DATA

NAME OF PROJECT:
BLAKE FARM PARCEL R
PENDER COUNTY, NORTH CAROLINA

OWNER / DEVELOPER:
D.R. HORTON
6752 PARKER FARM DRIVE, SUITE 210
WILMINGTON, NC 28405
PHONE: (910) 515 9561
CONTACT: ELIZABETH (LIBBY) SHELTON

PREPARED BY:
MCKIM & CREED, INC
243 NORTH FRONT ST
WILMINGTON, NC 28401
PHONE: (910)343-1048
FAX: (910)251-8282
CONTACT: G. HASTINGS SARTIN II, PE
EMAIL: GSARTIN@MCKIMCREED.COM

BLAKE FARM DENSITY RECONCILIATION 10.04.2023
FOR DRH DEVELOPMENT

Parcel	Per Approved Master Plan		Approved/Under Construction/Existing		Units Remaining
	Land Use	Dwelling Units	Land Use	Dwelling Units	
H*	Residential	45	Residential	49	-4
I*	Residential	39	Residential	33	6
J*	Amenity	0	Amenity	0	0
K	Residential	141	Residential	136	5
L	Residential	130	Residential	119	11
M	Residential	498	Undeveloped	0	498
O	Residential	53	Undeveloped	0	53
P	Residential	379	Undeveloped	0	379
Q	Residential	256	Undeveloped	0	256
R	Residential	138	Undeveloped	158	-20
S	Residential	237	Undeveloped	0	237
T	Residential	110	Undeveloped	0	110
U	Residential	205	Undeveloped	0	205
V	Residential	128	Undeveloped	0	128
W	Residential	89	Undeveloped	0	89
X	Residential	194	Undeveloped	0	194
Y	Residential	65	Undeveloped	0	65
		2707		495	2212

* In TRC Review

BLAKE FARM OPEN SPACE RECONCILIATION 10.04.2023
FOR DRH DEVELOPMENT

Parcel	Per Approved Master Plan		Required Open Space Acres (.03 AC / UNIT)	Approved/Under Construction/Existing		Provided Open Space Acres
	Land Use	Dwelling Units		Land Use	Dwelling Units	
H*	Residential	45	1.35	Residential	49	1.9
I*	Residential	39	1.17	Residential	33	1.39
J*	Amenity	0	0	Amenity	0	
K	Residential	141	4.23	Residential	136	24.34
L	Residential	130	3.9	Residential	119	0
M	Residential	498	14.94	Undeveloped	0	
O	Residential	53	1.59	Undeveloped	0	
P	Residential	379	11.37	Undeveloped	0	
Q	Residential	256	7.68	Undeveloped	0	
R	Residential	138	4.14	Residential	158	13.14
S	Residential	237	7.11	Undeveloped	0	
T	Residential	110	3.3	Undeveloped	0	
U	Residential	205	6.15	Undeveloped	0	
V	Residential	128	3.84	Undeveloped	0	
W	Residential	89	2.67	Undeveloped	0	
X	Residential	194	5.82	Undeveloped	0	
Y	Residential	65	1.95	Undeveloped	0	
	Total	2707	81.21		495	40.77

* In TRC Review

D·R·HORTON® DHI Listed NYSE
America's Builder
131 Racine Drive, Suite 201
Wilmington, North Carolina 28403
Phone: (843) 709-0752

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

Sheet List Table	
Sheet Number	Sheet Title
C1.0	COVER
C1.1	GENERAL NOTES
C2.1	SURVEY
C2.2	SURVEY
C2.3	SURVEY
C2.4	TREE REMOVAL PLAN
C2.5	TREE REMOVAL PLAN
C3.0	SITE PLAN - OVERALL
C3.1	SITE PLAN - ENLARGED
C3.2	SITE PLAN - ENLARGED
C3.3	SITE PLAN - ENLARGED
C3.4	SITE PLAN - ENLARGED
C3.5	SITE PLAN - ENLARGED
C3.6	SITE PLAN - ENLARGED
C4.0	EROSION CONTROL STAGE 1 PLAN - OVERALL
C4.1	EROSION CONTROL STAGE 1 PLAN - ENLARGED
C4.2	EROSION CONTROL STAGE 1 PLAN - ENLARGED
C4.3	EROSION CONTROL STAGE 1 PLAN - ENLARGED
C4.4	EROSION CONTROL STAGE 1 PLAN - ENLARGED
C4.5	EROSION CONTROL STAGE 1 PLAN - ENLARGED
C4.6	EROSION CONTROL STAGE 1 PLAN - ENLARGED
C5.1	EROSION CONTROL STAGE 2 PLAN ENLARGMENT
C5.2	EROSION CONTROL STAGE 2 PLAN ENLARGEMENT
C5.3	EROSION CONTROL STAGE 2 PLAN ENLARGEMENT
C5.4	EROSION CONTROL STAGE 2 PLAN ENLARGEMENT
C5.5	EROSION CONTROL STAGE 2 PLAN ENLARGMENT
C5.6	EROSION CONTROL STAGE 2 PLAN ENLARGMENT
C7.0	GRADING & DRAINAGE PLAN - OVERALL
C7.1	GRADING & DRAINAGE PLAN - ENLARGED
C7.2	GRADING & DRAINAGE PLAN - ENLARGED
C7.3	GRADING & DRAINAGE PLAN - ENLARGED
C7.4	GRADING & DRAINAGE PLAN - ENLARGED
C7.5	GRADING & DRAINAGE PLAN - ENLARGED
C7.6	GRADING & DRAINAGE PLAN - ENLARGED
C8.0	UTILITY PLAN - OVERALL
C8.1	UTILITY PLAN - ENLARGED
C8.2	UTILITY PLAN - ENLARGED
C8.3	UTILITY PLAN - ENLARGED
C8.4	UTILITY PLAN - ENLARGED
C8.5	UTILITY PLAN - ENLARGED
C8.6	UTILITY PLAN - ENLARGED
C9.0	BLAKE FARM BOULEVARD PLAN AND PROFILE (STA. 73+00 TO 83+25)
C9.1	BLAKE FARM BOULDVARD PLAN AND PROFILE (STA. 83+25 TO 93+50)
C9.2	BLAKE FARM BOULEVARD PLAN AND PROFILE (STA. 93+50 TO 103+75)
C9.3	BLAKE FARM BOULDVARD PLAN AND PROFILE (STA. 103+75 TO 114+00)
C9.4	ROAD A PLAN AND PROFILE (STA. 10+00 TO 16+00)
C9.5	ROAD A PLAN AND PROFILE (STA. 16+00 TO 22+15)
C9.6	ROAD B PLAN AND PROFILE (STA. 10+00 TO 17+00)
C9.7	ROAD B PLAN AND PROFILE (STA. 17+00 TO 24+80)
C9.8	ROAD C PLAN AND PROFILE (STA. 10+00 TO 18+88)
C9.9	ROAD D PLAN AND PROFILE (STA. 10+00 TO 11+98)
C9.10	ROAD E PLAN AND PROFILE (STA. 10+00 TO 18+68)
C9.11	ROAD F PLAN AND PROFILE (STA. 10+00 TO 16+43)
C9.12	ROAD G PLAN AND PROFILE (STA. 10+00 TO 17+00)
C9.13	ROAD G PLAN AND PROFILE (STA. 17+00 TO 23+45)
C9.14	TYPICAL STREET SECTIONS
C10.0	LANDSCAPE PLAN - OVERALL
C10.1	LANDSCAPE PLAN - ENLARGEMENT
C10.2	LANDSCAPE PLAN - ENLARGEMENTS
C11.0	SITE DETAILS
C12.0	EROSION CONTROL DETAILS
C12.1	EROSION CONTROL DETAILS
C12.2	EROSION CONTROL DETAILS
C13.0	GRADING AND DRAINAGE DETAILS
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C14.0	UTILITY DETAILS
C14.1	UTILITY DETAILS
C15.0	NCDOT AND ROADWAY DETAILS
C15.1	NCDOT AND ROADWAY DETAILS
C17.0	LANDSCAPE DETAILS

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:_____

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

BLAKE FARM PARCEL R

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

OCTOBER 6, 2023

CONSTRUCTION NOTES

1. CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE NCDOT/PENDER COUNTY UTILITIES/PLURIS HAMPSTEAD, LLC STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR IS FULLY RESPONSIBLE FOR ACQUIRING THE LOCATION OF EXISTING UTILITIES FROM THE APPROPRIATE PARTIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES, USING FLAGMEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
4. 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.
5. SHOULD ANY DAMAGE OCCUR TO EXISTING UTILITIES, IT SHALL BE REPAIRED SOLELY AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL VERIFY EXISTING INVERTS PRIOR TO CONSTRUCTION OF UNDERGROUND UTILITIES. TEST PITTING OF EXISTING LINES PRIOR TO CONSTRUCTION, IF NECESSARY, SHALL BE COORDINATED WITH THE OWNER.
7. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, PROJECT SPECIFICATIONS, AND LOCAL BUILDING CODES.
8. 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.)
9. WATER MAINS WILL BE INSTALLED AT A DEPTH THAT WILL PROVIDE 36" COVER OVER THE PIPES BELOW PROPOSED GRADE UNLESS SHOWN OTHERWISE ON THESE PLANS OR DIRECTED OTHERWISE BY THE ENGINEER.
10. WHEREVER SEWER OR WATER MAINS CROSS ONE ANOTHER, A MINIMUM VERTICAL CLEARANCE OF 18" SHALL BE PROVIDED BETWEEN THE BOTTOM OF THE WATER PIPE AND THE TOP OF THE SEWER PIPE.
11. WHEREVER SEWER OR WATER MAINS RUN PARALLEL TO EACH OTHER, A MINIMUM HORIZONTAL SEPARATION OF 10' SHALL BE PROVIDED, OR 18" VERTICAL SEPARATION.
12. IF NEITHER OF THESE CONDITIONS (#10 OR #11 ABOVE) CAN BE MET, THEN THE SEWER SHALL BE CLASS 50 DIP, MINIMUM OF 20 LF CENTERED OVER THE CROSSING.
13. ALL WATER VALVES, BOXES, AND FIRE HYDRANT ASSEMBLES SHALL BE SET AND ADJUSTED TO FINISHED GRADE. SEE PENDER COUNTY UTILITY DETAIL SHEET C14.0 & C14.1
14. THE OWNER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, BOTH TEMPORARY AND PERMANENT.
15. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL SURVEY CONTROL PRIOR TO STAKING OUT CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
16. ANY PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED SOLELY AT THE CONTRACTOR'S EXPENSE.
17. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS.
18. 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. SEE SECTION FOR PLACEMENT AND COMPACTION INFORMATION.
19. 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).
20. EXISTING PAVING, CONCRETE, AND OTHER UNSUITABLE MATERIALS INCLUDING UNDERCUT EXCAVATION SHALL NOT BE USED AS FILL MATERIAL (UNLESS APPROVED BY THE GEOTECHNICAL ENGINEER) 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.
21. 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 NOT PERMITTED. CHIPPED MATERIALS MUST BE REMOVED PRIOR TO THE PLACEMENT OF EMBANKMENT OR TOPSOIL.
22. 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.

DEMOLITION NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH FIELD DEMOLITION CONDITIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED DEBRIS ASSOCIATED WITH THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. PIT BURNING IS PERMISSIBLE IF APPROVED THROUGH THE PENDER COUNTY FIRE MARSHAL.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST GENERATED BY THE WORK, INCLUDING BUT NOT LIMITED TO DEMOLITION AND CONSTRUCTION ACTIVITIES, SITE VEHICULAR TRAFFIC AND RELATED OPERATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO BEGINNING ANY DEMOLITION. CONTRACTOR SHALL CONTACT NC ONE CALL AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED.
5. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF DISCONNECTING AND ABANDONING ALL EXISTING UTILITIES WITH THE OWNER UNLESS OTHERWISE NOTED. ALL EXISTING UTILITIES AND ASSOCIATED PIPING, ETC. NOT IN USE ON THE SITE SHALL BE PROPERLY ABANDONED AND REMOVED AS REQUIRED. COORDINATE WITH THE OWNER.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING UTILITIES THAT REMAIN IN SERVICE DURING DEMOLITION.
8. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS AND SLOPES ON AND OFF SITE IN ACCORDANCE WITH THE EROSION CONTROL MEASURES SPECIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE WHO IS RESPONSIBLE FOR PROVIDING THE PERMANENT STABILIZATION MEASURES AND THE TYPE OF PERMANENT MEASURES PRIOR TO BEGINNING DEMOLITION AND CONSTRUCTION. THE PERMANENT STABILIZATION MEASURES SHALL BE IN PLACE AND ACCEPTABLE TO THE OWNER'S REPRESENTATIVE AND ENGINEER PRIOR TO PROJECT CLOSEOUT. COORDINATE INSPECTION WITH THE OWNER AND ENGINEER PRIOR TO PROJECT CLOSEOUT.
9. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CONTACTING THE ENGINEER FOR THE REQUIRED INSPECTIONS ON THE PROJECT.
10. WETLANDS DO EXIST ON SITE AND ARE NOTED ON THE PLANS. UNLESS OTHERWISE INDICATED, THE WETLANDS SHALL NOT BE DISTURBED DURING CONSTRUCTION OF THIS PROJECT.

STORM DRAINAGE AND GRADING NOTES

1. IN ACCORDANCE WITH NC GENERAL STATUTES, NPDES REGULATIONS, AND NCDENR REQUIREMENTS, STORMWATER DISCHARGE OUTFALLS SHALL BE INSPECTED BY THE CONTRACTOR. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR AFTER EACH STORM EVENT OF 1/2 INCH OR GREATER, WITH ONE WEEKLY INSPECTION MINIMUM. NCDENR STANDARD INSPECTION REPORTS SHALL BE PREPARED AND SIGNED WITH COPIES PROVIDED TO THE OWNER, ARCHITECT, AND ENGINEER, BY THE CONTRACTOR.
2. OUTLET PROTECTION SHALL BE INSTALLED AROUND STORM DRAIN OUTFALLS. DEVICES SHALL BE CONSTRUCTED TO FINAL PROPOSED CONDITION UPON STABILIZATION OF CONTRIBUTING GROUND SURFACES AND REMOVAL OF SEDIMENT FROM STORM PIPES.
3. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
4. UNLESS OTHERWISE NOTED, GRADES AND SPOT ELEVATIONS NOTED ON PLANS INDICATE FINISHED GRADE OR PAVEMENT SURFACE. ALL DIMENSIONS ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE INDICATED.
5. ALL STORM DRAINAGE PIPES 15" INSIDE DIAMETER OR LARGER SHALL BE:
   5.1. RCP CLASS III, OR
   5.2. HP STORM
6. STORM DRAIN PIPES LESS THAN 15" INSIDE DIAMETER SHALL BE HDPE, DOUBLE WALL, TYPE S WITH SOIL TIGHT JOINTS, OR APPROVED EQUAL.
7. STORM DRAINAGE PIPE AND STRUCTURE MATERIALS WITHIN NCDOT RIGHT OF WAY SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS AND SPECIFICATIONS, LATEST EDITION.
8. CONTRACTOR SHALL SUBMIT STORM DRAIN AND STRUCTURE MATERIALS SHOP DRAWING DOCUMENTS TO ENGINEER FOR REVIEW AND APPROVAL.

MATERIALS AND EASEMENT NOTES:

- ALL CATCH BASINS ARE NCDOT STD 840.02/840.03
- ALL DROP INLETS ARE NCDOT STD 840.14/840.16
- ALL STORM DRAINAGE PIPING TO BE CLASS III RCP, UNLESS OTHERWISE NOTED
- ALL SANITARY SEWER LINES AND WATERLINES SHALL BE C-900 PVC, UNLESS OTHERWISE NOTED AND MEET PLURIS HAMPSTEAD, LLC SPECIFICATIONS
- A PUBLIC UTILITY EASEMENT SHALL BE RESERVED WITHIN THE STREET RIGHT-OF-WAY. A 10' NON-MUNICIPAL EASEMENT SHALL BE RESERVED ALONG BOTH SIDES OF ALL STREETS
- WATER UTILITY IS PUBLIC - PENDER COUNTY PUBLIC UTILITIES
- SANITARY SEWER MAIN IS PRIVATE - PLURIS HAMPSTEAD, LLC

UTILITY NOTES

1. SCHEDULE A PRECONSTRUCTION MEETING WITH PENDER COUNTY PUBLIC UTILITIES AND PLURIS HAMPSTEAD, LLC 48 HOURS PRIOR TO CONSTRUCTION OF WATER AND SEWER LINES.
2. WATER AND SANITARY SEWER INFRASTRUCTURE ARE PRIVATE BEYOND THE PUBLIC STREET RIGHT-OF-WAY.
3. BACKFLOW PREVENTION AND METERS SHALL BE PROVIDED FOR DOMESTIC WATER SERVICE (RPZ). DOMESTIC SERVICE BACKFLOW PREVENTER WILL BE LOCATED AS SHOWN ON THE UTILITY PLANS. INSTALLER OF BACKFLOW PREVENTERS MUST CONTACT PCU PRIOR TO INSTALLING UNITS TO GIVE PCU THE OPTION TO VERIFY INSTALLATION PROCEDURES.

   3.1. REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR DOMESTIC WATER SERVICE
4. IF THE CONTRACTOR DESIRES PCU WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
5. WATER: 1.5" & 2" PVC MAINS SHALL BE CONSTRUCTED USING ASTM D2241, IPS, GASKETED PIPE, SDR 21. 4"-12" PVC MAINS AND SERVICES SHALL BE CONSTRUCTED USING ASTM D1704, ASTM D2241 FOR SDR-21, CLASS 200 PVC MEETING.
6. SANITARY SEWER: FOR PIPE SIZES 4" AND 6" PIPE SHALL BE SCH 40 CONFORMING TO THE REQUIREMENTS OF ASTM D1785 WITH SOLVENT WELD JOINTS CONFORMING TO ASTM D2672.
7. WATER AND SEWER SERVICES CANNOT BE ACTIVATED ON NEW MAINS UNTIL ENGINEER'S CERTIFICATION AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY PUBLIC WATER SUPPLY SECTION OF NCDENR AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY OF NCDENR.
8. PVC WATER MAINS AND POLYETHYLENE SERVICES ARE TO BE MARKED WITH NO. 10 SINGLE STRAND INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
9. MAXIMUM BENDING RADIUS FOR 8" C-900 PVC WATER MAIN BENDS IS 380' (ONE-HALF MANUFACTURER'S RECOMMENDED ALLOWABLE LONGITUDINAL BENDING).
10. UNDERGROUND UTILITIES: ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND TERMINAL FACILITIES FOR STREET LIGHTING ALONG THE PUBLIC STREETS ABUTTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.
11. MINIMUM OF 36" COVERAGE ABOVE ALL WATERMAINS AND WATER SERVICES.
12. MINIMUM OF 36" VERTICAL SEPARATION BETWEEN WATERLINES AND STORMDRAIN CURB INLETS
13. A VARIANCE IS NOT ANTICIPATED FROM ANY NORTH CAROLINA DIVISION OF WATER QUALITY (DWQ) REQUIREMENT.
14. PLANS ARE IN COMPLIANCE WITH PENDER COUNTY PUBLIC UTILITIES TECHNICAL STANDARDS AND SPECIFICATIONS.

RELATION OF WATER MAINS TO SANITARY SEWERS:

1. LATERAL SEPARATION OF SANITARY SEWERS AND WATER MAINS: WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION, IN WHICH CASE:
   1.1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
   1.2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND ABOVE THE TOP OF THE SEWER.
2. CROSSING A WATER MAIN OVER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 24 INCHES ABOVE THE TOP OF THE SEWER MAIN. UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER THE SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. THE WATER MAIN SHALL BE C-900 PVC ENCASED WITHIN A STEEL SLEEVE. REFERENCE PCU STANDARD SPECS AND DETAILS.
4. CROSSING A SEWER MAIN/WATER MAIN OVER OR UNDER A STORM DRAIN: WHENEVER IT IS NECESSARY FOR A SEWER MAIN/WATER MAIN TO CROSS A STORM DRAIN PIPE, THE SEWER MAIN/WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE OUTSIDE OF THE SEWER MAIN/WATER MAIN NEAREST TO THE OUTSIDE OF THE STORM DRAIN PIPE SHALL MAINTAIN A 24 INCH CLEAR SEPARATION DISTANCE HORIZONTAL, OR THE SEWER MAIN SHALL EITHER BE CONSTRUCTED OF DUCTILE IRON PIPE OR ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING. SEE NOTE 3 DIRECTLY ABOVE FOR WATER MAIN MATERIALS.

EXCAVATION, GRADING, AND BACKFILLING NOTES

1. ANY UNDERCUTTING IN GOOD SOIL SHALL BE REPLACED AND THE REPLACEMENT MATERIAL SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM DENSITY OBTAINED AT OPTIMUM MOISTURE CONTENT, AS DETERMINED BY THE ASTM D 698 STANDARD PROCTOR TEST METHOD. IN THE EVENT THAT MATERIAL ENCOUNTERED AT PIPE GRADE, SUBGRADE OF PARKING OR ROADWAYS AND SUBGRADE OF BUILDING FOUNDATIONS IS FOUND TO BE SOFT, SPONGY, OR IN ANY OTHER WAY UNSUITABLE, THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER IMMEDIATELY. SUCH UNSUITABLE MATERIAL SHALL BE REMOVED TO A DEPTH AS SPECIFIED BY THE GEOTECHNICAL ENGINEER AND REPLACED WITH A MINIMUM OF SIX (6) INCHES OF STONE, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
2. BEFORE BACKFILLING IS COMMENCED OVER PIPES AND OTHER INSTALLATIONS, EARTH FILL SHALL BE TAMPED SOLID AROUND AND ABOVE THE PIPE TO A DEPTH OF ONE (1) FOOT ABOVE THE TOP OF THE PIPE. CARE SHALL BE TAKEN TO PREVENT ANY DISTURBANCE TO THE PIPE OR DAMAGE TO NEWLY MADE JOINTS. THE FILLING OF THE TRENCH SHALL BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES OF THE PIPES IN SUCH A MANNER THAT INJURIOUS SIDE PRESSURES DO NOT OCCUR.
3. THE MATERIAL FOR BACKFILLING SHALL BE FREE FROM ALL PERISHABLE AND OBJECTIONABLE MATERIALS. BEFORE PLACING ANY BACKFILL, ALL RUBBISH, FORM, BLOCKS, WIRES OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM EXCAVATION. THE BACK-FILLING OVER PIPES SHALL BE PLACED IN LAYERS NOT OVER SIX (6) INCHES THICK AND COMPACTED TO A MINIMUM DENSITY OF NINETY-FIVE (95) PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR COMPACTION TEST TO A DEPTH OF 12 INCHES BELOW FINISHED GRADE. THE LAST 12 INCHES OF BACKFILL SHALL BE PLACED IN LAYERS NOT OVER SIX (6) INCHES THICK AND COMPACTED TO A MINIMUM DENSITY OF NINETY-EIGHT (98) PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR COMPACTION TEST.

EROSION CONTROL NOTES

1. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF STATE LAW AND IS SUBJECT TO A FINE. ANY BUILDER THAT ANTICIPATED THE DISTURBANCE OF MORE THAN ONE ACRE WILL BE REQUIRED TO GET AN EROSION CONTROL PERMIT FROM NCDENR - DLQ.
3. 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.
4. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NCDENR - DLQ.
5. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
6. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
7. 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 SEEDED, MULCHED, AND TACKED.
8. WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
9. ALL ACTIVITY AND INSTALLATION OF EROSION CONTROL MATTING SHALL BE COMPLETE PRIOR TO ANY RAIN EVENT.

EROSION CONTROL MAINTENANCE PLAN:

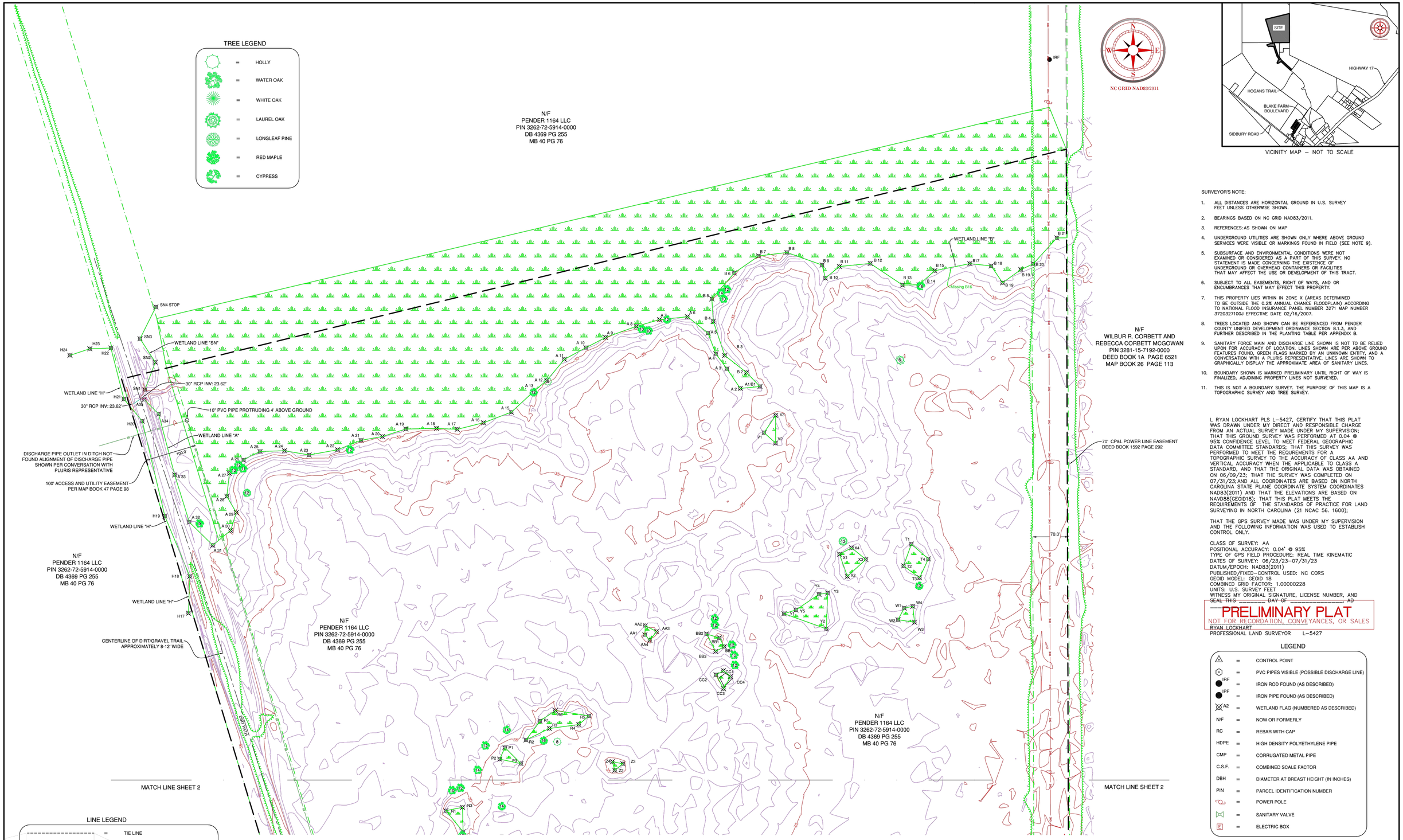
1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF EVERY ONE-HALF (0.5) INCH OR GREATER RAINFALL.
2. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL 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 SHALL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS SHALL 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 6 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS REQUIRED.
6. INSPECT TEMPORARY DIVERSIONS AND CHECK DAMS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE AND CHECK DAM. 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.
7. INSPECT TEMPORARY SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
8. CHECK THE SEDIMENT BASIN EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
9. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.5" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED. INLET PROTECTION SHOULD BE CLEANED OUT WHEN IT IS HALF FULL.
10. INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEAN OUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH. AFTER THE CONTRIBUTING DRAINAGE AREAS HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.
11. INSPECT THE SKIMMER FOR CLOGGING. PULL THE SKIMMER TO THE SIDE OF THE BASIN AND REMOVE ANY DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER AND THE ARM OR BARREL PIPE FOR CLOGGING; IF CLOGGED, REMOVE THE DEBRIS.

STANDARD NOTES

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
3. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
4. ALL TRAFFIC CONTROL SIGNS AND MARKING OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
5. ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING SHALL BE REPLACED BY THE CONTRACTOR.
6. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
7. NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS.
8. IF UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.

FIRE PROTECTION NOTES

1. HYDRANT MUST BE WITHIN 100' OF THE FDC.
2. THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
4. ALL HYDRANTS MUST BE WITHIN 600 FEET OF RESIDENTIAL STRUCTURES.
5. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
6. COMBUSTIBLE MATERIALS MAY NOT BE STORED OR ERECTED ONSITE WITHOUT COUNTY FIRE MARSHAL APPROVAL.
7. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION.
8. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES
9. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS TO ALL PORTIONS OF THE JOBSITE WHERE COMBUSTIBLES ARE PRESENT AT ALL TIMES DURING CONSTRUCTION.
10. FIRE DEPARTMENT



VICINITY MAP – NOT TO SCALE

SURVEYOR'S NOTE:

1. ALL DISTANCES ARE HORIZONTAL GROUND IN U.S. SURVEY FEET UNLESS OTHERWISE SHOWN.
2. BEARINGS BASED ON NC GRID NAD83/2011.
3. REFERENCES: AS SHOWN ON MAP
4. UNDERGROUND UTILITIES ARE SHOWN ONLY WHERE ABOVE GROUND SERVICES WERE VISIBLE OR MARKINGS FOUND IN FIELD (SEE NOTE 9).
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
6. SUBJECT TO ALL EASEMENTS, RIGHT OF WAYS, AND OR ENCUMBRANCES THAT MAY EFFECT THIS PROPERTY.
7. THIS PROPERTY LIES WITHIN IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO NATIONAL FLOOD INSURANCE PANEL NUMBER 3271 MAP NUMBER 3720327100J EFFECTIVE DATE 02/16/2007.
8. TREES LOCATED AND SHOWN CAN BE REFERENCED FROM PENDER COUNTY UNIFIED DEVELOPMENT ORDINANCE SECTION 8.1.3, AND FURTHER DESCRIBED IN THE PLANTING TABLE PER APPENDIX B.
9. SANITARY FORCE MAIN AND DISCHARGE LINE SHOWN IS NOT TO BE RELIED UPON FOR ACCURACY OF LOCATION. LINES SHOWN ARE PER ABOVE GROUND FEATURES FOUND, GREEN FLAGS MARKED BY AN UNKNOWN ENTITY, AND A CONVERSATION WITH A PLURIS REPRESENTATIVE. LINES ARE SHOWN TO GRAPHICALLY DISPLAY THE APPROXIMATE AREA OF SANITARY LINES.
10. BOUNDARY SHOWN IS MARKED PRELIMINARY UNTIL RIGHT OF WAY IS FINALIZED, ADJOINING PROPERTY LINES NOT SURVEYED.
11. THIS IS NOT A BOUNDARY SURVEY. THE PURPOSE OF THIS MAP IS A TOPOGRAPHIC SURVEY AND TREE SURVEY.

I, RYAN LOCKHART PLS L–5427, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND SURVEY WAS PERFORMED AT 0.04 @ 95% CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC SURVEY TO THE ACCURACY OF CLASS AA AND VERTICAL ACCURACY WHEN THE APPLICABLE TO CLASS A STANDARD, AND THAT THE ORIGINAL DATA WAS OBTAINED ON 06/09/23; THAT THE SURVEY WAS COMPLETED ON 07/31/23; AND ALL COORDINATES ARE BASED ON NORTH CAROLINA STATE PLANE COORDINATE SYSTEM COORDINATES NAD83(2011) AND THAT THE ELEVATIONS ARE BASED ON NAVD88(GEOID18); THAT THIS PLAT MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56. 1600);

THAT THE GPS SURVEY MADE WAS UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO ESTABLISH CONTROL ONLY.

CLASS OF SURVEY: AA
POSITIONAL ACCURACY: 0.04' @ 95%
TYPE OF GPS FIELD PROCEDURE: REAL TIME KINEMATIC
DATES OF SURVEY: 06/23/23–07/31/23
DATUM/EPOCH: NAD83(2011)
PUBLISHED/FIXED–CONTROL USED: NC CORS
GEOID MODEL: GEOID 18
COMBINED GRID FACTOR: 1.00000228
UNITS: U.S. SURVEY FEET
WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER, AND SEAL THIS _____ DAY OF _____, AD

PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES

RYAN LOCKHART
PROFESSIONAL LAND SURVEYOR L–5427

LEGEND

△	=	CONTROL POINT
⊙	=	PVC PIPES VISIBLE (POSSIBLE DISCHARGE LINE)
IRF	=	IRON ROD FOUND (AS DESCRIBED)
IPF	=	IRON PIPE FOUND (AS DESCRIBED)
A2	=	WETLAND FLAG (NUMBERED AS DESCRIBED)
N/F	=	NOW OR FORMERLY
RC	=	REBAR WITH CAP
HDPE	=	HIGH DENSITY POLYETHYLENE PIPE
CMP	=	CORRUGATED METAL PIPE
C.S.F.	=	COMBINED SCALE FACTOR
DBH	=	DIAMETER AT BREAST HEIGHT (IN INCHES)
PIN	=	PARCEL IDENTIFICATION NUMBER
	=	POWER POLE
	=	SANITARY VALVE
E	=	ELECTRIC BOX

LINE LEGEND

	=	TIE LINE
SD	=	STORM DRAINAGE
	=	EASEMENT (AS DESCRIBED)
	=	PROJECT LIMITS
	=	WETLAND LINE
	=	WOOD LINE
	=	ADJOINING PROPERTY LINES
	=	CENTERLINE OF DIRT TRAIL
SS	=	SANITARY FORCE MAIN/DISCHARGE LINE

HATCH LEGEND

= WETLAND AREA

SCALE: 1" = 80'
0 40' 80' 160' 240'

McKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TELEPHONE: (910) 343-1048
FAX: (910) 251-8282
NORTH CAROLINA FIRM LICENSE NUMBER: F-1222

TOPOGRAPHIC AND TREE SURVEY
FOR
PENDER 1164 LLC
DEED BOOK: 4369 PAGE: 255 & DEED BOOK: 4286 PAGE: 8
PIN: 3271-06-1762-0000 & 3262-72-5914-0000
TOPSAIL TOWNSHIP, PENDER COUNTY, NORTH CAROLINA
AUGUST 10, 2023

JOB NUMBER:	04245–0055
SCALE:	1" = 80'
CAD NUMBER:	VT–BFParcel_R
PLS:	RL
PARTY CHIEF:	AM & MS
CAD TECH:	CH & GR
FIELD BOOK/PAGE:	FB/PG
DRAWING NUMBER:	2023-084

MATCH LINE SHEET 1

N/F
PENDER 1164 LLC
PIN 3262-72-5914-0000
DB 4369 PG 255
MB 40 PG 76

N/F
PIN 3262-72-5914-0000
DB 4369 PG 255
MB 40 PG 76

MATCH LINE SHEET 1

NC GRID NAD83/2011

TREE LEGEND

- = HOLLY
- = WATER OAK
- = WHITE OAK
- = LAUREL OAK
- = LONGLEAF PINE
- = RED MAPLE
- = CYPRESS

CENTERLINE OF DIRT/GRAVEL TRAIL
APPROXIMATELY 8-12' WIDE

18" CMP
INVERT ELEVATION: 31.94'

2" PVC PIPE
PROTRUDING ABOVE GROUND 3'

18" CMP
INVERT ELEVATION:31.62'

100' ACCESS AND UTILITY EASEMENT
PER MAP BOOK 47 PAGE 98

DIRT PATH

MISSING WETLAND
FLAG D1

WETLAND LINE "J"

30" RCP INV: 29.12'

30" RCP INV: 29.52'

36" CMP INV: 27.15'

36" CMP INV: 26.92'

J25 STOP

2-36" CMP INV(S): 26.68'
FOR CMP(S) UNDER ROAD
SIZE IS APPROXIMATE
PIPES ARE CRUSHED AND
UNDERWATER

WETLAND LINE "SA"

1" IRF

1" IRF

N/F
WILBUR R. CORBETT AND
REBECCA CORBETT MCGOWAN
PIN 3281-15-7192-0000
DEED BOOK 1A PAGE 6521
MAP BOOK 26 PAGE 113

HATCH LEGEND

- = WETLAND AREA

N/F
PENDER 1164 LLC
PIN 3262-72-5914-0000
DB 4369 PG 255
MB 40 PG 76

100' ACCESS AND UTILITY EASEMENT
PER MAP BOOK 47 PAGE 98

100' ACCESS AND UTILITY EASEMENT
PER MAP BOOK 47 PAGE 98

AREA OF DISCHARGE LINE IS APPROXIMATE
AND IS FOR GRAPHIC DISPLAY ONLY
NO SUE WORK HAS BEEN PERFORMED FOR
THIS SURVEY

DIRT ROAD

N/F
BLAKE FARM POND LLC
PIN 3271-08-8507-0000
DB 4606 PG 1545
MB 56 PG 87

N/F
PENDER 1164 LLC
PIN 3271-06-1762-0000
DB 4286 PG 8
MB 56 PG 87

N/F
PENDER 1164 LLC
PIN 3271-06-1762-0000
DB 4286 PG 8
MB 56 PG 87

MATCH LINE SHEET 3

MATCH LINE SHEET 3

LEGEND

- = CONTROL POINT
- = PVC PIPES VISIBLE (POSSIBLE DISCHARGE LINE)
- IRF = IRON ROD FOUND (AS DESCRIBED)
- IPF = IRON PIPE FOUND (AS DESCRIBED)
- A2 = WETLAND FLAG (NUMBERED AS DESCRIBED)
- N/F = NOW OR FORMERLY
- RC = REBAR WITH CAP
- HDPE = HIGH DENSITY POLYETHYLENE PIPE
- CMP = CORRUGATED METAL PIPE
- C.S.F. = COMBINED SCALE FACTOR
- DBH = DIAMETER AT BREAST HEIGHT (IN INCHES)
- PIN = PARCEL IDENTIFICATION NUMBER
- = POWER POLE
- = SANITARY VALVE
- E = ELECTRIC BOX

LINE LEGEND

- = TIE LINE
- SD = STORM DRAINAGE
- = EASEMENT (AS DESCRIBED)
- = PROJECT LIMITS
- = WETLAND LINE
- = WOOD LINE
- = ADJOINING PROPERTY LINES
- = CENTERLINE OF DIRT TRAIL
- SS = SANITARY FORCE MAIN/DISCHARGE LINE

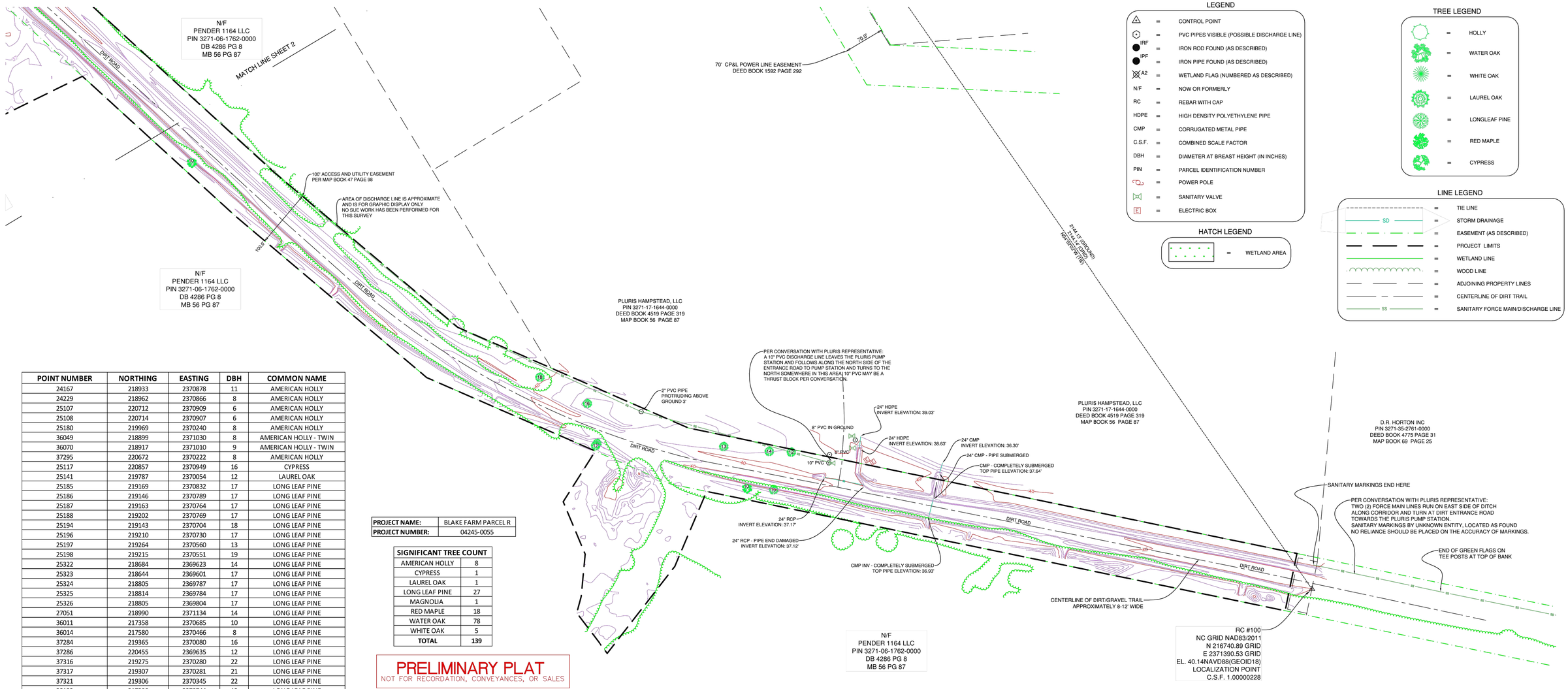
PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES

SCALE: 1" =80'
0 40' 80' 160' 240'

McKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TELEPHONE: (910) 343-1048
FAX: (910) 251-8282
NORTH CAROLINA FIRM LICENSE NUMBER: F-1222

TOPOGRAPHIC AND TREE SURVEY
FOR
PENDER 1164 LLC
DEED BOOK: 4369 PAGE: 255 & DEED BOOK: 4286 PAGE: 8
PINS:3271-06-1762-0000 & 3262-72-5914-0000
TOPSAIL TOWNSHIP, PENDER COUNTY, NORTH CAROLINA
AUGUST 10, 2023

JOB NUMBER:	04245-0055
SCALE:	1"=80'
CAD NUMBER:	VT-BFParcel R
PLS:	RL
PARTY CHIEF:	AM & MS
CAD TECH:	CH & GR
FIELD BOOK/PAGE:	FB/PG
DRAWING NUMBER:	2023-084



POINT NUMBER	NORTHING	EASTING	DBH	COMMON NAME
24167	218933	2370878	11	AMERICAN HOLLY
24229	218962	2370866	8	AMERICAN HOLLY
25107	220712	2370909	6	AMERICAN HOLLY
25108	220714	2370907	6	AMERICAN HOLLY
25180	219969	2370240	8	AMERICAN HOLLY
36049	218899	2371030	8	AMERICAN HOLLY - TWIN
36070	218917	2371010	9	AMERICAN HOLLY - TWIN
37295	220672	2370222	8	AMERICAN HOLLY
25117	220857	2370949	16	CYPRESS
25141	219787	2370054	12	LAUREL OAK
25185	219169	2370832	17	LONG LEAF PINE
25186	219146	2370789	17	LONG LEAF PINE
25187	219163	2370764	17	LONG LEAF PINE
25188	219202	2370769	17	LONG LEAF PINE
25194	219143	2370704	18	LONG LEAF PINE
25196	219210	2370730	17	LONG LEAF PINE
25197	219264	2370560	13	LONG LEAF PINE
25198	219215	2370551	19	LONG LEAF PINE
25322	218684	2369623	14	LONG LEAF PINE
25323	218644	2369601	17	LONG LEAF PINE
25324	218805	2369787	17	LONG LEAF PINE
25325	218814	2369784	17	LONG LEAF PINE
25326	218805	2369804	17	LONG LEAF PINE
27051	218990	2371134	14	LONG LEAF PINE
36011	217358	2370685	10	LONG LEAF PINE
36014	217580	2370466	8	LONG LEAF PINE
37284	219365	2370080	16	LONG LEAF PINE
37286	220455	2369635	12	LONG LEAF PINE
37316	219275	2370280	22	LONG LEAF PINE
37317	219307	2370281	21	LONG LEAF PINE
37321	219306	2370345	22	LONG LEAF PINE
38133	217398	2370744	12	LONG LEAF PINE
38134	217418	2370712	14	LONG LEAF PINE
38135	217465	2370650	13	LONG LEAF PINE
38190	217647	2370486	16	LONG LEAF PINE
38198	217728	2370440	18	LONG LEAF PINE
200003	217578	2370462	12	LONG LEAF PINE
37335	220360	2370798	12	MAGNOLIA
24163	218911	2370891	14	RED MAPLE
24225	218946	2370858	16	RED MAPLE
25102	220274	2370946	12	RED MAPLE
25113	220793	2370455	12	RED MAPLE - CLUSTER
25134	219665	2370053	13	RED MAPLE
25143	219844	2370132	14	RED MAPLE
25151	219744	2369973	13	RED MAPLE
25155	219993	2370142	14	RED MAPLE
25167	220211	2370547	12	RED MAPLE - CLUSTER
25178	219972	2370214	16	RED MAPLE
25195	219092	2370684	30	RED MAPLE
25199	219157	2370570	16	RED MAPLE
36061	218915	2370939	20	RED MAPLE
36068	218916	2370984	20	RED MAPLE
36069	218917	2370999	12	RED MAPLE
37018	219079	2370929	12	RED MAPLE
37282	219331	2370071	12	RED MAPLE
37294	220651	2370194	12	RED MAPLE
24220	218896	2370870	10	WATER OAK
24248	218928	2370831	13	WATER OAK
25111	220774	2370405	10	WATER OAK
25112	220770	2370418	10	WATER OAK
25115	220833	2370564	10	WATER OAK
25116	220851	2370571	12	WATER OAK
25121	220844	2370559	14	WATER OAK
25127	219563	2370060	8	WATER OAK
25128	219557	2370055	9	WATER OAK
25129	219563	2370052	9	WATER OAK
25130	219565	2370038	9	WATER OAK
25131	219603	2370038	14	WATER OAK
25132	219596	2370042	9	WATER OAK

PROJECT NAME:	BLAKE FARM PARCEL R
PROJECT NUMBER:	04245-0055

SIGNIFICANT TREE COUNT	
AMERICAN HOLLY	8
CYPRESS	1
LAUREL OAK	1
LONG LEAF PINE	27
MAGNOLIA	1
RED MAPLE	18
WATER OAK	78
WHITE OAK	5
TOTAL	**139**

PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES

POINT NUMBER	NORTHING	EASTING	DBH	COMMON NAME
25133	219597	2370023	11	WATER OAK
25135	219656	2370048	10	WATER OAK
25139	219741	2370056	10	WATER OAK
25145	219914	2370085	14	WATER OAK
25147	219962	2370100	12	WATER OAK
25148	219875	2370035	10	WATER OAK
25152	219764	2369978	9	WATER OAK
25154	219879	2370051	12	WATER OAK
25158	219452	2370105	11	WATER OAK
25168	220197	2370547	12	WATER OAK
25169	220158	2370581	12	WATER OAK
25170	220138	2370585	12	WATER OAK
25171	220119	2370586	12	WATER OAK
25190	219109	2370834	9	WATER OAK
25357	220395	2369543	9	WATER OAK
25694	219641	2369723	8	WATER OAK
27053	218959	2371117	9	WATER OAK
27054	218957	2371117	8	WATER OAK
27060	218886	2371134	13	WATER OAK - TWIN
36010	217382	2370647	10	WATER OAK - CLUSTER
36025	218347	2370115	10	WATER OAK
36052	219140	2369870	8	WATER OAK
36054	218969	2371083	12	WATER OAK

POINT NUMBER	NORTHING	EASTING	DBH	COMMON NAME
36056	219181	2369867	12	WATER OAK
36059	219188	2369856	12	WATER OAK
37019	219075	2370915	8	WATER OAK
37024	219102	2370883	12	WATER OAK
37027	219075	2370859	9	WATER OAK
37029	219058	2370908	10	WATER OAK
37030	219060	2370895	9	WATER OAK
37057	219204	2370915	10	WATER OAK
37255	218996	2370021	12	WATER OAK
37256	218967	2370042	18	WATER OAK
37258	218930	2370052	14	WATER OAK
37260	218997	2370136	12	WATER OAK
37262	219039	2370093	17	WATER OAK
37263	219056	2370093	16	WATER OAK
37264	219060	2370090	12	WATER OAK
37265	219089	2370084	15	WATER OAK
37266	219069	2370075	14	WATER OAK
37267	219054	2370037	12	WATER OAK
37269	219037	2370038	19	WATER OAK
37271	219031	2370045	14	WATER OAK
37272	218986	2370050	18	WATER OAK
37273	218989	2370082	12	WATER OAK
37274	219192	2369922	20	WATER OAK

POINT NUMBER	NORTHING	EASTING	DBH	COMMON NAME
37283	219331	2370083	12	WATER OAK
37287	220502	2369627	11	WATER OAK
37289	220499	2369610	12	WATER OAK
37290	220509	2369618	12	WATER OAK
37292	220539	2369836	12	WATER OAK
37299	219299	2370135	10	WATER OAK
37305	219289	2370164	10	WATER OAK
37309	219282	2370225	12	WATER OAK
37311	219281	2370234	10	WATER OAK
37318	219254	2370313	16	WATER OAK
37320	219242	2370307	22	WATER OAK
37322	219291	2370377	17	WATER OAK
37326	219221	2370430	11	WATER OAK
37327	219218	2370422	16	WATER OAK
37330	219229	2370379	16	WATER OAK
200004	219141	2369874	10	WATER OAK - TWIN
200005	219169	2369869	12	WATER OAK
200006	219195	2369861	10	WATER OAK
200007	219244	2369845	10	WATER OAK
37300	219266	2370126	12	WHITE OAK
37301	219277	2370109	21	WHITE OAK
37302	219296	2370143	22	WHITE OAK
37308	219337	2370138	14	WHITE OAK
37315	219270	2370275	16	WHITE OAK

NC GRID NAD83/2011

SCALE: 1" = 80'
0 40' 80' 160' 240'

McKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
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TOPOGRAPHIC & TREE SURVEY
FOR
PENDER 1164 LLC
DEED BOOK: 4369 PAGE: 255 & DEED BOOK: 4286 PAGE: 8
PIN(S): 3271-06-1762-0000 & 3262-72-5914-0000
TOPSAIL TOWNSHIP, PENDER COUNTY, NORTH CAROLINA
AUGUST 10, 2023

JOB NUMBER:	04245-0055
SCALE:	1"=80'
CAD NUMBER:	VT-BFParcel R
PLS:	RL
PARTY CHIEF:	AM & MS
CAD TECH:	CH & GR
FIELD BOOK/PAGE:	FB/PG
DRAWING NUMBER:	2023-084

TREE REMOVAL PLAN

1. TREE REMOVAL WILL INVOLVE CLEARING OF THE VEGETATION UNDER THE ESSENTIAL SITE IMPROVEMENTS.

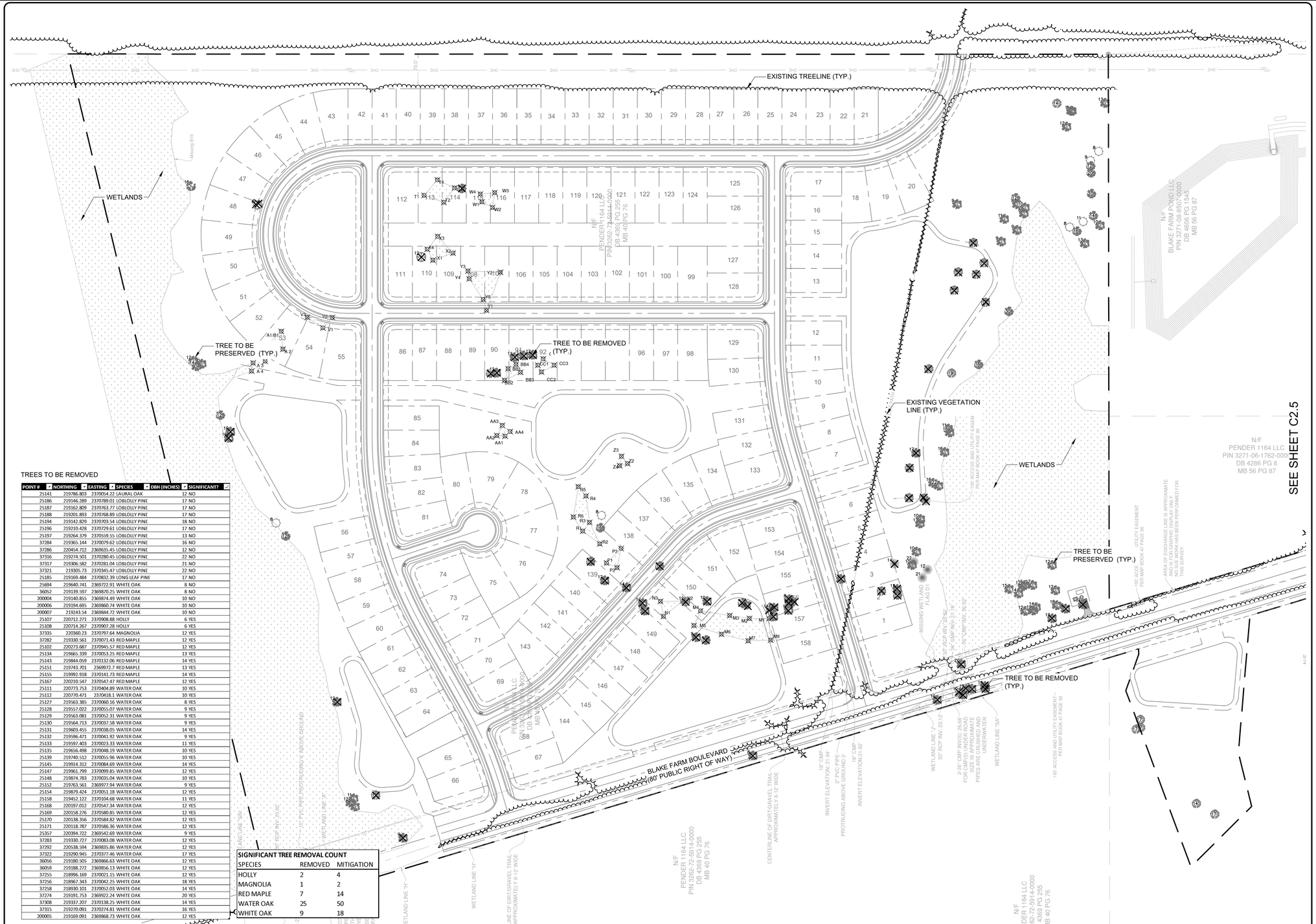
WETLANDS

12 TREES TO BE PRESERVED

TREES TO BE REMOVED

TREE LEGEND

- = CEDAR
- = GUM
- = HOLLY
- = OAK
- = MAGNOLIA
- = MAPLE
- = PINE
- = BIRCH
- = BAY
- = CYPRESS
- = TREE SIZE



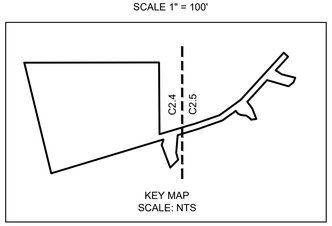
TREES TO BE REMOVED

POINT #	NORTHING	EASTING	SPECIES	DBH (INCHES)	SIGNIFICANT?
25141	219786.803	2370054.22	LAURAL OAK	12	NO
25186	219146.289	2370789.01	LOBLOLLY PINE	17	NO
25187	219162.809	2370763.77	LOBLOLLY PINE	17	NO
25188	219201.893	2370768.89	LOBLOLLY PINE	17	NO
25194	219142.829	2370703.54	LOBLOLLY PINE	18	NO
25196	219210.428	2370729.61	LOBLOLLY PINE	17	NO
25197	219264.379	2370559.55	LOBLOLLY PINE	13	NO
37284	219365.144	2370079.62	LOBLOLLY PINE	16	NO
37286	220454.712	2369635.45	LOBLOLLY PINE	12	NO
37316	219274.501	2370280.45	LOBLOLLY PINE	22	NO
37317	219306.582	2370281.04	LOBLOLLY PINE	21	NO
37321	219305.73	2370345.47	LOBLOLLY PINE	22	NO
25185	219169.484	2370832.39	LONG LEAF PINE	17	NO
25694	219640.741	2369722.91	WHITE OAK	8	NO
36052	219139.597	2369870.25	WHITE OAK	8	NO
200004	219140.855	2369874.49	WHITE OAK	10	NO
200006	219194.695	2369860.74	WHITE OAK	10	NO
200007	219243.54	2369844.72	WHITE OAK	10	NO
25107	220712.271	2370908.88	HOLLY	6	YES
25108	220714.267	2370907.28	HOLLY	6	YES
37335	220360.23	2370797.64	MAGNOLIA	12	YES
37282	219330.561	2370071.43	RED MAPLE	12	YES
25102	220273.687	2370945.57	RED MAPLE	12	YES
25134	219665.339	2370053.25	RED MAPLE	13	YES
25143	219844.059	2370132.06	RED MAPLE	14	YES
25151	219743.701	2369972.7	RED MAPLE	13	YES
25155	219992.918	2370141.73	RED MAPLE	14	YES
25167	220210.547	2370547.47	RED MAPLE	12	YES
25111	220773.753	2370404.89	WATER OAK	10	YES
25112	220770.471	23704181	WATER OAK	10	YES
25127	219563.385	2370060.16	WATER OAK	8	YES
25128	219557.022	2370055.07	WATER OAK	9	YES
25129	219563.081	2370052.31	WATER OAK	9	YES
25130	219564.713	2370037.58	WATER OAK	9	YES
25131	219603.455	2370038.05	WATER OAK	14	YES
25132	219596.471	2370041.92	WATER OAK	9	YES
25133	219597.403	2370023.33	WATER OAK	11	YES
25135	219656.498	2370048.19	WATER OAK	10	YES
25139	219740.312	2370055.96	WATER OAK	10	YES
25145	219914.312	2370084.69	WATER OAK	14	YES
25147	219961.799	2370099.85	WATER OAK	12	YES
25148	219874.783	2370035.04	WATER OAK	10	YES
25152	219763.561	2369977.94	WATER OAK	9	YES
25154	219879.424	2370051.18	WATER OAK	12	YES
25158	219452.122	2370104.68	WATER OAK	11	YES
25168	220197.012	2370547.34	WATER OAK	12	YES
25169	220158.276	2370580.85	WATER OAK	12	YES
25170	220138.356	2370584.82	WATER OAK	12	YES
25171	220118.787	2370586.36	WATER OAK	12	YES
25357	220394.722	2369542.69	WATER OAK	9	YES
37283	219330.727	2370083.08	WATER OAK	12	YES
37292	220538.594	2369835.86	WATER OAK	12	YES
37322	219290.945	2370377.46	WATER OAK	17	YES
36056	219180.505	2369866.63	WHITE OAK	12	YES
36059	219188.272	2369856.13	WHITE OAK	12	YES
37255	218996.169	2370021.15	WHITE OAK	12	YES
37256	218967.343	2370042.25	WHITE OAK	18	YES
37258	218930.101	2370052.03	WHITE OAK	14	YES
37274	219191.753	2369922.24	WHITE OAK	20	YES
37308	219337.207	2370138.25	WHITE OAK	14	YES
37315	219270.091	2370274.81	WHITE OAK	16	YES
200005	219169.091	2369868.73	WHITE OAK	12	YES

SIGNIFICANT TREE REMOVAL COUNT

SPECIES	REMOVED	MITIGATION
HOLLY	2	4
MAGNOLIA	1	2
RED MAPLE	7	14
WATER OAK	25	50
WHITE OAK	9	18

100' 0 100' 200
SCALE 1" = 100'



2 TREE REMOVAL PLAN

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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

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BLAKE FARM PARCEL R

TREE REMOVAL PLAN

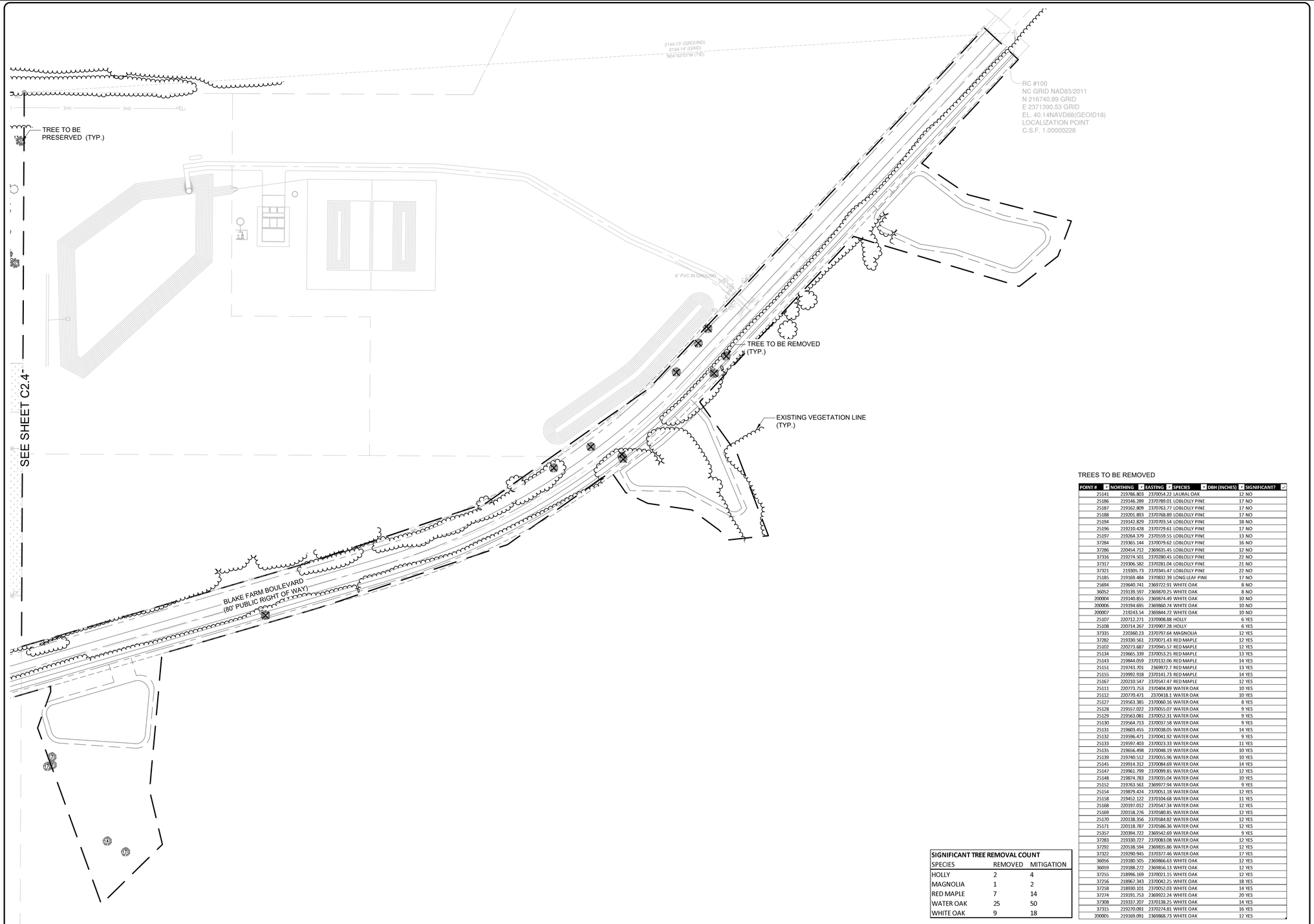
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	ALM/BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=100'
VERTICAL: N/A

C2.4
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 TREE REMOVAL PLAN

TREE REMOVAL PLAN

1. TREE REMOVAL WILL INVOLVE CLEARING OF THE VEGETATION UNDER THE ESSENTIAL SITE IMPROVEMENTS.

WETLANDS

12 TREES TO BE PRESERVED

TREES TO BE REMOVED

TREE LEGEND

- = CEDAR
- = GUM
- = HOLLY
- = OAK
- = MAGNOLIA
- = MAPLE
- = PINE
- = BIRCH
- = BAY
- = CYPRESS
- = TREE SIZE

TREES TO BE REMOVED

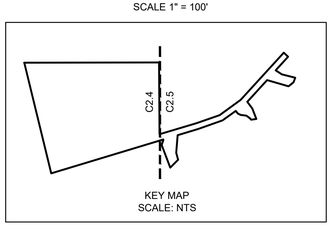
POINT #	NORTHING	EASTING	SPECIES	DBH (INCHES)	SIGNIFICANT?
25141	219786.803	2370054.22	LAURAL OAK	12	NO
25186	219146.289	2370789.01	LOBLOLLY PINE	17	NO
25187	219162.809	2370763.77	LOBLOLLY PINE	17	NO
25188	219201.893	2370768.89	LOBLOLLY PINE	17	NO
25194	219142.829	2370703.54	LOBLOLLY PINE	18	NO
25196	219210.428	2370729.61	LOBLOLLY PINE	17	NO
25197	219264.379	2370559.55	LOBLOLLY PINE	13	NO
37284	219365.144	2370079.62	LOBLOLLY PINE	16	NO
37286	220454.712	2369635.45	LOBLOLLY PINE	12	NO
37316	219274.501	2370280.45	LOBLOLLY PINE	22	NO
37317	219306.582	2370281.04	LOBLOLLY PINE	21	NO
37321	219305.73	2370345.47	LOBLOLLY PINE	22	NO
25185	219169.484	2370832.39	LONG LEAF PINE	17	NO
25694	219640.741	2369722.91	WHITE OAK	8	NO
36052	219139.597	2369870.25	WHITE OAK	8	NO
200004	219140.855	2369874.49	WHITE OAK	10	NO
200006	219194.695	2369860.74	WHITE OAK	10	NO
200007	219243.54	2369844.72	WHITE OAK	10	NO
25107	220712.271	2370908.88	HOLLY	6	YES
25108	220714.267	2370907.28	HOLLY	6	YES
37335	220360.23	2370797.64	MAGNOLIA	12	YES
37282	219330.561	2370071.43	RED MAPLE	12	YES
25102	220273.687	2370945.57	RED MAPLE	12	YES
25134	219665.339	2370053.25	RED MAPLE	13	YES
25143	219844.059	2370132.06	RED MAPLE	14	YES
25151	219743.701	2369972.7	RED MAPLE	13	YES
25155	219992.918	2370141.73	RED MAPLE	14	YES
25167	220210.547	2370547.47	RED MAPLE	12	YES
25111	220773.753	2370404.89	WATER OAK	10	YES
25112	220770.471	2370418.1	WATER OAK	10	YES
25127	219563.385	2370060.16	WATER OAK	8	YES
25128	219557.022	2370055.07	WATER OAK	9	YES
25129	219563.081	2370052.31	WATER OAK	9	YES
25130	219564.713	2370037.58	WATER OAK	9	YES
25131	219603.455	2370038.05	WATER OAK	14	YES
25132	219596.471	2370041.92	WATER OAK	9	YES
25133	219597.403	2370023.33	WATER OAK	11	YES
25135	219656.498	2370048.19	WATER OAK	10	YES
25139	219740.512	2370055.96	WATER OAK	10	YES
25145	219914.312	2370084.69	WATER OAK	14	YES
25147	219961.799	2370099.85	WATER OAK	12	YES
25148	219874.783	2370035.04	WATER OAK	10	YES
25152	219763.561	2369977.94	WATER OAK	9	YES
25154	219879.424	2370051.18	WATER OAK	12	YES
25158	219452.122	2370104.68	WATER OAK	11	YES
25168	220197.012	2370547.34	WATER OAK	12	YES
25169	220158.276	2370580.85	WATER OAK	12	YES
25170	220138.356	2370584.82	WATER OAK	12	YES
25171	220118.787	2370586.36	WATER OAK	12	YES
25357	220394.722	2369542.69	WATER OAK	9	YES
37283	219330.727	2370083.08	WATER OAK	12	YES
37292	220538.594	2369835.86	WATER OAK	12	YES
37322	219290.945	2370377.46	WATER OAK	17	YES
36056	219180.505	2369866.63	WHITE OAK	12	YES
36059	219188.272	2369856.13	WHITE OAK	12	YES
37255	218996.169	2370021.15	WHITE OAK	12	YES
37256	218967.343	2370042.25	WHITE OAK	18	YES
37258	218930.101	2370052.03	WHITE OAK	14	YES
37274	219191.753	2369922.24	WHITE OAK	20	YES
37308	219337.207	2370138.25	WHITE OAK	14	YES
37315	219270.091	2370274.81	WHITE OAK	16	YES
200005	219169.091	2369868.73	WHITE OAK	12	YES

SIGNIFICANT TREE REMOVAL COUNT

SPECIES	REMOVED	MITIGATION
HOLLY	2	4
MAGNOLIA	1	2
RED MAPLE	7	14
WATER OAK	25	50
WHITE OAK	9	18

100' 0 100' 200

SCALE 1" = 100'



KEY MAP
SCALE: NTS

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

TREE REMOVAL PLAN

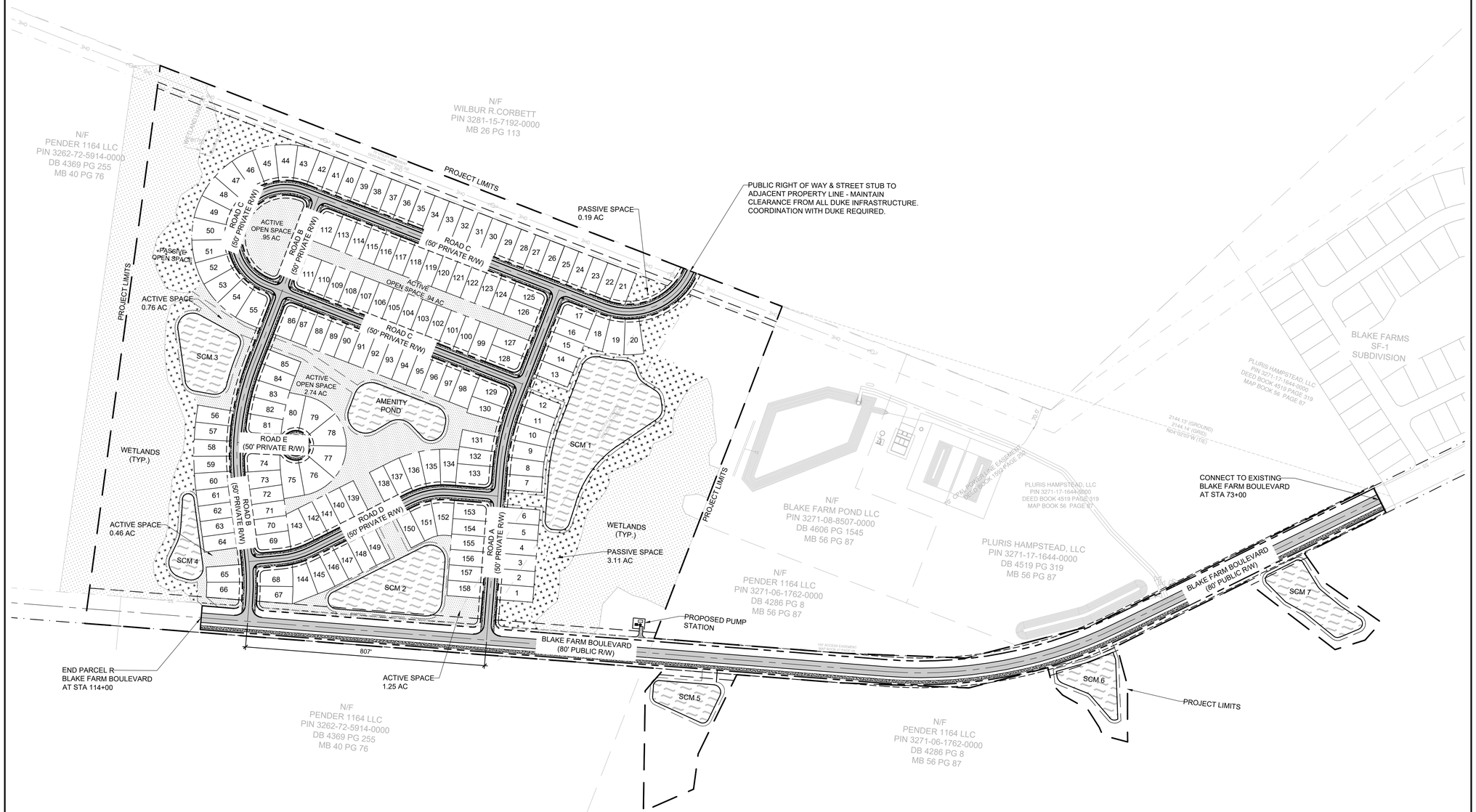
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	ALM/BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=100'
VERTICAL: VSCALE

C2.5
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 SITE PLAN - OVERALL

SITE DATA		
PROJECT NAME	BLAKE FARM PARCEL R	
PARCEL ID	3262-72-5914-0000	
DEED BOOK & PAGE	DB 4369 PG 76	
PROPERTY ADDRESS	BLAKE FARM BOULEVARD	
PROPERTY DEVELOPER	PENDER 1164 LLC	
CURRENT ZONING	PD (PLANNED DEVELOPMENT)	
PROPOSED USE	SING FAMILY	
TOTAL PROPERTY ACREAGE	±83.65 AC	
PROJECT AREA	±73.00AC	
NC BUILDING CODE CONSTRUCTION TYPE		
TYPICAL LOT SIZE	52' x 120'	
TYPICAL END LOT SIZE	62' x 120'	
NUMBER OF LOTS	158	
DENSITY	ALLOWED	PROVIDED
SEE DENSITY CALCULATIONS ON COVER	-	3.63 DU/AC
BUILDING SETBACKS	REQUIRED	PROVIDED
FRONT	-	10'
REAR	-	10'
SIDE	-	5'
	REQUIRED	PROVIDED
OPEN SPACE .03 ACRE PER DWELLING UNIT .03 x 158 LOTS = 4.74 ACRE OPEN SPACE	4.74 AC	13.14 AC
ACTIVE OPEN SPACE ENHANCED DESIGN INCLUDING NOT LIMITED TO VILLAGE COMMONS, OUTDOOR RECREATION SPACE, CLUSTER MAILBOXES, PLAY AREAS	MIN. 50% OF OPEN SPACE (2.37 ACRE)	6.86 AC (52%)
PASSIVE OPEN SPACE UNDISTURBED NATURAL AREAS INCLUDING NOT LIMITED TO WETLANDS, NATURAL HERITAGE AREAS	MAX. 50% OF OPEN SPACE (2.37 ACRE)	6.33 AC (48%)

DENSITY CALCULATIONS	
GENERAL INFORMATION	QUANTITY
PROPERTY ACREAGE	83.65 AC
NON-RESIDENTIAL ACREAGE	
B. WETLANDS ACREAGE	13.11 AC
C. RIGHT OF WAY / PARKING ACREAGE (PRIVATE/PUBLIC RIGHTS OF WAY)	16.00 AC
D. TOTAL OPEN SPACE ACREAGE	13.19 AC
TOTAL NON-RESIDENTIAL ACREAGE	42.3 AC
DEVELOPABLE LAND	41.35 AC
TOTAL UNITS (SINGLE FAMILY LOTS)	158
PARCEL H DENSITY	3.82 DU/AC

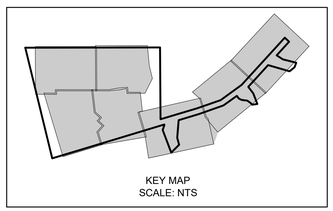
SYMBOL LEGEND

- ASPHALT
- CONCRETE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- PERIMETER BUFFER
- WETLANDS

GENERAL NOTES

WITH 158 LOTS PROPOSED THE APPLICANT IS REQUIRED TO PROVIDE TWO PREVOCATIONAL UNITS, WHICH EQUATES TO $20,000. THE APPLICANT INTENTS TO DEVELOP THE IDENTIFIED OPEN SPACE AREAS WITHIN PARCEL R TO INCLUDE WALKING TRAILS, BENCHES, PET STATIONS, ETC. THERE WILL ALSO BE TWO LARGE, PROGRAMMED NEIGHBORHOOD AMENITY AREAS WITH THE BLAKE FARM (DRH PORTION) DEVELOPMENT WHICH WILL PROVIDE ADDITIONAL RECREATIONAL OPTIONS FOR THE RESIDENTS OF PARCEL R

175' 0 175' 350
SCALE 1" = 175'



KEY MAP
SCALE: NTS

1 NOTES

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BLAKE FARM PARCEL R

SITE PLAN - OVERALL

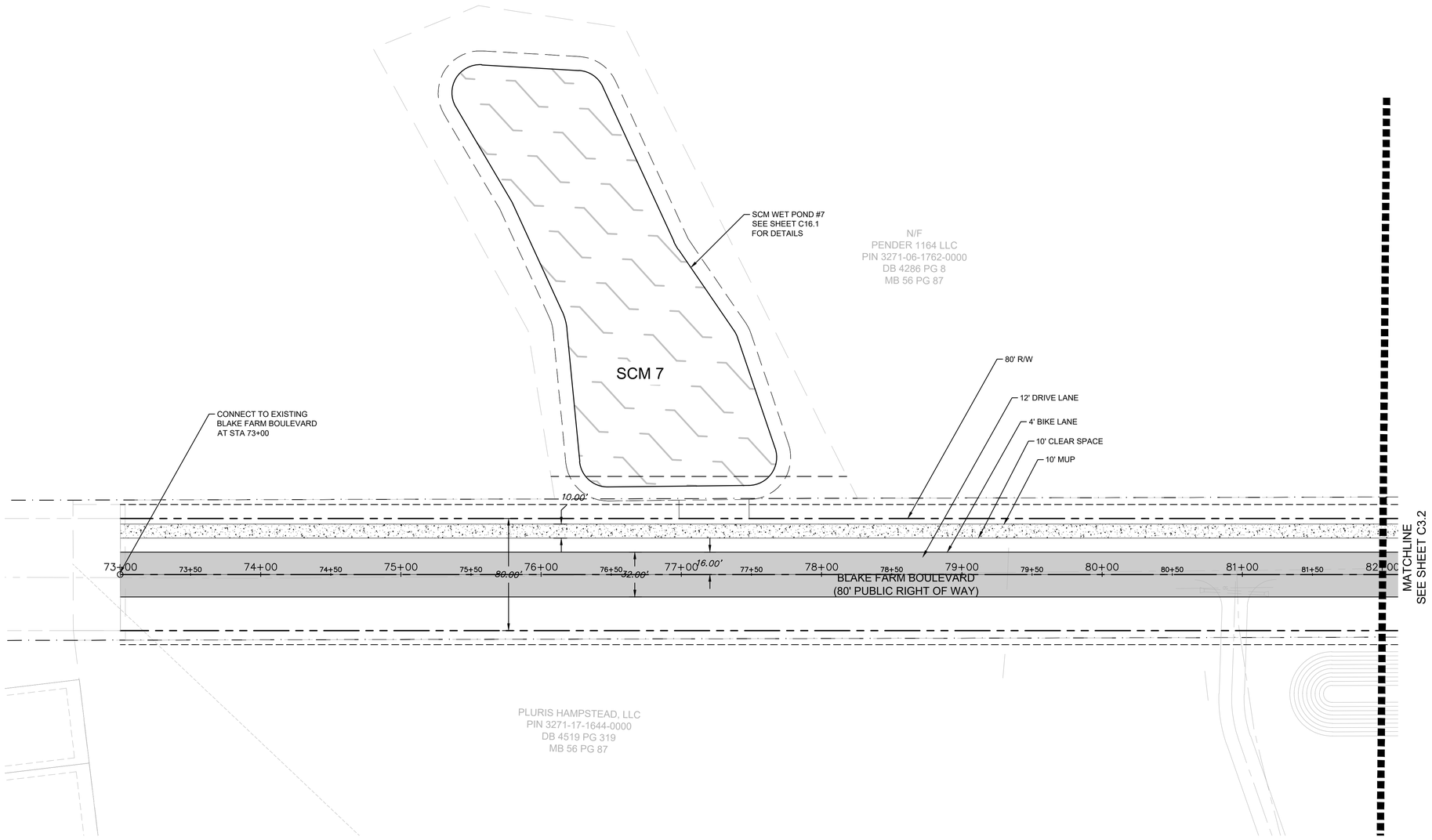
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DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=100'
VERTICAL: VSCALE

C3.0
DRAWING NUMBER

REVISION

STATUS:
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2 SITE PLAN ENLARGEMENT

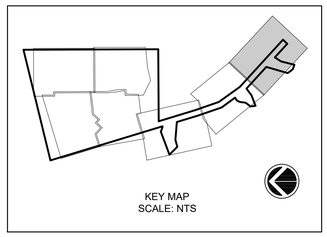
SYMBOL LEGEND

- HEAVY-DUTY ASPHALT
- CONCRETE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- PERIMETER BUFFER
- WETLANDS
- STORMWATER CONTROL MEASURE

NOTES:

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3. JURISDICTIONAL DETERMINATION IS IN PROGRESS.
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8. LIGHTING WILL BE IN COMPLIANCE WITH THE PENDER COUNTY UNIFIED DEVELOPMENT ORDINANCE ARTICLE 7.11.
9. BLAKE FARM BOULEVARD RIGHT OF WAY IS 80' WIDE (TYPICAL).
10. LOCAL ROAD RIGHT OF WAY IS 50' WIDE (TYPICAL).
11. REFER TO SHEET C9.14 FOR TYPICAL ROAD SECTIONS.

40' 0 40' 80
SCALE 1" = 40'



1 NOTES

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BLAKE FARM PARCEL R

SITE PLAN - ENLARGED

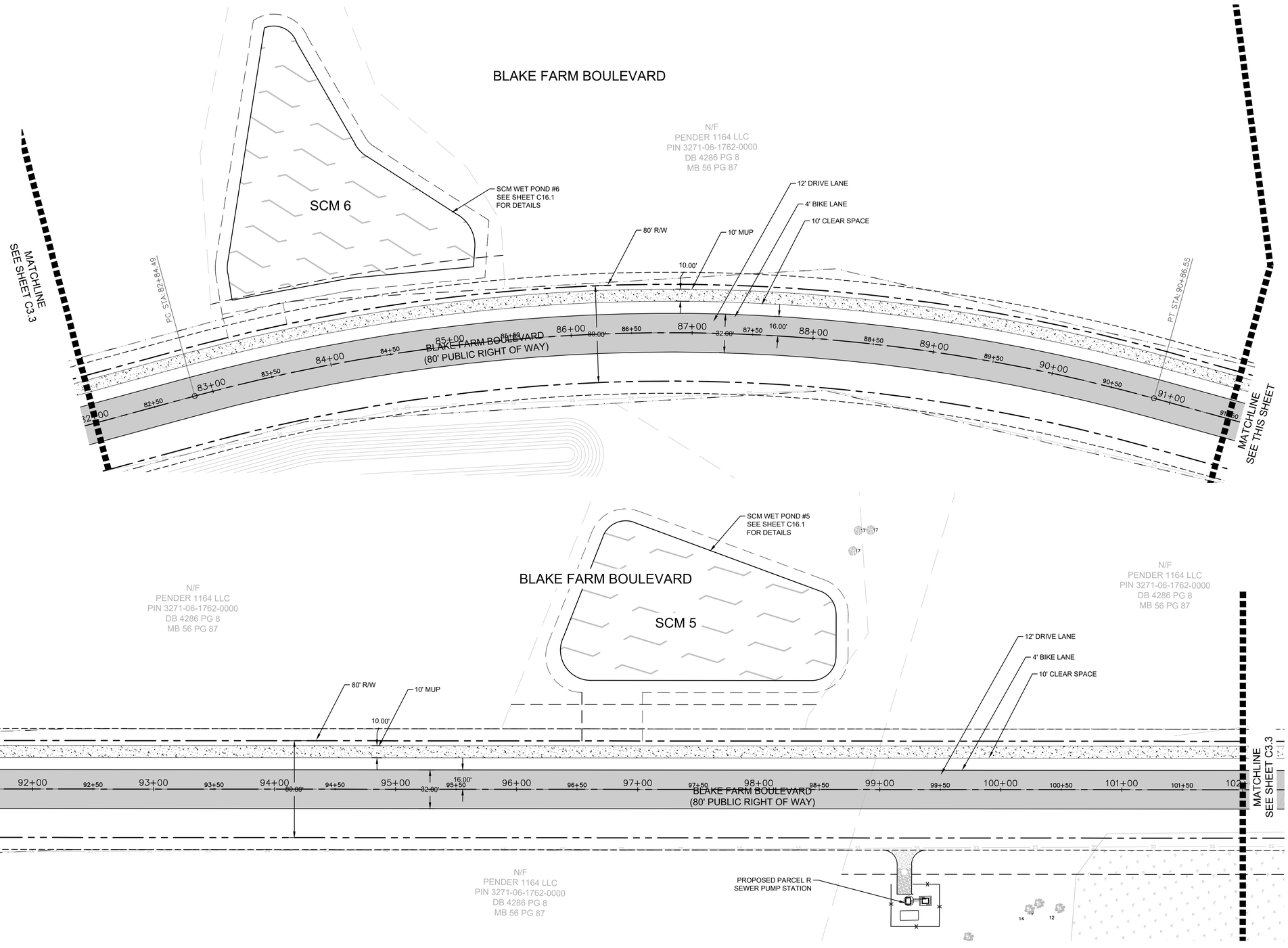
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C3.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 SITE PLAN ENLARGEMENT

SYMBOL LEGEND

- HEAVY-DUTY ASPHALT
- CONCRETE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- PERIMETER BUFFER
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40' 0 40' 80
SCALE 1" = 40'

KEY MAP
SCALE: NTS

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SITE PLAN - ENLARGED

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DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C3.2
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 SITE PLAN

SYMBOL LEGEND

- HEAVY-DUTY ASPHALT
- CONCRETE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
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40' 0 40' 80
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KEY MAP
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BLAKE FARM PARCEL R

SITE PLAN - ENLARGED

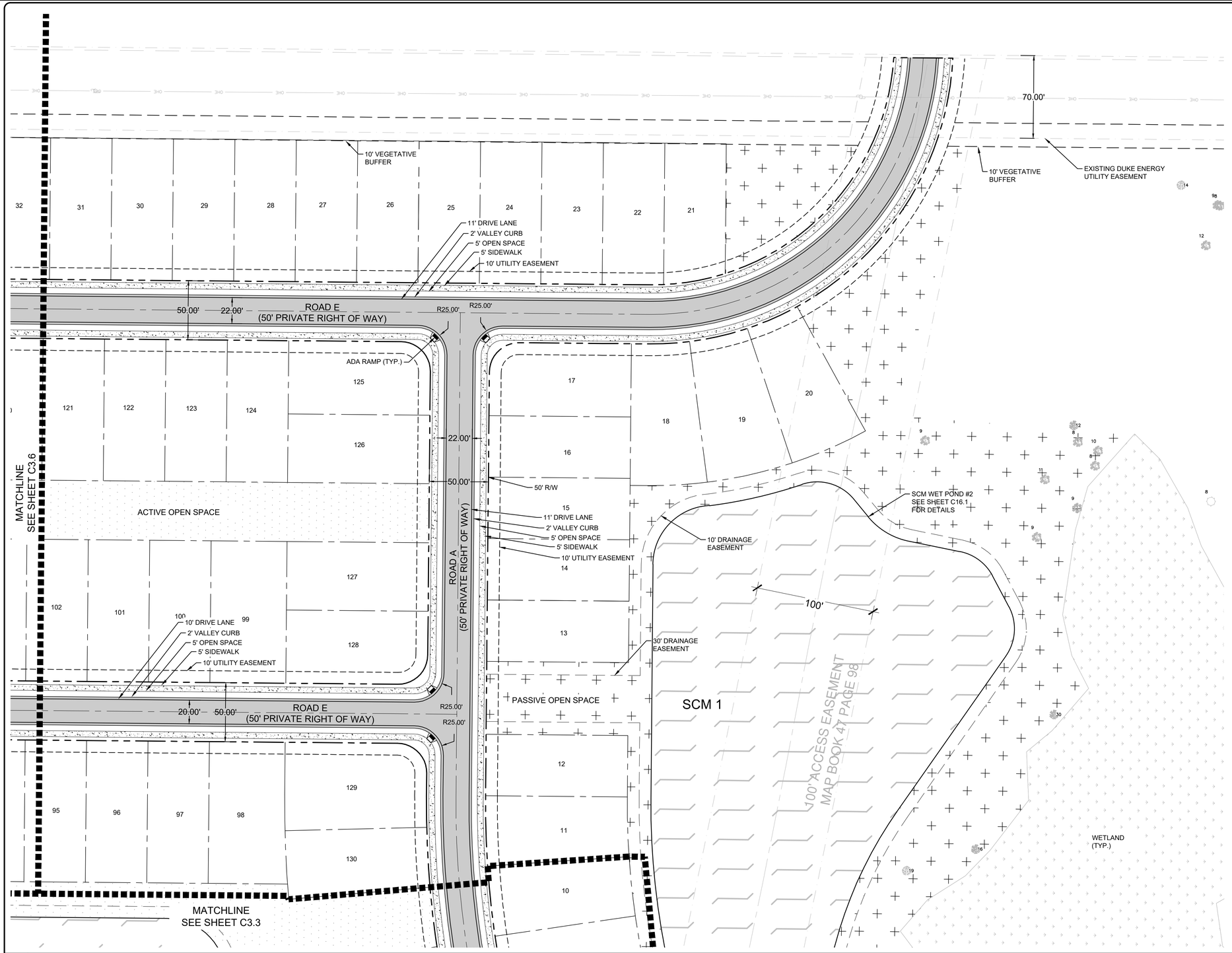
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DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: N/A

C3.3
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 SITE PLAN ENLARGEMENT

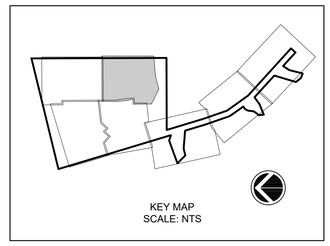
SYMBOL LEGEND

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1 NOTES

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BLAKE FARM PARCEL R

SITE PLAN - ENLARGED

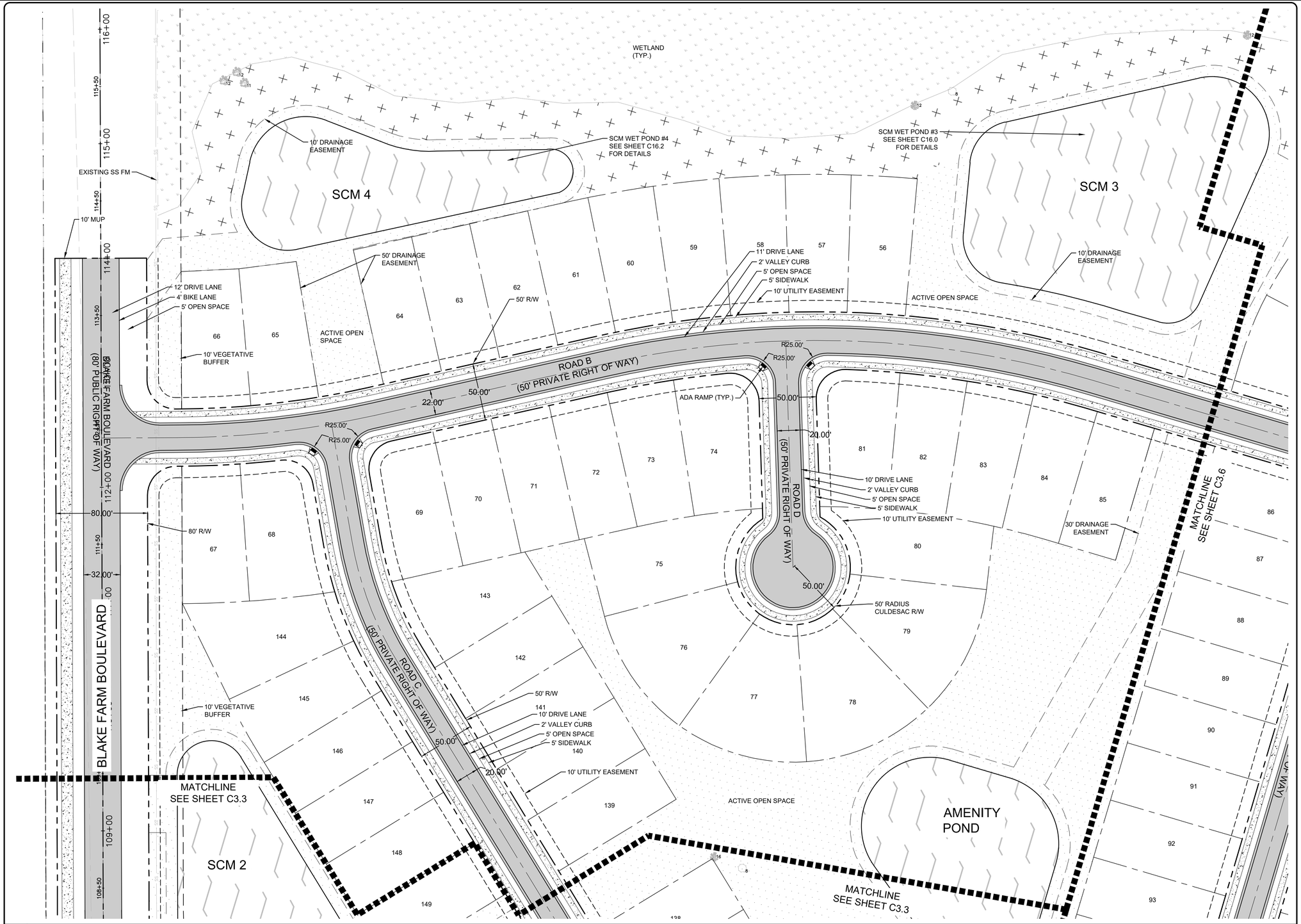
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DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: N/A

C3.4
DRAWING NUMBER

REVISION

STATUS:
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2 SITE PLAN ENLARGEMENT

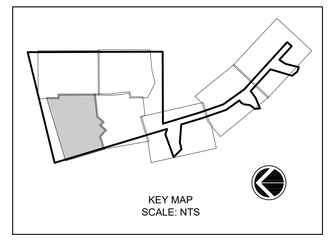
SYMBOL LEGEND

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1 NOTES

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BLAKE FARM PARCEL R

SITE PLAN - ENLARGED

DATE:	10/06/2023
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DESIGNED	GHS
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PROJ. MGR.	TSM

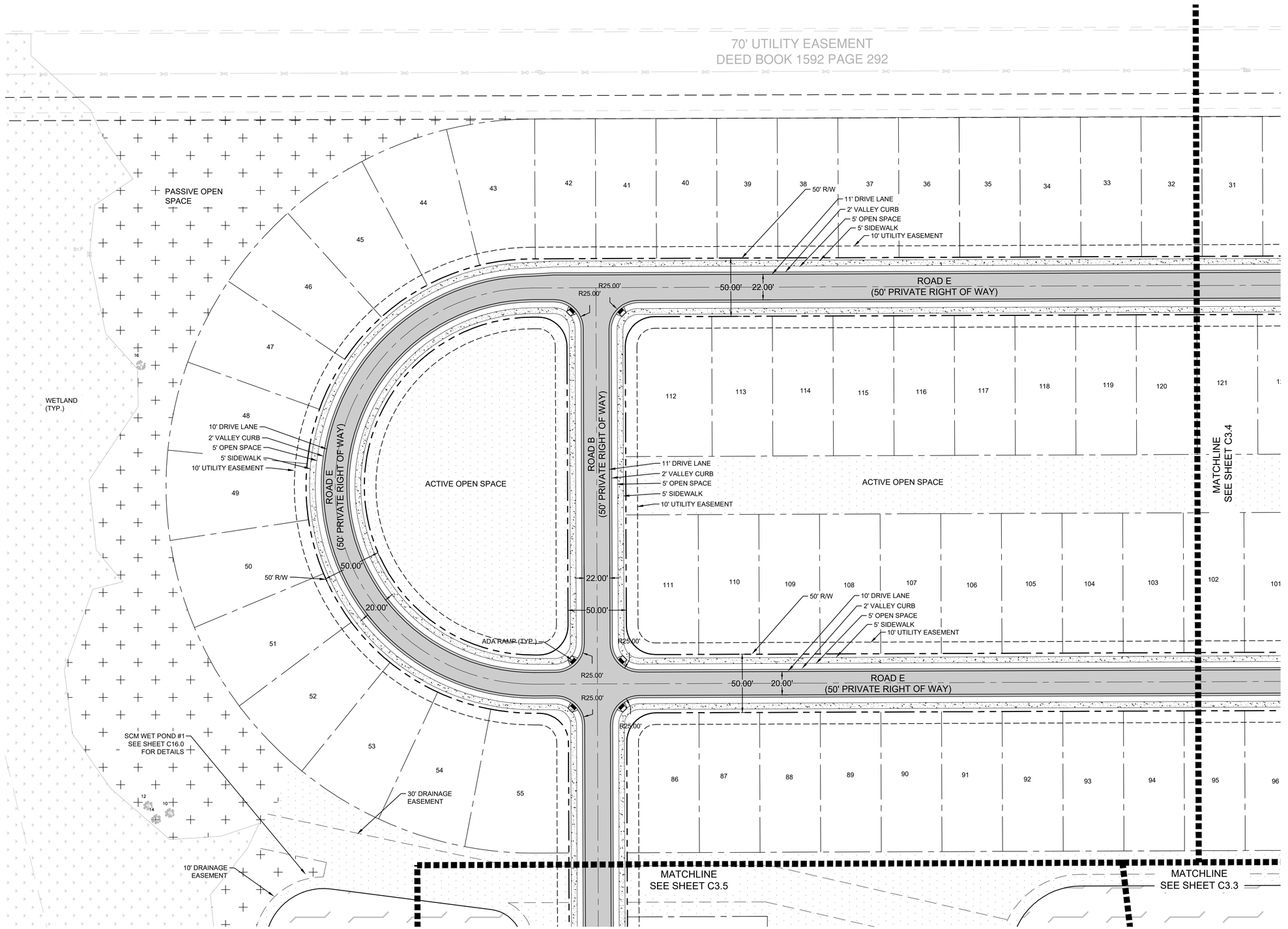
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HORIZONTAL: 1"=40'
VERTICAL: N/A

C3.5
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

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2 SITE PLAN ENLARGEMENT

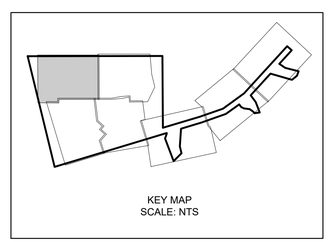
SYMBOL LEGEND

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40' 0 40' 80
SCALE 1" = 40'



KEY MAP
SCALE: NTS

1 NOTES

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BLAKE FARM PARCEL R

SITE PLAN - ENLARGED

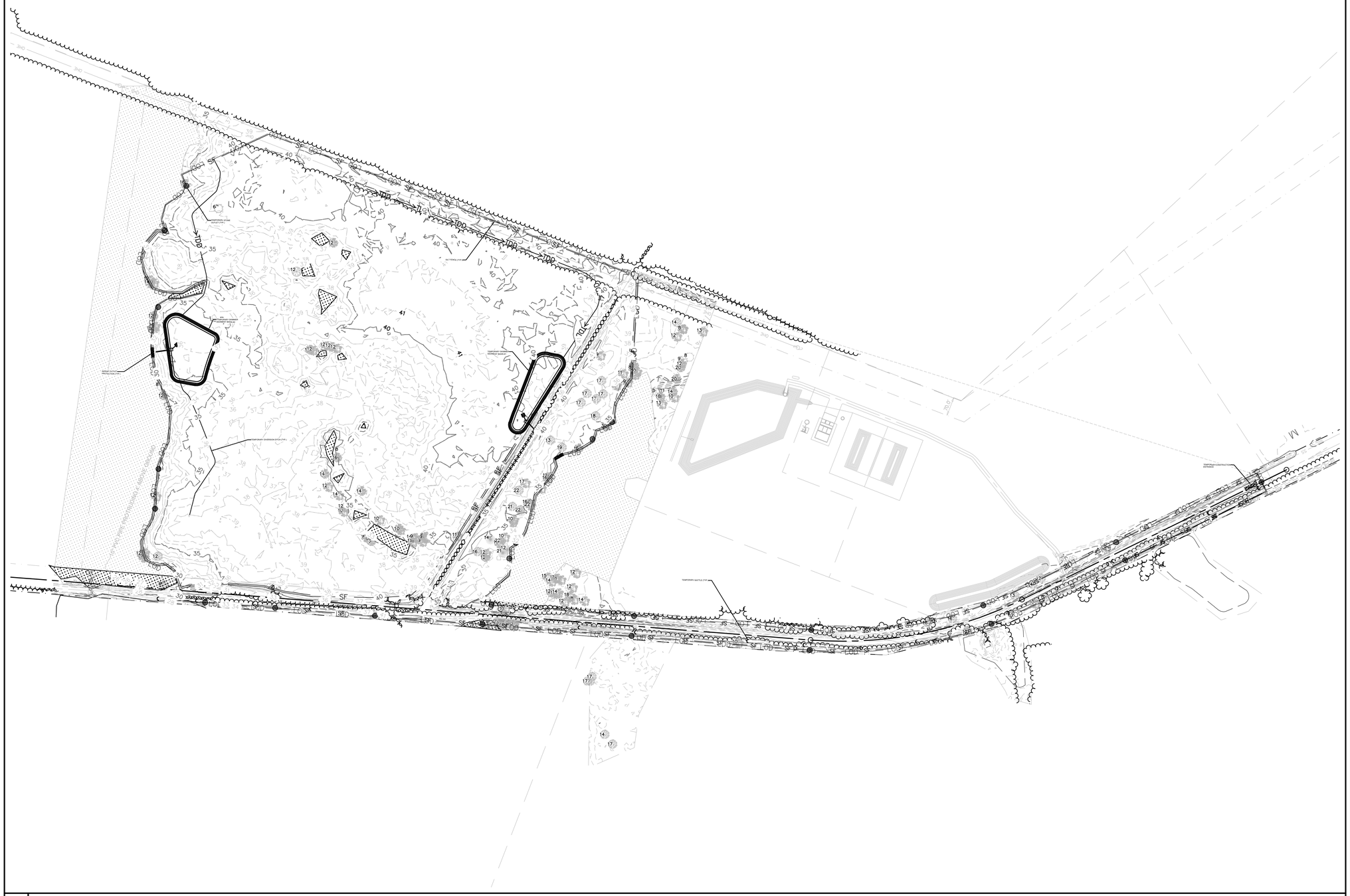
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DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: N/A

C3.6
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



PHASE 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 TREE PROTECTION FENCING,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. INSTALL TEMPORARY SKIMMER SEDIMENT BASINS WITH FAIR CLOTH SKIMMERS WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS IN ORDER TO TREAT SEDIMENT LADEN WATER.
7. INSTALL TEMPORARY DIVERSION DITCHES AND WATTLES AS SHOWN ON THE PLANS IN ORDER TO CONVEY RUNOFF INTO THE SEDIMENT BASINS.
8. COMMENCE CLEARING, GRUBBING, AND STRIPPING WITHIN THE LIMITS OF CONSTRUCTION. STRIP EXISTING GRADE TO A DEPTH OF 4 INCHES AND HAUL AWAY MATERIAL TO A LOCATION WITHIN THE DEVELOPMENT OR TO AN OFF-SITE PERMITTED LOCATION. COORDINATE LOCATION WITH PROJECT MANAGER.
9. COMMENCE ROUGH GRADING WITHIN THE LIMITS OF DISTURBANCE TO BRING THE SITE TO THE PROPOSED SUBGRADE LEVEL.
10. PROVIDE TEMPORARY STABILIZATION AND SEEDING AS NECESSARY TO PREVENT EROSION ONCE FINAL GRADES ARE ESTABLISHED. REFER TO DETAIL 7/C12.0 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.

GENERAL EROSION CONTROL NOTES

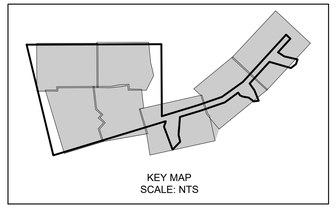
1. SEE C12.2 - NCG01 GROUND STABILIZATION AND MATERIALS HANDLING FOR REQUIREMENT MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES
2. WHERE SILT FENCE IS REQUIRED IN THE SAME PLACE AS TREE PROTECTION FENCING, ORANGE SILT FENCE AND SIGNAGE FOR TREE PROTECTION MAY BE USED INSTEAD OF DUPLICATE FENCING. SIGNAGE MUST MEET NCDEQ REQUIREMENTS FOR TREE PROTECTION DURING CONSTRUCTION.
3. 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.
4. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE STATE EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
5. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF STATE LAW AND IS SUBJECT TO A FINE.
6. 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.
7. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NCDEQ.
8. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
9. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
10. 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 SEEDED, MULCHED, AND TACKED.
11. WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
12. ALL ACTIVITY AND INSTALLATION OF EROSION CONTROL MATTING WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.

LIMITS OF DISTURBANCE

AREA: 61.5 AC

175' 0 175' 350

SCALE 1" = 175'



KEY MAP
SCALE: NTS

2 EROSION CONTROL STAGE 1 PLAN

1 NOTES

REV.NO.	DESCRIPTIONS	DATE

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EROSION CONTROL STAGE 1 PLAN - OVERALL

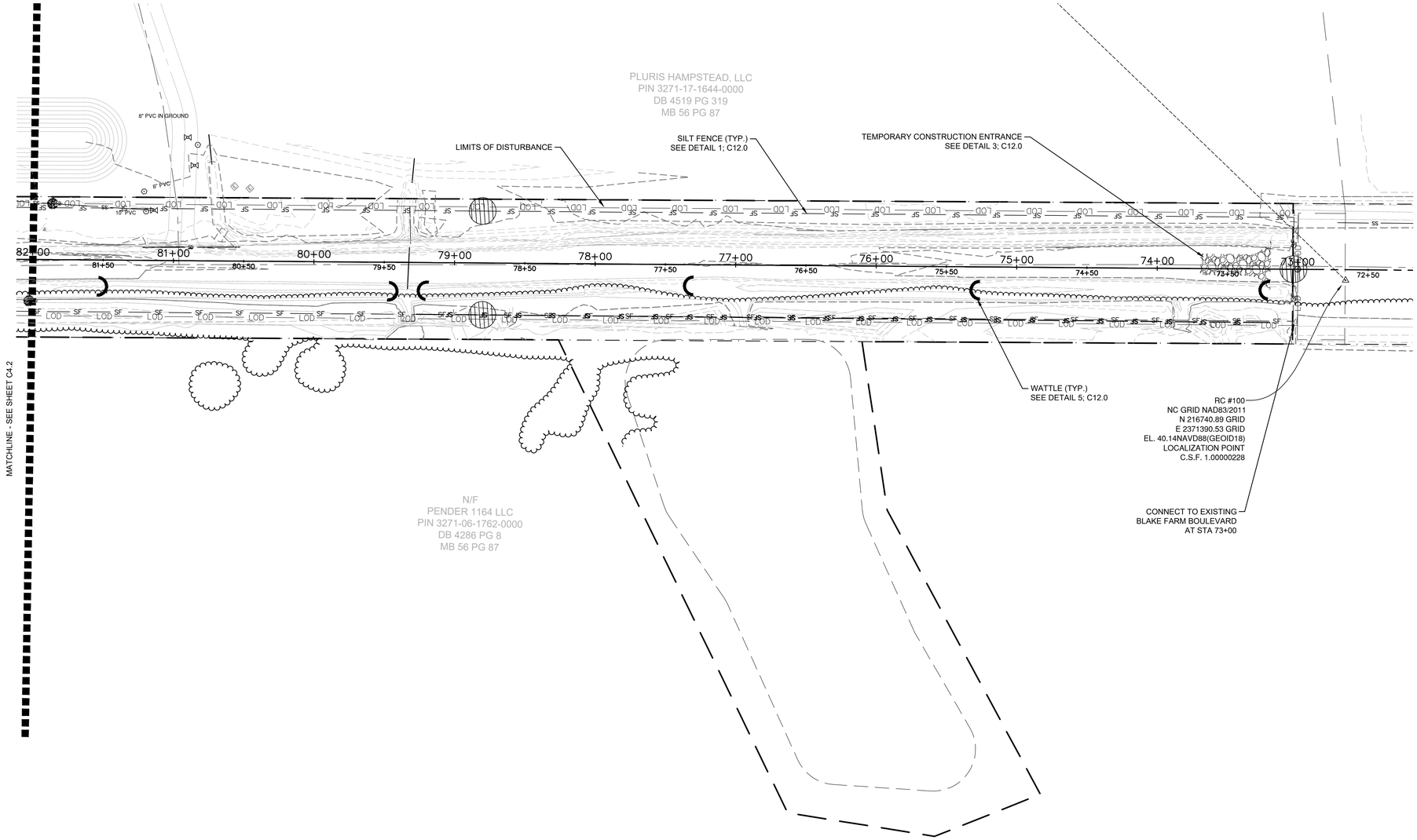
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=175'
VERTICAL: VSCALE

C4.0
DRAWING NUMBER

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STATUS:
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EROSION CONTROL LEGEND

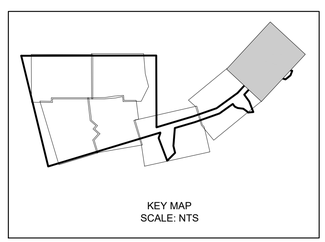
- SILT FENCE — SF
- LIMITS OF DISTURBANCE — LOD — LOD
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

NOTE:

- SILT FENCE TO BE PLACED AT LIMITS OF DISTURBANCE AND HAS BEEN SHOWN AS AN OFFSET FOR CLARITY.
- WATTLE / CHECK DAMS TO BE PLACED EVERY 200 LF IN PERMANENT DIVERSION DITCH.
- WETLAND INFORMATION BASED ON THE SOUTHERN ENVIRONMENTAL GROUP, INC. DELINEATION 7/7/2023 .

LIMITS OF DISTURBANCE =61.5 ACRES

40' 0 40' 80
SCALE 1" = 40'



KEY MAP
SCALE: NTS

2 EROSION CONTROL STAGE 1 PLAN ENLARGEMENT

1 NOTES

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EROSION CONTROL STAGE 1 PLAN - ENLARGED

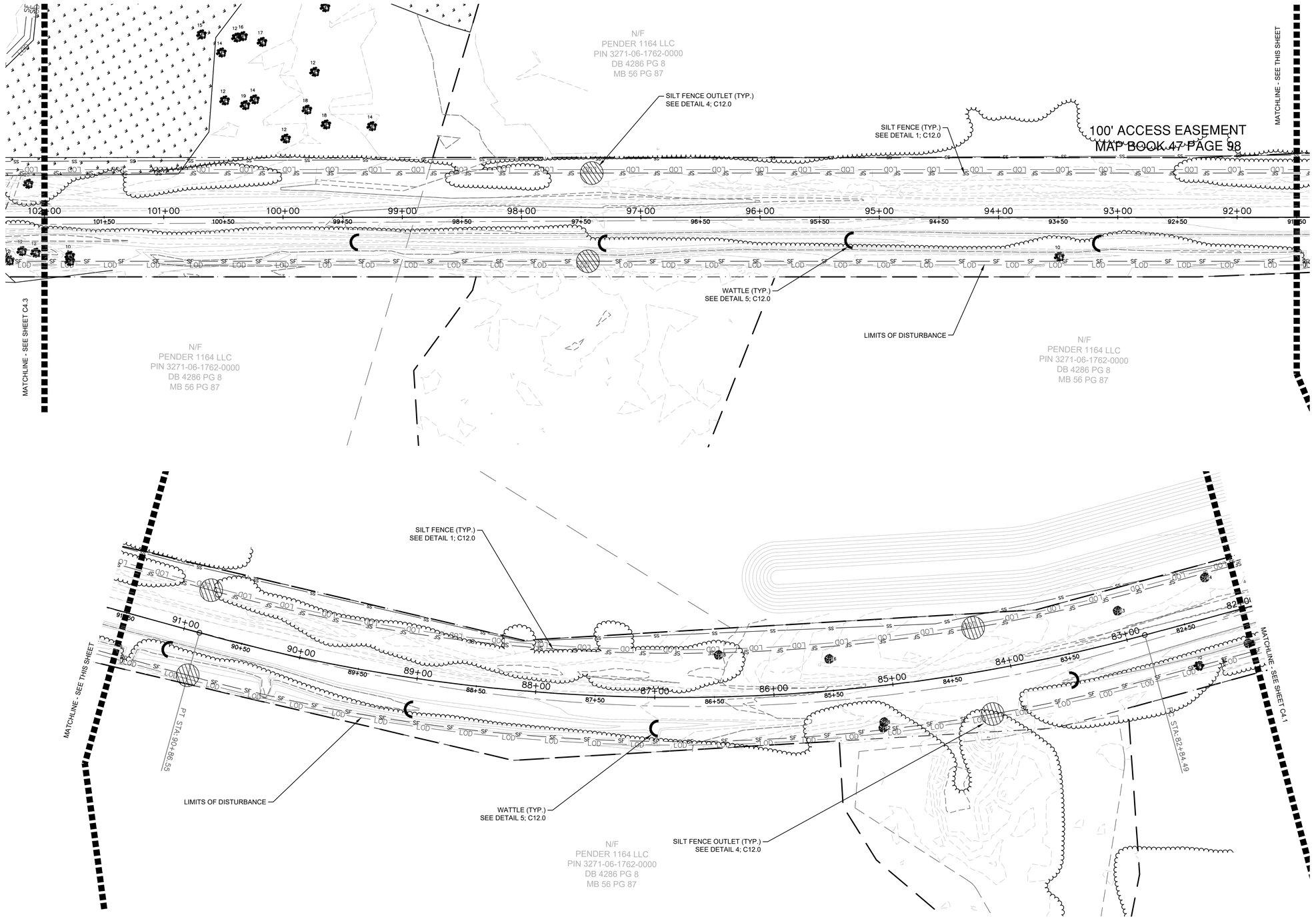
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MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C4.1
DRAWING NUMBER

REVISION

STATUS:
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2 EROSION CONTROL STAGE 1 PLAN ENLARGEMENT



EROSION CONTROL LEGEND

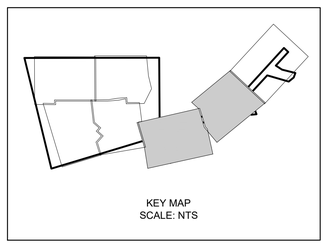
- SILT FENCE — SF
- LIMITS OF DISTURBANCE — LOD — LOD
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

NOTE:

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- WETLAND INFORMATION BASED ON THE SOUTHERN ENVIRONMENTAL GROUP, INC. DELINEATION 7/7/2023 .

LIMITS OF DISTURBANCE =61.5 ACRES





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EROSION CONTROL STAGE 1 PLAN - ENLARGED

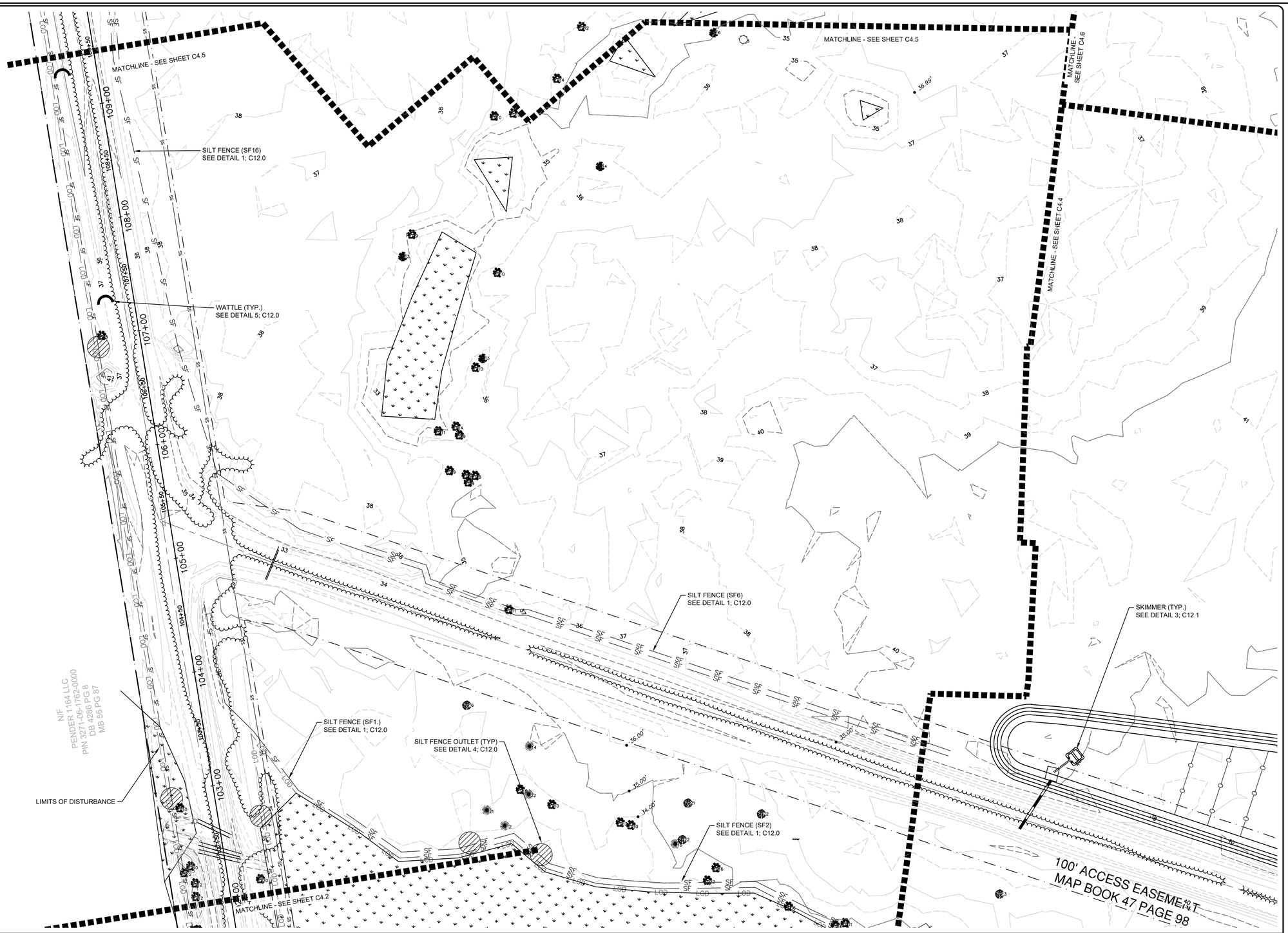
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MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
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SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C4.2
DRAWING NUMBER

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STATUS:
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2 EROSION CONTROL STAGE 1 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

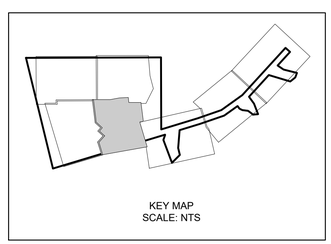
- SILT FENCE — SF
- LIMITS OF DISTURBANCE — LOD
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

NOTE:

- SILT FENCE TO BE PLACED AT LIMITS OF DISTURBANCE AND HAS BEEN SHOWN AS AN OFFSET FOR CLARITY.
- WATTLE / CHECK DAMS TO BE PLACED EVERY 200 LF IN PERMANENT DIVERSION DITCH.
- WETLAND INFORMATION BASED ON THE SOUTHERN ENVIRONMENTAL GROUP, INC. DELINEATION 7/7/2023 .

LIMITS OF DISTURBANCE =61.5 ACRES

40' 0 40' 80
SCALE 1" = 40'



1 NOTES

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EROSION CONTROL STAGE 1 PLAN - ENLARGED

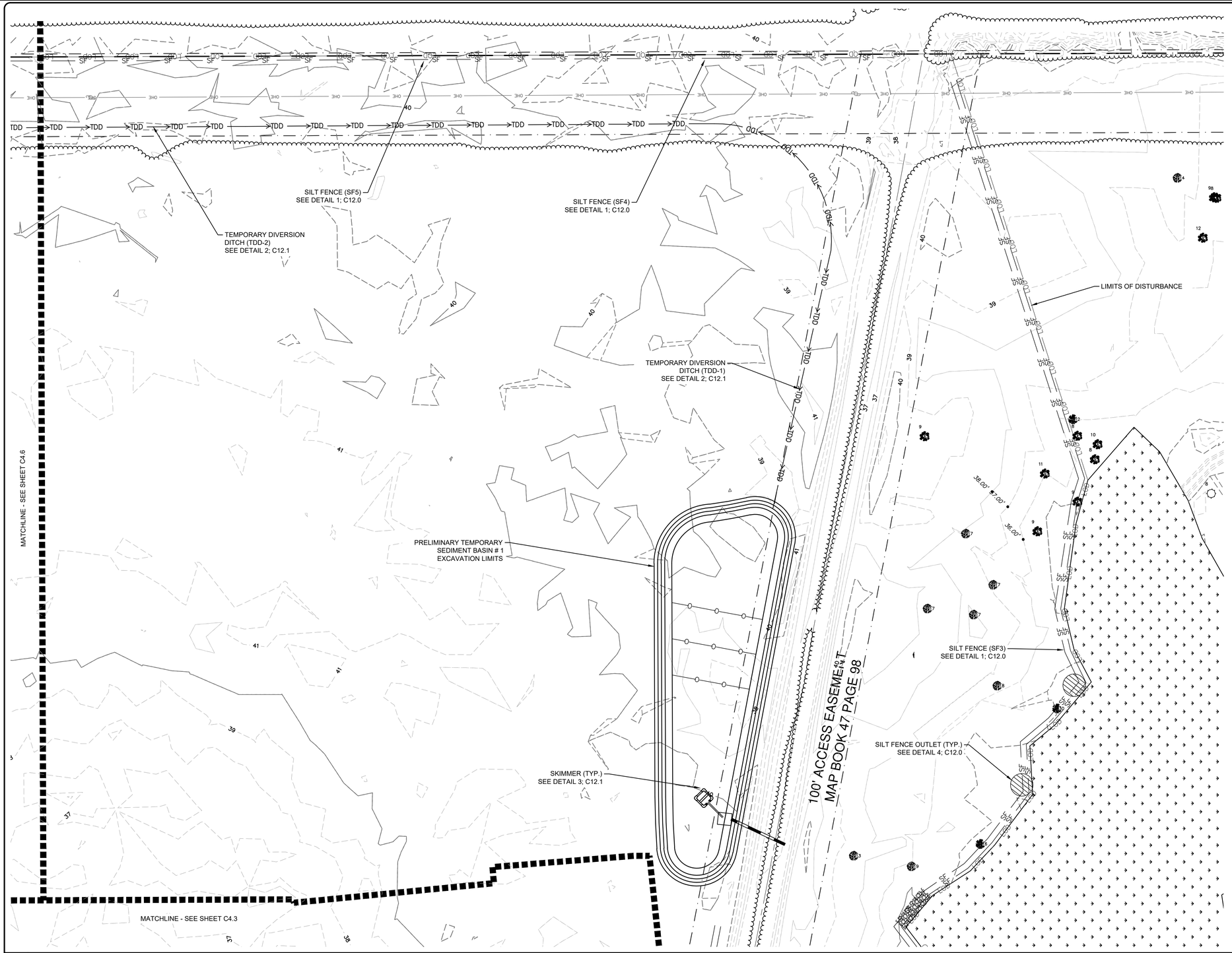
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
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SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C4.3
DRAWING NUMBER

REVISION

STATUS:
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EROSION CONTROL LEGEND

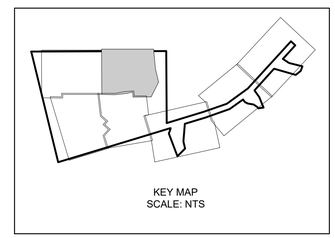
- SILT FENCE — SF
- LIMITS OF DISTURBANCE — LOD
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

NOTE:

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LIMITS OF DISTURBANCE =61.5 ACRES

40' 0 40' 80
SCALE 1" = 40'



2 | EROSION CONTROL STAGE 1 PLAN ENLARGEMENT

1 | NOTES

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EROSION CONTROL STAGE 1 PLAN - ENLARGED

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PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C4.4
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STATUS:
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EROSION CONTROL LEGEND

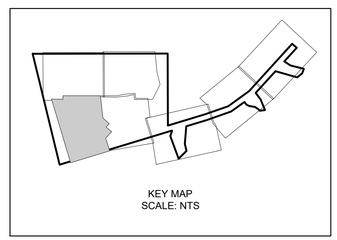
- SILT FENCE
- LIMITS OF DISTURBANCE
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

NOTE:

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- WATTLE / CHECK DAMS TO BE PLACED EVERY 200 LF IN PERMANENT DIVERSION DITCH.
- WETLAND INFORMATION BASED ON THE SOUTHERN ENVIRONMENTAL GROUP, INC. DELINEATION 7/7/2023 .

LIMITS OF DISTURBANCE =61.5 ACRES

40' 0 40' 80
SCALE 1" = 40'



2 EROSION CONTROL STAGE 1 PLAN ENLARGEMENT

1 NOTES

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SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C4.5
DRAWING NUMBER

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STATUS:
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70' UTILITY EASEMENT
DEED BOOK 1592 PAGE 292

LIMITS OF DISTURBANCE

SILT FENCE (SF8)
SEE DETAIL 1; C12.0

SILT FENCE (SF7)
SEE DETAIL 1; C12.0

TEMPORARY DIVERSION
DITCH (TDD-3)
SEE DETAIL 2; C12.1

SILT FENCE (SF9)
SEE DETAIL 1; C12.0

SILT FENCE OUTLET (TYP.)
SEE DETAIL 4; C12.0

TEMPORARY DIVERSION
DITCH (TDD-4)
SEE DETAIL 2; C12.1

SILT FENCE (SF10)
SEE DETAIL 1; C12.0

SILT FENCE (SF11)
SEE DETAIL 1; C12.0

TEMPORARY DIVERSION
DITCH (TDD-5)
SEE DETAIL 2; C12.1

MATCHLINE - SEE SHEET C4.4

MATCHLINE - SEE SHEET C4.5

MATCHLINE - SEE SHEET C4.3

2 EROSION CONTROL STAGE 1 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

- SILT FENCE — SF
- LIMITS OF DISTURBANCE — LOD — LOD
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

NOTE:

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- WETLAND INFORMATION BASED ON THE SOUTHERN ENVIRONMENTAL GROUP, INC. DELINEATION 7/7/2023 .

LIMITS OF DISTURBANCE =61.5 ACRES

40' 0 40' 80
SCALE 1" = 40'

KEY MAP
SCALE: NTS

1 NOTES

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EROSION CONTROL STAGE 1 PLAN - ENLARGED

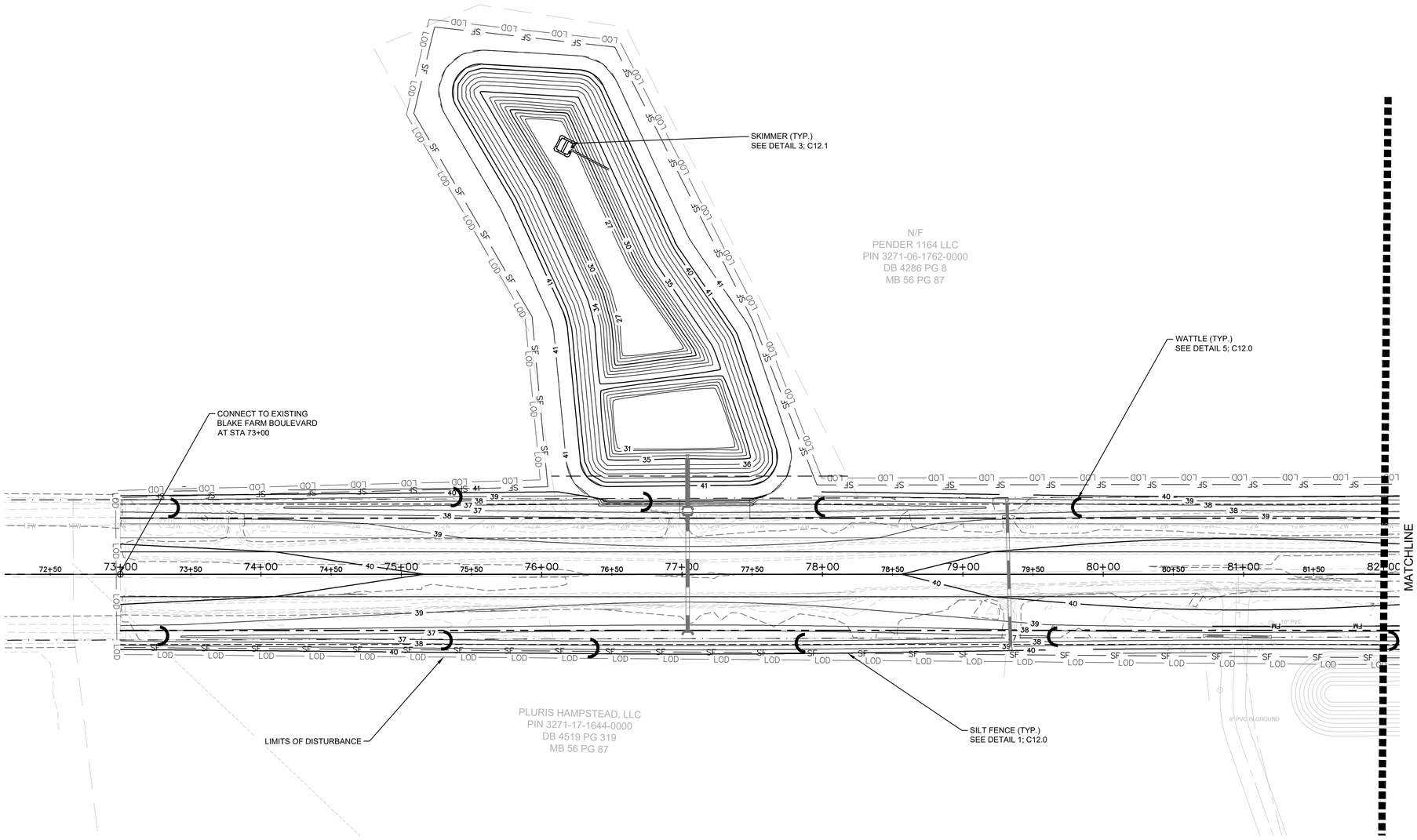
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MCE PROJ. #	04245-0055
DRAWN	BMJ
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PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C4.6
DRAWING NUMBER

REVISION

STATUS:
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2 EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

- SILT FENCE — SF — SF —
- LIMITS OF DISTURBANCE — LOD — LOD —
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

PHASE 2 CONSTRUCTION SEQUENCE NOTES

1. BEGIN PHASE 2 SEDIMENT AND EROSION CONTROL UPON COMPLETION OF CLEARING, GRUBBING AND STRIPPING OPERATIONS, ROUGH GRADING OF THE SITE, INSTALLATION OF THE STORM WATER COLLECTION SYSTEM.
2. MAINTAIN EROSION CONTROL MEASURES FROM PHASE 1 INTO PHASE 2 AS INDICATED. THIS INCLUDES SILT FENCING, SILT FENCE OUTLETS, SKIMMER SEDIMENT BASINS AND CONSTRUCTION ENTRANCES.
3. REMOVE EROSION CONTROL MEASURES FROM PHASE 1 INTO PHASE 2 AS INDICATED. THIS INCLUDES TEMPORARY DIVERSIONS, EXISTING DRAINAGE DITCHES, CHECK DAMS AND TEMPORARY SEDIMENT TRAPS. STABILIZE THESE AREAS ACCORDING TO THE STABILIZATION MEASURES REQUIRED HEREIN.
4. INSTALL TEMPORARY GROUND STABILIZATION MEASURES, WHERE POSSIBLE, IN ALL AREAS OUTSIDE OF IMMEDIATE CONSTRUCTION ZONES.
5. INSTALL INLET PROTECTION AS INDICATED. SEE INLET PROTECTION DETAILS FOR MORE INFORMATION.
6. CONNECT SKIMMERS TO RISER STRUCTURES FOR TEMPORARY SEDIMENT BASINS AT PERMANENT STORMWATER WET PONDS. BAFFLES MAY BE REMOVED ONCE INLET PROTECTION IS ESTABLISHED.
7. COMPLETE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
8. UPON COMPLETION OF CONSTRUCTION, ESTABLISH PERMANENT GROUND COVER AND OVERALL SITE STABILIZATION.
9. REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES.

EROSION CONTROL MAINTENANCE NOTES

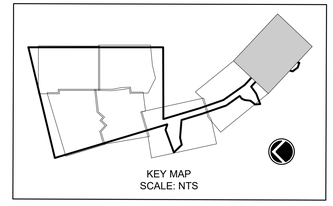
1. THE FOLLOWING EROSION CONTROL MAINTENANCE NOTES SHALL BE ADHERED TO DURING THE ENTIRE CONSTRUCTION PERIOD. SEE ALSO, EROSION CONTROL DETAIL SHEETS C12.0 TO C12.2 FOR ADDITIONAL MAINTENANCE NOTES.
2. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF EVERY ONE-HALF (0.5) INCH OR GREATER RAINFALL.
3. 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.
4. 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.
5. ALL AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
6. 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 6 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS REQUIRED.
9. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.5" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED. INLET PROTECTION SHOULD BE CLEANED OUT WHEN IT IS HALF FULL.
10. INSPECT TEMPORARY SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
11. CHECK THE SEDIMENT BASIN EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE. AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
12. INSPECT THE SKIMMER FOR CLOGGING. PULL THE SKIMMER TO THE SIDE OF THE BASIN AND REMOVE ANY DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER AND THE ARM OR BARREL PIPE FOR CLOGGING. IF CLOGGED, REMOVE THE DEBRIS.
13. INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEAN OUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH. AFTER THE CONTRIBUTING DRAINAGE AREAS HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.
14. 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.
15. INSPECT DANDY SACKS/GUTTERBUDDY WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER). REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. DANDY SACKS/WATTLES MUST BE REPLACED IF CLOGGED OR TORN. DANDY SACKS/GUTTERBUDDY NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED. DANDY SACKS/GUTTERBUDDY SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.
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LIMITS OF DISTURBANCE

AREA: 61.5 AC

40' 0 40' 80

SCALE 1" = 40'



KEY MAP
SCALE: NTS

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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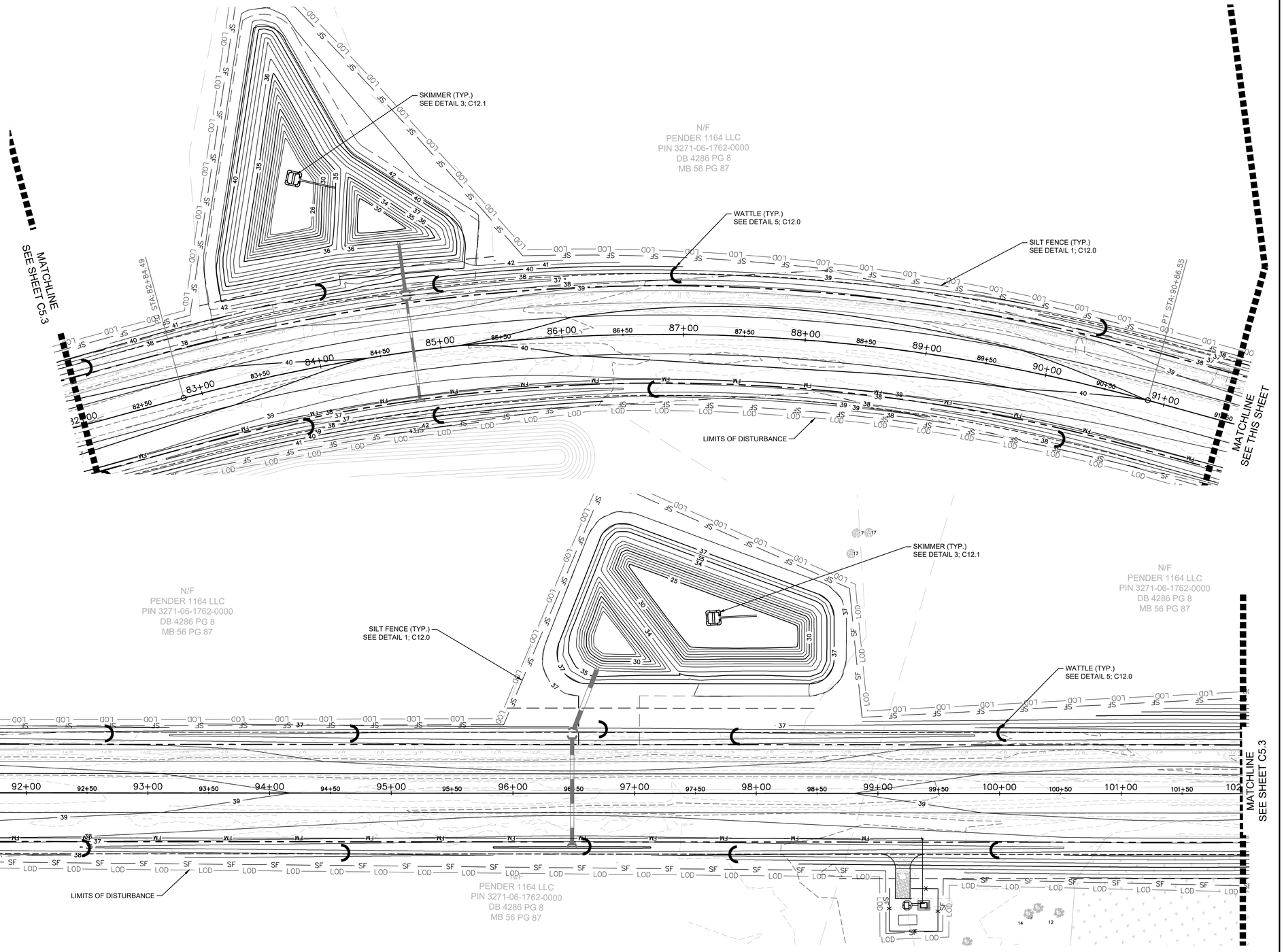
EROSION CONTROL STAGE 2 PLAN ENLARGMENT

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C5.1
DRAWING NUMBER
0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

- SILT FENCE — SF — SF —
- LIMITS OF DISTURBANCE — LOD — LOD —
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

PHASE 2 CONSTRUCTION SEQUENCE NOTES

1. BEGIN PHASE 2 SEDIMENT AND EROSION CONTROL UPON COMPLETION OF CLEARING, GRUBBING AND STRIPPING OPERATIONS, ROUGH GRADING OF THE SITE, INSTALLATION OF THE STORM WATER COLLECTION SYSTEM.
2. MAINTAIN EROSION CONTROL MEASURES FROM PHASE 1 INTO PHASE 2 AS INDICATED. THIS INCLUDES SILT FENCING, SILT FENCE OUTLETS, SKIMMER SEDIMENT BASINS AND CONSTRUCTION ENTRANCES.
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4. INSTALL TEMPORARY GROUND STABILIZATION MEASURES, WHERE POSSIBLE, IN ALL AREAS OUTSIDE OF IMMEDIATE CONSTRUCTION ZONES.
5. INSTALL INLET PROTECTION AS INDICATED. SEE INLET PROTECTION DETAILS FOR MORE INFORMATION.
6. CONNECT SKIMMERS TO RISER STRUCTURES FOR TEMPORARY SEDIMENT BASINS AT PERMANENT STORMWATER WET PONDS. BAFFLES MAY BE REMOVED ONCE INLET PROTECTION IS ESTABLISHED.
7. COMPLETE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
8. UPON COMPLETION OF CONSTRUCTION, ESTABLISH PERMANENT GROUND COVER AND OVERALL SITE STABILIZATION.
9. REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES.

EROSION CONTROL MAINTENANCE NOTES

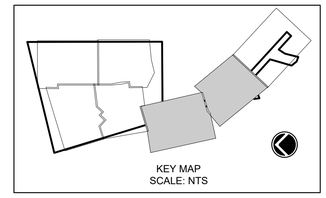
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LIMITS OF DISTURBANCE

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40' 0 40' 80
SCALE 1" = 40'

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1 NOTES

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	REVISIONS	

SEAL

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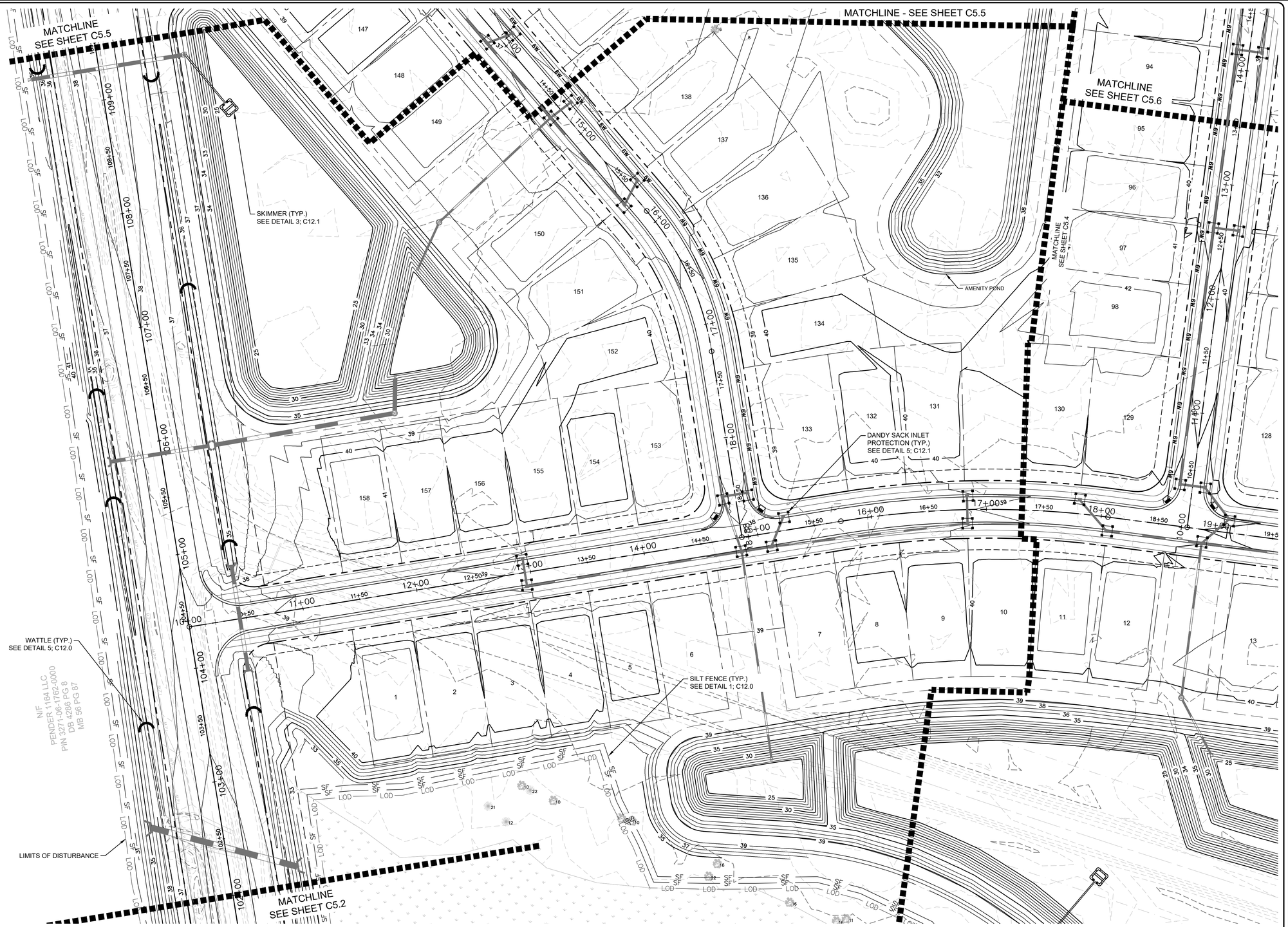
EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C5.2
DRAWING NUMBER
0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW



EROSION CONTROL LEGEND

- SILT FENCE — SF — SF —
- LIMITS OF DISTURBANCE — LOD — LOD —
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
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- TEMPORARY CONSTRUCTION ENTRANCE
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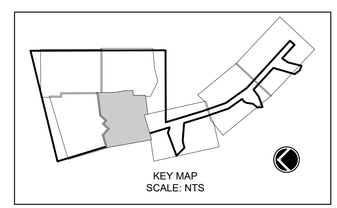
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LIMITS OF DISTURBANCE

AREA: 68.00 AC

40' 0 40' 80

SCALE 1" = 40'



KEY MAP
SCALE: NTS

2 EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

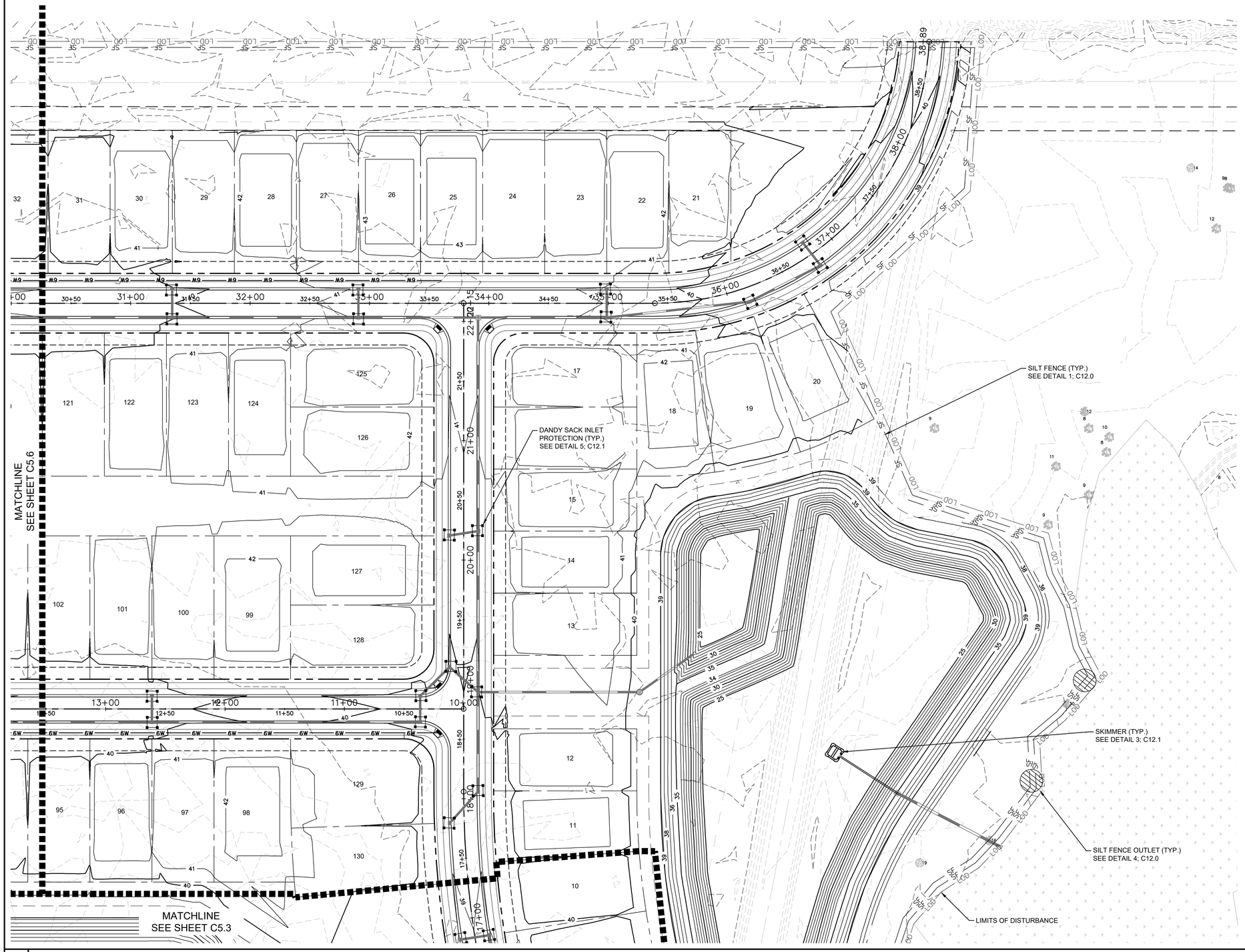
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C5.3
DRAWING NUMBER

0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

- SILT FENCE — SF — SF —
- LIMITS OF DISTURBANCE — LOD — LOD —
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
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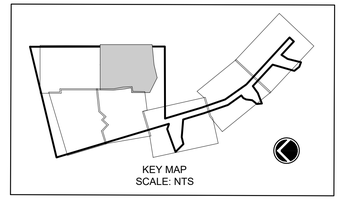
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14. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.
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LIMITS OF DISTURBANCE

AREA: 68.00 AC

40' 0 40' 80

SCALE 1" = 40'



1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

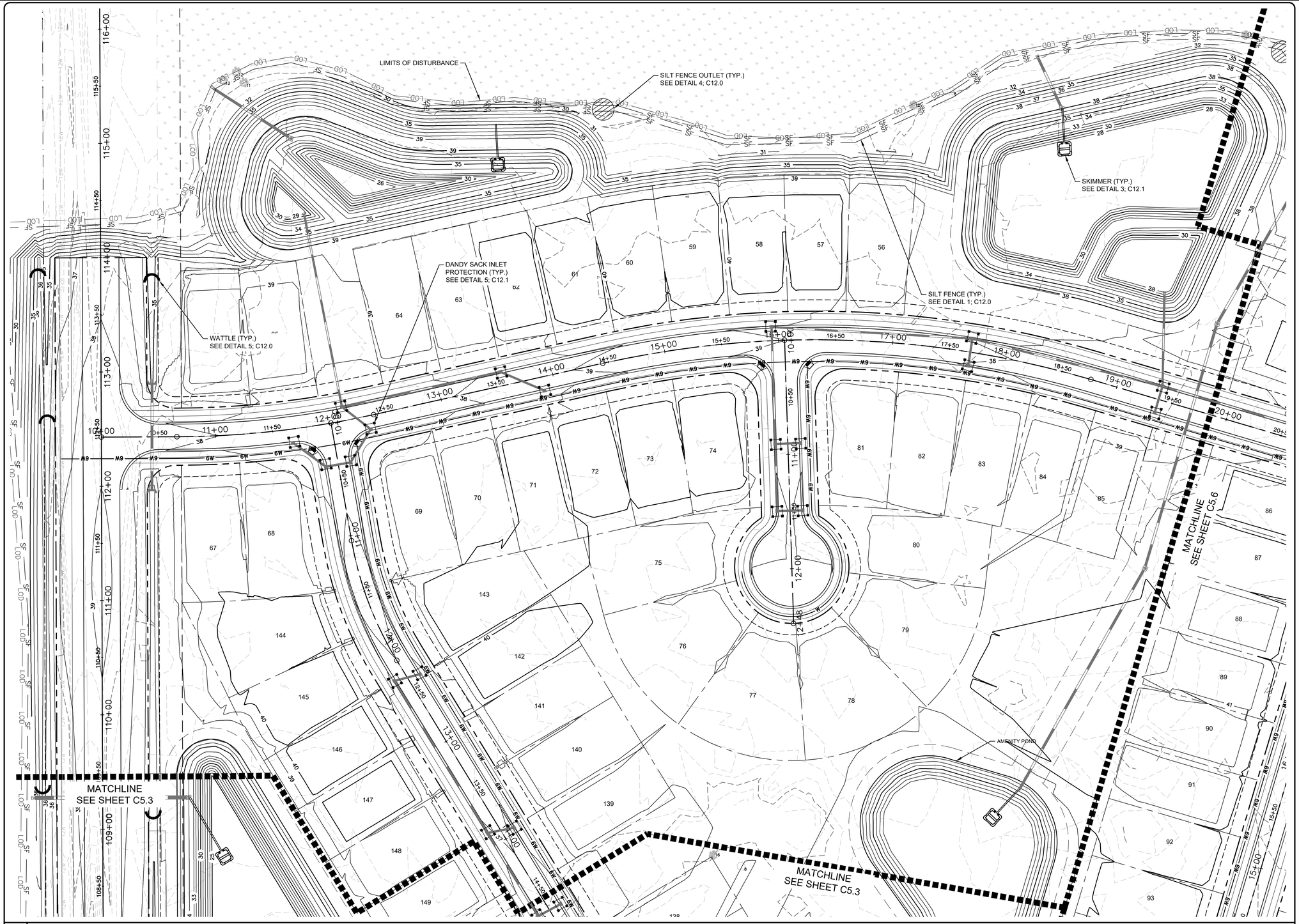
SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C5.4 DRAWING NUMBER

0 REVISION

STATUS: PENDER COUNTY TRC REVIEW

I:\04245\0055\ENG\80-DRAWINGS\81_PRODUCTION_SHEETS\2_WORKING_DWGS\C5.1_EROSION CONTROL STAGE 2 PLAN ENLARGED.DWG ---- 10/06/2023 10:31:01



2 EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

- SILT FENCE — SF — SF —
- LIMITS OF DISTURBANCE — LOD — LOD —
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
- SILT FENCE OUTLET
- TEMPORARY CONSTRUCTION ENTRANCE
- WATTLE / CHECK DAM

PHASE 2 CONSTRUCTION SEQUENCE NOTES

1. BEGIN PHASE 2 SEDIMENT AND EROSION CONTROL UPON COMPLETION OF CLEARING, GRUBBING AND STRIPPING OPERATIONS, ROUGH GRADING OF THE SITE, INSTALLATION OF THE STORM WATER COLLECTION SYSTEM.
2. MAINTAIN EROSION CONTROL MEASURES FROM PHASE 1 INTO PHASE 2 AS INDICATED. THIS INCLUDES SILT FENCING, SILT FENCE OUTLETS, SKIMMER SEDIMENT BASINS AND CONSTRUCTION ENTRANCES.
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4. INSTALL TEMPORARY GROUND STABILIZATION MEASURES, WHERE POSSIBLE, IN ALL AREAS OUTSIDE OF IMMEDIATE CONSTRUCTION ZONES.
5. INSTALL INLET PROTECTION AS INDICATED. SEE INLET PROTECTION DETAILS FOR MORE INFORMATION.
6. CONNECT SKIMMERS TO RISER STRUCTURES FOR TEMPORARY SEDIMENT BASINS AT PERMANENT STORMWATER WET PONDS. BAFFLES MAY BE REMOVED ONCE INLET PROTECTION IS ESTABLISHED.
7. COMPLETE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
8. UPON COMPLETION OF CONSTRUCTION, ESTABLISH PERMANENT GROUND COVER AND OVERALL SITE STABILIZATION.
9. REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES.

EROSION CONTROL MAINTENANCE NOTES

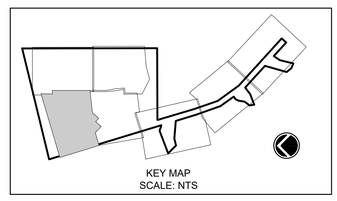
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LIMITS OF DISTURBANCE

AREA: 68.00 AC

40' 0 40' 80

SCALE 1" = 40'



1 NOTES

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	REVISIONS	

SEAL

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EROSION CONTROL STAGE 2 PLAN ENLARGMENT

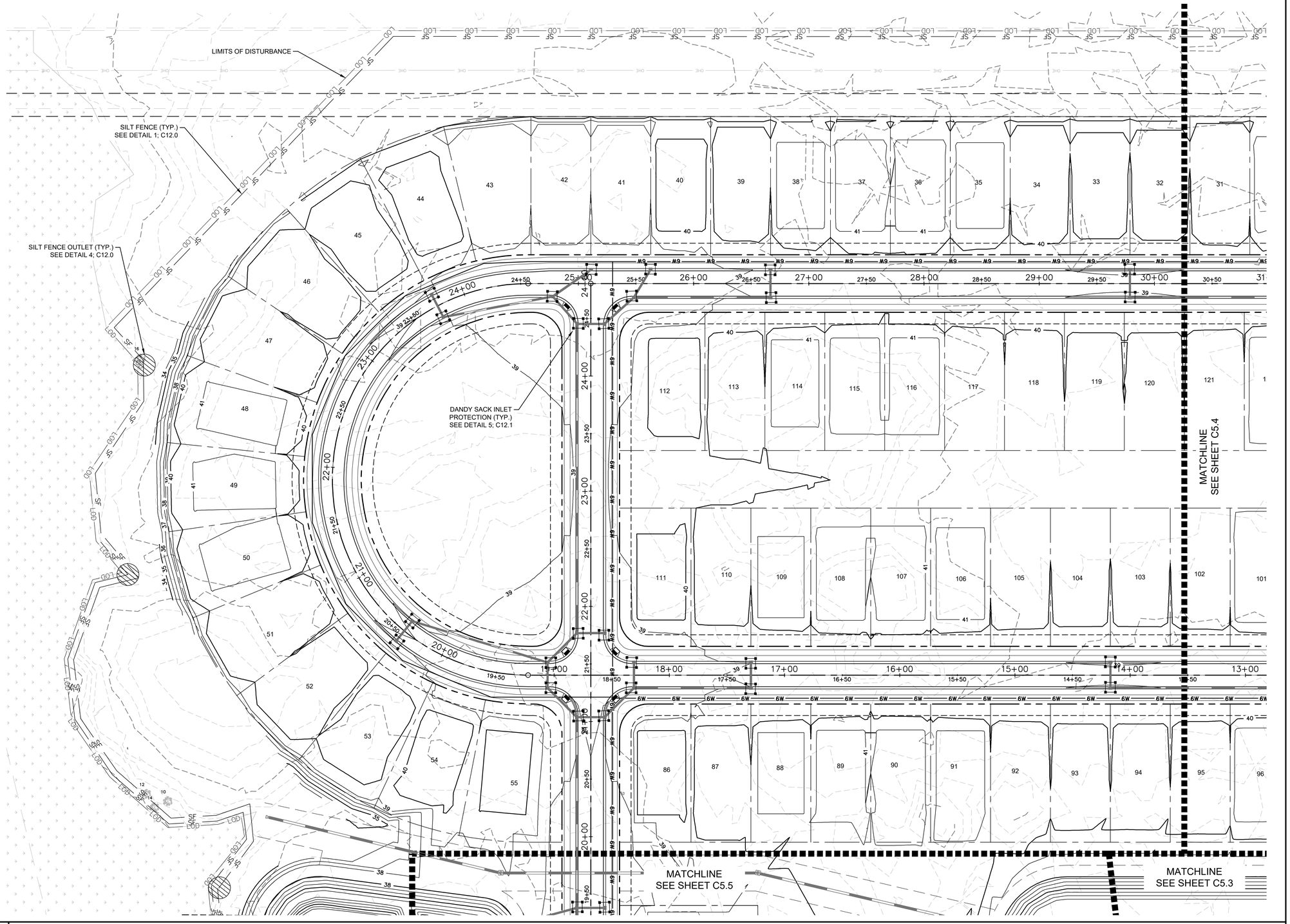
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C5.5
DRAWING NUMBER

0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW



2 EROSION CONTROL STAGE 2 PLAN ENLARGEMENT

EROSION CONTROL LEGEND

- SILT FENCE — SF — SF —
- LIMITS OF DISTURBANCE — LOD — LOD —
- CLEARING AND GRADING EXTENTS
- TEMPORARY SEDIMENT BASIN BAFFLE
- TEMPORARY DIVERSION DITCH
- DANDY SACK INLET PROTECTION
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EROSION CONTROL MAINTENANCE NOTES

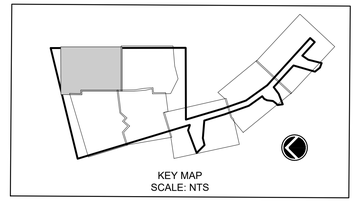
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LIMITS OF DISTURBANCE

AREA: 68.00 AC

40' 0 40' 80

SCALE 1" = 40'



KEY MAP
SCALE: NTS

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

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EROSION CONTROL STAGE 2 PLAN ENLARGMENT

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

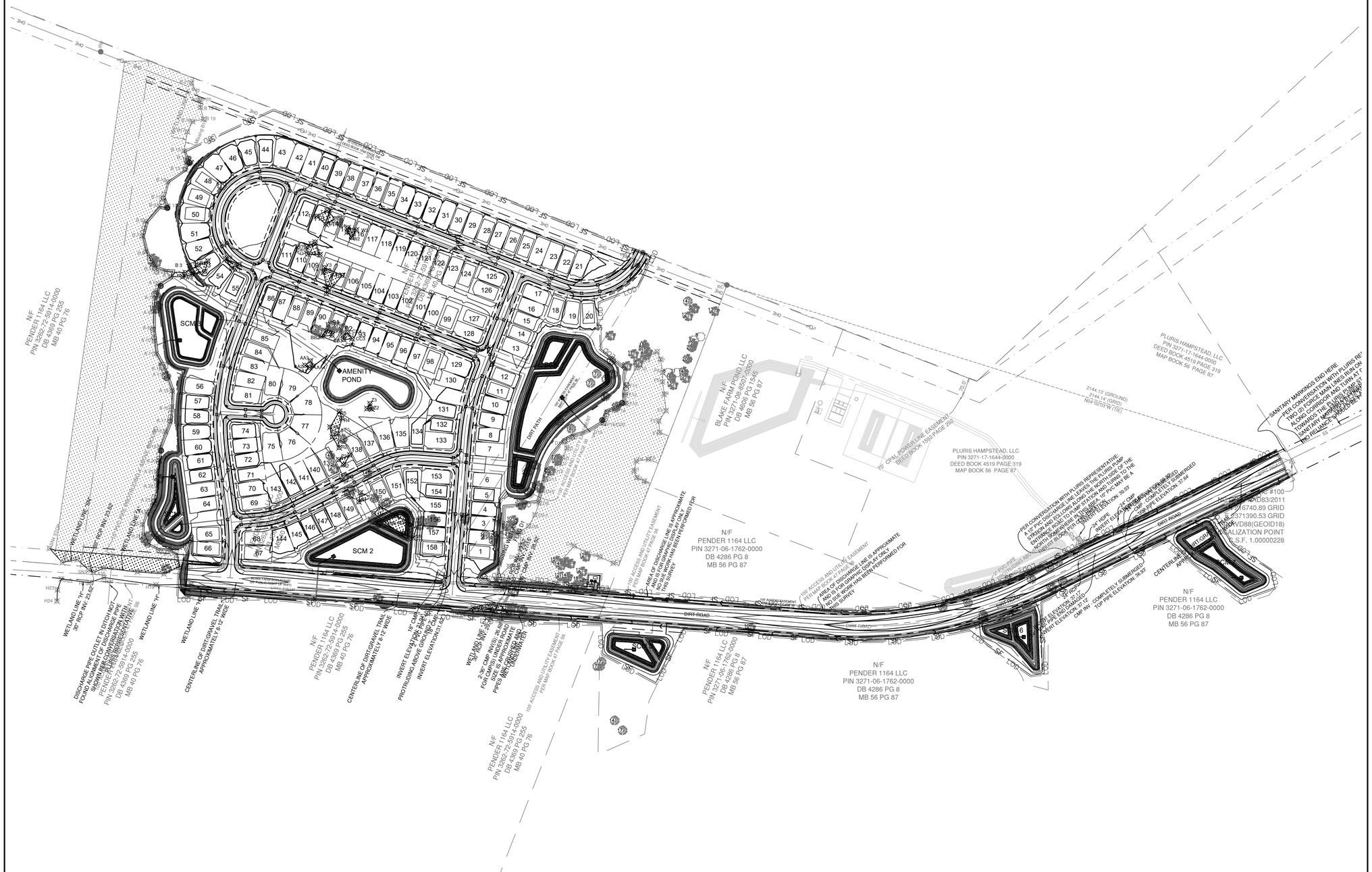
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HORIZONTAL: 1"=40'
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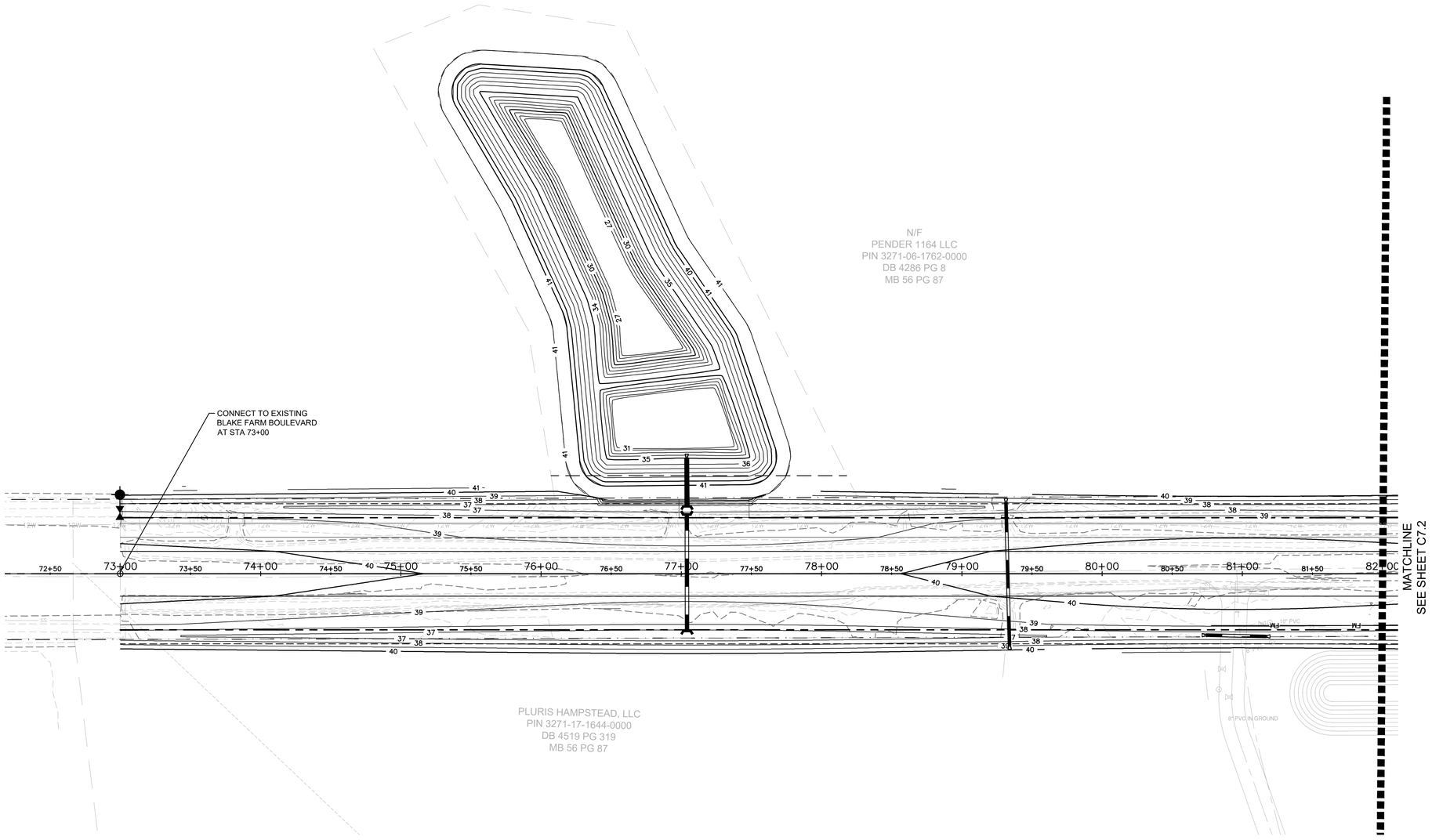
C5.6
DRAWING NUMBER

0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW

I:\04245\0055\ENG\80-DRAWINGS\81_PRODUCTION_SHEETS\2_WORKING_DWGS\C5.1_EROSION CONTROL STAGE 2 PLAN ENLARGED.DWG ---- 10/06/2023 10:31:17

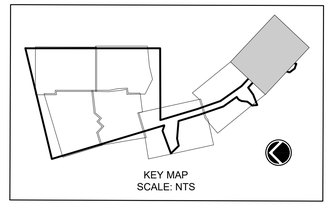

SCM 1
SCM 2
AMENITY POND
DIRT PATH
DIRT ROAD
N/F
PENDER 1164 LLC
PIN 3271-06-1762-0000
DB 4286 PG 8
MB 56 PG 87
N/F
PENDER 1164 LLC
PIN 3292-72-5914-0000
DB 4369 PG 255
MB 40 PG 76
N/F
BLAKE FARM POND LLC
PIN 3271-06-8507-0000
DB 4606 PG 1545
MB 56 PG 87
PLURIS HAMPSTEAD, LLC
PIN 3271-17-1644-0000
DEED BOOK 4519 PAGE 319
MAP BOOK 56 PAGE 87
CP&L POWERLINE EASEMENT
DEED BOOK 1562 PAGE 299
SANITARY MARKINGS END HERE
PER CONVERSION WITH PLURIS RE"
TWO (2) CONVERSION MH'S RUN OF
ALONG CENTRE MAIN LINES RUN S
TOWARDS THE PLURIS PUMP ST
SANITARY MARKINGS BEGIN HERE
PER CONVERSION WITH PLURIS RE"
A (1) PVC MH CONVERSION ALONG THE PLURIS PUMP
STATION FORCEMAIN LINES RUN NORTH AND EAST OF THE
NORTH HOMEOWNER DRIVE ENTRANCE TO THE MH BE A
CENTERLINE OF DIRTY ROAD ELEVATION: 36.05'
#100
N83/2011
6740.89 GRID
2371390.53 GRID
VD88(GEOID18)
ALIZATION POINT
S.F. 1.00000228
CENTERLINE OF DIRTY ROAD ELEVATION: 36.05'
N/F
PENDER 1164 LLC
PIN 3271-06-1762-0000
DB 4286 PG 8
MB 56 PG 87
WETLAND LINE "A"
30' ROP INV 25.82'
WETLAND LINE "B"
WETLAND LINE "C"
WETLAND LINE "D"
WETLAND LINE "E"
WETLAND LINE "F"
DISCHARGE PIPE OUTLET W DITCH NO FOUND ALIGNMENT OF DISCHARGE PIPE SHOWN PER CONVERSATION WITH PENDER PLURIS REPRESENTATIVE
CENTERLINE OF DIRTY/GRAVEL TRAIL APPROXIMATELY 9'-12' WIDE
INVERT ELEVATION 31.62'
18" CMP
PROTRUDING ABOVE GROUND
2"-36" CMP INV 26.48'
FOR CMP UNDER DIRT ROAD SIZE IS APPROXIMATE PIPES WERE UNCERTAIN
1ST ACCESS AND UTILITY EASEMENT PER MAP BOOK 47 PAGE 38
AREA OF DISCHARGE LINE IS APPROXIMATE AND IS FOR GRAVEL LINE ONLY. NO SUE WORK HAS BEEN PERFORMED FOR THIS SURVEY
30' ACCESS AND UTILITY EASEMENT PER MAP BOOK 47 PAGE 38
1ST ACCESS AND UTILITY EASEMENT PER MAP BOOK 47 PAGE 38
AREA OF DISCHARGE LINE IS APPROXIMATE AND IS FOR GRAVEL LINE ONLY. NO SUE WORK HAS BEEN PERFORMED FOR THIS SURVEY
2144.13' (GROUND)
2144.14' (GRID)
NAD 83/93 (TIE)
CP&L POWERLINE EASEMENT DEED BOOK 1562 PAGE 299
CP&L POWERLINE EASEMENT DEED BOOK 1562 PAGE 299
24" RCP INVERT ELEVATION: 31.54'
CMP INV. 31.54' COMPLETELY SUBMERGED
TOP PIPE ELEVATION: 38.55'
24" RCP INVERT ELEVATION: 31.12'
CMP INV. 31.12' COMPLETELY SUBMERGED
TOP PIPE ELEVATION: 38.55'
18" CMP INVERT ELEVATION: 31.54'
CMP INV. 31.54' COMPLETELY SUBMERGED
TOP PIPE ELEVATION: 37.54'
DIRT ROAD
DIRT ROAD
DIRT ROAD



SYMBOLS LEGEND

- STORM DRAIN LINE
- SS — SANITARY SEWER
- W — W — W — WATER LINE
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- WATER BLOW-OFF
- WATER VALVE
- WATER REDUCER
- WATER CROSSING
- WATER TEE
- STORM DRAIN DROP INLET (DI)
- STORM DRAIN CURB INLET (CI)
- STORM DRAIN JUNCTION BOX (JB)
- STORM DRAIN MANHOLE (MH)
- FLARED END SECTION (FES)
- OUTLET STRUCTURE (OS)

40' 0 40' 80
SCALE 1" = 40'



2 GRADING & DRAINAGE PLAN ENLARGEMENT

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

GRADING & DRAINAGE PLAN - ENLARGED

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

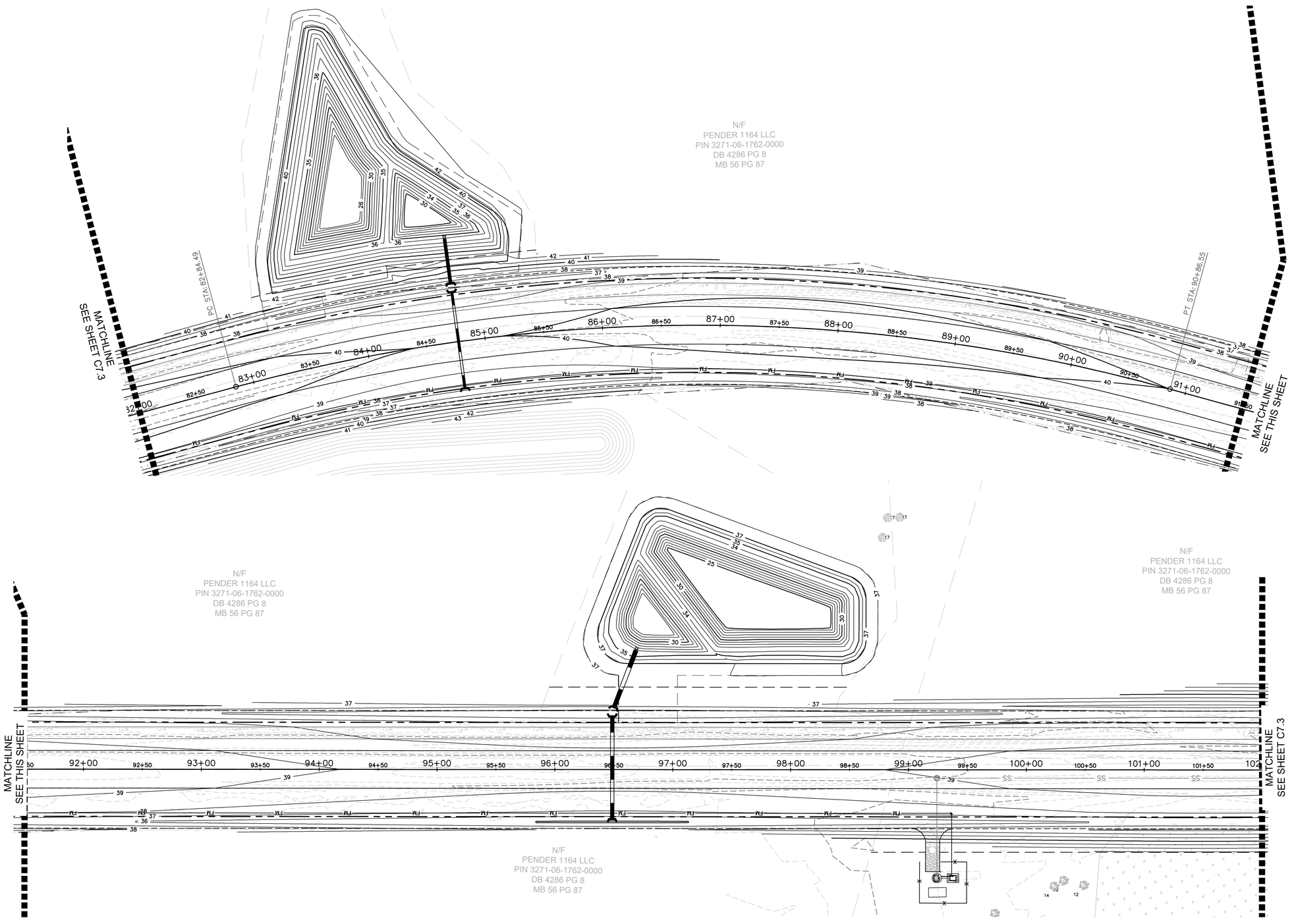
SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C7.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

I:\04245\005\ENG\80-DRAWINGS\81_PRODUCTION_SHEETS\2_WORKING_DWGS\C7.1_GRADING DRAINAGE AND E&SC STAGE 2 PLAN ENLARGED.DWG --- 10/06/2023 10:32:47



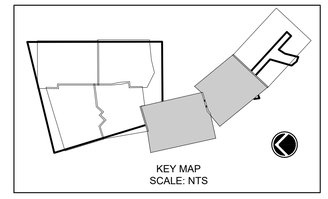
2 GRADING DRAINAGE AND E&SC PLAN ENLARGEMENT

SYMBOLS LEGEND

- STORM DRAIN LINE
- SANITARY SEWER
- WATER LINE
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- WATER BLOW-OFF
- WATER VALVE
- WATER REDUCER
- WATER CROSSING
- WATER TEE
- STORM DRAIN DROP INLET (DI)
- STORM DRAIN CURB INLET (CI)
- STORM DRAIN JUNCTION BOX (JB)
- STORM DRAIN MANHOLE (MH)
- FLARED END SECTION (FES)
- OUTLET STRUCTURE (OS)

40' 0 40' 80
SCALE 1" = 40'

40' 0 40' 80
SCALE 1" = 40'



1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

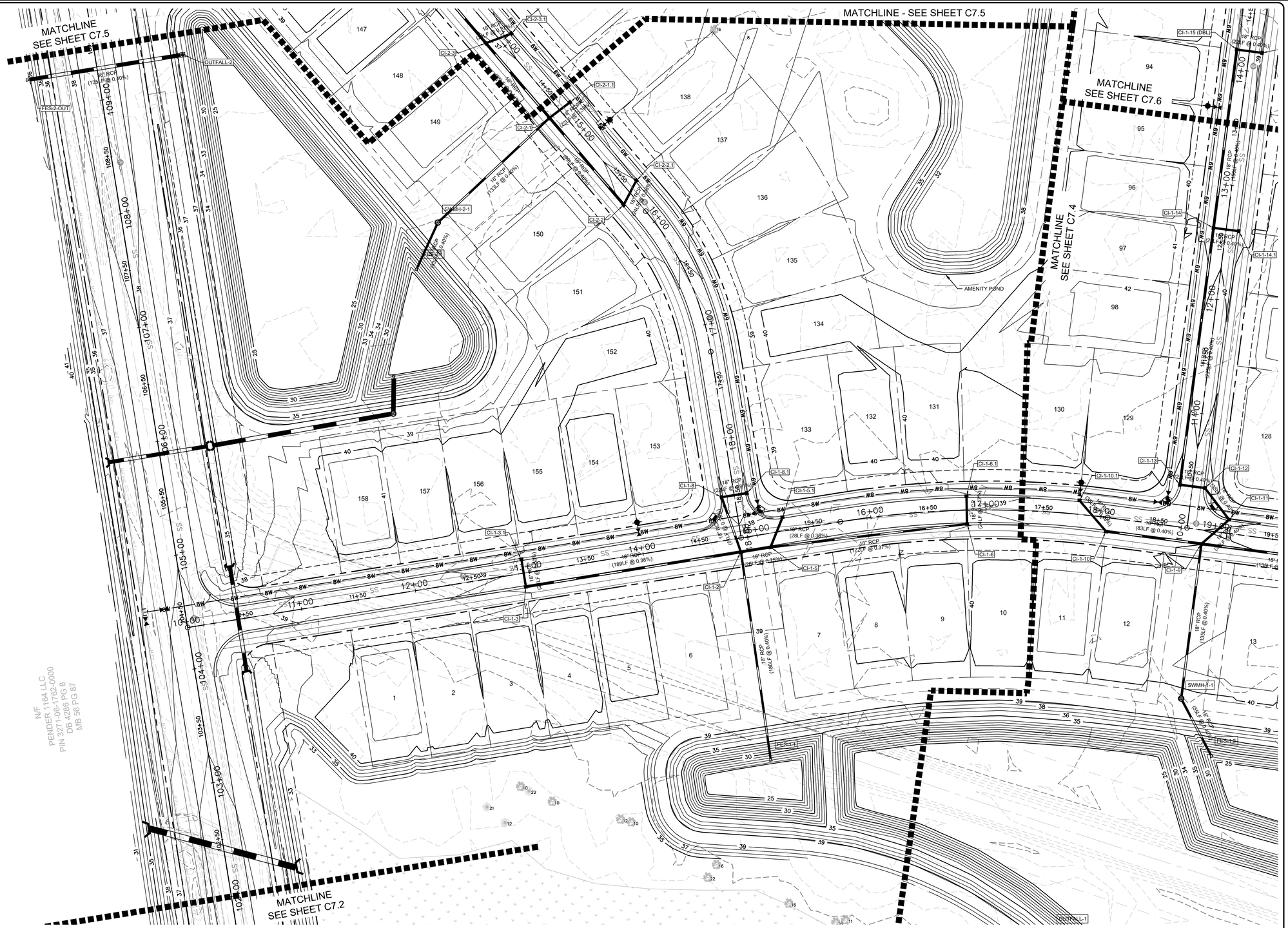
GRADING & DRAINAGE PLAN - ENLARGED

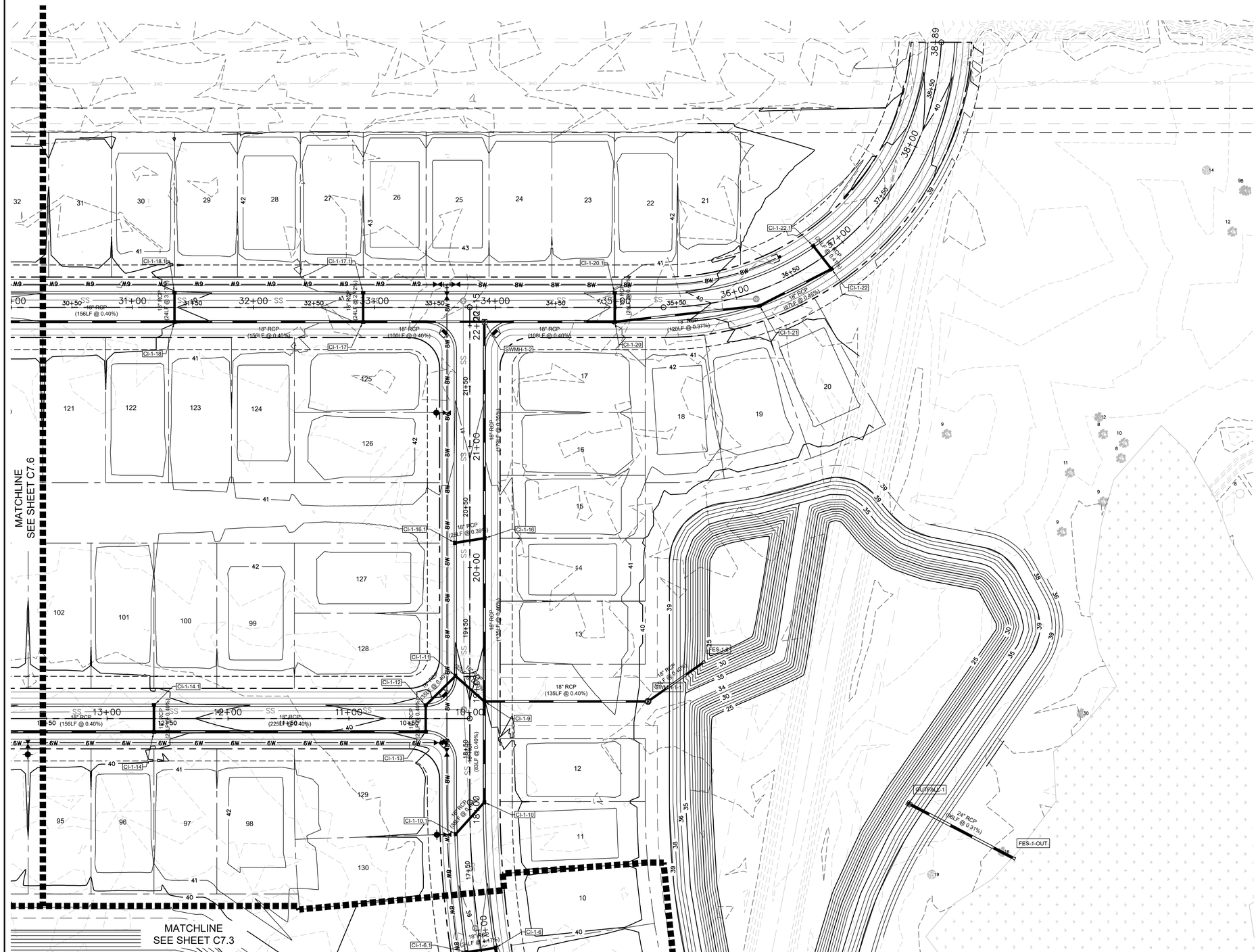
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C7.2
DRAWING NUMBER
0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW

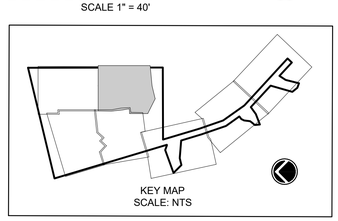

MATCHLINE - SEE SHEET C7.5
MATCHLINE SEE SHEET C7.5
MATCHLINE SEE SHEET C7.6
MATCHLINE SEE SHEET C7.4
MATCHLINE SEE SHEET C7.2
OUTFALL-2
FES-2-OUT
SWMH-2-1
SWMH-1-1
FES-1-1
FES-1-9
AMENITY POND
N/F
PENDER 1164 LLC
PIN 3271-06-1762-0000
DB 4286 PG 8
MB 56 PG 87
18" RCP (135LF @ 0.40%)
18" RCP (189LF @ 0.38%)
18" RCP (28LF @ 0.36%)
18" RCP (172LF @ 0.37%)
18" RCP (83LF @ 0.40%)
18" RCP (180LF @ 0.40%)
18" RCP (135LF @ 0.40%)
18" RCP (135LF @ 0.40%)
18" RCP (135



SYMBOLS LEGEND

- STORM DRAIN LINE
- SANITARY SEWER
- WATER LINE
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- WATER BLOW-OFF
- WATER VALVE
- WATER REDUCER
- WATER CROSSING
- WATER TEE
- STORM DRAIN DROP INLET (DI)
- STORM DRAIN CURB INLET (CI)
- STORM DRAIN JUNCTION BOX (JB)
- STORM DRAIN MANHOLE (MH)
- FLARED END SECTION (FES)
- OUTLET STRUCTURE (OS)

40' 0 40' 80
SCALE 1" = 40'



2 GRADING DRAINAGE AND E&SC PLAN ENLARGEMENT

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

GRADING & DRAINAGE PLAN - ENLARGED

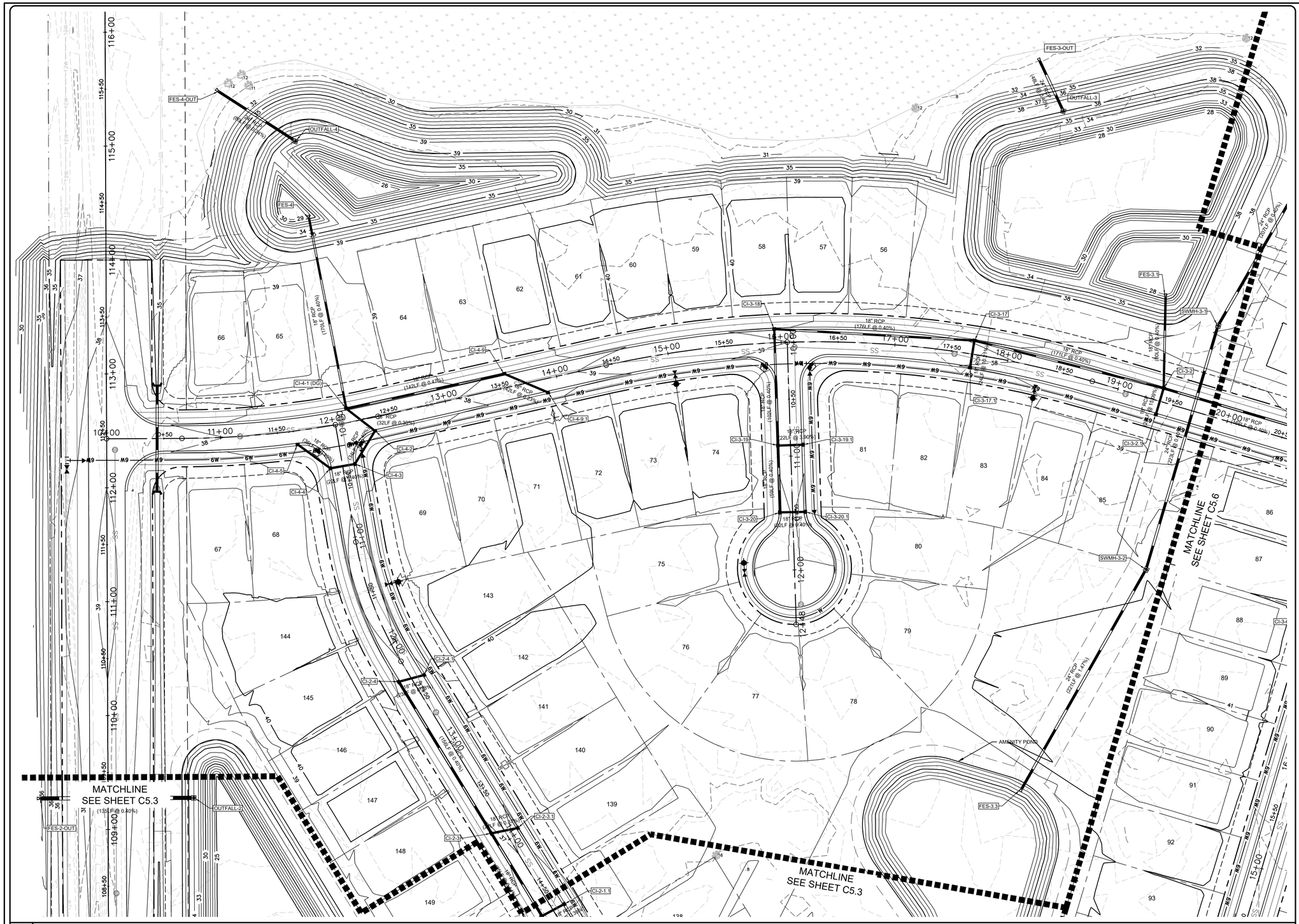
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

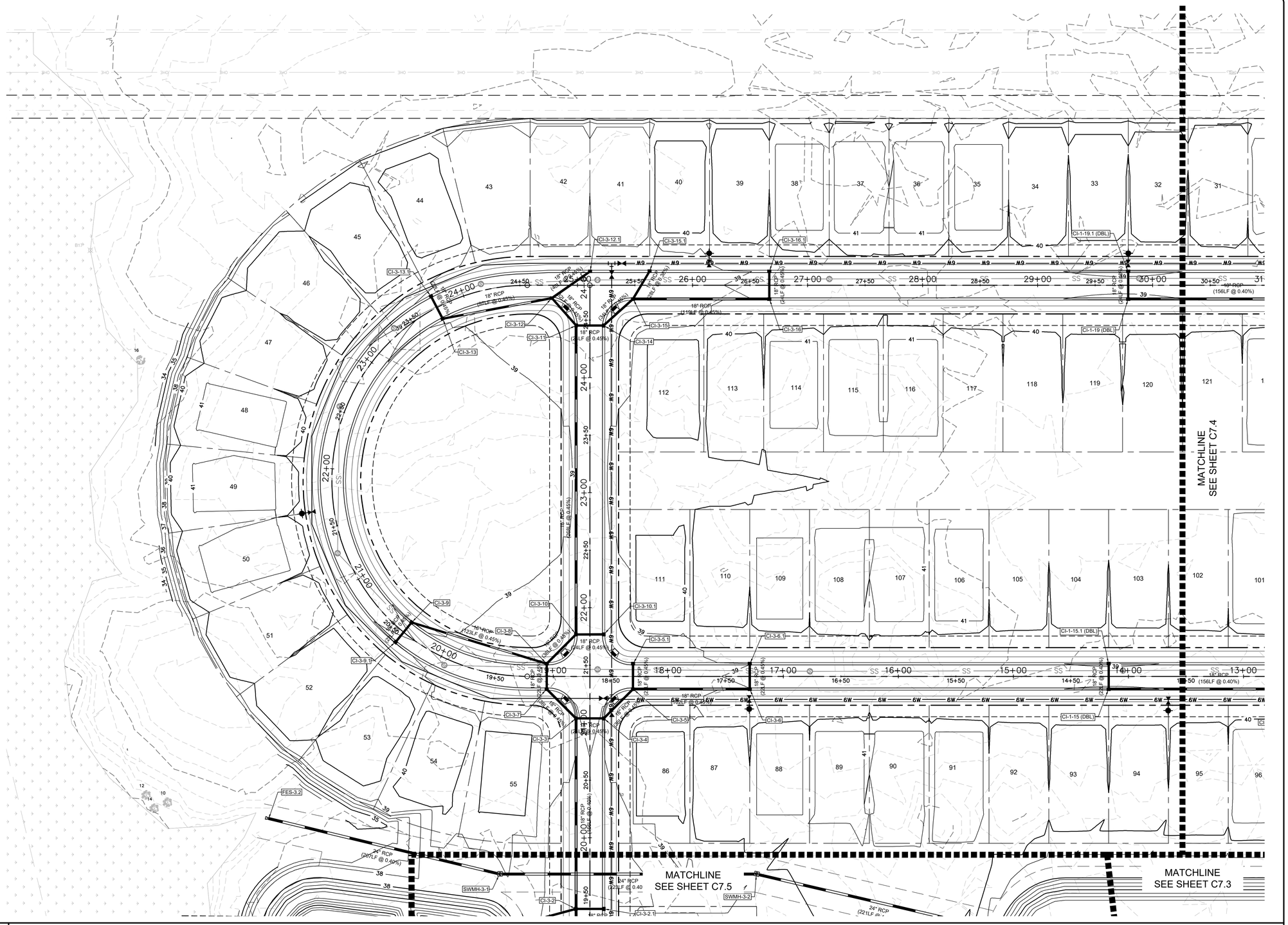
SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C7.4
DRAWING NUMBER

0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW


FES-4-OUT
OUTFALL-4
FES-4
FES-3-OUT
OUTFALL-3
FES-3.1
SWMH-3-1
SWMH-3-2
FES-3.3
AMENITY POND
FES-2-OUT
OUTFALL-2
MATCHLINE
SEE SHEET C5.3
MATCHLINE
SEE SHEET C5.3
MATCHLINE
SEE SHEET C5.6
CI-4-1 (DG)
CI-4-2
CI-4-3
CI-4-4
CI-4-5
CI-4-9
CI-4-9.1
CI-3-17
CI-3-17.1
CI-3-18
CI-3-19
CI-3-19.1
CI-3-20
CI-3-20.1
CI-3-2
CI-3-2.1
CI-2-4
CI-2-4.1
CI-2-3
CI-2-3.1
CI-2-1.1
18" RCP (142LF @ 0.47%)
18" RCP (32LF @ 0.39%)
18" RCP (21LF @ 0.40%)
18" RCP (50LF @ 0.40%)
18" RCP (102LF @ 0.40%)
18" RCP (176LF @ 0.40%)
18" RCP (171LF @ 0.40%)
18" RCP (22LF @ 0.39%)
18" RCP (59LF @ 0.40%)
18" RCP (60LF @ 0.40%)
24" RCP (50LF @ 0.40%)
24" RCP (223LF @ 0.40%)
24" RCP (22LF @ 1.47%)
24" RCP (133LF @ 0.40%)
24" RCP (133LF @ 0.40%)
24" RCP (133LF @ 0.40

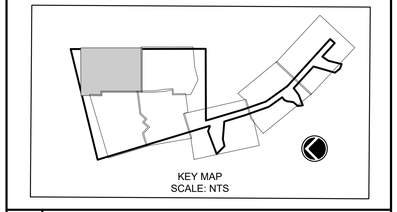


2 GRADING & DRAINAGE PLAN ENLARGEMENT

SYMBOLS LEGEND

- STORM DRAIN LINE
- SANITARY SEWER
- WATER LINE
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- WATER BLOW-OFF
- WATER VALVE
- WATER REDUCER
- WATER CROSSING
- WATER TEE
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- STORM DRAIN CURB INLET (CI)
- STORM DRAIN JUNCTION BOX (JB)
- STORM DRAIN MANHOLE (MH)
- FLARED END SECTION (FES)
- OUTLET STRUCTURE (OS)

40' 0 40' 80
SCALE 1" = 40'



KEY MAP
SCALE: NTS

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

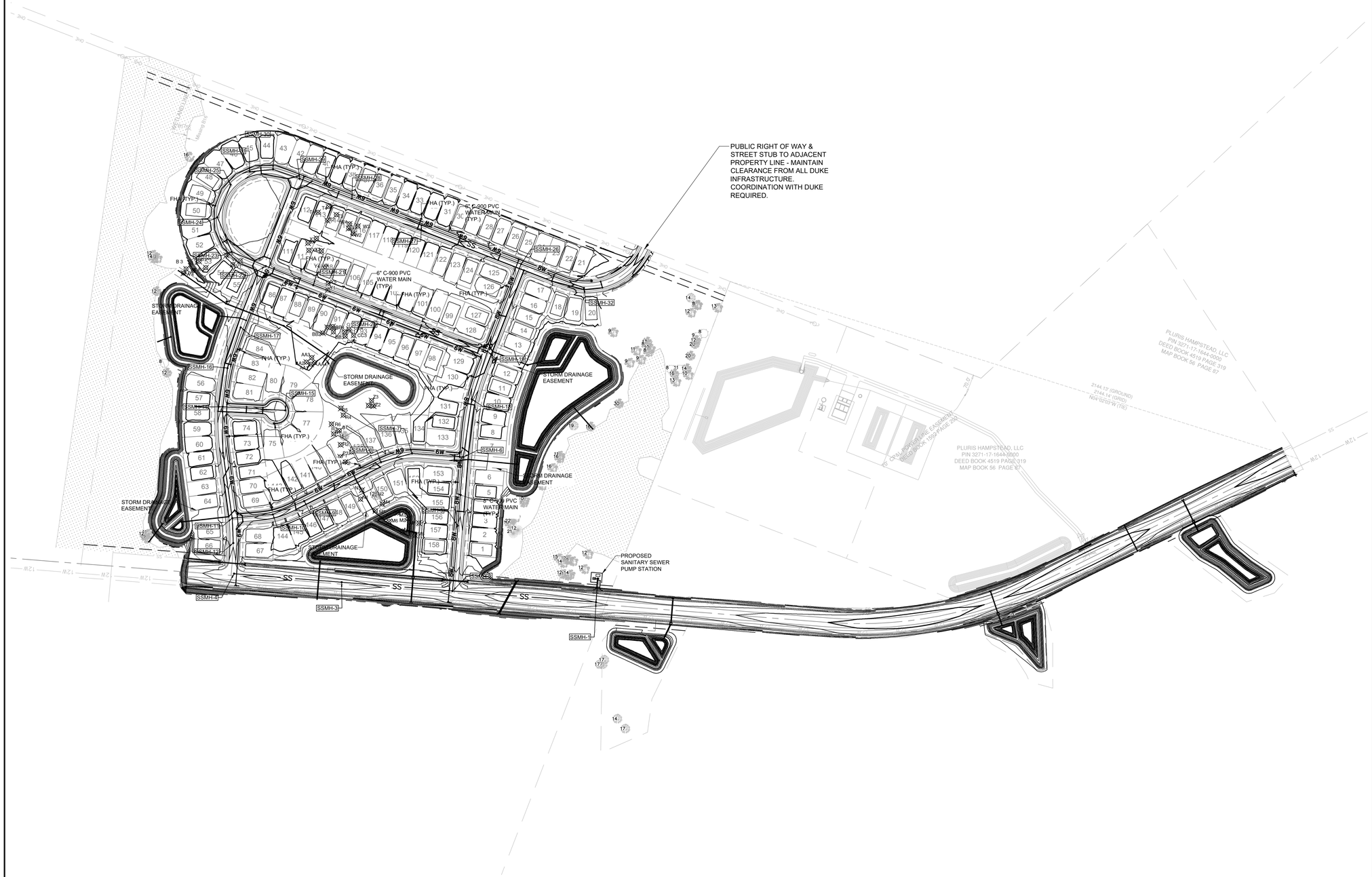
GRADING & DRAINAGE PLAN - ENLARGED

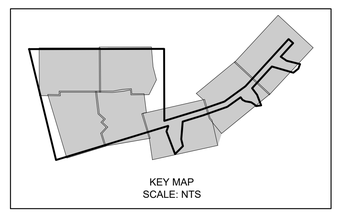
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C7.6
DRAWING NUMBER
0
REVISION

STATUS:
PENDER COUNTY TRC REVIEW





175' 0 175' 350

SCALE 1" = 175'

2 UTILITY PLAN

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

UTILITY PLAN - OVERALL

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE

HORIZONTAL: 1"=100'

VERTICAL: VSCALE

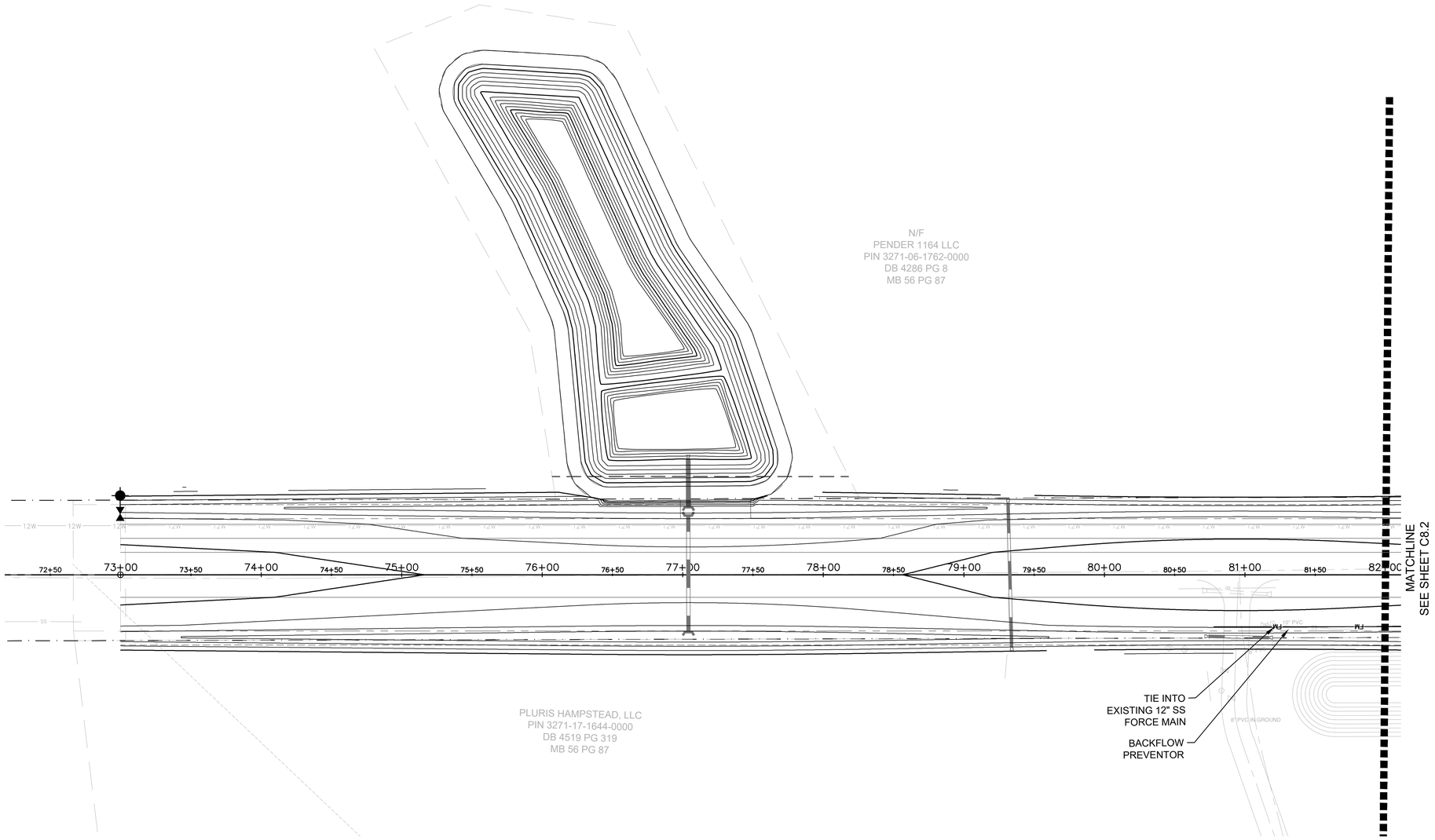
C8.0

DRAWING NUMBER

REVISION

STATUS:

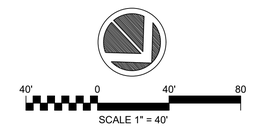
PENDER COUNTY TRC REVIEW

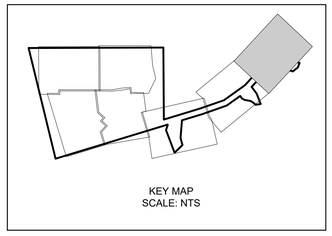


2 | UTILITY PLAN ENLARGEMENT

SYMBOLS LEGEND

- SS — SANITARY SEWER LINE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- W — WATER LINE
- WATER METER
- BACKFLOW PREVENTER
- HYDRANT AND VALVE ASSEMBLY
- FDC — FIRE DEPARTMENT CONNECTION
- SD — STORM DRAINAGE LINE
- STORM DRAINAGE MANHOLE
- STORM DRAINAGE DROP INLET
- STORM DRAINAGE CURB INLET
- STORM DRAINAGE FLARED END SECTION





1 | NOTES

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	REVISIONS	

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BLAKE FARM PARCEL R

UTILITY PLAN - ENLARGED

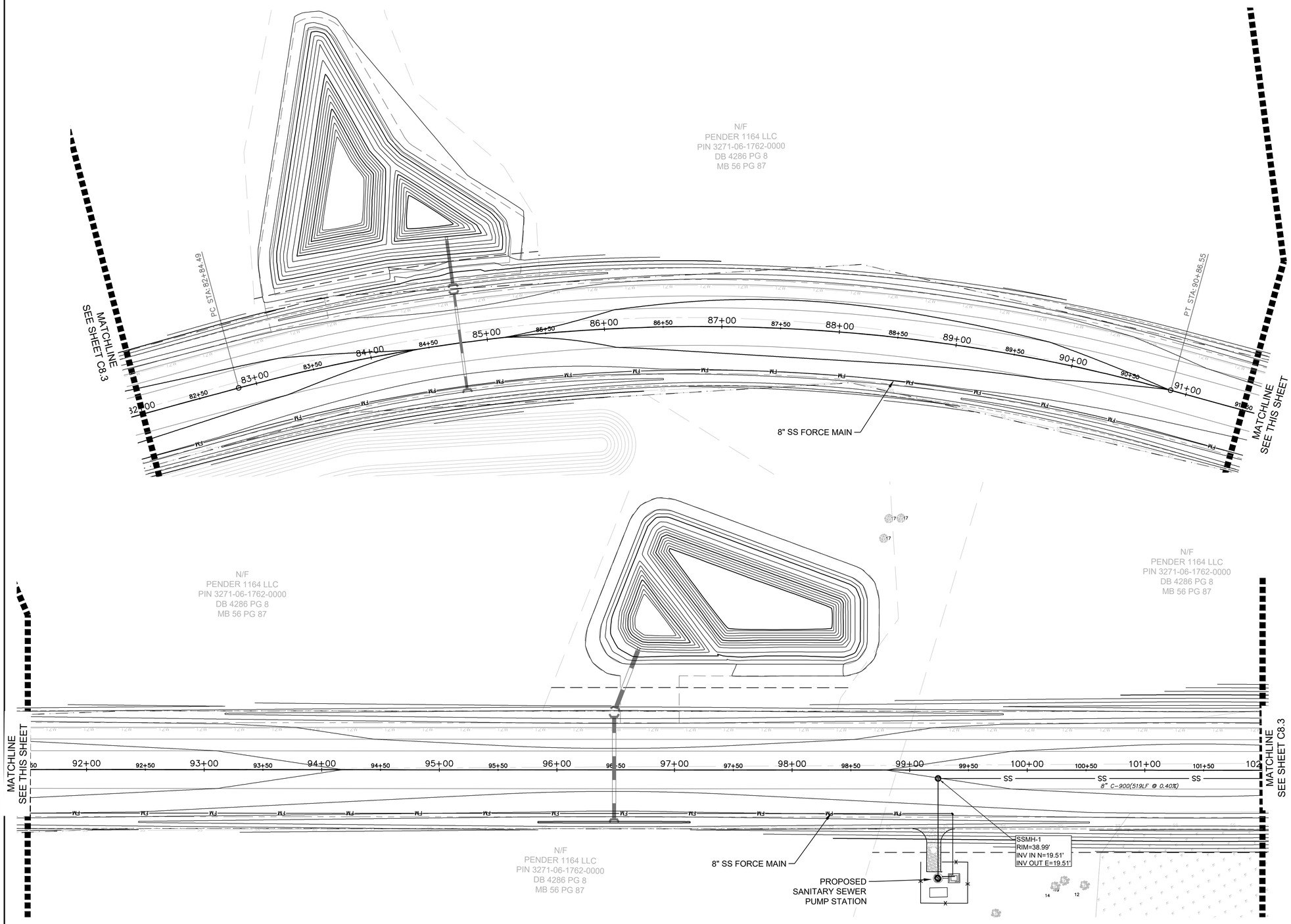
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C8.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



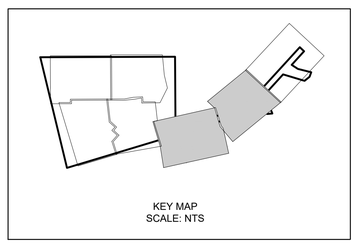
2 UTILITY PLAN ENLARGEMENT

SYMBOLS LEGEND

- SS — SANITARY SEWER LINE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
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- BACKFLOW PREVENTER
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- STORM DRAINAGE MANHOLE
- STORM DRAINAGE DROP INLET
- STORM DRAINAGE CURB INLET
- STORM DRAINAGE FLARED END SECTION

40' 0 40' 80
SCALE 1" = 40'

40' 0 40' 80
SCALE 1" = 40'



1 NOTES

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	REVISIONS	

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BLAKE FARM PARCEL R

UTILITY PLAN - ENLARGED

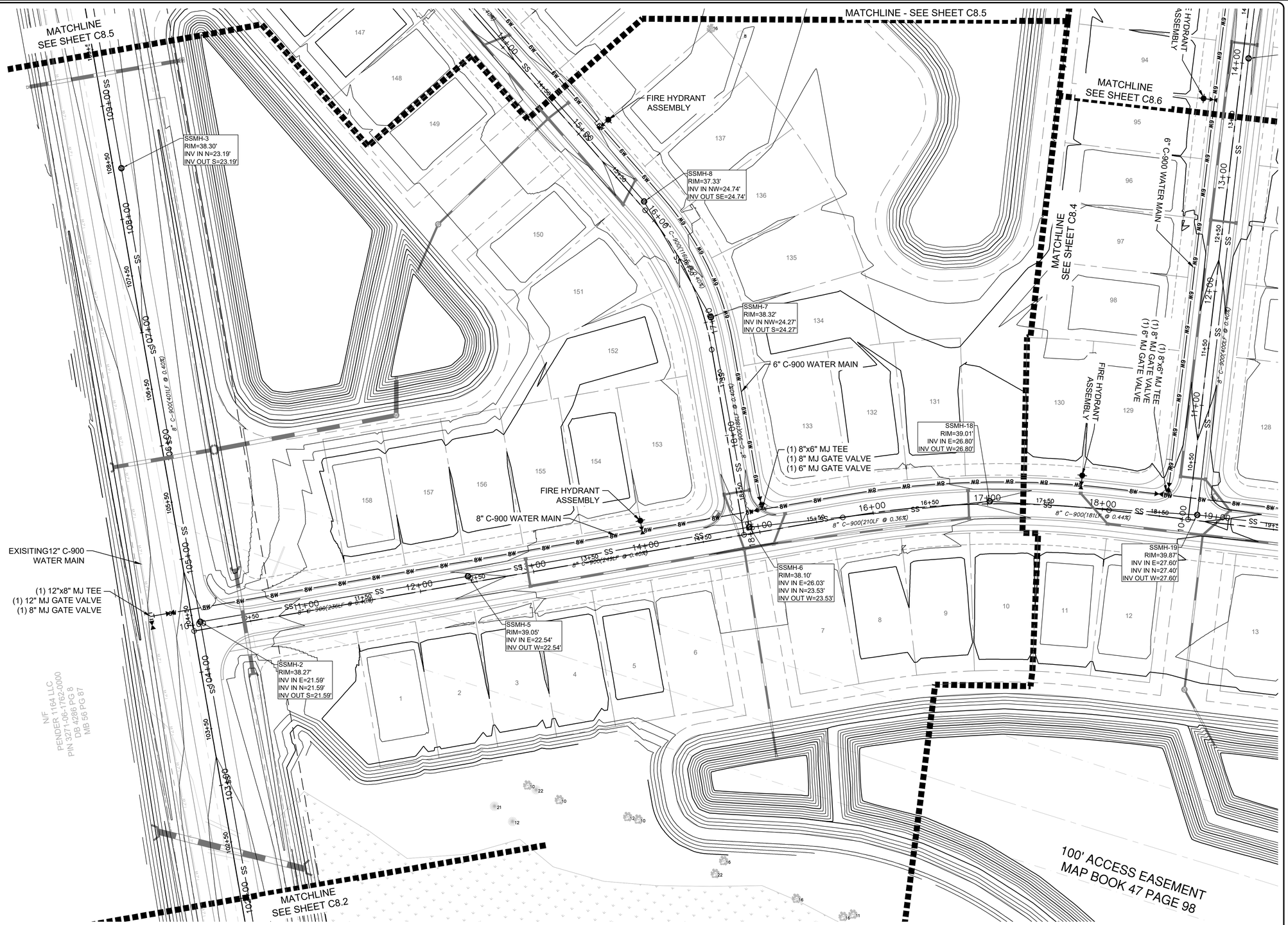
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C8.2
DRAWING NUMBER

REVISION

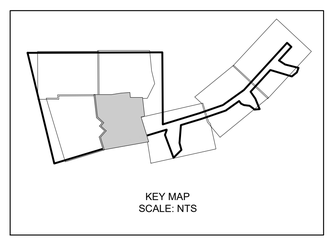
STATUS:
PENDER COUNTY TRC REVIEW



SYMBOLS LEGEND

- SS — SANITARY SEWER LINE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- W — WATER LINE
- WATER METER
- BACKFLOW PREVENTER
- HYDRANT AND VALVE ASSEMBLY
- FDC — FIRE DEPARTMENT CONNECTION
- SD — STORM DRAINAGE LINE
- STORM DRAINAGE MANHOLE
- STORM DRAINAGE DROP INLET
- STORM DRAINAGE CURB INLET
- STORM DRAINAGE FLARED END SECTION

40' 0 40' 80
SCALE 1" = 40'



2 UTILITY PLAN ENLARGEMENT

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

UTILITY PLAN - ENLARGED

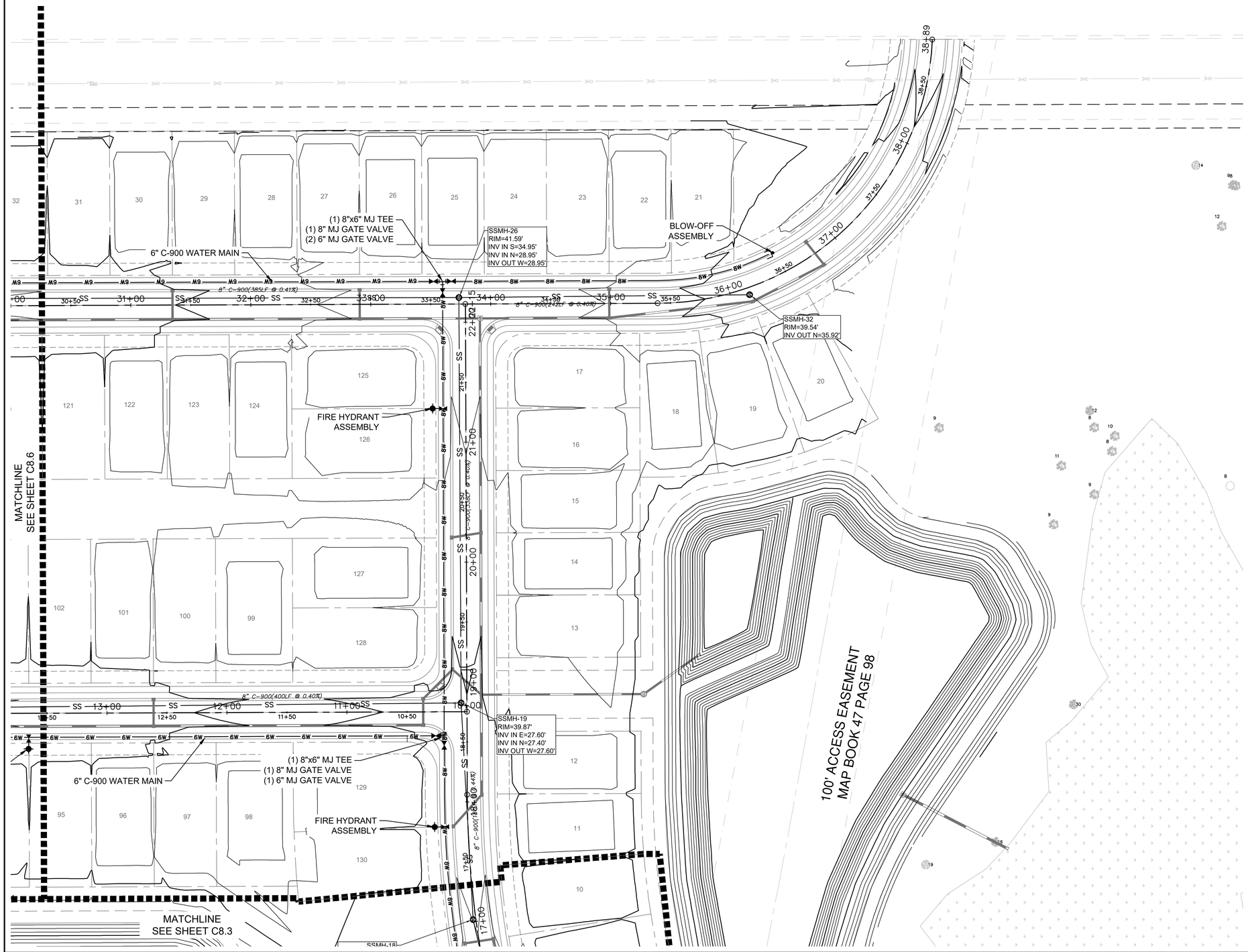
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C8.3
DRAWING NUMBER

REVISION

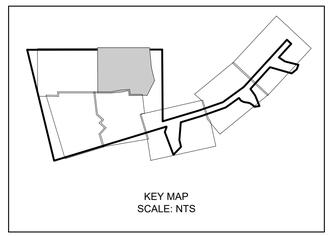
STATUS: PENDER COUNTY TRC REVIEW



SYMBOLS LEGEND

- SS — SANITARY SEWER LINE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- W — WATER LINE
- WATER METER
- BACKFLOW PREVENTER
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- STORM DRAINAGE MANHOLE
- STORM DRAINAGE DROP INLET
- STORM DRAINAGE CURB INLET
- STORM DRAINAGE FLARED END SECTION

40' 0 40' 80
SCALE 1" = 40'



KEY MAP
SCALE: NTS

2 UTILITY PLAN ENLARGEMENT

1 NOTES

REV.NO.	DESCRIPTIONS	DATE

REVISIONS

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BLAKE FARM PARCEL R

UTILITY PLAN - ENLARGED

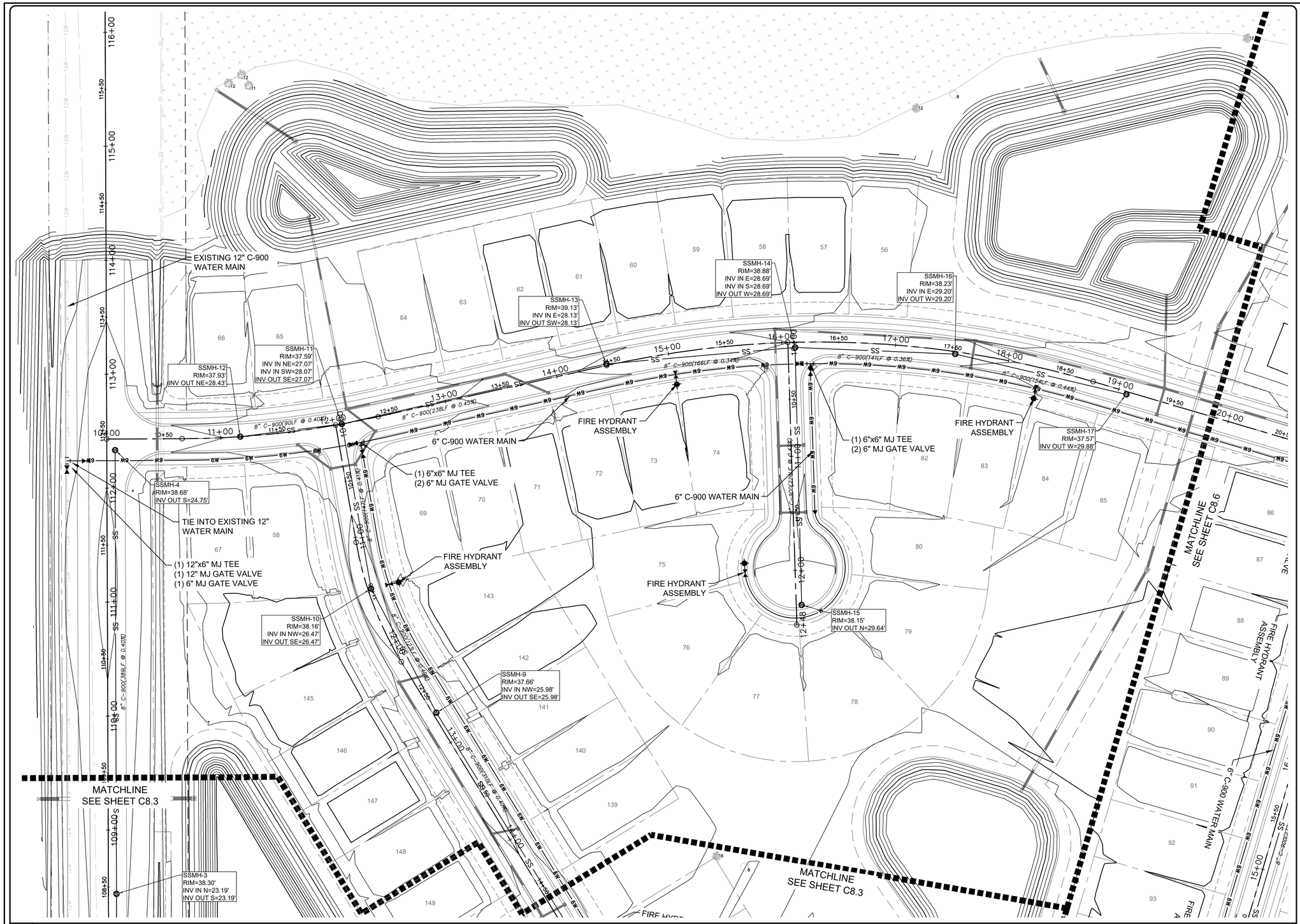
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C8.4
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW


EXISTING 12" C-900 WATER MAIN
SSMH-12
RIM=37.93'
INV OUT NE=28.43'
SSMH-11
RIM=37.59'
INV IN NE=27.07'
INV IN SW=28.07'
INV OUT SE=27.07'
SSMH-13
RIM=39.13'
INV IN E=28.13'
INV OUT SW=28.13'
SSMH-14
RIM=38.88'
INV IN E=28.69'
INV IN S=28.69'
INV OUT W=28.69'
SSMH-16
RIM=38.23'
INV IN E=29.20'
INV OUT W=29.20'
SSMH-17
RIM=37.57'
INV OUT W=29.88'
SSMH-4
RIM=38.68'
INV OUT S=24.75'
TIE INTO EXISTING 12" WATER MAIN
(1) 12"x6" MJ TEE
(1) 12" MJ GATE VALVE
(1) 6" MJ GATE VALVE
6" C-900 WATER MAIN
(1) 6"x6" MJ TEE
(2) 6" MJ GATE VALVE
FIRE HYDRANT ASSEMBLY
SSMH-10
RIM=38.16'
INV IN NW=26.47'
INV OUT SE=26.47'
SSMH-9
RIM=37.66'
INV IN NW=25.98'
INV OUT SE=25.98'
SSMH-15
RIM=38.15'
INV OUT N=29.64'
SSMH-3
RIM=38.30'
INV IN N=23.19'
INV OUT S=23.19'
MATCHLINE SEE SHEET C8.3
MATCHLINE SEE SHEET C8.6
8" C-900(90LF @ 0.40%)
8" C-900(238LF @ 0.45%)
8" C-900(166LF @ 0.34%)
8" C-900(141LF @ 0.36%)
8" C-900(156LF @ 0.44%)
8" C-900(212LF @ 0.41%)
8" C-900(389LF @ 0.40%)
8" C-900(175LF @ 0.40%)
8" C-900(175LF @ 0.40%)
8" C-900(225LF @ 0.40%)
8" C-900(225LF @ 0.40%)
8" C-900(225

70' UTILITY EASEMENT
DEED BOOK 1592 PAGE 292

SSMH-29
RIM=38.25'
INV IN S=32.38'
INV IN N=32.38'

FIRE HYDRANT ASSEMBLY

SSMH-28
RIM=39.62'
INV OUT N=31.57'
INV OUT S=31.57'

6" C-900 WATER MAIN

FIRE HYDRANT ASSEMBLY

SSMH-30
RIM=38.56'
INV IN NW=32.79'
INV OUT S=32.79'

8" C-900(101LF @ 0.40%)

SSMH-31
RIM=38.97'
INV OUT SE=33.13'

8" C-900(202LF @ -0.40%)

8" C-900(269LF @ 0.36%)

(1) 6"x6" MJ TEE
(2) 6" MJ GATE VALVE

SSMH-27
RIM=39.04'
INV IN N=30.54'
INV OUT S=30.54'

6" C-900 WATER MAIN

SSMH-25
RIM=39.37'
INV OUT W=32.41'

6" C-900 WATER MAIN

8" C-900(128LF @ 0.40%)

FIRE HYDRANT ASSEMBLY

8" C-900(134LF @ 0.40%)

SSMH-24
RIM=39.39'
INV IN E=31.90'
INV OUT SW=31.90'

SSMH-22
RIM=38.25'
INV IN S=30.83'
INV IN N=30.83'

8" C-900(133LF @ 0.40%)

SSMH-21
RIM=39.52'
INV OUT N=30.09'
INV OUT S=30.09'

8" C-900(272LF @ 0.40%)

SSMH-20
RIM=39.07'
INV IN N=29.00'
INV OUT S=29.00'

8" C-900(185LF @ 0.55%)

SSMH-23
RIM=38.70'
INV IN NE=31.36'
INV OUT S=31.36'

(1) 6"x6" MJ TEE
(2) 6" MJ GATE VALVE

FIRE HYDRANT ASSEMBLY

6" C-900 WATER MAIN

FIRE HYDRANT ASSEMBLY

6" C-900 WAT

MATCHLINE
SEE SHEET C8.5

MATCHLINE
SEE SHEET C8.3

MATCHLINE
SEE SHEET C8.4

2 | UTILITY PLAN ENLARGEMENT

SYMBOLS LEGEND

- SS — SANITARY SEWER LINE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- W — WATER LINE
- WATER METER
- BACKFLOW PREVENTER
- HYDRANT AND VALVE ASSEMBLY
- FDC — FIRE DEPARTMENT CONNECTION
- SD — STORM DRAINAGE LINE
- STORM DRAINAGE MANHOLE
- STORM DRAINAGE DROP INLET
- STORM DRAINAGE CURB INLET
- STORM DRAINAGE FLARED END SECTION

40' 0 40' 80
SCALE 1" = 40'

KEY MAP
SCALE: NTS

1 | NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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Wilmington, North Carolina 28401
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www.mckimcreed.com

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BLAKE FARM PARCEL R

UTILITY PLAN - ENLARGED

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=40'
VERTICAL: VSCALE

C8.6
DRAWING NUMBER

REVISION

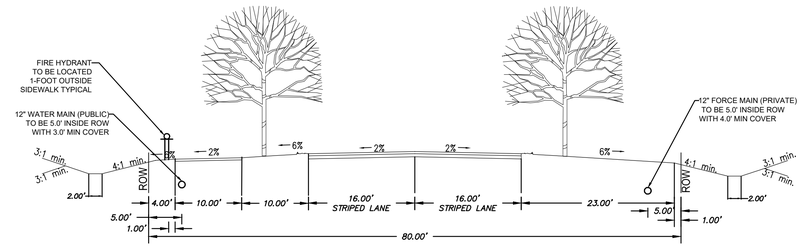
STATUS:
PENDER COUNTY TRC REVIEW

BLAKE FARM BOULEVARD

80' R/W (PUBLIC)

WITHOUT MEDIAN

FROM STA. 73+00 TO STA. 114+00

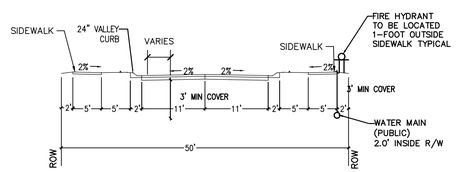


2 | BLAKE FARM BOULEVARD ROAD SECTION

RESIDENTIAL COLLECTOR

50' R/W (PUBLIC)

ROAD A AND ROAD B

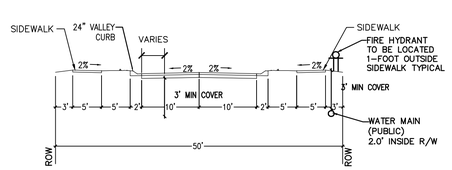


1 | 50' ROW ROAD SECTION

RESIDENTIAL LOCAL

50' R/W (PUBLIC)

ROADS C, D, E, F, G



1 | 50' ROW ROAD SECTION

REV.NO.	DESCRIPTIONS	DATE

REVISIONS

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BLAKE FARM PARCEL R

TYPICAL STREET SECTIONS

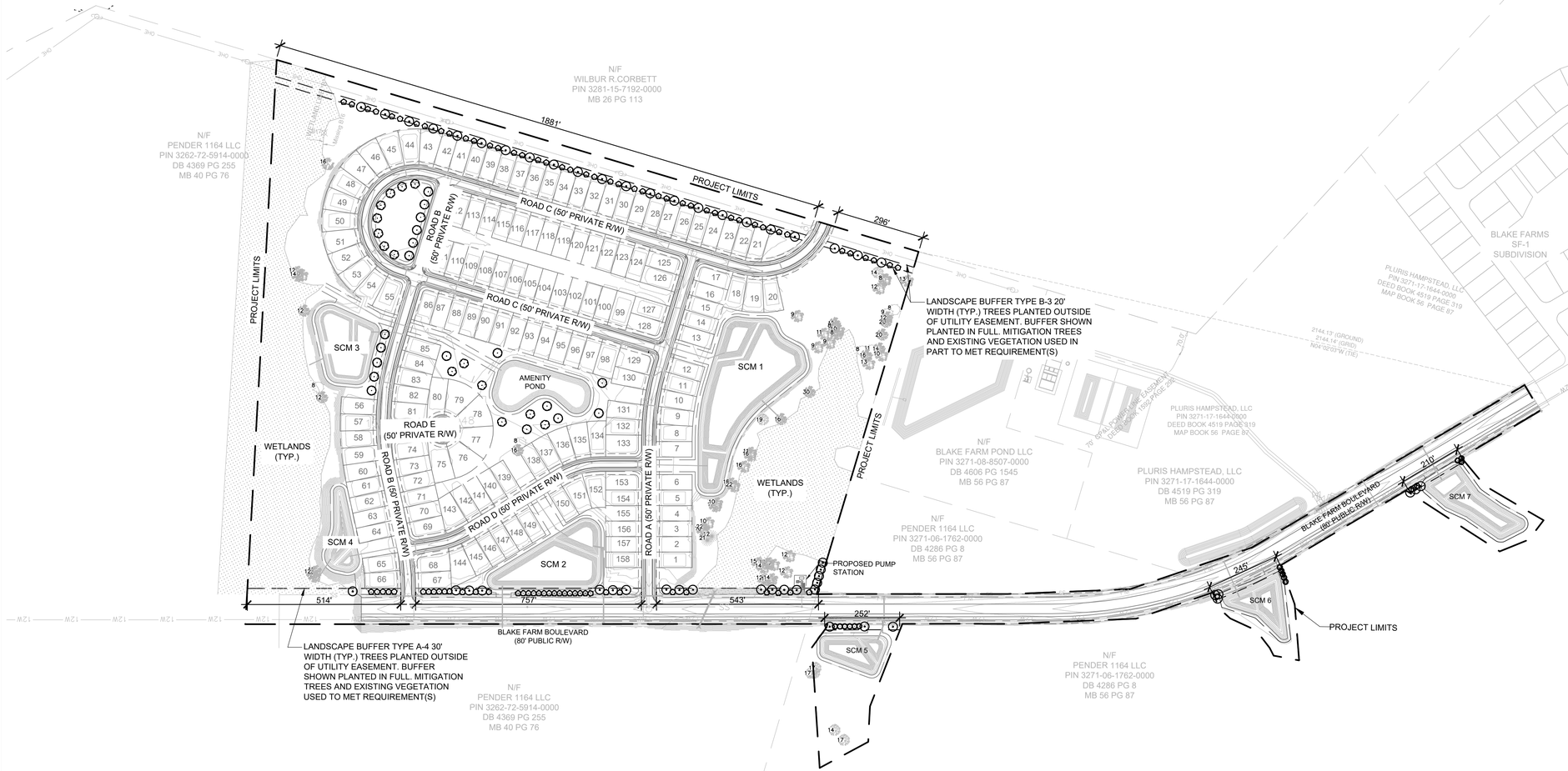
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C9.14
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



LANDSCAPE DATA

REGULATION	REQUIRED	PROPOSED
MITIGATION		
ANY SIGNIFICANT TREE REMOVED SHALL BE MITIGATED BY PLANTING OF TWO (2) TREES OF THE SAME SPECIES WITH A MINIMUM CALIPER OF 2" OR GREATER 2 SIGNIFICANT HOLLY X 2 = 4 HOLLIES 1 SIGNIFICANT MAGNOLIA X 1 = 2 MAGNOLIAS 7 SIGNIFICANT MAPLES x 2 = 14 MAPLES 25 SIGNIFICANT WATER OAKS X 2 = 50 WATER OAKS 9 SIGNIFICANT WHITE OAKS X 2 = 18 WHITE OAKS	4 HOLLIES 2 MAGNOLIAS 14 MAPLES 50 WATER OAKS 18 WHITE OAKS	4 HOLLIES 2 MAGNOLIAS 14 MAPLES 50 WATER OAKS 18 WHITE OAKS
NOTE: REFER TO TREE REMOVAL TABLE FOR TREE REMOVAL LIST AND MITIGATION CALCULATIONS		
BUFFER YARD - PD BOUNDARY BUFFERS		
SOUTH: B-3* 20' WIDE STRIP 1 CANOPY TREES, 2 UNDERSTORY TREES PER 100 LF 2,177 LF/100 = 21.77 21.77 x 1 = 21.77 = 22 CANOPY TREES 21.77 x 2 = 43.54 = 44 UNDERSTORY TREES	20' WIDTH 22 CANOPY TREES 44 UNDERSTORY TREES	20' WIDTH 22 CANOPY TREES 44 UNDERSTORY TREES
*NOTE: BUFFERS REQUIREMENTS INTENDED TO UTILIZE EXISTING VEGETATION TO SATISFY TREE REQUIREMENTS. CLOSER TO TIME OF PROJECT COMPLETION, A SITE VISIT WITH LANDSCAPE ARCHITECT AND PENDER COUNTY PLANNING REPRESENTATIVE IS REQUESTED TO DETERMINE WHETHER SUPPLEMENTAL VEGETATION IS REQUIRED TO MEET INTENT OF ORDINANCE.		
BUFFER YARD - ALONG BLAKE FARM BOULEVARD		
BLAKE FARM BOULEVARD: A-4 (PARCEL R FRONTAGE) 30' WIDE STRIP 1 CANOPY TREE, 2 UNDERSTORY TREES AND EITHER A GRASS OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4' OF THE BASE OF ANY TREE OR SHRUB) OR 32 SHRUBS PER 100 LINEAR FEET WILL BE APPLIED ALONG MAIN STREET. 1 CANOPY TREE, 2 UNDERSTORY TREES PER 100 LF 1,814 LF / 100 = 18.14 1,814 x 1 = 18.14 = 19 CANOPY TREES 18.14 x 2 = 36.28 = 37 UNDERSTORY TREES	30' WIDTH 19 CANOPY TREES 37 UNDERSTORY TREES	30' WIDTH 19 CANOPY TREES 37 UNDERSTORY TREES
BLAKE FARM BOULEVARD: A-4 (SCM 5 FRONTAGE) 30' WIDE STRIP 1 CANOPY TREE, 2 UNDERSTORY TREES AND EITHER A GRASS OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4' OF THE BASE OF ANY TREE OR SHRUB) OR 32 SHRUBS PER 100 LINEAR FEET WILL BE APPLIED ALONG MAIN STREET. 1 CANOPY TREE, 2 UNDERSTORY TREES PER 100 LF 252 LF / 100 = 2.52 2.52 x 1 = 2.52 = 3 CANOPY TREES 2.52 x 2 = 5.04 = 6 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 6 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 6 UNDERSTORY TREES
BLAKE FARM BOULEVARD: A-4 (SCM 6 FRONTAGE) 30' WIDE STRIP 1 CANOPY TREE, 2 UNDERSTORY TREES AND EITHER A GRASS OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4' OF THE BASE OF ANY TREE OR SHRUB) OR 32 SHRUBS PER 100 LINEAR FEET WILL BE APPLIED ALONG MAIN STREET. 1 CANOPY TREE, 2 UNDERSTORY TREES PER 100 LF 245 LF / 100 = 2.45 2.45 x 1 = 2.45 = 3 CANOPY TREES 2.45 x 2 = 4.90 = 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES
BLAKE FARM BOULEVARD: A-4 (SCM 7 FRONTAGE) 30' WIDE STRIP 1 CANOPY TREE, 2 UNDERSTORY TREES AND EITHER A GRASS OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4' OF THE BASE OF ANY TREE OR SHRUB) OR 32 SHRUBS PER 100 LINEAR FEET WILL BE APPLIED ALONG MAIN STREET. 1 CANOPY TREE, 2 UNDERSTORY TREES PER 100 LF 210 LF / 100 = 2.10 2.10 x 1 = 2.10 = 16 CANOPY TREES 2.10 x 2 = 4.20 = 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES
*NOTE: BUFFERS REQUIREMENTS INTENDED TO UTILIZE EXISTING VEGETATION TO SATISFY TREE REQUIREMENTS. CLOSER TO TIME OF PROJECT COMPLETION, A SITE VISIT WITH LANDSCAPE ARCHITECT AND PENDER COUNTY PLANNING REPRESENTATIVE IS REQUESTED TO DETERMINE WHETHER SUPPLEMENTAL VEGETATION IS REQUIRED TO MEET INTENT OF ORDINANCE.		

PLANT LEGEND

CANOPY TREE	BOTANICAL / COMMON NAME
	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY MAPLE
	QUERCUS ALBA WHITE OAK
	QUERCUS NIGRA WATER OAK
UNDERSTORY TREES	**BOTANICAL / COMMON NAME**
	ILEX X 'NELLIE R. STEVENS' NELLIE R. STEVENS HOLLY
	MAGNOLIA GRANDIFLORA 'SOUTHERN CHARM' TEDDY BEAR® SOUTHERN MAGNOLIA

200' 0 200' 400'

SCALE 1" = 200'

2 LANDSCAPE PLAN - OVERALL

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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BLAKE FARM PARCEL R

LANDSCAPE PLAN - OVERALL

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	ALM/BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

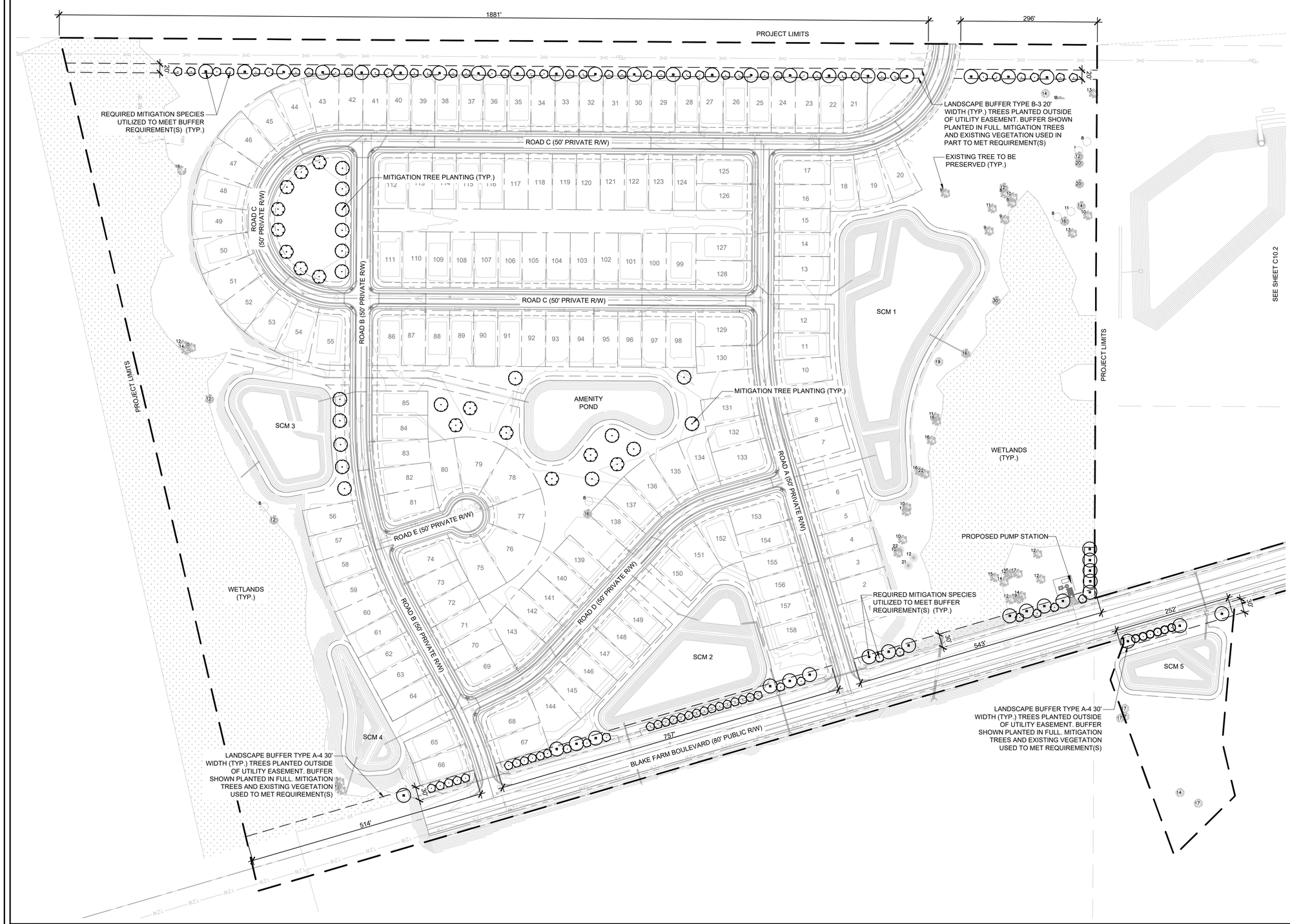
SCALE
HORIZONTAL: 1"=100'
VERTICAL: N/A

C10.0
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

I:\04245\0055\ENG\80-DRAWINGS\81_PRODUCTION_SHEETS\2_WORKING_DWGS\C10.0_LANDSCAPE PLAN.DWG ---- 10/06/2023 10:37:05



2 LANDSCAPE PLAN - ENLARGEMENT

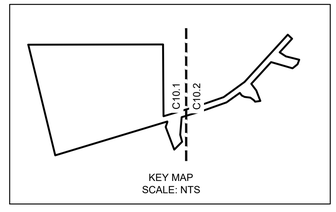
LANDSCAPE DATA

REGULATION	REQUIRED	PROPOSED
MITIGATION		
ANY SIGNIFICANT TREE REMOVED SHALL BE MITIGATED BY PLANTING OF TWO (2) TREES OF THE SAME SPECIES WITH A MINIMUM CALIPER OF 2" OR GREATER 2 SIGNIFICANT HOLLY X 2 = 4 HOLLIES 1 SIGNIFICANT MAGNOLIA X 1 = 2 MAGNOLIAS 7 SIGNIFICANT MAPLES x 2 = 14 MAPLES 25 SIGNIFICANT WATER OAKS X 2 = 50 WATER OAKS 9 SIGNIFICANT WHITE OAKS X 2 = 18 WHITE OAKS	4 HOLLIES 2 MAGNOLIAS 14 MAPLES 50 WATER OAKS 18 WHITE OAKS	4 HOLLIES 2 MAGNOLIAS 14 MAPLES 50 WATER OAKS 18 WHITE OAKS
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BUFFER YARD - PD BOUNDARY BUFFERS		
SOUTH: B-3* 20' WIDE STRIP 1 CANOPY TREES, 2 UNDERSTORY TREES PER 100 LF 2,177 LF/100 = 21.77 21.77 x 1 = 21.77 = 22 CANOPY TREES 21.77 x 2 = 43.54 = 44 UNDERSTORY TREES	20' WIDTH 22 CANOPY TREES 44 UNDERSTORY TREES	20' WIDTH 22 CANOPY TREES 44 UNDERSTORY TREES
*NOTE: BUFFERS REQUIREMENTS INTENDED TO UTILIZE EXISTING VEGETATION TO SATISFY TREE REQUIREMENTS. CLOSER TO TIME OF PROJECT COMPLETION, A SITE VISIT WITH LANDSCAPE ARCHITECT AND PENDER COUNTY PLANNING REPRESENTATIVE IS REQUESTED TO DETERMINE WHETHER SUPPLEMENTAL VEGETATION IS REQUIRED TO MEET INTENT OF ORDINANCE.		
BUFFER YARD - ALONG BLAKE FARM BOULEVARD		
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PLANT LEGEND

CANOPY TREE	BOTANICAL / COMMON NAME
	ACER RUBRUM `OCTOBER GLORY` TM OCTOBER GLORY MAPLE
	QUERCUS ALBA WHITE OAK
	QUERCUS NIGRA WATER OAK
UNDERSTORY TREES	**BOTANICAL / COMMON NAME**
	ILEX X 'NELLIE R. STEVENS' NELLIE R. STEVENS HOLLY
	MAGNOLIA GRANDIFLORA 'SOUTHERN CHARM' TEDDY BEAR® SOUTHERN MAGNOLIA

100' 0 100' 200'
SCALE 1" = 100'



1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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BLAKE FARM PARCEL R

LANDSCAPE PLAN - ENLARGEMENT

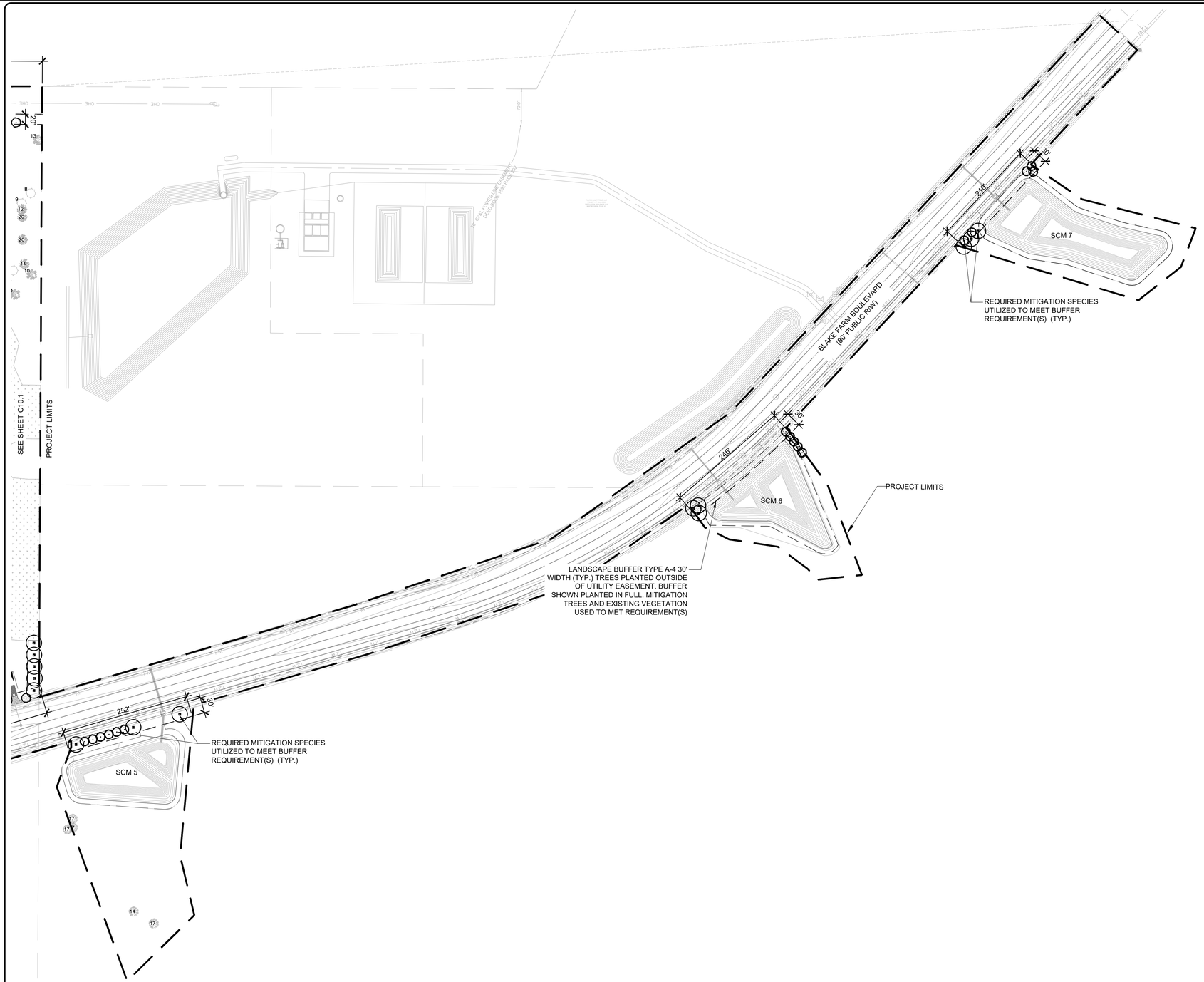
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	ALM/BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=100'
VERTICAL: N/A

C10.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW



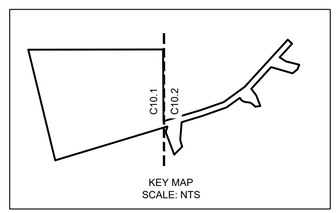
LANDSCAPE DATA

REGULATION	REQUIRED	PROPOSED
MITIGATION		
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BUFFER YARD - ALONG BLAKE FARM BOULEVARD		
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BLAKE FARM BOULEVARD: A-4 (SCM 6 FRONTAGE) 30' WIDE STRIP 1 CANOPY TREE, 2 UNDERSTORY TREES AND EITHER A GRASS OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4' OF THE BASE OF ANY TREE OR SHRUB) OR 32 SHRUBS PER 100 LINEAR FEET WILL BE APPLIED ALONG MAIN STREET. 1 CANOPY TREE, 2 UNDERSTORY TREES PER 100 LF 245 LF / 100 = 2.45 2.45 x 1 = 2.45 = 3 CANOPY TREES 2.45 x 2 = 4.90 = 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES
BLAKE FARM BOULEVARD: A-4 (SCM 7 FRONTAGE) 30' WIDE STRIP 1 CANOPY TREE, 2 UNDERSTORY TREES AND EITHER A GRASS OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4' OF THE BASE OF ANY TREE OR SHRUB) OR 32 SHRUBS PER 100 LINEAR FEET WILL BE APPLIED ALONG MAIN STREET. 1 CANOPY TREE, 2 UNDERSTORY TREES PER 100 LF 210 LF / 100 = 2.10 2.10 x 1 = 2.10 = 16 CANOPY TREES 2.10 x 2 = 4.20 = 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES	30' WIDTH 3 CANOPY TREES 5 UNDERSTORY TREES
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PLANT LEGEND

CANOPY TREE	BOTANICAL / COMMON NAME
	ACER RUBRUM 'OCTOBER GLORY' TM OCTOBER GLORY MAPLE
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100' 0 100' 200'
SCALE 1" = 100'



KEY MAP
SCALE: NTS

2 LANDSCAPE PLAN - ENLARGEMENTS

1 NOTES

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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BLAKE FARM PARCEL R

LANDSCAPE PLAN - ENLARGEMENTS

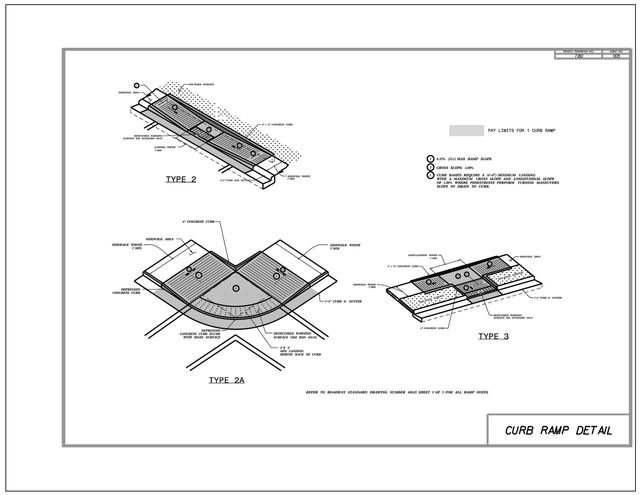
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	ALM/BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: 1"=100'
VERTICAL: N/A

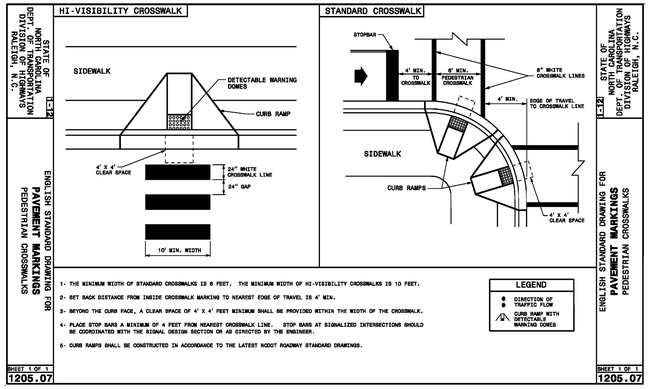
C10.2
DRAWING NUMBER

REVISION

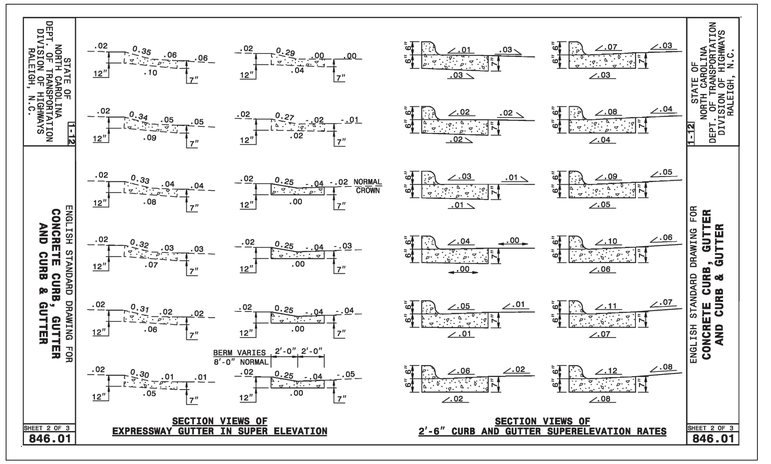
STATUS:
PENDER COUNTY TRC REVIEW



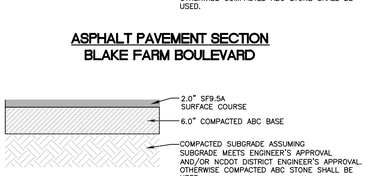
6 CURB RAMP NTS



5 CURB RAMP NTS



2 CONCRETE CURB AND GUTTER NTS

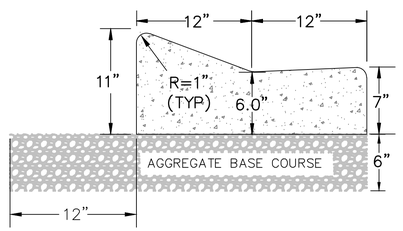


ASPHALT PAVEMENT SECTION
BLAKE FARM BOULEVARD

ASPHALT PAVEMENT SECTION
(COLLECTORS AND LOCAL STREETS)

NOTE:
1) PAVEMENT SECTIONS ARE BASED UPON A SOILS REPORT PREPARED BY ECS CAROLINAS DATED JULY 24, 2014.
2) NCDOT SUBDIVISION GUIDELINES FOR GROUP II, FAIR TO POOR SOILS ARE LESS CONSERVATIVE. SO THE ECS GUIDELINES WERE USED FOR BLAKE FARM.

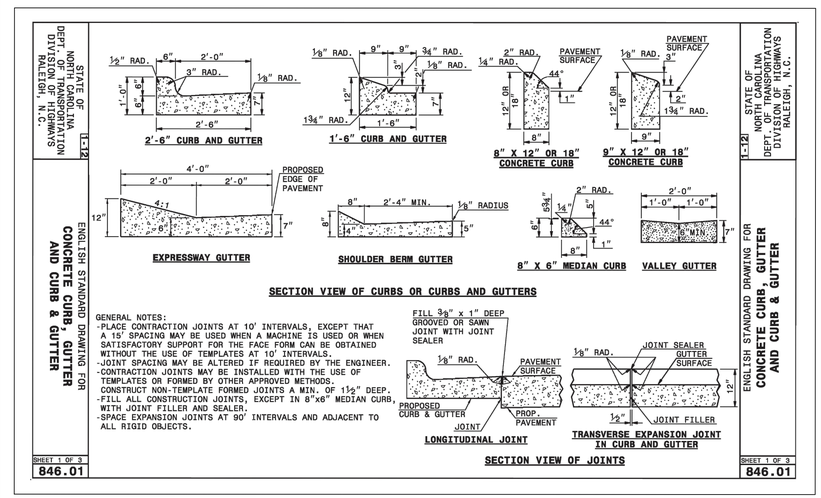
4 ASPHALT PAVING



STD. 24" VALLEY CURB
NOT TO SCALE

NOTES:
1. EXPANSION JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS
2. 50' MAX EXPANSION JOINT SPACING, 10' MAX CONTRACTION JOINT SPACING
3. MINIMUM INSTALLATION LENGTH IS 5 FT.
4. CONCRETE TO BE 3000 PSI MIN

3 VALLEY CURB NTS



1 CONCRETE CURB AND GUTTER NTS

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

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BLAKE FARM PARCEL R

SITE DETAILS

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C11.0
DRAWING NUMBER

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STATUS:
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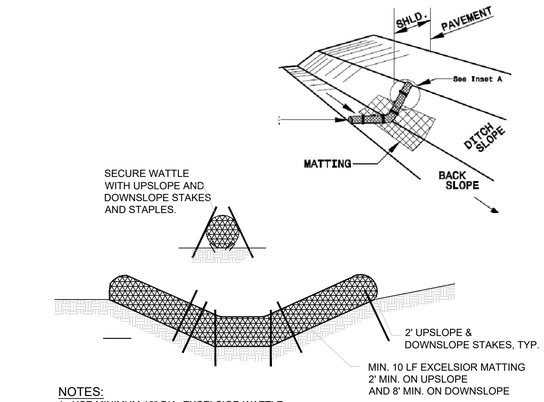
SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTRANCE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW*).
5. CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING.
8. 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.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. APPLY:
    AGRICULTURAL LIMESTONE - 2 TONS/ACRE
    FERTILIZER - 1000 LBS/ACRE (10-10-10)
    SUPERPHOSPHATE - 500 LBS/ACRE (20%)
    RYE SEED - 120LBS/ACRE
    GERMAN MILLET - 40LBS/ACRE
    ANNUAL LESPEDEZA (KOBE) SEED - 50 LBS/ACRE
    MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)

NOTE (G.S. 113A-57 (2))

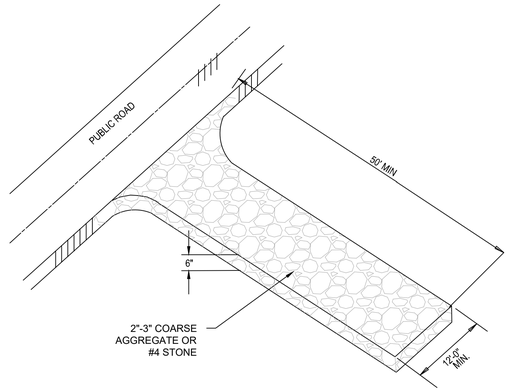
THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

7 SEEDBED PREPARATION NTS

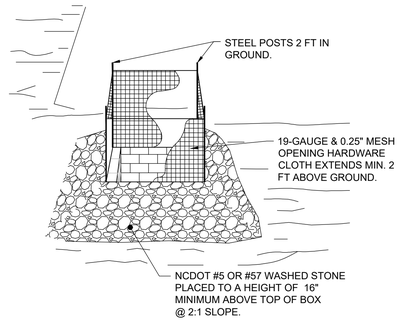


NOTES:
1. USE MINIMUM 18" DIA. EXCELSIOR WATTLE.
2. USE 2"x2" WOODEN STAKES 2-FT IN LENGTH ON THE UPSLOPE AND DOWNSLOPE AT AN ANGLE TO WEDGE THE WATTLE TO THE BOTTOM OF THE SWALE.
3. STAPLE EVERY 1 LF ON BOTH SIDES OF THE WATTLE TO SECURE IT TO THE BOTTOM OF THE SWALE.

5 TEMPORARY WATTLE / CHECK DAM

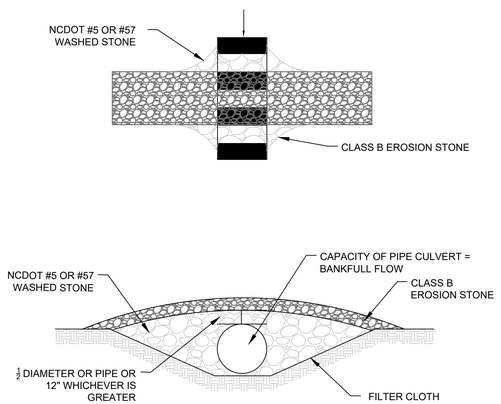


3 TEMPORARY CONSTRUCTION ENTRANCE

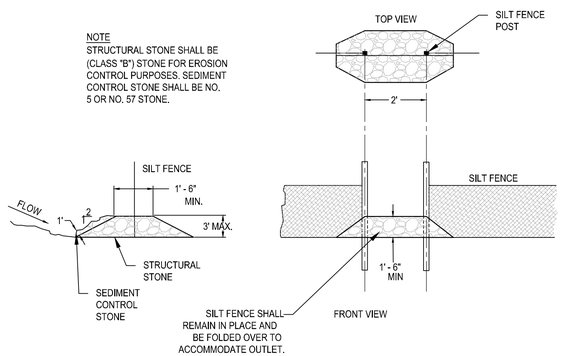


NOTES:
1. DRIVE 5-FOOT STEEL POSTS (1.25 lb/lf steel) 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
2. SURROUND THE POSTS WITH AT LEAST 19-GAUGE HARDWARE CLOTH WITH A 1/4-INCH MESH OPENING. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM FOR A MIN. 2 FEET ABOVE THE GROUND. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING AND REMOVAL IS RECOMMENDED.
3. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET. THE TOP ELEVATION OF THE STRUCTURE MUST BE AT LEAST 12-INCHES LOWER THAN THE SURROUNDING GROUND ELEVATION DOWNSLOPE FROM THE INLET TO ENSURE THAT STORM FLOWS GET INTO THE INTENDED INLET; UNLESS OTHER SEDIMENT-CONTROL DEVICES ARE INSTALLED TO PREVENT OFF-SITE SEDIMENT-RUNOFF.

2 TEMPORARY INLET PROTECTION



6 TEMPORARY DITCH CROSSING



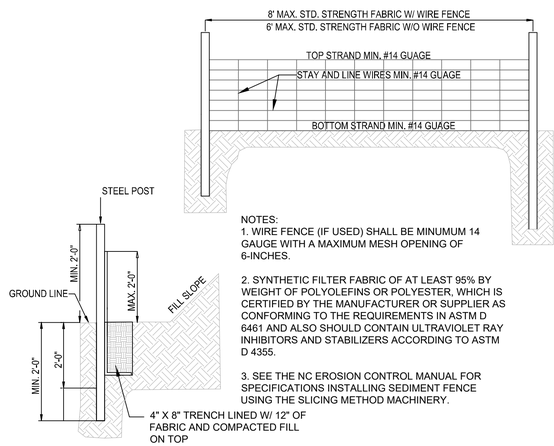
4 SILT FENCE OUTLET

SILT FENCE CALCULATION TABLE

PROJECT: BLAKE FARM - PARCEL R
DATE PREPARED: 10/5/2023
DESCRIPTION: SILT FENCE CALCULATIONS
PREPARED FOR : NEW HANOVER COUNTY
ENGINEER: McKIM&CREED
PROJECT NO. 04245-0055
PREPARED BY : MRA
REVIEWED BY : RAM

SILT FENCE No.	Approx. Slope	Drainage Area ac	Drainage Area sf	Length ft	Max Area for Silt Fence sf	Silt Fence Adequate? YES/NO
			SILT FENCE			
SF 1	2%	0.52	22831	229	22,900	YES
SF2	3%	1.27	55314	738	55,350	YES
SF3	3%	2.43	105798	1411	105,825	YES
SF4	2%	0.35	15061	151	15,100	YES
SF5	2%	0.53	23296	233	23,300	YES
SF6	2%	2.50	108807	1089	108,900	YES
SF7	2%	0.62	26970	272	27,200	YES
SF8	2%	1.14	49743	498	49,800	YES
SF9	8%	0.58	25064	502	25,100	YES
SF10	6%	0.65	28334	567	28,350	YES
SF11	7%	0.67	29302	587	29,350	YES
SF12	6%	1.16	50434	1009	50,450	YES
SF13	3%	0.86	37589	502	37,650	YES
SF14	4%	1.81	78918	1053	78,975	YES
SF15	4%	1.13	49170	656	49,200	YES
SF16	2%	1.22	53023	531	53,100	YES

Notes:
1. Calculation taken from Table 6.62a of the NCDENR ESC Manual.



NOTES:
1. WIRE FENCE (IF USED) SHALL BE MINUMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6-INCHES.
2. SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS ACCORDING TO ASTM D 4355.
3. SEE THE NC EROSION CONTROL MANUAL FOR SPECIFICATIONS INSTALLING SEDIMENT FENCE USING THE SLICING METHOD MACHINERY.

1 TEMPORARY SILT FENCE

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BLAKE FARM PARCEL R

EROSION CONTROL DETAILS

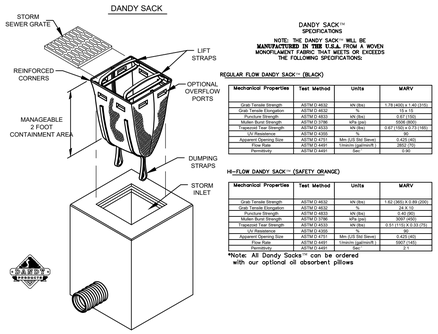
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C12.0
DRAWING NUMBER

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STATUS: PENDER COUNTY TRC REVIEW



DANDY SACK™ SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS

REGULAR FLOW DANDY SACK™ (BLACK)

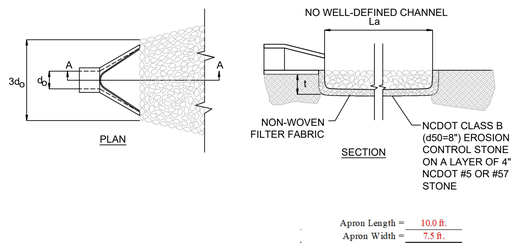
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Trap Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150)
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3324 (500)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	2852 (70)
Permittivity	ASTM D 4491	Sec-1	0.85

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 1.69 (380)
Trap Tear Strength	ASTM D 4533	kN (lbs)	0.49 (110)
Puncture Strength	ASTM D 4833	kN (lbs)	0.49 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.61 (110) X 0.53 (120)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	3822 (140)
Permittivity	ASTM D 4491	Sec-1	2.1

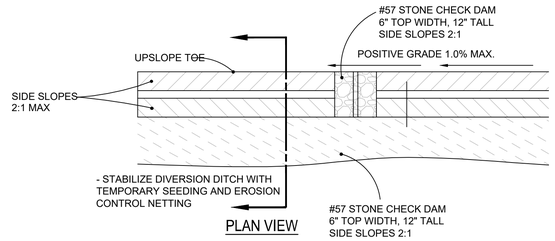
*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows

5 DANDY SACK INTLET PROTECTION — NTS

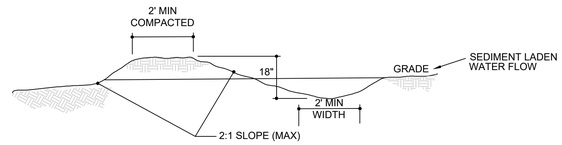


Apron Length = 10.0 ft.
Apron Width = 7.5 ft.

4 RIPRAP OUTLET PROTECTION



PLAN VIEW



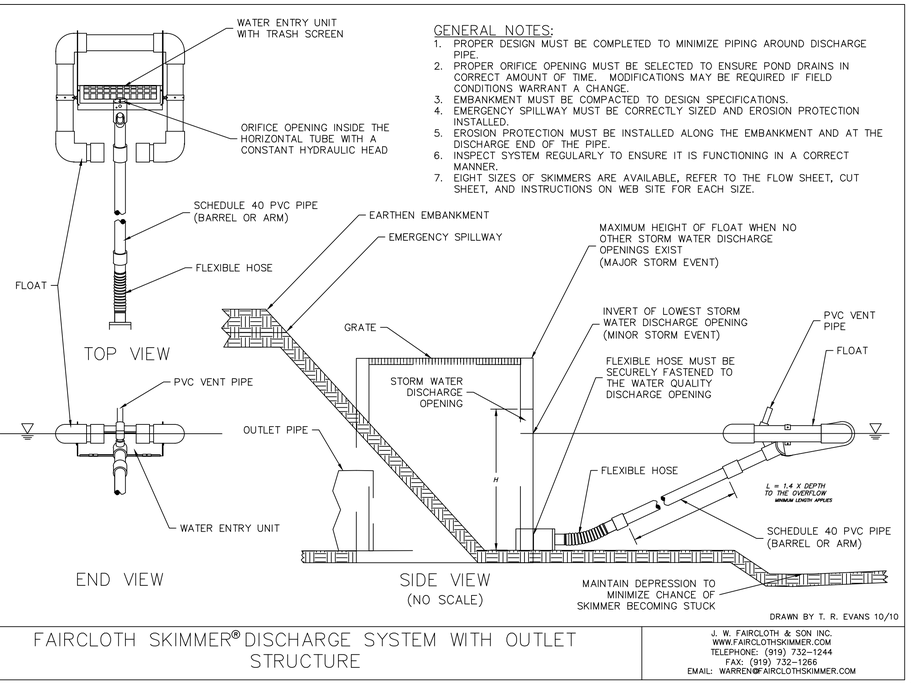
CROSS SECTION

TDD NUMBER	DA (AC)	Q 10 (CFS)	LENGTH (FT)	HIGH (FT)	LOW (FT)	ELEVATION DIFF. (FT)	SLOPE (%)	INITIAL LINING	MANNING n	VELOCITY (FPS)	COMMENT
TDD 1	3.87	8.8	785	38.50	37.00	1.50	0.19	BARE EARTH	0.035	1.07	NO LINING
TDD 2	1.82	4.1	453	39.40	38.50	0.90	0.20	BARE EARTH	0.035	0.50	NO LINING
TDD 3	0.87	2.0	250	36.50	36.00	0.50	0.20	BARE EARTH	0.035	0.24	NO LINING
TDD 4	2.06	4.7	210	36.00	35.58	0.42	0.20	BARE EARTH	0.035	0.57	NO LINING
TDD 5	3.10	7.1	183	35.58	35.20	0.38	0.21	BARE EARTH	0.035	0.64	NO LINING
TDD 6	2.56	5.8	328	35.50	34.80	0.70	0.21	BARE EARTH	0.035	0.71	NO LINING
TDD 7	0.71	1.6	220	36.00	35.50	0.50	0.23	BARE EARTH	0.035	0.14	NO LINING

TDD NUMBER	SECONDARY LINING	MANNING n	VELOCITY (FPS)	COMMENT	DEPTH in	MIN. DEPTH in	*TEMPORARY ROCK CHECK DAMS/WATTLES* CHECK DAM SPACING (FT)	NUMBER REQUIRED	NUMBER PROVIDED
TDD 1	EXCELSIOR	0.035	1.07	EXCELSIOR OK	18.0	18	200	4	4
TDD 2	EXCELSIOR	0.035	0.50	EXCELSIOR OK	18.0	18	200	2	2
TDD 3	EXCELSIOR	0.035	0.24	EXCELSIOR OK	18.0	18	200	1	1
TDD 4	EXCELSIOR	0.035	0.57	EXCELSIOR OK	18.0	18	200	1	1
TDD 5	EXCELSIOR	0.035	0.64	EXCELSIOR OK	21.0	18	200	1	1
TDD 6	EXCELSIOR	0.035	0.71	EXCELSIOR OK	18.0	18	200	2	2
TDD 7	EXCELSIOR	0.035	0.14	EXCELSIOR OK	36.0	18	200	1	1

Notes:
1. Q10 taken from Rational Method.
2. Manning n value for bare earth = 0.020 per NC ESC Manual Table 8.05f
3. Manning n value for excelsior (curled wood) matting = 0.035 per NC ESC Manual Table 8.05f
4. Tractive Force (Shear Stress) was also evaluated and found to be sufficient for the proposed lining.

2 TEMPORARY DIVERSION DITCH



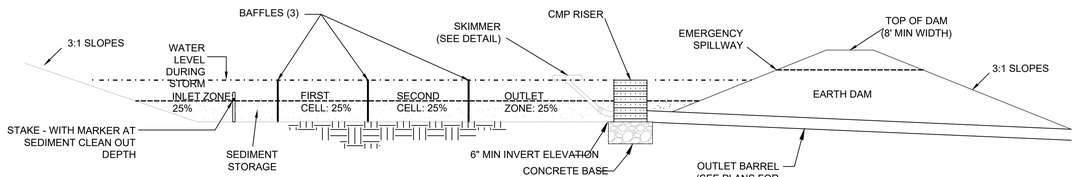
GENERAL NOTES:
1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

DRAWN BY T. R. EVANS 10/10

FAIRCLOTH SKIMMER® DISCHARGE SYSTEM WITH OUTLET STRUCTURE

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3 FAIRCLOTH SKIMMER



NOTES

1. BAFFLE MATERIAL SHALL BE MATERIALS SUCH AS 700 G/M COIR EROSION BLANKET, COIR MESH, OR TREE PROTECTION FENCE FOLDED OVER TO REDUCE PORE SIZE.
2. THE BAFFLE MATERIAL NEEDS TO BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR SILT FENCE.

NOTES (CONT'D)

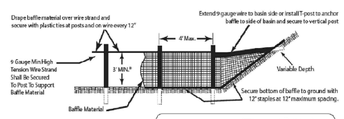
3. LOCATE THE EMERGENCY SPILLWAY ON NATURAL SOILS IF POSSIBLE AND AVOID PLACING IT THROUGH FILL MATERIAL WHEREVER POSSIBLE.
4. ALL RUNOFF MUST DISCHARGE TO THE INLET SIDE OF THE BASIN. DISCHARGE RUNOFF INTO THE BASIN IN A MANNER THAT MINIMIZES EROSION.

SKIMMER BASIN CALCULATION TABLE

Skimmer No.	Drainage Area ac	Rational C Runoff Coeff.	I10 Intensity in/hr	Q10 Peak Flow cfs	Required SA (435 x Q10) sf	Provided SA sf	Required Vol (1800cf/ac x DA) cf	Provided Vol cf	Storage Depth ft	Storage Vol Drained cf	Weir Width ft
TSB-1	5.69	0.30	7.70	13.14	5,716	22,788	10,240	32,339	1.50	32,339	32.9
TSB-2	9.31	0.30	5.25	14.66	6,378	32,793	16,757	40,669	1.30	40,669	36.7

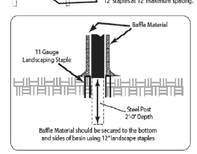
FAIRCLOTH SKIMMER SIZE CALCULATION

Skimmer No.	Dewatering Time (days)	Skimmer Outflow cf/day	Skimmer Size in	Orifice Diameter in	Orifice Radius in	Barrel Outflow gpm	Barrel Pipe in	OUTLET PARAMETERS Skimmer Basin Bottom Elevation ft	Orifice Elevation ft	Top of Riser Elevation ft	Temp. Emergency Spillway Elev ft	Length : Width (>2:1)
TSB-1	3	4,073	4.0	2.90	1.45	21.2	4.0	35.00	36.50	37.00	38.00	TRUE
TSB-2	3	5,661	2.0	1.70	0.85	29.4	4.0	35.00	34.30	34.80	36.00	TRUE



* If the temporary sediment basin will be converted to a permanent stormwater basin of greater depth, the baffle height should be based on the pool depth during use as a temporary sediment basin.

Note: Install three (3) coir fiber baffles in basins at drainage outlets with a spacing of 1/4 the basin length. Two (2) coir fiber baffles can be installed in the basins less than 20 ft. in length with a spacing of 1/3 the basin length.



NOTES:
1. Q10 Peak Flow were taken from Rational Method.
2. Required Surface Areas and Volumes were taken from NCDENR ESC Manual.
3. Faircloth Skimmer Orifices sized using the Faircloth Skimmer online calculator
4. Emergency Weir Width taken from Skimmer Basin Criteria Section of NCDENR ESC Manual Table and/or Hydraulic Routing of the basin to ensure non-erosive velocity.
5. Minimum Barrel Pipe on the Skimmer is 4-inches. (On a 1% slope the capacity is 100 GPM)

1 TEMPORARY SKIMMER SEDIMENT BASIN

REV.NO.	DESCRIPTIONS	DATE
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BLAKE FARM PARCEL R

EROSION CONTROL DETAILS

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C12.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

1 NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes			
	Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b)	High Quality Water (HQW) Zones	7	None
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

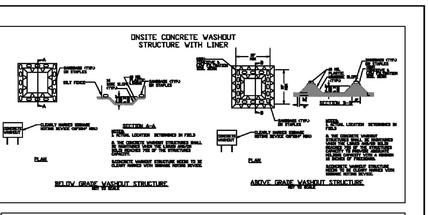
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

1 NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible***. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

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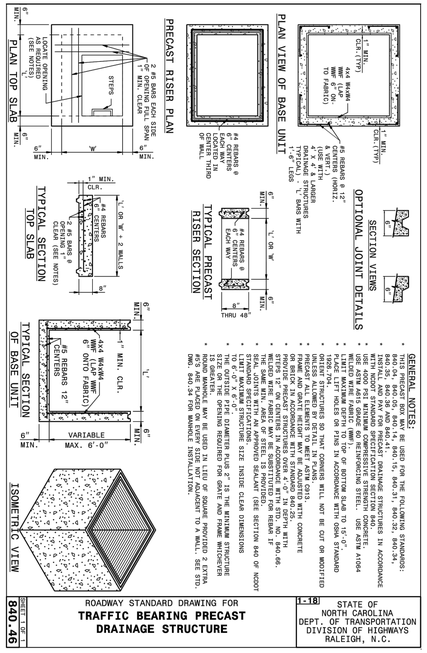
EROSION CONTROL DETAILS

DATE	10/6/2022
MCK PROJ. #	04245055
DESIGNED	BMJ
DRAWN	DAS
CHECKED	TSM
PROJ. MGR.	TSM
HORIZONTAL:	
VERTICAL:	
DRAWING NUMBER	C12.2
REVISION	----

STATUS: PENDER COUNTY TRC REVIEW

REVISIONS			
REV NO	DATE	DESCRIPTION	

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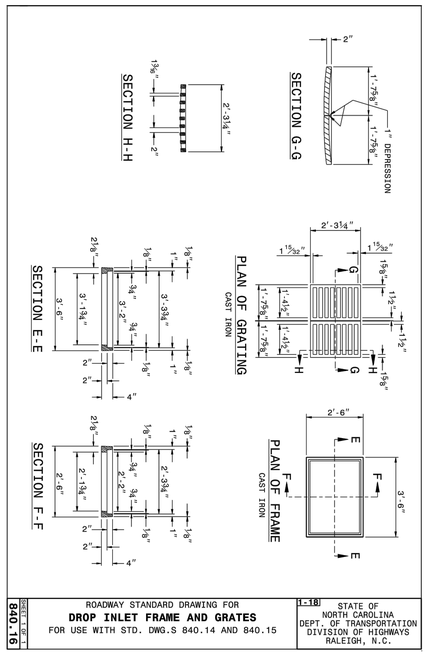


ROADWAY STANDARD DRAWING FOR
TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

SHEET 1 OF 1 — **840.46**

8 TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE NTS

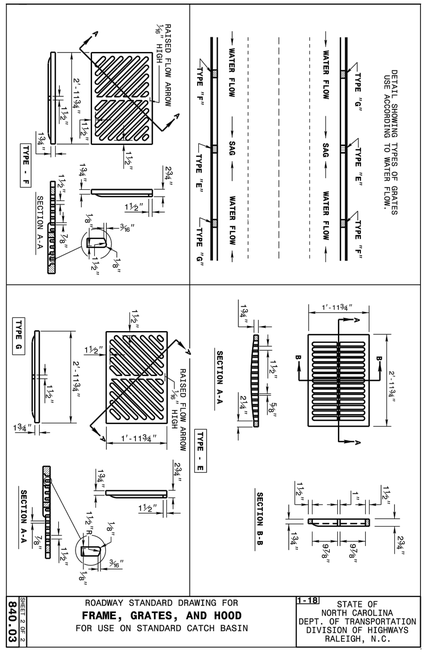


ROADWAY STANDARD DRAWING FOR
DROP INLET FRAME AND GRATES
FOR USE WITH STD. DWG.S 840.14 AND 840.15

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

SHEET 1 OF 1 — **840.16**

6 DROP INLET FRAME AND GRATES NTS

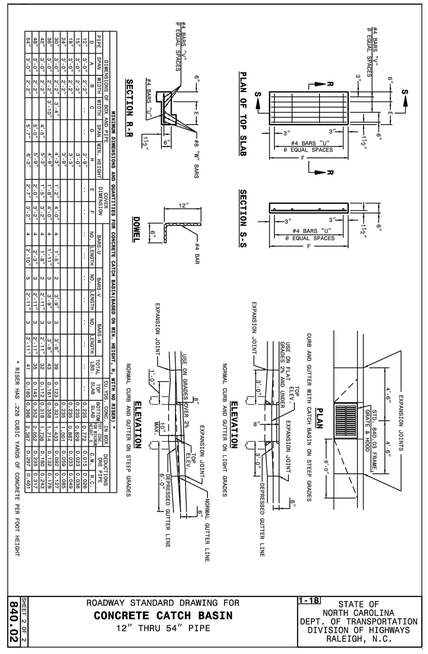


ROADWAY STANDARD DRAWING FOR
FRAME, GRATES, AND HOOD
FOR USE ON STANDARD CATCH BASIN

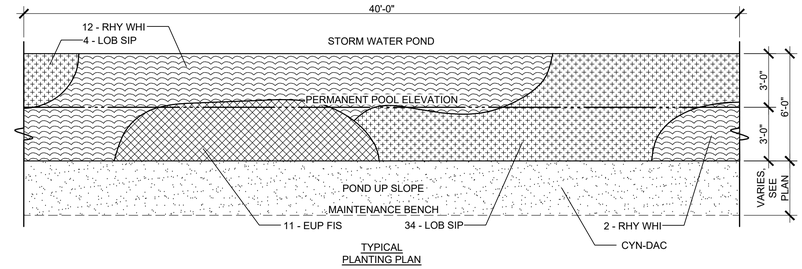
1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

SHEET 2 OF 2 — **840.03**

4 FRAME, GRATES, AND HOOD NTS



| DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN(CURB & GUTTER ON STD. "6" VERTICAL WALL) | | |

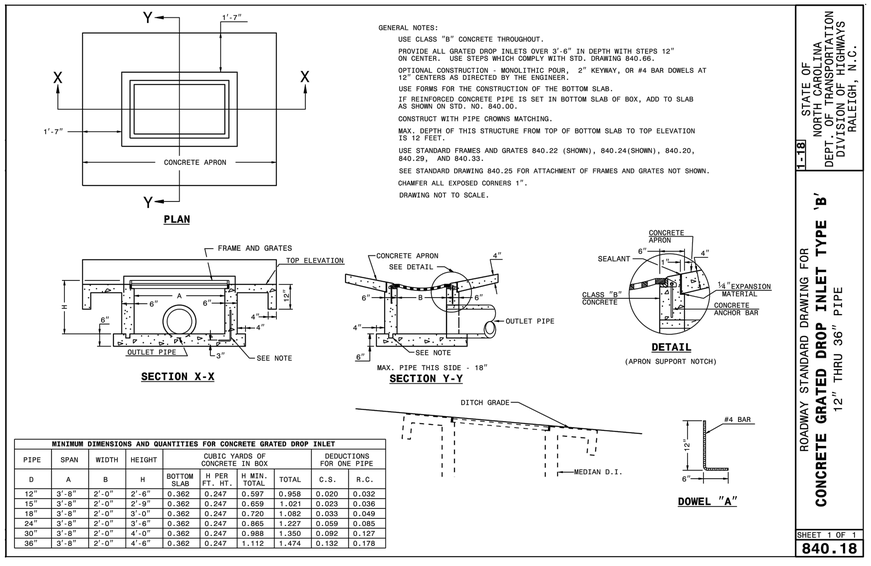


TYPICAL PLANTING PLAN

TYPICAL PLANTING SCHEDULE PER 40' LF

SUBMERSIBLE	CODE	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING	QTY
	EUP FIS	EUPATORIADELPHUS FISTULOSUS	JOE PYE WEED	1 GAL.	18"-24" HT.	30" O.C.	11
	LOB SIP	LOBELIA SIPHILITICA	GREAT LOBELIA	5" DEEP PLUG	12"-18" HT.	18" O.C.	38
	RHY WHI	RHYNCHOSPORA COLORATA	STARRUSH WHITETOP	4" POT	12"-18" HT.	36" O.C.	14
GROUND COVERS	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**SPACING**		**QTY**
	CYN DAC	CYNODON DACTYLON	BERMUDA GRASS	SEED	3 LBS / 1000 SF		SEE PLAN

2 VEGETATIVE SHELF PLANTING NTS



GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL GRATED DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

CONSTRUCT WITH PIPE CROWNS MATCHING.

MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12 FEET.

USE STANDARD FRAMES AND GRATES 840.22 (SHOWN), 840.24(SHOWN), 840.20, 840.29, AND 840.33.

SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE GRATED DROP INLET

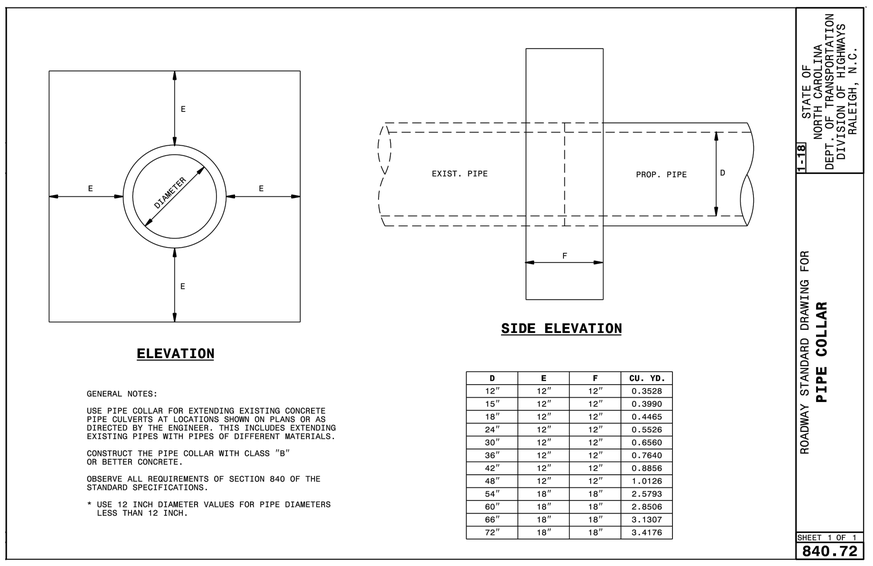
PIPE	SPAN	WIDTH	HEIGHT	CUBIC YARDS OF CONCRETE IN BOX				DEDUCTIONS FOR ONE PIPE	
D	A	B	H	BOTTOM SLAB	H PER FT. HT.	H MIN. TOTAL	TOTAL	C.S.	R.C.
12"	3'-8"	2'-0"	2'-6"	0.362	0.247	0.597	0.958	0.020	0.032
15"	3'-8"	2'-0"	2'-9"	0.362	0.247	0.659	1.021	0.023	0.036
18"	3'-8"	2'-0"	3'-0"	0.362	0.247	0.720	1.082	0.033	0.049
24"	3'-8"	2'-0"	3'-6"	0.362	0.247	0.865	1.227	0.059	0.085
30"	3'-8"	2'-0"	4'-0"	0.362	0.247	0.988	1.350	0.092	0.127
36"	3'-8"	2'-0"	4'-6"	0.362	0.247	1.112	1.474	0.132	0.178

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CONCRETE GRATED DROP INLET TYPE 'B'
12" THRU 36" PIPE

SHEET 1 OF 1
840.18

4 CONCRETE GRATED DROP INLET NTS



GENERAL NOTES:

USE PIPE COLLAR FOR EXTENDING EXISTING CONCRETE PIPE CULVERTS AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. THIS INCLUDES EXTENDING EXISTING PIPES WITH PIPES OF DIFFERENT MATERIALS.

CONSTRUCT THE PIPE COLLAR WITH CLASS "B" OR BETTER CONCRETE.

OBSERVE ALL REQUIREMENTS OF SECTION 840 OF THE STANDARD SPECIFICATIONS.

* USE 12 INCH DIAMETER VALUES FOR PIPE DIAMETERS LESS THAN 12 INCH.

D	E	F	CU. YD.
12"	12"	12"	0.3528
15"	12"	12"	0.3990
18"	12"	12"	0.4465
24"	12"	12"	0.5526
30"	12"	12"	0.6560
36"	12"	12"	0.7640
42"	12"	12"	0.8856
48"	12"	12"	1.0126
54"	18"	18"	2.5793
60"	18"	18"	2.8506
66"	18"	18"	3.1307
72"	18"	18"	3.4176

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
PIPE COLLAR

SHEET 1 OF 1
840.72

1 PIPE COLLAR NTS

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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America's Builder

BLAKE FARM PARCEL R

GRADING AND DRAINAGE DETAILS

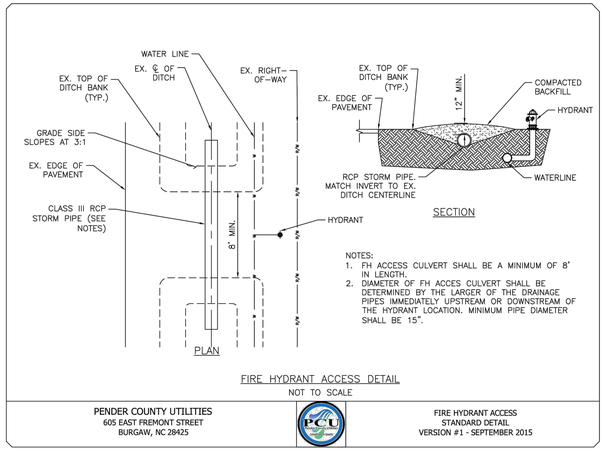
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C13.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

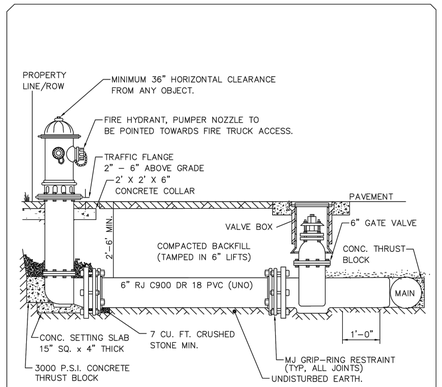


NOTES:
1. FH ACCESS CULVERT SHALL BE A MINIMUM OF 8' IN LENGTH.
2. DIAMETER OF FH ACCES CULVERT SHALL BE DETERMINED BY THE LARGER OF THE DRAINAGE PIPES IMMEDIATELY UPSTREAM OR DOWNSTREAM OF THE HYDRANT LOCATION. MINIMUM PIPE DIAMETER SHALL BE 15".

FIRE HYDRANT ACCESS DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425		FIRE HYDRANT ACCESS STANDARD DETAIL VERSION #1 - SEPTEMBER 2015

6 FIRE HYDRANT ACCESS DETAIL NTS

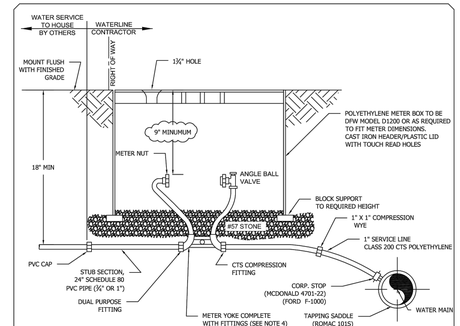


NOTES:
1. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
2. FIRE HYDRANTS TO BE LOCATED IN RIGHT-OF-WAY.
3. INSTALL WITH BURY LINE FLUSH TO FINAL GRADE.
4. HYDRANTS TO BE AVK SERIES 2780, MUELLER SUPER CENTURION A423 W/PENDER CO. OPTIONS 981, OR CLOW MEDALLION WITH STAINLESS STEEL STEMS. HYDRANTS SHALL BE NOSTALGIC STYLE DRY BARREL.
5. HYDRANTS TO BE RED WITH SILVER CAPS AND BONNET.

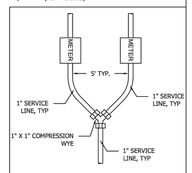
FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425		FIRE HYDRANT ASSEMBLY STANDARD DETAIL VERSION #2 - APRIL 2016

4 FIRE HYDRANT DETAIL NTS



NOTE:
1. CONTRACTOR SHALL PLACE METER BOX IN NON-TRAFFIC AREA ONLY.
2. ALL TAPS TO BE MADE ON THE TOP QUARTER OF THE WATER MAIN.
3. CONTRACTOR SHALL CENTER METER YOKE IN METER BOX.
4. (¾") MCDONALD 26-702WX2D 33, FORD VB72-7W-41-33-NL (1") MCDONALD 26-410WX2D 44, FORD VB-72-10W-41-44-NL
5. BOX TO BE ADJUSTED VERTICALLY TO ACCEPT COUNTY'S STANDARD SERVICE METER. (NEPTUNE T-10, PRO READ REGISTER, R900 MIU)
6. METER TO BE SET BY COUNTY UPON RECEIPT OF WATER SERVICE FEES, AND SATISFACTORY INSPECTION OF WATER SERVICE TO HOUSE.
7. TAPS ON WATER MAINS LARGER THAN 16" SHALL BE MADE WITH DUAL WIDE BAND, STAINLESS STEEL TAPPING SADDLES (ROMAC 202S).
8. 1 ½" METERS REQUIRE 2" TAP AND 2" SQUARE NUT GATE VALVE PER 2" METER DETAIL. REDUCE TO 1 ½" SERVICE PIPE.
9. INSTALL WYE TO PROVIDE A DOMESTIC METER SETTER AND IRRIGATION METER SETTER PER SPLIT SERVICE INSET.

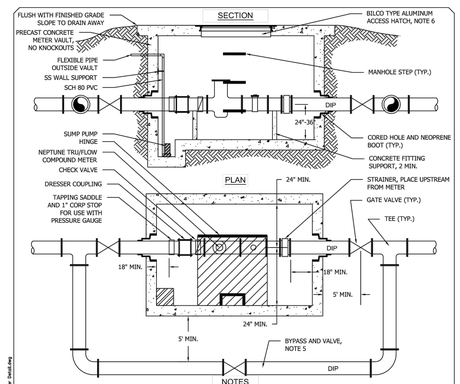


WYE PLAN VIEW FOR WATER/IRRIGATION SPLIT SERVICE

STANDARD WATER SERVICE DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425		WATER SERVICE (¾" - 1") STANDARD DETAIL VERSION #4 - FEB 2016

2 1" WATER SERVICE DETAIL NTS



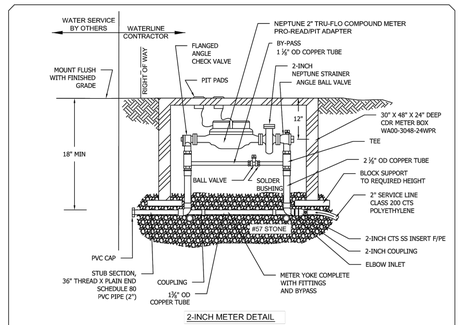
NOTES
1. VAULTS SHALL BE PROPERLY DESIGNED AND SIZED FOR EACH SPECIFIC APPLICATION AND SITE CONDITION.
2. VAULTS SHALL BE LOCATED SUCH THAT THE RIM ELEVATION IS A MINIMUM OF 2 FEET ABOVE THE BASE FLOOD ELEVATION.
3. PROVIDE ADEQUATE DESIGN FOR ALL SITE CONDITIONS INCLUDING BUT NOT LIMITED TO FLOTATION, TRAFFIC LOADING, ACCESSIBILITY, PROJECTED DEMAND, AND OTHER DESIGN CRITERIA AS REQUIRED.
4. MINIMUM CLEARANCES SHOWN ARE REQUIRED FOR PROPER ACCESSIBILITY TO ALLOW OPERATION AND MAINTENANCE. CLEARANCES SHALL BE VERIFIED DURING THE SUBMITTAL PROCESS.
5. METERS SHALL BE PROVIDED A BYPASS WITH AT LEAST ONE VALVE OF THE SAME SIZE AS THE METER.
6. THE ACCESS HATCH SHALL BE LOCATED OVER THE METER, AND SHALL BE LOCATED TO ALLOW ENTRY WITHOUT CLIMBING OVER VAULT COMPONENTS. HATCH SHALL ALSO BE LOCATED AND OF APPROPRIATE SIZE TO ALLOW REMOVAL OF EQUIPMENT. PROVIDE 1 ½" HOLE IN ACCESS HATCH FOR TOUCH-READ SYSTEM.
7. THRUST RESTRAINT AND SUPPORTS SHALL BE PROPERLY DESIGNED, SIZED, AND INSTALLED TO PREVENT MOVEMENT OF ALL VAULT COMPONENTS, INCLUDING THE BY PASS.
8. THERE SHALL BE NO VALVES, DIRECTIONAL CHANGES, OR OTHER DISTURBANCES WITHIN 5 PIPE DIAMETERS UPSTREAM OF THE METER THAT MAY INTERFERE WITH LAMINAR FLOW.
9. VAULTS SHALL BE PROPERLY WATERPROOFED AND HYDROSTATICALLY TESTED. AN AUTOMATIC SUMP PUMP SHALL BE PROVIDED. THE FLOOR OF THE VAULT SHALL BE SLOPED TOWARD THE SUMP.
10. AT LEAST ONE, 20 AMP, GFI OUTLET WITH STANDARD THREE PRONG RECEPTACLE SHALL BE PROVIDED ON THE ELECTRIC PANEL. THE OUTLET SHALL BE WEATHER PROOF AND HAVE A LOCKABLE COVER.
11. AT LEAST ONE SPARE BREAKER SHALL BE PROVIDED IN THE ELECTRICAL PANEL.

BULK METER DETAIL
NOT TO SCALE

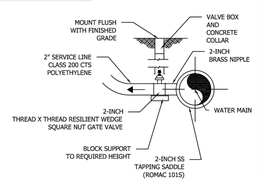
PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28525		BULK METER STANDARD DETAIL VERSION #3 - FEB 2016

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5 BULK METER DETAIL NTS



2-INCH METER DETAIL



2-INCH TAP DETAIL

NOTE:
1. CONTRACTOR SHALL PLACE METER BOX IN NON-TRAFFIC AREA ONLY.
2. CONTRACTOR SHALL CENTER METER YOKE IN METER BOX AS REQUIRED TO PROPERLY FIT METER.
3. BOX TO BE ADJUSTED VERTICALLY TO ACCEPT COUNTY'S STANDARD SERVICE METER AND STRAINER. (NEPTUNE 2" TRU-FLO COMPOUND METER PRO-READ/PIT ADAPTER)
4. TAPS ON WATER MAINS LARGER THAN 16" SHALL BE MADE WITH DUAL WIDE BAND, STAINLESS STEEL TAPPING SADDLES (ROMAC 202S).
5. ANY TAP LARGER THAN 2-INCHES SHALL BE MADE WITH A TAPPING SLEEVE AND VALVE. A STRAINER AND BY-PASS SHALL ALSO BE PROVIDED.

STANDARD 2-INCH WATER SERVICE DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425		2-INCH WATER SERVICE STANDARD DETAIL VERSION #1 - AUGUST 2010

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3 2" WATER SERVICE DETAIL NTS

PCU STANDARD NOTES

1. A PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE BEGINNING WORK. THE MEETING MUST BE SCHEDULED WITH PENDER COUNTY UTILITIES (PCU) AT LEAST ONE WEEK IN ADVANCE. ATTENDEES MUST INCLUDE PCU, THE UTILITY CONTRACTOR'S SUPERINTENDENT, THE SUPPLIER, AND THE CONSULTING ENGINEER.
2. ALL MATERIALS USED SHALL CONFORM TO PENDER COUNTY UTILITIES REQUIREMENTS. NON-CONFORMING MATERIAL WILL NOT BE ACCEPTED FOR FINAL CERTIFICATION.
3. ALL PIPE SHALL BE C900 DR18 PVC, UNLESS OTHERWISE NOTED (SEE PCU STANDARD DETAIL). PVC PIPE TO BE SDR 21 WHERE C900 IS UNAVAILABLE. THE USE OF DUCTILE IRON PIPE (DIP) IS REQUIRED UNDER PAVED AREAS. PCU MUST APPROVE THE USE OF DIP IN THE FIELD BEFORE INSTALLATION IN OTHER LOCATIONS.
4. PCU STANDARD WATERLINE PIPE RESTRAINING METHOD IS MJ GRIP RINGS. AT A MINIMUM ALL FITTINGS, VALVES, ETC. MUST BE RESTRAINED (SEE PCU STANDARD DETAIL).
5. PCU MUST INSPECT CASING INSTALLATIONS PRIOR TO BACKFILL. PCU MUST WITNESS PRESSURE TESTS, AND WITHDRAWAL OF BACTERIOLOGICAL SAMPLES. CONTACT PCU UTILITIES INSPECTOR TO SCHEDULE.
6. CLOSE-OUT DOCUMENTS WHICH MUST BE RECEIVED PRIOR TO PCU SIGNING THE NCDEQ PWSS APPLICANT CERTIFICATION INCLUDE: BACTERIOLOGICAL TESTS, PRESSURE TESTS, DEED OF DEDICATION, AFFIDAVIT/RELEASE OF LIENS, WARRANTY, AND RECORD DRAWINGS (PDF & CAD).
7. AN 18-MONTH WARRANTY PERIOD APPLIES TO ALL WATERLINE CONSTRUCTION. THIS WARRANTY PERIOD DOES NOT BEGIN UNTIL FINAL APPROVAL OF THE SYSTEM HAS BEEN RECEIVED FROM NCDEQ PWSS.

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET PO BOX 995, BURGAW, NC 28425		STANDARD NOTES PCU WATER SYSTEMS VERSION #3 - APRIL 2022

1 STANDARD NOTES NTS

REV.NO.	DESCRIPTIONS	DATE

REVISIONS

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SEAL

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UTILITY DETAILS

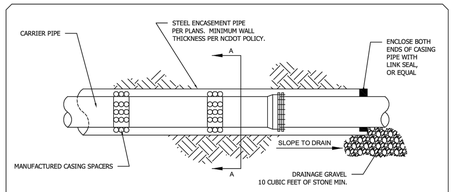
DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
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NOTE:
1. EITHER STAINLESS STEEL OR HDPE CASING SPACERS ARE ACCEPTABLE, BUT IN EITHER CASE, THE SPACERS MUST BE MANUFACTURED.
2. CARRIER PIPE SHALL BE C900 DR 18 PVC WITH RESTRAINED JOINTS.
3. ENCASEMENT PIPE TO BE STEEL WITH MINIMUM WALL THICKNESS IN ACCORDANCE WITH NCDOT MINIMUM REQUIREMENTS OR BETTER.
4. TOP OF ENCASEMENT PIPE SHALL BE INSTALLED A MINIMUM OF THREE FEET BELOW EXISTING AND/OR PROPOSED PAVEMENT SUB-GRADE.

STANDARD BORE ENCASEMENT DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

BORE ENCASEMENT
STANDARD DETAIL
VERSION #3 - APRIL 2017

7 BORE ENCASEMENT NTS

Restrained Length In Feet Each Side of Fitting Joint

PIPE DIAMETER (INCHES)	D. I. P. 90°	D. I. P. 45°	D. I. P. 22 ½°	D. I. P. 11 ¼°	P. V. C. 90°	P. V. C. 45°	P. V. C. 22 ½°	P. V. C. 11 ¼°
3"	30'	15'	10'	5'	40'	20'	10'	5'
4"	35'	15'	10'	5'	55'	25'	15'	10'
6"	55'	25'	10'	5'	80'	35'	20'	10'
8"	65'	30'	15'	10'	90'	40'	20'	10'
10"	80'	35'	20'	10'	110'	50'	25'	15'
12"	95'	40'	20'	10'	130'	55'	30'	15'
16"	120'	50'	25'	15'	165'	70'	35'	20'
20"	150'	65'	30'	15'	200'	85'	40'	20'
24"	180'	70'	35'	20'	210'	90'	45'	25'
30"	190'	80'	40'	20'	250'	105'	50'	25'
36"	220'	95'	45'	25'	0	0	0	0
42"	245'	105'	50'	25'	0	0	0	0
48"	260'	120'	60'	30'	0	0	0	0

Restrained lengths for valves, dead ends and branches from tees shall be the same as for 90° (degree) bends

Restrained Length In Feet For Reducer

PIPE DIAMETER (INCHES)	3"	4"	6"	8"	10"	12"	16"	20"	24"	30"
3"	0	0	0	0	0	0	0	0	0	0
4"	40'	0	0	0	0	0	0	0	0	0
6"	50'	45'	0	0	0	0	0	0	0	0
8"	75'	70'	40'	0	0	0	0	0	0	0
10"	95'	90'	70'	40'	0	0	0	0	0	0
12"	120'	115'	100'	75'	40'	0	0	0	0	0
16"	160'	155'	140'	125'	100'	70'	0	0	0	0
20"	200'	195'	185'	170'	150'	130'	75'	0	0	0
24"	160'	155'	150'	140'	135'	120'	90'	50'	0	0
30"	195'	190'	185'	180'	170'	160'	120'	105'	70'	0
36"	225'	220'	210'	210'	205'	195'	180'	160'	125'	70'
42"	245'	240'	235'	230'	225'	220'	205'	180'	155'	105'
48"	255'	255'	245'	240'	235'	230'	215'	195'	175'	125'

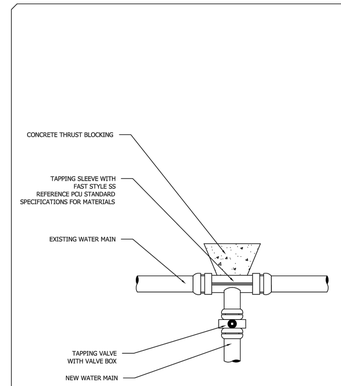
Length of restrained joint for larger diameter pipe

NOTES:
1. PENDER COUNTY STANDARD RESTRAINT METHOD IS MJ "GRIP RING" TYPE. ALL RJ TO BE MJ "GRIP RING" TYPE, UNLESS SPECIFICALLY APPROVED BY PCU IN WRITING.
2. ALL FITTINGS AND JOINTS SHALL BE RESTRAINED JOINT.
3. "L" ABOVE IS GIVEN IN FEET FROM FITTING JOINT.

PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

RESTRAINED JOINT TABLE
STANDARD DETAIL
VERSION #1 - OCTOBER 2015

5 RESTRAINED JOINT TABLE NTS

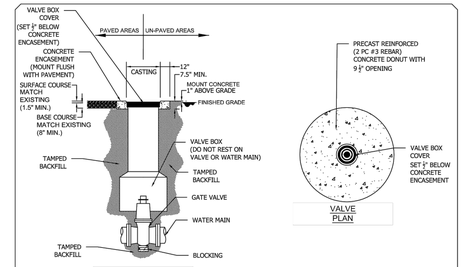


TAPPING SLEEVE AND VALVE ASSEMBLY DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

TAPPING SLEEVE AND VALVE ASSEMBLY
STANDARD DETAIL
VERSION #3 - FEB 2016

3 TAPPING SLEEVE AND VALVE ASSEMBLY NTS



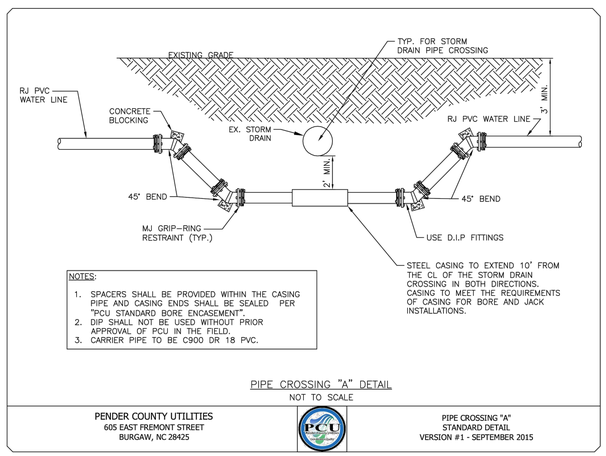
NOTE:
1. DO NOT ALLOW VALVE BOX TO REST ON THE VALVE OR WATER MAIN.
2. A VALVE MARKER SHALL BE PLACED ON THE RIGHT OF WAY AT EACH ISOLATION VALVE.

VALVE INSTALLATION DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

VALVE INSTALLATION
STANDARD DETAIL
VERSION #3 - JUNE 2016

2 VALVE INSTALLATION NTS



NOTES:
1. SPACERS SHALL BE PROVIDED WITHIN THE CASING PIPE AND CASING ENDS SHALL BE SEALED PER "PCU STANDARD BORE ENCASEMENT".
2. DIP SHALL NOT BE USED WITHOUT PRIOR APPROVAL OF PCU IN THE FIELD.
3. CARRIER PIPE TO BE C900 DR 18 PVC.

PIPE CROSSING "A" DETAIL
NOT TO SCALE

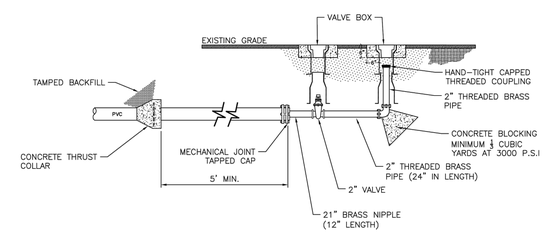
PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

PIPE CROSSING "A"
STANDARD DETAIL
VERSION #1 - SEPTEMBER 2015

6 PIPE CROSSING NTS

NOTE:
1. A BLOW OFF MARKER SHALL BE PLACED ON THE RIGHT OF WAY AT EACH BLOW.
2. BLOW OFF MARKER TO BE SAME DESIGN AS VALVE MARKER EXCEPT DENOTE "BO" ON MARKER RATHER THAN "MV"

NOTES:
1. ALL PVC SHALL BE RESTRAINED PER THE RESTRAINED LENGTH SCHEDULE PROVIDED ELSEWHERE.



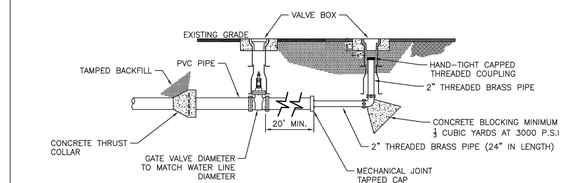
PERMANENT BLOW-OFF ASSEMBLY DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

PERMANENT BLOW-OFF ASSEMBLY
STANDARD DETAIL
VERSION #1 - SEPTEMBER 2015

4 PERMANENT BLOW OFF ASSEMBLY NTS

NOTE:
1. ALL PVC SHALL BE RESTRAINED PER THE RESTRAINED LENGTH SCHEDULE PROVIDED ELSEWHERE.
2. A BLOW OFF MARKER SHALL BE PLACED ON THE RIGHT OF WAY AT EACH BLOW.
3. BLOW OFF MARKER TO BE SAME DESIGN AS VALVE MARKER EXCEPT DENOTE "BO" ON MARKER RATHER THAN "MV"



TEMPORARY BLOW-OFF ASSEMBLY DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES
605 EAST FREMONT STREET
BURGAW, NC 28425

TEMPORARY BLOW-OFF ASSEMBLY
STANDARD DETAIL
VERSION #1 - SEPTEMBER 2015

1 TEMPORARY BLOW OFF ASSEMBLY NTS

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UTILITY DETAILS

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C14.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

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THERMOPLASTIC PAVEMENT MARKING MATERIALS

PAVEMENT MARKING LINES

---------- THERMOPLASTIC (4", 90 mils)

---------- THERMOPLASTIC (4", 90 mils)

T4 - 3 FT. - 9FT. /SP WHITE MINISKIP
T2 - WHITE SOLID LANE LINE
T13 - YELLOW DOUBLE CENTER LINE

---------- THERMOPLASTIC (4", 90 mils)

T42 - YELLOW DIAGONAL

---------- THERMOPLASTIC (8", 90 mils)

T61 - WHITE STOP BAR

PAVEMENT MARKING SYMBOLS

---------- THERMOPLASTIC (90 mils)

T70 - LEFT TURN ARROW

T71 - RIGHT TURN ARROW

T72 - STRAIGHT ARROW

T74 - COMBO. RIGHT/STRAIGHT ARROW

CRYSTAL / RED PAVEMENT MARKER NCDOT 1253.01 (SNOWPLOWABLE)

NOTES:

PAVEMENT MARKINGS:
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS. PAVEMENT MARKINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL HAVE THE PAVEMENT MARKINGS PRE-MARKED, INSPECTED, AND APPROVED BY NCDOT PERSONNEL PRIOR TO THE PLACEMENT OF FINAL PAVEMENT MARKINGS.

SIGNING:
ALL TRAFFIC SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). SIGN POST INSTALLATION SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS.

TRAFFIC CONTROL:
TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS AND THE TRAFFIC CONTROL PLANS INCLUDED HEREIN.

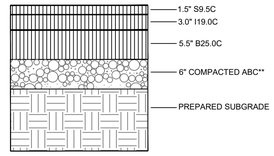
NOTES:

1. PAVEMENT SECTION FOR TURN LANE SHALL BE 5.5" B25.0C, 3" I 19.0C, AND 1.5" SF9.5C.

EXISTING TRAFFIC LANE DIRECTIONAL ARROW (i.e. LEFT, THRU, RIGHT)

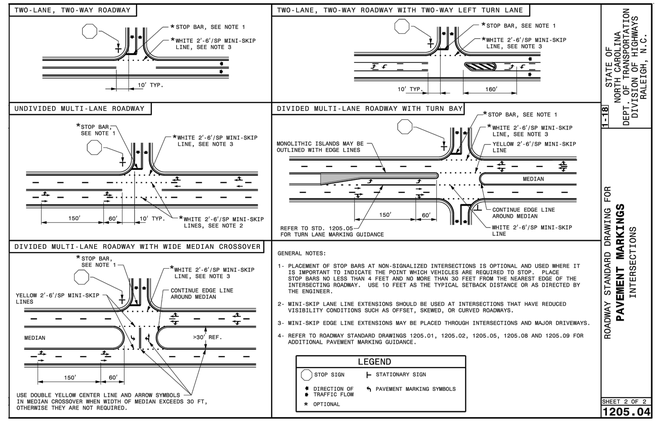
PROPOSED TRAFFIC LANE DIRECTIONAL ARROW (i.e. LEFT, THRU, RIGHT)

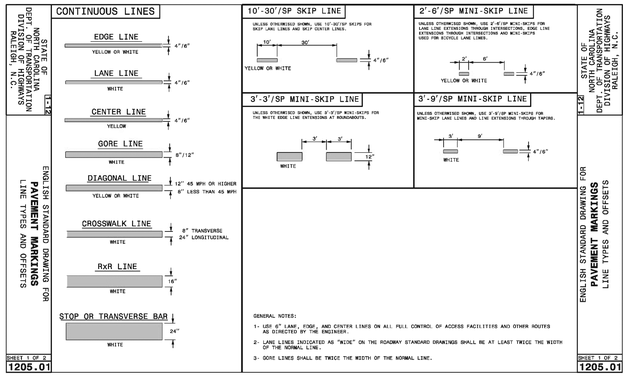
TEMPORARY LANE CLOSURE VALUES	
MINIMUM "L"	660'
SIGHT STOPPING DISTANCE	495'
BUFFER	290'
BARRIER FLARE	12:1
WARNING SIGN SPACING	500'

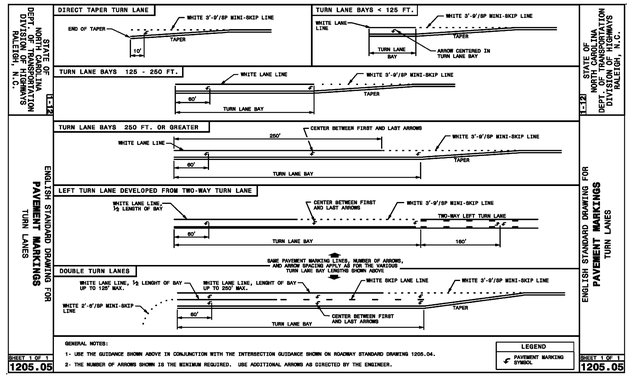


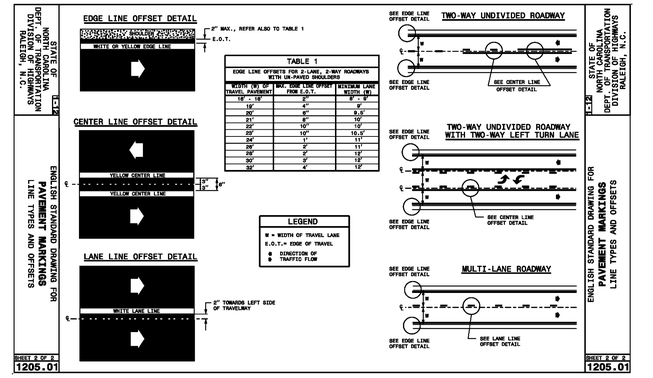
ROADWAY PAVEMENT SECTION
(ALL PAVEMENT WITHIN RIGHT OF WAY)

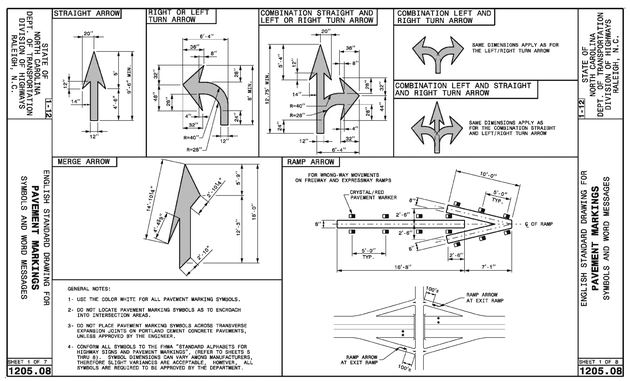
** COMPACTED ABC NOTE-1:
COMPACTED ABC MUST MEET THE NCDOT STANDARD SPECIFICATION GRADATION. REFER TO NCDOT STD SPECS (JAN 2018 EDITION) SECTION 520, AND SECTIONS 1005, 1006, AND 1010 FOR ALL OF THE MATERIAL GRADATION AND SPECIFICATIONS.

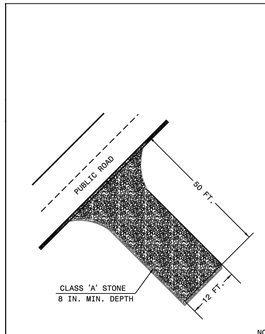










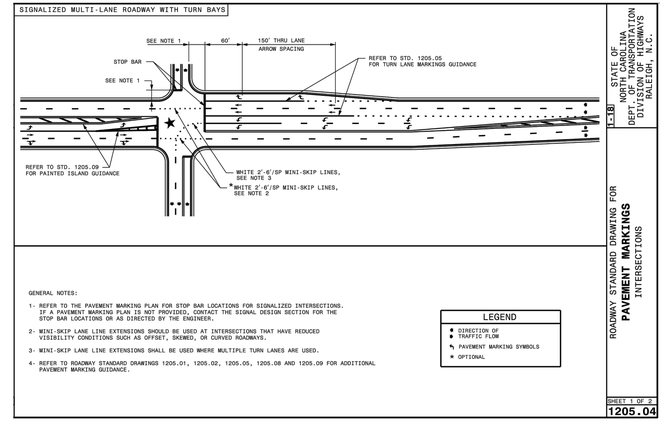


NOTES

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS, PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE GEOTEXTILE FOR DRAINAGE BENEATH STONE

ROADWAY STANDARD DRAWING FOR GRAVEL CONSTRUCTION ENTRANCE
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
1607.01



1 NCDOT AND ROADWAY DETAILS NTS

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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

D·R·HORTON® DHI Listed NYSE America's Builder

BLAKE FARM PARCEL R

NCDOT AND ROADWAY DETAILS

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

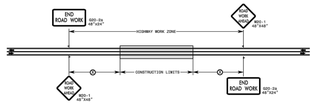
SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C15.0
DRAWING NUMBER

REVISION

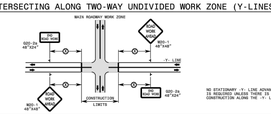
STATUS:
PENDER COUNTY TRC REVIEW

TWO-WAY UNDIVIDED (L-LINES)



POSTED SPEED LIMIT (MPH)	RECOMMENDED MINIMUM SIGN SPACING "D"
≤ 50	500'
55	1000'

ROADWAYS INTERSECTING ALONG TWO-WAY UNDIVIDED WORK ZONE (Y-LINES)



NO STATIONARY "Y - LINE ADVANCE WARNING SIGNAGE IS REQUIRED UNLESS THERE IS MORE THAN 1000' OF CONSTRUCTION ALONG THE "Y - LINE.

GENERAL NOTES

1- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK UNLESS COVERED.

2- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT LONGER THAN 3 CONSECUTIVE DAYS.

3- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.

4- ERECT SIGNS PER RSD 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATIONS FOR WORK ZONE SIGNS.

5- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH RSD. 1110.01.

6- DO NOT BACK BRACE SIGN SUPPORTS.

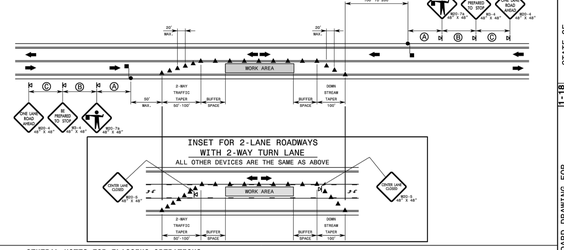
LEGEND
- ⊢ STATIONARY SIGN
- ⟹ DIRECTION OF TRAFFIC FLOW

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RALEIGH, N.C.

1-1B

ROADWAY STANDARD DRAWING FOR
WORK ZONE ADVANCE WARNING SIGNS FOR TWO-WAY UNDIVIDED FACILITIES

SHEET 3 OF 3
1101.01



GENERAL NOTES FOR FLAGGING OPERATIONS

1- REFER TO RSD. 1101.11, SHEETS 1 & 4, FOR "L" DISTANCE AND SIGN SPACING.

2- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.

3- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.

4- PLACE COVER THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.

5- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO RSD. 1101.11, SHEET 2).

6- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.

7- DRUMS OR SKINNY DRUMS MAY BE USED IN LIEU OF CONES. REFER TO RSD. 1180.01 FOR SKINNY DRUM REQUIREMENTS.

8- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE WHEN TRAFFIC VOLUMES EXCEED 1000 VEHICLES PER HOUR PER LANE (VPHPL). PLACE SIGN (R20-7a) PLACED APPROXIMATELY 250 FT. IN ADVANCE OF THE FLAGGER. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND USE LAW ENFORCEMENT.

9- REFER TO THE CURRENT MUTCD FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.

10- DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.

11- IF VEHICLE QUEUES WILL REACH WITHIN 15' OF EITHER SIDE OF ACTIVE RAILROAD TRACKS, PROVIDE A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER TO PREVENT VEHICLES FROM STOPPING WITHIN THE GRADE CROSSING. PROVIDE OFFICER OR FLAGGER EVEN IF AUTOMATIC WARNING MEASURES ALREADY EXIST.

GENERAL NOTES FOR PILOT CAR OPERATIONS

1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.

2- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EDGE TO EDGE), CONES MAY NOT BE REQUIRED ALONG WORK AREA. ONLY AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.

3- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.

4- MOUNT SIGN 500-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.

5- DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

6- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS OF THE DATES AND TIMES OF THE LANE CLOSURE.

7- IGNORE SIGNS (W20-1) AND (R20-3a) DURING FLAGGING AND PILOT CAR OPERATIONS.

LEGEND
- FLAGGER
- CONE
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW

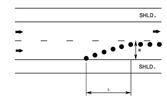
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RALEIGH, N.C.

1-1B

ROADWAY STANDARD DRAWING FOR
TEMPORARY LANE CLOSURES
2-LANE, 2-WAY ROADWAY-1 LANE CLOSED

SHEET 1 OF 14
1101.02

EXAMPLE OF "L" & "W" DESIGNATIONS



TAPER LENGTH CRITERIA FOR CHANNELIZING DEVICES IN WORK ZONES

TYPES OF TAPERS	TAPER LENGTH
UPSTREAM TAPER	
MERGING TAPER	½ L MINIMUM
SHIFTING TAPER	½ L MINIMUM
SHOULDER TAPER	½ L MINIMUM
TWO-WAY TRAFFIC TAPER	50 - 100 FEET MAXIMUM
DOWNSTREAM TAPER	100 FEET MAXIMUM

DO NOT INTRODUCE A MERGING OR SHIFTING TAPER WITHIN A CURVE OF THE ROADWAY

QUICK REFERENCE - "L" DISTANCE TABLE

MINIMUM LONGITUDINAL DISTANCE "L" (FEET) (ROUNDED VALUES)

POSTED SPEED (MPH)	LATERAL WIDTH "W" (FEET) 1	2	3	4	5	6	7	8	9	10	11	12
20	10	15	20	30	35	40	50	55	60	70	75	80
25	15	20	25	45	55	65	75	85	95	105	115	125
30	15	30	45	60	75	90	105	120	135	150	165	180
35	25	45	65	85	105	125	145	165	185	205	225	245
40	30	55	80	110	135	160	190	215	240	270	295	320
45	45	90	135	180	225	270	315	360	405	450	495	540
50	50	100	150	200	250	300	350	400	450	500	550	600
55	55	110	165	220	275	330	385	440	495	550	605	660
60	60	120	180	240	300	360	420	480	540	600	660	720
65	65	130	195	260	325	390	455	520	585	650	715	780
70	70	140	210	280	350	420	490	560	630	700	770	840

GENERAL NOTES

1- TABLE FOR "L" DISTANCE IS BASED ON CHANNELIZATION TAPER FORMULA FROM THE MUTCD. WHERE:

SPEED LIMIT	FORMULA
40 MPH OR LESS	$L_{MIN} = \frac{W \times S^2}{60}$
45 MPH OR GREATER	$L_{MIN} = W \times S$

L = MINIMUM TAPER LENGTH IN FEET (LONGITUDINAL DISTANCE)
W = WIDTH OF OFFSET IN FEET (LATERAL DISTANCE)
S = POSTED SPEED LIMIT, OR OFF-PEAK 85 PERCENTILE SPEED IN MPH PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

2- "L" DISTANCE IS FOR APPLICATION WITH CHANNELIZING DEVICE AND PAVEMENT MARKING TAPERS AND TRANSITIONS. CHANNELIZING DEVICES INCLUDE DRUMS, CONES, TUBULAR MARKERS, BARRICADES, RAISED ASPHALT ISLANDS, AND VERTICAL PANELS.

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ROADWAY STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
L" DISTANCE TAPER CRITERIA

SHEET 1 OF 4
1101.11

STANDARDS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

- 903.10 - GROUND MOUNTED SIGN SUPPORTS
- 904.10 - ORIENTATION OF GROUND MOUNTED SIGNS
- 940.50 - MOUNTING OF TYPE "D", "E", AND "F" SIGNS ON "U" CHANNEL POSTS
- 1101.01 - WORK ZONE WARNING SIGNS
- 1101.02 - TEMPORARY LANE CLOSURES
- 1101.04 - TEMPORARY SHOULDER CLOSURES
- 1101.11 - TRAFFIC CONTROL DESIGN TABLES
- 1110.01 - STATIONARY WORK ZONE SIGNS
- 1110.02 - PORTABLE WORK ZONE SIGNS
- 1130.01 - DRUMS
- 1135.01 - CONES
- 1150.01 - FLAGGING DEVICES
- 1180.01 - SKINNY - DRUM

DESIGN SPEED (MPH)	MINIMUM SIGHT DISTANCE: STOPPING SIGHT DISTANCE (FEET)	MINIMUM SIGHT DISTANCE: PASSING SIGHT DISTANCE (FEET)	MINIMUM LONGITUDINAL BUFFER SPACE (FEET)
30	200	1090	85
35	250	1280	120
40	305	1470	155
45	360	1625	195
50	425	1835	240
55	495	1985	290
60	570	2135	345
65	645	2285	405
70	730	2480	470
75	820	2580	540
80	910	2680	615

GENERAL NOTES

1- TABLES ARE BASED ON THE AASHTO GREEN BOOK "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". MINIMUM SIGHT DISTANCE VALUES ARE FOR PASSENGER CAR VEHICLES ON WET AND LEVEL ROADWAYS. CONSULT THE AASHTO GREEN BOOK TO MAKE FINAL DETERMINATION OF STOPPING SIGHT DISTANCE REQUIREMENTS.

2- BUFFER SPACE TABLE IS BASED ON THE BRAKING DISTANCE PORTION OF STOPPING SIGHT DISTANCE FOR WET AND LEVEL PAVEMENTS.

3- USE OF STOPPING SIGHT DISTANCE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE FOR TRAFFIC APPROACHING A LANE CLOSURE. PROVIDE 2-LANE, 2-WAY ROADWAYS STOPPING SIGHT DISTANCE TO THE FLAGGER. FOR LANE CLOSURES ON MULTILANE ROADWAYS PROVIDE STOPPING SIGHT DISTANCE TO THE BEGINNING OF THE LANE CLOSURE MERGE TAPER, OR FLASHING ARROW BOARD. EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED.

4- USE OF MINIMUM PASSING SIGHT DISTANCE TABLE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE REQUIREMENTS FOR PLACEMENT OF PAVEMENT MARKING PASSING/NO-PASSING ZONES FOR 2-LANE, 2-WAY ROADWAYS.

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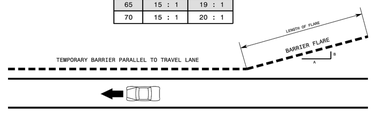
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ROADWAY STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
BUFFER SPACE & SIGHT DISTANCE

SHEET 2 OF 4
1101.11

TEMPORARY BARRIER FLARE RATES

POSTED SPEED LIMIT (MPH)	UNANCHORED (A:B)	ANCHORED (A:B)
≤ 30	7 : 1	8 : 1
35	8 : 1	9 : 1
40	8 : 1	10 : 1
45	10 : 1	12 : 1
50	11 : 1	14 : 1
55	12 : 1	16 : 1
60	14 : 1	18 : 1
65	15 : 1	19 : 1
70	15 : 1	20 : 1



GENERAL NOTES

1- REFER TO THE 2011 ROADSIDE DESIGN GUIDE OR THE LATEST EDITION.

2- A BARRIER IS CONSIDERED FLARED WHEN IT IS NOT PARALLEL TO THE EDGE OF THE TRAVELWAY.

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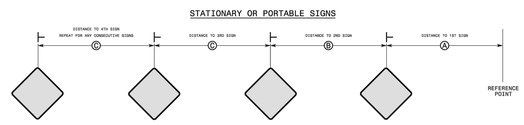
1-1B

ROADWAY STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
TEMPORARY BARRIER FLARE RATES

SHEET 3 OF 4
1101.11

ADVANCE WARNING SIGN SPACING CHART			
POSTED SPEED LIMIT (MPH)	RECOMMENDED DISTANCE BETWEEN SIGNS (FEET)= A	B	C
≤ 35	350	350	350
40-50	350	350	350
55	500	500	500
CONTROLLED ACCESS ROAD (≥ 55)	1000	1500	2700

STATIONARY OR PORTABLE SIGNS



GENERAL NOTES

1- REFER TO 2009 MUTCD OR THE LATEST EDITION.

2- USE THIS STANDARD DRAWING IN CONJUNCTION WITH OTHER TRAFFIC CONTROL ROADWAY STANDARD DRAWINGS WHERE SIGN SPACING DISTANCES A, B, C, ARE SPECIFIED.

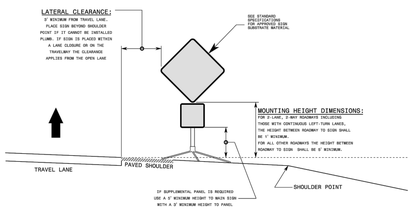
3- APPLY THE ADVANCE WARNING SIGN SPACING CHART WHERE A SERIES OF 2 OR MORE SIGNS ARE USED. ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE. FIELD ADJUST AS VARIOUS CONDITIONS OCCUR, SUCH AS LIMITED SIGHT DISTANCE, OBSTRUCTION INTERFERENCE, ETC.

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1-1B

ROADWAY STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
SPACING OF TEMPORARY SIGNS IN SERIES

SHEET 4 OF 4
1101.11



GENERAL NOTES

1- DIMENSIONS SHOWN ARE MINIMUM VALUES. MOUNT SIGNS SO THEY WILL BE CLEARLY VISIBLE TO APPROACHING TRAFFIC EVEN WHEN SIGNS ARE MOUNTED BEHIND TRAFFIC CONTROL DEVICES SUCH AS DRUMS, BARRIER, OR OTHER OBJECTS.

2- ALL PORTABLE SIGNS AND STANDS MUST MEET OR EXCEED THE REQUIREMENTS OF NCHRP 350 FOR CATEGORY II DEVICES. USE PORTABLE WORK ZONE SIGNS AND STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER.

3- ALL PORTABLE WORK ZONE SIGNS AND STANDS MUST BE LISTED ON THE DEPARTMENT'S APPROVED PRODUCTS LIST.

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ROADWAY STANDARD DRAWING FOR
PORTABLE WORK ZONE SIGNS
MOUNTING HEIGHT & LATERAL CLEARANCE

SHEET 1 OF 1
1110.02

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER OR NCDOT.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER OR NCDOT.

PROJECT NOTES

A. DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

B. REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.

C. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

D. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

E. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITH THE CLOSED TRAVEL LANE.

F. DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

G. BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER.

H. DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

SIGNING

I. INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

J. ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

K. INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

L. INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

I INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

M. PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45-50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

MISCELLANEOUS

N. NCDOT ROADS ONLY: PRIOR TO OPENING ANY LANE OF TRAFFIC THE ROAD SHALL BE REPAIRED TO NCDOT STANDARDS. THIS WILL INCLUDE, BUT IS NOT LIMITED TO:
- -- NCDOT APPROVED PRODUCTS AND MATERIALS.
- -- PROPER COMPACTION OF MATERIALS.
- -- REPAIR ASPHALT PER NCDOT STANDARD DRAWING 654.01.
- -- ANY DAMAGE CAUSED AS A RESULT TO THE CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE APPLICANT/DEVELOPER TO RESOLVE.

TRAFFIC PATTERN ALTERATIONS

O. NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

TRAFFIC CONTROL DEVICES

P. SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

Q. PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

R. PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, CONES OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

S. ONLY UNIFORMED POLICE OFFICERS SHALL DIRECT TRAFFIC THROUGH SIGNALIZED INTERSECTIONS. THE TRAFFIC SIGNAL MAY BE PUT INTO FLASHING OPERATION OR MAY REMAIL IN NORMAL OPERATION AT THE DISCRETION OF THE OFFICER.

OFFICERS SHALL BE PROPERLY ATTIRED AND SHALL DIRECT TRAFFIC WITH HAND MOTIONS. FLASHLIGHTS WITH RED CONES SHOULD BE USED AT NIGHT. OFFICERS MAY ALSO USE A WHISTLE TO SIGNAL WHEN THEY ARE CHANGING THE DIRECTION OF THE RIGHT OF WAY.

1 NCDOT DETAILS NTS

REV.NO	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

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BLAKE FARM PARCEL R

NCDOT AND ROADWAY DETAILS

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: HSCALE
VERTICAL: VSCALE

C15.1
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW

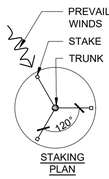
1. ALL EXISTING VEGETATION THAT IS USED TO MEET LANDSCAPING REQUIREMENTS, ALL REQUIRED PLANTED LIVING MATERIAL, AND ALL REQUIRED BERMS SHALL BE MAINTAINED BY THE OWNER OF THE PROPERTY ON A CONTINUING BASIS. ANY PLANTED MATERIAL WHICH BECOMES DAMAGED OR DISEASED OR DIES SHALL BE REPLACED BY THE OWNER WITHIN 60 DAYS OF THE OCCURRENCE OF SUCH CONDITION. IF, IN THE OPINION OF THE ZONING ADMINISTRATOR THERE ARE SEASONAL CONDITIONS WHICH WILL NOT PERMIT THE TIMELY REPLACEMENT OF THE VEGETATION (E.G. TOO HOT OR TOO COOL FOR SUCCESSFUL REPLANTING) THIS REQUIREMENT MAY BE ADMINISTRATIVELY WAIVED UNTIL A TIME CERTAIN WHEN THE REPLANTING WOULD BE SUCCESSFUL.
2. VERIFICATION OF TOTAL LANDSCAPE MATERIAL QUANTITIES AS SHOWN ON THE LANDSCAPE PLANS AND IN THE PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO FINAL BIDDING OR INSTALLATION.
3. ALL PLANTING TYPES SHALL COMPLY WITH LOCAL GOVERNING CODES AND REGULATIONS, CONFORM TO REQUIREMENTS OF PLANT LIST AND TO THE AMERICAN ASSOCIATION OF NURSERYMEN "AMERICAN STANDARD OF NURSERY STOCK" AND "HORTICULTURAL STANDARDS" AS TO SPECIES, AGE, SIZE, AND PLANTING RECOMMENDATIONS.
4. LANDSCAPE MATERIAL PLACED IN PREPARED HOLES SHALL BE PROPERLY BACKFILLED PRIOR TO THE END OF THE WORKING DAY.
5. ALL SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
6. LANDSCAPE ARCHITECT SHALL APPROVE ANY ON-SITE PLANT STORAGE AREA FOR ACCESSIBILITY, SHADE CONDITIONS, HEALING-IN MULCH MATERIAL AND TEMPORARY WATERING METHODS.
7. ALL ROPE AND WRAPPING TWINE SHALL BE CUT AND REMOVED FROM AROUND THE UPPER PARTS OF THE ROOT BALL. METAL BASKET WIRES AND BURLAP SHALL BE PULLED BACK AND TUCKED UNDER THE EDGES OF THE SAUCER RINGS ON ALL TREES AND LARGE SHRUBS. ALL SYNTHETIC BURLAP SHALL BE REMOVED FROM PLANT BALLS PRIOR TO BACK FILLING.
8. ALL PLANT BEDS OR RAISED SAUCER RINGS SHALL BE EDGED WITH SMOOTH, CONTINUOUS CURVES.
9. ALL PLANT MATERIAL SHALL BE PLANTED AT HEIGHTS AND WIDTHS AS ILLUSTRATED IN PLANTING DETAILS.
10. TREE GUYING SHALL BE PERFORMED WITHIN A WEEK OF PLANTING. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TREE GUYING STRAPPING AND STAKES AFTER THE FIRST FULL GROWING SEASON OR ONE YEAR, WHICH EVER COMES FIRST.
11. CONTRACTOR SHALL VERIFY LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO PLANTING.
12. ANY EXPOSED OR UNCOVERED LINES SHALL BE SHOWN TO GENERAL CONTRACTOR PRIOR TO BACKFILLING.
13. ALL PLANT BEDS AND RAISED SAUCER RINGS SHALL BE GRADED TO PROVIDE ADEQUATE DRAINAGE AND SHALL BE MULCHED AS SPECIFIED.
14. ALL MATERIALS, PLANTING AND LANDSCAPE WORK SHALL CONFORM TO THE CURRENT MUNICIPAL AUTHORITIES STANDARD SPECIFICATIONS AND DETAILS.
15. ALL LANDSCAPE AREAS THAT ARE NOT PLANTED, MULCHED OR PAVED SHALL BE SEEDED OR SODDED.
16. FIRST YEAR PRUNING OF TREE CROWN SHALL BE LIMITED TO REMOVAL OF DEAD & DAMAGED WOOD.
17. TREE PROTECTION FENCE SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO CLEARING, GRADING AND CONSTRUCTION ACTIVITY OR ISSUANCE OF ANY RELATED PERMITS. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
18. MULCH LINE SHALL CONSIST OF SMOOTH CONTINUOUS CURVES.
19. ALL TREES NOT WITHIN A PLANT BED SHALL BE TREATED WITH A 6' DIAMETER MULCH RING TYPICAL, UNLESS OTHERWISE INDICATED ON THE PLANTING PLANS.
20. TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS OR AS OTHERWISE DICTATED BY LOCAL REGULATIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES.
21. SUBSTITUTIONS OF PLANT MATERIALS SPECIFIED CAN ONLY OCCUR WITH PRIOR APPROVAL BY LANDSCAPE ARCHITECT.
22. ESTABLISH PLANT BED CONFIGURATION. LANDSCAPE ARCHITECT TO APPROVE BED LAYOUT IN FIELD.
23. AREAS DAMAGED BY ACTIVITIES OF CONTRACTOR SHALL BE RE-ESTABLISHED TO PRE-DISTURBANCE CONDITION AT NO ADDITIONAL COST TO THE OWNER.
24. USE HERBICIDES, PESTICIDES, AND FERTILIZER IN A MANNER CONSISTENT WITH THE FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT AND IN ACCORDANCE WITH LABEL RESTRICTIONS.
25. CONTRACTOR SHALL INSURE THAT ALL PLANT MATERIAL IS FREE OF FIRE ANTS PRIOR TO INSTALLATION.
26. LANDSCAPE ARCHITECT OR OWNER SHALL APPROVE PLACEMENT OF TREES PRIOR TO PLANTING.
27. STREET TREES SHALL BE MAINTAINED TO PROVIDE 13'-6" CLEAR HEIGHT FOR THE PORTION OF THE TREE CANOPY THAT EXTENDS OVER THE VEHICULAR NETWORK.
28. TREES SHALL BE LOCATED A MINIMUM OF 15 FEET FROM STREETLIGHTS.
29. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
30. DEEPROOT ROOT BARRIER OR APPROVED EQUAL SHALL BE INSTALLED AT ANY TREE LOCATIONS AND WHERE A TREE IS WITHIN 10' OF A UTILITY OR HARDSCAPE. THE ROOT BARRIER SHALL BE INSTALLED ACCORDING TO MANUFACTURER RECOMMENDATION.
31. LANDSCAPE CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN AND INSTALL IRRIGATION SYSTEM.
32. MULCH SHALL BE SHREDDED HARDWOOD, SPREAD AT THICKNESS OF 3" DEEP ACROSS PLANTING AREAS.

4 GENERAL LANDSCAPE NOTES

PLANT SCHEDULE

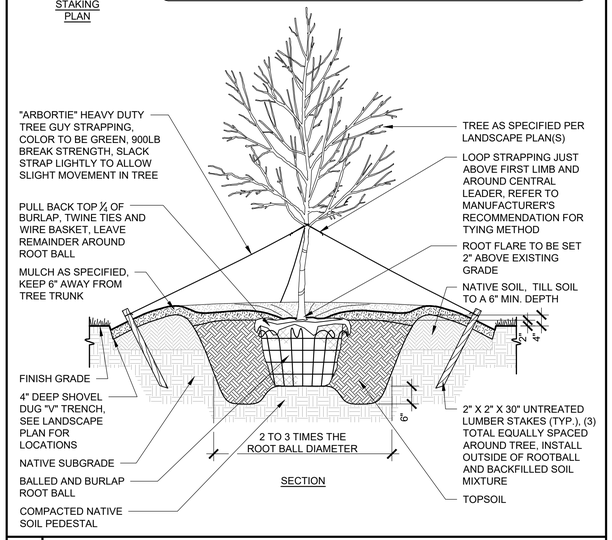
CANOPY TREE	SIZE	CALIPER	HEIGHT		QTY	REMARKS
ACER RUBRUM `OCTOBER GLORY` TM OCTOBER GLORY MAPLE	B & B	2" CAL.	10`-12` HT.		14	SINGLE DOMINANT LEADER, UNIFORM CANOPY & MATCHED
QUERCUS ALBA WHITE OAK	B & B	2" CAL.	8`-10` HT.		18	SINGLE DOMINANT LEADER, UNIFORM CANOPY AND MATCHED
QUERCUS NIGRA WATER OAK	B & B	2" CAL.	10`-12` HT.		50	SINGLE DOMINANT LEADER, UNIFORM CANOPY & MATCHED
UNDERSTORY TREES	SIZE	CALIPER	HEIGHT		QTY	REMARKS
ILEX X 'NELLIE R. STEVENS' NELLIE R. STEVENS HOLLY	B & B	2" CAL.	8`-10` HT.		16	SINGLE DOMINANT LEADER, UNIFORM CANOPY AND MATCHED.
MAGNOLIA GRANDIFLORA 'SOUTHERN CHARM' TEDDY BEAR® SOUTHERN MAGNOLIA	B & B	2" CAL.	8`-10` HT.		81	SINGLE DOMINANT LEADER, UNIFORM CANOPY AND MATCHED.

5 PLANT SCHEDULE



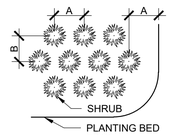
STAKING PLAN

GENERAL NOTES:
A. TREE TO BE STRAIGHTENED PRIOR TO BACKFILL AND GUYING
B. SCARIFY BOTTOM AND SIDES OF PLANT PIT.
C. STAKE AND GUY TREES 3" CALIPER OR GREATER, OR TREES IN WINDING LOCATIONS AS DIRECTED BY LANDSCAPE ARCHITECT.
D. DO NOT WRAP TREE TRUNK.
E. MARK NORTH SIDE OF TREE AT NURSERY AND PLANT WITH MARKING FACING NORTH.
F. BACKFILL PLANTING PITS WITH TOPSOIL MIXTURE AS SPECIFIED, PACK SOIL AROUND BASE OF ROOTBALL TO STABILIZE, INSTALL REMAINDER IN 9" LAYERS, HAND TAMP TO REMOVE VOIDS AND WATER EACH LAYER



SECTION

3 TYPICAL TREE PLANTING

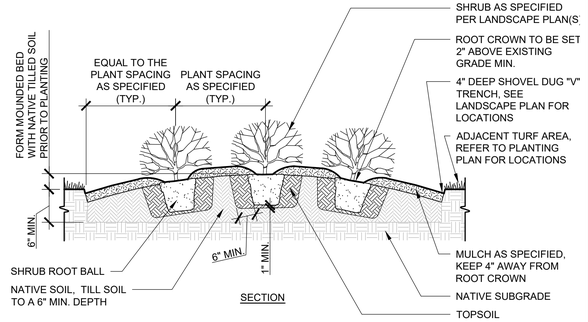


PLANT SPACING PLAN

PLANT SPACING CHART

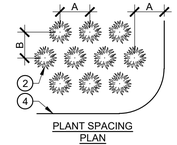
SPACING (A)	ROW OFFSET (B)	SPACING (A)	ROW OFFSET (B)
1'-0" O.C.	10" O.C.	5'-0" O.C.	4'-4" O.C.
1'-6" O.C.	1'-4" O.C.	6'-0" O.C.	5'-2" O.C.
2'-0" O.C.	1'-9" O.C.	7'-0" O.C.	6'-1" O.C.
2'-6" O.C.	2'-2" O.C.	8'-0" O.C.	6'-11" O.C.
3'-0" O.C.	2'-7" O.C.	9'-0" O.C.	7'-10" O.C.
3'-6" O.C.	3'-0" O.C.	10'-0" O.C.	8'-8" O.C.
4'-0" O.C.	3'-6" O.C.		

GENERAL NOTES:
A. SCARIFY BOTTOM AND SIDES OF PLANTING PIT.
B. THE BOTTOM OF SHRUB ROOT BALLS SHALL NOT PROJECT INTO THE NATIVE SUBGRADE . LARGER PLANTS WILL REQUIRE ADDITIONAL TOPSOIL DEPTH.
C. BACKFILL PLANTING PITS WITH TOPSOIL MIXTURE AS SPECIFIED, INSTALL IN 6" LAYERS, HAND TAMP TO REMOVE VOIDS AND WATER EACH LAYER
D. ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED BY HAND PRIOR TO PLACEMENT AND BACKFILLING WITH PREPARED SOILS. HAND TOOLS SHALL NOT BE USED TO SCARIFY ROOT BALLS.



SECTION

2 TYPICAL SHRUB PLANTING

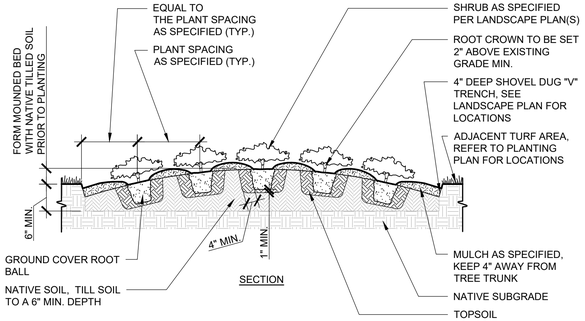


PLANT SPACING PLAN

PLANT SPACING CHART

SPACING (A)	ROW OFFSET (B)	SPACING (A)	ROW OFFSET (B)
6" O.C.	5" O.C.	24" O.C.	1'-9" O.C.
8" O.C.	7" O.C.	36" O.C.	2'-7" O.C.
12" O.C.	10" O.C.	4'-0" O.C.	3'-6" O.C.
15" O.C.	1'-1" O.C.	5'-0" O.C.	4'-4" O.C.
18" O.C.	1'-4" O.C.	6'-0" O.C.	5'-2" O.C.

GENERAL NOTES:
A. SCARIFY BOTTOM AND SIDES OF PLANTING PIT.
B. THE BOTTOM OF GROUND COVER ROOT BALLS SHALL NOT PROJECT INTO THE NATIVE SUBGRADE . LARGER PLANTS WILL REQUIRE ADDITIONAL TOPSOIL DEPTH.
C. BACKFILL PLANTING PITS WITH TOPSOIL MIXTURE AS SPECIFIED, INSTALL IN 6" LAYERS, HAND TAMP TO REMOVE VOIDS AND WATER EACH LAYER
D. ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED BY HAND PRIOR TO PLACEMENT AND BACKFILLING WITH PREPARED SOILS. HAND TOOLS SHALL NOT BE USED TO SCARIFY ROOT BALLS.



SECTION

1 TYPICAL GROUND COVER PLANTING

REVISIONS

REV.NO.	DESCRIPTIONS	DATE

SEAL

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LANDSCAPE DETAILS

DATE:	10/06/2023
MCE PROJ. #	04245-0055
DRAWN	ALM/BMJ
DESIGNED	GHS
CHECKED	TSM
PROJ. MGR.	TSM

SCALE
HORIZONTAL: N/A
VERTICAL: AS SHOWN

C17.0
DRAWING NUMBER

REVISION

STATUS:
PENDER COUNTY TRC REVIEW