

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	2022-11-18	JFM

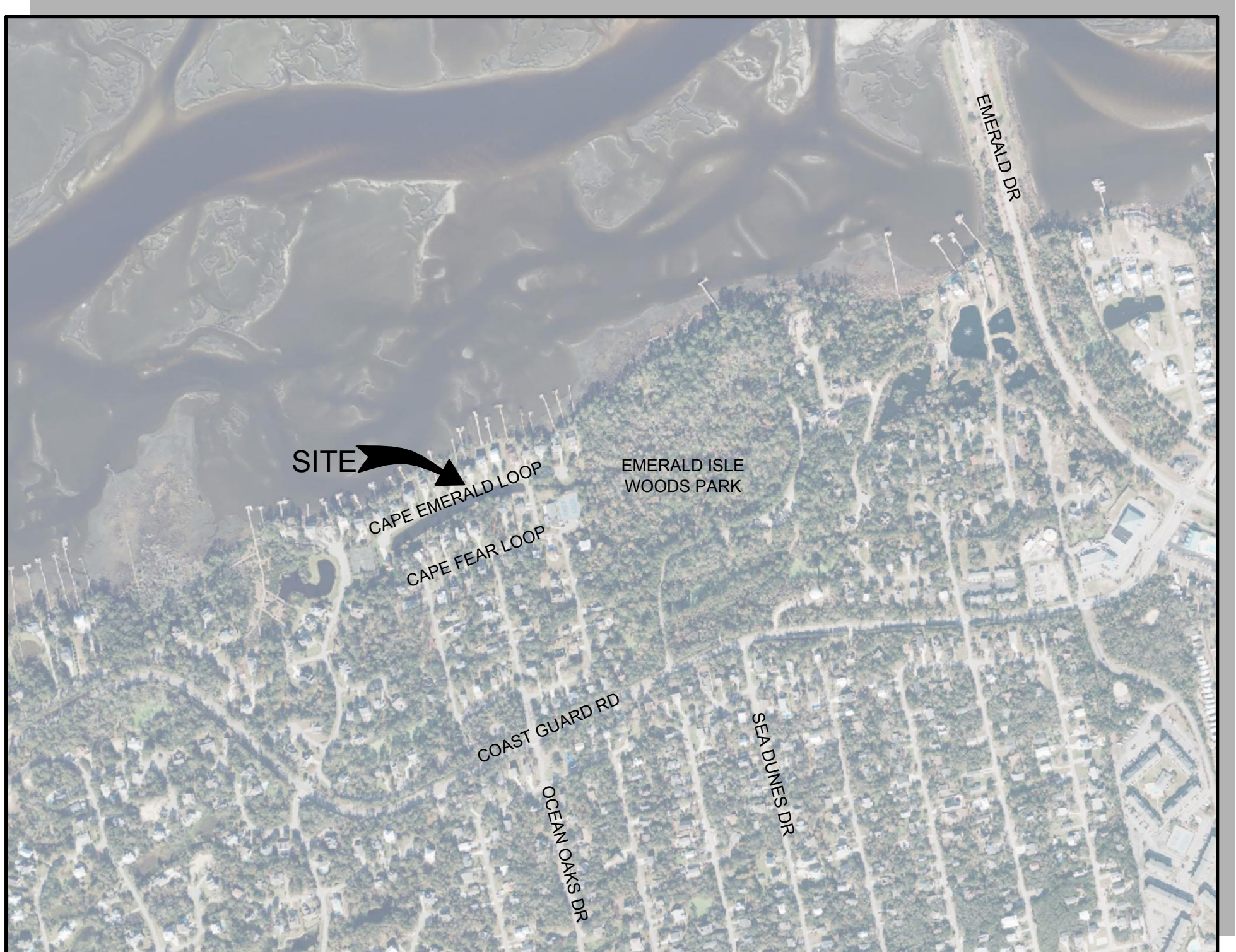
CAPE EMERALD SUBDIVISION POND OUTLET STRUCTURE & PIPE REALIGNMENT TOWN OF EMERALD ISLE

PROJECT ADDRESS:
416 CAPE EMERALD LOOP
EMERALD ISLE, NC 28594

INDEX OF DRAWINGS	
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D-101	DEMOLITION SITE PLAN
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C-500	CIVIL DETAILS



VICINITY MAP
SCALE: NTS



LOCATION PLAN
SCALE: NTS

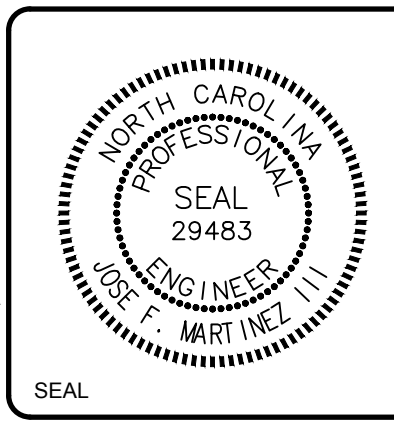
CAPE EMERALD SUBDIVISION POND
OUTLET STRUCTURE & PIPE REALIGNMENT

COVER SHEET

4700 FALLS OF NEUSE RD, SUITE 300
FARMINGTON, NC 27834
919-781-4628
NC FIRM NO. F-0105

moffatt & nichol

Designed by: J. MARTIN	Drawn by: VNM	Reviewed by: J. MARTINEZ	Submitted by: JOHNNY MARTIN MOFFATT & NICHOL
Date: 2022-11-18	M&N Project No. 22230	Drawing code:	Drawing Scale: AS SHOWN Plot scale: 1" = (0 SHEET)
Rev.:	0		



Sheet Reference No.
G-001
INDEX: 1 OF 6

File: Q:\RA\22230\20 CADD\Active\Cape Emerald Isle Pond Outlet\22230G-001 - Plotted: 11/18/2022 3:14 PM by MORGAN, NEKOL ; Saved: 11/18/2022 2:54 PM by MMORGAN

GENERAL NOTES:

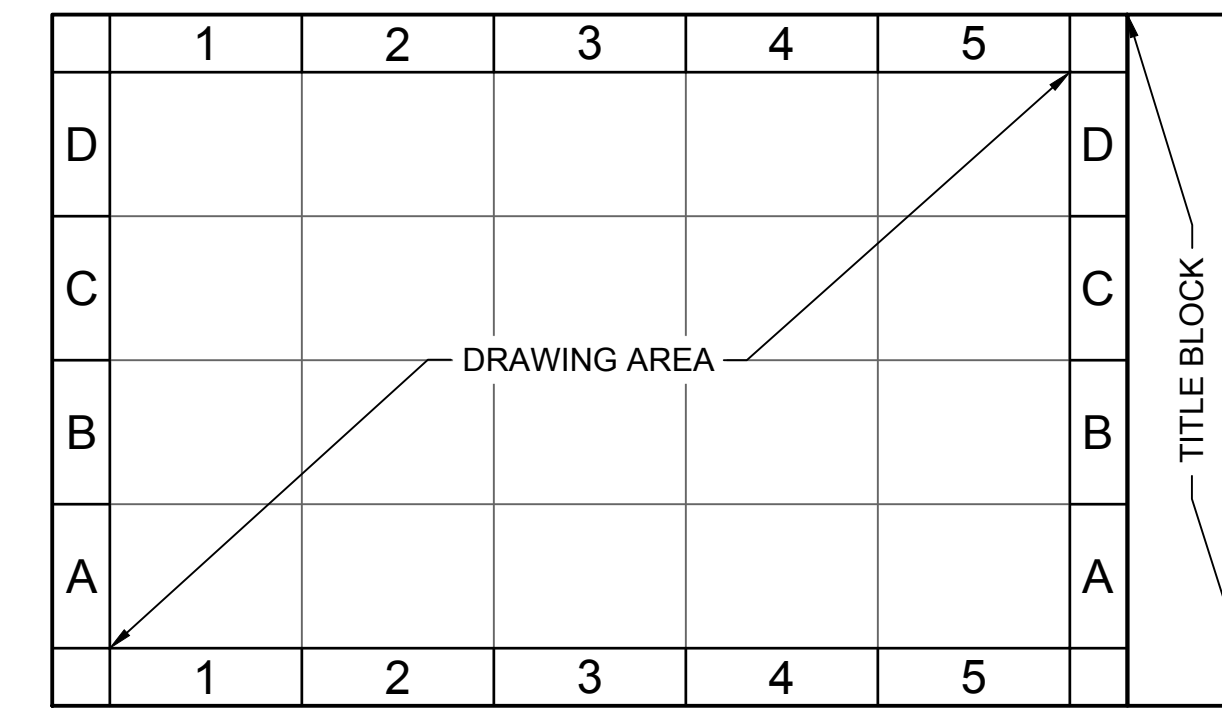
- THE TOPOGRAPHY PRESENTED ON THE SITE PLAN IS BASED ON 2022 SURVEYS CONDUCTED BY JOYNER KEENEY, PLLC AND CAN ONLY BE CONSIDERED AS REPRESENTATIVE OF CONDITIONS AT THAT TIME. SURVEY VERTICAL REFERENCE NAVD88 DATUM.
- PLAN COORDINATES AND WORK POINTS ARE BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 83 (NAD83).
- ALL ELEVATIONS SHOWN ON DRAWINGS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE TIDAL DATUM RELATIONSHIP IS BASED ON NOAA TIDAL STATION AT THE WILMINGTON, NC STATION.
 - MHW. 2.08 FEET
 - MHW. 1.83 FEET
 - NAVD88. 0.00 FEET
 - MSL. -0.16 FEET
 - MLW. -2.44 FEET
 - MLLW. -2.60 FEET
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. DO NOT SCALE PROJECT DRAWINGS. REPORT ANY DISCREPANCIES IN THE DRAWINGS AND/OR SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION OR ADJUSTMENT PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOT BEGIN DEMOLITION/CONSTRUCTION IN ANY SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.
- THE CONTRACTOR SHALL PLACE THE PERMIT PLACARDS ON THE JOB SITE AND SHALL COMPLY WITH ALL TERMS OF THE PERMITS PERTAINING TO THE PERFORMANCE OF THE WORK.
- ALL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL ARE THE CONTRACTORS RESPONSIBILITY.
- THESE PLANS ARE INCOMPLETE WITHOUT THE PROJECT TECHNICAL SPECIFICATIONS. IF THERE ARE CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL ALERT THE OWNER AND ENGINEER. THE TECHNICAL SPECIFICATIONS SHALL TAKE PRECEDENCE.
- THE EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES, IF UTILITIES OTHER THAN THOSE SHOWN ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND TAKE STEPS TO PROTECT THE LINE(S) AND ENSURE CONTINUED SERVICE. DAMAGE CAUSED TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING NEW CONSTRUCTION.
- THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL PROTECTION STANDARDS, LAWS, AND REGULATIONS.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL, ON A DAILY BASIS, REMOVE FROM THE SITE ANY DEBRIS RESULTING FROM DEMOLITION/CONSTRUCTION. DISPOSAL OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL MATERIALS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED, AND SHALL BE DISPOSED OF AS SPECIFIED. ALL DEBRIS SHALL BE PROPERLY DISPOSED OF IN A PERMITTED LANDFILL.

STAGING:

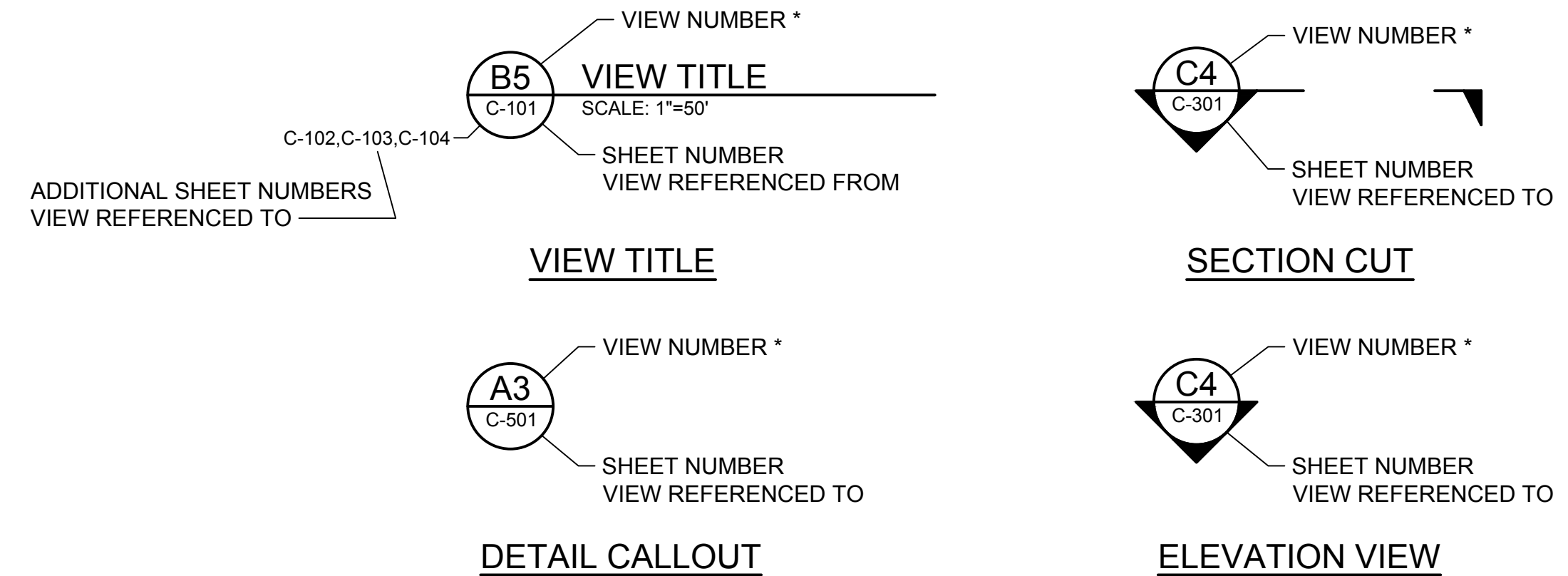
- STAGING AREAS SHALL BE MAINTAINED BY THE CONTRACTOR. STAGING AREAS SHALL BE CLEARED OF DEBRIS AND CONTRACTOR INSTALLED AMENITIES AT THE COMPLETION AND ACCEPTANCE OF WORK IN THE AREA. THE CONTRACTOR SHALL RESTORE THE ACCESS AREAS TO THEIR ORIGINAL CONDITION AFTER WORK IN THE AREA IS COMPLETE. THIS WORK INCLUDES REPLACEMENT OF FENCING, SIGNS, VEGETATION, WALKWAYS, PARKING FACILITIES, PAVED AREAS AND OTHER MISCELLANEOUS ITEMS. ALL REPLACEMENT MATERIALS SHALL BE APPROVED BY THE OWNER BEFORE INSTALLATION.

ABBREVIATIONS:

APPROX	APPROXIMATE
CL	CENTERLINE
E	EAST OR EASTING
EL/ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST.	EXISTING
FT	FEET
MHW	MEAN HIGH WATER
N	NORTH OR NORTHING
NAD 83	NORTH AMERICAN DATUM OF 1983
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NCDEQ DCM	NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DEPARTMENT OF COASTAL MANAGEMENT
NTS	NOT TO SCALE
PROP	PROPOSED
ROW	RIGHT OF WAY
TYP	TYPICAL
"	SECONDS OR INCH
'	MINUTES OR FEET
&	AND
Ø	DIAMETER



DRAWING AREA COORDINATE SYSTEM (DACS)



* VIEW NUMBER IS BASED ON THE DACS LOCATION OF THE LOWER-LEFT EXTENTS OF THE VIEW ON THE REFERENCED SHEET. WHEN REFERENCING DRAWING INFORMATION BETWEEN SHEETS, BOTH THE VIEW AND SHEET NUMBERS MUST BE QUOTED TOGETHER - EITHER IN A CALLOUT FORMAT AS SHOWN ABOVE OR IN THE FORM: "VIEW NO./SHEET NO." (C1/C-301)



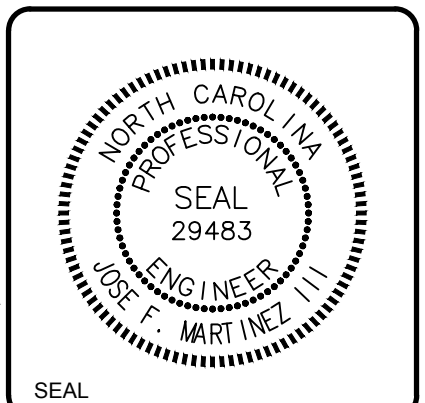
Issue No.	Date	By	Appr.
0	2022-11-18		

CAPE EMERALD SUBDIVISION POND OUTLET STRUCTURE & PIPE REALIGNMENT

GENERAL NOTES, ABBREVIATIONS & LEGEND

Designed by: J. MARTIN	Drawn by: VNM	Checked by: PRG	Reviewed by: J. MARTINEZ	Submitted by: JOHNNY MARTIN MOFFATT & NICHOL
Date: 2022-11-18	M&N Project No. 22230	Drawing code:	Drawing Scale: AS SHOWN	Plot Scale: 1" = 10' (0 SHEET)

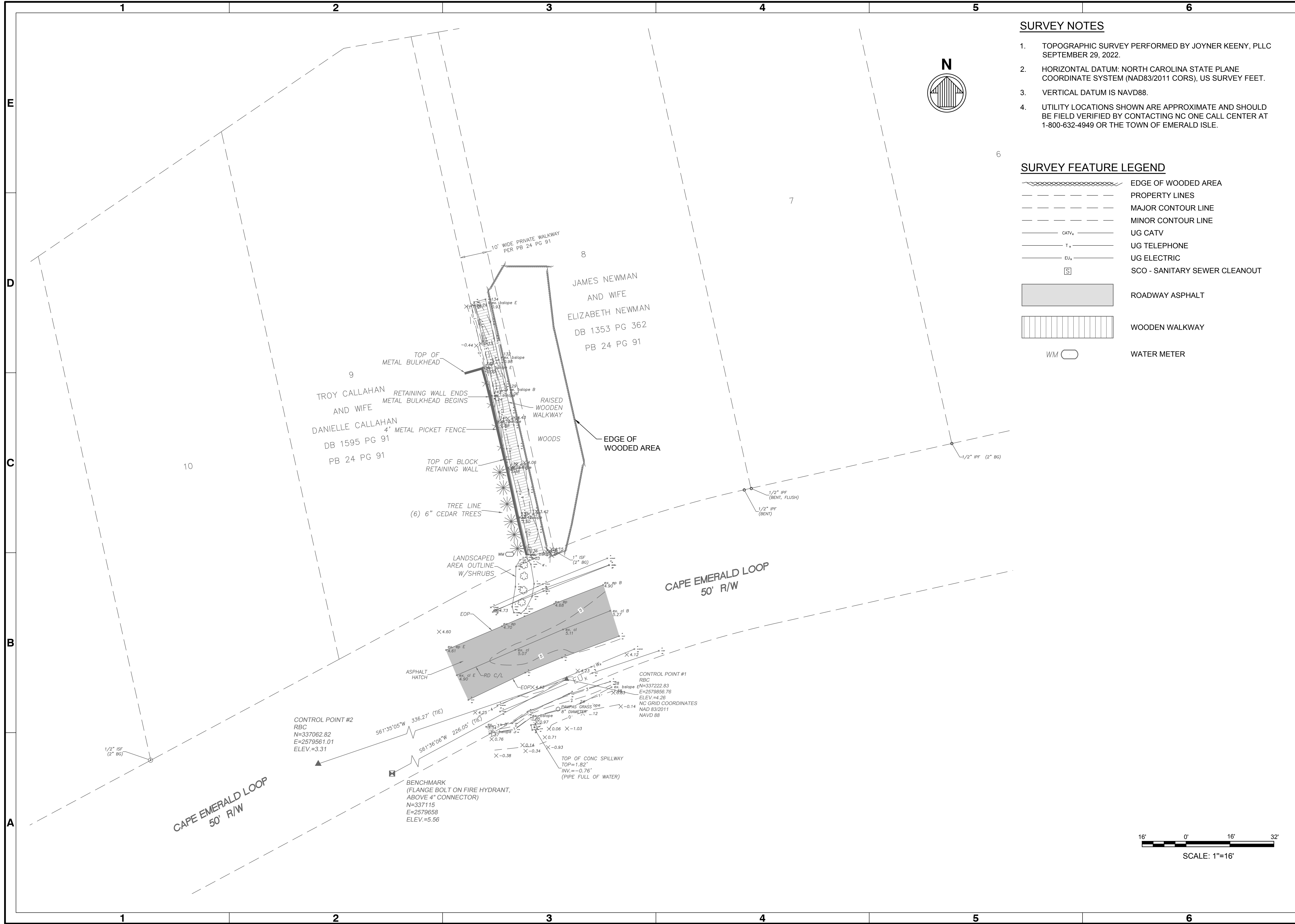
4700 FALLS OF NEUSE RD, SUITE 300
FALLS CHURCH, NC 27511
919-781-4626
NC FIRM NO. F-0105



Sheet Reference No.
G-002
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SURVEY NOTES

1. TOPOGRAPHIC SURVEY PERFORMED BY JOYNER KEENEY, PLLC SEPTEMBER 29, 2022.
2. HORIZONTAL DATUM: NORTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83/2011 CORS), US SURVEY FEET.
3. VERTICAL DATUM IS NAVD88.
4. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED BY CONTACTING NC ONE CALL CENTER AT 1-800-632-4949 OR THE TOWN OF EMERALD ISLE.

SURVEY FEATURE LEGEND

- EDGE OF WOODED AREA
- PROPERTY LINES
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- UG CATV
- UG TELEPHONE
- UG ELECTRIC
- SCO - SANITARY SEWER CLEANOUT
- ROADWAY ASPHALT
- WOODEN WALKWAY
- WATER METER

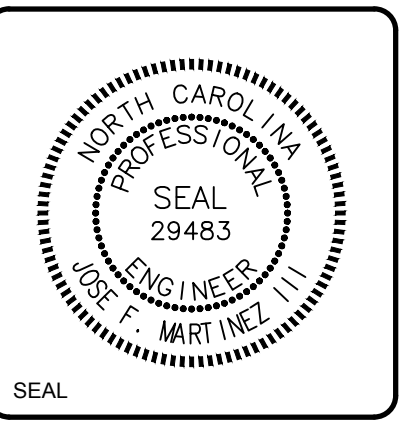


IFN	Date	Appr
0	2022-11-18	

CAPE EMERALD SUBDIVISION POND OUTLET STRUCTURE & PIPE REALIGNMENT	EXISTING CONDITIONS
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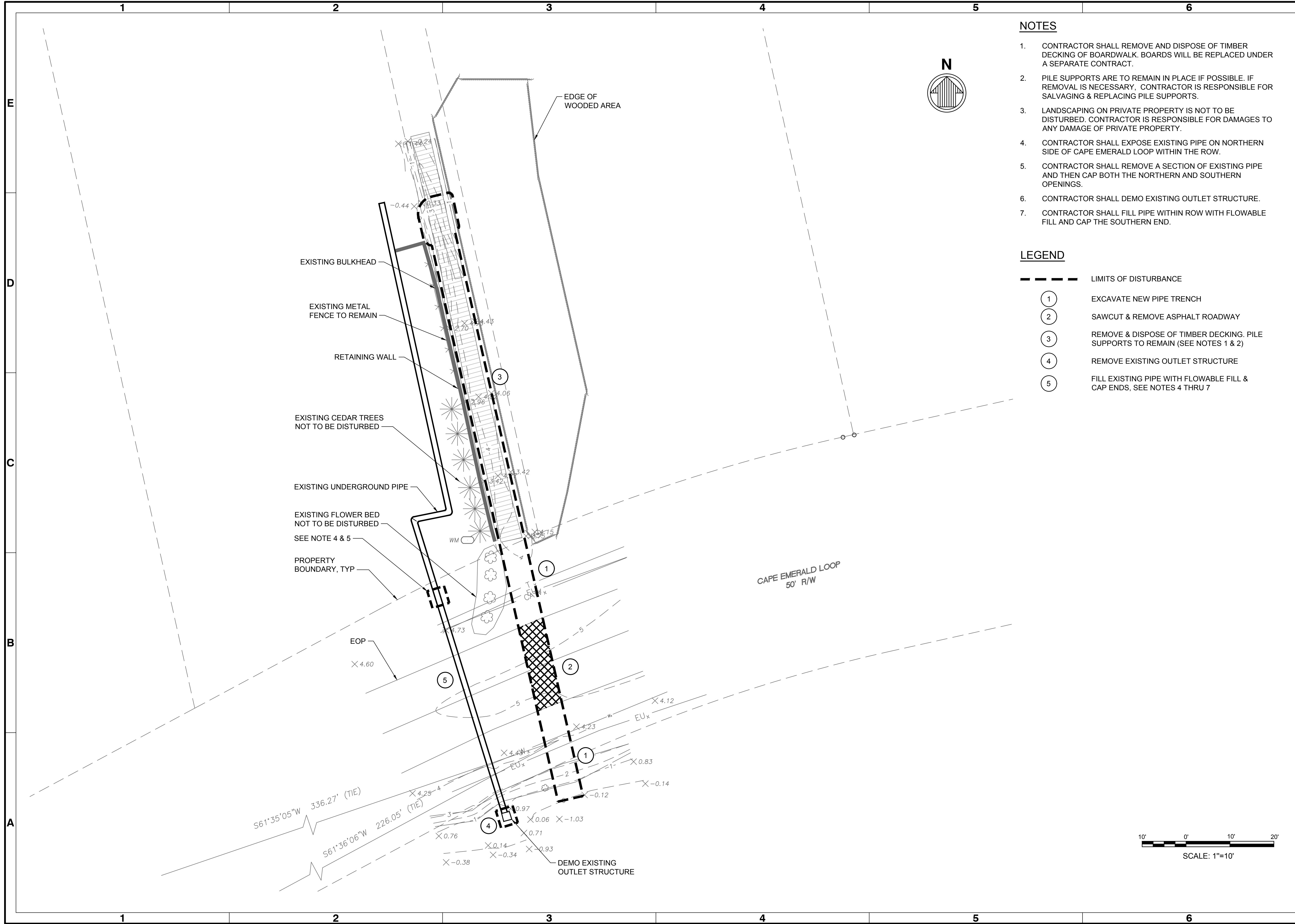
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Date: 2022-11-18	M&N Project No. 22230	Drawing code:	Drawing Scale: AS SHOWN Plot Scale: 1" = 16' (0 SHEET)

4700 FALLS OF NEUSE RD, SUITE 300
FARMINGTON, NC 27834
919-781-4626
NC FIRM NO. F-0105



Sheet Reference No. V-101
INDEX: 3 OF 6

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NOTES

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF TIMBER DECKING OF BOARDWALK. BOARDS WILL BE REPLACED UNDER A SEPARATE CONTRACT.
2. PILE SUPPORTS ARE TO REMAIN IN PLACE IF POSSIBLE. IF REMOVAL IS NECESSARY, CONTRACTOR IS RESPONSIBLE FOR SALVAGING & REPLACING PILE SUPPORTS.
3. LANDSCAPING ON PRIVATE PROPERTY IS NOT TO BE DISTURBED. CONTRACTOR IS RESPONSIBLE FOR DAMAGES TO ANY DAMAGE OF PRIVATE PROPERTY.
4. CONTRACTOR SHALL EXPOSE EXISTING PIPE ON NORTHERN SIDE OF CAPE EMERALD LOOP WITHIN THE ROW.
5. CONTRACTOR SHALL REMOVE A SECTION OF EXISTING PIPE AND THEN CAP BOTH THE NORTHERN AND SOUTHERN OPENINGS.
6. CONTRACTOR SHALL DEMO EXISTING OUTLET STRUCTURE.
7. CONTRACTOR SHALL FILL PIPE WITHIN ROW WITH FLOWABLE FILL AND CAP THE SOUTHERN END.

LEGEND

- LIMITS OF DISTURBANCE
- ① EXCAVATE NEW PIPE TRENCH
- ② SAWCUT & REMOVE ASPHALT ROADWAY
- ③ REMOVE & DISPOSE OF TIMBER DECKING. PILE SUPPORTS TO REMAIN (SEE NOTES 1 & 2)
- ④ REMOVE EXISTING OUTLET STRUCTURE
- ⑤ FILL EXISTING PIPE WITH FLOWABLE FILL & CAP ENDS, SEE NOTES 4 THRU 7



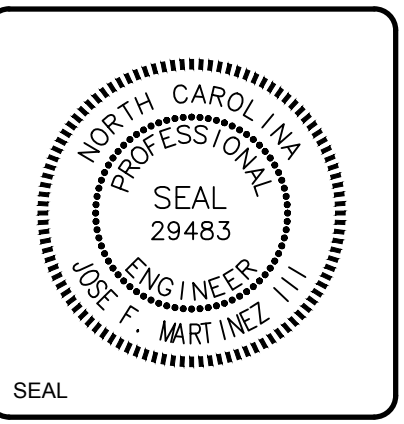
Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	2022-11-18	JFM

**CAPE EMERALD SUBDIVISION POND
OUTLET STRUCTURE & PIPE REALIGNMENT**

DEMOLITION SITE PLAN

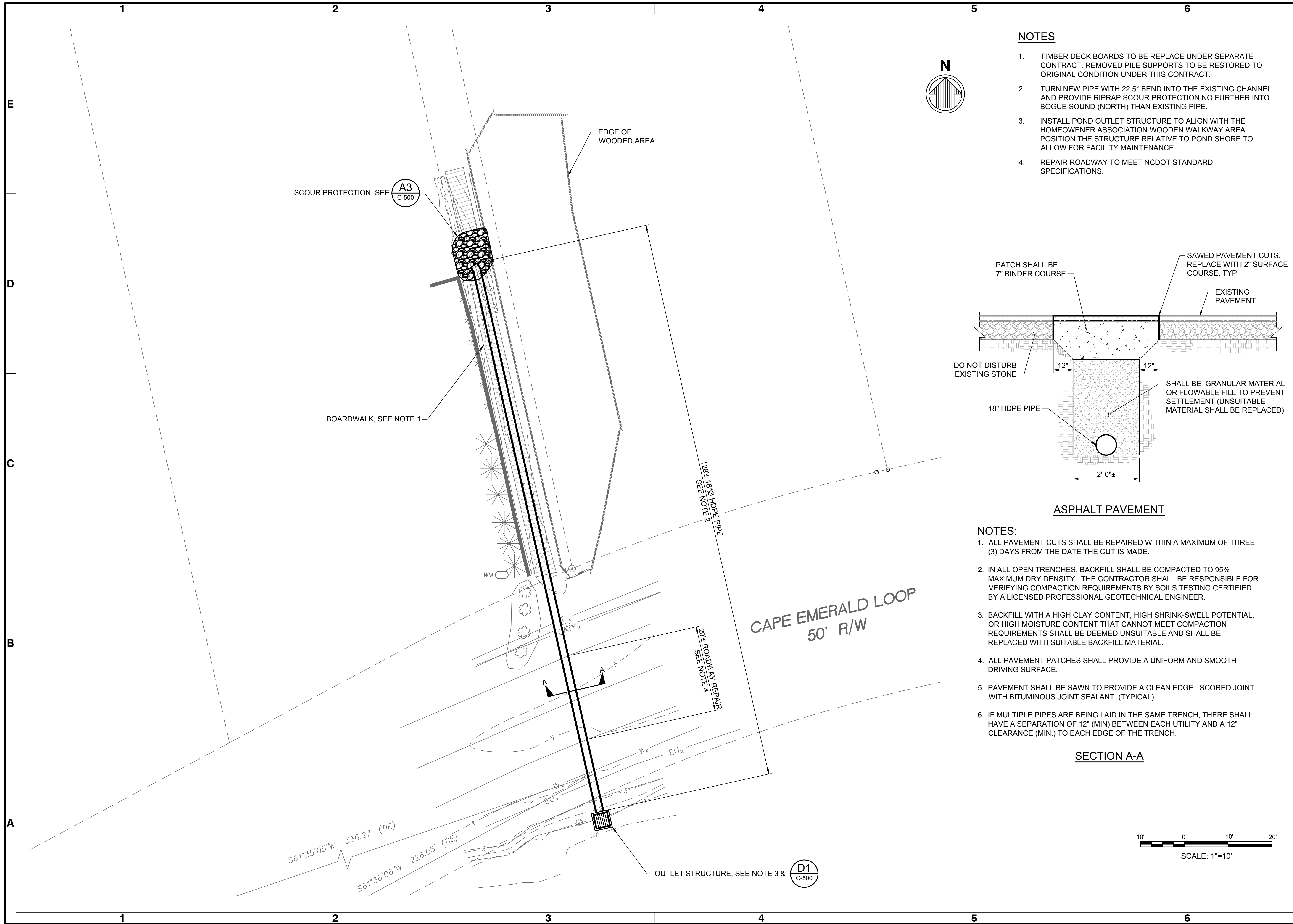
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Drawn by: VNM	M&N Project No: 22230	
Checked by: PRG	Drawing code:	
Reviewed by: J. MARTINEZ	Submitted by: JOHNNY MARTIN MOFFATT & NICHOL	Drawing Scale: AS SHOWN Plot Scale: 1" = 10' (0 SHEET)

4700 FALLS OF NEUSE RD, SUITE 300
 FARMINGTON, NC 27834
 919-781-4626
 NC FIRM NO. F-0105
moffatt & nichol



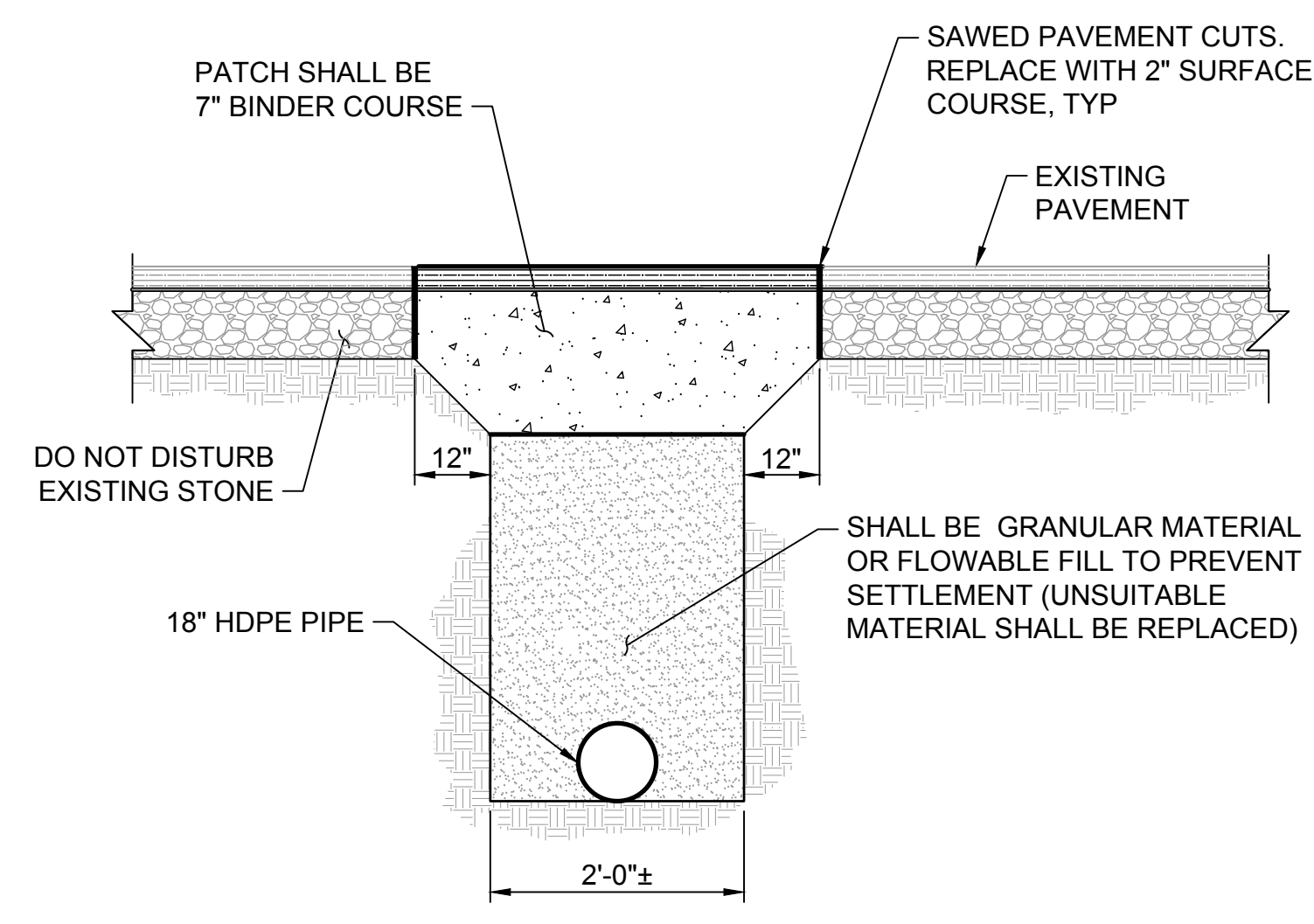
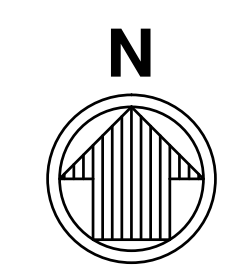
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D-101
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NOTES

1. TIMBER DECK BOARDS TO BE REPLACE UNDER SEPARATE CONTRACT. REMOVED PILE SUPPORTS TO BE RESTORED TO ORIGINAL CONDITION UNDER THIS CONTRACT.
2. TURN NEW PIPE WITH 22.5° BEND INTO THE EXISTING CHANNEL AND PROVIDE RIPRAP SCOUR PROTECTION NO FURTHER INTO BOGUE SOUND (NORTH) THAN EXISTING PIPE.
3. INSTALL POND OUTLET STRUCTURE TO ALIGN WITH THE HOMEWENER ASSOCIATION WOODEN WALKWAY AREA. POSITION THE STRUCTURE RELATIVE TO POND SHORE TO ALLOW FOR FACILITY MAINTENANCE.
4. REPAIR ROADWAY TO MEET NCDOT STANDARD SPECIFICATIONS.

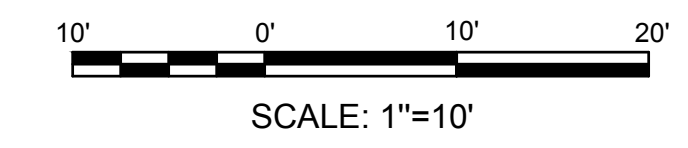


ASPHALT PAVEMENT

NOTES:

1. ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN A MAXIMUM OF THREE (3) DAYS FROM THE DATE THE CUT IS MADE.
2. IN ALL OPEN TRENCHES, BACKFILL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING COMPACTION REQUIREMENTS BY SOILS TESTING CERTIFIED BY A LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER.
3. BACKFILL WITH A HIGH CLAY CONTENT, HIGH SHRINK-SWELL POTENTIAL, OR HIGH MOISTURE CONTENT THAT CANNOT MEET COMPACTION REQUIREMENTS SHALL BE DEEMED UNSUITABLE AND SHALL BE REPLACED WITH SUITABLE BACKFILL MATERIAL.
4. ALL PAVEMENT PATCHES SHALL PROVIDE A UNIFORM AND SMOOTH DRIVING SURFACE.
5. PAVEMENT SHALL BE SAWN TO PROVIDE A CLEAN EDGE. SCORED JOINT WITH BITUMINOUS JOINT SEALANT. (TYPICAL)
6. IF MULTIPLE PIPES ARE BEING LAID IN THE SAME TRENCH, THERE SHALL HAVE A SEPARATION OF 12" (MIN) BETWEEN EACH UTILITY AND A 12" CLEARANCE (MIN.) TO EACH EDGE OF THE TRENCH.

SECTION A-A



Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	2022-11-18	JFM

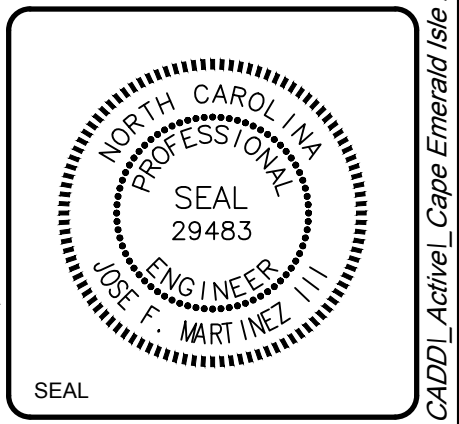
SITE PLAN

CAPE EMERALD SUBDIVISION POND
OUTLET STRUCTURE & PIPE REALIGNMENT

Designed by: J. MARTIN	Drawn by: VNM	Reviewed by: J. MARTINEZ	Submitted by: JOHNNY MARTIN MOFFATT & NICHOL
Date: 2022-11-18	M&N Project No: 22230	Drawing code:	Drawing Scale: AS SHOWN Plot Scale: 1" = 10' (0 SHEET)

4700 FALLS OF NEUSE RD, SUITE 300
FARMINGTON, NC 27530
919-781-4628
NC FIRM NO. F-0105

moffatt & nichol



Sheet Reference No.
C-101

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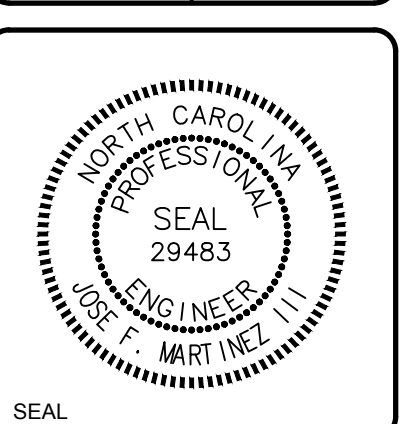
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Rev.	Date	Description
0	2022-11-18	ISSUED FOR CONSTRUCTION

CAPE EMERALD SUBDIVISION POND OUTLET STRUCTURE & PIPE REALIGNMENT	CIVIL DETAILS
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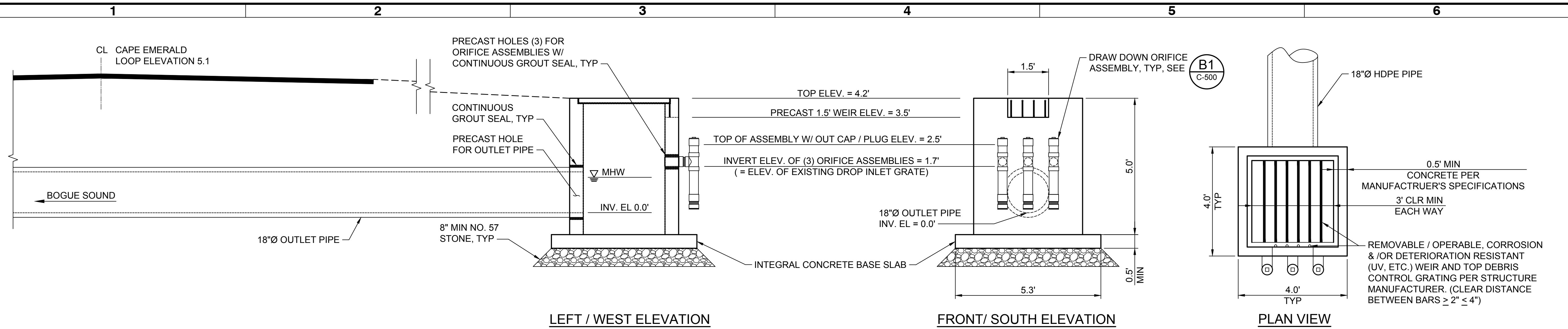
Designed by: J. MARTIN	Date: 2022-11-18	Rev. 0
Drawn by: VNM	MAN Project No. 22230	
Reviewed by: J. MARTINEZ	PRG	Drawing code:
Submitted by: JOHNNY MARTIN MOFFATT & NICHOL		Drawing Scale: AS SHOWN
		Per scale: 1" = 10' (0 SHEET)

4700 FALLS OF NEUSE RD., SUITE 300
FARMINGTON, NC 27834
919-781-4628
NC FIRM NO. F-0105



Sheet Reference No. C-500
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LEFT / WEST ELEVATION

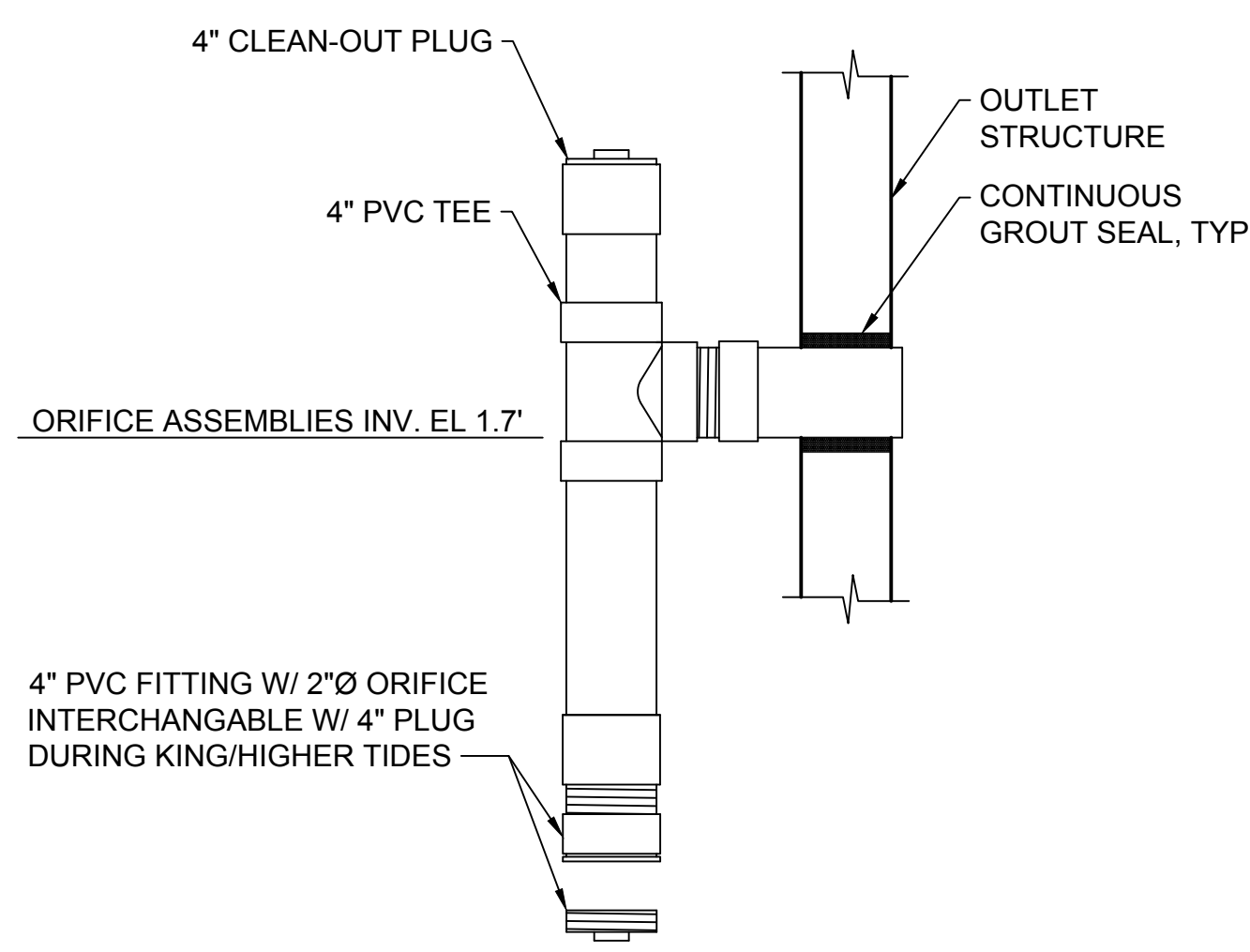
FRONT / SOUTH ELEVATION

PLAN VIEW

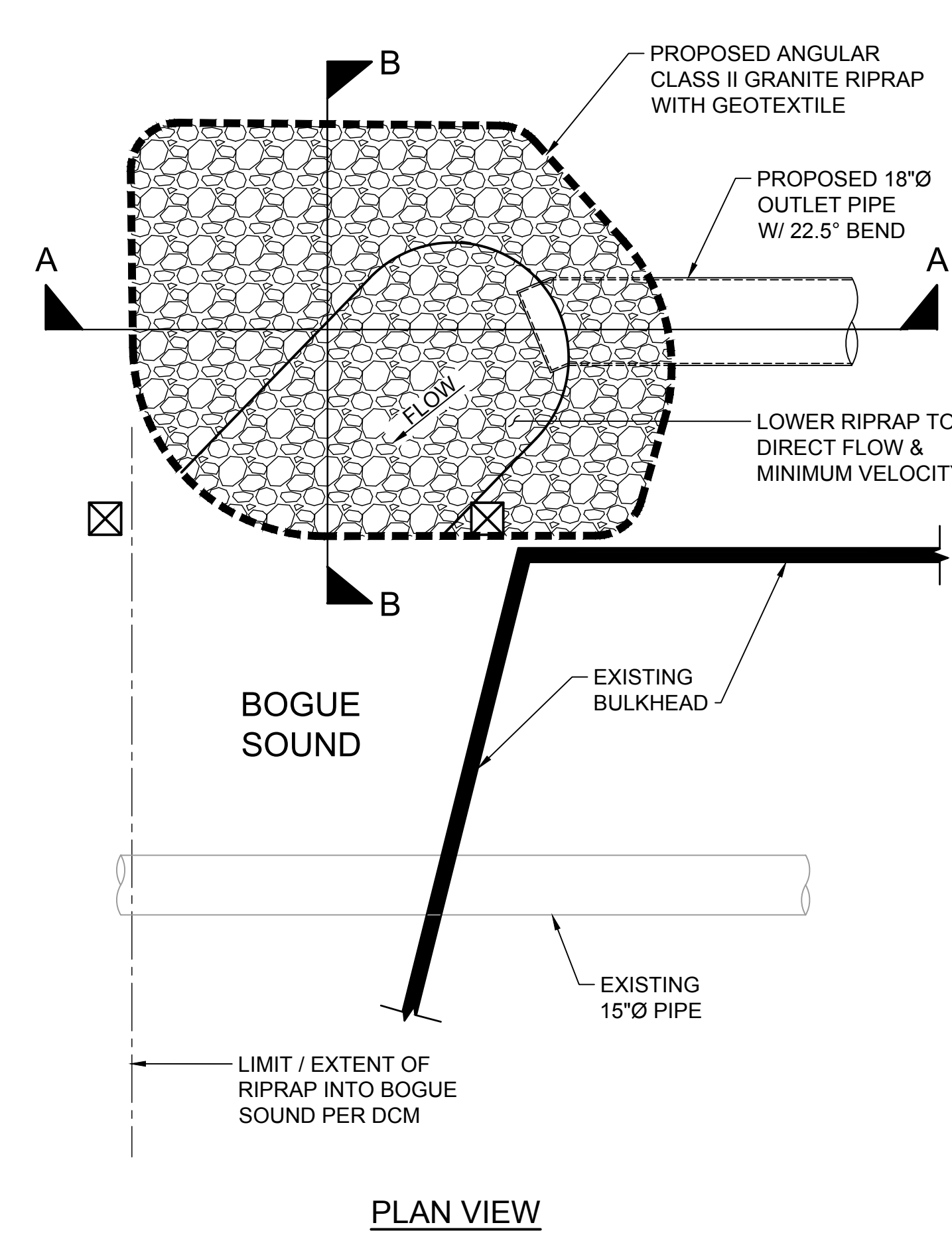
NOTES:

1. OUTLET STRUCTURE SHALL BE PRECAST CONCRETE MANUFACTURED BY CAPE FEAR PRECAST CONCRETE, INC. OR EQUAL.
2. THESE DETAILS ARE SCHEMATIC.
3. PRIOR TO FABRICATION, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (BY / PER MANUFACTURER) TO ENGINEER AND TOWN OF EMERALD ISLE FOR REVIEW AND APPROVAL.
4. FIELD VERIFY AND COORDINATE ALL LOCATIONS, ELEVATIONS AND DIMENSIONS WITH NCDEQ DCM.

D1 OUTLET STRUCTURE DETAILS
SCALE: NTS

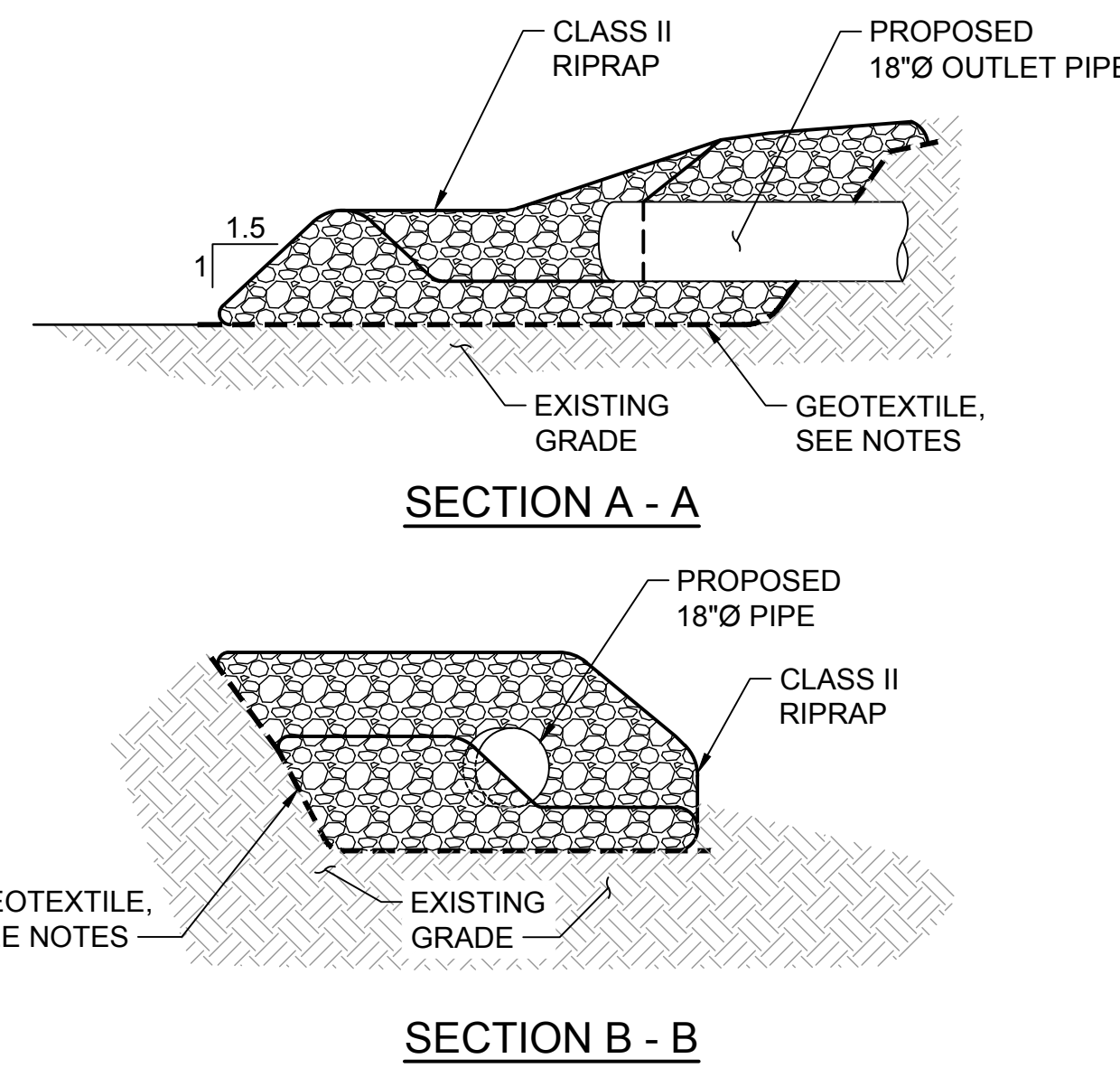


B1 DRAW DOWN ORIFICE ASSEMBLY DETAIL
SCALE: NTS



PLAN VIEW

A3 DISCHARGE PIPE PLAN VIEW
SCALE: NTS



SECTION A - A

SECTION B - B

NOTES:

1. PLACE (FIT / INTERLOCK) LARGER STONES ON TOP AND SIDES TO THE EXTENT PRACTICABLE.
2. CONFORM / FIT RIPRAP TO EXISTING SHORE, BOTTOM, AND PROPOSED 18" Ø PIPE TO ABOVE HIGHEST NORMAL TIDE LEVEL AND TOP OF BANK (INCLUDING NEW FILL OVER PIPE IF REQUIRED PER PIPE MANUFACTURER).

GEOTEXTILE MINIMUM CRITERIA:

- A. WOVEN, MONOFILAMENT GEOTEXTILE MADE OF 100% HIGH-TENACITY POLYPROPYLENE YARNS.
- B. PERCENT OPEN AREA OF 4 - 6%.
- C. RESISTANT TO ULTRAVIOLET AND BIOLOGICAL DETERIORATION, ROTTING, NATURALLY ENCOUNTERED BASICS AND ACIDS.
- D. SATISFIES THE REQUIREMENTS AS OUTLINED IN AASHTO M-288-06 FOR PERMANENT EROSION CONTROL & SUBSURFACE DRAINAGE CLASS 2 & 3 (>15% FINES).

ACCEPTABLE PRODUCTS INCLUDE: US 670 WOVEN MONOFILAMENT GEOTEXTILE AS SOLD BY US FABRICS INC.