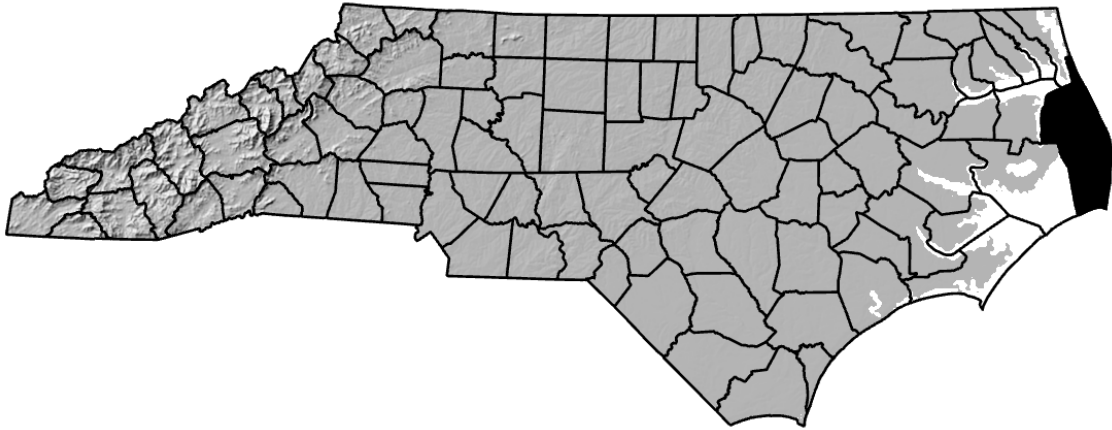


# ANNUAL REPORT FOR 2023



**Rodanthe Bridge Temporary Impact Site**

**Dare County**

**TIP No. B-2500B**

**COE Action ID: SAW-2012-01153**

**DWR Project #: 20180114**

**CAMA Permit #: 106-12**



Prepared By:  
Roadside Environmental Unit and Environmental Analysis Unit  
North Carolina Department of Transportation  
November 2023

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## APPENDICES

Appendix A – Site Photos, Permit Drawings, and Wetland Permit Impact Summary	
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## **SUMMARY**

The Rodanthe Bridge Temporary Impact site is located in Dare County. This is an annual report for temporary impacts associated with TIP No. B-2500B long term improvements along NC 12 in Rodanthe. NCDOT completed temporary wetland fill removal by April 2023.

See attached Wetland Permit Impact Summary within Appendix A of this report for a break-down of the temporary wetland impacts. The area that was temporarily impacted is being monitored to ensure that it re-attains pre-project functions.

After the first year of monitoring, the Rodanthe Bridge Temporary Impact site shows by visual observation that the temporarily impacted areas have re-attained pre-project functions.

NCDOT proposes to discontinue monitoring at the Rodanthe Bridge Temporary Impact site.

## **1.0 INTRODUCTION**

### **1.1 Project Description**

The Rodanthe Bridge Temporary Impact site is located in Dare County at Bridge No. 71 over the Pamlico Sound on NC 12 (Figure 1). The area that was impacted is being monitored to ensure that it re-attains pre-project functions.

### **1.2 Purpose**

In order for a temporary impact site to be considered successful, a site must meet the success criteria. This report details the monitoring in 2023 at the Rodanthe Bridge Temporary Impact site.

### **1.3 Project History**

April 2023	Temp. Wetland Fill Removal Completed
September/October 2023	Vegetation Monitoring (Year 1)

### **1.4 Debit Ledger**

The restoration of the Rodanthe Bridge temporary impact site was used entirely to compensate for temporary impacts on the B-2500B project. There were no wetland mitigation credits generated from the restoration of the temporary impacted area.



## **2.0 VEGETATION: RODANTHE BRIDGE TEMPORARY IMPACT SITE (YEAR 1 MONITORING)**

### **2.1 Success Criteria**

#### **NCDWR Project No. 20180114**

**Condition #4.** Due to the possibility that compaction and/or other site alterations might prevent the temporary wetland impact area from re-attaining jurisdictional wetland status; the permittee shall provide an update on the wetland areas temporarily impacted at Site 2. This update shall be conducted two growing seasons after completion of the work at Site 2 and shall consist of photographs and a brief report on the progress of the areas in re-attaining wetland jurisdictional status. Upon submission of this update to the NCDWR, the permittee shall schedule an agency field meeting with the NCDWR to determine if the wetland areas temporarily impacted by this project have re-attained jurisdictional wetland status. If the wetland areas temporarily impacted by this project have not re-attained jurisdictional wetland status, the NCDWR shall determine if compensatory wetland mitigation is to be required.

#### **CAMA Permit No. 106-12**

**Condition #45.** Due to the possibility that compaction, mechanized clearing, hand clearing, and/or other site alterations might prevent the temporary Coastal Wetland impact areas from re-attaining pre-project functions, the permittee shall provide an annual update on the Coastal Wetland areas temporarily impacted by this project. This annual update shall consist of photographs and a brief written report on the progress of these temporarily impacted areas in re-attaining their pre-project functions. Within three years after project completion, the permittee shall hold an agency field meeting with DCM to determine if the Coastal Wetland areas temporarily impacted by this project have re-attained pre-project functions. If at the end of three years DCM determines that the Coastal Wetland areas temporarily impacted by the project have not re-attained pre-project functions, DCM will determine whether compensatory mitigation shall be required.

### **2.2 Description of Species**

The following wetland species were planted in the temporary impact area:

No species were planted. Temporary wetland impact areas were left to re-vegetate naturally.

### **2.3 Results of Vegetation Monitoring**

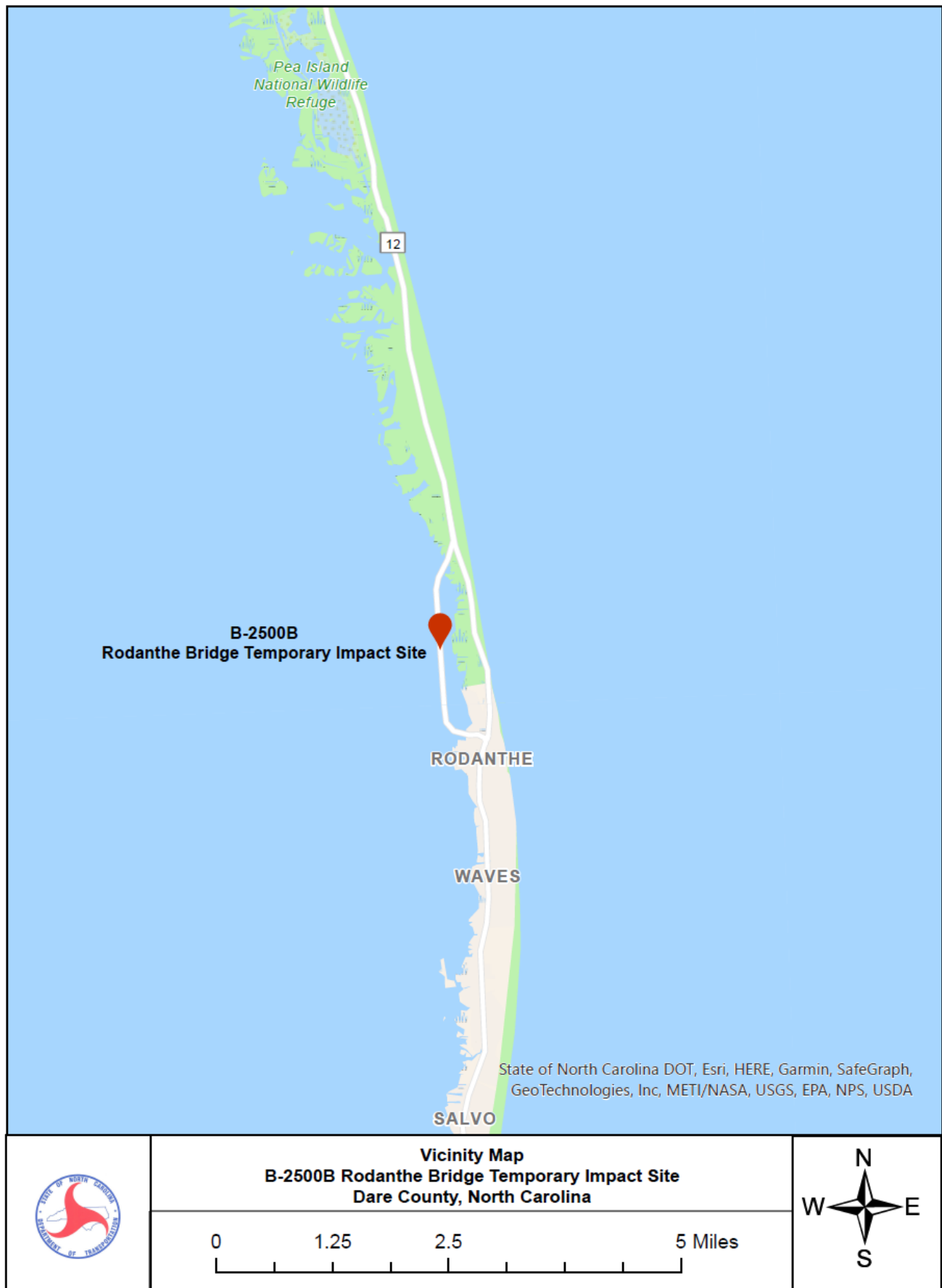
The impacted area where the temporary impacts occurred have re-attained pre-project functions. Areas temporarily impacted are re-vegetating naturally. Site 3A (Photo 7) underneath the bridge will be slow to revegetate due to limited sunlight within this area. Species noted within the temporary impact area included black needle rush, marsh-elder, phragmites, glasswort, saltmarsh bulrush, and various grasses.

### **2.4 Conclusions**

See attached Wetland Permit Impact Summary within Appendix A of this report for a break-down of the temporary wetland impacts. There were no plots established on the site. By visual observation, the Rodanthe Bridge Temporary Impact Site shows that the impacted areas have re-attained pre-project functions.

## **3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS**

NCDOT proposes to discontinue monitoring at the Rodanthe Bridge Temporary Impact site.



**Figure 1. Vicinity Map**

**APPENDIX A**

**PERMIT DRAWINGS**

**SITE PHOTOS**

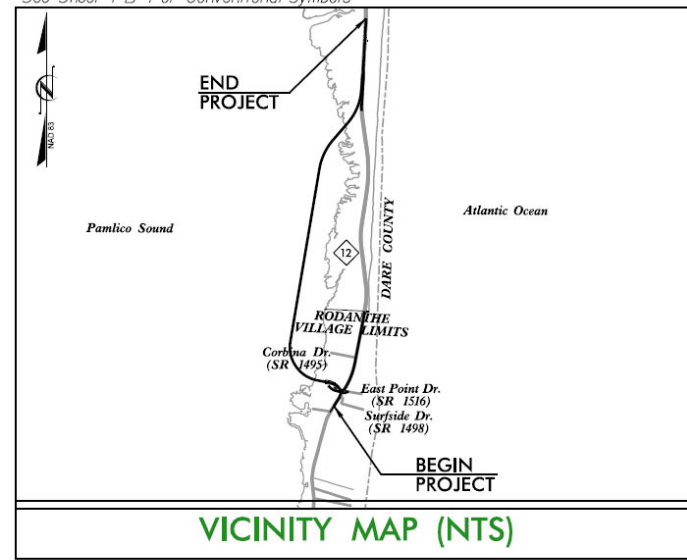
**WETLAND PERMIT IMPACT SUMMARY**

03/08/99  
2/15/2018  
R:\Hydro\Permits\Environmental\Drawings\4C\B2500B\_Hyd.prm\_tsh.dgn  
F:\keys

TIP PROJECT: B-2500B

CONTRACT: C203474

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**DARE COUNTY**

LOCATION: NC 12 - RODANTHE BREACH LONG TERM IMPROVEMENTS (PHASE IIB)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING & STRUCTURES

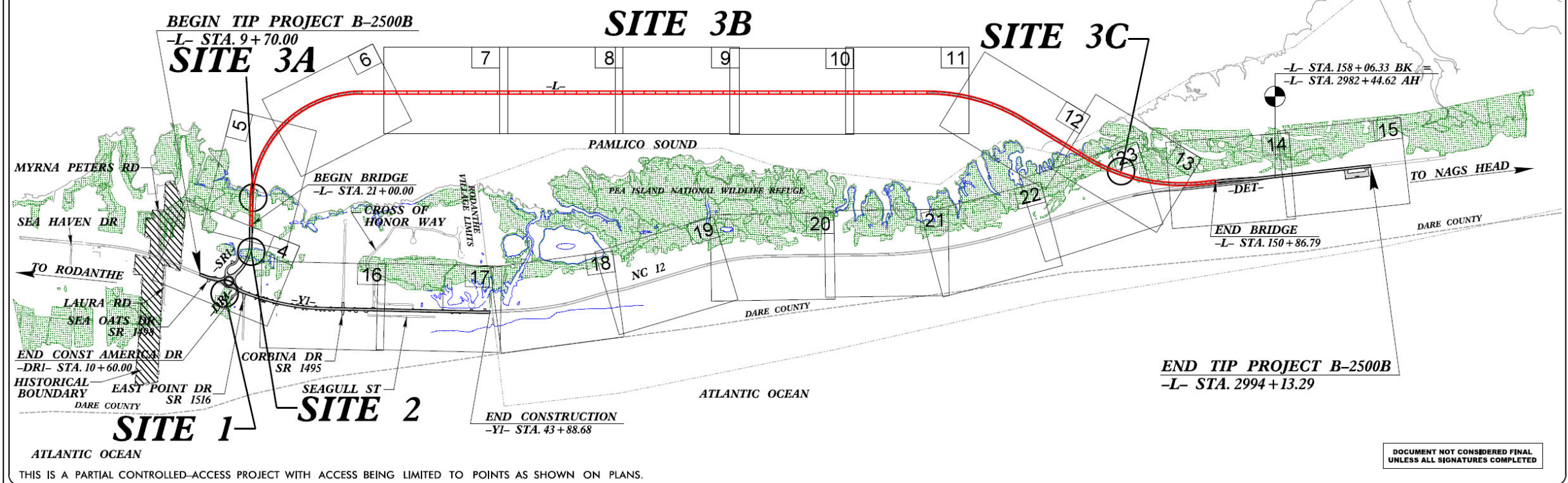
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2500B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
32635.3.FR7	BRNHF-0012(56)		

REVISED 2/2018  
REVISED 2/15/2018

PERMIT DRAWING  
SHEET 1 OF 44

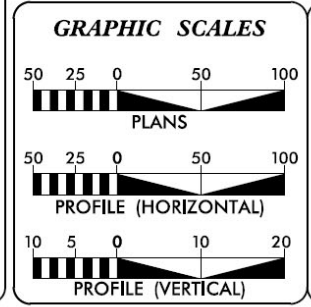


**WETLAND AND STREAM IMPACTS**



THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON PLANS.

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA
ADT 2017 = 9,800
ADT 2037 = 14,200
V = 40 /60 MPH
FUNC. CLASSIFICATION = RURAL COLLECTOR

PROJECT LENGTH
LENGTH ROADWAY TIP PROJECT B-2500B.....0.572 mi
LENGTH STRUCTURE TIP PROJECT B-2500B.....2.460 mi
TOTAL LENGTH TIP PROJECT B-2500B.....3.032 mi
NCDOT CONTACT
K. Zak Hamidi, P.E. PROJECT ENGINEER - DESIGN-BUILD GROUP

PLANS PREPARED BY:
<b>RK&amp;K</b> RUMMEL, KLEPPER & KAHIL LLP 900 RIDGEFIELD DRIVE, SUITE 350 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO. P-0112
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2012 STANDARD SPECIFICATIONS
LETTING DATE: JANUARY 25, 2017
B. Keith Skinner, P.E. PROJECT ENGINEER
Brandon J. McInnis, P.E. PROJECT DESIGN ENGINEER

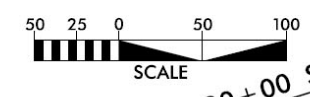
HYDRAULICS ENGINEER
This document originally issued and sealed by Matthew L. Cook 27434 on 12-21-17. This medium shall not be considered a certified document.
SIGNATURE: P.E.
ROADWAY DESIGN ENGINEER
This document originally issued and sealed by Brandon J. McInnis 29470 on 12-21-17. This medium shall not be considered a certified document.
SIGNATURE: P.E.





8/17/19  
2/1/2018  
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REVISED 2/2018  
PERMIT DRAWING  
SHEET 2 OF 44

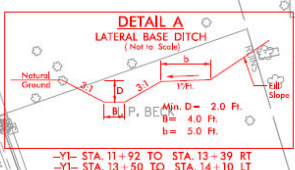
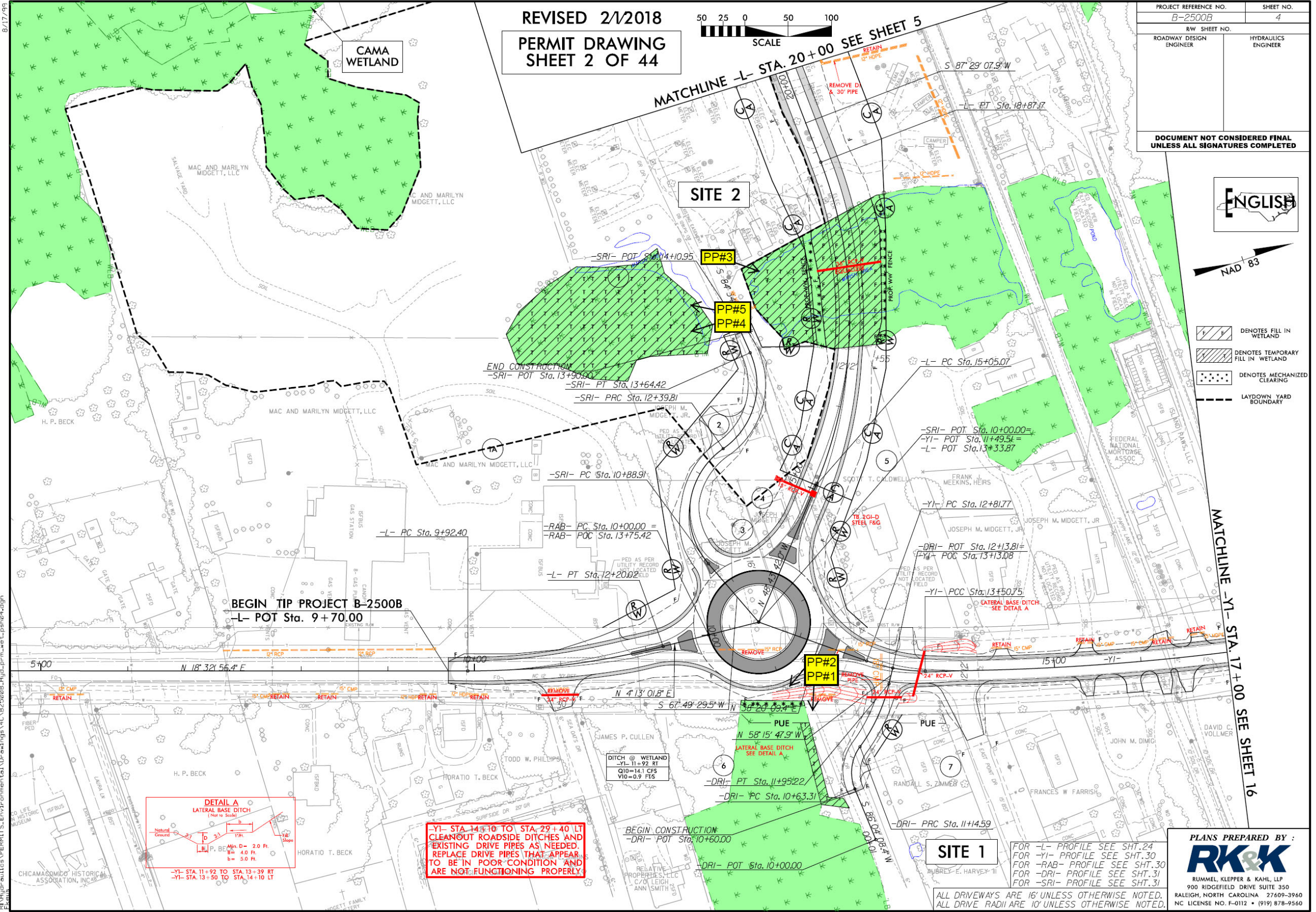


PROJECT REFERENCE NO.	SHEET NO.
B-2500B	4
RDW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



- Denotes Fill in Wetland
- Denotes Temporary Fill in Wetland
- Denotes Mechanized Clearing
- Laydown Yard Boundary



-YI- STA. 14+10 TO STA. 29+40 LT  
CLEANOUT ROADSIDE DITCHES AND  
EXISTING DRIVE PIPES AS NEEDED.  
REPLACE DRIVE PIPES THAT APPEAR  
TO BE IN POOR CONDITION AND  
ARE NOT FUNCTIONING PROPERLY.

**SITE 1**

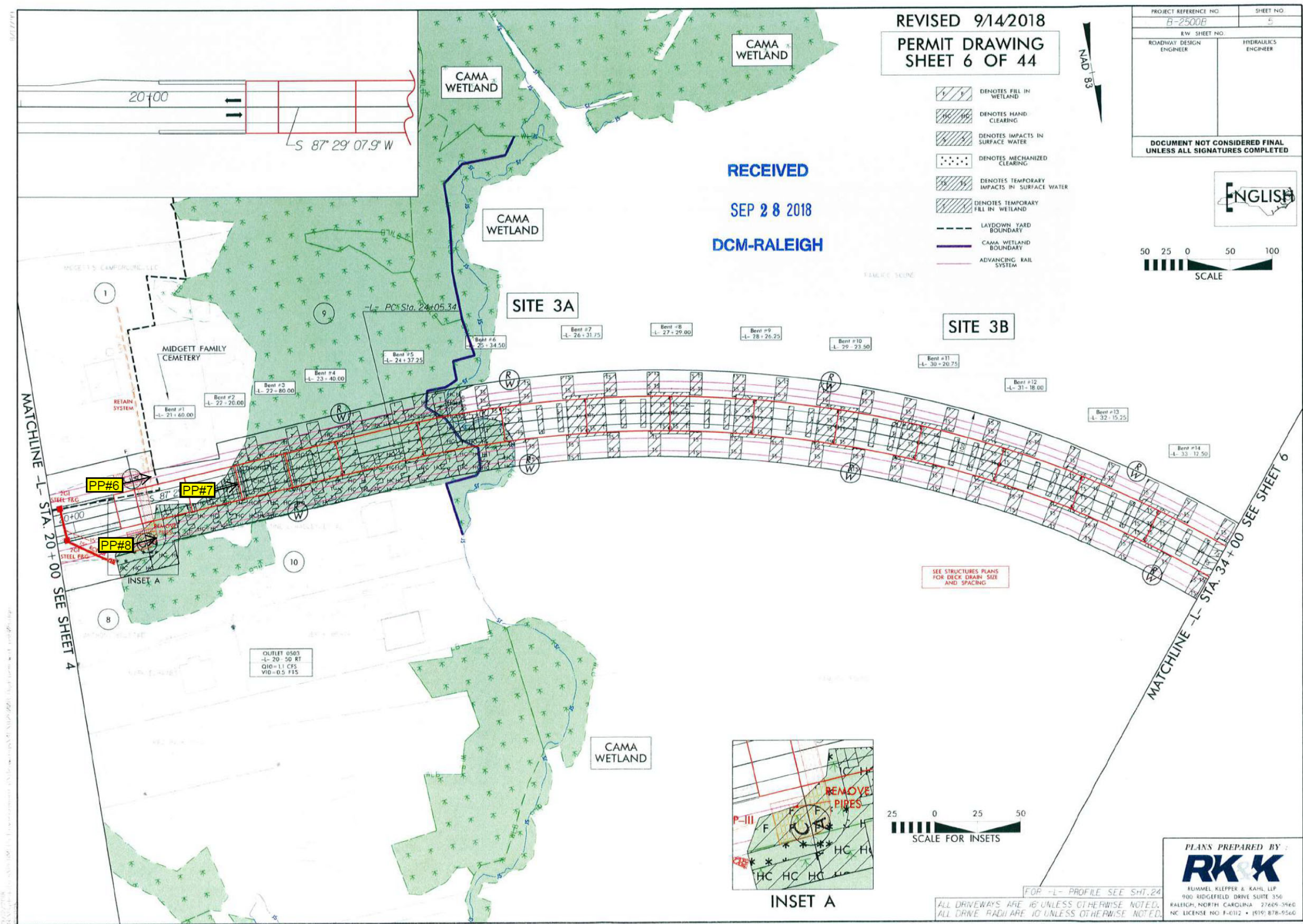
FOR -L- PROFILE SEE SHT. 24  
FOR -YI- PROFILE SEE SHT. 30  
FOR -RAB- PROFILE SEE SHT. 30  
FOR -DRI- PROFILE SEE SHT. 31  
FOR -SRI- PROFILE SEE SHT. 31

ALL DRIVEWAYS ARE 16' UNLESS OTHERWISE NOTED.  
ALL DRIVE RADII ARE 10' UNLESS OTHERWISE NOTED.

PLANS PREPARED BY :

RUMMEL KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560





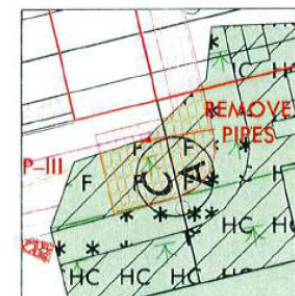
REVISED 9/14/2018  
PERMIT DRAWING  
SHEET 6 OF 44

RECEIVED  
SEP 28 2018  
DCM-RALEIGH

- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY FILL IN WETLAND
- LAYDOWN YARD BOUNDARY
- CAMA WETLAND BOUNDARY
- ADVANCING RAIL SYSTEM

PROJECT REFERENCE NO.	SHEET NO.
B-2500B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



INSET A



PLANS PREPARED BY:  
**RK&K**  
RUMMEL KLEPPER & KAHL LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27605-3560  
NC LICENSE NO. E-0112 • (919) 878-9560

FOR -L- PROFILE SEE SHT. 24  
ALL DRIVEWAYS ARE 16' UNLESS OTHERWISE NOTED.  
ALL DRIVE RADII ARE 10' UNLESS OTHERWISE NOTED.



REVISED 09/14/2018  
PERMIT DRAWING  
SHEET 37 OF 44

- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY FILL IN WETLAND
- CAMA WETLAND BOUNDARY
- ADVANCING RAIL SYSTEM

PARALLEL SOUND

PROJECT REFERENCE NO.	SHEET NO.
B-2500B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



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MATCHLINE -L- STA. 132+00 SEE SHEET 12

SITE 3B

SITE 3C

CAMA WETLAND

CAMA WETLAND

CAMA WETLAND

SITE 3C

PP#10

PP#9

SEE STRUCTURES PLANS  
FOR DECK DRAIN SIZE  
AND SPACING

MATCHLINE SEE SHEET 23

BEGIN CONSTRUCTION  
-DET\_REV- PC Sta. 10+00.00

-L-  
PI Sta. 142+11.31  
 $\Delta = 37^\circ 38' 12.9" (LT)$   
 $D = 2^\circ 32' 06.8"$   
 $L = 1,484.57'$   
 $T = 770.18'$   
 $R = 2,260.00'$   
 $V = 60 \text{ mph}$   
 $SE = .05$

PLANS PREPARED BY :  
**RK&K**  
RUMMEL KIEPPER & KAHL LLP  
900 BEDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3560  
NC LICENSE NO. E-0312 • (919) 878-9560

FOR -L- PROFILE SEE SHT. 28  
FOR -DET\_REV- PLAN SEE SHT. 2B-1



WETLAND AND SURFACE WATER IMPACTS SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 13+00 RT	ROADWAY FILL		0.03		0.01						
2	-L- 17+62	36" RCP-V EQUALIZER, ROADWAY FILL, LAYDOWN YARD	0.25	0.68		0.06						
3A	-L- 20+60 - 25+45	BRIDGE - 4 SPANS @ 60' 15-24" C.S. & 4 SPANS @ 97'-3" 4-45" F.I.B.s	0.04	0.34		0.02	0.42					
3B	-L- 25+45 - 133+17	BRIDGE AND ADVANCING RAIL SYSTEM						0.09	9.78			
3C	-L- 133+17 - 143+95	BRIDGE - 9 SPANS @ 135'-8" 4-72" F.I.B.s	< 0.01	0.49			0.46					
TOTALS*:			0.29	1.54		0.09	0.88	0.09	9.78			

\*Rounded totals are sum of actual impacts

NOTES:

**CAMA vs 404 Wetland Impacts**  
Perm. Fill in CAMA Wetlands = <0.01ac  
Perm. Fill in 404 Wetlands = 0.29ac  
Temp. Fill in CAMA Wetlands = 0.20ac  
Temp. Fill in 404 Wetlands = 1.33ac  
Mech. Clearing in CAMA Wetlands = 0ac  
Mech. Clearing in 404 Wetlands = 0.09ac  
Hand Clearing in CAMA Wetlands = 0.21ac  
Hand Clearing in 404 Wetlands = 0.66ac

**Bent Impacts**  

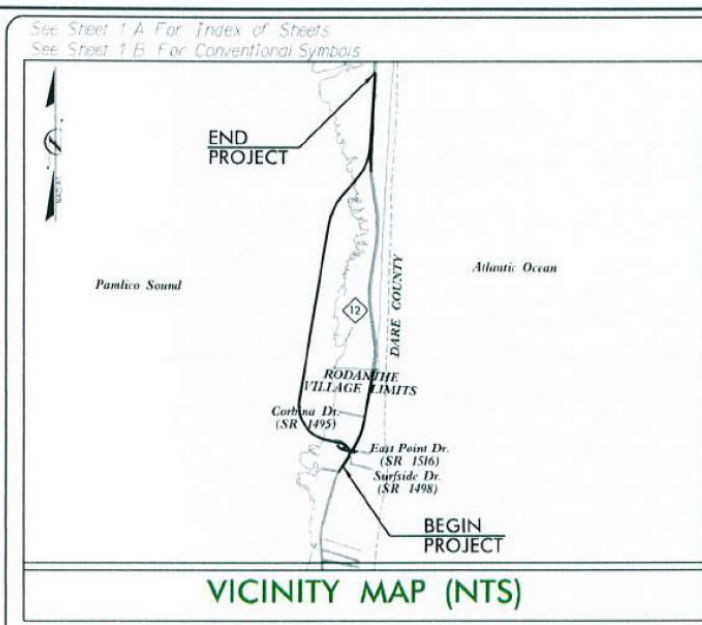
**Proposed Bridge**  
Perm. Fill in CAMA Wetlands = <0.01ac  
Perm. Fill in 404 Wetlands = 0.01ac  
Temp. Fill in CAMA Wetlands = 0.08ac  
Temp. Fill in 404 Wetlands = 0.21ac  
Perm. Fill in Surface Water = 0.09ac  
Temp. Fill in Surface Water = 4.03ac

**Advancing Rail System**  
Perm. Fill in CAMA Wetlands = 0.12ac  
Perm. Fill in 404 Wetlands = 0.42ac  
Temp. Fill in Surface Water = 5.75ac

SAV IMPACTS: 2.52AC PERM. IMPACT: 2.87AC TEMP. IMPACT  
REVISED 2/1/2018, 9/14/18  
  
NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
FEBRUARY 2018  
DARE  
B-2500B  
32635.3.FR7  
SHEET 44 OF 44



TIP PROJECT: B-2500B  
CONTRACT: C203474



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**DARE COUNTY**

LOCATION: NC 12 - RODANTHE BREACH LONG TERM IMPROVEMENTS (PHASE IIB)  
TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING & STRUCTURES

RECEIVED  
SEP 28 2018  
DCM-RALEIGH

STATE	STATE PROJECT REFERENCE NO	SHEET NO	TOTAL SHEETS
N.C.	B-2500B	1	
STATE PROJ NO	F.A. PROJ NO	DESCRIPTION	
32635.3.FR7	BRNHF-0012(56)		

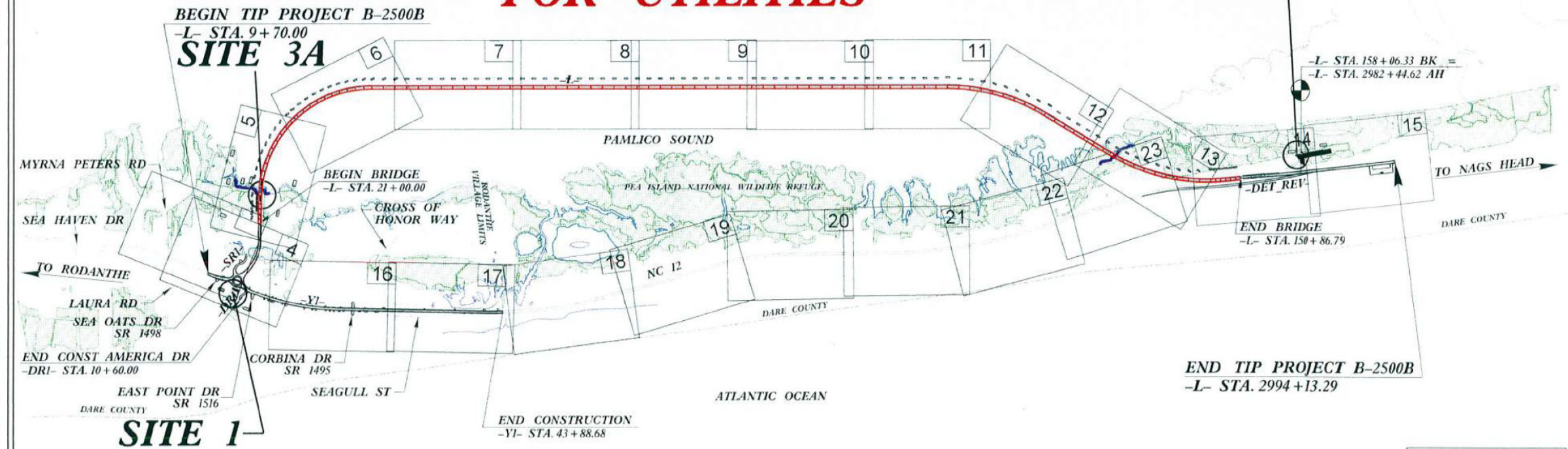


UTILITY  
PERMIT DRAWING  
SHEET 1 OF 12



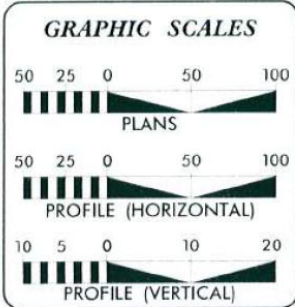
PERMIT MODIFICATION  
09/14/2018

**JURISDICTIONAL IMPACTS  
FOR UTILITIES**



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DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2017 = 9,800
ADT 2037 = 14,200
V = 40 / 60 MPH
FUNC. CLASSIFICATION = RURAL COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-2500B.....0.572 mi
LENGTH STRUCTURE TIP PROJECT B-2500B.....2.460 mi
TOTAL LENGTH TIP PROJECT B-2500B.....3.032 mi

NCDOT CONTACT

K. Zak Hamidi, P.E.  
PROJECT ENGINEER - DESIGN-BUILD GROUP

PLANS PREPARED BY:

**RK&K** RICHARD KLEPPER & KATHY LLP  
700 WILLOWHILL DRIVE, SUITE 200  
RALEIGH, NORTH CAROLINA 27605  
P.O. BOX 1000000, 1000000

FOR NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

LETTING DATE:  
JANUARY 25, 2017

**FLATIRON**

B. Keith Skinner, P.E.  
PROJECT ENGINEER

Brandon J. McInnis, P.E.  
PROJECT DESIGN ENGINEER

HYDRAULICS  
ENGINEER

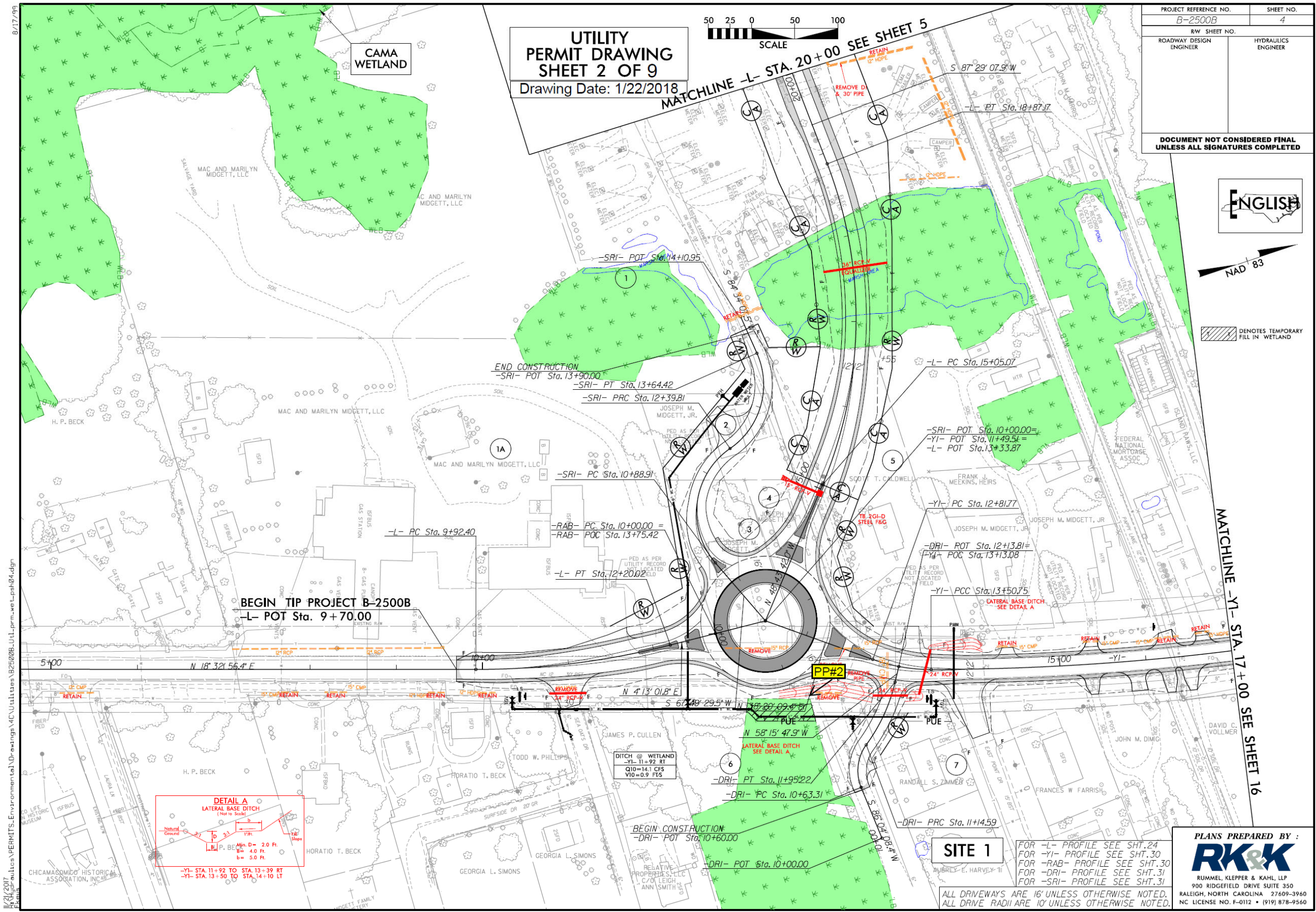
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ROADWAY  
DESIGN  
ENGINEER

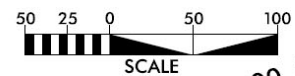
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UTILITY  
PERMIT DRAWING  
SHEET 2 OF 9  
Drawing Date: 1/22/2018



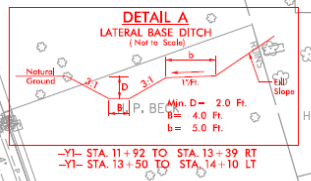
PROJECT REFERENCE NO.	SHEET NO.
B-2500B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



1' DENOTES TEMPORARY  
FILL IN WETLAND

MATCHLINE -YI- STA. 17+00 SEE SHEET 16



DITCH @ WETLAND  
-YI- 11+92 RT  
Q10=14.1 CFS  
V10=0.9 FTS

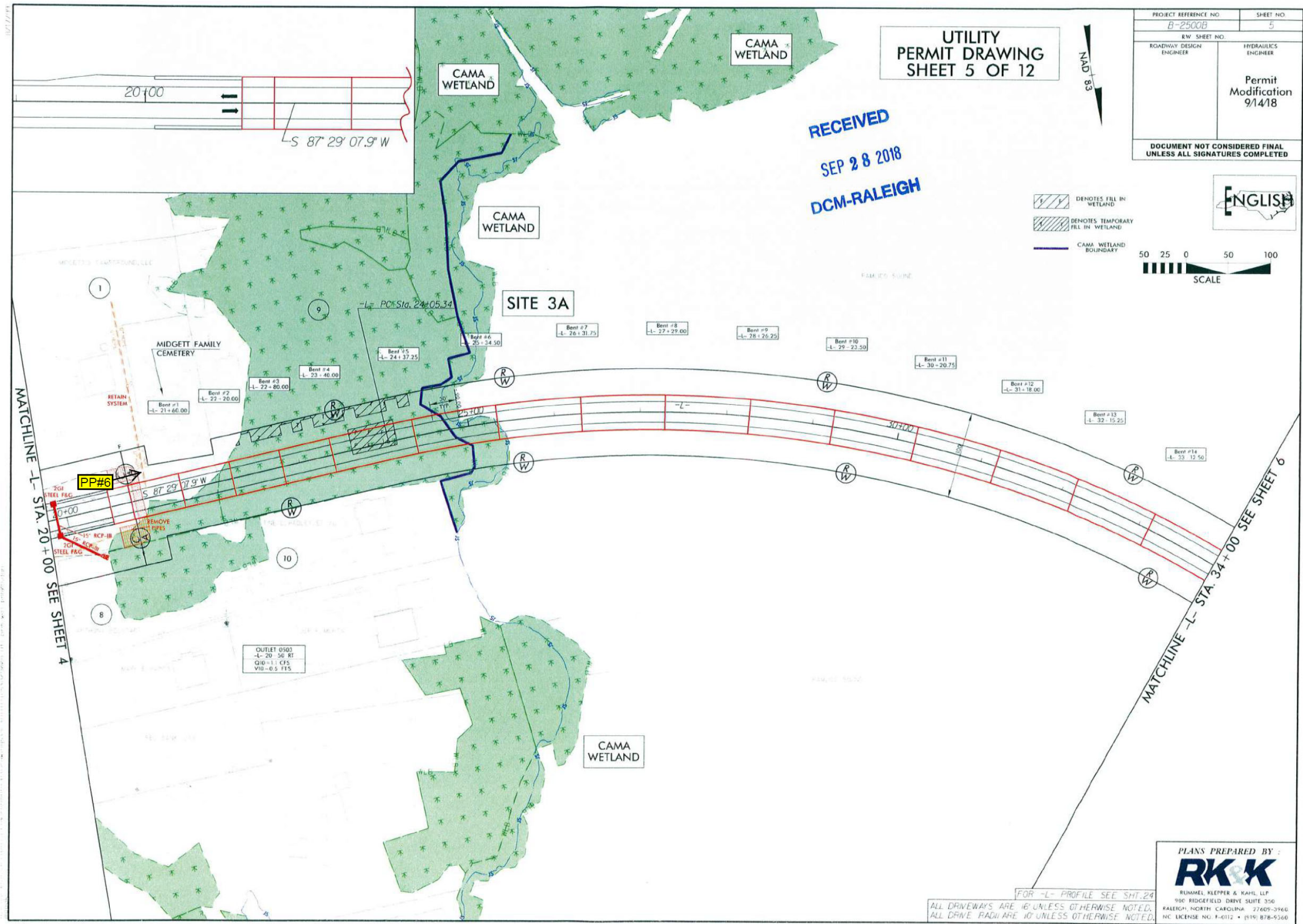
**SITE 1**

FOR -L- PROFILE SEE SHT. 24  
FOR -YI- PROFILE SEE SHT. 30  
FOR -RAB- PROFILE SEE SHT. 30  
FOR -DRI- PROFILE SEE SHT. 31  
FOR -SRI- PROFILE SEE SHT. 31

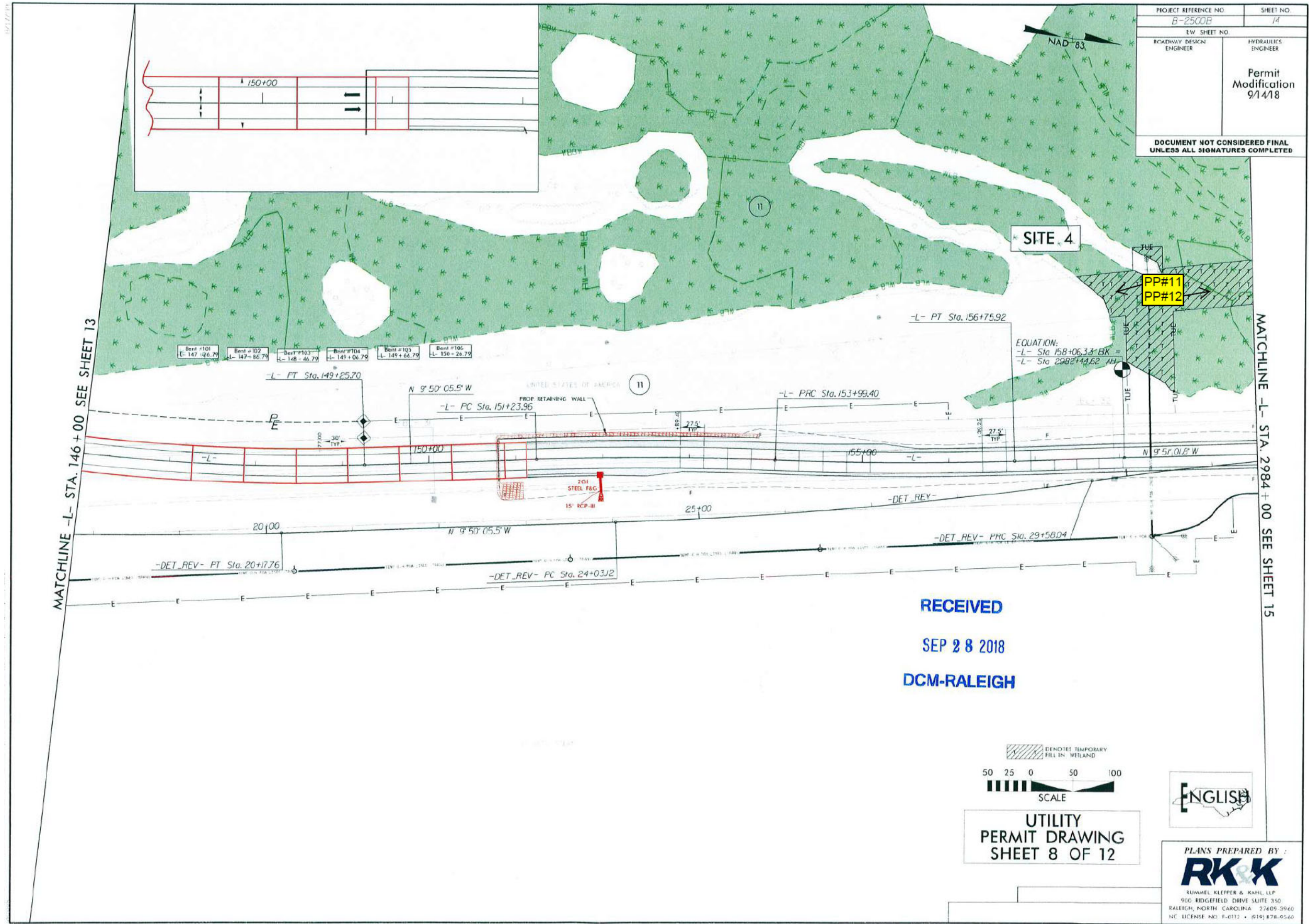
ALL DRIVEWAYS ARE 16' UNLESS OTHERWISE NOTED.  
ALL DRIVE RADII ARE 10' UNLESS OTHERWISE NOTED.

**PLANS PREPARED BY :**  
**RK&K**  
RUMMEL KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560





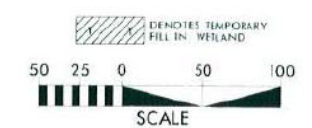




PROJECT REFERENCE NO.	SHEET NO.
B-2500B	14
RDW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Permit Modification 9/14/18	

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UNLESS ALL SIGNATURES COMPLETED

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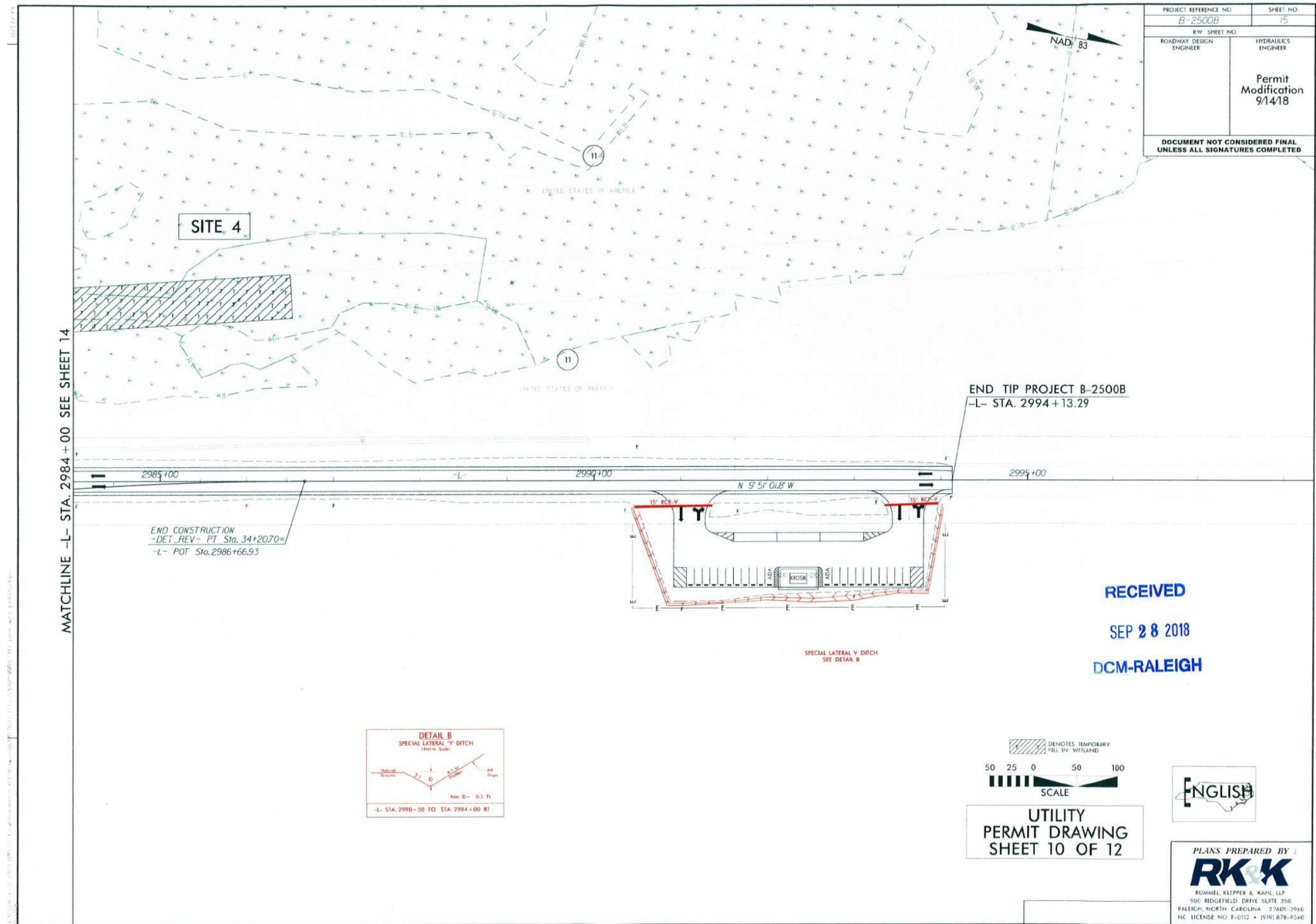


UTILITY  
PERMIT DRAWING  
SHEET 8 OF 12



PLANS PREPARED BY:  
**RK&K**  
SUMMEL KLEPPER & KAHIL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27605-3960  
NC LICENSE NO. E-0312 • (919) 878-0560





WETLAND AND SURACE WATER IMPACTS SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 13+00 RT	8" WATER LINE		0.03								
3A	-L- 24 +27	UTILITIES ON BRIDGE	0.04	0.05								
4	-L- 2982+75 LT	UTILITY RELOCATION		0.60								
TOTALS*:			0.04	0.67								

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DECEMBER 2017  
DARE  
B-2500B  
32635.3.FR7

SHEET 12 OF 12



# Rodanthe Bridge Temporary Impact Site



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5  
September 2023



Photo 6



# Rodanthe Bridge Temporary Impact Site



Photo 7



Photo 8



Photo 9



Photo 10

September 2023

# Rodanthe Bridge Temporary Impact Site



Photo 11

October 2023



Photo 12