



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

March 10, 2017

Bill Biddlecome
NCDOT Coordinator
United State Army Corps of Engineers
2407 West Fifth Street
Washington, NC 27889-1000

Subject: Application for a Section 10 and 404 Nationwide Permit 6 – Rodanthe Breach Long-Term Improvements, Bonner Bridge Replacement Project Phase IIb in Dare County, North Carolina; TIP Project B-2500B, Federal Aid Project No. BRNHF-0012(56); WBS Element 32635.3.FR7

The North Carolina Department of Transportation (NCDOT) Geotechnical Engineering Unit is proposing additional subsurface investigations for the foundation design for the NC-12 Rodanthe Bridge in the Pamlico Sound in Dare County, North Carolina. A completed pre-construction notification form and appropriate site drawings are attached for your review.

As Pamlico Sound is designated as a High Quality Water, and work will be occurring on a barrier island, notification to the appropriate agencies through a Nationwide 6 Permit is required.

A private engineering firm will conduct the investigation. On the north side of the project, there will be approximately 13 borings within the Pea Island National Wildlife Refuge (Refuge) (Sheets 14 and 15), with one boring anticipated just off the coast in the shallow waters of Pamlico Sound (within the National Park Service boundary) (Sheets 12 and 13). Of the 13 borings in the Refuge, only one is anticipated in wetlands, with the other 12 clustered in the uplands near the existing NC 12. On the south side of the project, approximately three borings will be advanced in a wetland within the proposed new bridge alignment right-of-way.

North End Borings

All equipment required to conduct the borings will be delivered to the site via a commercial haul truck. Equipment will be left staged along the shoulder within the existing NCDOT easement, but well off the roadway. A typical drill rig will advance the upland borings near the existing roadway. These borings will be performed with a rubber tire drill rig or a low ground pressure tracked drill rig, depending on the boring location. These borings will be 3-8 inches in diameter. Any disturbance from the borings will be limited to within a 2-foot radius of the boring location.

The borings in the wetland and sound will be accessed as indicated on Sheet 13. This route was chosen as it minimizes impacts to vegetation and wetlands. Impacts to wetlands / surface waters (Sound) that cannot be avoided will consist of minimal hand clearing and will all also occur within the future bridge/roadway footprint. The borings in the wetland and Sound will be performed by a

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH, NC 27699-1548

Telephone: (919) 707-6000
Fax: (919) 250-4224
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

tracked ATV “swamp buggy” type carrier and drill rig designed specifically to access and drill in marshy, near shore, shallow water marine environments. Along with the “swamp buggy”, a smaller ATV tracked drill crew support vehicle will access the boring locations and provide safe transport of men, supplies, samples, etc. to and from the drill rig and staging area while the geotechnical borings are in progress. These borings will turn or drive a 4-inch diameter steel casing into the sound bottom, creating minimal disturbance. Other drilling tools will be used to sample the sediment and advance the hold within the steel casing. The steel casing will be removed upon completing the boring. Spoil from the drilling in the Sound and wetland will be placed in a designated location on upland.

Once the “swamp buggy” is positioned at the proposed boring location(s), drilling will commence. The borings will be a Standard Penetration Test (SPT) with split barrel soil samples collected at approximately 5 foot intervals until the termination depth of 150 feet below ground surface. A 4-inch steel casing will be installed at the surface and advanced as needed to maintain bore-hole stability during drilling and will be removed upon boring termination. This methodology creates minimal disturbance beyond the bore hole. It is expected that drilling each boring will take up to a maximum of 7 days to complete.

South End Borings

There will be several hand borings in the wetland within the future roadway footprint. These areas will be accessed by foot along the future alignment, so there will no temporary access impacts.

Regulatory Approvals:

NCDOT anticipates Nationwide Permit No. 6 will authorize these activities. In addition to the Nationwide Permit No. 6 conditions, NCDOT will adhere to the NCDWR Water Quality Certification #3687 conditions, but are not requesting written approval from NCDWR.

Special Use Permit Applications will be submitted to the US Fish & Wildlife Service and National Park Service. If you have any questions or would like additional information, please contact Michael Turchy at maturchy@ncdot.gov or (919) 707-6157. A copy of this application will also be posted at <https://xfer.services.ncdot.gov/pdea/PermApps/>.

Sincerely,



Philip S. Harris, III, P.E., Manager
Natural Environment Section

cc: NCDOT Permit Application Standard Distribution List



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form		
A. Applicant Information		
1. Processing		
1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input checked="" type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 6 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Project Information		
2a. Name of project:	NC 12 – Rodanthe Breach Long Term Improvements Phase IIb	
2b. County:	Dare	
2c. Nearest municipality / town:	Rodanthe	
2d. Subdivision name:	N/A	
2e. NCDOT only, T.I.P. or state project no:	TIP B-2500B	
3. Owner Information		
3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation	
3b. Deed Book and Page No.	N/A	
3c. Responsible Party (for LLC if applicable):	Natural Environment Section, Philip S. Harris, III, P.E / Michael Turchy	
3d. Street address:	1598 Mail Service Center	
3e. City, state, zip:	Raleigh, NC 27699-1598	
3f. Telephone no.:	(919) 707-6123 / (919) 707-6157	
3g. Fax no.:	(919) 212-5785	
3h. Email address:	pharris@ncdot.gov / maturchy@ncdot.gov	

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	N/A
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	N/A
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	07400340875 (Refuge), 064920917410, 065917010371, 065917011410
1b. Site coordinates (in decimal degrees):	Latitude 35.611160 Longitude: 75.474644 (DD.DDDDDD) (-DD.DDDDDD)
1c. Property size:	14.5 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Pamlico Sound
2b. Water Quality Classification of nearest receiving water:	SA; HQW
2c. River basin:	Pasquotank
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application:	The north side of the project study area is comprised of maintained roadway and natural areas within the Pea Island National Wildlife Refuge and Cape Hatteras National Seashore. The south side of the project study area is comprised of residential areas and maintained roadway. There are jurisdictional wetlands on both sides of the project.
3b. List the total estimated acreage of all existing wetlands on the property:	0.41 acres
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property:	There are no streams within the project boundaries
3d. Explain the purpose of the proposed project:	To conduct a subsurface investigation for the foundation design for the NC 12 Rodanthe Bridge
3e. Describe the overall project in detail, including the type of equipment to be used:	A private engineering firm will conduct the investigation. On the north side of the project, there will be approximately 13 borings within the Pea Island National Wildlife Refuge (Refuge) (Sheets 14 and 15), with one boring anticipated just off the coast in the shallow waters of Pamlico Sound (within the National Park Service boundary) (Sheets 12 and 13). Of the 13 borings in the Refuge, only one is anticipated in wetlands, with the other 12 clustered in the uplands near the existing NC 12. The investigation will be done with a rubber tire drill rig or a low ground pressure tracked drill rig, depending on the boring location. On the south side of the project, several borings will be advanced in a wetland within the proposed new bridge alignment right-of-way. These areas will be accessed by foot along the future alignment, so there will be no temporary access impacts. The investigation will be done using a rubber tire drill rig or a low ground pressure tracked drill rig, depending on the boring location. Any disturbance from the borings will be limited to within a 2-foot radius of the boring location.
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Mr. Jeff Coward	Agency/Consultant Company: CZR, Inc Other: N/A
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.	May 2006

5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. NW6 SAW-2013-02353, Issued 12/10/2013, NW6 SAW-2013-02353, issued 8/4/2015	
6. Future Project Plans	
6a. Is this a phased project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6b. If yes, explain. This permit application is for geotechnical work for the Rodanthe Bridge project, which is Phase II of the NC-12 Rodanthe Breach Long-Term Improvements project.	

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply): <input checked="" type="checkbox"/> Wetlands <input type="checkbox"/> Streams - tributaries <input type="checkbox"/> Buffers <input checked="" type="checkbox"/> Open Waters <input type="checkbox"/> Pond Construction						
2. Wetland Impacts If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
W1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Investigative Boring	Salt/Brackish Marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01	
2g. Total wetland impacts					<0.01 (temporary)	
2h. Comments: N/A						
3. Stream Impacts If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
S1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total Permanent Stream and Tributary Impacts						
3i. Comments: N/A						
4. Open Water Impacts If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.						
4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact		4d. Waterbody type	4e. Area of impact (acres)	
O1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Pamlico Sound	Geotechnical Boring		Open Water	<0.01	
4f. Total open water impacts					<0.01	
4g. Comments: N/A						
5. Pond or Lake Construction If pond or lake construction proposed, then complete the chart below.						

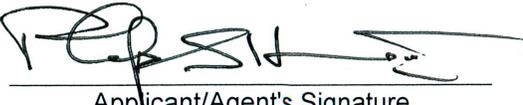
5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								
5g. Comments:								
5h. Is a dam high hazard permit required?		<input type="checkbox"/> Yes			<input type="checkbox"/> No		If yes, permit ID no:	
5i. Expected pond surface area (acres):								
5j. Size of pond watershed (acres):								
5k. Method of construction:								
6. Buffer Impacts (for DWQ)								
If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you MUST fill out Section D of this form.								
6a. Project is in which protected basin?					<input type="checkbox"/> Neuse	<input type="checkbox"/> Tar-Pamlico	<input type="checkbox"/> Other: Jordan Lake	
					<input type="checkbox"/> Catawba	<input type="checkbox"/> Randleman		
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name			6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)	
B1 <input type="checkbox"/> P <input type="checkbox"/> T					<input type="checkbox"/> Yes <input type="checkbox"/> No			
6h. Total buffer impacts								
6i. Comments:								
D. Impact Justification and Mitigation								
1. Avoidance and Minimization								
<p>1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The borings will be performed with a rubber tire drill rig or a low ground pressure tracked drill rig, depending on the location. Drilling equipment will not drive through any jurisdictional wetland or stream, except where jurisdictional wetlands are unavoidable. Unavoidable wetland impacts will be restricted to areas where bridge construction impacts will be permanent. Direct wetland impacts during geotechnical investigation will be restricted to temporary hand auger drilling.</p>								
<p>1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. For the drilling in the Sound and wetland on the north side of the project, a 3-8" steel casing will be turned or driven into the ground, and all materials will be contained within the steel casing and disposed of in a designated location on land. NCDOT will implement "Guidelines for Avoiding Impacts to the West Indian Manatee, Precautionary Measures for Construction Activities in North Carolina Waters," during work for this project.</p>								

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank:		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:		
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).				
6h. Comments:				

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments: The proposed project is not located in a watershed with riparian buffer protection rules and is the drilling of geotechnical borings, which will not change overall impervious surfaces.	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A %
2b. Does this project require a Stormwater Management Plan?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why: This project is a low density project, and therefore does not require an SMP	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan:	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Cumulative impact analysis was completed for this project in the Final Environmental Impact Statement (2008).	
4. Sewage Disposal (DWQ Requirement)	
4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility. N/A	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" type="checkbox"/> Raleigh	<input type="checkbox"/> Asheville
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? The 2008 Biological Assessment covered the impacts to all federally listed species.		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? The essential fish habitat was discussed in the 2016 EA and the 2008 FEIS		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? The historical and cultural resources were discussed in the 2016 EA and the 2008 FEIS, and coordination with the respective agencies is currently underway. The work under this permit will not impact historical or cultural resources.		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: MOA		
8c. What source(s) did you use to make the floodplain determination? North Carolina Floodplain Mapping Program		
Philip S. Harris, III, P.E. Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	March 10, 2017 Date

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	BRNH-0012(56)		



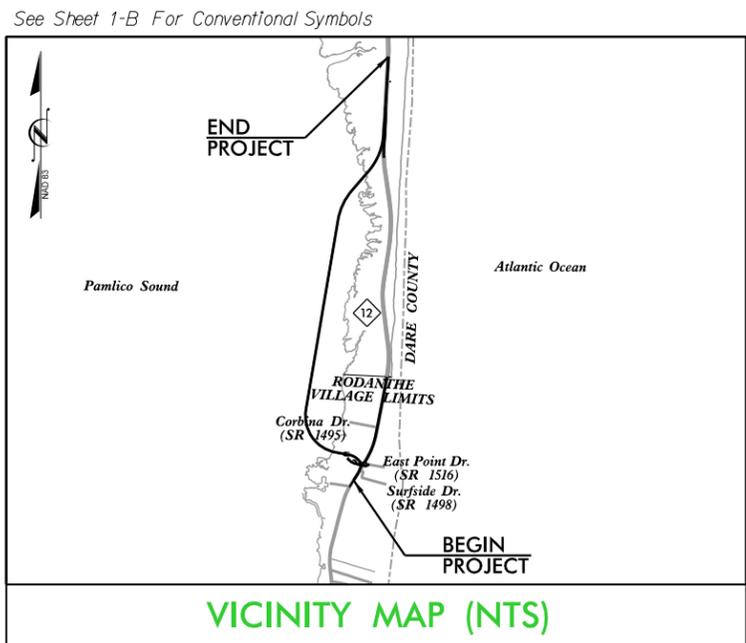
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DARE COUNTY

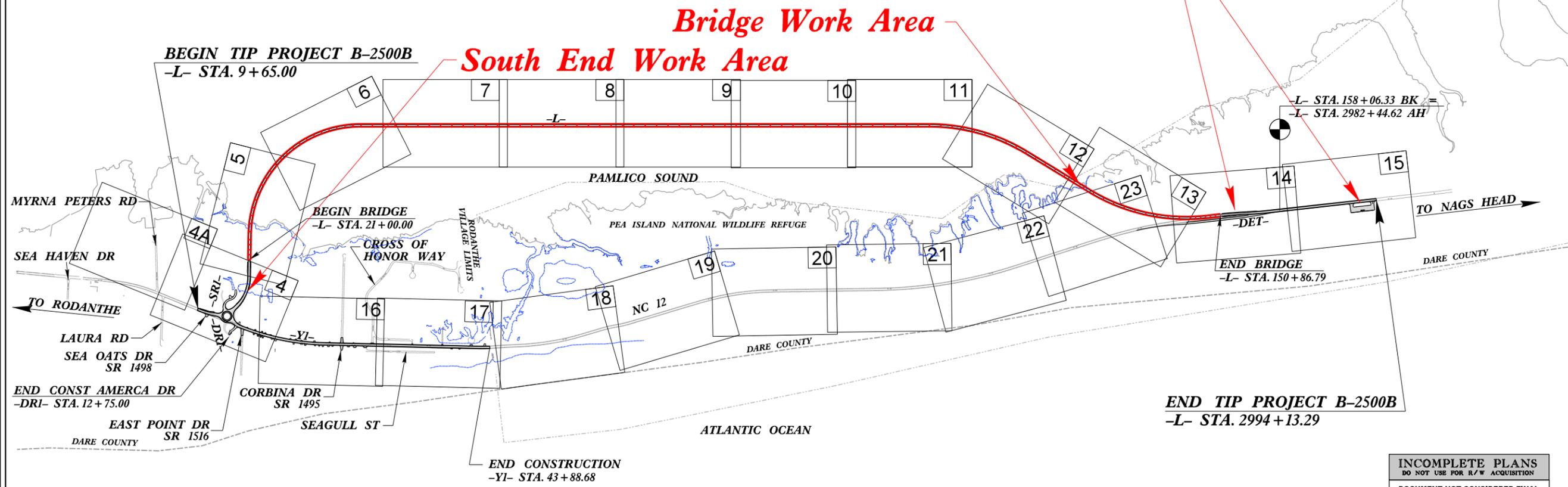
LOCATION: NC 12 - RODANTHE BREACH LONG TERM IMPROVEMENTS (PHASE IIB)

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

Geotechnical Boring Work Areas

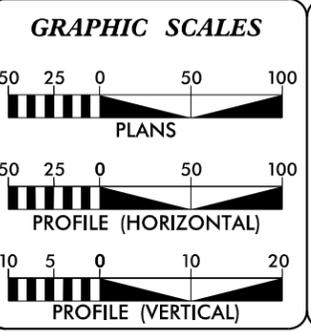


VICINITY MAP (NTS)



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.



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

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

PLANS PREPARED BY:
RK&K RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F-0112

FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

FLATIRON

LETTING DATE:
JANUARY 25, 2017

B. Keith Skinner, P.E.
PROJECT ENGINEER

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

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



CONTRACT: C203474 TIP PROJECT: B-2500B

3/9/2017 R:\Hydraulics\PERMITS_Environmental\Drawings\NationWide\B2500B-Hyd.-fsh.dgn fkeys

8/17/99
3/9/2017
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BORING LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE WITHIN HATCHED AREAS

MATCHLINE -L- STA. 20+00 SEE SHEET 5

PROJECT REFERENCE NO.	SHEET NO.
B-2500B	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

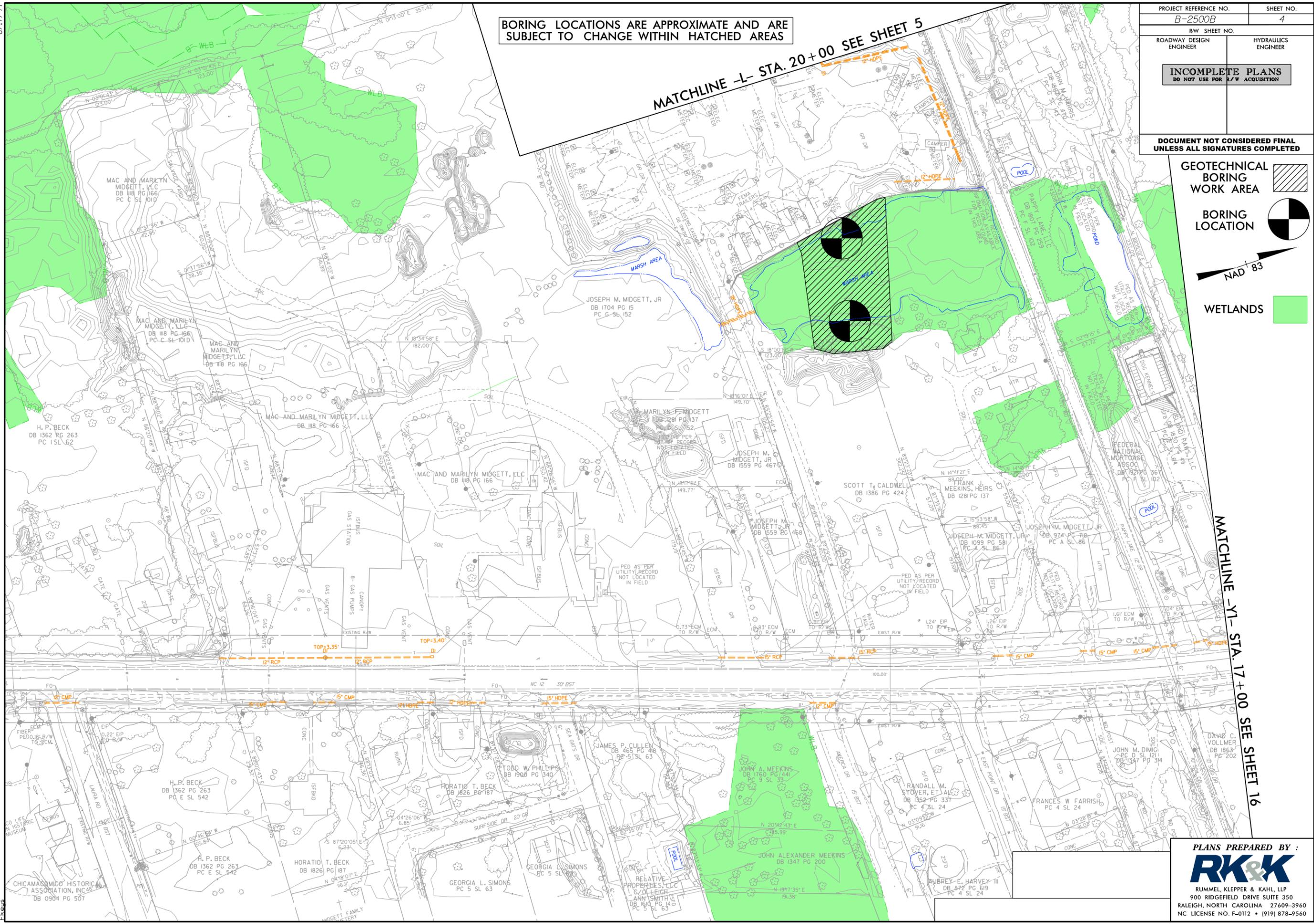
GEOTECHNICAL BORING WORK AREA 

BORING LOCATION 

WETLANDS 


NAD 83

MATCHLINE -Y1- STA. 17+00 SEE SHEET 16



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PROJECT REFERENCE NO. B-2500B	SHEET NO. 12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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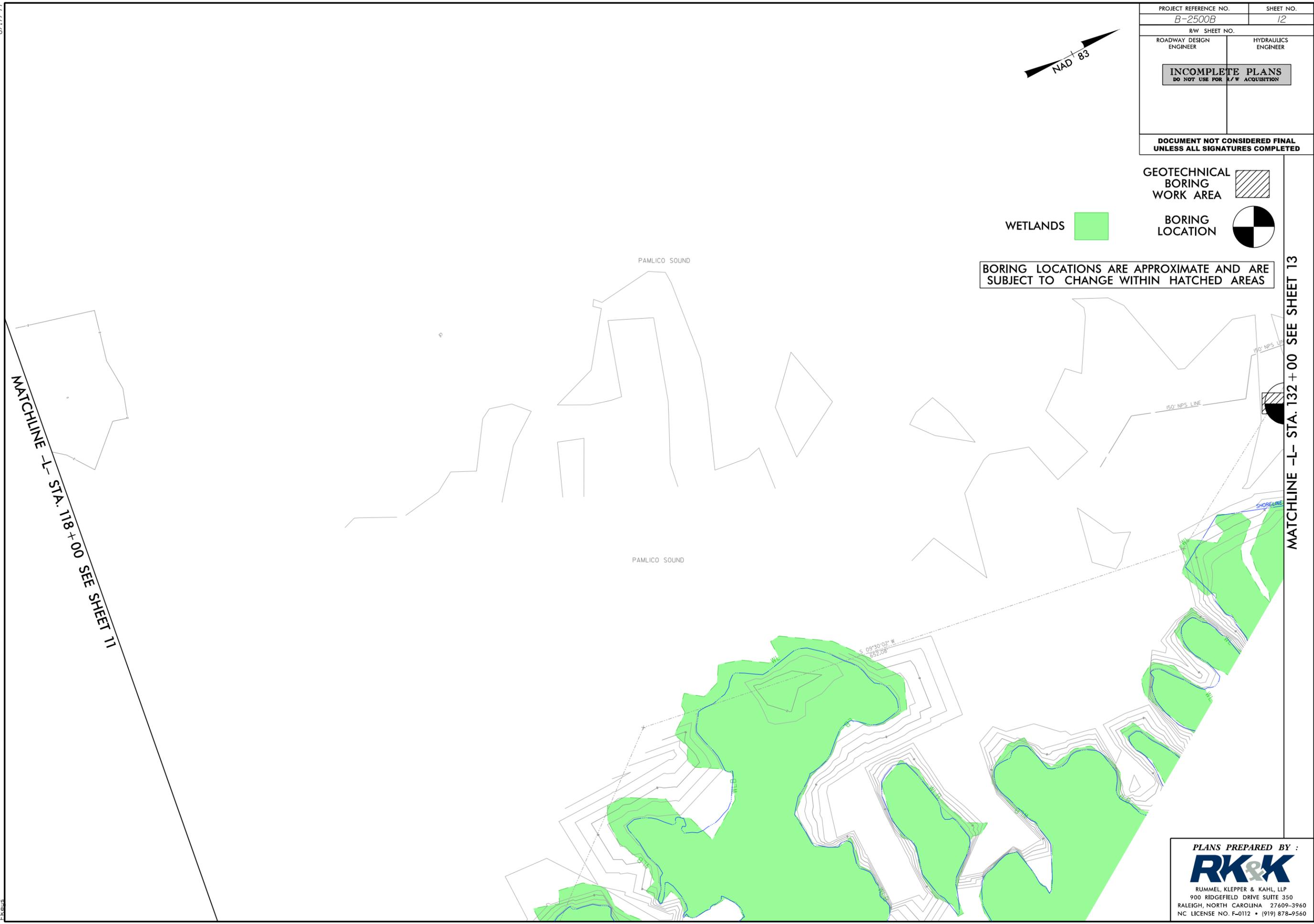
WETLANDS 

BORING LOCATION 

BORING LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE WITHIN HATCHED AREAS

MATCHLINE -L- STA. 118 + 00 SEE SHEET 11

MATCHLINE -L- STA. 132 + 00 SEE SHEET 13



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PROJECT REFERENCE NO. B-2500B	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	

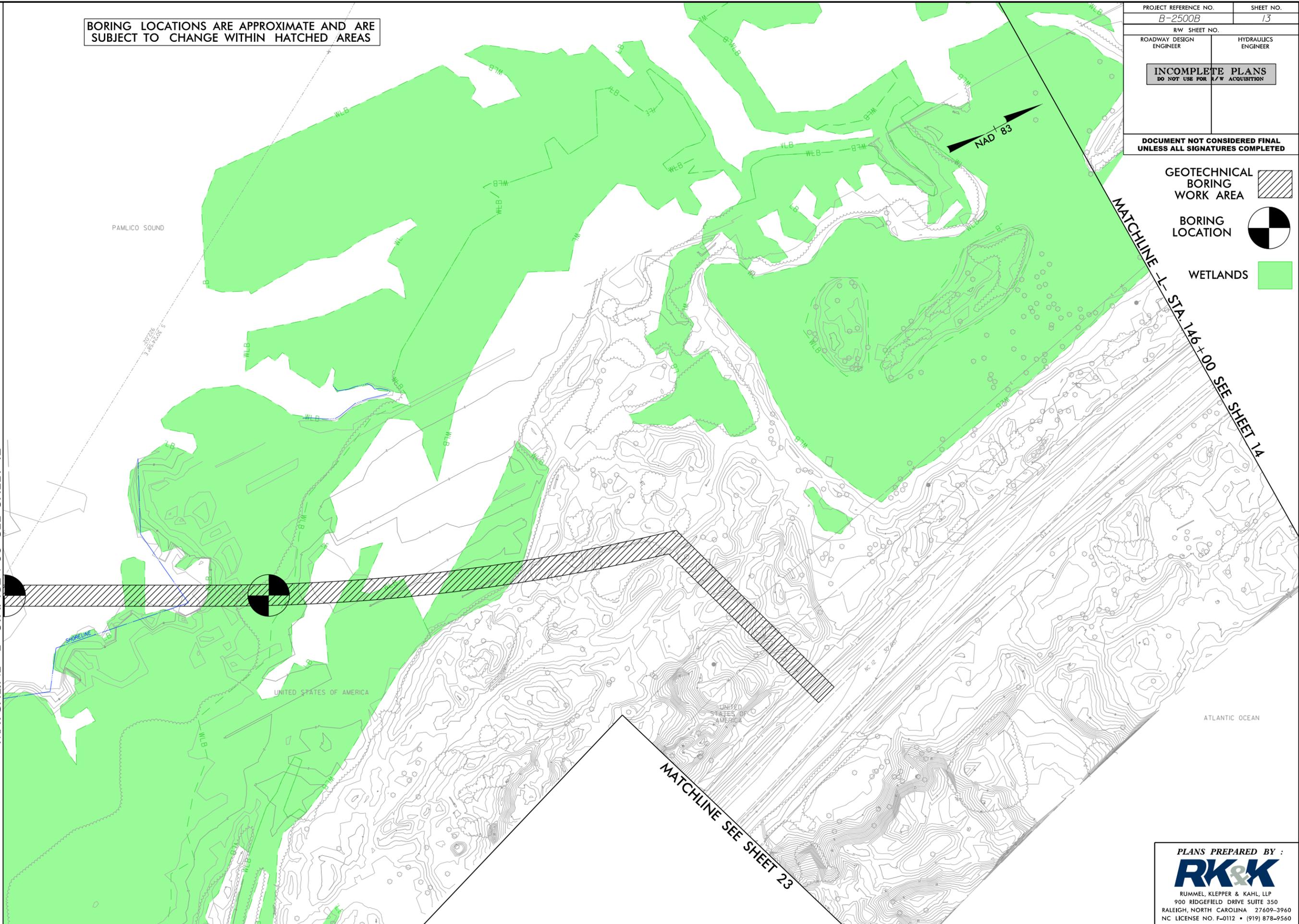
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- GEOTECHNICAL BORING WORK AREA 
- BORING LOCATION 
- WETLANDS 

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

MATCHLINE -L- STA. 146 + 00 SEE SHEET 14

MATCHLINE SEE SHEET 23



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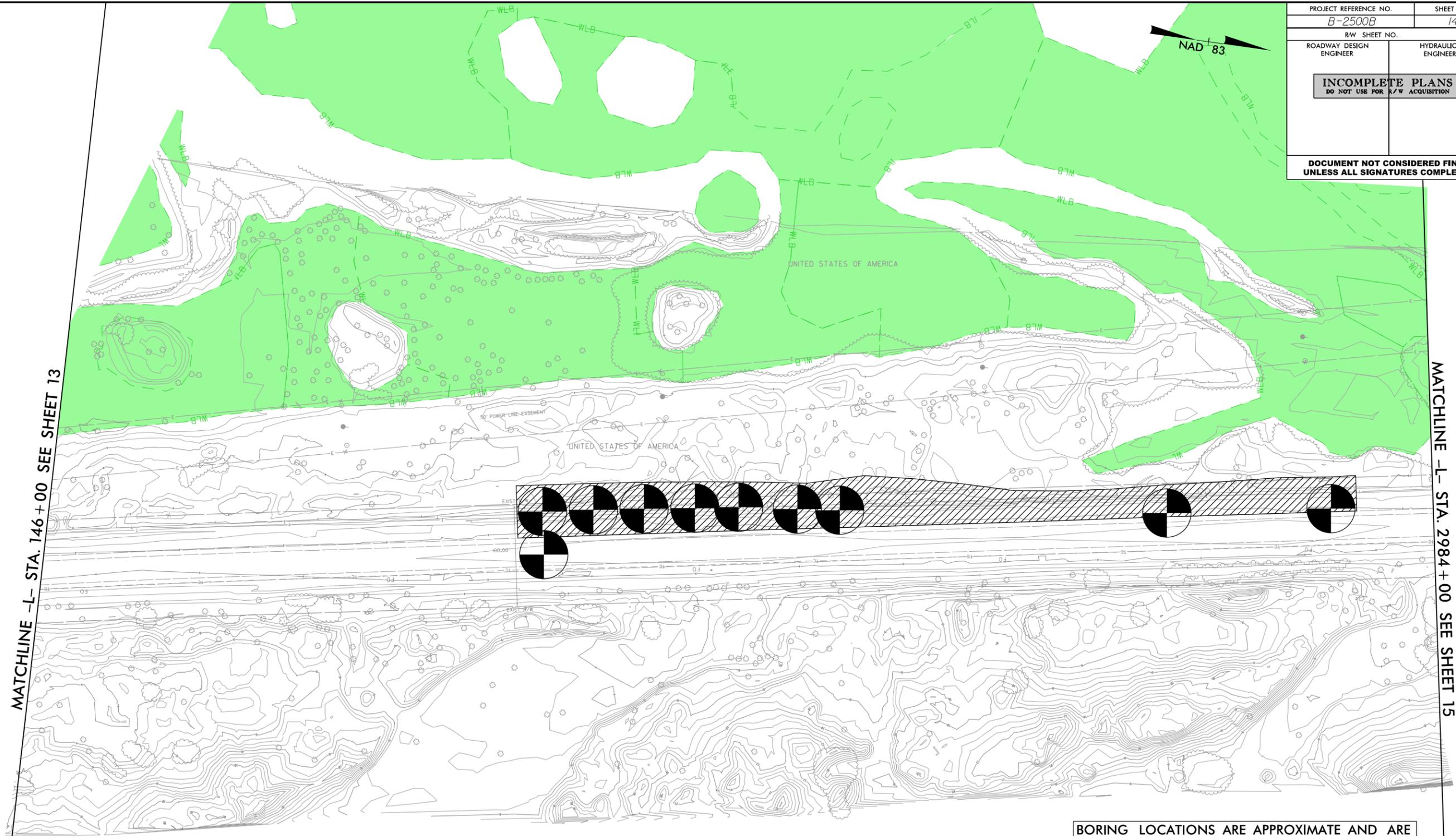
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E.L.S.

MATCHLINE -L- STA. 146+00 SEE SHEET 13



PROJECT REFERENCE NO. B-2500B	SHEET NO. 14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

MATCHLINE -L- STA. 2984+00 SEE SHEET 15

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- WETLANDS
- GEOTECHNICAL BORING WORK AREA
- BORING LOCATION

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PROJECT REFERENCE NO. B-2500B	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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BORING LOCATION 

WETLANDS 



MATCHLINE -L- STA. 2984 + 00 SEE SHEET 14

REVISIONS

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