

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR. SECRETARY

July 25, 2012

United States Army Corps of Engineers Washington Regulatory Field Office 2407 West 5th St. Washington, NC 27899

ATTN:

Mr. Bill Biddlecome

NCDOT Coordinator

SUBJECT:

Application for Nationwide Permit 6 for Foundation Load Test

Replacement of Bridge 11 over Oregon Inlet on NC 12 in Dare County,

North Carolina; TIP Project B-2500 (Phase I); Federal Aid Projects BRNHF-0012 (48)

and BRNHF-0012 (36); WBS Element: 32635.1.4

Dear Sir,

The North Carolina Department of Transportation (NCDOT) is in the process of planning a foundation load test for the replacement of Bridge No. 11 over Oregon Inlet (TIP Project B-2500, Phase I) in Dare County, North Carolina. A completed Pre-Construction Notification and associated site drawings are attached for your review. As Oregon Inlet is designated as a "High Quality Water", and portions of the work will be occurring on a barrier island, notification to the appropriate agencies through a Nationwide Permit 6 application is required.

The contractor and their subcontractors will conduct the foundation load test. Additionally, the contractor is required to conduct a static load test involving axial and lateral loading. All activities are temporary and will be removed at the completion of testing. One primary test pile and a small number of non-production indicator test piles are planned at the following locations:

- Primary Test Pile: A static load test of a 36" square, precast pre-stressed concrete pile, involving axial and lateral loading to failure, will be performed in Scour Region III (near proposed Bent 24 in Oregon Inlet). This test would occur prior to commencement of bridge construction. This test pile will be installed in open water. The temporary impact, including test pile frame, will be limited to the area shown in the attached plan sheet. The exact location of the test pile and frame are to be determined on-site based on current site conditions.
- Indicator Test Piles: A small number of non-production, non-instrumented indicator piles (both 36" square and 54" cylinder) will be installed near the locations of the primary test pile (in Oregon Inlet) and at the North Approach (near proposed bents 80-81 in uplands). The first indicator piles would be attempted by driving only (no jetting) to the planned tip elevations. Preliminary analyses indicate that installation by driving-only will be possible at a very limited

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 LOCATION: CENTURY CENTER, BUILDING A 1000 BIRCH RIDGE DRIVE RALEIGH NC 27610

WEBSITE: WWW.NCDOT.GOV/DOH/PRECONSTRUCT/PE/

number of locations. Jetting will be utilized where driving is not anticipated to be successful. The driven piles will be monitored with a Pile Driving Analyzer (PDA) solely to measure the driving stresses and available resistance. Where these indicator piles cannot be installed by driving alone, the DBT will use this opportunity to refine the jetting procedures proposed in the 404/401/CAMA permit application for B-2500 Phase 1 currently under review, and evaluate various jetting setups for both the 36" square piles and the 54" cylinder piles without instrumentation possibly getting in the way or being damaged. It is anticipated that the installation of the Primary Test Pile and Indicator Test Piles will also provide an opportunity to refine the jetting procedures and jetting spoils containment system prior to production pile installation. In Oregon Inlet, it will likely be a maximum of 3 Indicator Test Piles in addition to the Primary Test Pile to be installed.

Test Pile frames: Eight to twelve temporary ~18" pipe piles will be driven to support the Primary Test Pile frame, from which the equipment will operate and guide the test piles into place.

All piles are temporary and will be removed at the completion of testing. The overall timeframe is anticipated to be 4-8 weeks from beginning to end. The 36" square Indicator Test Pile(s) and Primary Test Pile near proposed Bent 24 in open water will be installed first, followed by the 54" cylinder Indicator Test Pile(s) near proposed Bents 80 - 81 on land at the north end of the bridge. Activities are planned to begin in October 2012.

Regulatory Approvals:

Section 404: The NCDOT anticipates that these activities will be authorized by a Nationwide Permit 6 will follow the general conditions of that permit.

Section 401 Permit: We anticipate 401 General Certification number 3883 will apply to this project. All general conditions of the Water Quality Certification will be met and therefore NCDOT is not requesting written approval. NCDOT is providing two copies of this application to the NCDWO for their review.

Section 10 Permit: Application is hereby made for a USACE Section 10 Permit as required for the above-described activities.

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 http://www.doh.dot.state.nc.us/preconstruct/pe/.

Sincerely,

Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Unit

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 Corps:	Ia. Type(s) of approval sought from the Corps: Section 404 Permit Section 10 Permit Section 10 Permit					
1b. Specify Nationwide Permit (NWI	P) number: 6 or General Permit (GP) nu	mber:				
1c. Has the N WP or GP number be	een verified by the Corps?	⊠ Yes □ No				
1d. Type(s) of approval sought from	n the DWQ (check all that apply):					
☐ 401 Water Quality Certificati	ion – Regular 🔲 Non-404 Jurisdiction	nal General Permit				
☐ 401 Water Quality Certificati	ion – Express 🔲 Riparian Buffer Auth	orization				
1e. Is this notification solely for the		For the record only for Corps Permit:				
because written approval is not	required? Certification:	│				
Af la national interpretation has						
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.						
1g. Is the project located in any of N below.	1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.					
1h. Is the project located within a NO	C DCM Area of Environmental Concern (AEC)?	⊠ Yes □ No				
2. Project Information						
2a. Name of project:	B-2500 (Phase I) - Replacement of Bridge 11	over Oregon Inlet on NC 12				
2b. County:	Dare					
2c. Nearest municipality / town:	Nags Head					
2d. Subdivision name:						
2e. NCDOT only, T.I.P. or state project no:	B-2500 (Phase I)					
3. Owner Information						
3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation					
3b. Deed Book and Page No.						
3c. Responsible Party (for LLC i f applicable):						
3d. Street address:	1598 Mail Service Center					
3e. City, state, zip:	Raleigh, NC 27699-1598					
3f. Telephone no.:	919-707-6157					
3g. Fax no.:	919-212-5785					
3h. Email address:	maturchy@ncdot.gov					

4. Applicant Information (if diff	. Applicant Information (if different from owner)				
4a. Applicant is:	☐ Agent ☐ Other, specify:				
4b. Name:					
4c. Busines s name (if applicable):					
4d. Street address:					
4e. City, state, zip:					
4f. Telephone no.:					
4g. Fax no.:					
4h. Email address:					
5. Agent/Consultant Informatio	n (if applicable)				
5a. Name:					
5b. Business name (if applicable):					
5c. Street address:					
5d. City, state, zip:					
5e. Telephone no.:					
5f. Fax no.:					
5g. Email address:					

В.	B. Project Information and Prior Project History						
1.	Property Identification						
1a.	Property identification no. (tax PIN or parcel ID):						
1b.	Site coordinates (in decimal degrees):	Latitude: 35.77 (DD.DDDI		Longitude: - 75.53754 (-DD.DDDDDD)			
1c.	Property size:	n/a acres					
2.	Surface Waters						
2a.	Name of nearest body of water (stream, river, etc.) to proposed project:	Oregon Inlet/P	amlico Sound				
2b.	Water Quality Classification of nearest receiving water:	SA					
2c.	River basin:	Pasquotank					
3.	Project Description						
3а.	Describe the existing conditions on the site and the general lar application:	nd use in the vic	inity of the proje	ect at the time of this			
	Natural intertidal marsh and open water, partially within the Ca	pe Hatteras Nat	ional Seashore				
3b.	List the total estimated acreage of all existing wetlands on the	property:					
	The 2.5-mile corridor is primarily either wetland or open water						
3c.	List the total estimated linear feet of all existing streams (interm n/a	ittent and peren	nial) on the pro	perty:			
3d.	Explain the purpose of the proposed project:	• • • • • • • • • • • • • • • • • • • •					
	To perform tests to determine the axial and lateral loading to fa and the 54" precast, prestressed cylinder piles (see cover lette		square, precast	prestressed concrete piles			
3e.	Describe, the overall project in detail, including the type of equi Please see cover letter for description of work to be performed jetting equipment. The foundation load testing being performe heavy equipment, hammer and jetting equipment.	. Equipment to	be used will inc	lude barges, hammer, and n rubber tire or tracked			
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:	⊠ Yes	□No	Unknown			
4b.	If the Corps made the jurisdictional determination, what type of determination was made?	☐ Preliminary	√ ⊠ Final				
4c.	If yes, who delineated the jurisdictional areas? Name (if known):	Agency/Consu	iltant Company	CZR Inc.			
4d.	4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. May 4, 2012, Action ID SAW-2012-00715. The Division of Coastal Management concurred with CAMA mapping on May 30, 2012						
5.	Project History		·				
5a.	Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	⊠ Yes	□ No	Unknown			
5b.	o. If yes, explain in detail according to "help file" instructions. NW 6, Action 10200310829, Issued 11/13/2003; NW 6, Action ID SAW-2011-00107, issued 1/13/2011 and modified 9/27/2011. Recently submitted Individual Permit Application for construction of B-2500 (Phase I).						

6.	Future Project Plans					
6a.	Is this a phased project?	⊠ Yes	□No			
6b.	If yes, explain.					
	The foundation load testing will be conducted as part of final design of Phase I (per the ROD) of the replacement of the Bonner Bridge. Future phases of B-2500 are not included herein.					

C. Proposed Ir	mpacts Inventory							
1. Impacts Summa								
	· · · · · · · · · · · · · · · · · · ·	w for your project (ch	eck all that appl	y):				
1a. Which sections were completed below for your project (check all that apply): ☐ Wetlands ☐ Streams - tributaries ☐ Buffers								
☑ Open Waters ☐ Pond Construction								
Wetland Impact	s							
		the site, then comple	ete this question	for each wetland area in	mpacted	d.		
2a.	2b.	2c.	2d.	2e.		2f.		
Wetland impact			1	Type of jurisdictio		A		
number –	Type of impact	Type of wetland	Forested	(Corps - 404, 10 DWQ – non-404, otl			a of impact (acres)	
Permanent (P) or Temporary (T)		(if known)		DVVQ — Non-404, ou	101)	•	(40103)	
			☐Yes	☐ Corps				
W1			☐ No	☐ DWQ				
WO CDCT			☐ Yes	☐ Corps				
W2 □ P □ T			☐ No	DWQ				
W3 □ P □ T			Yes	Corps				
			□ No	DWQ	-			
W4			Yes	☐ Corps☐ DWQ				
			□ No □ Yes	Corps		-	 	
W5 □ P □ T			☐ Yes	☐ DWQ				
			Yes	Corps				
W6 □ P □ T			□ No	DWQ				
2g. Total wetland in	ıpacts			<u> </u>				
2h. Comments:								
3. Stream Impacts	•							
	l or intermittent strea	m impacts (including	temporary impa	icts) proposed on the sit	e, then	comp	lete this	
3a.	3b.	3c.	3d.	3e.	3f.		3g.	
Stream impact	Type of impact	Stream name	Perennial	Type of jurisdiction	Avera	_	Impact	
number -			(PER) or intermittent	(Corps - 404, 10	strea wid		length (linear	
Permanent (P) or Temporary (T)			(INT)?	DWQ – non-404, other)	(fee		feet)	
			PER	Corps	,	-,	· · · · · · · · · · · · · · · · · · ·	
S1 P T			INT	DWQ				
			☐ PER	☐ Corps				
S2 P T			☐ INT	☐ DWQ				
S3 □P□T			☐ PER	Corps				
33 P 1			☐ INT	☐ DWQ	<u> </u>			
S4 □ P □ T			PER	Corps				
- · L · L ·		<u> </u>	☐ INT	DWQ				
S5 □ P □ T			□ PER □ INT	☐ Corps☐ DWQ				
			PER	☐ DVVQ				
S6 □ P □ T				DWQ				
3h. Total stream and	l tributary impacts	<u> </u>	<u> </u>		L			
	i cinutary impacts						L	
3i. Comments:								

	e propose	npacts ed impacts to lakes, po dually list all open wate				ries, sounds, tl	ne Atlantic C	cean, or a	any other open	water of
4a.	nen marvi	4b.	4c.	Jacis L	CIOW.		4d.		4e.	
Open water impact number – Permanent (P) or Temporary (T)		Name of waterbody (if applicable)		Type of impact		Waterbody type		Area of impact (acres)		
01 □P⊠T		Oregon Inlet/ Pamlico Sound		Foundation Load Testing		Open Water		<0.01 (temporary)		
O2 🗌 F	7 T									
O3 🔲 F										
04 🗌 F	Р□Т									
4f. Total open water impacts <0.01 (temporary)								mporary)		
completed	d) and a s	mporary open water im eries of 18" pipe piles d after testing is comp	for th	e test f						
		Construction			41	-1				
f pond or 5a.	5b.	truction proposed, the	n con 5c.	npiete	tne cnart b	elow.	5d.			5e.
Pond ID		sed use or purpose	00.	Wetland Impacts (acres)				am Impac	ts (feet)	Upland (acres)
number		of pond		oded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1										
P2										
5f. Total										
5g. Comm	ents:									
5h. Is a da	ım high ha	azard permit required?	1	□ Y	es	☐ No If	yes, permit	ID no:		
5i. Expected pond surface area (acres):					···	***				
5j. Size o	of pond wa	atershed (acres):								
5k. Meth od of construction:							•			

6 Buffor Impacts	(for DWO)						
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 i	mpacts req	uire mitigation, then you MUST fill	out Section D	of this fo	orm.	Ty not an band, impacts	
6a.			☐ Neuse	□ T:	ar-Pamlico	☐ Other:	
Project is in which	easin?	☐ Catawba	□R	andleman			
6b.	6c.	6d.	6e.	6f.		6g.	
Buffer impact number –	Reason		Buffer	Zone	e 1 impact	Zone 2 impact	
Permanent (P) or	for	Stream name	mitigation	(sq	uare feet)	(square feet)	
Temporary (T)	impact		required? Yes				
B1 □ P □ T			□ No			·	
B2			Yes				
			☐ No ☐ Yes				
B3			□ No				
		6h. Total b	uffer impacts				
6i. Comments:							
D. Impact Justific	ation and	Mitigation					
1. Avoidance an							
1a. Specificall	y describe	measures taken to avoid or minim	ize the propos	sed impa	cts in designir	ng project.	
The foundation loa- performed in uplan	d test being ds near bei	g performed in the vicinity of bent 2 nts 80-81 will be performed with ru	24 will be pert Ibber tire drill	ormea 170 rigs or lo	w ground pres	sure tracked drill rigs.	
1b. Specificall	y describe	measures taken to avoid or minim	ize the propos	sed impa	cts through co	nstruction techniques.	
NCDOT will implen	nent "Guide	elines for Avoiding Impacts to the \ h Carolina Waters," during work fo	West Indian M	lanatee, l	Precautionary	Measures for	
during installation.	ues in Norti	n Carolina vvalers, during work ic	it it its project.	All Corid		Timide o will be duffered to	
2. Compensator	y Mitigatio	n for Impacts to Waters of the L	J.S. or Water	s of the S	State		
2a. Does the proje	ct require (Compensatory Mitigation for	Yes	⊠ No	•		
impacts to Wa	ters of the l	J.S. or Waters of the State?					
2b. If yes, mitig	gation is req	uired by (check all that apply):	☐ DWQ	☐ Cor	ps		
			☐ Mitigatio	n bank			
	tigat ion op	otion will be used for this	☐ Paymen	t to in-lieu	ı fee program		
project?			☐ Permitte	e Respor	nsible Mitigatio	on	
3. Complete if U	sing a Miti	gation Bank					
3a. Name of Mitiga	tion Bank:						
3b. Credits Purcha	sed (attach	receipt and letter)	Туре		Quantity		
							

3c. Comme	3c. Comments:								
4. Compl	4. Complete if Making a Payment to In-lieu Fee Program								
4a. Approv	al letter from in-lieu fee progra	am is attached.	Yes						
4b. Stream	mitigation requested:		linear feet						
4c. If using	stream mitigation, stream ten	nperature:	☐ warm ☐ co	ool					
4d. Buffer r	nitigation requested (DWQ or	nly):	square feet						
4e. Riparia	n wetland mitigation requeste	d:	acres						
4f. Non-rip	arian wetland mitigation reque	ested:	acres						
4g. Coastal	(tidal) wetland mitigation req	uested:	acres						
4h. Comme	nts:								
5. Compl	ete if Using a Permittee Res	ponsible Mitigation	Plan						
5a. If using	a permittee responsible mitig	gation plan, provide a	description of the propo	osed mitigation plan.					
6. Buffer	Mitigation (State Regulated	Riparian Buffer Rule	es) – required by DWC	2					
6a. Will the buffer n	project result in an impact wit nitigation?	hin a protected riparia	n buffer that requires	☐ Yes					
	nen identify the square feet of of mitigation required.	f impact to each zone	of the riparian buffer th	nat requires mitigation. Calculate the					
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. Commer	nts:								

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?	☐ Yes	⊠ No
1b.	If yes, then is a diffuse flow plan included? If no, explain why.		□ Na
	Comments: Temporary subsurface activity only. Erosion control measures will be used.	Yes	∐ 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?	Yes	⊠ No
2c.	If this project DOES NOT require a Stormwater Management Plan, explain why: subst	urface exploration	n only
2d.	If this project DOES require a Stormwater Management Plan, then provide a brief, name n/a	rrative description	n of the plan:
2e.	Who will be responsible for the review of the Stormwater Management Plan?		al Government water Program nit
3.	Certified Local Government Stormwater Review		
3a.	In which local government's jurisdiction is this project?	n/a	
3b.	Which of the following locally-implemented stormwater management programs apply (check all that apply):	☐ Phase II ☐ NSW ☐ USMP ☐ Water Suppl ☐ Other:	y Watershed
3c.	Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes	□ No
4.	DWQ Stormwater Program Review		
4a.	Which of the following state-implemented stormwater management programs apply (check all that apply):	Coastal cou HQW ORW Session La Other: N/A	unties w 2006-246
4b.	Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes	□No
5.	DWQ 401 Unit Stormwater Review		
5a.	Does the Stormwater Management Plan meet the appropriate requirements?	☐ Yes	□No
5b.	Have all of the 401 Unit submittal requirements been met?	☐ Yes	□No

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?	⊠ Yes	□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)?	⊠ Yes	□ 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.)	⊠ Yes	□No
	Comments: NEPA FEIS/EA/ROD for TIP B-2500		
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)?	☐ Yes	⊠ No
2b	Is this an after-the-fact permit application?	☐ Yes	⊠ No
2c.	If you answered "yes" to one or both of the above questions, provide an explanation of	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?	☐ Yes	⊠ No
3b.	If you answered "yes" to the above, submit a qualitative or quantitative cumulative improst recent DWQ policy. If you answered "no," provide a short narrative description.	oact analysis in a	ccordance with the
	This is a temporary subsurface geotechnical and design investigation. Cumulative ef were thoroughly addressed in the EIS/EA/ROD.	fects of the overa	II project (B-2500)
4.	Sewage Disposal (DWQ Requirement)		
4a.	Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge the proposed project, or available capacity of the subject facility.	irge) of wastewat	er generated from
	No sewage wastewater will be generated by this activity.		

5.	Endangered Species and Designated	d Critical Habitat (Corps Requirement	:)				
5a.	Will this project occur in or near an are habitat?	a with federally protected species or	⊠ Yes	□No			
5b.	Have you checked with the USFWS co impacts?	⊠ Yes	□No				
5c.	If yes, ind icate the USFWS Field Office	⊠ Raleigh □ Asheville					
5d.	5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat?						
	USFWS website and agency consultati						
6.	Essential Fish Habitat (Corps Require	rement)	T				
6a.	Will this project occur in or near an area	a designated as essential fish habitat?	⊠ Yes	□ No			
6b.	6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat?						
	NMFS county index; FEIS/ROD						
7.	Historic or Prehistoric Cultural Reso	ources (Corps Requirement)					
7a.	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)? ✓ Yes ✓ Yes						
7b.	What data sources did you use to dete NEPA documentation; FEIS/ROD	rmine whether your site would impact h	storic or archeological	resources?			
8. 1	Flood Zone Designation (Corps Requi	rement)					
8a.	Will this project occur in a FEMA-design	nated 100-year floodplain?	⊠ Yes	□No			
8b.	8b. If yes, explain how project meets FEMA requirements: This temporary activity will not result in changes in permanent flood elevations.						
8c.	8c. What source(s) did you use to make the floodplain determination? approved NEPA documents						
)n (Applicant/Agent's Printed Name (Agent's signature is valid only if an authorization letter from the applicant is provided.)						



