STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

October 11, 2011

U. S. Army Corps of Engineers
Regulatory Field Office
3331 Heritage Trade Drive, Suite 105
Wake Forest, NC 27587

ATTN: Mr. Monte Matthews
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 13, 23, 33** for the proposed replacement of Bridge No. 9 over Prather's Creek on US 221 in Alleghany County, Federal Aid Project No. BRSTP-221(16); Division 11; TIP No. B-4406; $240.00 debit WBS 33685.1.1

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 9 over Prather's Creek on US 221. There will be 149 feet of permanent surface water impacts (99 feet of which are due to bank stabilization), 60 feet of temporary surface water impacts and 0.08 acre of permanent impacts to wetlands. Bridge No. 9 will be replaced with a double-span structure 125 feet long.

Please see enclosed copies of the Pre-Construction Notification (PCN), EEP acceptance letter, Stormwater Management Plan, permit drawings, design plans and Rapanos forms. The Categorical Exclusion (CE) was completed in November 2007 and distributed shortly thereafter. A Right of Way Consultation was completed October 2010. Additional copies are available upon request.

Comments from the North Carolina Wildlife Resources Commission (NCWRC) will be required prior to authorization by the Corps of Engineers. By copy of this letter and attachments, NCDOT hereby requests NCWRC review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers and the NCDOT within 30 calendar days of receipt of this application.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6100
FAX: 919-212-5785

WEBSITE: WWW.NCDOT.ORG

LOCATION:
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610-4328

This project calls for a letting date of April 17, 2012 and a review date of February 28, 2012; however, the let date may advance as additional funding becomes available.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html. If you have any questions or need additional information, please contact Jeremy Leamer at (919) 707-6132 or jtleamer@ncdot.gov.

Sincerely,

E. L. Luck

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

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:	☒ Section 404 Permit	☐ Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 13 23 33 or General Permit (GP) number:		
1c. Has the N WP or GP number been verified by the Corps?	☐ Yes	☒ No

1d. Type(s) of approval sought from the DWQ (check all that apply):

☒ 401 Water Quality Certification – Regular ☐ Non-404 Jurisdictional General Permit

☐ 401 Water Quality Certification – Express ☐ 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: ☐ Yes ☒ No	For the record only for Corps Permit: ☐ Yes ☒ 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.	☒ Yes	☐ No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	☐ Yes	☒ No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	☐ Yes	☒ No

2. Project Information

2a. Name of project:	Replacement of Bridge 9 over Prather's Creek on NC 221
2b. County:	Alleghany
2c. Nearest municipality / town:	Sparta
2d. Subdivision name:	*not applicable*
2e. NCDOT only, T.I.P. or state project no:	B-4406

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	*not applicable*
3c. Responsible Party (for LLC i f applicable):	*not applicable*
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6132
3g. Fax no.:	(919) 212-5785
3h. Email address:	jtleamer@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	☐ Agent ☐ Other, specify:
4b. Name:	*not applicable*
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:	*not applicable*
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):	*not applicable*	
1b. Site coordinates (in decimal degrees):	Latitude: 36.52298 (DD.DDDDDD)	Longitude: - 81.18450 (-DD.DDDDDD)
1c. Property size:	1.4 acres	
2. Surface Waters		
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Prather's Creek	
2b. Water Quality Classification of nearest receiving water:	B;Tr	
2c. River basin:	New	
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: Rural residential and agricultural land		
3b. List the total estimated acreage of all existing wetlands on the property: 0.10		
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 150		
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge.		
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 37-foot bridge with a 125-foot, 2-span bridge on new alignment while maintaining traffic utilizing the existing bridge. Standard road building equipment, such as trucks, dozers, and cranes will be used.		
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: Request was sent by EcoScience on behalf of NCDOT to John Thomas August 2005. NCDOT received nothing back. NCDOT requests a FINAL JD with this permit.	☒ 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/Consultant Company: Other:	
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.		
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. If yes, explain in detail according to "help file" instructions.		
6. Future Project Plans		
6a. Is this a phased project?	☐ Yes	☒ No
6b. If yes, explain.		

C. Proposed Impacts Inventory

1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

☒ Wetlands ☒ Streams - tributaries ☐ Buffers

☐ Open Waters ☐ 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)
Site 1 ☒ P ☐ T	Roadway fill	Riverine	☐ Yes ☒ No	☒ Corps ☐ DWQ	0.05
Site 1 ☒ P ☐ T	Excavation in wetlands	Riverine	☐ Yes ☒ No	☒ Corps ☐ DWQ	0.01
Site 1 ☒ P ☐ T	Mechanized clearing in wetlands	Riverine	☐ Yes ☒ No	☒ Corps ☐ DWQ	0.02
				2g. **Total wetland impacts**	0.08 Permanent 0.00 Temporary

2h. Comments:

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)
Site 1 ☒ P ☐ T	*Roadway fill	UT to Prather's Creek	☐ PER ☒ INT	☒ Corps ☐ DWQ	2	50
Site 2 ☒ P ☐ T	Streambank stabilization	Prather's Creek	☒ PER ☐ INT	☒ Corps ☐ DWQ	12	63
Site 3 ☐ P ☒ T	Proposed bridge wing wall	Prather's Creek	☒ PER ☐ INT	☒ Corps ☐ DWQ	12	30
Site 4 ☒ P ☐ T	Streambank stabilization	Prather's Creek	☒ PER ☐ INT	☒ Corps ☐ DWQ	12	18
Site 5 ☐ P ☒ T	**Existing bridge removal wing wall	Prather's Creek	☒ PER ☐ INT	☒ Corps ☐ DWQ	12	30
Site 6 ☒ P ☐ T	Streambank stabilization	Prather's Creek	☒ PER ☐ INT	☒ Corps ☐ DWQ	12	18
					3h. **Total stream and tributary impacts**	149 Perm 60 Temp

3i. Comments:

*UT is jurisdictional as shown in site 1 blow-up

**wing walls are temporary structures to keep debris from falling into water

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 ☐ P ☐ T				
O2 ☐ P ☐ T				
O3 ☐ P ☐ T				
O4 ☐ P ☐ T				
			4f. Total open water impacts	X Permanent X Temporary

4g. Comments:

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?	☐ Yes ☐ 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?			☐ Neuse ☐ Catawba	☐ Tar-Pamlico ☐ Randleman	☐ Other:
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 ☐ P ☐ T			☐ Yes ☐ No		
B2 ☐ P ☐ T			☐ Yes ☐ No		
B3 ☐ P ☐ T			☐ Yes ☐ No		
		6h. **Total buffer impacts**			
6i. Comments:					

D. Impact Justification and Mitigation

1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project.

The proposed bridge is a spanning structure. 2:1 fill slopes will be utilized where practicable.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.

Surficial bridge runoff will not be directed into Prather's Creek via deck drains. Temporary impacts at the bridge are wing walls to prevent debris from falling into water during bridge removal. There will be no interior bents in the water. Policies outlined in Best Management Practices (BMP's) for protection of surface waters and a strict erosion control schedule will be followed.A moratorium prohibiting in-stream work is in place from October 15 to April 15 to protect trout spawning. Design Standards in Sensitive Watersheds will be adhered to.

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?	☒ Yes ☐ No If no, explain:
2b. If yes, mitigation is required by (check all that apply):	☐ DWQ ☒ Corps
2c. If yes, which mitigat ion option will be used for this project?	☐ Mitigation bank ☒ Payment to in-lieu fee program ☐ Permittee Responsible Mitigation

3. Complete if Using a Mitigation Bank

3a. Name of Mitigation Bank: not applicable

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.	☒ Yes
4b. Stream mitigation requested:	50 linear feet (50 linear feet of impact)
4c. If using stream mitigation, stream temperature:	☐ warm ☐ cool ☒ cold
4d. Buffer mitigation requested (DWQ only):	square feet
4e. Riparian wetland mitigation requested:	0.08 acres (0.08 acres of impact)
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?			☐ Yes ☒ 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?	☐ Yes ☒ No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments:	☐ 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:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	☐ Certified Local Government ☐ DWQ Stormwater Program ☒ DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	☐ Phase II ☐ NSW ☐ USMP ☐ Water Supply Watershed ☐ Other:
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 counties ☐ HQW ☐ ORW ☐ Session Law 2006-246 ☐ Other:
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 N/A
5b. Have all of the 401 Unit submittal requirements been met?	☐ Yes ☐ 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?	☒ 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.) Comments:	☒ Yes	☐ 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)?	☐ 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 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 impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.		
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. not applicable		

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?	☐ Yes	☒ No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	☐ Yes	☒ No
5c. If yes, ind icate the USFWS Field Office you have contacted.	☐ Raleigh ☐ Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? Endangered and Threatened species that require surveys are not listed for Alleghany County.		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	☐ Yes	☒ No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
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)?	☐ Yes	☒ No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	☐ Yes	☒ No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		

Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	E. L. Lupk Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	10-11-11 Date

Ecosystem Enhancement
PROGRAM

September 20, 2011

Mr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-4406, Replace Bridge Number 9 over Prathers Creek on US 221, Alleghany County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory stream and riparian wetland mitigation for the subject project. Based on the information supplied by you on August 15 and September 16, 2011, the impacts are located in CU 05050001 of the New River Basin in the Northern Mountains (NM) Eco-Region, and are as follows:

New 05050001 NM	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	50	0	0	0.08	0	0	0	0

This mitigation acceptance letter replaces the mitigation acceptance letter issued on August 16, 2011. EEP commits to implementing sufficient compensatory stream and riparian wetland mitigation credits to offset the impacts associated with this project in accordance with the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

James B. Stanfill for

Michael Ellison
EEP Deputy Director

cc: Mr. Monte Matthews, USACE – Raleigh Regulatory Field Office
Mr. Brian Wrenn, Division of Water Quality, Wetlands/401 Unit
File: B-4406 Revised

Restoring... Enhancing... Protecting Our State

NCDENR

NCDOT Highway Stormwater

Released: July 2010 (DRAFT)

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

Version 1.1

Page **of**

General Project Information

Project No.:	B-4406		**Date:**	7/14/2011			
City/Town:			**Designer:**	Wang Engineering			
County(ies):	Alleghany County		**Project Manager:**	Tommy Register			
River Basin(s):	**New**		**CAMA County?**	no	**TVA County?**	yes	
Primary Receiving Water:	Prathers Creek		**NCDWQ Stream Index:**				
NCDWQ Surface Water Classification for Primary Receiving Water		**Primary:**	"B" Trout Waters				
		Supplemental:					
Other Stream Classification:							
303(d) Stream?	no	**Type(s) of Impairment:**					
State Stormwater Permit Required?	no	**If yes, why?**					
Could the Project Impact Threatened or Endangered Species?			no				
Description:							
Anadromous Fish Present?							
Description:							
Buffer Rules in Effect?			**Buffer Rules:**				

Existing Site

Description of Existing Project Area:	The existing project area consist of an existing short bridge with two lanes crossing with vertical abutments on a curvey road
Average Daily Traffic (existing):	840 ADT 2012
Existing Cross Section:	2 lane shoulder section on fill
Surrounding Land Use:	rural, some woods, mostly Christmas tree farms with some residentual housing
General Comments:	

Project Description

Description of Proposed Project:	The proposed project area consist of a new longer bridge with sloping spill thru abutments with an improved roadway alighnment immediately downstream of the existing bridge		
Average Daily Traffic (proposed):	1240		
Proposed Cross-Section:	2 lane shoulder section on fill		
Interchange Modification:	no	**Median Type:**	
Terminus:			
Terminus:			
Project Length (lin. miles/feet):	0.134 miles/700 feet	**Added Impervious Area (ac.):**	
General Comments:			

NCDOT Highway Stormwater Program

Released: July 2010 (DRAFT)

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

Version 1.1

Environmental Summary

Riparian Buffer and Jurisdictional Stream Impacts and Associated SCMs

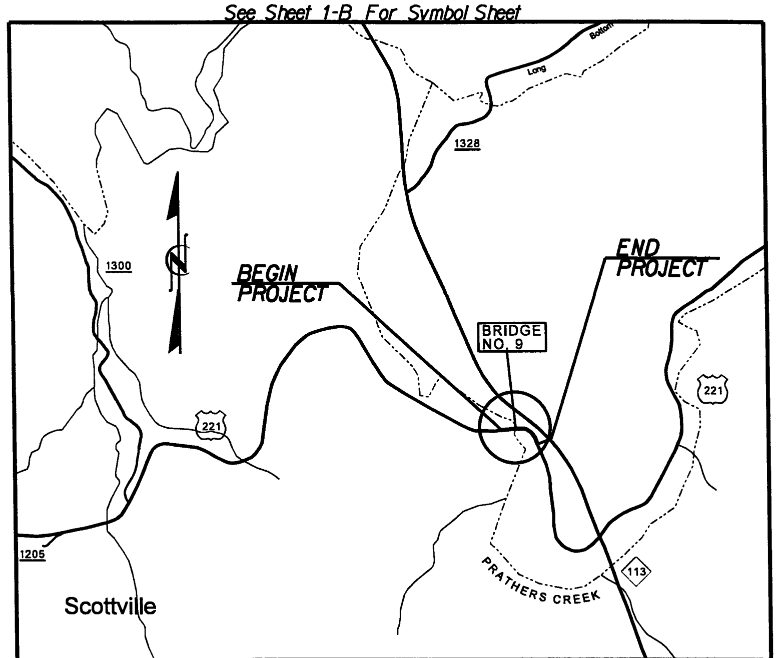
Station	Stream Name	Stream Type	Jurisdict. Stream	Buffer?	Classific-ation?	Proposed Structure	SCM Type	Checklist Complete?	DA (ac.)	Q_2 (ft^3/s)	Q_{10} (ft^3/s)	WQv^c (ft^3)
12+81 to 15+66 Rt	UT to Prathers Creek			No		Roadway Fill						
16+15 to 16+30 Lt	Prathers Creek			No		existing bridge removal						
16+30 Lt	Prathers Creek			No		existing bridge removal						
16+33 Rt	Prathers Creek			No		stream bank stablization						
16+52 Lt	Prathers Creek			No		existing bridge removal						
16+73 Rt	Prathers Creek			No		stream bank stablization						

General Comments:

TIP PROJECT: B-4406

CONTRACT:

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Symbol Sheet



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ALLEGHANY COUNTY

LOCATION: BRIDGE NO. 9 OVER PRATHERS CREEK ON US 221

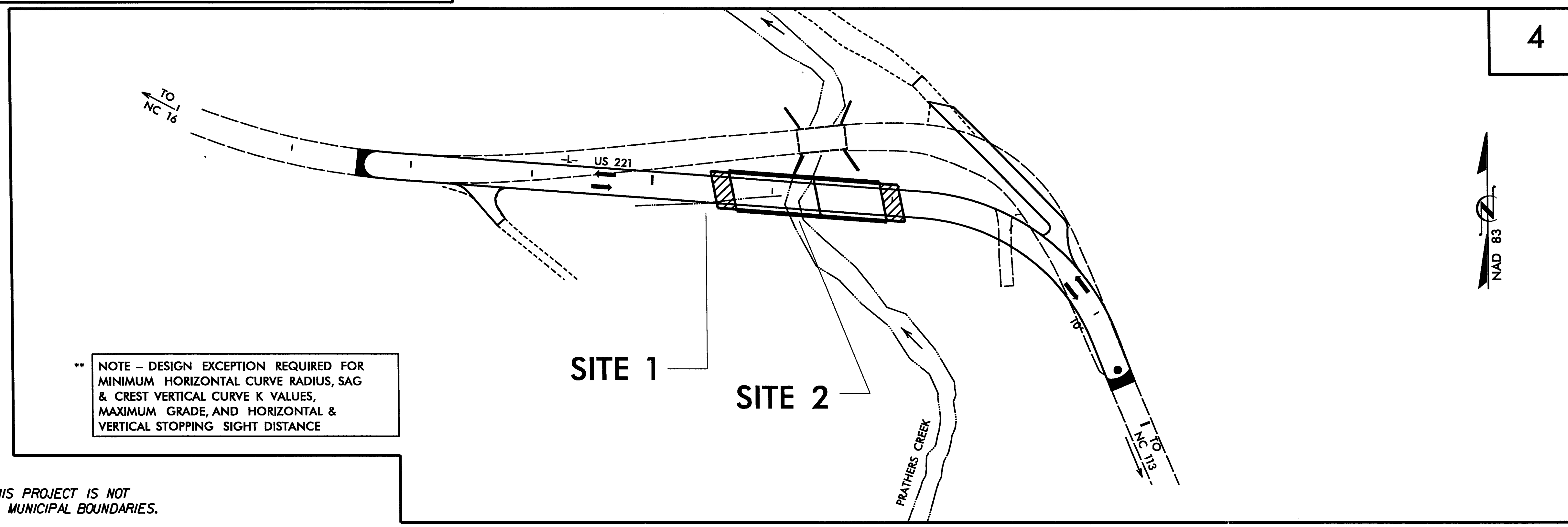
TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4406	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
33685.1.1	BRSTP-221(16)	PE
33685.2.1	BRSTP-221(16)	R/W /UTIL

WETLAND/STREAM IMPACTS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



Permit Drawing
Sheet 1 of 7

THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.

NCDOT CONTACT: K. ZAK HAMIDI, P.E., PROJECT ENGINEER – ROADWAY DESIGN

"CLEARING ON THIS PROJECT SHALL BE ESTABLISHED BY METHOD III."

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2012 = 840
ADT 2032 = 1,240
DHV = 9 %
D = 55 %
T = 5 % *
** V = 60 MPH
* TTST 1 % + DUAL 4 %
FUNC CLASS = RURAL MAJOR COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4406	=	0.110 mi.
LENGTH STRUCTURE TIP PROJECT B-4406	=	0.024 mi.
TOTAL LENGTH TIP PROJECT B-4406	=	0.134 mi.

Prepared In the Office of:
WANG ENGINEERING COMPANY, INC.
CARY, N.C.
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 16, 2011

LETTING DATE:
APRIL 17, 2012

MATTHEW COPPLE, P.E.
PROJECT ENGINEER

PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SUNGATE DESIGN GROUP, PA

SIGNATURE: ______ *P.E.*

ROADWAY DESIGN ENGINEER
WANG ENGINEERING

SIGNATURE: ______ *P.E.*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER ______ *P.E.*

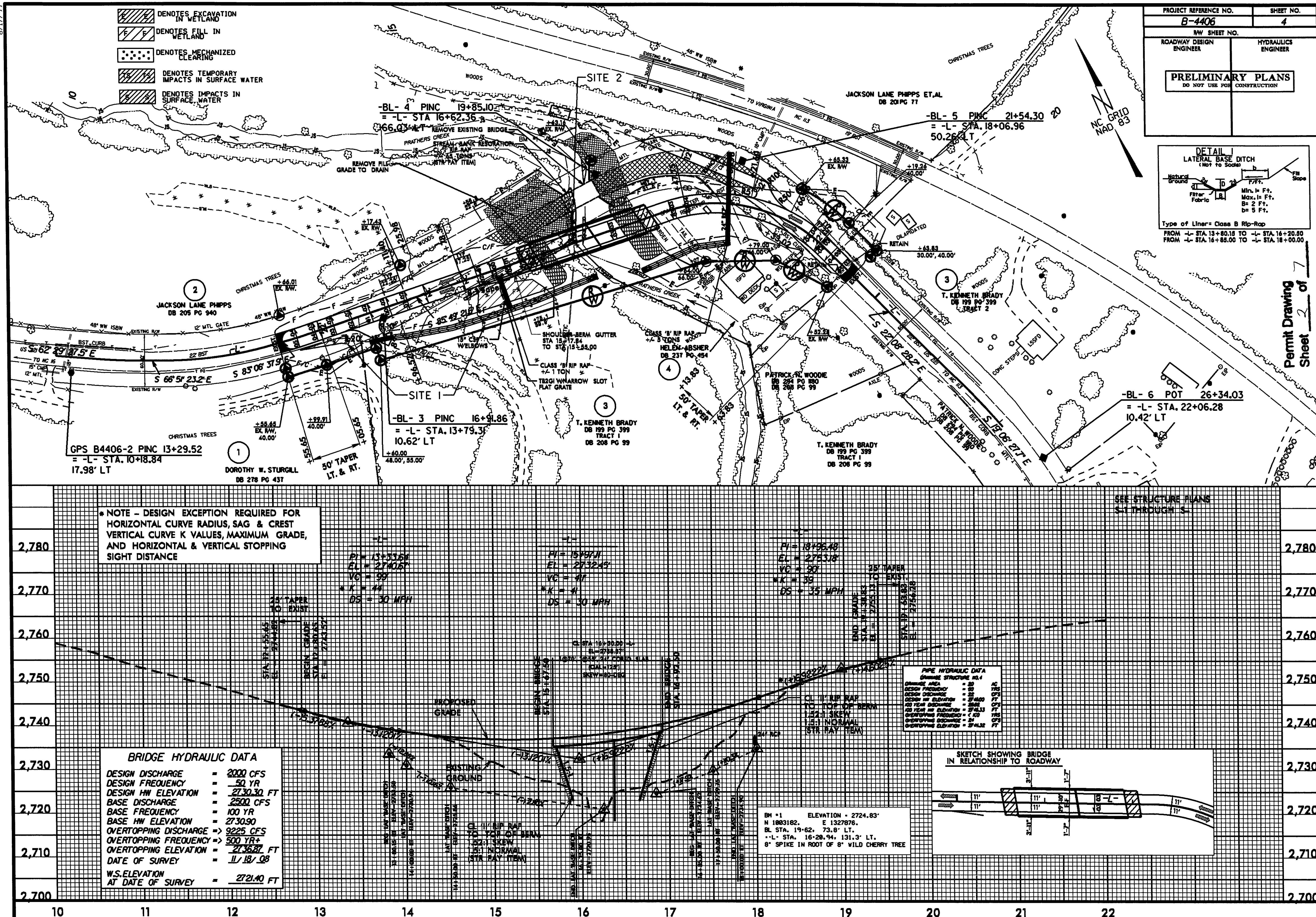
5/24/11 - R/W CHANGES AND REMOVAL OF DRIVEWAY ON PARCEL NO.4

PROJECT REFERENCE NO.	SHEET NO.
B-4406	4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



* NOTE – DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS, SAG & CREST VERTICAL CURVE K VALUES, MAXIMUM GRADE, AND HORIZONTAL & VERTICAL STOPPING SIGHT DISTANCE

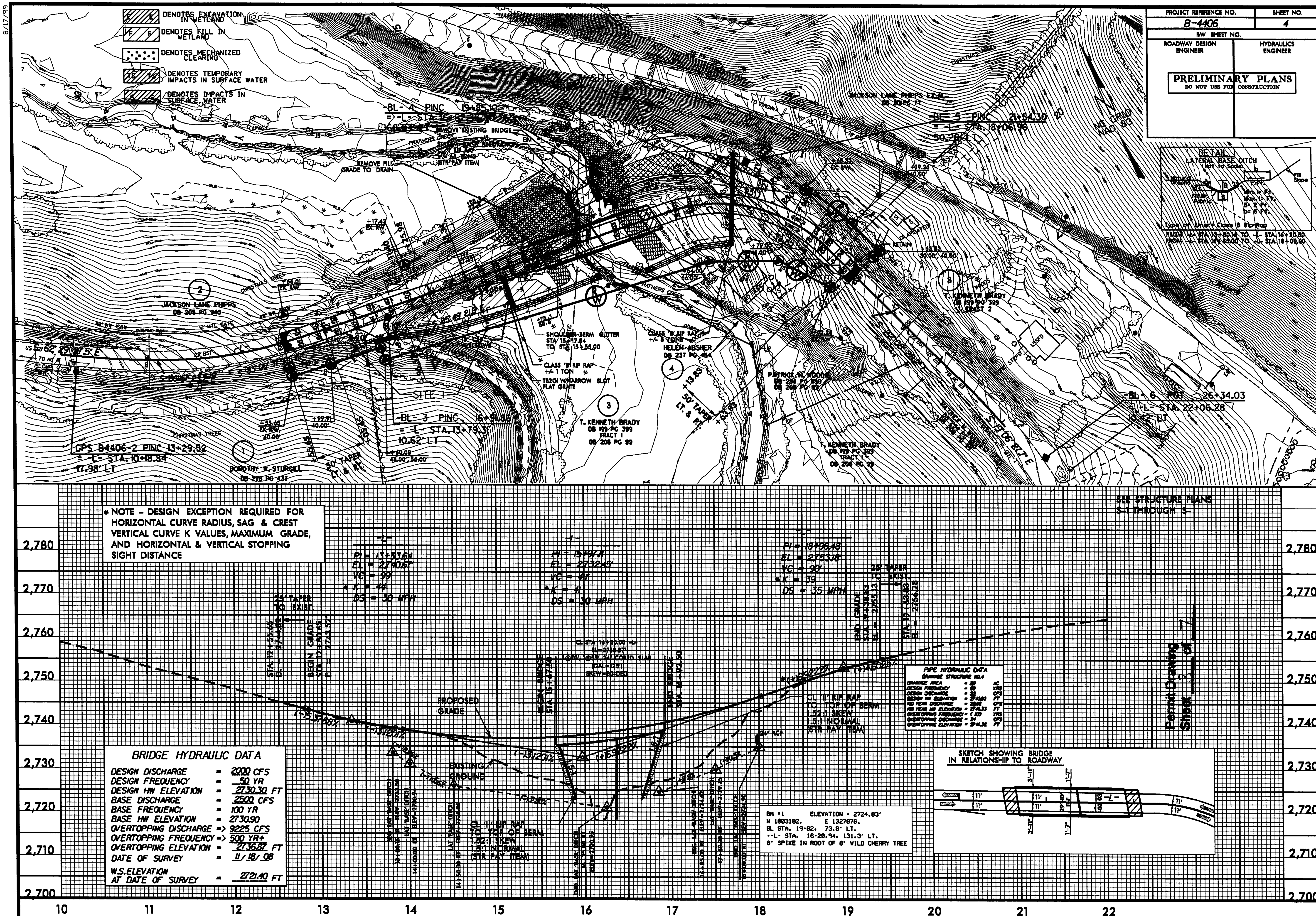
BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	2000 CFS
DESIGN FREQUENCY	=	50 YR
DESIGN HW ELEVATION	=	2730.30 FT
BASE DISCHARGE	=	2500 CFS
BASE FREQUENCY	=	100 YR
BASE HW ELEVATION	=	2730.90
OVERTOPPING DISCHARGE	=>	9225 CFS
OVERTOPPING FREQUENCY	=>	500 YR+
OVERTOPPING ELEVATION	=	2736.87 FT
DATE OF SURVEY	=	11/18/08
W.S. ELEVATION AT DATE OF SURVEY	=	2721.40 FT

BM #1 ELEVATION = 2724.83'
N 1003182. E 1327876.
BL STA. 19+62. 73.8' LT.
-L- STA. 16+20.94, 131.3' LT.
8" SPIKE IN ROOT OF 8" WILD CHERRY TREE

8/17/99

5/24/11 - R/W CHANGES AND REMOVAL OF DRIVEWAY ON PARCEL NO.4



SITE 1 CLOSE UP

E/E DENOTES EXCAVATION IN WETLAND

F/F DENOTES FILL IN WETLAND

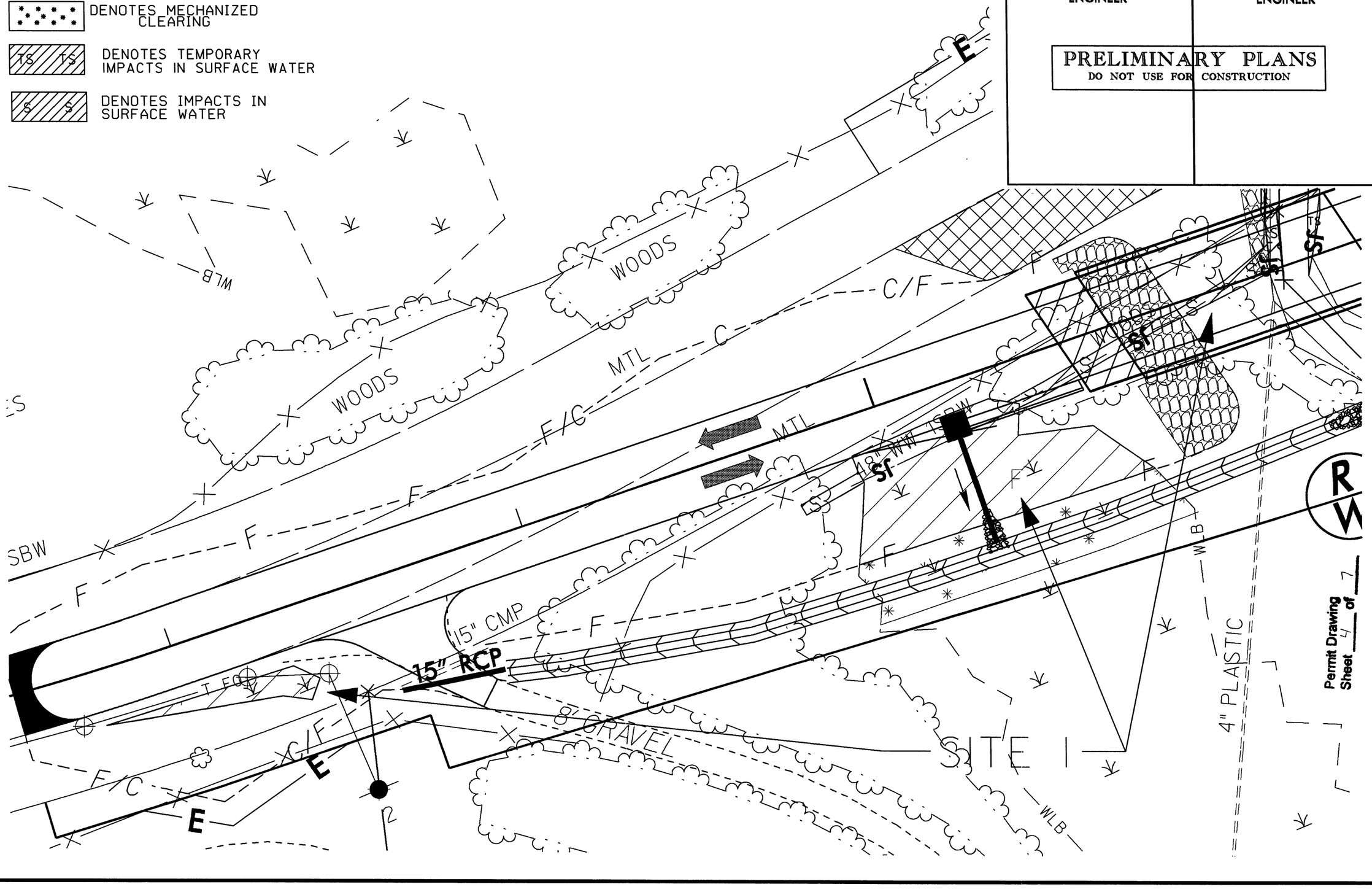
DENOTES MECHANIZED CLEARING

TS/TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S/S DENOTES IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.	
B-4406	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



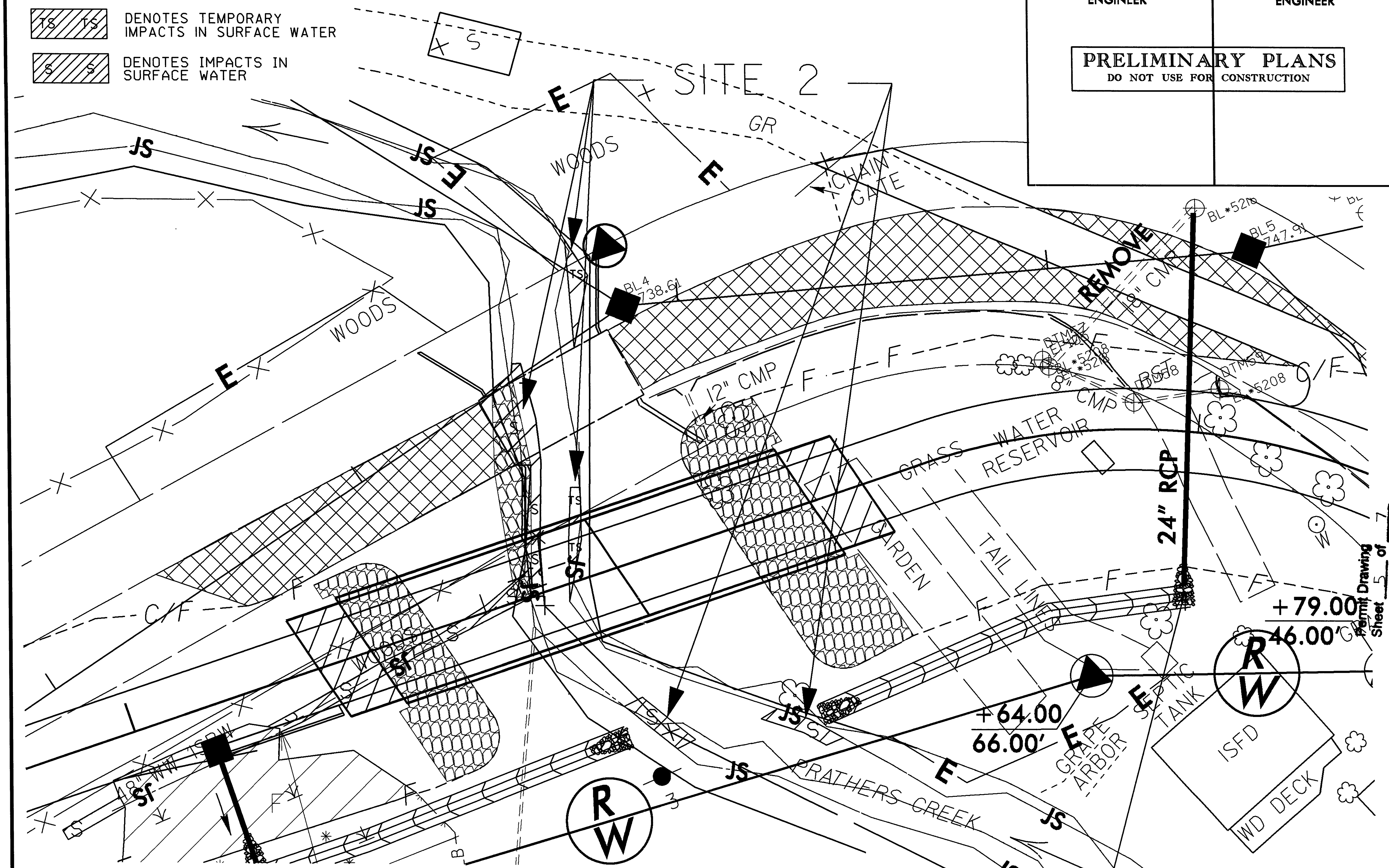
Permit Drawing Sheet 4 of 7

F F	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
S S	DENOTES IMPACTS IN SURFACE WATER

SITE 2 CLOSE UP

PROJECT REFERENCE NO.	SHEET NO.
B-4406	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



Permit Drawing
Sheet 5 of 7

WETLAND PERMIT IMPACT 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	12+77 / 13+35 Rt	Roadway fill	0.01									
	14+81 / 15+66 Rt	Roadway fill	0.04		0.01	0.02				50		
2	16+15 / 16+30 Lt	stream bank stablization								63		
	16+30 Lt	proposed bridge							0.002			
	16+33 Rt	stream bank stablization								18		
	16+52 Lt	existing brg removal							0.002			
	16+73 Rt	stream bank stablization								18		
TOTALS:			0.05		0.01	0.02			0.00	149		

Permit Drawing
Sheet 6 of 7

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

COUNTY
WBS - 33685.1.1 (B-4406)

SHEET 7/22/2011

ATN Revised 3/31/05

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	DOROTHY W. STURGILL	US HWY 221 1750 HWY 88 WEST WEST JEFFERSON NC 28694
3	T. KENNETH BRADY	US HWY 221 PO BOX 277 SPARTA NC 28675

Permit Drawing
Sheet 7 of 7

NCDOT

DIVISION OF HIGHWAYS

ALLEGHANY COUNTY

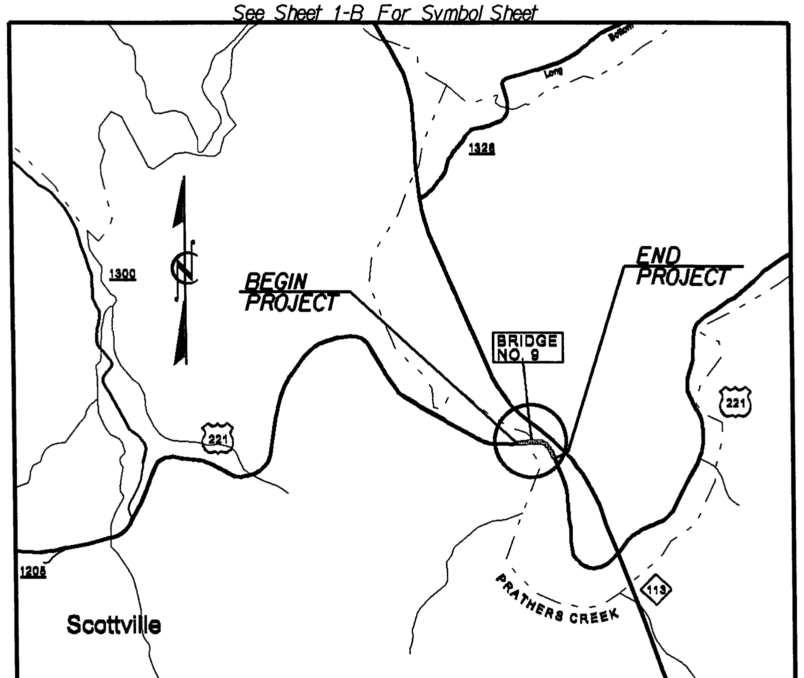
PROJECT: 33685.1.1 (B-4406)

US 221 OVER PRATHERS CREEK

09/08/99

TIP PROJECT: B-4406

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Symbol Sheet



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ALLEGHANY COUNTY

LOCATION: BRIDGE NO. 9 OVER PRATHERS CREEK ON US 221

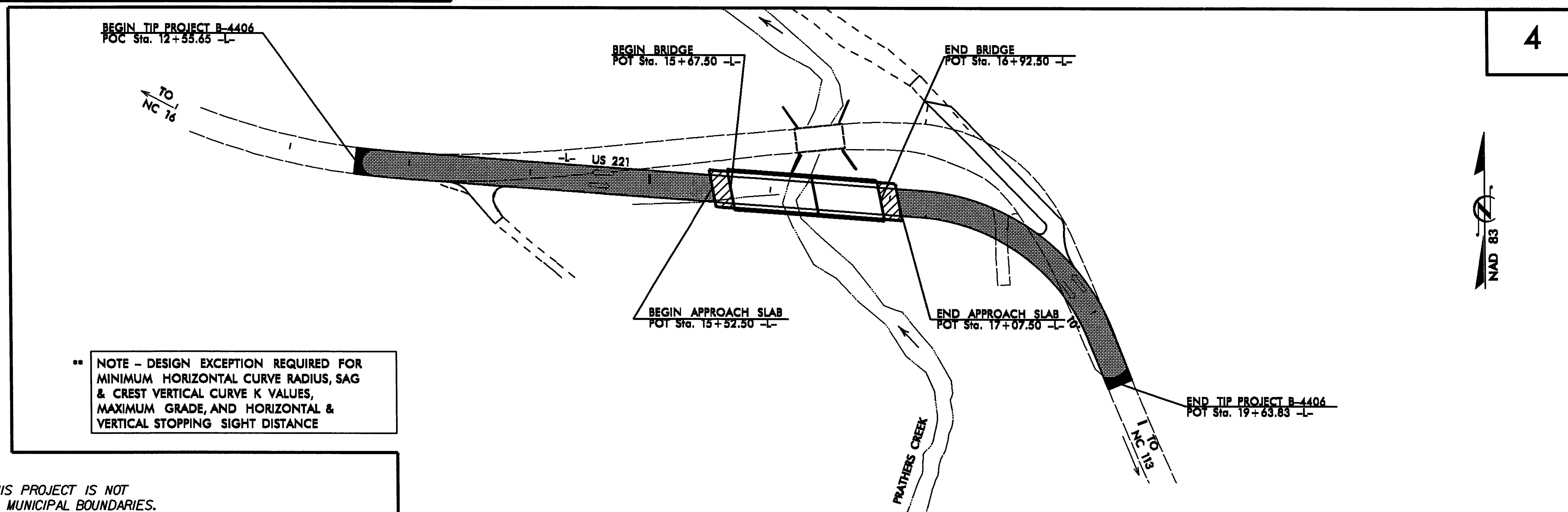
TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4406	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
33685.1.1	BRSTP-221(16)	PE
33685.2.1	BRSTP-221(16)	R/W /UTIL

R/W PLANS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



** NOTE - DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS, SAG & CREST VERTICAL CURVE K VALUES, MAXIMUM GRADE, AND HORIZONTAL & VERTICAL STOPPING SIGHT DISTANCE

THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.

NCDOT CONTACT: K. ZAK HAMIDI, P.E., PROJECT ENGINEER - ROADWAY DESIGN

"CLEARING ON THIS PROJECT SHALL BE ESTABLISHED BY METHOD III ."

CONTRACT:

$$$$SYSTIME$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2012 = 840
ADT 2032 = 1,240
DHV = 9 %
D = 55 %
T = 5 % *
** V = 60 MPH
* TTST 1 % + DUAL 4 %
FUNC CLASS =
RURAL MAJOR COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4406	=	0.110 mi.
LENGTH STRUCTURE TIP PROJECT B-4406	=	0.024 mi.
TOTAL LENGTH TIP PROJECT B-4406	=	0.134 mi.

Prepared In the Office of:
WANG ENGINEERING COMPANY, INC.
CARY, N.C.
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 16, 2011

LETTING DATE:
APRIL 17, 2012

CLIFTON T. REGISTER, P.E.
PROJECT ENGINEER

MATTHEW COPPLE, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SUNGATE DESIGN GROUP, PA

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER
WANG ENGINEERING

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

8/17/99

5/24/11 - R/W CHANGES AND REMOVAL OF DRIVEWAY ON PARCEL NO.4

PROJECT REFERENCE NO.	SHEET NO.
B-4406	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

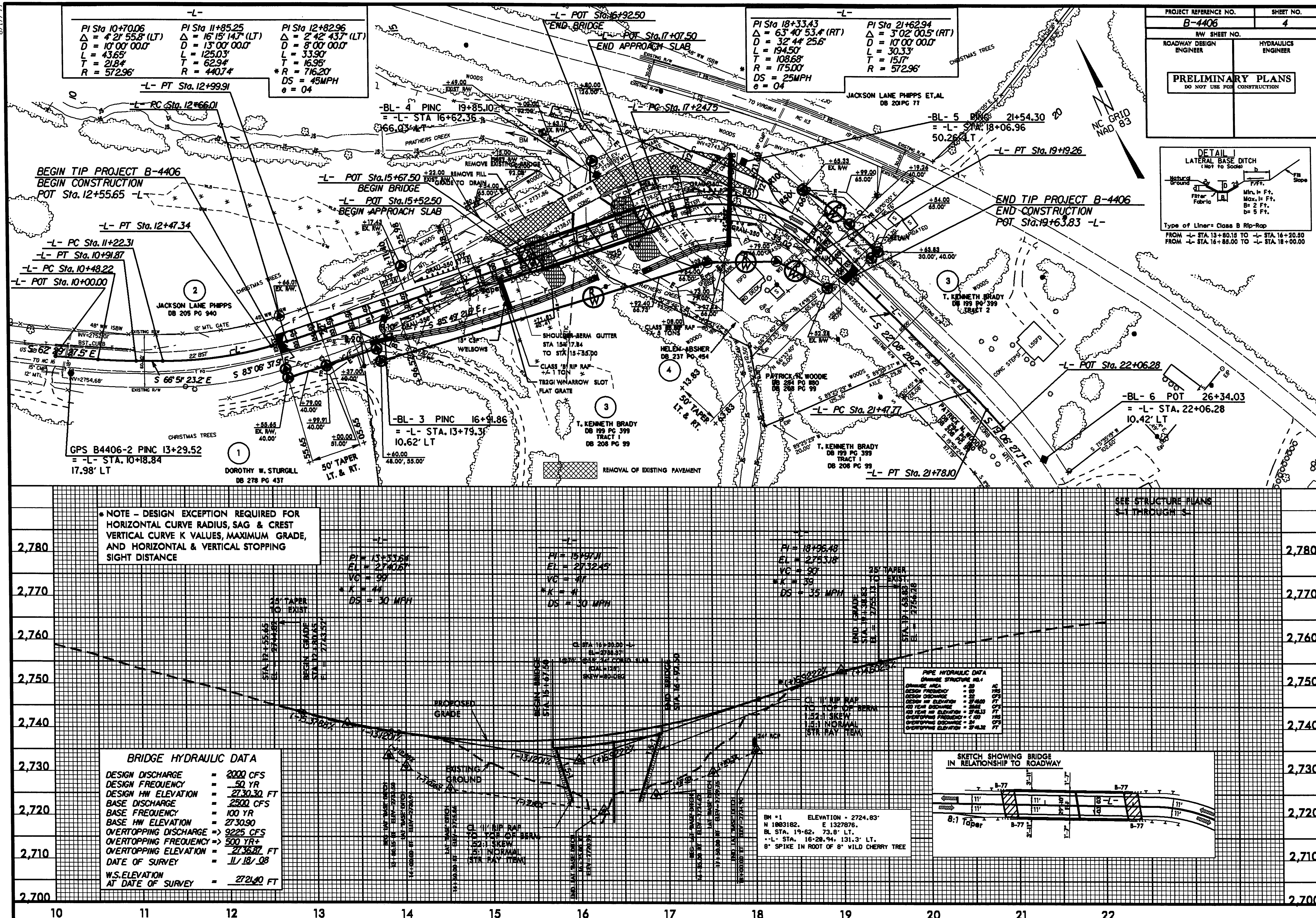
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-

PI Sta 10+70.06	PI Sta 11+85.25	PI Sta 12+82.96
Δ = 4° 21' 55.8" (LT)	Δ = 16° 15' 14.7" (LT)	Δ = 2° 42' 43.7" (LT)
D = 10° 00' 00.0"	D = 13° 00' 00.0"	D = 8° 00' 00.0"
L = 43.65'	L = 125.03'	L = 33.90'
T = 21.84'	T = 62.94'	T = 16.95'
R = 572.96'	R = 440.74'	* R = 716.20'
		DS = 45MPH
		e = 04

-L-

PI Sta 18+33.43	PI Sta 21+62.94
Δ = 63° 40' 53.4" (RT)	Δ = 3° 02' 00.5" (RT)
D = 32° 44' 25.6"	D = 10° 00' 00.0"
L = 194.50'	L = 30.33'
T = 108.68'	T = 15.17'
* R = 175.00'	R = 572.96'
DS = 25MPH	
e = 04	



BRIDGE HYDRAULIC DATA

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DESIGN FREQUENCY	=	50 YR
DESIGN HW ELEVATION	=	2730.30 FT
BASE DISCHARGE	=	2500 CFS
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BASE HW ELEVATION	=	2730.90
OVERTOPPING DISCHARGE	=>	9225 CFS
OVERTOPPING FREQUENCY	=>	500 YR+
OVERTOPPING ELEVATION	=	2736.87 FT
DATE OF SURVEY	=	11/18/08
W.S. ELEVATION AT DATE OF SURVEY	=	2721.40 FT

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.4

DRAINAGE AREA	=	20	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	22	CFS
DESIGN HW ELEVATION	=	2740.00	FT
100 YEAR DISCHARGE	=	28.62	CFS
100 YEAR HW ELEVATION	=	2748.33	FT
OVERTOPPING FREQUENCY	=	< 100	YRS
OVERTOPPING DISCHARGE	=	24	CFS
OVERTOPPING ELEVATION	=	2748.32	FT

BM #1 ELEVATION = 2724.83'
N 1003182. E 1327876.
BL STA. 19+62, 73.8' LT.
-L- STA. 16+20.94, 131.3' LT.
8" SPIKE IN ROOT OF 8" WILD CHERRY TREE

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: NC B-4406 County/parish/borough: Alleghany City: Sparta
Center coordinates of site (lat/long in degree decimal format): Lat. 36.52298° N. Long. 81.18450.0° W.
Universal Transverse Mercator:
Name of nearest waterbody: Prather's Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Prather's Creek
Name of watershed or Hydrologic Unit Code (HUC): 05050001

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 9/9/2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** *"waters of the U.S."* within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☒ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: 50 linear feet: 12 width (ft) and/or acres.
      Wetlands: 0.1 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not Applicable.**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain:

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: **Prather's Creek.**

   Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) General Area Conditions:
   Watershed size: 3 **square miles**
   Drainage area: 20 **acres**
   Average annual rainfall: 48 inches
   Average annual snowfall: 6.4 inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☒ Tributary flows directly into TNW.
   ☐ Tributary flows through **Pick List** tributaries before entering TNW.

   Project waters are **1 (or less)** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **1 (or less)** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain:

   Identify flow route to TNW[5]: direct.
   Tributary stream order, if known: first order.

---

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain:
☒ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: 2 feet
Average depth: 0.1 feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☒ Other. Explain: leaves.		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain: absent.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 0 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime:
Other information on duration and volume:

Surface flow is: **Confined.** Characteristics:

Subsurface flow: **Unknown**. Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☒ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☒ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: seasonal water is typically turbid.
Identify specific pollutants, if known:

---

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width):
- ☒ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:0.1acres

Wetland type. Explain: Riparian.

Wetland quality. Explain: Poor; in agricultural field.

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain:

Surface flow is: **Overland sheetflow**

Characteristics:

Subsurface flow: **Unknown**. Explain findings:

- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **1 (or less)** river miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from TNW.

Flow is from: **No Flow.**

Estimate approximate location of wetland as within the **50 - 100-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☒ Riparian buffer. Characteristics (type, average width):
- ☒ Vegetation type/percent cover. Explain: herbacious 100%.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **1**

Approximately (0.1) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
yes	0.1		

Summarize overall biological, chemical and physical functions being performed: wetland has been manipulated to drain agricultural field.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☒ TNWs: 50linear feet12width (ft), Or, acres.
   - ☒ Wetlands adjacent to TNWs: 0.1 acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: score 25.75 - intermittent.
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☒ Tributary waters: **50** linear feet **1** width (ft).
- ☐ Other non-wetland waters: a cres.
  Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
   - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.1** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   - ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   - ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   - ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet widt h (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): li near feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): li near feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: .
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☐ National wetlands inventory map(s). Cite name: .
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☐ Photographs: ☐ Aerial (Name & Date): .
  - or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .