



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

November 17, 2011

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue
Asheville, NC 28801

ATTN: Mr. Lori Beckwith
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permits 23 and 33** for the proposed replacement of Bridge No. 107 over the Tuckasegee River on SR 1797 in Jackson County, Federal Aid Project No. BRZ-1731(6); Division 14; TIP No. B-3861; WBS 33308.1.1

Dear Ms. Beckwith:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 107, a 144-foot single span bridge over the Tuckasegee River on Wayehutta Road (SR 1731), with a 157-foot long three span bridge. The new bridge will be located on the existing alignment. Traffic will use a temporary detour bridge during construction. There will be 60 ft² of permanent stream impacts from bridge bents, 0.12 acre of temporary impacts from temporary work pads, 20 ft² of temporary impacts from a temporary on site detour bridge and 10 ft² of temporary impacts from a temporary work bridge.

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 attachment, 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.

Please see enclosed copies of the Pre-Construction Notification (PCN) Form, stormwater management plan, permit drawings and design plans. The Categorical Exclusion (CE) was completed on May 11, 2011. Documents were distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of July 17, 2012 and a review date of May 29, 2012; however the let date may advance as additional funding becomes available.

If you have any questions or need additional information, please call Brett Feulner at (919) 707-6116. A copy of this permit application and distribution list will be posted on the NCDOT Website at: <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>

Sincerely,

for 

Gregory J. Thorpe, Ph.D., Branch 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:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 23 & 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" 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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge no. 107 on SR 1731 over Tuckasegee River
2b. County:	Jackson
2c. Nearest municipality / town:	Cullowhee
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-3861

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6000
3g. Fax no.:	(919) 212-5785
3h. Email address:	bmfeulner@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
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:	<i>not applicable</i>
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):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.31222 (DD.DDDDDD) Longitude: -81.165463 (-DD.DDDDDD)
1c. Property size:	2 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Tuckasegee River
2b. Water Quality Classification of nearest receiving water:	WS-III, B, Tr
2c. River basin:	Little Tennessee
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: Traffic currently uses a steel truss, fracture critical two lane bridge with a roadway width of 20 feet. The land use surrounding the proposed bridge replacement is rural in nature and consists of residential, forestland and agricultural land.	
3b. List the total estimated acreage of all existing wetlands on the property: 0	
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 fracture critical structure that is approaching the end of its useful life.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a single span, 144-foot long, 20-foot wide steel truss bridge with a three span, 157-foot, long, 33-foot wide bridge. Traffic will use an onsite detour during construction. Construction will require the use of work pads and a work bridge for construction of the new bridge and removal of the old bridge.	
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:	<input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): NCDOT	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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
2g. Total wetland impacts					0 Permanent 0 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 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temporary Fill	Tuckasegee River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	90	0.12 acre
Site 2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Fill*	Tuckasegee River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	90	60 square feet (0.001 acre)
Site 3 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Fill	Tuckasegee River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	90	20 square feet (0.0005 acre)
Site 4 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Fill	Tuckasegee River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	90	10 square feet (0.0002 acre)
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <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 stream and tributary impacts						Perm: 0.001 acre Temp: ~0.12 acre

3i. Comments: *Replacement bridge bents are composed of two interior bents with 3-36" drilled piers in the Tuckasegee River

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 type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> 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?	<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.

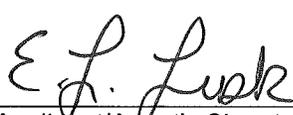
6a. Project is in which protected basin?			<input type="checkbox"/> Neuse <input type="checkbox"/> Catawba	<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman	<input type="checkbox"/> Other:
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required? <input type="checkbox"/> Yes <input type="checkbox"/> No	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		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <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		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. No deck drains will discharge into the Tuckasegee River. Design Standards for Sensitive Watersheds. The new bridge elevation will be raised approximately 1-foot to prevent any changes to upstream flood potential.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Best Management Practices will be followed during construction. Construction will be phased such that no more than half of the channel will be blocked by the work pads. A moratorium for in stream construction during the trout spawning period of October 15 to April 15 will be implemented.		
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 If no, explain: The only permanent impacts that occur are from bridge bents. All other impacts are temporary.	
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: 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.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
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):	0 square feet	
4e. Riparian wetland mitigation requested:	0 acres	
4f. Non-riparian wetland mitigation requested:	0 acres	
4g. Coastal (tidal) wetland mitigation requested:	0 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: NA	<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	
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 checked="" type="checkbox"/> 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):	<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
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No NA
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No NA

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. Due to the minimal transportation impacts resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect and 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?	<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 type="checkbox"/> Raleigh <input checked="" type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? USFWS web page of T&E species for Jackson County NHP database of elemental occurrences. Surveys have been conducted for all species known to occur in Jackson County for the CE. All species originally received a Biological Conclusion of "No Effect" in the CE. Following the completion of the CE, the USFWS requested that the NCDOT change the biological conclusion for the Appalachian elktoe to "May affect, not likely to adversely affect." A concurrence request (attached) has been sent to USFWS service and concurrence is pending.		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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)?	<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? MOA between NCDOT and SHPO, dated October 8, 2001		
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: By building the new bridge in the same location as the old bridge and raising the elevation, no impacts are expected to occur to upstream flooding.		
8c. What source(s) did you use to make the floodplain determination? NCDOT Hydraulics Unit Coordination w/ FEMA		
<u>Dr. Gregory J. Thorpe, Ph D</u> Applicant/Agent's Printed Name	 _____ Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	17 11/15/2011 Date



General Project Information

Project No.:	B-3861	Date:	8/12/2011
City/Town:	Jackson County	Designer:	PA
County(ies):	Little Tennessee	Project Manager:	JWT
River Basin(s):	Tuckasegee R.	CAMA County?	no
Primary Receiving Water:		TVA County?	yes
NCDWQ Surface Water Classification for Primary Receiving Water		NCDWQ Stream Index:	
Supplemental:		WS-III Protected B Tr	

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?	no

Description:	
Buffer Rules in Effect?	no
Buffer Rules:	

Existing Site	
Description of Existing Project Area:	Rural/sparse residential
Average Daily Traffic (existing):	
Existing Cross Section:	2-lane 2-way
Surrounding Land Use:	
General Comments:	Existing bridge is a truss-type bridge with direct discharge into the water.

Project Description	
Description of Proposed Project:	Bridge replacement with minimal approach work
Average Daily Traffic (proposed):	
Proposed Cross-Section:	2-lane 2-way
Interchange Modification:	
Median Type:	
Terminus:	
Terminus:	
Project Length (lin. miles/feet):	
Added Impervious Area (ac.):	

General Comments:	Deck drains have been omitted over the Tuckasegee R. The project has one pipe outlet collecting a small amount of bridge/road discharge which is discharged on the abutment rip rap; terrain and site conditions do not permit any treatment options (roads run along both banks). There are no ditches associated with this project. There are no wetlands on the project, and no permanent surface water impacts (other than proposed bridge interior bents). Temporary impacts associated with temp. work pads are shown on permit dwgs.
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

November 18, 2011

Mr. Brian Cole
Ecological Services Supervisor
US Fish and Wildlife Service
160 Zillicoa Street
Asheville, NC 28801

SUBJECT: **Section 7 Concurrence Request** for the proposed replacement of Bridge No. 107 over Tuckasegee River on SR 1797 (Wayehutta Road) in Jackson County. Federal Project No. BRZ-1731(6), WBS Element 33308.1.1, Division 14, T.I.P. No. B-3861.

Dear Mr. Cole:

The purpose of this letter is to provide updated project design information and to request concurrence from the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*) (ESA). Please see the enclosed vicinity map, Appalachian elktoe survey memo, and permit drawings.

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 107, a 144-foot single span bridge over the Tuckasegee River on Wayehutta Road (SR 1731), with a 157-foot long three span bridge. The new structure will be located on the existing alignment. The replacement structure will require two interior bents in the Tuckasegee River that will be composed of 3-36" drilled piers for a total of 60 ft² of permanent impacts. Wayehutta Road is a dead end road, therefore an offsite detour is not feasible. Traffic will use a temporary detour structure downstream of the existing structure during construction. Impacts from the temporary detour structure will total 20 ft² of temporary impacts in the Tuckasegee River. Temporary rock causeways and a temporary work bridge will be required for the removal of the existing structure and the construction of the proposed structure. The work bridge will total 10 ft² of temporary impacts in the Tuckasegee River. The temporary work pads will total 0.12 acre of temporary impacts in the Tuckasegee River.

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE) and Proposed Threatened (PT) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of September 22, 2010, the

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-717-6100
FAX: 919-212-5785

WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
1020 BIRCH RIDGE DRIVE
RALEIGH NC, 27610-4328

USFWS lists six federally protected species, and one species listed as threatened due to similarity of appearance for Jackson County (Table 1). A biological conclusion for the bog turtle is not required because it is listed as threatened due to similarity of appearance. However, there is no suitable habitat present within the project area for the bog turtle.

Table 1. Federally Protected Species for Jackson County.

Common Name	Scientific Name	Status	Habitat Present	Biological Conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	T(S/A)	No	Not Required
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	E	No	No Effect
Indiana bat	<i>Myotis sodalis</i>	E	No	No Effect
Appalachian elktoe	<i>Alasmidonta raveneliana</i>	E	No	MANLTAA
Small whorled pogonia	<i>Isotria medeoloides</i>	T	No	No Effect
Swamp pink	<i>Helonias bullata</i>	T	No	No Effect
Rock gnome lichen	<i>Gymnoderma lineare</i>	E	No	No Effect

T(S/A) – Threatened due to similarity of appearance

E - Endangered

T - Threatened

MANLTAA – May Affect, Not Likely to Adversely Affect

There is no habitat present within the construction limits of this project for Carolina northern flying squirrel, Indiana bat, small whorled pogonia, swamp pink or rock gnome lichen. Therefore, a Biological Conclusion of “**No Effect**” was rendered for these five species.

The Appalachian elktoe occurs in two river basins in NC: the Little Tennessee and French Broad River basins. The Tuckasegee River is located within the Little Tennessee River Basin. Appalachian elktoe mussel populations typically occur in coarse sandy and gravelly substrates often mixed with cobble and boulders as well as in cracks of bedrock and in relatively silt-free areas with moderate flow. A review of the NC Natural Heritage Program database (December 2010) indicated that there are no known occurrences of the federally protected Appalachian elktoe within the project study area.

Possible effects to the downstream critical habitat for the Appalachian elktoe include construction runoff, sedimentation, fuel/ fluid spills, and road runoff pollutants. The project has been designed to minimize possible effects to the downstream critical habitat. Design Standards for Sensitive Watersheds will be implemented to reduce construction runoff from reaching the occupied habitat. Additionally, the NCDOT’s Best Management Practices for the protection of surface waters will be followed to minimize impacts to the critical habitat. Construction will be phased such that no more than half of the channel will be blocked by the work pads. Construction equipment will be inspected daily to minimize the risk of accidental contamination of the waterway due to leaks. NCDOT Division 14 anticipates that the removal of the old bridge can be completed without dropping components into the Tuckasegee River. If deemed necessary by the Division, measures to catch dropping debris, including the use of netting or tarps to catch falling debris, will be implemented.

NCDOT believes that the above mentioned minimization measures will reduce the possible effects to the Appalachian elktoe to a discountable level. Therefore, the NCDOT concludes that the proposed project will have a biological conclusion of "**May Affect, Not Likely to Adversely Affect**" for the Appalachian elktoe. We believe that the requirements of Section 7(a)(2) of the ESA have been satisfied and hereby request your concurrence.

If you have any questions, please contact Brett Feulner at bmfeulner@ncdot.gov or (919) 707-6116.

Sincerely,



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

Cc: w/out any attachments:

Ms. Lori Beckwith, USACE
Natalie Lockhart, PDEA Project Development Engineer
Logan Williams, NCDOT Natural Environment Unit
File B-3861



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

August 8, 2011

Memorandum to: Brett Feulner, Environmental Specialist
Natural Environment Unit Project Management Group

From: J. Michael Sanderson, Environmental Specialist
Natural Environment Unit, Biological Surveys Group

Subject: Protected species Biological Conclusion update for the Appalachian elktoe (*Alasmidonta raveneliana*) for the proposed replacement of Bridge 107 on SR 1731 over Tuckasegee River, Jackson County, TIP Project # B-3861.

This letter is being submitted as a result of the request by Jason Mays of the U.S. Fish and Wildlife Service (USFWS) to change the Biological Conclusion for Appalachian elktoe (*Alasmidonta raveneliana*) for the referenced project **from No Effect to May Affect, Not Likely To Adversely Affect.**

The North Carolina Department of Transportation proposes to replace Bridge 107 on SR 1731 over the Tuckasegee River (subbasin 040402) in Jackson County. The Tuckasegee River is located in the Little Tennessee River basin (HUC 0601020301). The federally endangered Appalachian elktoe is listed by the U.S. Fish and Wildlife Service for Jackson County.

Appalachian elktoe mussel populations typically occur in coarse sandy and gravelly substrates often mixed with cobble and boulders as well as in cracks of bedrock and in relatively silt-free areas with moderate flow. The Appalachian elktoe occurs in two river basins in NC: the Little Tennessee and French Broad River basins. A review of the NC Natural Heritage Program database (December 2010 and August 2011) indicated that there are no known occurrences of the federally protected Appalachian elktoe within the project study area. Furthermore, mussel surveys were conducted at the project site, B-3861, on 8/17/04 and 1.6 miles upstream (5/22/02) and 2 miles upstream of the project site (8/17/04) and no Appalachian elktoe were found. In correspondence with Steve Fraley of the North Carolina Wildlife Resources Commission he states: "Cold, hypolimnetic releases and a flow regime that follows peaking power production compromises habitat for Appalachian elktoe" in this stretch of the Tuckasegee. Personal communication with Bryan Tompkins, USFWS to K.M. Lynch on December 14, 2010 indicated that the closest known population of Appalachian elktoe to this project is approximately 4.6 river miles downstream in the Tuckasegee River. The dam which creates a physical barrier to movement is located 0.7 miles downstream of the project. Critical Habitat for the Appalachian elktoe starts below the dam at SR 1002.

The project planning engineer has stated that the bridge will have drilled piers. Due to the fact that NCDWQ and NCWRC have classified the Tuckasegee River as trout waters, the

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
NATURAL ENVIRONMENT UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC, 27699-1598

TELEPHONE: 919-431-2000
FAX: 919-431-2001

WEBSITE: WWW.NCDOT.ORG

LOCATION:
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH -
ENVIRONMENTAL RESOURCE CENTER
4701-116 ATLANTIC AVENUE
RALEIGH NC, 27604

sedimentation and erosion control measures shall adhere to the Design Standards in Sensitive Watersheds, and there is a moratorium prohibiting in-stream work and land disturbance within the 25-foot trout buffer from October 15 to April 15 to protect the egg and fry stages of trout.

Although there is a dam creating a physical barrier between downstream populations of Appalachian elktoe, the biological conclusion for Appalachian elktoe is **May Affect- Not Likely to Adversely Affect**. This biological conclusion was requested by the US Fish and Wildlife Service because of the construction method of drilled piers and the remote possibility of sedimentation which could be detrimental to downstream populations of mussels. Design Standards in Sensitive Watersheds (described below) will be implemented for this project in order to minimize the possibility of increased sedimentation caused by this project.

NCDOT DESIGN STANDARDS IN SENSITIVE WATERSHEDS

The Department of Transportation will adhere to the following guidelines when operating within sensitive watersheds.

A. Erosion and sedimentation control measures, structures, and devices within a sensitive watershed shall be so planned, designed and constructed to provide protection from the runoff of the 25 year storm which produces the maximum peak rate of runoff as calculated according to procedures in the "Erosion and Sediment Control Planning and Design Manual" or according to procedures adopted by the North Carolina Department of Transportation

B. Sediment basins within sensitive watershed shall be designed and constructed such that the basin will have a settling efficiency of at least 70 percent for the 40 micron (0.04mm) size soil particle transported into the basin by the runoff of the two-year storm which produces the maximum peak rate of runoff as calculated according to procedures in the "Erosion and Sediment Control Planning and Design Manual" or according to procedures adopted by the North Carolina Department of Transportation.

C. Erosion and sedimentation control measures will include the use of flocculants in appropriate areas to improve the settling of sediment particles and reduce turbidity levels in construction runoff. The use of flocculants will conform to Division of Water Quality approved product list.

D. Newly constructed open channels in sensitive watersheds shall be designed and constructed with side slopes no steeper than two horizontal to one vertical if a vegetative cover is used for stabilization unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other acceptable ditch liners. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.

E. Provide ground cover sufficient to restrain erosion must be provided for any portion of a land-disturbing activity in a sensitive watershed within 14 calendar days following completion of construction or development.

cc: Jason Mays, USFWS, Asheville Office.
Natalie Lockhart, PDEA Bridge Group

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cc: Jason Mays, USFWS, Asheville Office.
Natalie Lockhart, PDEA Bridge Group

09/08/99

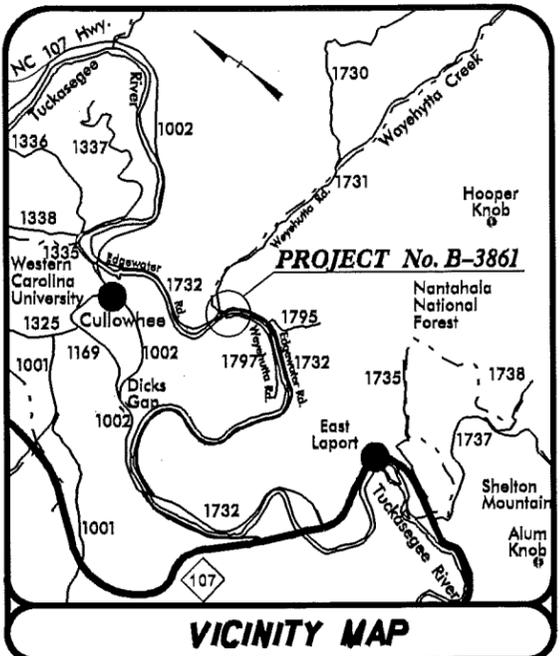
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3861	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33308.1.1	BRZ-1731 (6)	P.E.	
		RAW & UTILITIES	
		CONSTRUCTION	

CONTRACT: 33308.1.1 TIP PROJECT: B-3861



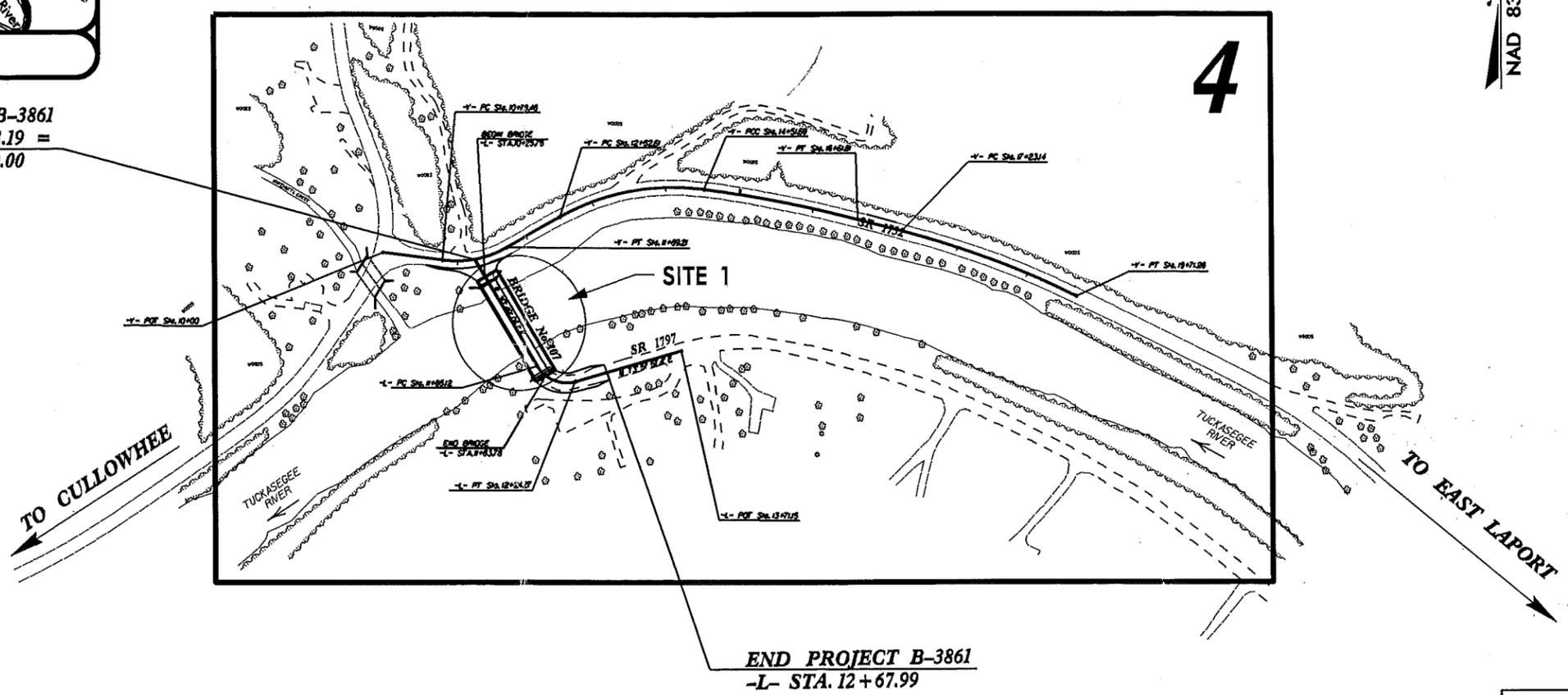
BEGIN PROJECT B-3861
 -Y- POC Sta. 11+23.19 =
 -L- POT Sta. 10+00.00

JACKSON COUNTY

LOCATION: REPLACEMENT OF BRIDGE No. 107 ON SR 1797
 OVER TUCKASEGEE RIVER.

TYPE OF WORK: PAVING, DRAINAGE, GUARDRAIL, STRUCTURE.

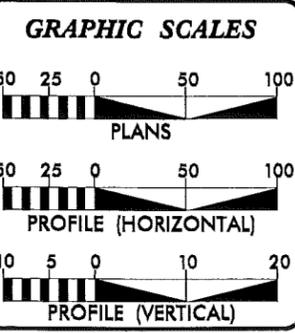
WETLAND/SURFACE WATER PERMIT DRAWINGS



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

Permit Drawing
 Sheet 1 of 6

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2010 =	320
ADT 2030 =	560
DHV =	10 %
D =	60 %
T =	4 % *
V =	15 MPH
*TTST =	2% DUAL = 2%
FUNC. CLASS. =	LOCAL
SUB-TIER DESIGN	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT No. B-3861 =	0.021 Miles.
LENGTH STRUCTURE TIP PROJECT No. B-3861 =	0.030 Miles.
TOTAL LENGTH TIP PROJECT No. B-3861 =	0.051 Miles.

NOTE: THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: June 15, 2011	J. S. GOODNIGHT, PE PROJECT ENGINEER
LETTING DATE: JULY 17, 2012	S. D. KENDALL, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

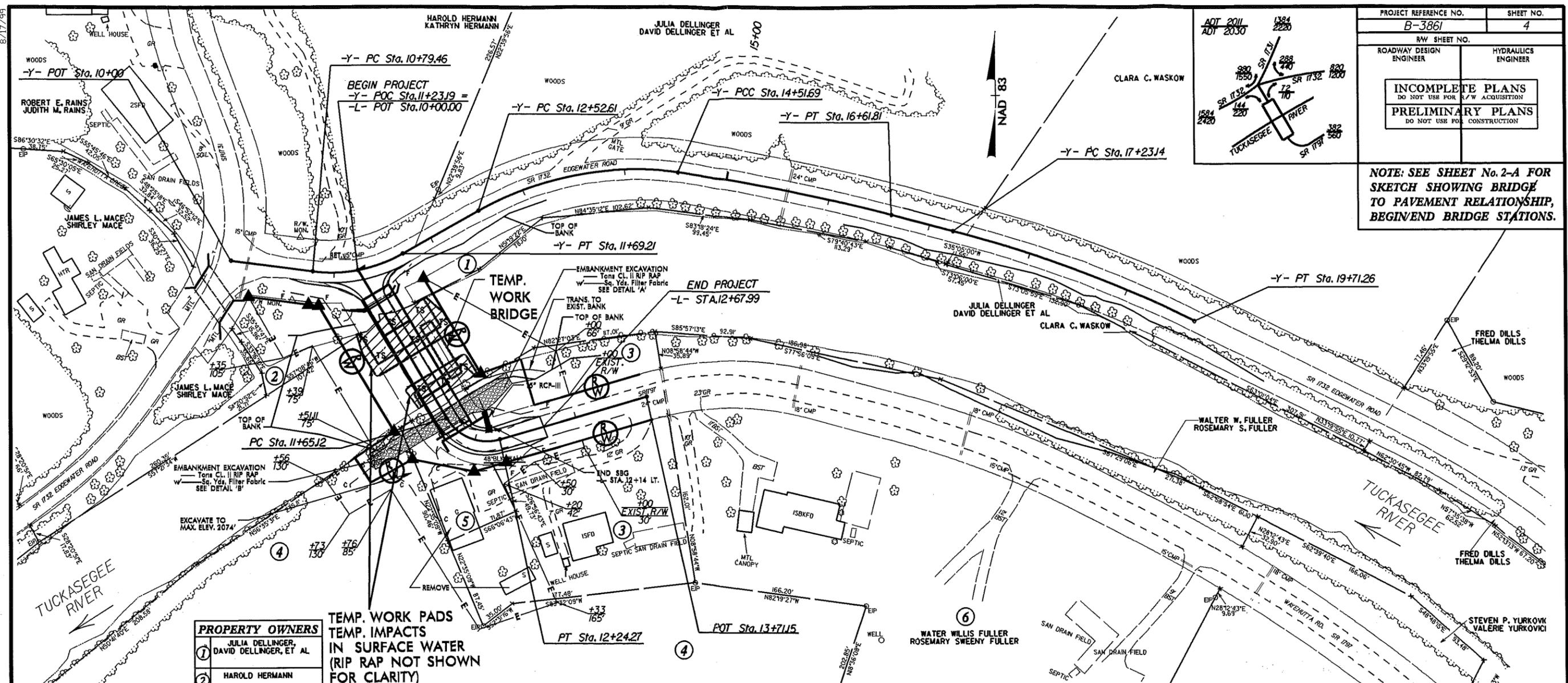
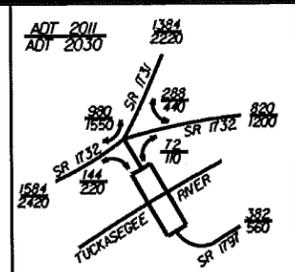
SIGNATURE: _____ P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

STATE HIGHWAY DESIGN ENGINEER

SYSTEMS
 DON
 USER NAME

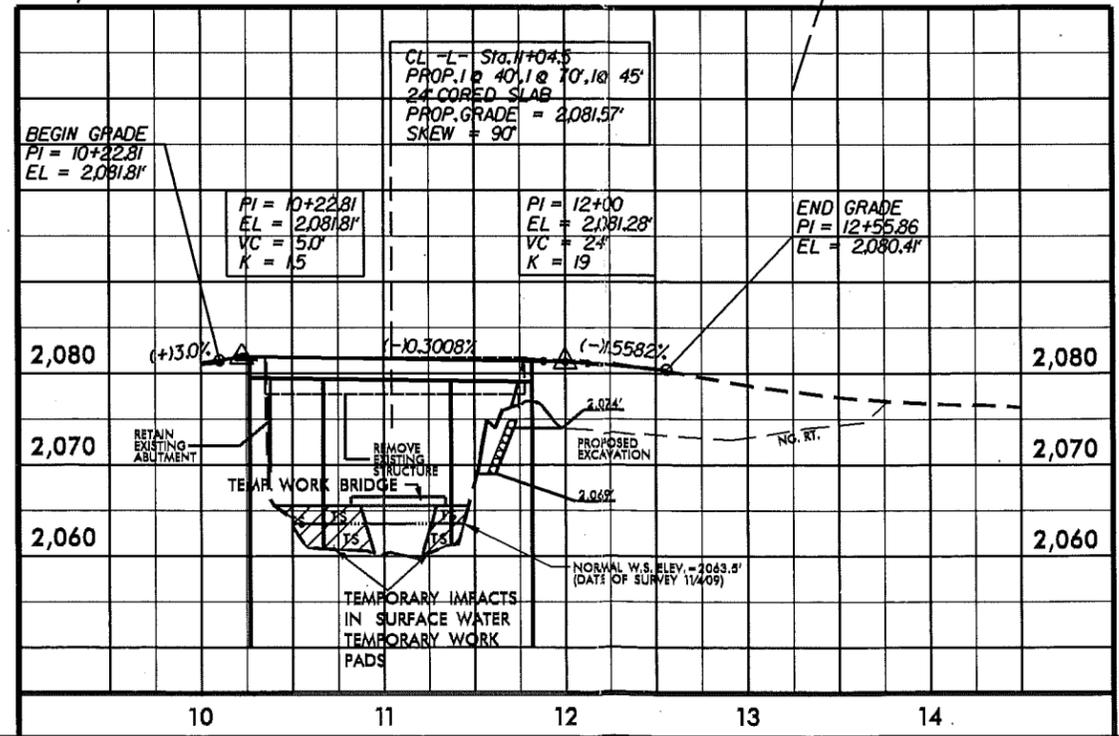
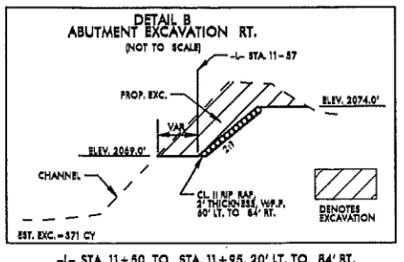
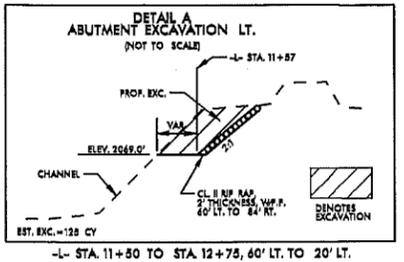
NOTE: SEE SHEET No. 2-A FOR SKETCH SHOWING BRIDGE TO PAVEMENT RELATIONSHIP, BEGIN/END BRIDGE STATIONS.



PROPERTY OWNERS

①	JULIA DELLINGER, DAVID DELLINGER, ET AL
②	HAROLD HERMANN
③	FRANK J. BRYSON, Jr.
④	CLYDE L. BRYSON

**TEMP. WORK PADS
TEMP. IMPACTS
IN SURFACE WATER
(RIP RAP NOT SHOWN
FOR CLARITY)**

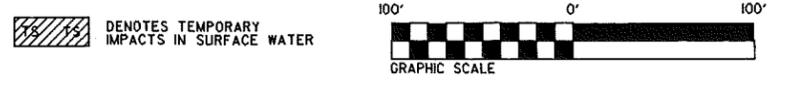


BRIDGE HYDRAULIC DATA
Bridge No. 107

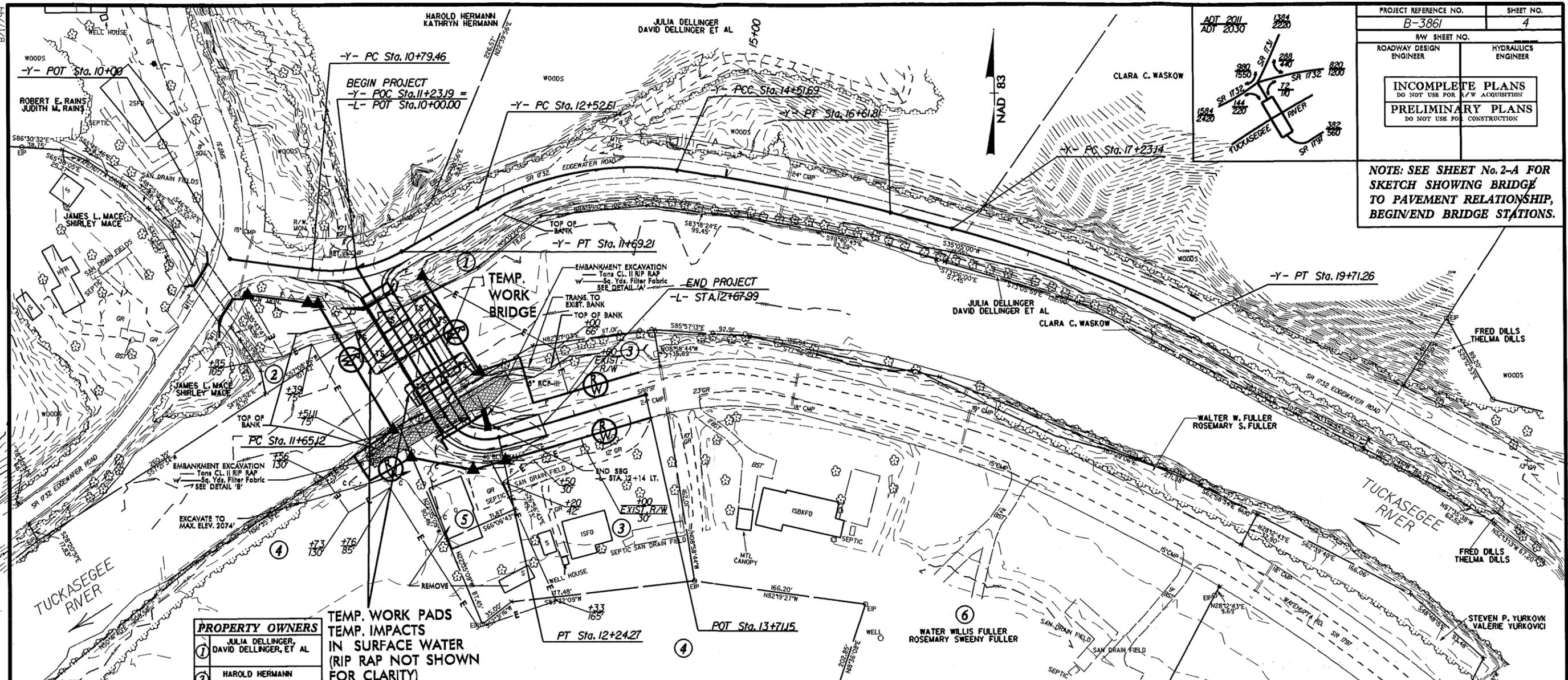
DESIGN DISCHARGE	= 22,620 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 2,081.27 FT
BASE DISCHARGE	= 28,985 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 2,082.17 FT
OVERTOPPING DISCHARGE	= 20,000 CFS
OVERTOPPING FREQUENCY	= 25 + YR
OVERTOPPING ELEVATION	= 2,078.0 FT

NOTE: WATER LEVEL WILL FLUCTUATE BASED ON RELEASE RATE FROM DAM UPSTREAM. CONTRACTOR WILL NEED TO COORDINATE WITH OWNER OF DAM FOR TIME AND RELEASE RATE.

Permit Drawing
Sheet 2 of 6



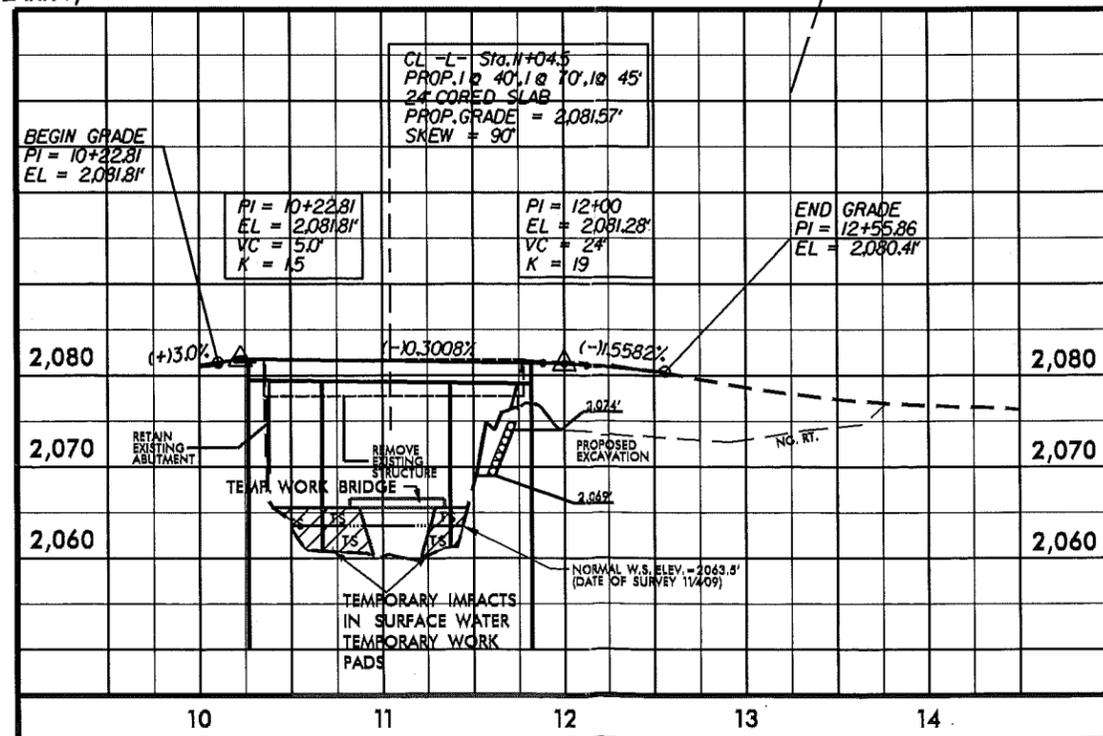
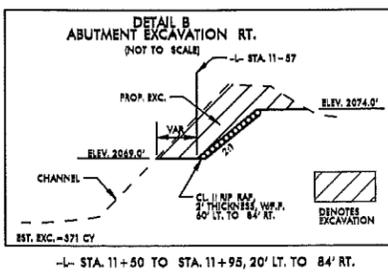
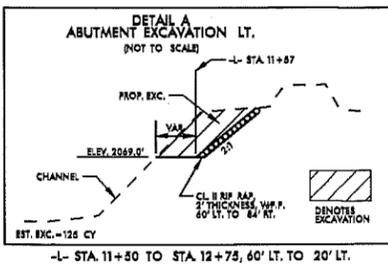
NOTE: SEE SHEET No. 2-A FOR SKETCH SHOWING BRIDGE TO PAVEMENT RELATIONSHIP, BEGIN/END BRIDGE STATIONS.



PROPERTY OWNERS

1	JULIA DELLINGER, DAVID DELLINGER, ET AL
2	HAROLD HERMANN
3	FRANK J. BRYSON, JR.
4	CLYDE L. BRYSON

**TEMP. WORK PADS
TEMP. IMPACTS
IN SURFACE WATER
(RIP RAP NOT SHOWN
FOR CLARITY)**

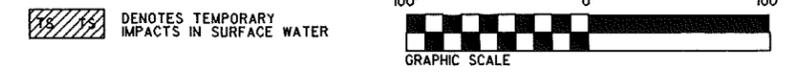


BRIDGE HYDRAULIC DATA
Bridge No. 107

DESIGN DISCHARGE	= 22,620 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 2,081.27 FT
BASE DISCHARGE	= 28,985 CFS
BASE FREQUENCY	= 100 YR
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OVERTOPPING ELEVATION	= 2,078.0 FT

NOTE: WATER LEVEL WILL FLUCTUATE BASED ON RELEASE RATE FROM DAM UPSTREAM. CONTRACTOR WILL NEED TO COORDINATE WITH OWNER OF DAM FOR TIME AND RELEASE RATE.

Permit Drawing
Sheet 3 of 6



WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW Impacts (ac)	Temp. SW Impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	11+00-L-	Temp. Work Pads						0.12			88	
TOTALS:								0.12			88	

Notes:

1. Permanent Impact due to proposed bridge substructure: 60 sq. ft.
2. Temporary Impact for on-site detour bridge substructure: 20 sq. ft.
3. Temporary Impact for temporary work bridge: 10 sq. ft.

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 Location: Brg. No. 107 on SR 1797
 JACKSON COUNTY

WBS - 33308.1.1 (B-3861)

SHEET 1

6 of 6

8/12/2011

09/08/99

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

JACKSON COUNTY

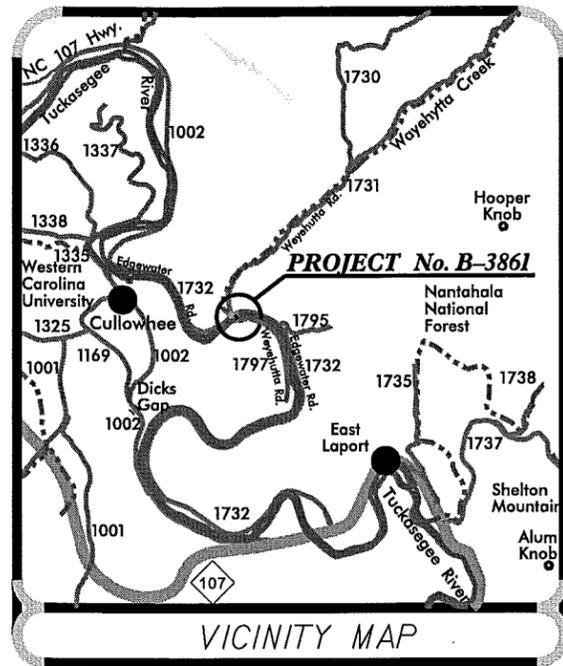
**LOCATION: REPLACEMENT OF BRIDGE No. 107 ON SR 1797
OVER TUCKASEGEE RIVER.**

TYPE OF WORK: PAVING, DRAINAGE, GUARDRAIL, STRUCTURE.

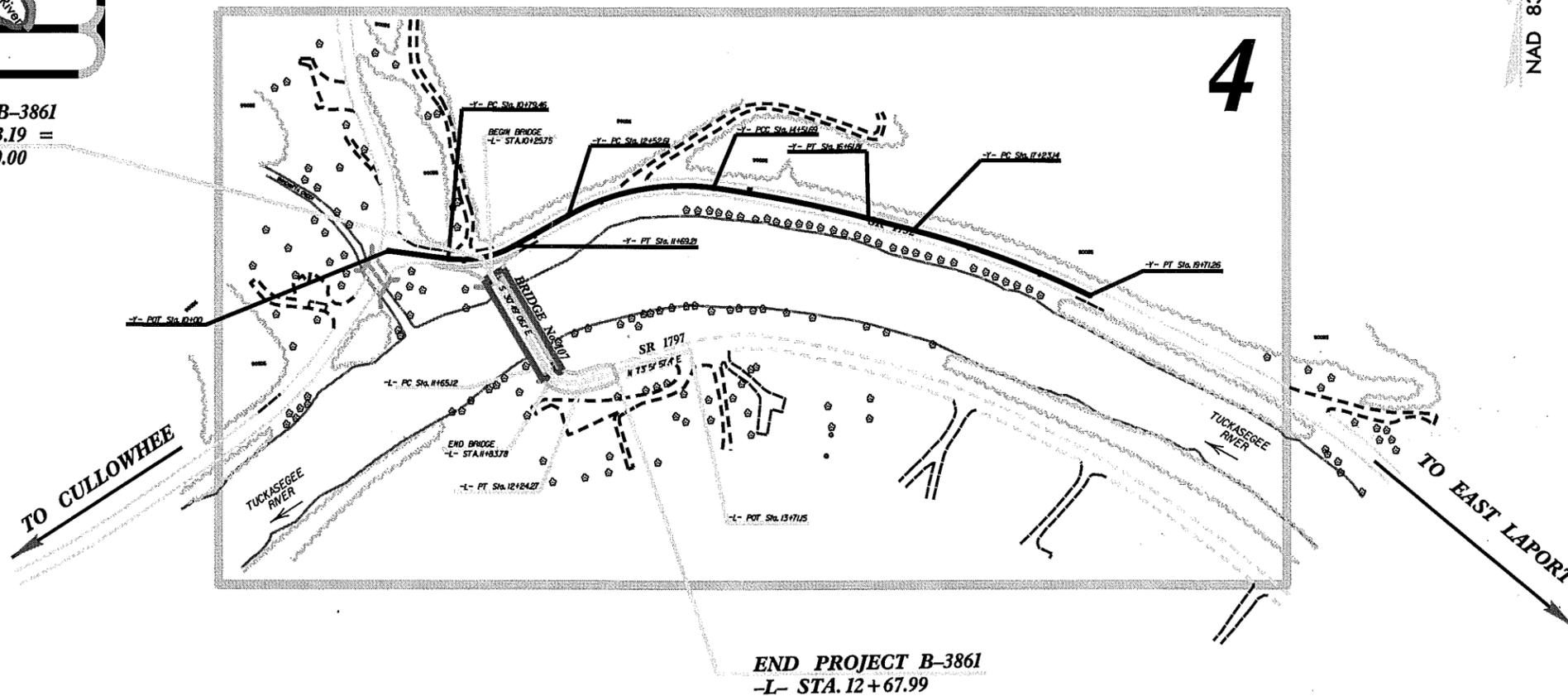
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3861	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
33308.1.1	BRZ-1731 (6)	P.E. RW & UTILITIES CONSTRUCTION	

TIP PROJECT: B-3861

CONTRACT: 33308.1.1

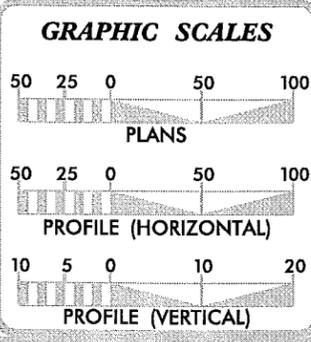


BEGIN PROJECT B-3861
 -Y- POC Sta. 11+23.19 =
 -L- POT Sta. 10+00.00



**CLEARING ON THIS PROJECT SHALL BE PERFORMED
TO THE LIMITS ESTABLISHED BY METHOD _____**

**PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION**



DESIGN DATA

ADT 2010 =	320
ADT 2030 =	560
DHV =	10 %
D =	60 %
T =	4 % *
V =	15 MPH
*TTST =	2% DUAL = 2%
FUNC. CLASS. =	LOCAL
SUB-TIER DESIGN	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT No. B-3861 =	0.021 Miles.
LENGTH STRUCTURE TIP PROJECT No B-3861 =	0.030 Miles.
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ANY MUNICIPAL BOUNDARIES.**

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: June 25, 2011	J. S. GOODNIGHT, PE PROJECT ENGINEER
LETTING DATE: JULY 17, 2012	S. D. KENDALL, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

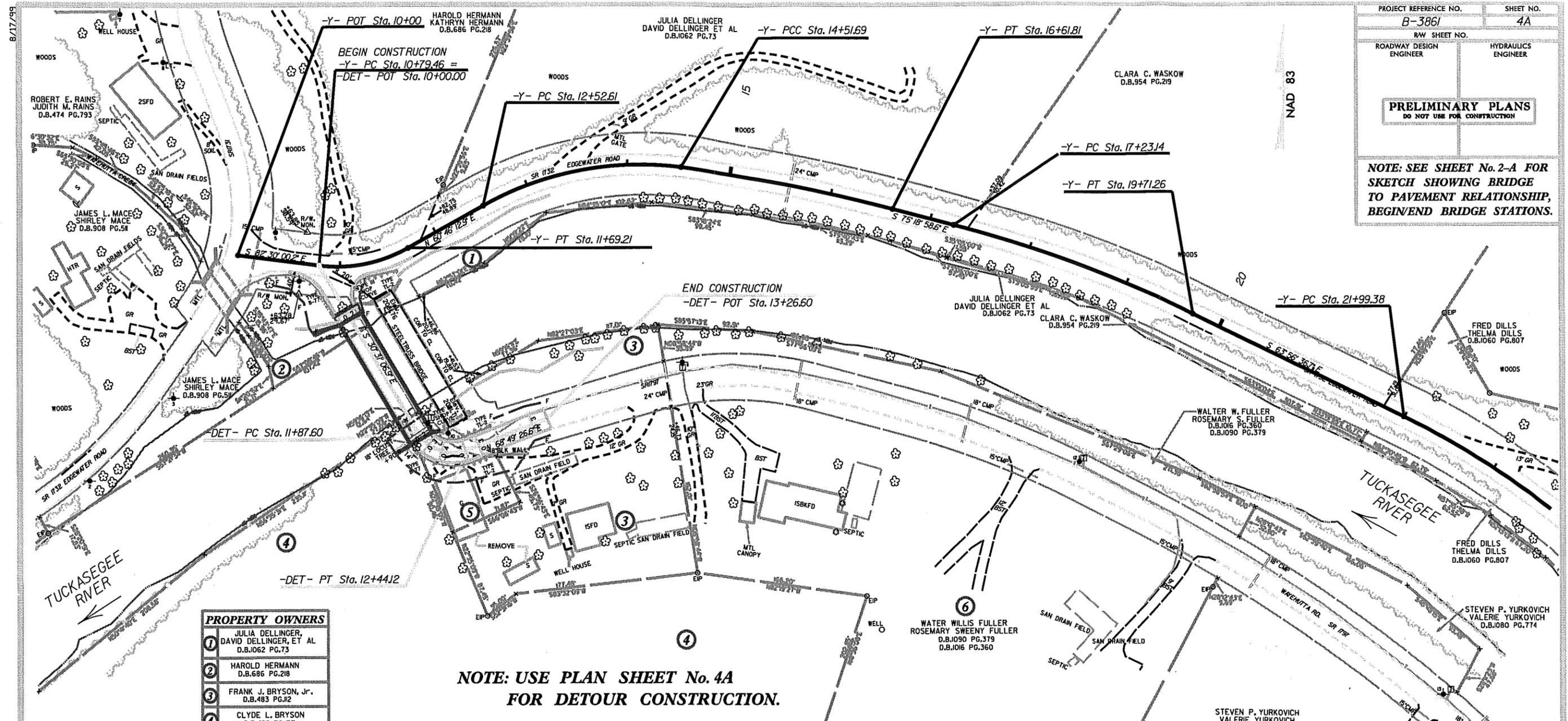
SIGNATURE: _____ P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

STATE HIGHWAY DESIGN ENGINEER P.E.

NAD 83

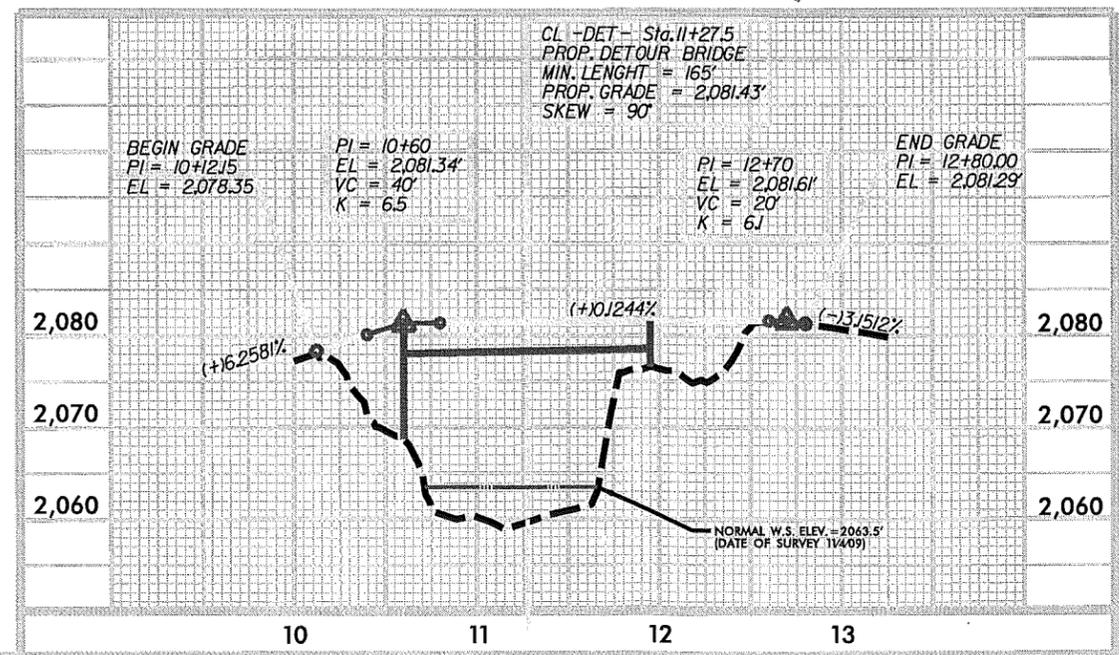
NOTE: SEE SHEET No. 2-A FOR SKETCH SHOWING BRIDGE TO PAVEMENT RELATIONSHIP, BEGIN/END BRIDGE STATIONS.



PROPERTY OWNERS

1	JULIA DELLINGER, DAVID DELLINGER, ET AL D.B.1062 PG.73
2	HAROLD HERMANN D.B.686 PG.218
3	FRANK J. BRYSON, Jr. D.B.483 PG.12
4	CLYDE L. BRYSON D.B.498 PG.157
5	RUSSELL A. BRYSON, CONNIE BRYSON D.B.796 PG.286

NOTE: USE PLAN SHEET No. 4A FOR DETOUR CONSTRUCTION.



BRIDGE HYDRAULIC DATA
 TEMPORARY DETOUR BRIDGE

DESIGN DISCHARGE	= 10,400 CFS
DESIGN FREQUENCY	= 5 YRS
DESIGN HW ELEVATION	= 2,073.7 FT

-DET-
 PI Sta 12+21.74
 $\Delta = 80^{\circ} 57' 33.52''$ (LT)
 $D = 143' 14'' 22.02''$
 $L = 56.52'$
 $T = 34.14'$
 $R = 40.00'$

-Y-

PI Sta 11+25.93 $\Delta = 36^{\circ} 43' 46.9''$ (LT) $D = 40' 55'' 32.0''$ $L = 89.75'$ $T = 46.48'$ $R = 140.00'$	PI Sta 13+55.72 $\Delta = 36^{\circ} 47' 44.8''$ (RT) $D = 18' 28'' 57.0''$ $L = 199.08'$ $T = 103.11'$ $R = 310.00'$	PI Sta 15+56.89 $\Delta = 7^{\circ} 07' 03.7''$ (RT) $D = 3' 23'' 14.8''$ $L = 210.12'$ $T = 105.20'$ $R = 1,691.42'$	PI Sta 18+47.61 $\Delta = 11^{\circ} 22' 21.9''$ (RT) $D = 4' 35'' 01.2''$ $L = 248.11'$ $T = 124.47'$ $R = 1,250.00'$
--	--	--	---

SYSTEMS DESIGN SERVICES, INC. 11/14/99
 USER NAME:

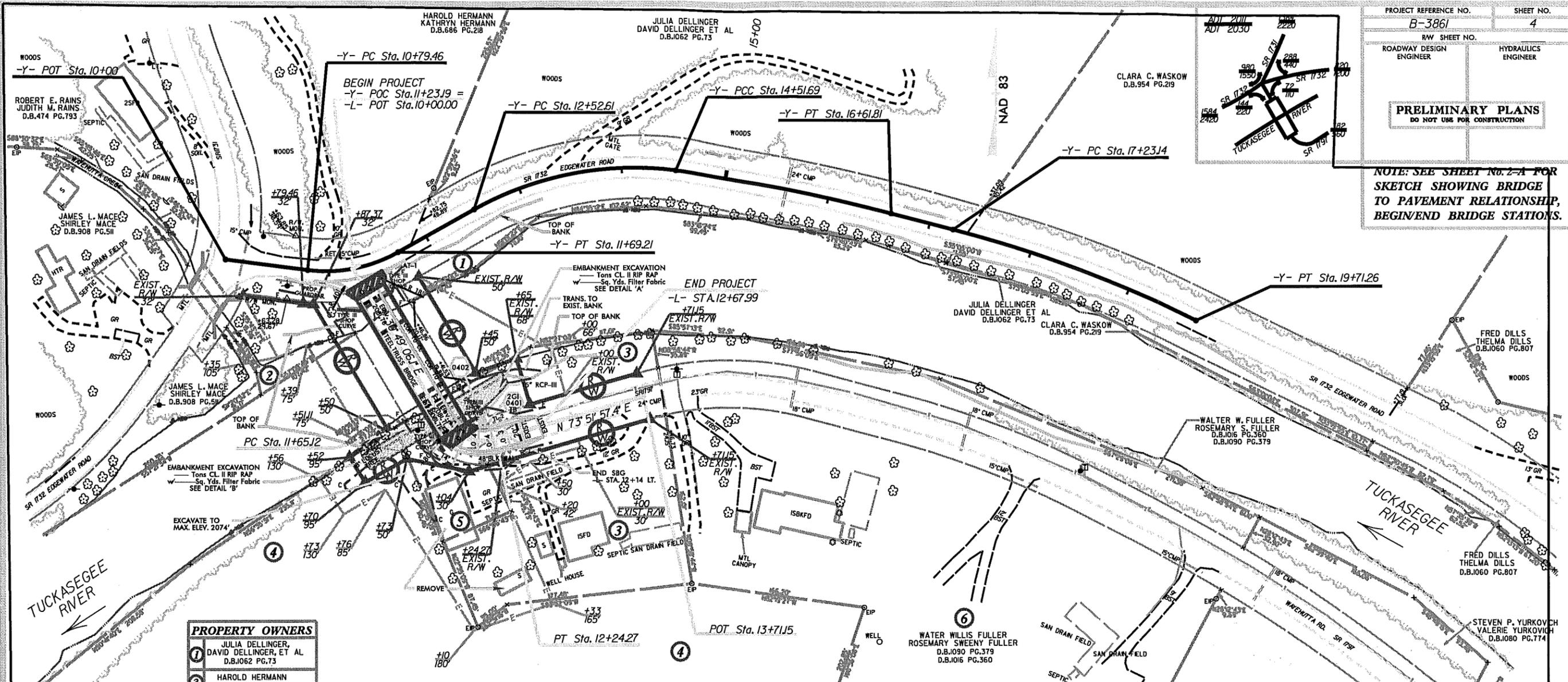
8/17/99

PROJECT REFERENCE NO. B-3861 SHEET NO. 4

RW SHEET NO. ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

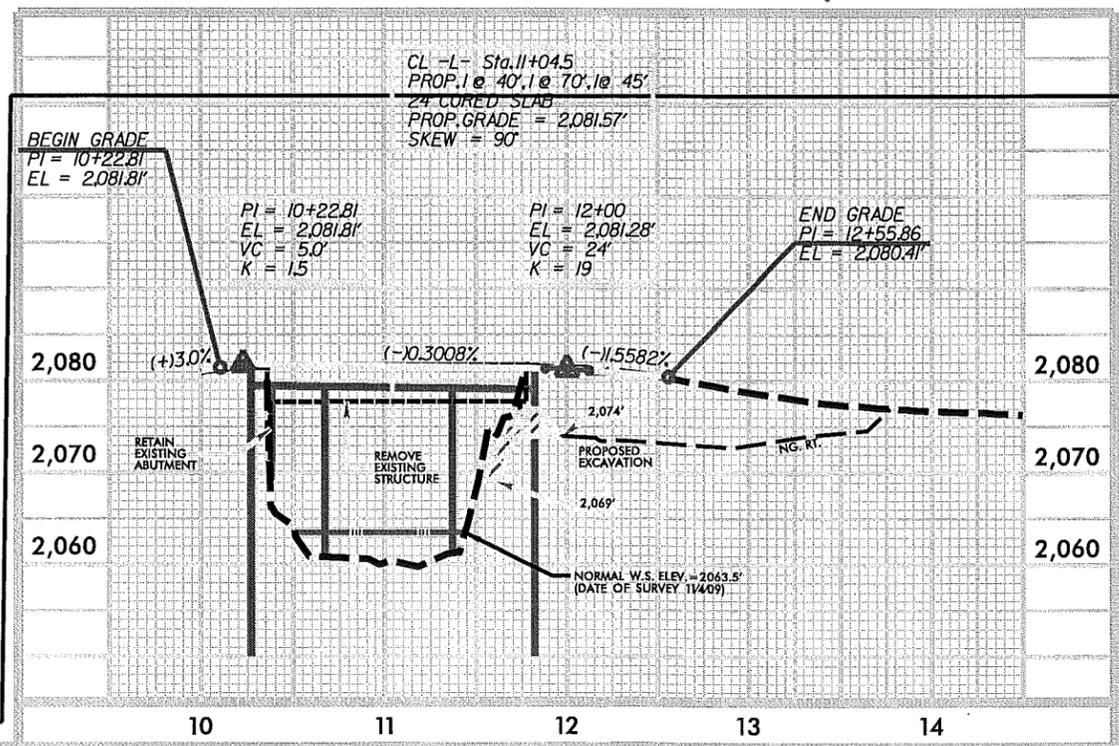
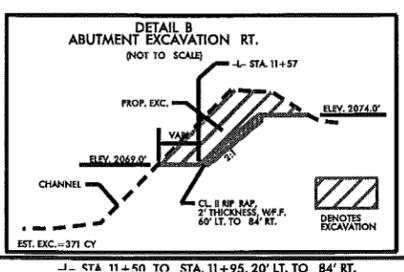
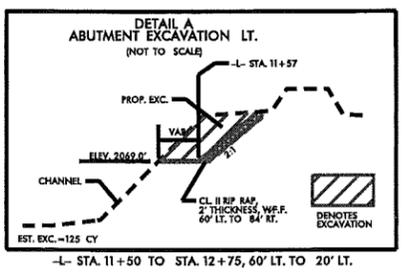
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION

NOTE: SEE SHEET No. 2-A FOR SKETCH SHOWING BRIDGE TO PAVEMENT RELATIONSHIP, BEGIN/END BRIDGE STATIONS.



PROPERTY OWNERS

1	JULIA DELLINGER, DAVID DELLINGER, ET AL D.B.1062 PG.73
2	HAROLD HERMANN D.B.686 PG.218
3	FRANK J. BRYSON, Jr. D.B.483 PG.82
4	CLYDE L. BRYSON D.B.498 PG.157
5	RUSSELL A. BRYSON, CONNIE BRYSON D.B.796 PG.286



BRIDGE HYDRAULIC DATA
Bridge No. 107

DESIGN DISCHARGE	=	22,620 CFS
DESIGN FREQUENCY	=	50 YR
DESIGN HW ELEVATION	=	2,081.27 FT
BASE DISCHARGE	=	28,985 CFS
BASE FREQUENCY	=	100 YR
BASE HW ELEVATION	=	2,082.17 FT
OVERTOPPING DISCHARGE	=	20,000 CFS
OVERTOPPING FREQUENCY	=	25 + YR
OVERTOPPING ELEVATION	=	2,078.0 FT

-L-
 PI Sta 11+99.85
 $\Delta = 75' 18" 56.5" (LT)$
 $D = 127' 19" 26.2"$
 $L = 59.15'$
 $T = 34.73'$
 $R = 45.00'$

-Y-

PI Sta 11+25.93 $\Delta = 36' 43' 46.9" (LT)$ $D = 40' 55' 32.0"$ $L = 89.75'$ $T = 46.48'$ $R = 140.00'$	PI Sta 13+55.72 $\Delta = 36' 47' 44.8" (RT)$ $D = 18' 28' 57.0"$ $L = 199.08'$ $T = 103.11'$ $R = 310.00'$	PI Sta 15+56.89 $\Delta = 7' 07' 03.7" (RT)$ $D = 3' 23' 14.8"$ $L = 210.12'$ $T = 105.20'$ $R = 1,691.42'$	PI Sta 18+47.61 $\Delta = 11' 22' 21.9" (RT)$ $D = 4' 35' 01.2"$ $L = 248.11'$ $T = 124.47'$ $R = 1,250.00'$
--	--	--	---

SYSDTIME DESIGN USER NAME

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: TIP# NCDOT

State: NC County/parish/borough: Haywood City: Cullowhee
Center coordinates of site (lat/long in degree decimal format): Lat. 35.53° N Long. -82.80° W
Universal Transverse Mercator:

Name of nearest waterbody: RPWs - Tuckasegee River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Little Tennessee River

Name of watershed or Hydrologic Unit Code (HUC): 06010203

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):

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 waters² (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: 100 linear feet: 80 feet width (ft) and/or acres.
Wetlands: 0 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

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: **Tuckasegee River.**

Summarize rationale supporting determination: None needed.
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 waterbody⁴ 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: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: 42 inches
Average annual snowfall: NA 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 **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** 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 TNW⁵:
Tributary stream order, if known:

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: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: Clay. | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Moderate erosion.

Presence of run/riffle/pool complexes. Explain: Weak.

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): 10 %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: | |

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

- | | |
|--|--|
| <input checked="" type="checkbox"/> High Tide Line indicated by: | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

⁶A 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.

⁷Ibid.

(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: acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. 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 **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** 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:
- 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: **Pick List**

Approximately () 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)

Summarize overall biological, chemical and physical functions being performed:

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: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: 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: Presence of base flow in all channels between 2-12 inches, well defined channels.
 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: nnels, natural valleyways present.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters:

3. **Non-RPWs⁸ 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: **87 Corps Manuel Wetland criteria were met in areas adjacent to RPWs.**
 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: 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 jurisdictional. 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:

Identify water body and summarize rationale supporting determination:

⁸See Footnote # 3.

⁹To 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.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (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): linear 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): linear 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: Culowhee, 1:24,000.
- 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 Geodetic 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: