



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

July 11, 2013

U. S. Army Corps of Engineers
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Loretta Beckwith
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permits 23, 25, 33** for the proposed replacement of Bridge No. 39 over East Fork Tuckasegee River on NC 107 in Jackson County, Federal Aid Project No. BRSTP-107(3); Division 14; TIP No. B-3480, WBS No. 33097.1.1

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 39 over East Fork Tuckasegee River on NC 107. There will be 120 linear feet of temporary impact to East Fork Tuckasegee River due to the use of causeways during removal of the existing bridge and construction of the new structure. Causeways will be placed on both sides of the river. On the south side, the causeway will extend slightly past 50% of the river channel. This is needed for removal of the interior bents of the existing bridge and to capture any debris that might fall during its removal. It is estimated that this extension of the causeway will be needed for approximately one week to complete the necessary work. An additional 58 square feet of permanent stream impact will occur due to the placement of bridge bents. Temporary work bridges will also be utilized during construction. These work bridges will be used for cranes to set the center span of the new structure.

Data recovery investigations for archaeological site 31JK12 and 31JK13 have been completed. Concurrence from the State Historic Preservation Office (SHPO) was received on June 21, 2011.

Please see enclosed copies of the Pre-Construction Notification (PCN), SHPO concurrence letter, jurisdictional determination form, stormwater management plan, permit drawings and design plans for the above mentioned project. The Categorical Exclusion (CE) was completed in January 2008 and distributed shortly thereafter. 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.

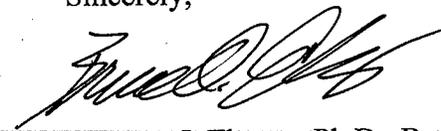
MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

A copy of this permit application and distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please call Carla Dagnino at (919) 707-6110.

Sincerely,

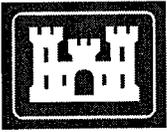


Gregory J. Thorpe

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

The "cc" List:

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: 25 33, 23 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:	Replacment of Bridge 39 over East Fork Tuckasegee River on NC 107
2b. County:	Jackson
2c. Nearest municipality / town:	Tuckasegee
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-3480

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) 431-6693
3g. Fax no.:	(919) 431-2002
3h. Email address:	cdagnino@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: 35.26861 (DD.DDDDDD) Longitude: - 83.12273 (-DD.DDDDDD)
1c. Property size:	4.5 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	East Fork Tuckasegee River
2b. Water Quality Classification of nearest receiving water:	B, WS III, 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: Residential and minor agricultural development. Narrow wooded buffer adjacent to stream.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.0	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 150 linear feet of East Fork Tuckasegee River	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge (Sufficiency rating of 42.8 out of 100).	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing the 4-span, 180-foot bridge with a 180-foot, 3-span bridge on the existing alignment with an on-site detour, using phased construction. 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: No. East Fork Tuckasegee River is a perennial system. Final JD is being sought with application.	<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):	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					X Permanent X 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	Causeways	East Fork Tuckasegee River	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	90	120
Site 2 <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 3 <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 4 <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 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						0 Perm 120 Temp

3i. Comments: Piers due to bridge construction are 58 square feet.

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?	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.
The proposed bridge will be placed on the existing alignment. Traffic will be maintained on site using phased construction, with traffic being maintained on the existing bridge. With the exception of bridge bents, no permanent impacts will occur due to the project. The new structure will consist of 3-spans (old structure 4-spans) that reduces the number of bents in the stream. A stormwater ditch on the northwest quadrant of the project will empty into a 50 linear foot grass swale.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.
Design Standards for Sensitive Watershed will be used in all phases of construction. A trout moratorium will prohibit In-stream work between October 15 - April 15.

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 associated with this project are due to the placement of bridge piers.
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):	square feet
4e. Riparian wetland mitigation requested:	acres
4f. Non-riparian wetland mitigation requested:	acres
4g. Coastal (tidal) wetland mitigation requested:	acres
4h. Comments:	

5. Complete if Using a Permittee Responsible Mitigation Plan

5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?				<input type="checkbox"/> Yes <input 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: if yes, see attached permit drawings.	<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 permit drawings.	
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 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? USFWS web page of T/E species for Jackson County and the NHP database of element occurrences.		
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? NEPA Documentation and Eastern Band of Cherokee Indians. Concurrence from SHPO received 6/21/11.		
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: NCDOT Hydraulics coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
<u>Dr. Gregory J. Thorpe, Ph D</u> Applicant/Agent's Printed Name	 Applicant/Agent's Signature <small>(Agent's signature is valid only if an authorization letter from the applicant is provided.)</small>	7/16/13 Date

STORMWATER MANAGEMENT PLAN

Project: 33097.1.1
TIP No. B-3480
County: Jackson
Date: 4/22/10

Hydraulics Project Manager: PEF, P.E. (FIRM),
Anne Gamber, P.E. (NCDOT Hydraulics Unit)

ROADWAY DESCRIPTION

The project B-3480 consists of constructing a new bridge 180 feet long to replace the existing Bridge No. 39 in Jackson County on NC 107 over the East Fork Tuckasegee River. The total project length is 0.25 miles. The project creates impacts to the East Fork Tuckasegee River, which is located in the Little Tennessee River Basin. The project drainage systems consist of grated inlets with associated pipe systems and a swale or a rip rap apron at the pipe outlets.

Jurisdiction Stream: East Fork Tuckasegee

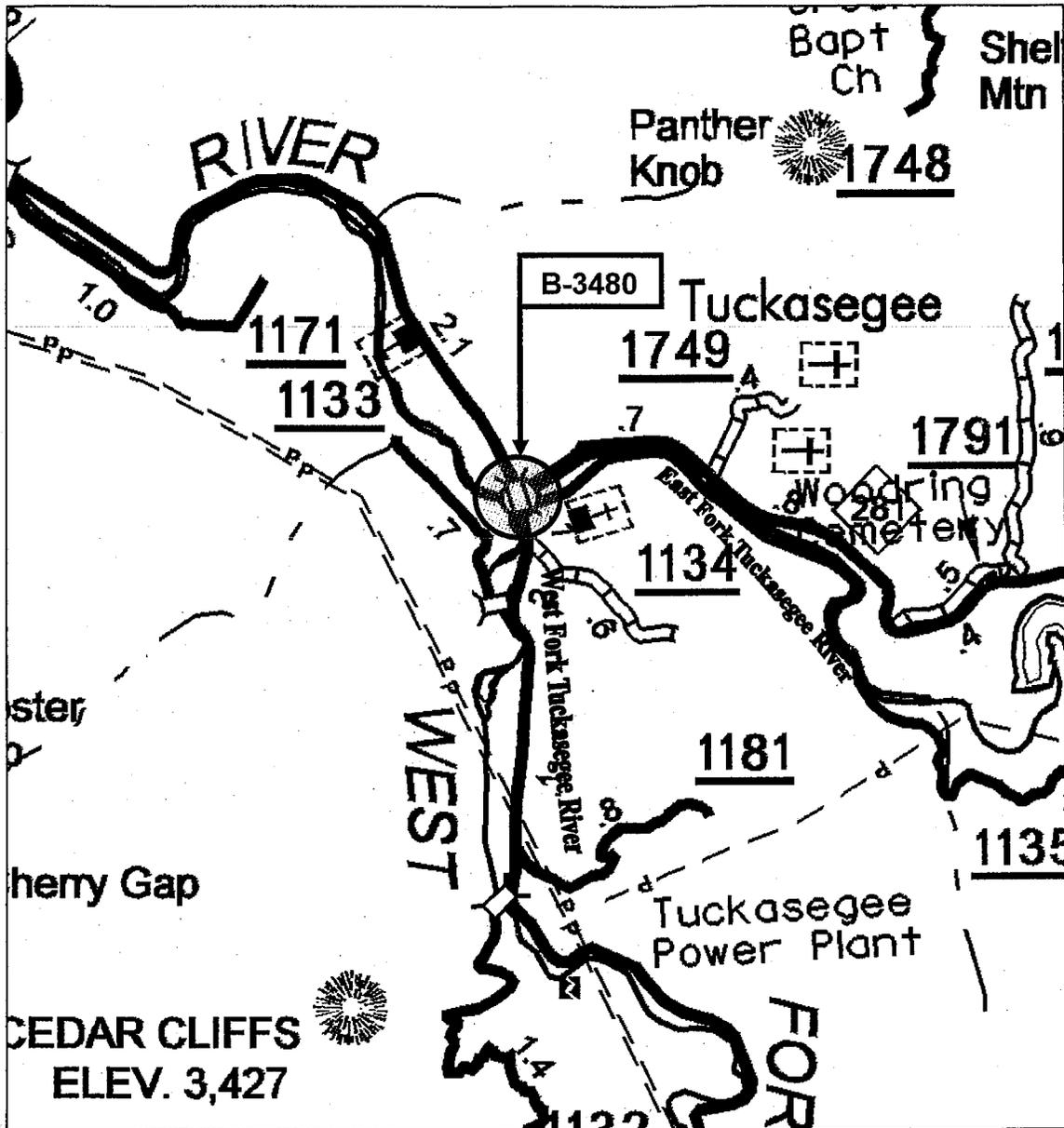
ENVIRONMENTAL DESCRIPTION

The project is located within the Little Tennessee River Basin in Jackson County. The river running under the bridge will be impacted by the proposed project. Impacts have been minimized by and using a grass swale at a pipe outlet and reducing the roadway approach work to minimize fill slopes encroachment into the river.

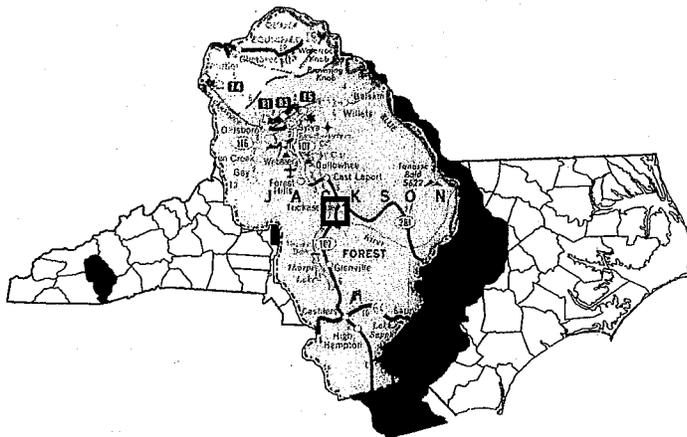
BEST MANAGEMENT PRACTICES AND MAJOR STRUCTURES

The primary goal of Best Management Practices (BMP's) is to prevent degradation of the states surface waters by the location, construction and operation of the highway system. The BMPs are activities, practices and procedures taken to prevent or reduce stormwater pollution. The BMP measure used on this project to reduce stormwater impacts is:

- 50 LF grass swale at pipe outlet, -L- Sta. 19+20, 56' LF



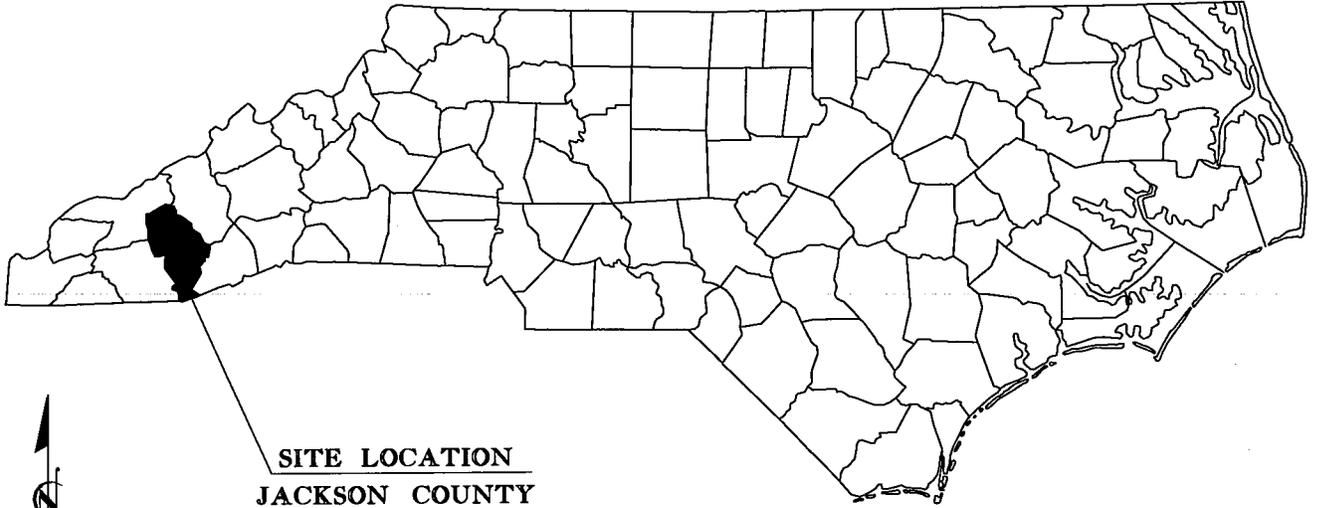
*No off-site detour proposed.



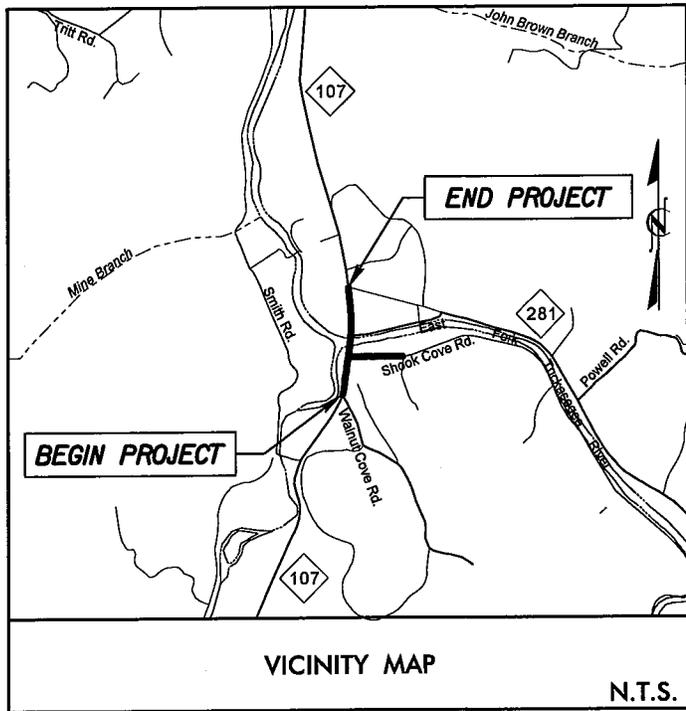
Permit Drawing
Sheet 1 of 9

	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH</p>
<p>JACKSON COUNTY REPLACE BRIDGE NO. 39 ON NC HIGHWAY 107 OVER EAST FORK TUCKASEGEE RIVER B-3480</p>	
<p>Figure 1</p>	

NORTH CAROLINA



**SITE LOCATION
JACKSON COUNTY**



VICINITY MAP

Permit Drawing
Sheet 2 of 9

NCDOT
DIVISION OF HIGHWAYS
JACKSON COUNTY
PROJECT: 33097.1.1 (B-3480)
GLENVILLE-CULLOWHEE
BRIDGE NO. 39 OVER EAST FORK
TUCKASEGEE RIVER ON NC 107

SHEET

OF

4 / 22 / 10

PROPERTY OWNERS
NAMES AND ADDRESSES

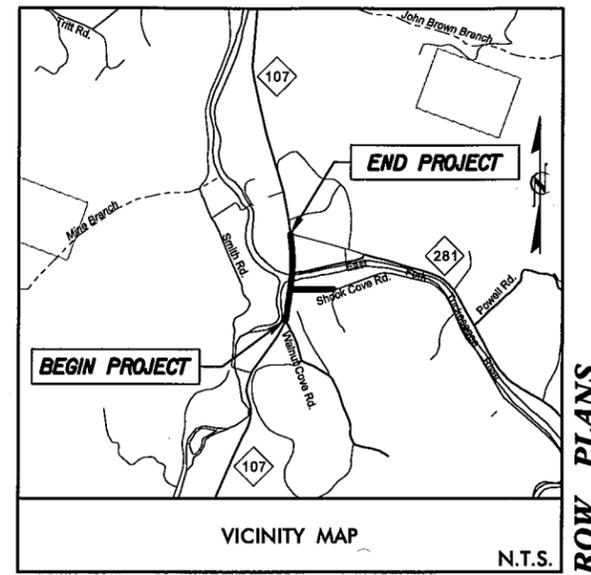
PARCEL NO.	NAMES	ADDRESS
2	AUBREY HENDERSON & HAZEL HENDERSON	11 SHOOK COVE ROAD TUCKASEGEE, NC 28783
6	AUBREY HENDERSON & HAZEL HENDERSON	11 SHOOK COVE ROAD TUCKASEGEE, NC 28783
8	O.D. MOSES JR. & ETHEL MOSES	PO BOX 353 TUCKASEGEE, NC 28783
12	DWIGHT D. MOSES	PO BOX 353 TUCKASEGEE, NC 28783

NCDOT
DIVISION OF HIGHWAYS
JACKSON COUNTY
PROJECT: 33097.1.1 (B-3480)
GLENVILLE-CULLOWHEE
BRIDGE NO. 39 OVER EAST FORK
TUCKASEGEE RIVER ON NC 107

Permit Drawing
of 3 of 9

TIP PROJECT: B-3480

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet



ROW PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JACKSON COUNTY

**LOCATION: BRIDGE NO. 39 OVER EAST FORK
TUCKASEGEE RIVER ON NC 107**

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



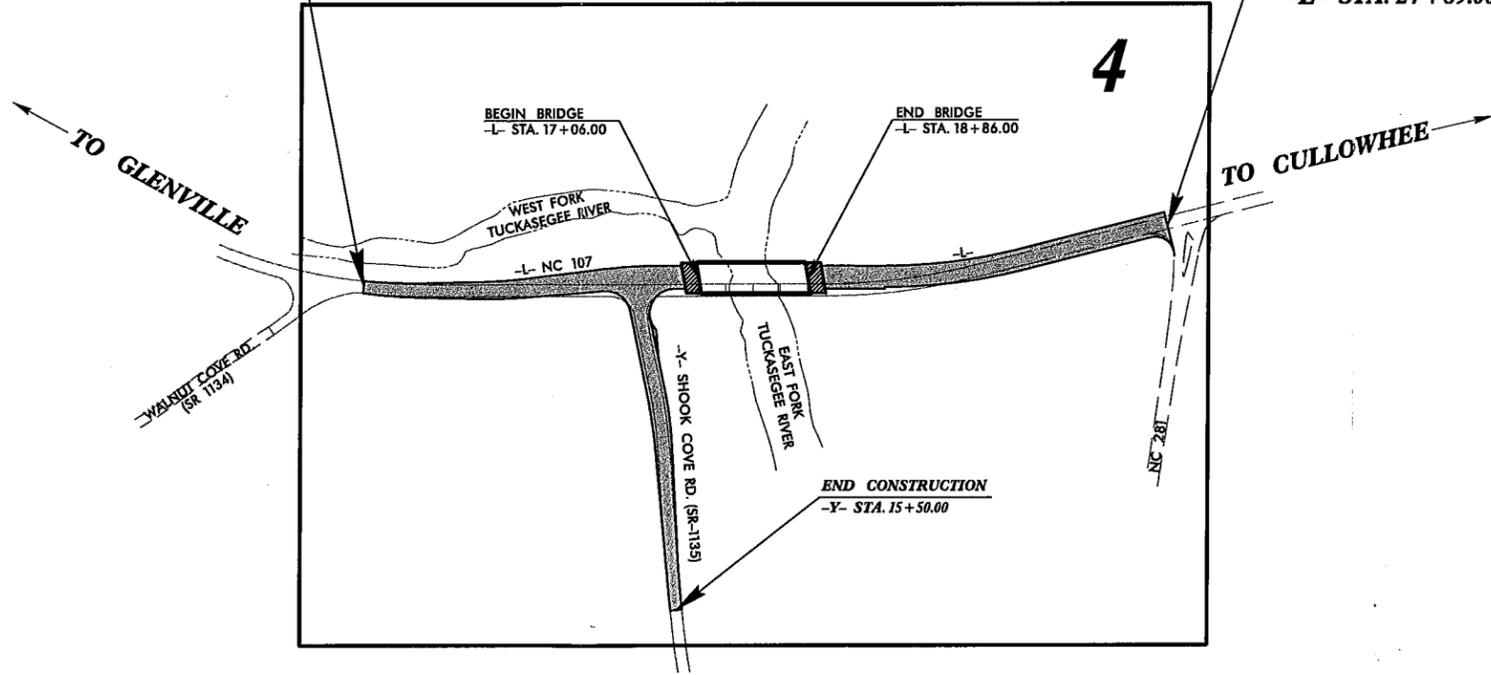
**WETLAND AND
STREAM IMPACTS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3480	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
33097.1.1	BRSTP-107(3)	P.E.	
33097.2.2	BRSTP-107(3)	R/W & UTILITIES	

Permit Drawing
Sheet 5 of 9

BEGIN TIP PROJECT B-3480
-L- STA. 11+50.00

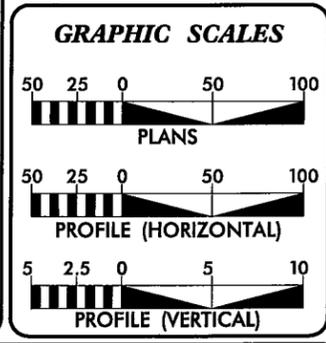
END TIP PROJECT B-3480
-L- STA. 24+89.00



**THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED
TO THE LIMITS ESTABLISHED BY METHOD II.**

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2010 =	6,200
ADT 2030 =	11,600
DHV =	13 %
D =	55 %
T =	5 % *
V =	50 MPH
RURAL MINOR ARTERIAL	
*(TTST 1% + DUAL 4%)	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-3480	=	0.22 Miles
LENGTH STRUCTURE TIP PROJECT B-3480	=	0.03 Miles
TOTAL LENGTH TIP PROJECT B-3480	=	0.25 Miles

NCDOT CONTACT: B. DOUG TAYLOR, PE
Project Engineer - Roadway Design Unit

Prepared In the Office of:
STV/RALPH WHITEHEAD ASSOCIATES, INC.
1000 West Morehead St., Ste. 200, Charlotte NC, 28208
NC License Number F-0991
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 15, 2010

LETTING DATE:
FEBRUARY, 2011

JOSEPH A. FREEMAN, PE
PROJECT ENGINEER

BERNADETTE CLONINGER, EI
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

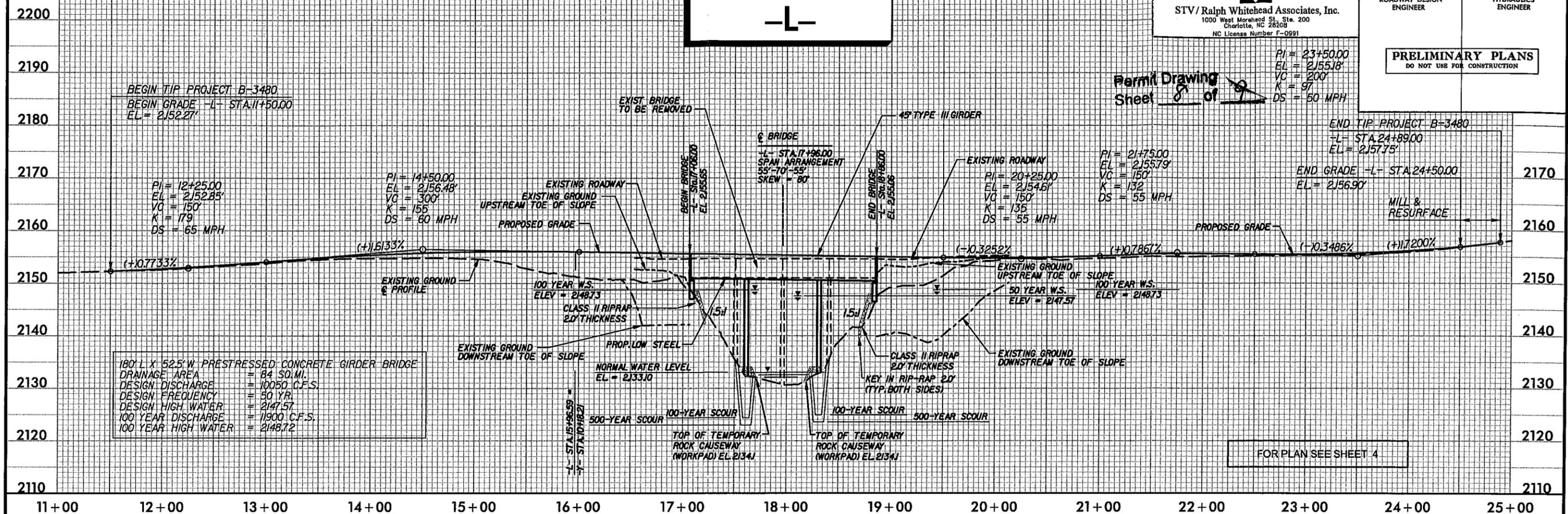
STATE HIGHWAY DESIGN ENGINEER P.E.

STV / Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

-L-

Permit Drawing
Sheet 8 of 9

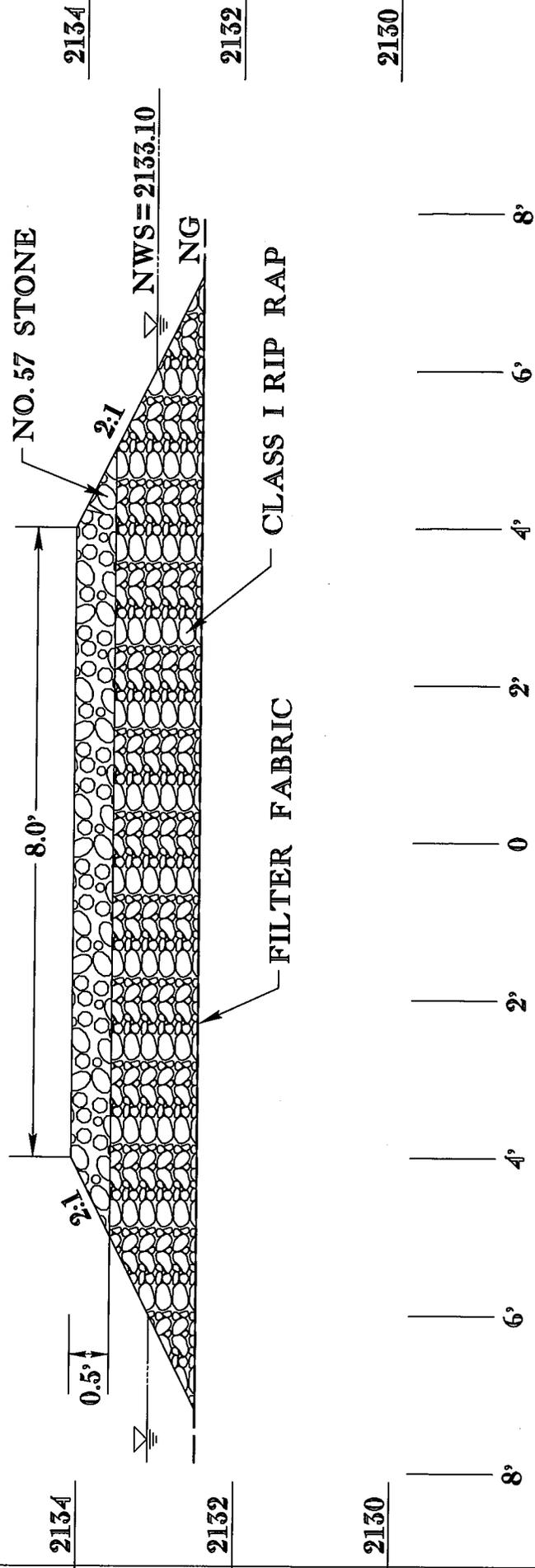
PI = 23+50.00
EL = 2155.18'
VC = 200'
K = 97
DS = 50 MPH



180' L X 52.5' W PRESTRESSED CONCRETE GIRDER BRIDGE
DRAINAGE AREA = 84 SQ. MI.
DESIGN DISCHARGE = 10050 C.F.S.
DESIGN FREQUENCY = 50 YR.
DESIGN HIGH WATER = 2147.57
100 YEAR DISCHARGE = 11900 C.F.S.
100 YEAR HIGH WATER = 2148.72

FOR PLAN SEE SHEET 4

TYPICAL SECTION TEMPORARY ROCK CAUSEWAY



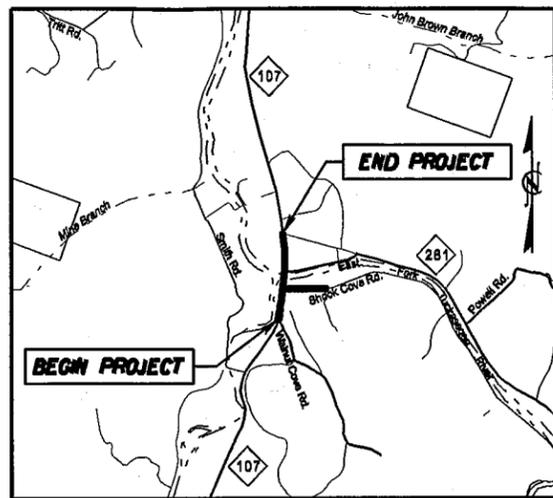
ESTIMATE OF QUANTITIES
 VOLUME OF NO. 57 STONE = 73 TONS
 VOLUME OF CLASS I RIP RAP = 213 TONS

NC DOT
 DIVISION OF HIGHWAYS
 JACKSON COUNTY
 PROJECT: 33097.1.1 (B-3480)
 GLENVILLE-CULLOWHEE
 BRIDGE NO. 39 OVER EAST FORK
 TUCKASEGEE RIVER ON NC 107

Permit Drawing
 Sheet 9 of 9

TIP PROJECT: B-3480

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet



VICINITY MAP

N.T.S.

ROW PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JACKSON COUNTY

**LOCATION: BRIDGE NO. 39 OVER EAST FORK
TUCKASEGEE RIVER ON NC 107**

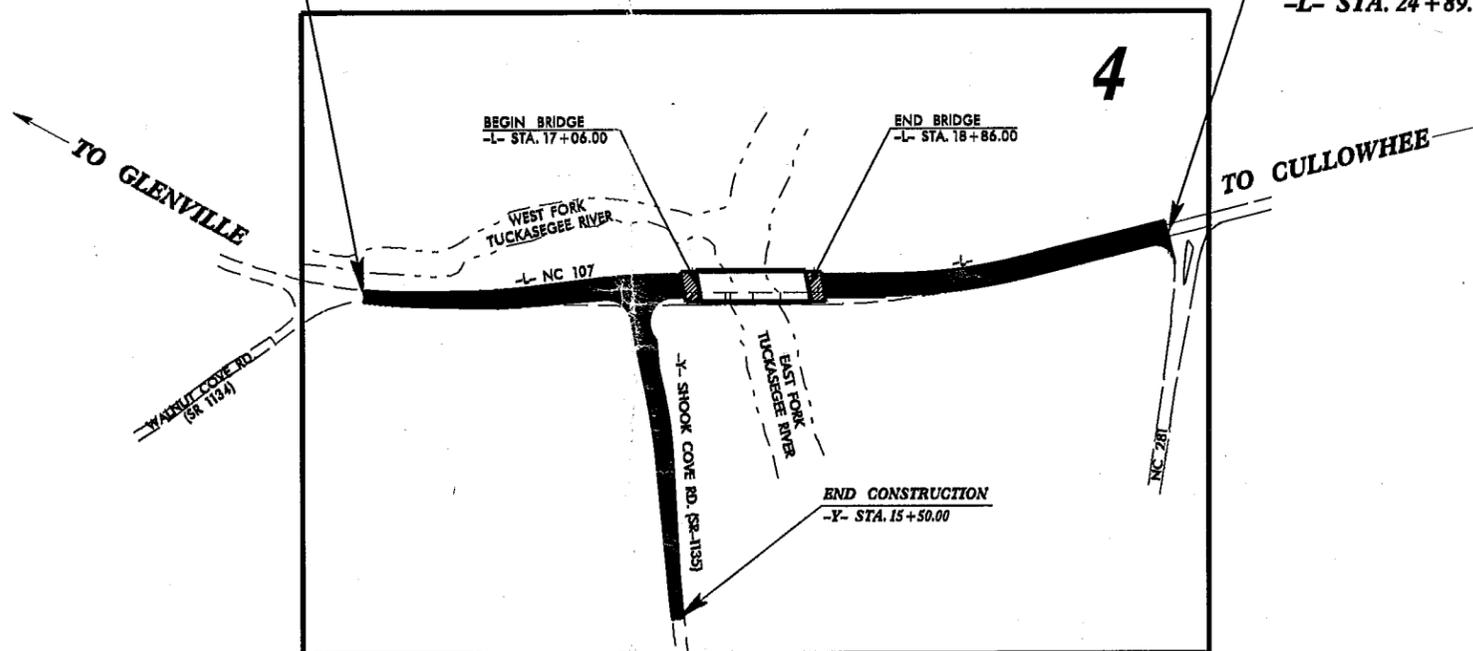
**TYPE OF WORK: GRADING, PAVING, DRAINAGE
AND STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3480	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33097.1.1	BRSTP-107(3)	P.E.	
33097.2.2	BRSTP-107(3)	R/W & UTILITIES	



BEGIN TIP PROJECT B-3480
-L- STA. 11+50.00

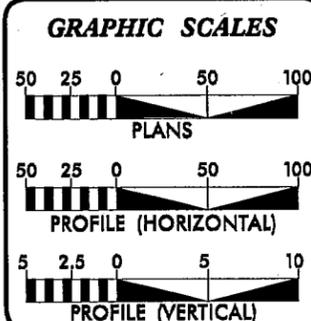
END TIP PROJECT B-3480
-L- STA. 24+89.00



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PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2010 =	6,200
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*(TTST 1% + DUAL 4%)	

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LENGTH STRUCTURE TIP PROJECT B-3480	=	0.03 Miles
TOTAL LENGTH TIP PROJECT B-3480	=	0.25 Miles

NCDOT CONTACT: **B. DOUG TAYLOR, PE**
Project Engineer - Roadway Design Unit

Prepared in the Office of:
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2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **JOSEPH A. FREEMAN, PE**
JANUARY 15, 2010
PROJECT ENGINEER

LETTING DATE: **BERNADETTE CLONINGER, EI**
FEBRUARY, 2011
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.

8/17/99

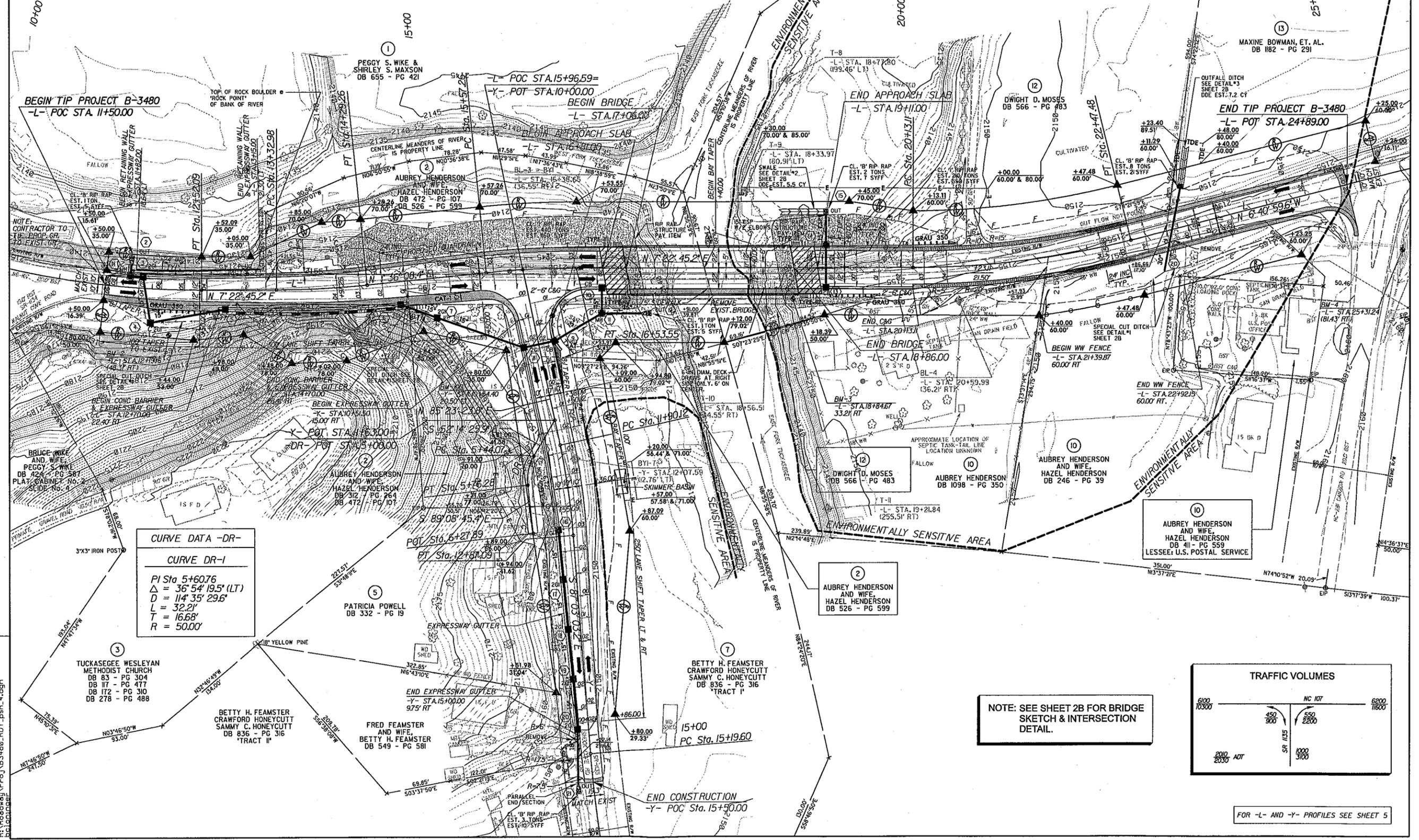
CURVE DATA -L-			
CURVE L-1	CURVE L-2	CURVE L-3	CURVE L-4
PI Sta 11+26.85 Δ = 15° 45' 21.3" (LT) D = 6' 15' 00.0" L = 252.09' T = 126.85' R = 916.73' e = 0.04 DS = 50 mph RUNOFF = 96'	PI Sta 13+81.6 Δ = 5° 46' 36.8" (LT) D = 6' 00' 00.0" L = 96.28' T = 48.18' R = 954.93' e = 0.04 DS = 50 mph RUNOFF = 96'	PI Sta 16+05.45 Δ = 5° 46' 36.8" (RT) D = 6' 00' 00.0" L = 96.29' T = 48.18' R = 954.93' e = 0.04 DS = 50 mph RUNOFF = 96'	PI Sta 21+30.89 Δ = 14° 03' 44.9" (LT) D = 6' 00' 00.0" L = 234.37' T = 117.78' R = 954.93' e = 0.04 DS = 50 mph RUNOFF = 96'

CURVE DATA -Y-	
CURVE Y-1	CURVE Y-2
PI Sta 12+38.68 Δ = 7° 33' 33.02" (RT) D = 7' 47' 43.2" L = 96.97' T = 48.56' R = 735.00' e = 0.04 DS = 50 mph RUNOFF = 96'	PI Sta 15+87.80 Δ = 6° 30' 21.35" (LT) D = 4' 46' 28.73" L = 136.26' T = 68.20' R = 1,200.00' DS = 50 mph

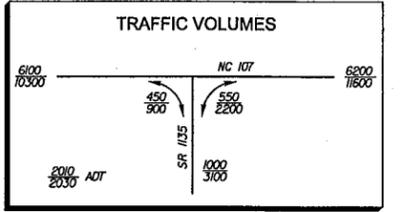
STV/Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

PROJECT REFERENCE NO. B-3480	SHEET NO. 4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



CURVE DATA -DR-	
CURVE DR-1	
PI Sta 5+60.76 Δ = 36° 54' 19.5" (LT) D = 114' 35' 29.6" L = 32.21' T = 16.68' R = 50.00'	



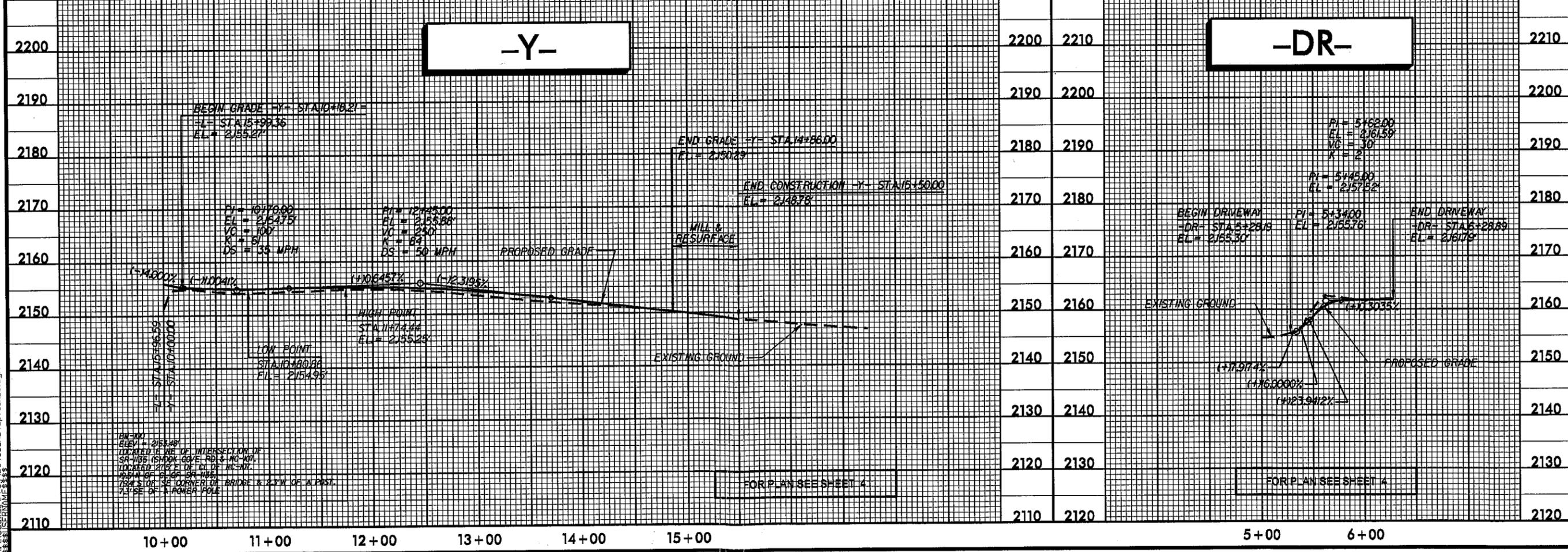
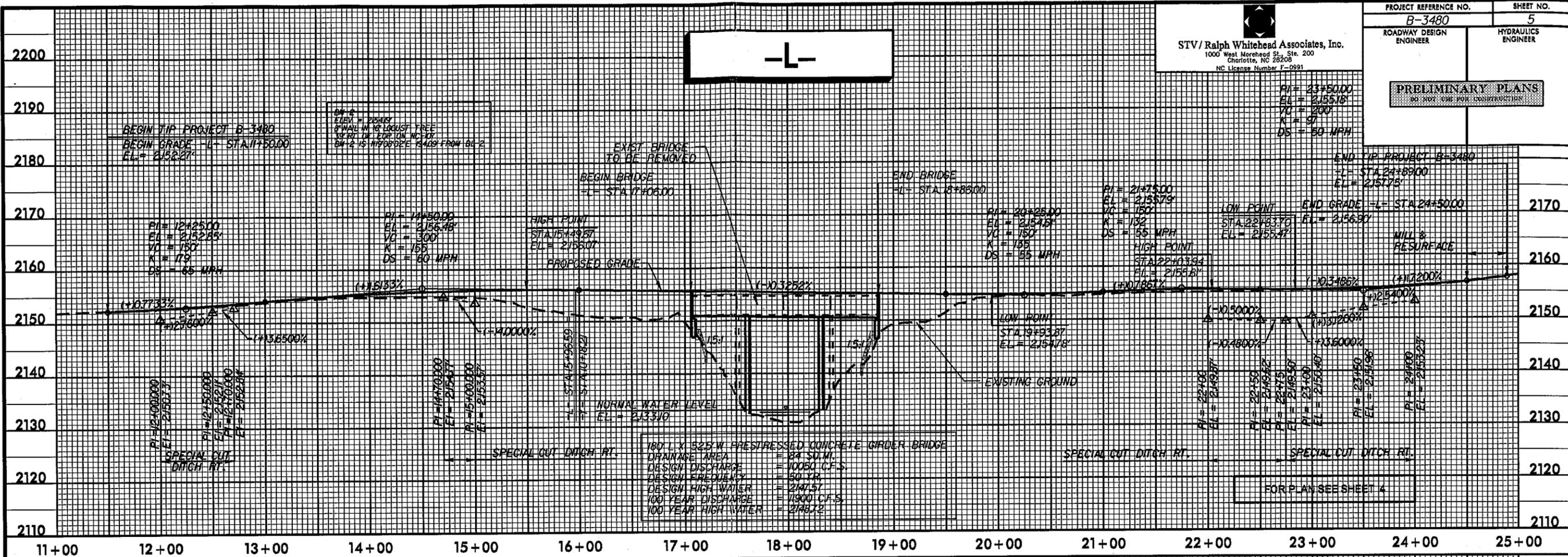
NOTE: SEE SHEET 2B FOR BRIDGE SKETCH & INTERSECTION DETAIL.

FOR -L- AND -Y- PROFILES SEE SHEET 5

5/7/2010 R:\Roadway\Proj\B3480_RDY_psh_4.dgn

REVISIONS

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



23-APR-2010 14:48 13460.RDY-pflsh-5.dgn