



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

July 15, 2013

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

ATTN: Ms. Loretta Beckwith  
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 23, 33, 13 and Section 401 Water Quality Certification** for the proposed replacement of Bridge No. 309 over Featherstone Creek on SR 1528 (Locust Grove Road) in Henderson County, Federal Aid Project No. BRZ-1528(6), Division 14, TIP No. B-4988, Debit \$570 from WBS 40156.1.1.

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 309 over Featherstone Creek on SR 1529 with a 77' long, 8'x6' double-barrel reinforced concrete box culvert (RCBC) on the existing alignment. Traffic will be maintained during construction via an offsite detour.

There will be 78 linear feet of permanent impacts, 126 linear feet (0.02 ac) of temporary impacts and 75 linear feet of bank stabilization due to installation of the proposed RCBC.

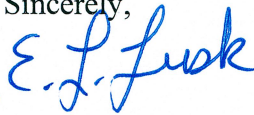
Please see enclosed copies of the Pre-Construction Notification (PCN), EEP acceptance letter, stormwater management plan, permit drawings and design plans for the above-referenced project. The Programmatic Categorical Exclusion (PCE) was completed in April 2012 and distributed shortly thereafter. Additional copies are available upon request.

This project is located in a trout county, therefore comments from the 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.

This project calls for a letting date of February 18, 2014 and a review date of December 31, 2013; however, the let date may advance as additional funding becomes available.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please call Erin Cheely at (919) 707-6108.

Sincerely,



for

Gregory J. Thorpe, Ph.D., Manager

Project Development and Environmental Analysis Unit

cc:

NCDOT Permit Application Standard Distribution List



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

## Pre-Construction Notification (PCN) Form

### A. Applicant Information

#### 1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 13 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 type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> Yes	<input 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 309 over Featherstone Creek on SR 1528
2b. County:	Henderson
2c. Nearest municipality / town:	Hendersonville
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-4988

#### 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) 707-6108
3g. Fax no.:	(919) 212-5785
3h. Email address:	ekcheely@ncdot.gov

<b>4. Applicant Information (if different from owner)</b>	
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:	
<b>5. Agent/Consultant Information (if applicable)</b>	
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>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.39058 (DD.DDDDDD) Longitude: - 82.44411 (-DD.DDDDDD)
1c. Property size:	0.7 acre
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Featherstone Creek
2b. Water Quality Classification of nearest receiving water:	C
2c. River basin:	French Broad
<b>3. Project Description</b>	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application:  The land use within the vicinity of the project consists of about 65% forest land (including mixed hardwood and acid cove forests), 20% developed or disturbed lands (roadsides and residential areas) and 15% cultivated land (agricultural fields and pastures).	
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:  230	
3d. Explain the purpose of the proposed project: The purpose of this project is to replace a structurally deficient (sufficiency rating of 20 of 100 and structural evaluation appraisal of 2 of 9) bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 25-foot single-span bridge with a 76'9" long, 2 @ 8'x6' reinforced concrete box culvert (RCBC) on the existing alignment with an off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
<b>4. Jurisdictional Determinations</b>	
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: Only perennial streams, no prior JD needed	<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): Jason Dilday	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.	
<b>5. Project History</b>	
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.	
<b>6. Future Project Plans</b>	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

<b>C. Proposed Impacts Inventory</b>						
<b>1. Impacts Summary</b>						
1a. Which sections were completed below for your project (check all that apply):						
<input type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
<b>2. Wetland Impacts</b>						
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		
<b>2g. Total wetland impacts</b>					0 Permanent 0 Temporary	
2h. Comments: No wetlands within construction limits						
<b>3. Stream Impacts</b>						
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 checked="" type="checkbox"/> P <input type="checkbox"/> T	Culvert (RCBC)	Featherstone Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	7	78
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bank Stabilization	Featherstone Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	7	75
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Culvert (RCBC)	Featherstone Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	7	126 (0.02 ac)
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		
<b>3h. Total stream and tributary impacts</b>					153 Perm 126 Temp	
3i. Comments: Replace bridge with 2@8'x6' RCBC. Permanent impacts resulting from new RCBC itself. Bank stabilization at the inlet and outlet as well due to the floodplain bench construction. The existing alignment of Featherstone Creek will be maintained. Temporary impacts are at inlet & outlet of proposed RCBC associated with its installation.						

**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				
<b>4f. Total open water impacts</b>				0 Permanent 0 Temporary

4g. Comments: No open water within construction limits.

**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								
<b>5f. Total</b>								

5g. Comments:

5h. Is a dam high hazard permit required?

Yes

No

If yes, permit ID no:

5i. Expected pond surface area (acres):

5j. Size of pond watershed (acres):

5k. Method of construction:

**6. Buffer Impacts (for DWQ)**

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?			<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		
<b>6h. Total buffer impacts</b>					
6i. Comments: This project is not located within a protected buffer area.					



<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed double-barrel reinforced concrete box culvert (RCBC) will be located on the same alignment and grade as the existing bridge, maintaining the existing channel location and alignment of Featherstone Creek. A floodplain bench on the inlet and outlet ends of the RCBC will direct the stream through the baseflow cell, with the remaining overflow cell being utilized for high-water events. The overflow cell will have a 2' sill at each end, and the baseflow cell will have a 1.5' sill at each end. Natural stone bed material will be placed in the baseflow barrel. The drainage area for the existing crossing is only 1.3 miles and the proposed culvert has been designed such that the slope and velocities are consistent with the existing stream to the greatest extent practicable.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Traffic will be maintained off-site during construction. Best Management Practices (BMPs) will be utilized during construction to attempt to reduce the stormwater impacts to the receiving stream due to erosion and runoff.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, explain:	
2b. If yes, mitigation is required by (check all that apply):	<input checked="" type="checkbox"/> DWQ <input checked="" type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input checked="" type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input checked="" type="checkbox"/> Yes	
4b. Stream mitigation requested:	Total requested is 153 linear feet. 153 linear feet (@1:1 for NCDWQ); 78 linear feet (@ 2:1 for USACE)	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input checked="" 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: Total mitigation required by USACE: 78 linear feet (likely at 2:1). Total mitigation required by NCDWQ: 153 linear feet @ 1:1. The NCDOT does not propose mitigation for the 126 linear feet of temporary stream impacts associated with the installation of the new RCBC. These temporary impacts do not require fill in the stream bed and, therefore, under Section 404 of the Clean Water Act, do not constitute Loss of Waters of the U.S. and are not subject to compensatory mitigation.		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

**6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ**

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?

Yes       No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

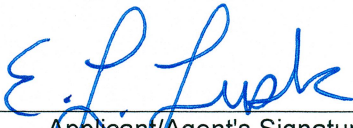
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				

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:

<b>E. Stormwater Management and Diffuse Flow Plan (required by DWQ)</b>	
<b>1. Diffuse Flow Plan</b>	
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 not, explain why. Comments: If required from 1a, see attached buffer permit drawings.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Stormwater Management Plan</b>	
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
<b>3. Certified Local Government Stormwater Review</b>	
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
<b>4. DWQ Stormwater Program Review</b>	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

<b>F. Supplementary Information</b>	
<b>1. Environmental Documentation (DWQ Requirement)</b>	
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: Programmatic Categorical Exclusion (PCE) approved 4/26/12	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Violations (DWQ Requirement)</b>	
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):	
<b>3. Cumulative Impacts (DWQ Requirement)</b>	
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.	
<b>4. Sewage Disposal (DWQ Requirement)</b>	
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	

<b>5. Endangered Species and Designated Critical Habitat (Corps Requirement)</b>		
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 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?  Of the eight federally listed species for Henderson County, only two species, small whorled pogonia and white irisette, have potential habitat located within the construction limits of this project. The project area was surveyed by NCDOT biologists in 2007 and 2012 for small whorled pogonia and white irisette, and no individuals of either species were found. This project will have no effect on any Federally Threatened or Endangered species listed for Henderson County.		
<b>6. Essential Fish Habitat (Corps Requirement)</b>		
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		
<b>7. Historic or Prehistoric Cultural Resources (Corps Requirement)</b>		
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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
<b>8. Flood Zone Designation (Corps Requirement)</b>		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	7.15.13 Date



July 9, 2013

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

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

**B-4988**, Replace Bridge Number 309 over Featherstone Creek on SR 1528, Henderson County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on July 3, 2013, the impacts are located in CU 06010105 of the French Broad River basin in the Southern Mountains (SM) Eco-Region, and are as follows:

French Broad 06010105 SM	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	153.0	0	0	0	0	0	0

\*Some of the stream and wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

This impact and associated mitigation need were under projected by the NCDOT in the 2013 impact data. EEP will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill  
EEP Asset Management Supervisor

cc: Ms. Lori Beckwith, USACE – Asheville Regulatory Field Office  
Ms. Amy Chapman, Division of Water Quality, Wetlands/401 Unit  
Ms. Amy Euliss, Division of Water Quality – Winston-Salem Office  
File: B-4988

*Restoring... Enhancing... Protecting Our State*





North Carolina Department of Transportation  
 Highway Stormwater Program  
**STORMWATER MANAGEMENT PLAN**  
 FOR LINEAR ROADWAY PROJECTS



(Version 1.2; Released September 2011)

**Project/TIP No.:** B-4988      **County(ies):** Henderson      **Page** 1 **of** 2

**General Project Information**

<b>Project No.:</b>	B-4988	<b>Project Type:</b>	Bridge Replacement	<b>Date:</b>	3/5/2013
<b>NCDOT Contact:</b>	Randy Henegar, P.E.	<b>Contractor / Designer:</b>			
<b>Address:</b>	1020 Birchridge Dr. Raleigh N.C. 27610	<b>Address:</b>			
<b>Phone:</b>	919-707-6700	<b>Phone:</b>			
<b>Email:</b>	rhenegar@ncdot.gov	<b>Email:</b>			
<b>City/Town:</b>	Hendersonville	<b>County(ies):</b>	Henderson		
<b>River Basin(s):</b>	French Broad	<b>CAMA County?</b>	No		
<b>Primary Receiving Water:</b>	Featherstone Creek	<b>NCDWQ Stream Index No.:</b>	6-55-12		
<b>NCDWQ Surface Water Classification for Primary Receiving Water</b>	<b>Primary:</b>	Class C			
	<b>Supplemental:</b>				
<b>Other Stream Classification:</b>					
<b>303(d) Impairments:</b>	None				
<b>Buffer Rules in Effect</b>	N/A				

**Project Description**

<b>Project Length (lin. Miles or feet):</b>	0.045 miles	<b>Surrounding Land Use:</b>	Residential
		<b>Proposed Project</b>	<b>Existing Site</b>
<b>Project Built-Upon Area (ac.)</b>	0.14 ac.	0.09 ac.	
<b>Typical Cross Section Description:</b>	Roadway width of 20' with paved shoulders	Roadway width 17' with grass shoulders	
<b>Average Daily Traffic (veh/hr/day):</b>	<b>Design/Future:</b> 1900	<b>Existing:</b> 400	

**General Project Narrative:**

The purpose of this project is to replace Henderson County Bridge No. 309 on SR 1528 over Featherstone Creek. Bridge No. 309 is 25 feet long. The replacement structure will consist of a double barrel, 8-foot wide by 6-foot high reinforced concrete box culvert. The culvert size is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing grade.

The approach roadway will extend approximately 120 feet from the west end of the culvert and 120 feet from the east end of the culvert. The approaches will be widened to include a 20-foot pavement width providing two 10-foot lanes. Three-foot paved shoulders will be provided on each side (6-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Route using Subregional Tier guidelines with a 25 mile per hour design speed.

**References**

**Project Environmental Summary**

**Surface Water Impacts**

Sheet No.	Station (From / To)	Feature Impacted	Water / Wetland / Buffer Type	Receiving Surface Water Name	NRTR Map ID	NCDWQ Stream Index	NCDWQ Surface Water Classification	303(d) Impairments	Type of Impact	Existing SCM	Proposed SCM
4	15+84-L-	Stream	Perennial	Featherstone Creek	FC	6-55-12	C	None	Culvert	N/A	

\* List all stream and surface water impact locations regardless of jurisdiction or size.  
 Equalizer Pipes to be noted as a minimization of impacts.  
 All proposed SCMs listed must also be listed under Swales, Preformed Sour Holes and other Energy Dissipators, or Other Stormwater Control Measures.

**Description of Minimization of Impacts or Mitigation**

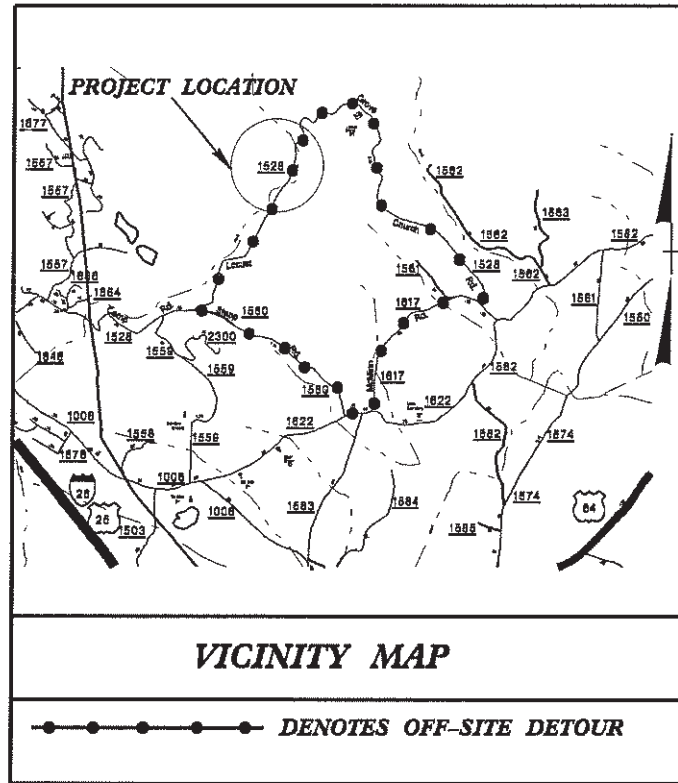
**References**



05/08/99

See Sheet 1-A For Index of Sheets

CONTRACT: TIP PROJECT: B-4988



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# HENDERSON COUNTY

LOCATION: REPLACEMENT OF BRIDGE 309 ON SR 1528  
OVER FEATHERSTONE CREEK

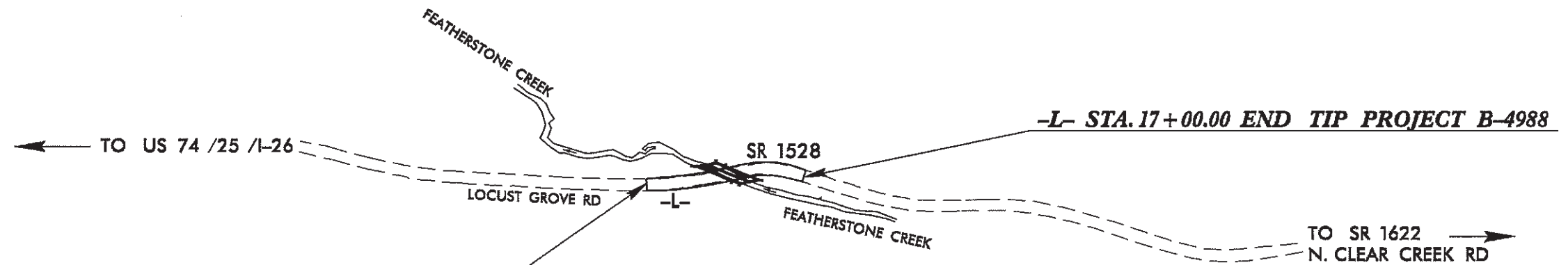
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND CULVERT

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

STATE	STATE PROJECT REFERENCE NO.	SHRIT NO.	TOTAL SHEETS
N.C.	B-4988	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40156.1.1	BRZ-1528(6)	PE	
40156.2.1	BRZ-1528(6)	RAW & UTIL	



-L- STA. 14+60.00 BEGIN TIP PROJECT B-4988



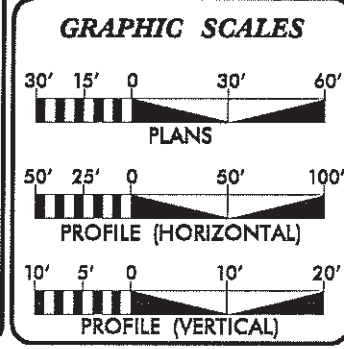
NAD 83 / 95

-L- STA. 17+00.00 END TIP PROJECT B-4988

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

Permit Sheet 1 of 8

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



**DESIGN DATA**

ADT 2014 = 775  
ADT 2035 = 1,900

DHV = 12 %  
D = 70 %  
T = 8 % \*  
V = 25 MPH

\* TTST = 1% DUAL 7%  
FUNC CLASS =  
LOCAL  
SUB REGIONAL TIER

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-4988 = 0.040 MILES

LENGTH STRUCTURE TIP PROJECT B-4988 = 0.005 MILES

TOTAL LENGTH TIP PROJECT B-4988 = 0.045 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
**OCTOBER 16, 2012**

LETTING DATE:  
**FEBRUARY 18, 2014**

G.E. BREW, P.E.  
PROJECT ENGINEER

I. T. YOUNIS  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

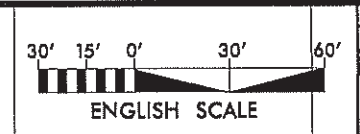


\$\$\$\$\$SYTIME\$\$\$\$\$DCN\$\$\$\$\$USERNAME\$\$\$\$\$

8/17/99

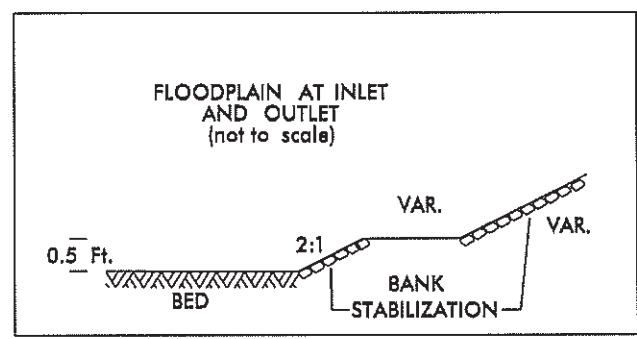
REVISIONS

R/W REVISIONS: 12/14/2012, R/W AND EASEMENT FLAGS.



PROJECT REFERENCE NO. B-4988	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

SEE SHEET 5 FOR PROFILE OF -L-



KEN OK HYUNG KIM  
DECLARATION OF TRUST  
YOUN KIM

1

WALTON K GILBERT  
BONDA D GILBERT  
DB 1105 PG 137


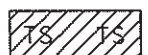
BANK STABILIZATION

JACQUELYN M. KIRKWOOD

LYNN B. MYERS

SR 1528 LOCUST GROVE RD 18' BST

WALTON K. GILBERT  
BONDA D. GILBERT

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**SITE**

D. SAMUEL NEILL  
EUGENE S. KIRKLEY  
ANN KIRKLEY

CECIL D. INGLE

\*\*\*\*\*  
 SYSTEMS  
 \*\*\*\*\*

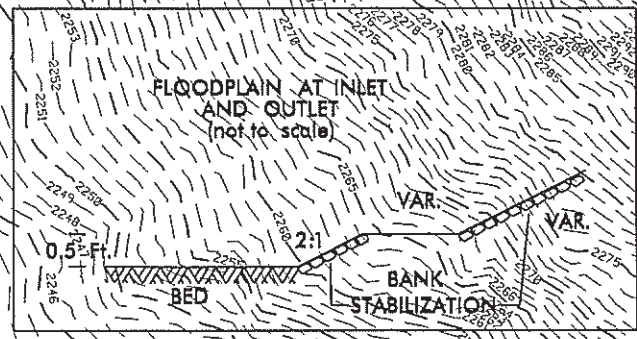
8/17/99

PROJECT REFERENCE NO. B-4988	SHEET NO. 4
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



**NAD 83 2001**

SEE SHEET 5 FOR PROFILE OF -L-



KEN OK HYUNG KIM  
DECLARATION OF TRUST  
YOUNG KIM

JACQUELYN M.  
KIRKWOOD

LYNN B. MYERS

WALTON K. GILBERT  
BONDA D. GILBERT  
DB 1105 PG 137

BANK STABILIZATION

SR 1528 LOCUST GROVE RD 18' BST

WALTON K. GILBERT  
BONDA D. GILBERT

**SITE**

CECIL D. INGLE

D. SAMUEL NEILL  
EUGENE S. KIRKLEY  
ANN KIRKLEY

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

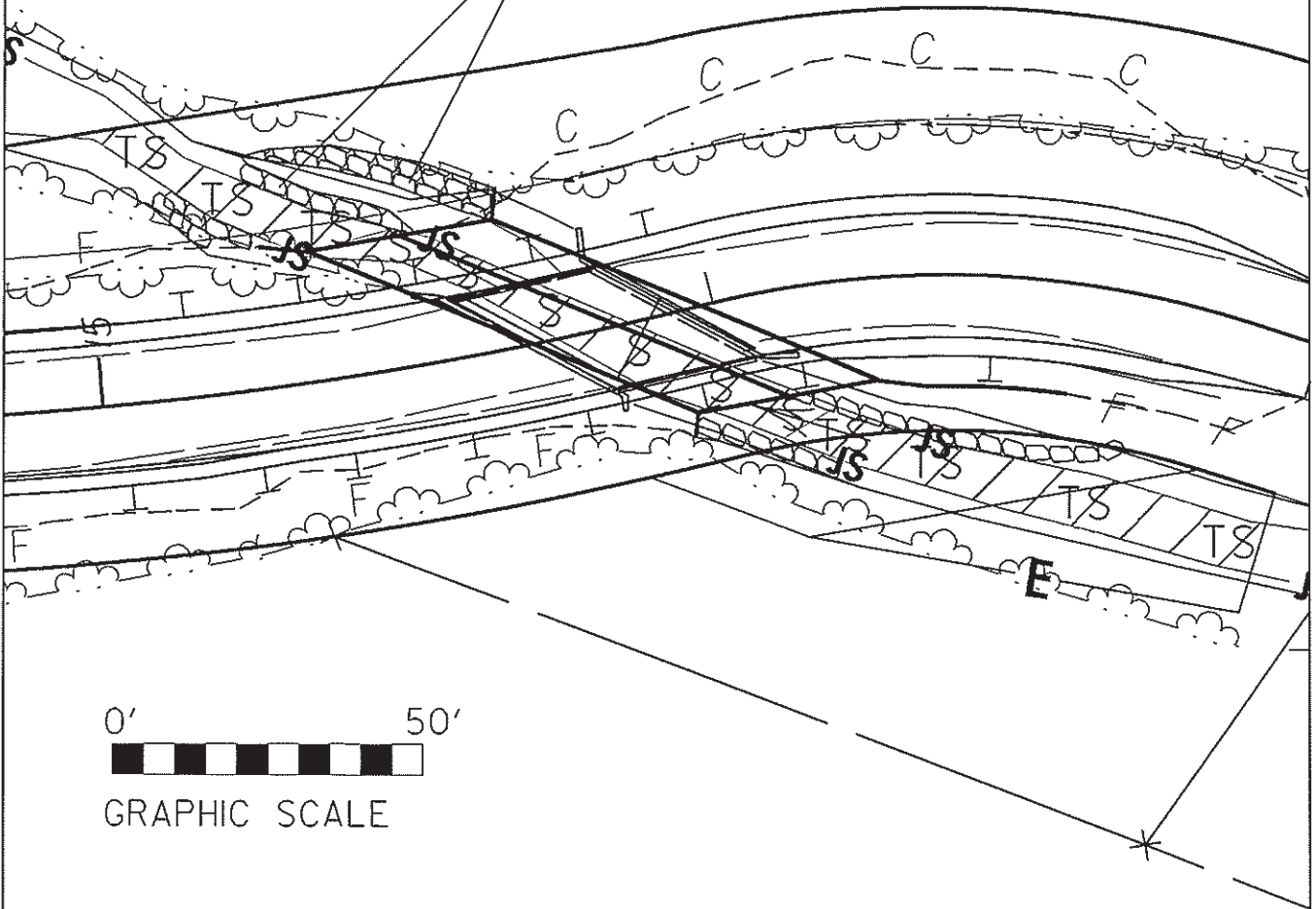
REVISIONS

RAW REVISIONS 12/14/2012 BY UPDATED - R.W. AND EASEMENT FLAGS.

\*\*\*\*\*  
SYSTEM TIME \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

NAD 83/2001

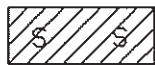
**BANK  
STABILIZATION**



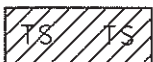
0' 50'  
GRAPHIC SCALE

Permit Sheet 4 of 8

**BLOWUP VIEW**



DENOTES IMPACTS IN  
SURFACE WATER



DENOTES TEMPORARY  
IMPACTS IN SURFACE WATER

**NCDOT**  
DIVISION OF HIGHWAYS  
HENDERSON COUNTY  
PROJECT: 40156.1.1 (B-4988)  
REPLACE BRIDGE #309 ON  
SR 1528 OVER  
FEATHERSTONE CREEK

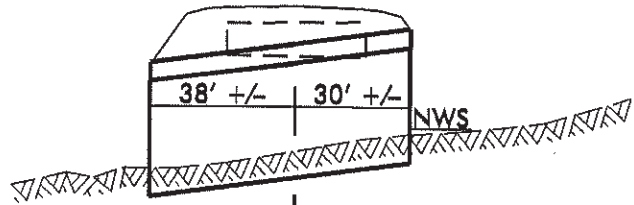
15+84.0 -L-  
GRADE PT. ELEV. 2246.84  
2@ 8 Ft. X 6 Ft.  
SKEW - 35°

2250'

▽ 25 YR WSEL 2250.5'    ▽ 100 YR WSEL 2251.3'

2250'

2240'



2240'

2230'

INV 2237.90'  
SLOPE - 0.027 FT/FT.

2230'

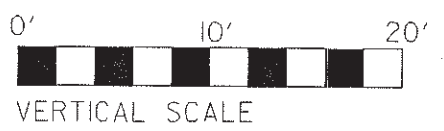
100'

0

100'



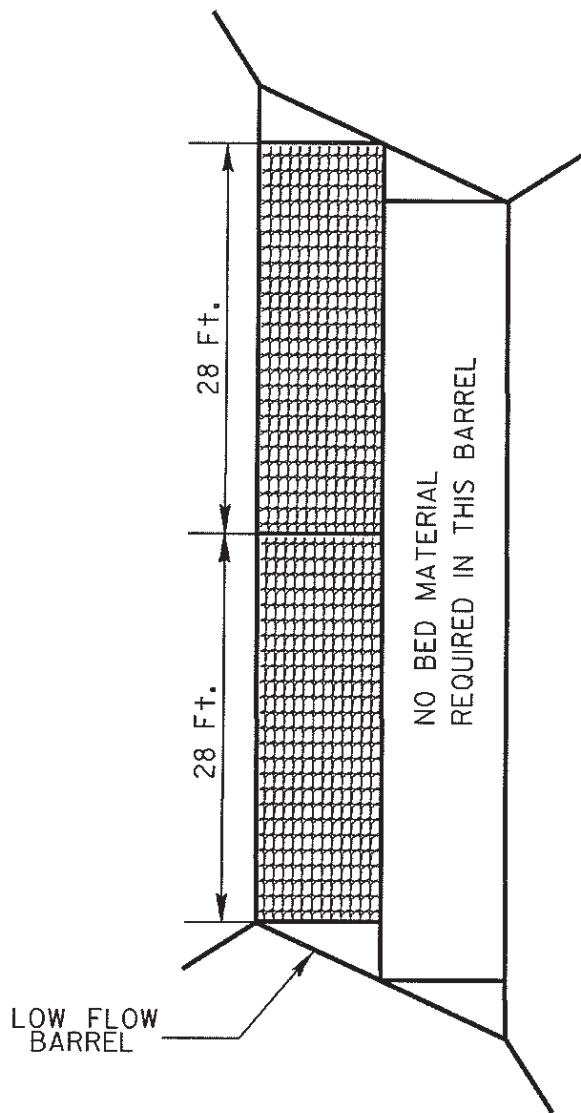
# PROFILE SITE



**NCDOT**  
DIVISION OF HIGHWAYS  
HENDERSON COUNTY  
PROJECT: 40156.1.1 (B-4988)

REPLACE BRIDGE 3309 ON SR 1528  
OVER FEATHERSTONE CREEK

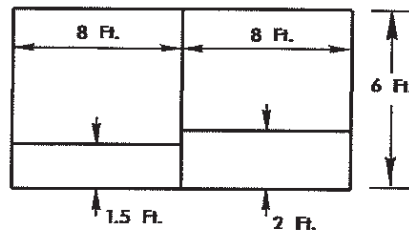
SHEET                      OF                      03 / 4 / 13



DETAIL OF LOW FLOW  
BAFFLES AND SILLS  
-L- STA. 15 +84  
2 @ 8 Ft. X 6 Ft. RCBC  
FEATHERSTONE CREEK  
(not to scale)

NOTES:

1. Bed material placed in the culvert shall be natural stone with a gradation size similar to that of Class 'B' riprap. Bed material is subject to approval by the Engineer.
2. Sills are to be 1.0 Ft. wide and cast separately and attached by dowels.
3. Top of sill in low flow barrel should match stream bed elevation in low flow channel of stream.



DETAIL OF SILLS AT INLET  
AND OUTLET  
(not to scale)

Permit Sheet 6 of 8

**NCDOT**  
**DIVISION OF HIGHWAYS**  
**HENDERSON COUNTY**  
**PROJECT: 40156.11 (B-4988)**  
**REPLACE BRIDGE No. 309**  
**ON SR 1528 OVER**  
**FEATHERSTONE CREEK**

# PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.

NAMES

ADDRESSES

1

KEN OK HYUNG KIM

13094 W. ESSEX LANE  
HUNTLEY, IL 60142

Permit Sheet 7 of 8

**NCDOT**

**DIVISION OF HIGHWAYS**

**HENDERSON COUNTY**

**PROJECT: 40156.11 (B-4988)**

**REPLACE BRIDGE #309 ON SR 1528  
OVER FEATHERSTONE CREEK**

SHEET

OF

03 / 05 / 13

**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)
	15+84-L-	2@ 8'x6' RCBC	0.00	0.00	0.00	0.00	0.00	0.01	0.02	78	126	0
		Bank Stabilization								75		
<b>TOTALS:</b>								0.01	0.02	153	126	

**Permit Sheet 8 of 8**

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

HENDERSON COUNTY  
WBS - 40156.1.1 (B-4988)



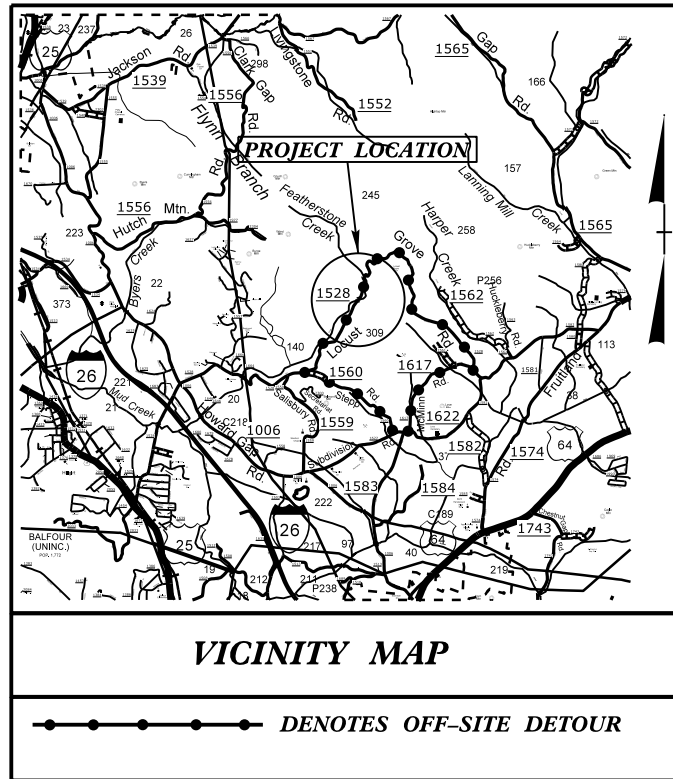
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**HENDERSON COUNTY**

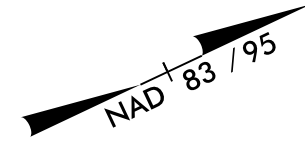
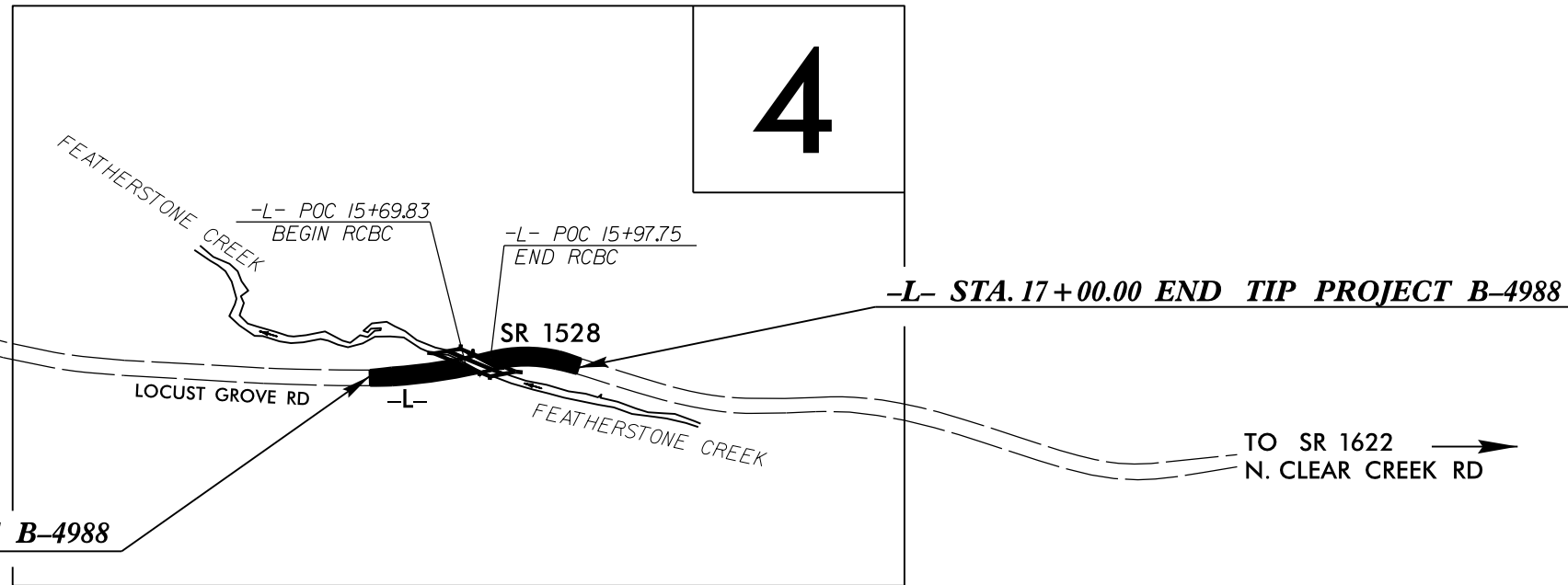
LOCATION: REPLACEMENT OF BRIDGE 309 ON SR 1528  
OVER FEATHERSTONE CREEK

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4988	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40156.1.1	BRZ-1528(6)	PE	
40156.2.1	BRZ-1528(6)	RW & UTIL	



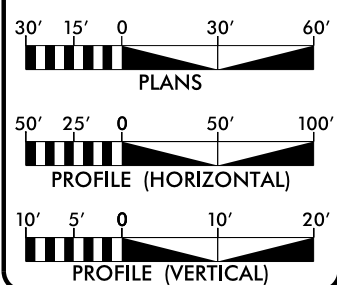
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES



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

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



DESIGN DATA

- ADT 2014 = 775
- ADT 2035 = 1,900
- DHV = 12 %
- D = 70 %
- T = 8 % \*
- V = 25 MPH
- \* TTST = 1% DUAL 7%
- FUNC CLASS = LOCAL
- SUB REGIONAL TIER

PROJECT LENGTH

- LENGTH ROADWAY TIP PROJECT B-4988 = 0.040 MILES
- LENGTH STRUCTURE TIP PROJECT B-4988 = 0.005 MILES
- TOTAL LENGTH TIP PROJECT B-4988 = 0.045 MILES

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

2012 STANDARD SPECIFICATIONS  
RIGHT OF WAY DATE:  
OCTOBER 16, 2012  
LETTING DATE:  
FEBRUARY 18, 2014

G. E. BREW, P.E.  
PROJECT ENGINEER

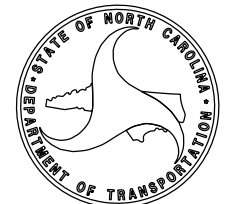
I. T. YOUNIS  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.



19-OCT-2012 15:00 R:\Roadway\Proj\B4988\_rdy\_tsh.dgn \$\$\$\$USERNAME\$\$\$

CONTRACT: TIP PROJECT: B-4988

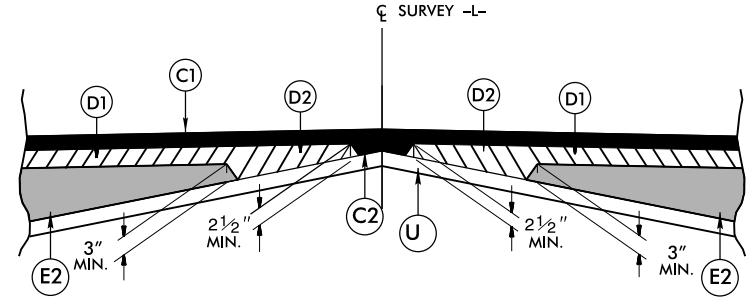
6/2/99

NOTE: TYPICAL SECTIONS ARE NOT DRAWN TO SCALE.

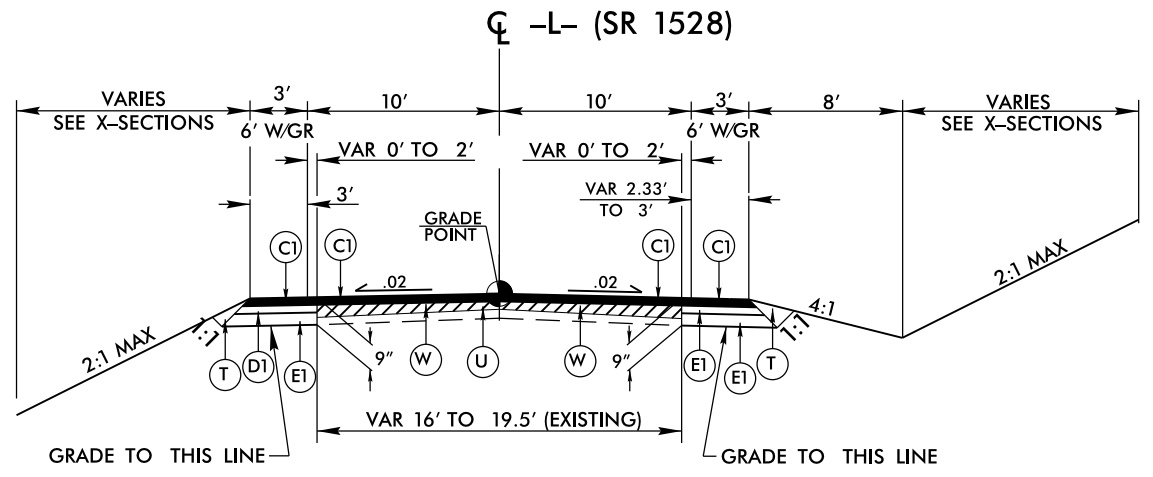
PROJECT REFERENCE NO. <b>B-4988</b>	SHEET NO. <b>2</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

FINAL PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
R1	SHOULDER BERM GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

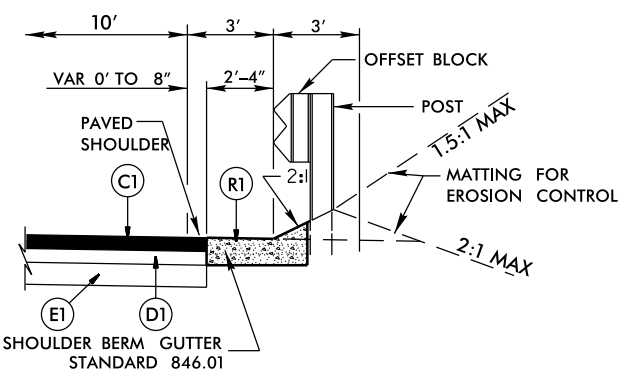


**Detail Showing Method of Wedging**  
(USE WITH TYPICAL SECTION 1)

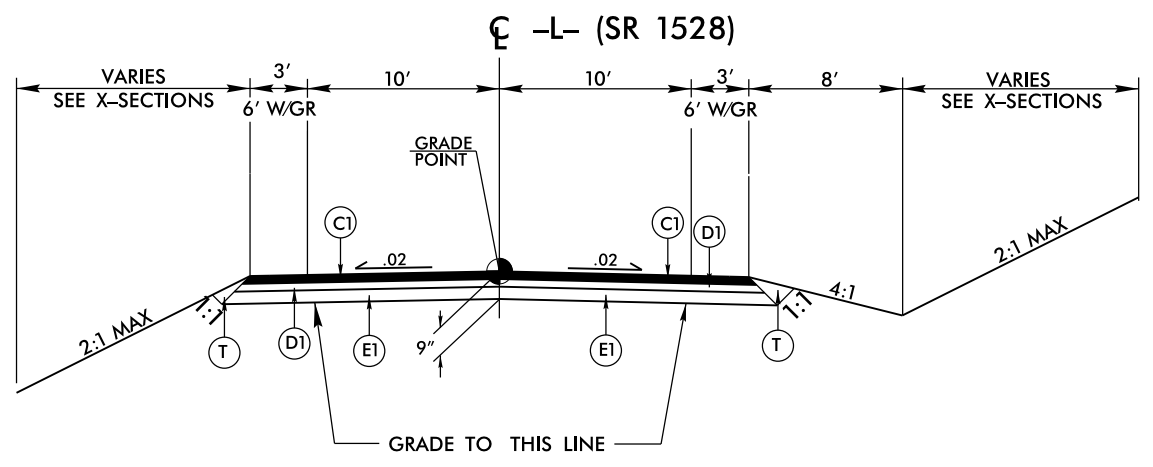


**TYPICAL SECTION NO. 1**

USE TYPICAL SECTION NO. 1  
-L- STA. 14+60.00 TO 15+40.00  
-L- STA. 16+10.00 TO 17+00.00

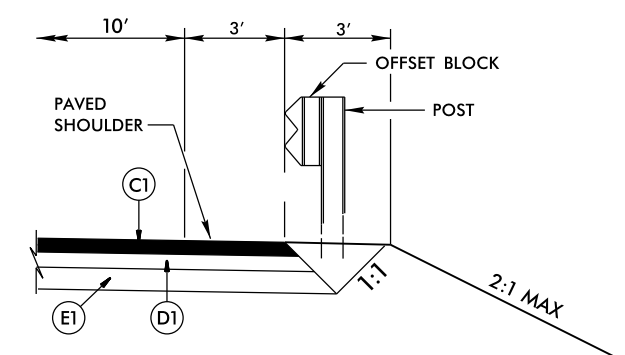


**DETAIL OF GUARDRAIL WITH SHLD. BERM GUTTER**  
USE WITH TYPICAL SECTION NO. 1 AND NO. 2  
-L- STA. 14+60.00 TO 16+00.00 (RIGHT)



**TYPICAL SECTION NO. 2**

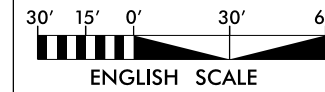
USE TYPICAL SECTION NO. 2  
-L- STA. 15+40.00 TO 16+10.00



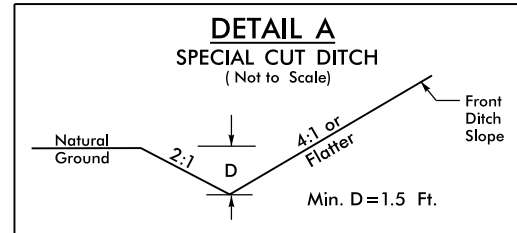
**DETAIL OF EXTENDING PAVED SHLD NEAR PROPOSED GUARDRAIL**  
USE WITH TYPICAL SECTION NO. 1 AND NO. 2  
(SEE PLANS FOR LOCATION)

19-OCT-2012 15:01  
44:PG03/PAVE/846.01  
B-4988-r.dj-typ.dgn

PI Sta 11+07.00	PI Sta 13+71.60	PI Sta 15+17.89	PI Sta 16+44.48	PI Sta 18+58.08
$\Delta = 1^\circ 43' 53.4''$ (LT)	$\Delta = 2^\circ 44' 19.2''$ (LT)	$\Delta = 1^\circ 29' 28.2''$ (LT)	$\Delta = 3^\circ 18' 19.2''$ (RT)	$\Delta = 1^\circ 07' 48.3''$ (LT)
D = 8' 11' 06.4"	D = 2' 17' 30.6"	D = 8' 48' 53.0"	D = 35' 48' 35.5"	D = 13' 38' 30.7"
L = 143.33'	L = 119.50'	L = 164.40'	L = 87.42'	L = 140.23'
T = 71.92'	T = 59.76'	T = 82.64'	T = 44.83'	T = 70.77'
R = 700.00'	R = 2,500.00'	R = 650.00'	R = 160.00'	R = 420.00'
e = EXIST	e = EXIST	e = SEE PLANS	e = SEE PLANS	e = EXIST



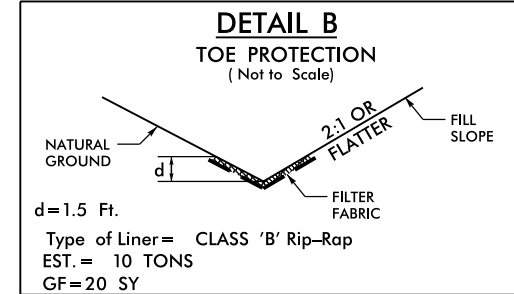
PROJECT REFERENCE NO. B-4988	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



FROM -L- STA. 15+80 TO STA. 16+90 LT.

UTILITY OWNERS  
NO UTILITIES FOUND  
INSIDE SURVEY LIMITS

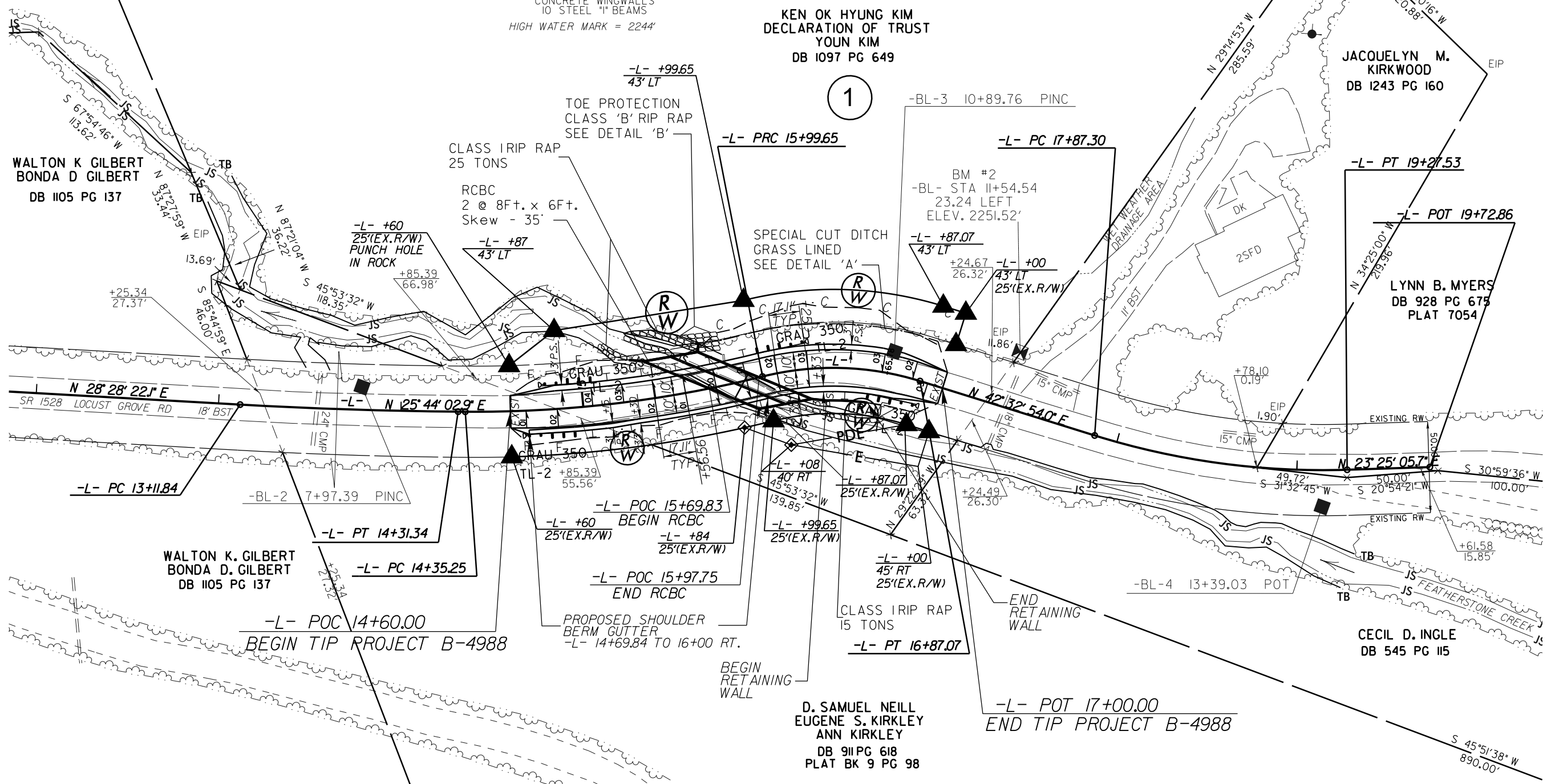
BRIDGE DESCRIPTION  
BST COVERED WOODEN DECK  
WOODEN GUARDRAILS  
CONCRETE HEADWALLS  
CONCRETE WINGWALLS  
10" STEEL "I" BEAMS  
HIGH WATER MARK = 2244'



FROM -L- STA. 15+68 TO STA. 15+80 LT.

KEN OK HYUNG KIM  
DECLARATION OF TRUST  
YOUNG KIM  
DB 1097 PG 649

1

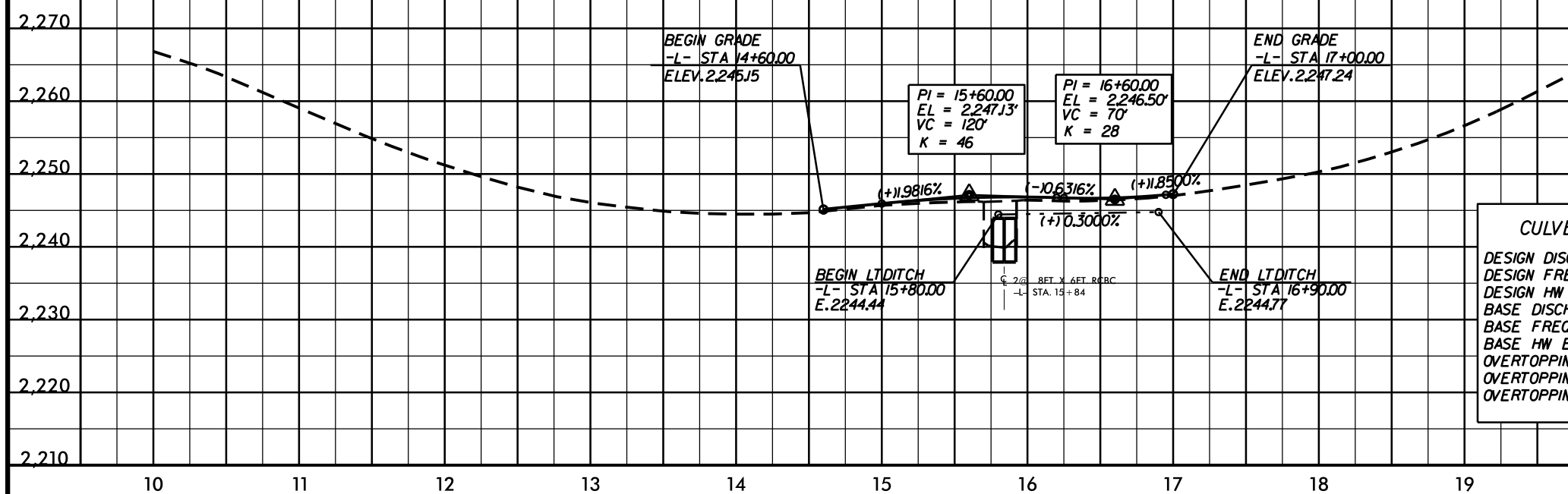


REVISIONS  
R/W REVISIONS.12/14/2012.R. UPDATED R/W AND EASEMENT FLAGS.

**PRELIMINARY PLANS**  
 DO NOT USE FOR CONSTRUCTION

BM \*1 ELEVATION = 2279.92'  
 N = 614332 E = 973394  
 -BLI- STATION 5+00.00  
 S43°43'58"W Dist 168.81  
 8 INCH SPIKE SET IN BASE OF 18 INCH  
 OAK TREE

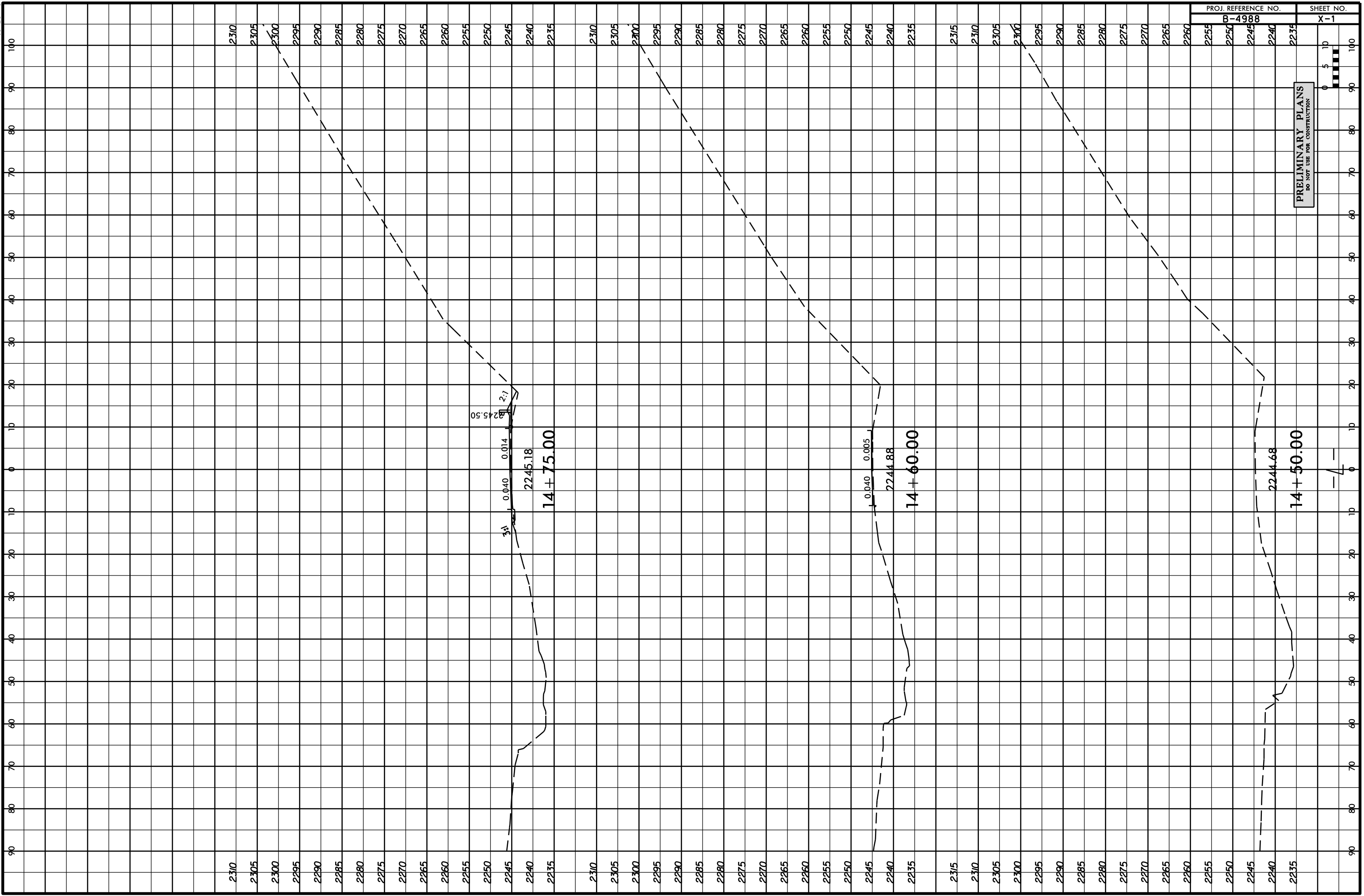
BM \*2 ELEVATION = 2251.52'  
 N = 615046 E = 973796  
 -L- STATION 17+34.69 (31.52) LEFT  
 8 INCH SPIKE SET IN BASE OF 18 INCH  
 BIRCH TREE

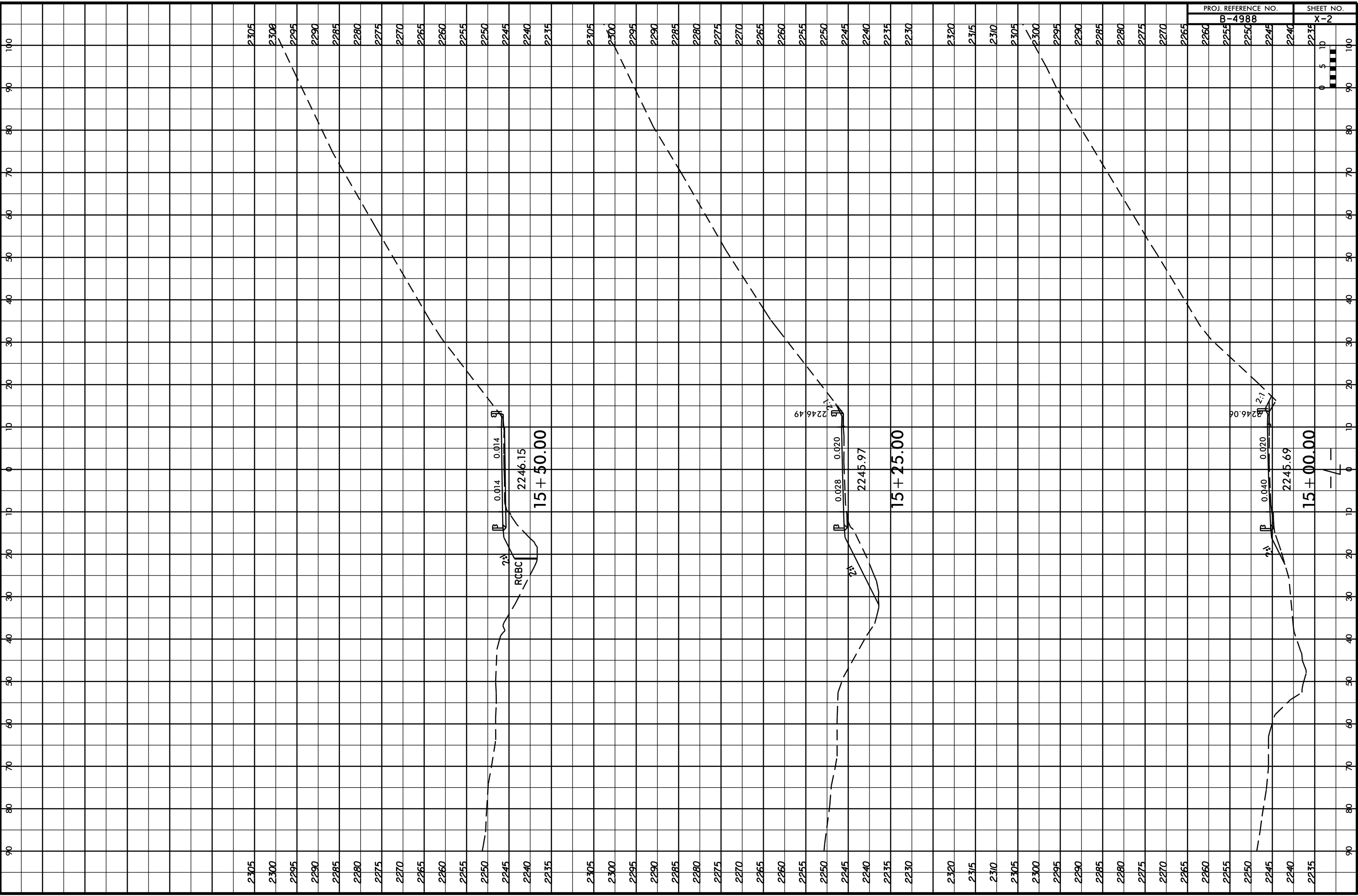


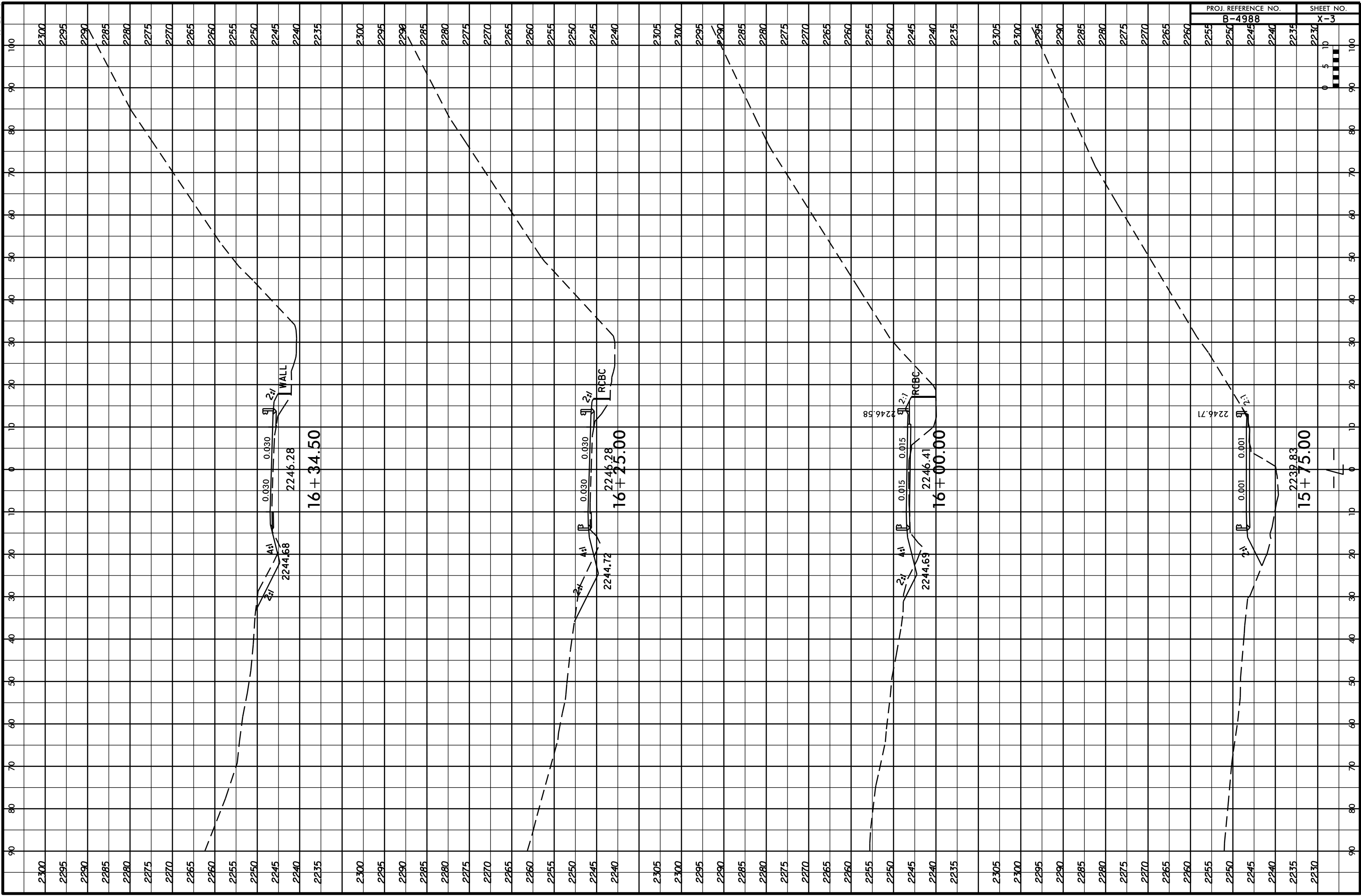
**CULVERT HYDRAULIC DATA**

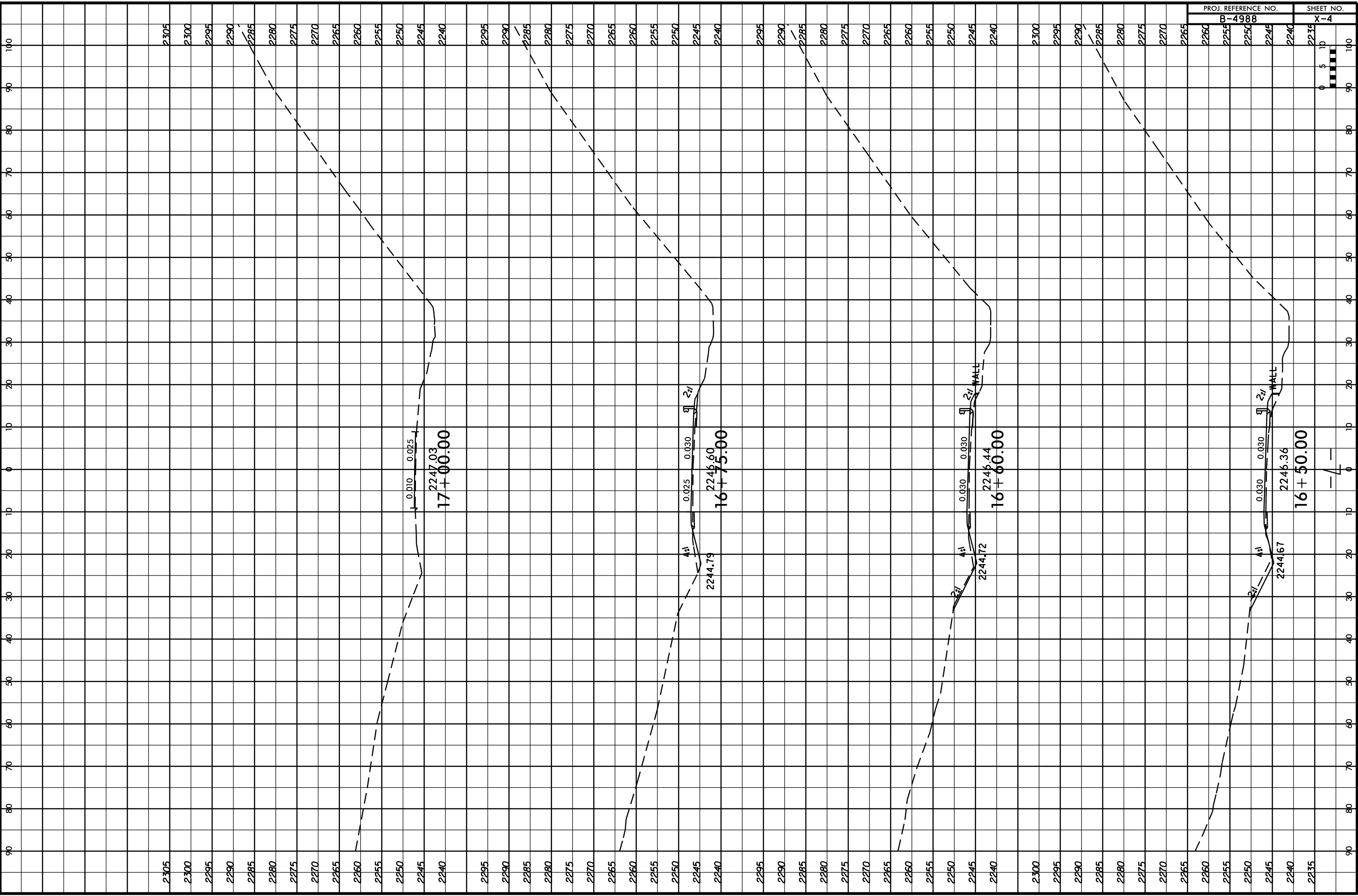
DESIGN DISCHARGE	= 480	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2250.5	FT
BASE DISCHARGE	= 700	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2251.3	FT
OVERTOPPING DISCHARGE	= 700	CFS
OVERTOPPING FREQUENCY	= +/- 100	YRS
OVERTOPPING ELEVATION	= 2246.0	FT

5/28/99

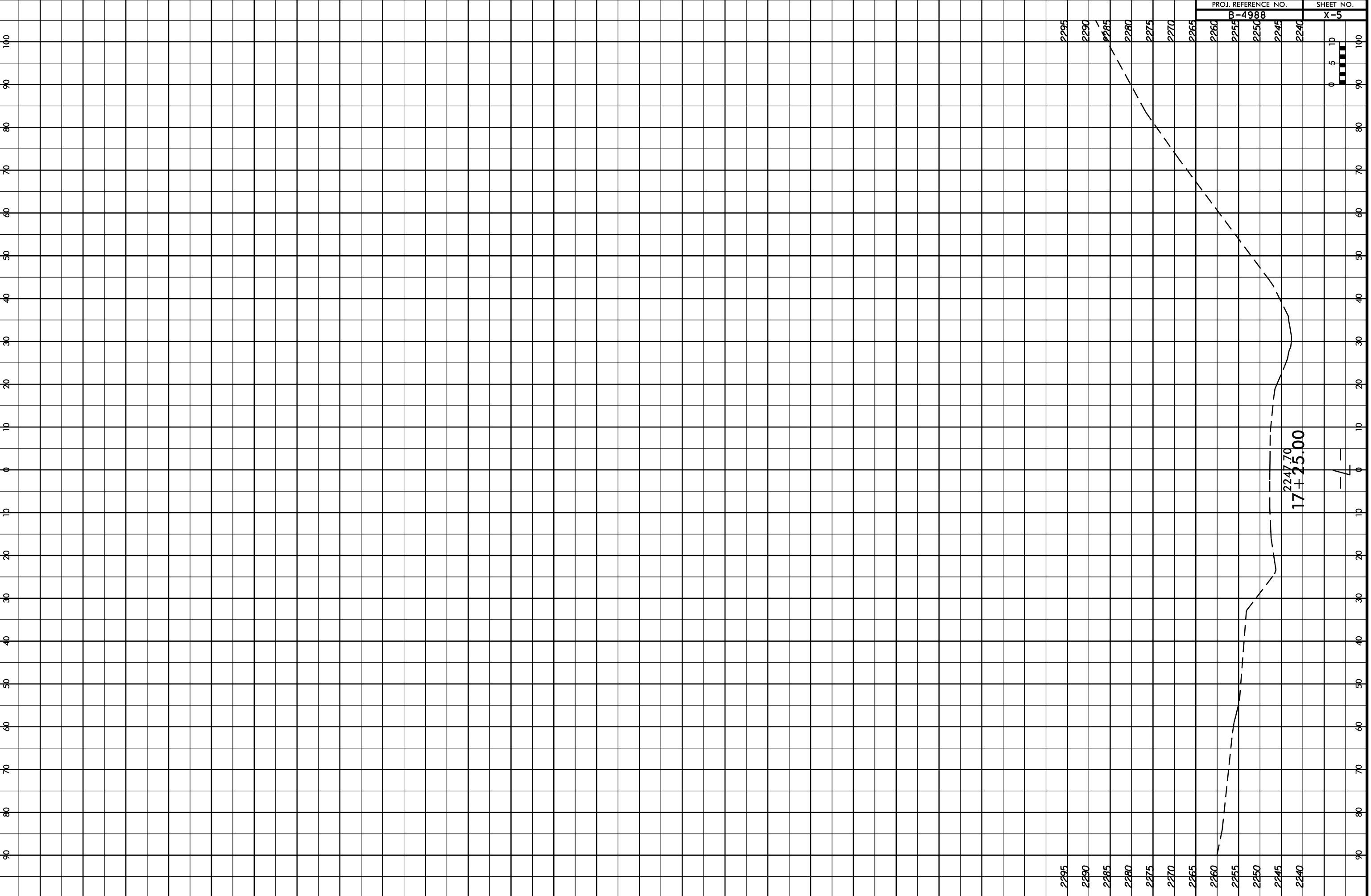




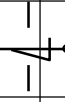








2247.70  
17 + 25.00



CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u><b>B-4988</b></u>
W.B.S. No.	<u><b>40156.1.1</b></u>
Federal Project No.	<u><b>BRZ-1528(6)</b></u>
	<u> </u>

A. Project Description:

The purpose of this project is to replace Henderson County Bridge No. 309 on SR 1528 over Featherstone Creek. Bridge No. 309 is 25 feet long. The replacement structure will consist of a double barrel, 8-foot wide by 6-foot high reinforced concrete box culvert. The culvert size is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing grade.

The approach roadway will extend approximately 120 feet from the west end of the culvert and 120 feet from the east end of the culvert. The approaches will be widened to include a 20-foot pavement width providing two 10-foot lanes. Three-foot paved shoulders will be provided on each side (6-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Route using Subregional Tier guidelines with a 25 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

B. Purpose and Need:

NCDOT Bridge Management Unit records indicate Bridge No. 309 has a sufficiency rating of 20 out of a possible 100 for a new structure.

The bridge is considered structurally deficient due to superstructure condition of 4 out of 9 and a structural evaluation appraisal of 2 out of 9 according to Federal Highway Administration (FHWA) standards and therefore eligible for FHWA's Highway Bridge Program.

The bridge deck and rails of Bridge No. 309 have timber elements that are forty-nine years old. Timber components have a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and upon eligibility are programmed for replacement. Timber components of bridge No. 309 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities; therefore, the bridge is approaching the end of its useful life.

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
  - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
  - b. Widening roadway and shoulders without adding through lanes
  - c. Modernizing gore treatments
  - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
  - e. Adding shoulder drains
  - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
  - g. Providing driveway pipes
  - h. Performing minor bridge widening (less than one through lane)
  - i. Slide Stabilization
  - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
  - a. Installing ramp metering devices
  - b. Installing lights
  - c. Adding or upgrading guardrail
  - d. Installing safety barriers including Jersey type barriers and pier protection
  - e. Installing or replacing impact attenuators
  - f. Upgrading medians including adding or upgrading median barriers
  - g. Improving intersections including relocation and/or realignment
  - h. Making minor roadway realignment
  - i. Channelizing traffic
  - j. Performing clear zone safety improvements including removing hazards and flattening slopes
  - k. Implementing traffic aid systems, signals, and motorist aid
  - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
  - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
  - b. Rehabilitating or replacing bridge decks
  - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
  - d. Replacing a bridge (structure and/or fill)
4. Transportation corridor fringe parking facilities.
5. Construction of new truck weigh stations or rest areas.

6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7. Approvals for changes in access control.
8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs, based on 2012 prices, are as follows:

Structure	\$ 148,000
Roadway Approaches	\$ 118,000
Detour Structure and Approaches	- 0 -
Structure Removal	\$ 15,000
Misc. & Mob.	\$ 51,000
Eng. & Contingencies	\$ 58,000
Total Construction Cost	\$ 390,000
Right-of-way Costs	\$ 19,975
Right-of-way Utility Costs	\$ 10,240
Total Project Cost	\$ 420,215

**Estimated Traffic:**

Current	-	400 vpd
Year 2035	-	1900 vpd
TTST	-	1%
Dual	-	7%

**Accidents:** Traffic Engineering has evaluated a recent ten year period and found two accidents occurring in the vicinity of the project. From the crash analysis there does not appear to be identifiable crash patterns or obvious safety hazards within the vicinity of the structure.

**Design Exceptions:** There are no anticipated design exceptions for this project.

**Pedestrian and Bicycle Accommodations:** This portion of SR 1528 is not a part of a designated bicycle route nor is it listed in the Transportation Improvement Program (TIP) as a bicycle project. Additionally, there is no indication of significant bike or pedestrian usage at the bridge. Neither permanent nor temporary bicycle or pedestrian accommodations are required for this project.

**Bridge Demolition:** Bridge No. 309 has a timber bridge deck and timber rails. The substructure is Yount Masonry and the girders are I-beams. The bridge should be possible to remove with no resulting debris in the water based on standard demolition practices.

**Alternatives Discussion:**

**No Build** – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1528.

**Rehabilitation** – The bridge was constructed in 1963 and the timber materials within the bridge are reaching the end of their useful life. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

**Offsite Detour** – Bridge No. 309 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include SR 1560 and SR 1622. The detour for the average road user would result in a delay of less than 5 minutes (1.4 miles additional travel). Up to a 4-month duration of construction is expected on this project.

Based on the Guidelines, the use of an offsite detour requires evaluating EMS and school transportation needs. Henderson County Emergency Services along with Henderson County Schools Transportation have indicated that an offsite detour is acceptable. NCDOT Division 14 has indicated that the condition of all roads, bridges and intersections along the detour are acceptable without improvement and concur with the use of the detour.

**Onsite Detour** – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

**Staged Construction** – Staged construction was not considered because of the availability of an acceptable offsite detour.

**New Alignment** – Given that the alignment for SR 1528 is acceptable, a new alignment was not considered as an alternative.

**Structure Type:** The current structure is a bridge built in 1963 and has a drainage area of 1.3 square miles. The reason for building a bridge was not because a culvert would not work but because the design, materials and labor were not practical in the time when this structure was built. Based on the drainage area and design discharges, a 2 @ 8-foot wide by 6-foot high reinforced concrete box culvert was determined to be adequate from a hydraulics standpoint. The culvert will be buried 1.5 feet below the streambed and will be designed with sills at the inlet and outlet ends of the culvert. A 1.5-foot sill will be placed in the main flow barrel and 2-foot high sills will be placed in the other barrel with floodplain benches at the entrance and outlet of the culvert to maintain normal channel flow. The culvert will be designed such that the slope and velocities are consistent with the existing stream to the extent practicable. Because culverts generally cost less, require less maintenance throughout their service life and last longer than bridges, a culvert is the preferred structure type.

**Other Agency Comments:**

The U.S. Environmental Protection Agency provided the following project comments:

1. Bridge supports should not be placed in the stream, if possible.
2. Bridge deck drains should not discharge directly into the stream, and stormwater should be pre-treated prior to discharge to a stream or wetland.
3. Mechanical landclearing adjacent to the bridge should be limited to the extent possible, to avoid impacts to wetlands and streams in the project area.

**Response:** NCDOT will be replacing the existing bridge with a culvert. Please see discussion of Structure Type on Page 5. NCDOT can best manage its water quality impacts by performing work in and around bodies of water with the utmost care and by using Best Management Practices (BMPs) that focus on minimizing sediment loss from a project.

**Public Involvement:**

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u>  X  </u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<u>  X  </u>	<u>          </u>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u>  X  </u>
(4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	<u>  X  </u>	<input type="checkbox"/>

- |     |  |                                     |                     |
|-----|--|-------------------------------------|---------------------|
| (5) | Will the project require the use of U. S. Forest Service lands?  | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |
| (6) | Will the quality of adjacent water resources be adversely impacted by proposed construction activities?            | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |
| (7) | Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)? | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |
| (8) | Will the project require fill in waters of the United States in any of the designated mountain trout counties?     | <input checked="" type="checkbox"/> | <u>          </u>   |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?                 | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |

PERMITS AND COORDINATION

YES                      NO

- |      |  |                                     |                     |
|------|--|-------------------------------------|---------------------|
| (10) | If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)? | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |
| (11) | Does the project involve Coastal Barrier Resources Act resources?  | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |
| (12) | Will a U. S. Coast Guard permit be required?   | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |
| (13) | Could the project result in the modification of any existing regulatory floodway?  | <input checked="" type="checkbox"/> | <u>          </u>   |
| (14) | Will the project require any stream relocations or channel changes?  | <input type="checkbox"/>            | <u>  <b>X</b>  </u> |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES                      NO

- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area?   | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (16) | Will the project require the relocation of any family or business?  | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (17) | Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?                        | <u>  <b>X</b>  </u>      | <input type="checkbox"/> |



- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (19) | Will the project involve any changes in access control?   | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (20) | Will the project substantially alter the usefulness and/or land use of adjacent property?   | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?  | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (22) | Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?  | <u>  <b>X</b>  </u>      | <input type="checkbox"/> |
| (23) | Is the project anticipated to cause an increase in traffic volumes?   | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (24) | Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?   | <u>  <b>X</b>  </u>      | <input type="checkbox"/> |
| (25) | If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility? | <u>  <b>X</b>  </u>      | <input type="checkbox"/> |
| (26) | Is there substantial controversy on social, economic, or environmental grounds concerning the project?  | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?   | <u>  <b>X</b>  </u>      | <input type="checkbox"/> |
| (28) | Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?  | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (29) | Will the project affect any archaeological remains which are important to history or pre-history?   | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)?             | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended?  | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers?   | <input type="checkbox"/> | <u>  <b>X</b>  </u>      |

F. Additional Documentation Required for Unfavorable Responses in Part E

**Response to Question 2:** Marginal habitat for small whorled pogonia exists within the project study area, primarily in the southeast quadrant. The forested area in this quadrant is primarily composed of white pine and hardwoods with a fairly open shrub layer. A walking visual survey of all potential areas of habitat within the study area was conducted by NCDOT biologists on July 3, 2007. No individuals of this species were observed. A known population of small whorled pogonia located off of US 64 in Transylvania County was visited earlier that same day. The plants at the known site were up, in good condition and still within their reproductive cycle. A check of the NHP database on January 9, 2008 showed no known occurrences of small whorled pogonia within 1.0 mile of the study area.

Marginal habitat for white irisette exists within the project study area, primarily in the southeast quadrant. The forested area in this quadrant is primarily composed of white pine and hardwoods with a fairly open shrub layer. A walking visual survey of all potential areas of habitat within the study area was conducted by NCDOT biologists on July 3, 2007. No individuals of this species were observed. A check of the NHP database on January 9, 2008 showed no known occurrences of white irisette within 1.0 mile of the study area.

**Response to Question 8:** A small amount of fill may be required between the bank of Featherstone Creek and the side of the box culvert. The amount of fill will be minimized or eliminated during final design and construction. In addition, the concrete floor of the culvert will be buried underneath the stream.

**Response to Question 13:** Henderson County is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). Currently the effective FEMA floodplain mapping indicates that the subject crossing is located within a flood hazard zone designated as Zone A. However, restudy is in progress for Henderson County, and according to preliminary study information available from NC Floodplain Mapping Program, this flood zone will be upgraded to a Zone AE, where 100-year base flood elevations will be established in a "Limited Detailed Flood Study". The Hydraulics Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for the project. If required, the Division Resident Engineer will submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on the construction plans.

G. CE Approval

TIP Project No.	<u>B-4988</u>
W.B.S. No.	<u>40156.1.1</u>
Federal Project No.	<u>BRZ-1528(6)</u>

A. Project Description:

The purpose of this project is to replace Henderson County Bridge No. 309 on SR 1528 over Featherstone Creek. Bridge No. 309 is 25 feet long. The replacement structure will consist of a double barrel, 8-foot wide by 6-foot high reinforced concrete box culvert. The culvert size is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing grade.

The approach roadway will extend approximately 120 feet from the west end of the culvert and 120 feet from the east end of the culvert. The approaches will be widened to include a 20-foot pavement width providing two 10-foot lanes. Three-foot paved shoulders will be provided on each side (6-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Route using Subregional Tier guidelines with a 25 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

Categorical Exclusion Action Classification:

       TYPE II(A)  
  X   TYPE II(B)

Approved:

4/25/12 William F. Gordon  
Date Bridge Project Development Engineer  
Project Development & Environmental Analysis Unit

4/24/12 Bryan D. Kelly  
Date Project Engineer  
Project Development & Environmental Analysis Unit

4/24/12 April Corrid  
Date Project Planning Engineer  
Project Development & Environmental Analysis Unit

For Type II(B) projects only:

4-24-12 Michael V. Johnson  
Date John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration

## **PROJECT COMMITMENTS:**

**Henderson County  
Bridge No. 309 on SR 1528  
Over Featherstone Creek  
Federal Aid Project No. BRZ-1528(6)  
W.B.S. No. 40156.1.1  
T.I.P. No. B-4988**

### **Division 14 Construction**

In order to have time to adequately reroute school busses, Henderson County Schools will be contacted at (828) 697-4739 at least one month prior to road closure. Additionally, school bus turnaround areas will be provided during construction.

Henderson County Emergency Services will be contacted at (828) 697-4827 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

### **Hydraulics Unit**

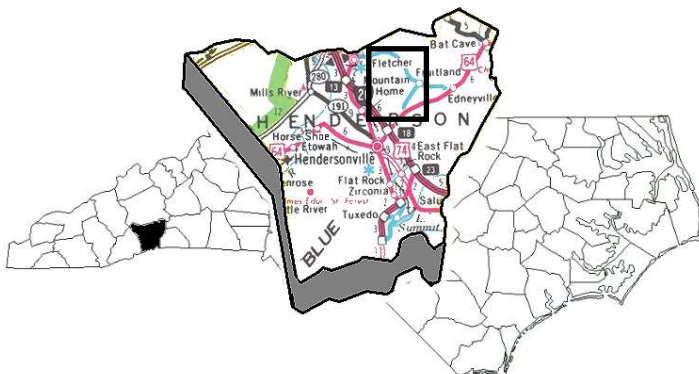
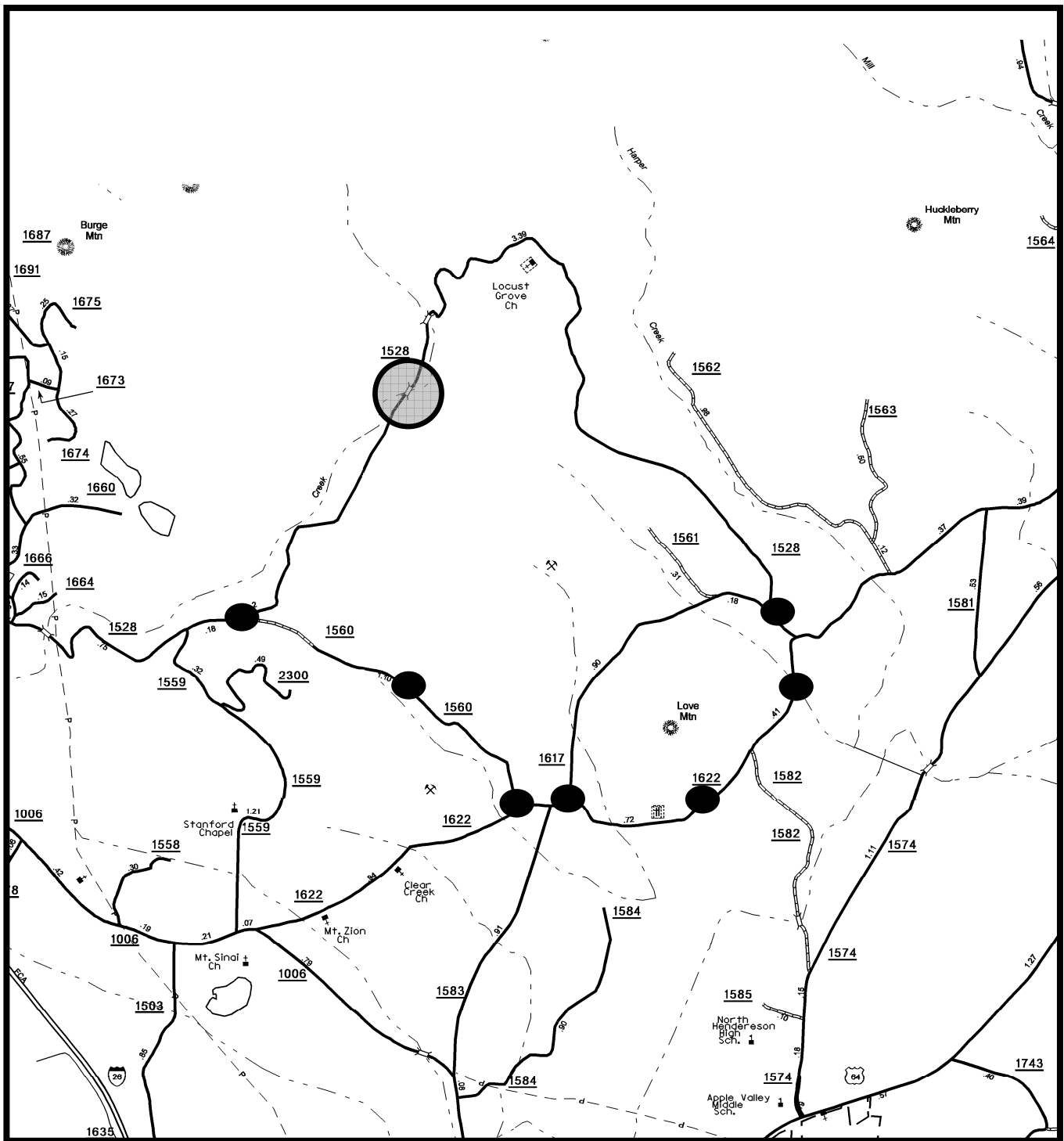
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

### **Structure Design Unit**

The proposed project is located in the Tennessee Valley Authority (TVA) Land Management District. The project will require approval under Section 26a of the TVA Act.

### **Natural Environment Unit**

Re-surveys for the Small Whorled Pogonia and the White Irisette within the project area will be conducted prior to construction, within the appropriate survey window for each species.



**STUDIED DETOUR ROUTE** 



NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS BRANCH

**HENDERSON COUNTY  
REPLACE BRIDGE NO. 309 ON SR 1528  
OVER FEATHERSTONE CREEK  
B-4988**

Figure 1

NAD 83/2001

BRIDGE DESCRIPTION  
 BST COVERED WOODEN DECK  
 WOODEN GUARDRAILS  
 CONCRETE HEADWALLS  
 CONCRETE WINGWALLS  
 10" STEEL "I" BEAMS  
 HIGH WATER MARK = 2244'

KEN OK HYUNG KIM  
 DECLARATION OF TRUST  
 YOUNG KIM  
 DB 1097 PG 649

1

JACQUELYN M. KIRKWOOD  
 DB 1243 PG 160

WALTON K GILBERT  
 BONDA D GILBERT  
 DB 1105 PG 137

-L- PT 19+27.53

-L- POT 19+72.86

LYNN B. MYERS  
 DB 928 PG 675  
 PLAT 7054

-L- PC 17+87.30  
 BM #2  
 -BL- STA 11+54.54  
 23.24 LEFT  
 ELEV. 2251.52'

-L- PRC 15+99.65

N 28° 28' 22" E  
 SR 1528 LOCUST GROVE RD 18' BST

-L- N 25° 44' 02.9" E

N 42° 32' 54.0" E

N 23° 25' 05.7" E

-L- PC 13+11.84

-L- PT 14+31.34

-L- PC 14+35.25

WALTON K. GILBERT  
 BONDA D. GILBERT  
 DB 1105 PG 137

PROPOSED SHOULDER  
 BERM GUTTER  
 -L- 14+69.84 TO 16+00 RT.

PROPOSED  
 RETAINING  
 WALL

-L- PT 16+87.07

CECIL D. INGLE  
 DB 545 PG 115


-L- POC 14+60.00  
 BEGIN TIP PROJECT B-4988

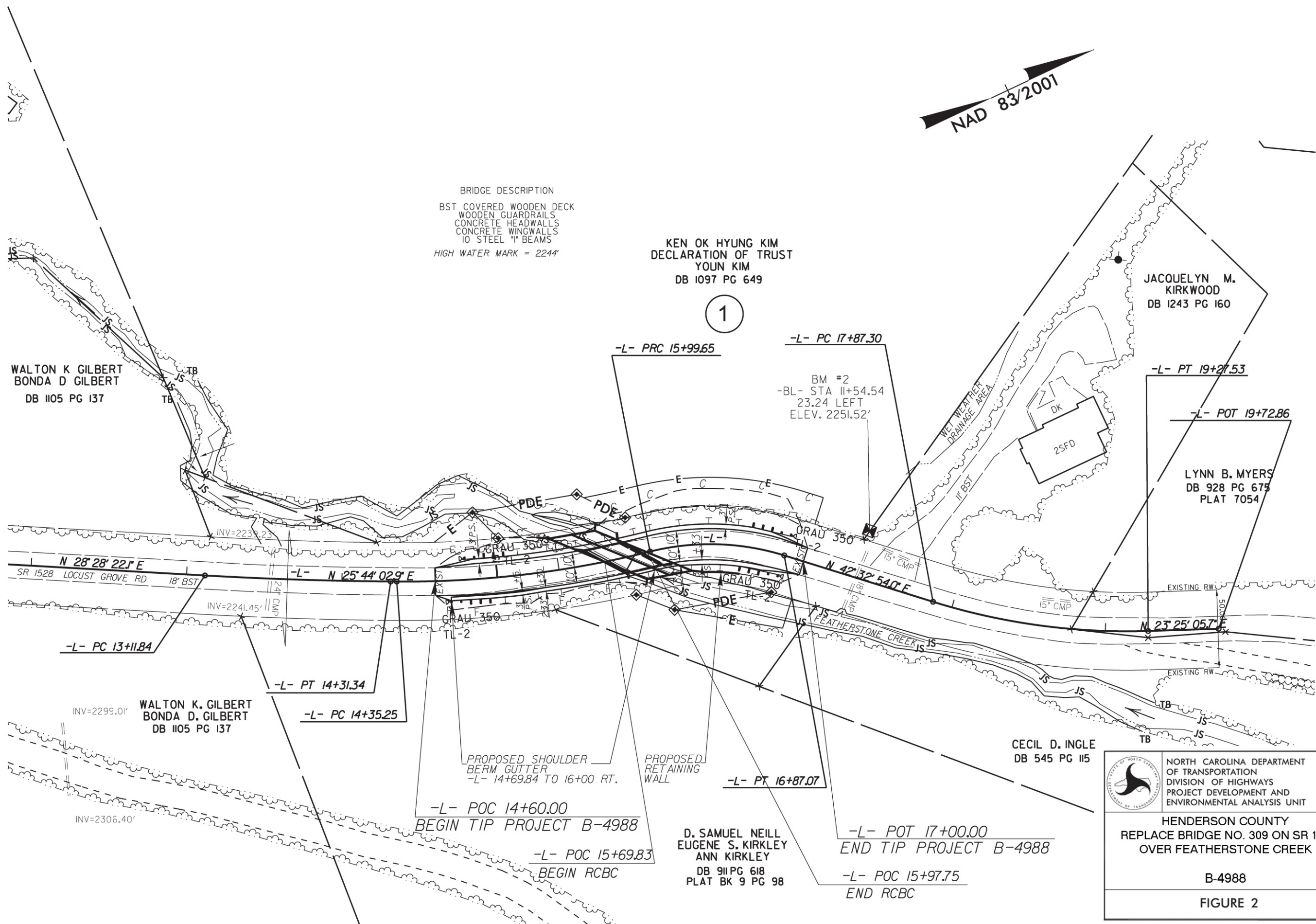
-L- POC 15+69.83  
 BEGIN RCBC

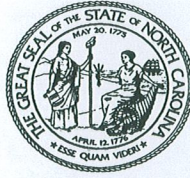
D. SAMUEL NEILL  
 EUGENE S. KIRKLEY  
 ANN KIRKLEY  
 DB 911 PG 618  
 PLAT BK 9 PG 98

-L- POT 17+00.00  
 END TIP PROJECT B-4988

-L- POC 15+97.75  
 END RCBC

	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT
	HENDERSON COUNTY REPLACE BRIDGE NO. 309 ON SR 1528 OVER FEATHERSTONE CREEK
	B-4988 FIGURE 2





RECEIVED  
Division of Highways

MAY 05 2009

Preconstruction  
Project Development and  
Environmental Analysis Branch

**North Carolina Department of Cultural Resources**  
**State Historic Preservation Office**

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor  
Linda A. Carlisle, Secretary  
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

April 29, 2009

MEMORANDUM

TO: Bryan Kluchar  
Bridge Project Development Unit  
North Carolina Department of Transportation

FROM: Peter Sandbeck *RSZ for Peter Sandbeck*

SUBJECT: Bridge 309 on SR 1528 over Featherstone Creek, B-4988, Henderson County, ER 09-0894

Thank you for your letter of April 9, 2009, concerning the above project.

We have conducted a review of the proposed undertaking and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the undertaking as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT  
Matt Wilkerson, NCDOT