



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

January 17, 2004

US Army Corps of Engineers  
Regulatory Field Office  
6508 Falls of Neuse Road, Suite 120  
Raleigh, NC 27615

ATTENTION: Mr. John Thomas  
NCDOT Coordinator

Dear Sir:

Subject: **Nationwide 33 Permit Application** for the Replacement of Bridge No. 310 over Buffalo Creek on SR 1507, NCDOT Division 11, Ashe County. Federal Aid Project No. BRZ-1507(2), State Project No. 82712001, WBS No. 33261.1.1, TIP Project No. B-3805.

Please find enclosed three copies of the Categorical Exclusion (CE) Document, as well as, the Pre-construction Notification, permit drawings, ½ size plans, and USFWS concurrence request letter for the above referenced project completed by the North Carolina Department of Transportation (NCDOT). The agency proposes that Bridge No. 310, consisting of 51 feet of timber floor on I-beams, be replaced with a new 75-foot long bridge approximately 15 feet north of the existing structure. The new bridge will accommodate two eleven-foot lanes, on a single span, with no bents in the water. A temporary work bridge will be needed for construction. The work bridge will require Class II rip-rap for stabilization, resulting in 0.015 acre of temporary in-stream fill. Traffic will be maintained on the existing bridge during construction. The NC Division of Water Quality has assigned a best usage classification of "C" for Buffalo Creek. Also, the Wildlife Resource Commission has requested that a bass moratorium be used, which will prohibit any in-stream activity from May 1 till July 15.

**IMPACTS TO WATERS OF THE UNITED STATES**

Buffalo Creek [DWQ Index No. 10-2-20] is the only surface water directly affected by the proposed project and occurs in subbasin 050702 of the New River Basin. Buffalo Creek is approximately 25 to 30 feet wide with a depth of up to 1.5 feet.

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

TELEPHONE: 919-733-3141  
FAX: 919-733-9794

WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
TRANSPORTATION BUILDING  
1 SOUTH WILMINGTON STREET  
RALEIGH NC

Permanent Impacts: This site contains no jurisdictional wetlands. The bridge replacement will cause no permanent impacts to Buffalo Creek.

Temporary Impacts: There will be 0.015 acre of temporary in-stream fill, resulting from Class II rip-rap, used to stabilize the work bridge.

The Division of Water Quality Best Usage classification for Buffalo Creek is "C". Also, the Wildlife Resource Commission has requested that a bass moratorium be used, which will prohibit any in-stream activity from May 1 till July 15. There are no waters classified as High Quality Waters (HQW), Water Supplies (WS-1: undeveloped watersheds or WS-II: predominately undeveloped watersheds) or Outstanding Resource Waters (ORW) within 1 mile of the project study area.

Bridge Demolition: Bridge No. 310 contains one span totaling 51 feet in length. The bridge superstructure consists of a timber floor on steel beams, and the substructure contains one reinforced concrete abutment and one timber end bent. The entire superstructure and the timber end bent will be removed without dropping any components into the water, however, there is potential for the reinforced concrete abutment to be dropped into the water. The resulting potential temporary fill associated with the reinforced concrete abutment is approximately 31 cubic yards. During demolition and removal, NCDOT's Best Management Practices for Bridge Demolition and Removal will be followed.

Utility Impacts: Blue Ridge Electric Membership Corporation has aerial service east of the existing bridge. Skyline Telephone Membership Corporation has aerial service east of the existing bridge. It is anticipated that the removal of the existing bridge and the construction of the new bridge will not interfere with these existing utilities. There are no underground utilities in the project vicinity.

Restoration Plan: The material used for installation of the temporary work bridge will be removed after its purpose has been served. The temporary fill areas will be restored to their original contours. After the temporary work bridge is no longer needed, the contractor will use excavating equipment to remove all material within jurisdictional areas. All material will become the property of the contractor who will be required to submit a reclamation plan for removal and disposal of all materials off-site.

Schedule: It is assumed that the contractor will begin construction of the proposed work bridge shortly after the date of availability for the project. The Let date is July 19, 2005 with a date of availability of August 30, 2005.

Removal and Disposal: The work bridge will be removed within 90 days after it is no longer needed. All materials placed in the stream by the contractor will be removed. All other materials removed by the contractor will be disposed of at an off site, non-jurisdictional, upland location.

## FEDERALLY-PROTECTED SPECIES

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered, and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of February 5, 2003 the Fish and Wildlife Service (FWS) lists 7 federally protected species for Ashe County (Table 1).

**Table 1.**  
**Federally Protected Species for Ashe County**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Status</b>	<b>Conclusion</b>
<i>Clemmys muhlenbergii</i>	Bog turtle	T(S/A)	N/A
<i>B. Geum radiatum</i>	Spreading avens	Endangered	No Effect
<i>Helonias bullata</i>	Swamp pink	Threatened	No Effect
<i>Gymnoderma lineare</i>	Rock gnome lichen	Endangered	No Effect
<i>Houstonia montana</i>	Roan Mountain bluet	Endangered	No Effect
<i>Liatris helleri</i>	Heller's blazin star	Threatened	No Effect
<i>Spiraea virginiana</i>	Virginia spiraea	Threatened	No Effect

The bog turtle is listed as T(S/A). This designation is due to the bog turtle's similarity of appearance to another rare species currently listed for protection. Species designated under T(S/A) are not subject to Section 7 consultation. Therefore, a biological conclusion for this species is not required.

Spreading avens is found only in the North Carolina and Tennessee sections of the southern Appalachian Mountains. Spreading avens occurs on scarps, bluffs, cliffs and escarpments on mountains, hills and ridges. Known populations of this plant have been found to occur only at elevations of greater than 5,000 feet. Since the project elevation is less than 3,000 feet and the NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in the area, there will be no effect.

The North Carolina populations of swamp pink are limited to bogs in the southern Appalachians. Since bogs do not exist in the study area, there will be no effect.

The rock gnome lichen is restricted to areas of high humidity such as mountaintops and cliff faces which are frequently bathed in fog or lower elevation deep gorges between mountains. The humid habitat required for this species does not exist at the project site and there are no records for this species in the area, thus the project will not affect this species.

Roan Mountain bluet can be found on grassy balds, cliffs, outcrops, and steep slopes. Known populations of Roan Mountain bluet all occur at elevations above 4,600 feet. This project has an elevation of 2,800 feet and has no rock cliffs or outcrops. Because of these existing conditions and because there is no record of this species in the area, the outcome will be no effect.

Heller's blazing star is endemic to high elevation rock ledges in the northern Blue Ridge Mountains. Since our project elevation is only 2,800 feet and since it contains no rocky ledges, there will be no effect to this species.

Virginia spiraea is found in a very narrow range of habitats in the mountains of North Carolina; usually on the scoured banks of high gradient streams. NCDOT performed a threatened and endangered species survey for Virginia spiraea on October 22, 2001 and October 8, 2003 at the project site. Habitat for this species was present, although no species were found during either survey. The U.S. Fish and Wildlife Service has concurred with no effect for Virginia spiraea (attached).

### **AVOIDANCE, MINIMIZATION AND MITIGATION**

Avoidance examines all appropriate and practicable possibilities of averting impacts to "Waters of the United States." The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional stages; minimization measures were incorporated as part of the project design. The new location for bridge No. 310 is approximately 15 feet north of the existing bridge. This site was chosen because it will not result in permanent impacts to the stream. To minimize erosion, a preformed scour hole is being placed at the north east corner of the bridge. This scour hole will contain rip-rap to reduce the flow of sediment into the stream. A single span bridge will be used so that no bents are put into Waters of the United States.

### **REGULATORY APPROVALS**

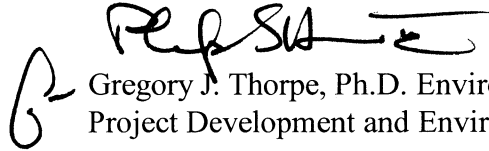
Section 404 Permit: It is anticipated that the construction of the work bridge will be authorized under Section 404 Nationwide Permit 33 (Temporary Construction Access and Dewatering). We are, therefore, requesting the issuance of a Nationwide Permit 33 authorizing construction of the work bridge.

Section 401 Permit: We anticipate 401 General Certification number 3366 will apply to this project. We will adhere to the general conditions of the Water Quality Committee in accordance with 15A NCAC 2H .0500(a) and 15A NCAC 2B .0200. We are providing two copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality, for their records.

A copy of this permit application will be posted on the DOT website at: <http://www.ncdot.org/planning/pe/naturalunit/permit.html>.

If you have any questions or need additional information, please contact Megan Willis at (919) 715-1341.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory J. Thorpe". The signature is written in a cursive style with a large initial "G" and a long horizontal stroke at the end.

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

w/ attachment:

Mr. John Hennessy, NC DWQ (2 copies)  
Mr. Carl McCann, P.E., Division Engineer  
Mr. Omar Sultan, Programming and TIP  
Mr. David Franklin, USACE, Wilmington  
Ms. Marla Chambers, NCWRC  
Mr. Heath Slaughter, DEO  
Mr. Art McMillan, PE, Highway Design  
Mr. Jay Bennett, P.E., Roadway Design  
Mr. Derrick Weaver, Planning Engineer  
Dr. David Chang, P.E., Hydraulics  
Mr. Mark Staley, Roadside Environmental  
Mr. Greg Perfetti, P.E., Structure Design  
Ms. Marella Buncick, USFWS

**Office Use Only:**

Form Version May 2002

**USACE Action ID No.** \_\_\_\_\_ **DWQ No.** \_\_\_\_\_

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

**I. Processing**

1. Check all of the approval(s) requested for this project:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Section 404 Permit              | <input type="checkbox"/> Riparian or Watershed Buffer Rules |
| <input type="checkbox"/> Section 10 Permit                          | <input type="checkbox"/> Isolated Wetland Permit from DWQ   |
| <input checked="" type="checkbox"/> 401 Water Quality Certification |   |

2. Nationwide, Regional or General Permit Number(s) Requested: 33

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:

4. If payment into the North Carolina Wetlands Restoration Program (NCWRP) is proposed for mitigation of impacts (verify availability with NCWRP prior to submittal of PCN), complete section VIII and check here:

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

**II. Applicant Information**

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director

Mailing Address: 1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794

E-mail Address: mwillis@dot.state.nc.us

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: \_\_\_\_\_

Company Affiliation: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

### III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Replacement of Bridge No. 310 over Buffalo Creek on SR 1507
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-3805
3. Property Identification Number (Tax PIN): \_\_\_\_\_
4. Location  
County: Ashe Nearest Town: Warrensville  
Subdivision name (include phase/lot number): \_\_\_\_\_  
Directions to site (include road numbers, landmarks, etc.): Project is located on SR 1507 (Stanley Road) in Southwestern Ashe County.  
\_\_\_\_\_  
\_\_\_\_\_
5. Site coordinates, if available (UTM or Lat/Long): Approximately 36,28'00" latitude and 81,31'00" longitude  
(Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
6. Property size (acres): < 1 acre
7. Nearest body of water (stream/river/sound/ocean/lake): Buffalo Creek
8. River Basin: New River Basin  
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at [http://h2o.enr.state.nc.us/admin/maps/.](http://h2o.enr.state.nc.us/admin/maps/))
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: The area surrounding the site is rural farm land and maintained roadside.

---

---

10. Describe the overall project in detail, including the type of equipment to be used: Bridge No. 310 is to be replaced with a similar structure directly adjacent to the existing. The existing bridge will be used for traffic during construction. Standard bridge construction equipment will be used.

---

---

---

---

11. Explain the purpose of the proposed work: To increase the safety of travelers along SR 1507 by replacing the old bridge and improving the alignment of the road leading up to the bridge.

---

---

---

**IV. Prior Project History**

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules.

n/a

---

---

**V. Future Project Plans**

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.

n/a

---

---

**VI. Proposed Impacts to Waters of the United States/Waters of the State**

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. The applicant must also



provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: There will be temporary impacts to 0.015 acre of stream due to class II rip-rap which will be used to create a work pad. \_\_\_\_\_

---



---



---

2. Individually list wetland impacts below:

Wetland Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Located within 100-year Floodplain** (yes/no)	Distance to Nearest Stream (linear feet)	Type of Wetland***
n/a					

\* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.  
 \*\* 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at <http://www.fema.gov>.  
 \*\*\* List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: n/a  
 Total area of wetland impact proposed: n/a

3. Individually list all intermittent and perennial stream impacts below:

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
1	Fill/Temporary	0.015 acre	Buffalo Creek	25 ft.	Perennial

--	--	--	--	--	--

- \* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included.
- \*\* Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at [www.usgs.gov](http://www.usgs.gov). Several internet sites also allow direct download and printing of USGS maps (e.g., [www.topozone.com](http://www.topozone.com), [www.mapquest.com](http://www.mapquest.com), etc.).

Cumulative impacts (linear distance in feet) to all streams on site: 0.015 acre (temporary)

4. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.) below:

Open Water Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Name of Waterbody (if applicable)	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)
n/a				

- \* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: fill, excavation, dredging, flooding, drainage, bulkheads, etc.

5. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply):  uplands  stream  wetlands  
 Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): n/a

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): n/a

Size of watershed draining to pond: n/a Expected pond surface area: n/a

**VII. Impact Justification (Avoidance and Minimization)**

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts.

Impacts were reduced by using a single span bridge so that no bents will be placed in the water.

---

---

---

**VIII. Mitigation**

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on March 9, 2000, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCWRP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ’s Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

No mitigation is required because impacts are only temporary.

---

---

---

---

2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant’s responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the

NCWRP, check the NCWRP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCWRP is proposed, please check the appropriate box on page three and provide the following information:

Amount of stream mitigation requested (linear feet): 0  
 Amount of buffer mitigation requested (square feet): 0  
 Amount of Riparian wetland mitigation requested (acres): 0  
 Amount of Non-riparian wetland mitigation requested (acres): 0  
 Amount of Coastal wetland mitigation requested (acres): 0

**IX. Environmental Documentation (required by DWQ)**

Does the project involve an expenditure of public (federal/state) funds or the use of public (federal/state) land?

Yes  No

If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?  
 Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.

Yes  No

If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter.

Yes  No

**X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)**

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify \_\_\_\_\_)?

Yes  No  If you answered "yes", provide the following information:

Identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact	Multiplier	Required
-------	--------	------------	----------

	(square feet)		Mitigation
1		3	
2		1.5	
Total			

\* Zone 1 extends out 30 feet perpendicular from near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Conservation Easement, Riparian Buffer Restoration / Enhancement, Preservation or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0260.

---



---



---

**XI. Stormwater (required by DWQ)**

Describe impervious acreage (both existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property.

n/a

---



---

**XII. Sewage Disposal (required by DWQ)**

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.

n/a

---



---

**XIII. Violations (required by DWQ)**

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?

Yes  No

Is this an after-the-fact permit application?

Yes  No

**XIV. Other Circumstances (Optional):**

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on

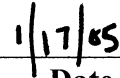
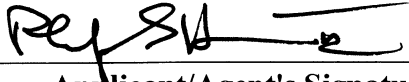
work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

---

---

---

---



**Applicant/Agent's Signature**

**Date**

(Agent's signature is valid only if an authorization letter from the applicant is provided.)



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Asheville Field Office  
160 Zillicoa Street  
Asheville, North Carolina 28801

December 31, 2003

Mr. Brett Feulner  
Environmental Biologist  
North Carolina Department of Transportation, PDEA  
Office of Natural Environment  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Mr. Feulner:

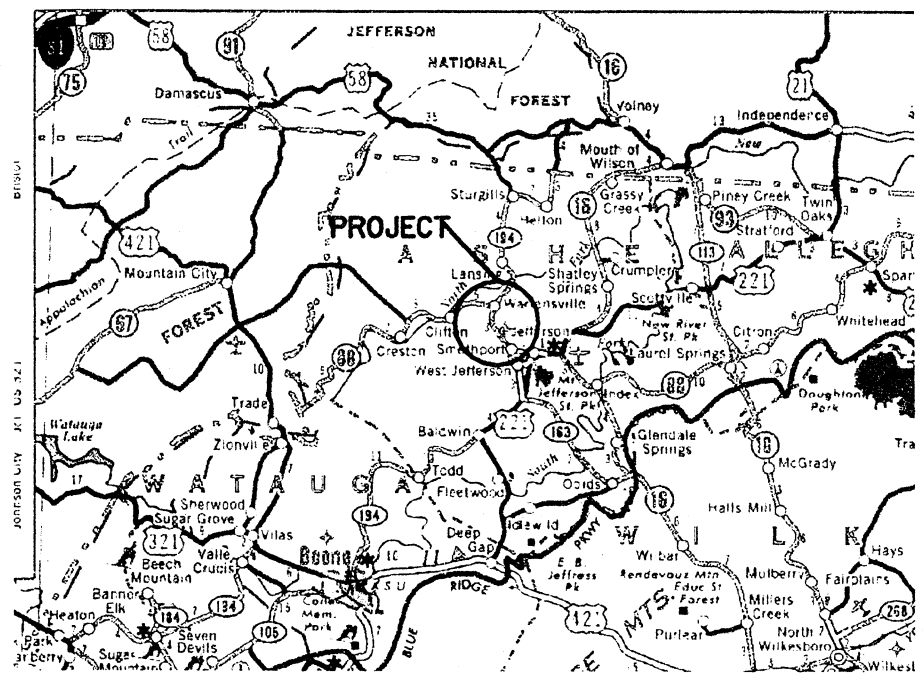
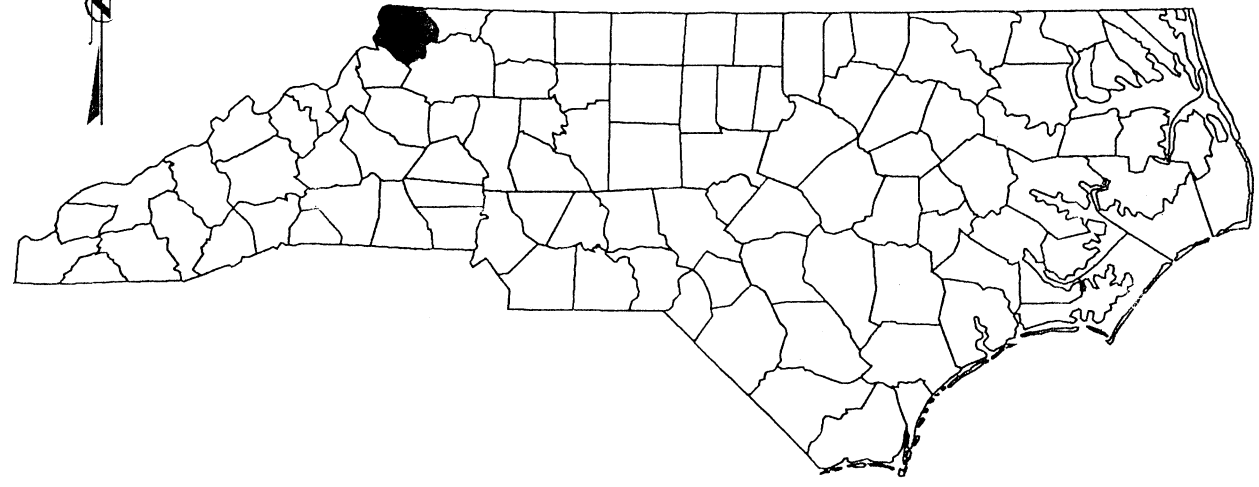
Subject: Endangered Species Concurrence for Three Bridge Replacement Projects: B-3805, Bridge No. 310 on SR 1507 over Buffalo Creek; B-3607, Bridge No. 503 on SR 1674 over Buffalo Creek; and B-4014, Bridge No. 281 over Big Horse Creek, All in Ashe County, North Carolina

As requested by the North Carolina Department of Transportation, we have reviewed the natural resources information and biological conclusions for federally protected species for the subject projects. The following comments are provided in accordance with the provisions of section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

We have reviewed the updated survey information provided for impacts to the federally threatened Virginia spiraea (*Spiraea virginiana*) for the subject projects. Given the information provided, we agree that there will be no effect to federally listed species for these bridge replacement projects.

We believe the requirements under section 7(c) of the Act are fulfilled regarding listed species for the subject projects. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

# NORTH CAROLINA

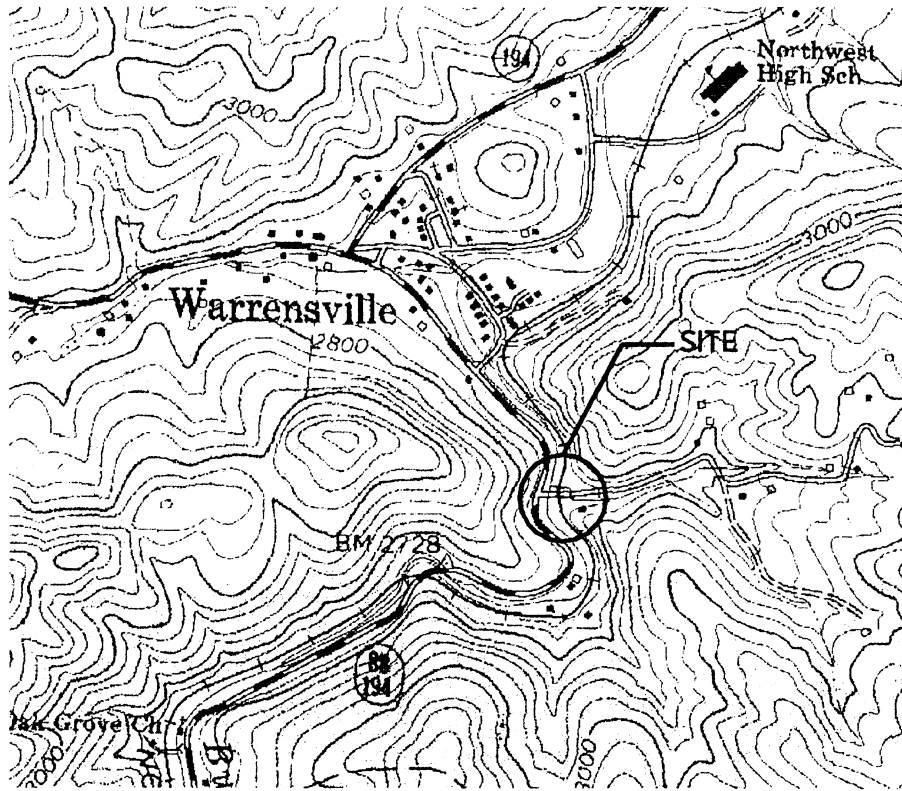


## VICINITY MAPS

**NCDOT**  
DIVISION OF HIGHWAYS  
ASHE COUNTY  
PROJECT: 8.2712001 (B-3805)

**PROPOSED BRIDGE REPLACEMENT  
BRG. # 310 ON SR 1507 IN  
ASHE COUNTY**





NOT TO SCALE



# TOPOGRAPHIC MAPS

**NCDOT**

DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2712001 (B-3805)

PROPOSED BRIDGE REPLACEMENT  
BRG. # 310 ON SR 1507 IN  
ASHE COUNTY

SHEET 2 OF 8

08/12/04

PROPERTY OWNERS  
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	BILLY SHOAF	1445 MODOC DR. NOFOLK, VA. 23503
2	HALBERT JAMES TURNER	185 JOE BADGER RD. WARRENSVILLE, N.C. 28693

NCDOT  
DIVISION OF HIGHWAYS  
ASHE COUNTY  
PROJECT: 8.2712001 (B-3805)  
PROPOSED BRIDGE REPLACEMENT  
BRG. # 310 ON SR 1507 IN  
ASHE COUNTY  
SHEET 3 OF 8 08/12/04

**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS						SURFACE WATER IMPACTS				
			Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	Temp. Fill In SW (ac)	Existing Channel Impacted (ft)	Natural Stream Design (ft)		
1	10+29 -L- 10+85 -L-	WORK BRIDGE PHASE I & II	0	0	0	0	0	0	0	0	0.015	0	0
<b>TOTALS:</b>			0	0	0	0	0	0	0	0	0.015	0	0

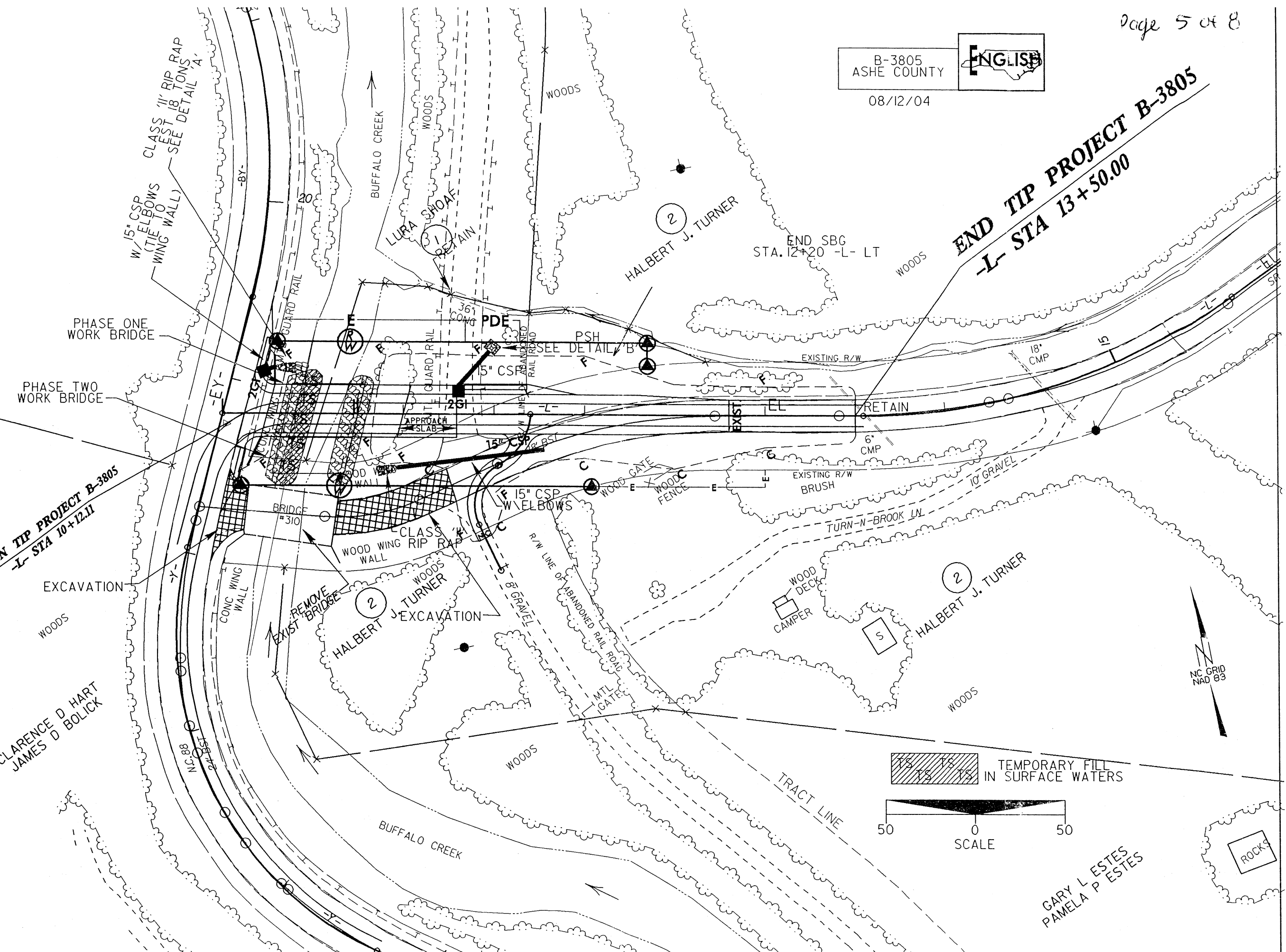
NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 ASHE COUNTY  
 PROJECT: 8:2712001 (B-3805)  
 SHEET 4 OF 8  
 8/12/2004

B-3805  
ASHE COUNTY  
08/12/04

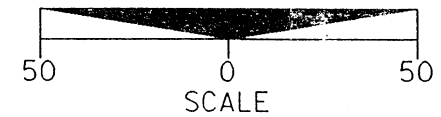


**END TIP PROJECT B-3805**  
**-L- STA 13+50.00**

**BEGIN TIP PROJECT B-3805**  
**-L- STA 10+12.11**



TEMPORARY FILL  
IN SURFACE WATERS



GARY L ESTES  
PAMELA P ESTES

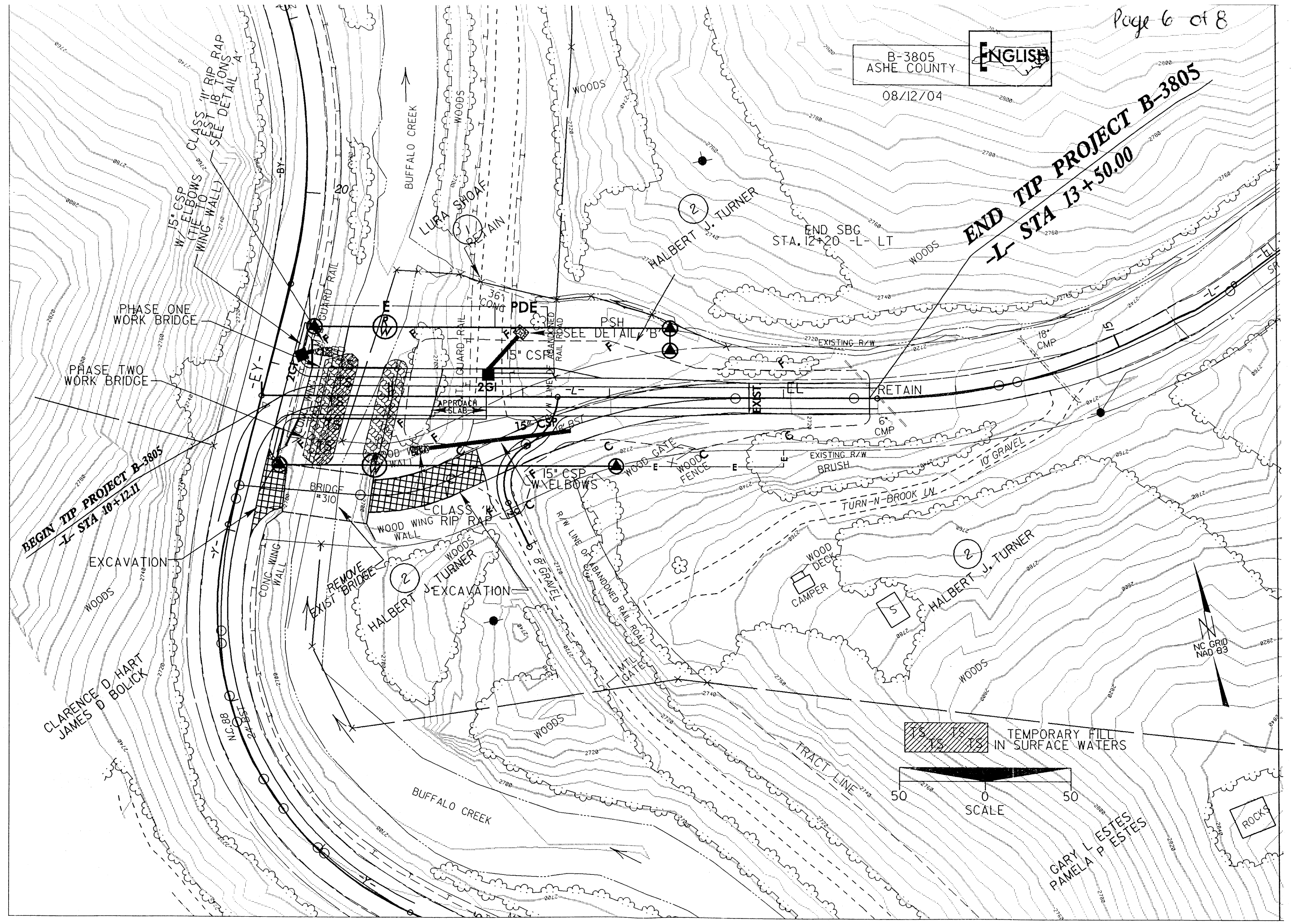
ROCKS

B-3805 ASHE COUNTY ENGLISH

08/12/04

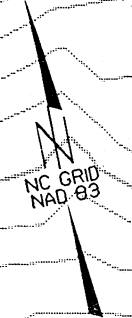
END TIP PROJECT B-3805  
-L- STA 13+50.00

BEGIN TIP PROJECT B-3805  
-L- STA 10+12.11



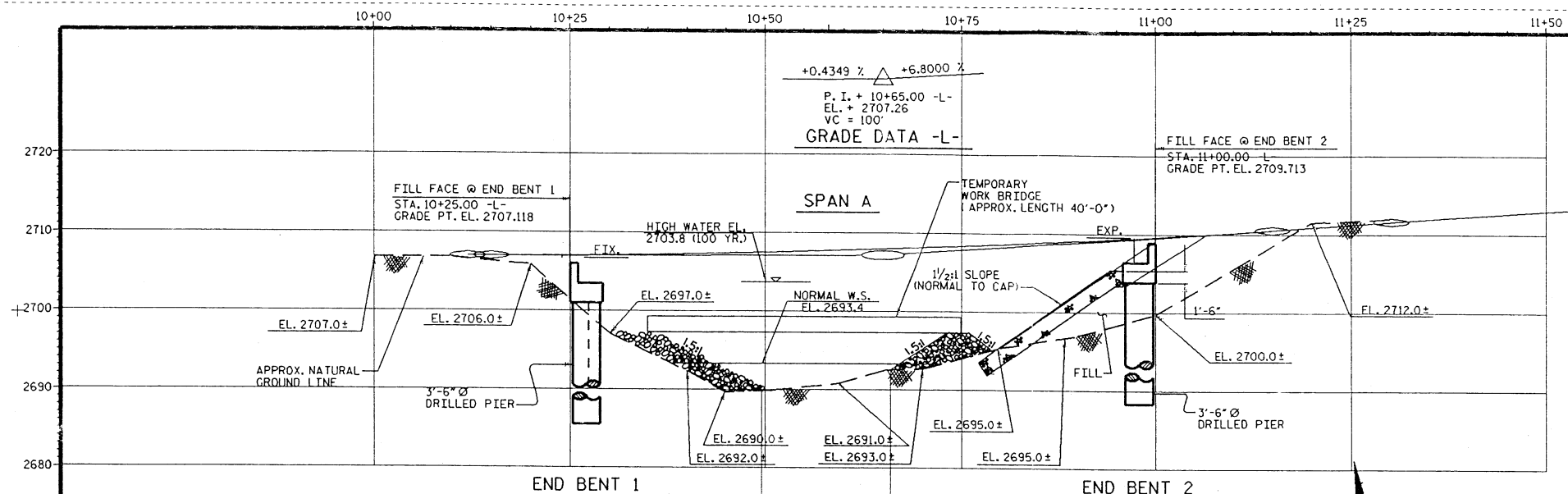
CLARENCE D HART  
JAMES D BOLICK

TEMPORARY FILL  
IN SURFACE WATERS



GARY L ESTES  
PAMELA R ESTES

ROCKS



NOTE:  
 PHASE I WORK BRIDGE IS TO DRILL THE PIERS @ EB-1 FOR THE PROPOSED REPLACEMENT BRIDGE  
 PHASE II WORK BRIDGE IS TO SET THE GIRDERS FOR PROPOSED REPLACEMENT BRIDGE

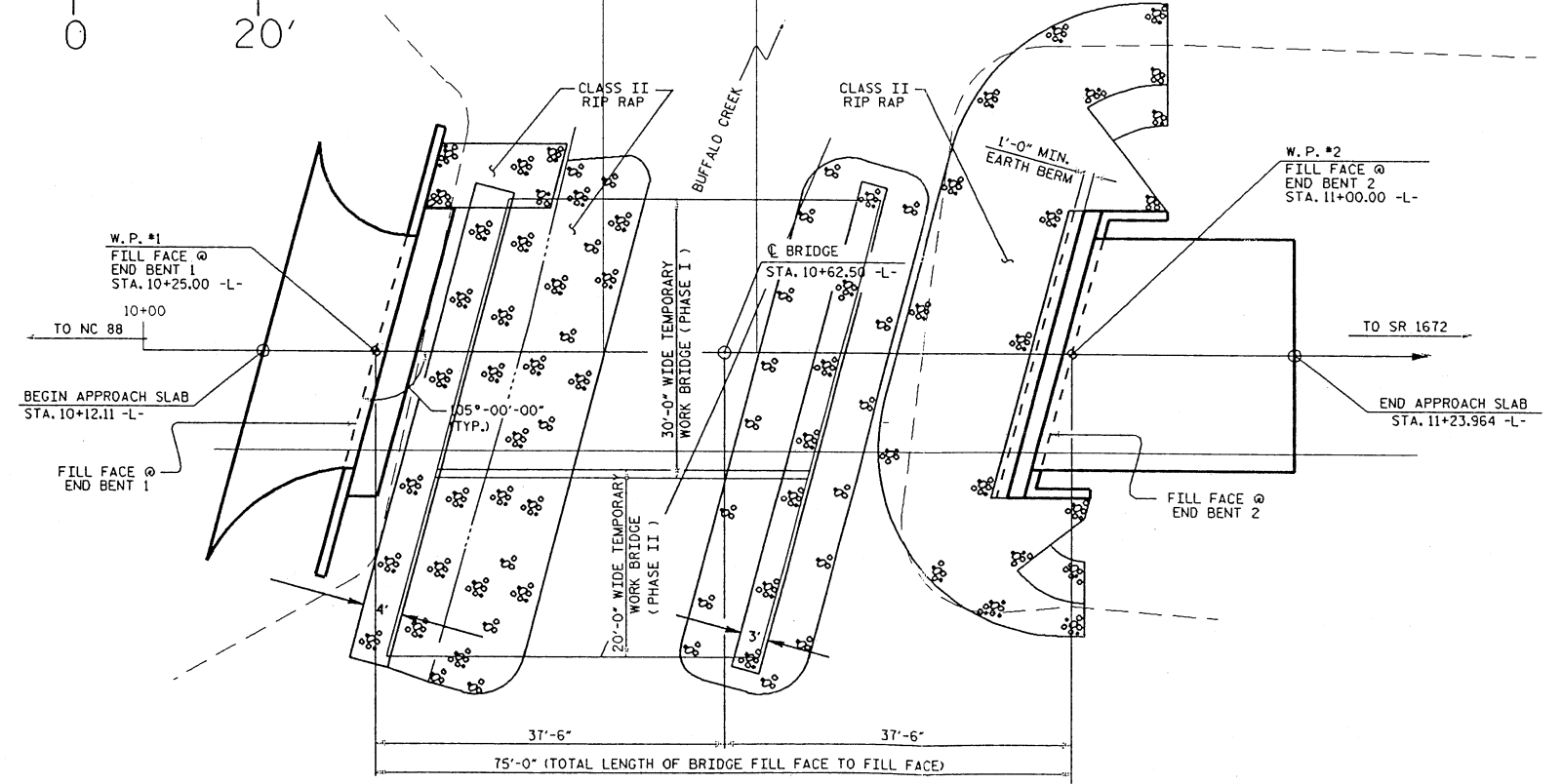
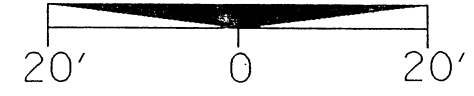
TEMPORARY CLASS '11' RIP RAP ESTIMATED QUANTITIES FOR TEMPORARY WORK BRIDGE

TEMPORARY WORK BRIDGE END BENTS  
 AREA OF FILL IN SURFACE WATERS = 650<sup>2</sup> FT.

VOLUME = 2270 C.F. BELOW O.H.W.  
 120 TONS CLASS '11' RIP RAP BELOW O.H.W.

NOTE: USE 1.5:1 SIDESLOPES FOR TEMPORARY CLASS '11' RIP RAP AT WORK BRIDGE END BENTS

HORIZONTAL AND VERTICAL SCALE



DRAWN BY: T.A.H./E.C.A. DATE: 8/02/04  
 CHECKED BY: D.B. CALHOUN DATE:

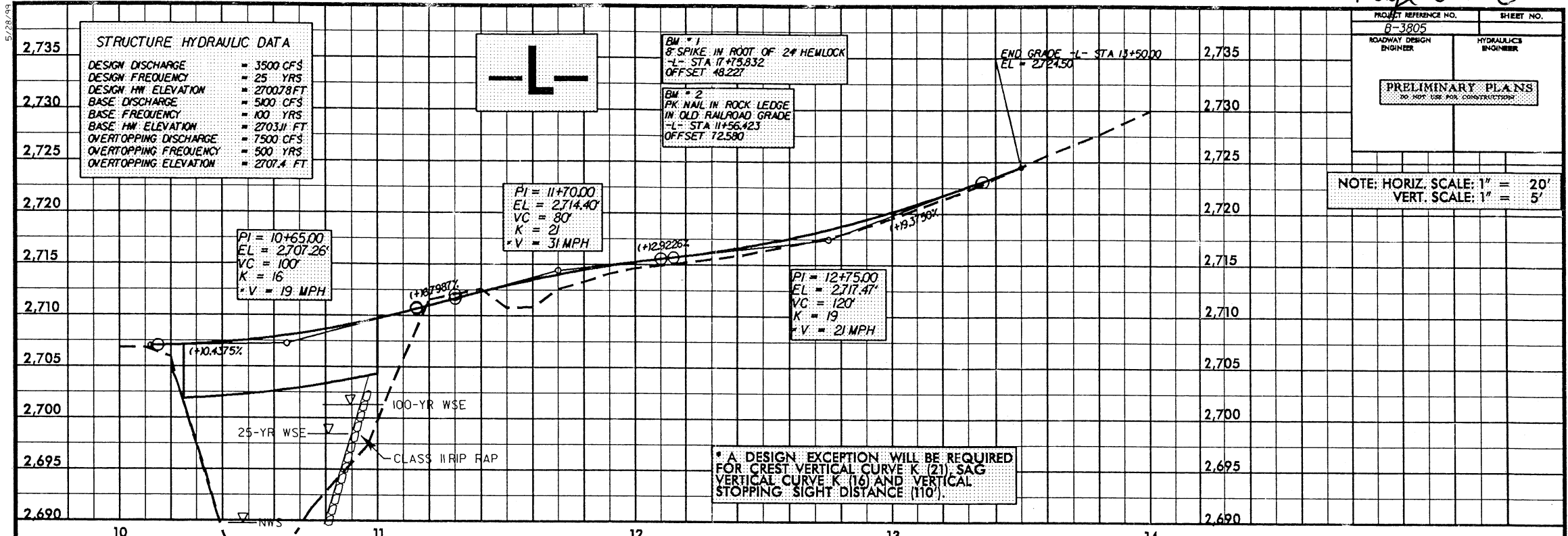
23-AUG-2004 15:44  
 DEPARTMENT AT

PROJECT NO. B-3805  
 ASHE COUNTY  
 STATION: 10+62.50 -L-A

SHEET 1 OF 2 REPLACES BRIDGE NO. 310

STATE OF NORTH CAROLINA				SHEET NO.	
DEPARTMENT OF TRANSPORTATION				TOTAL SHEETS	
RALEIGH					
PRELIMINARY GENERAL DRAWING					
BRIDGE ON SR 1507 OVER BUFFALO CREEK BETWEEN NC 88 AND SR 1672					
08/12/04					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

5/28/99

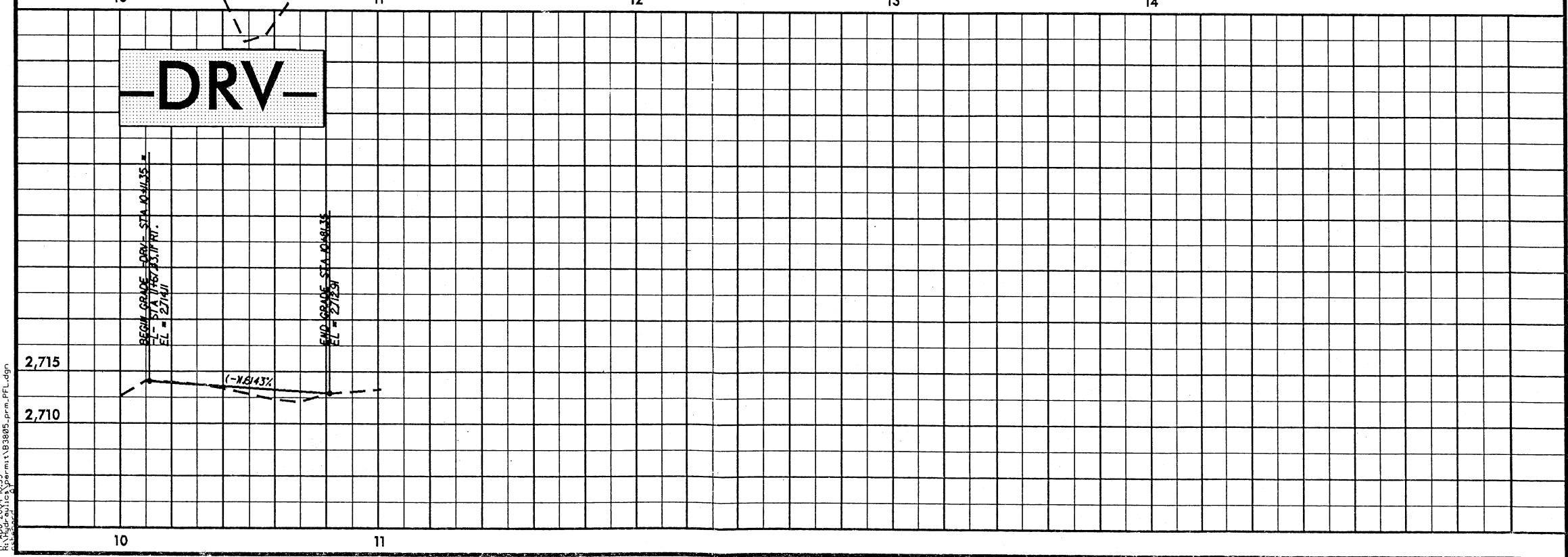


PROJECT REFERENCE NO.	B-3805
SHEET NO.	
ROADWAY DESIGN ENGINEER	
HYDRAULICS ENGINEER	

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

NOTE: HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" = 5'

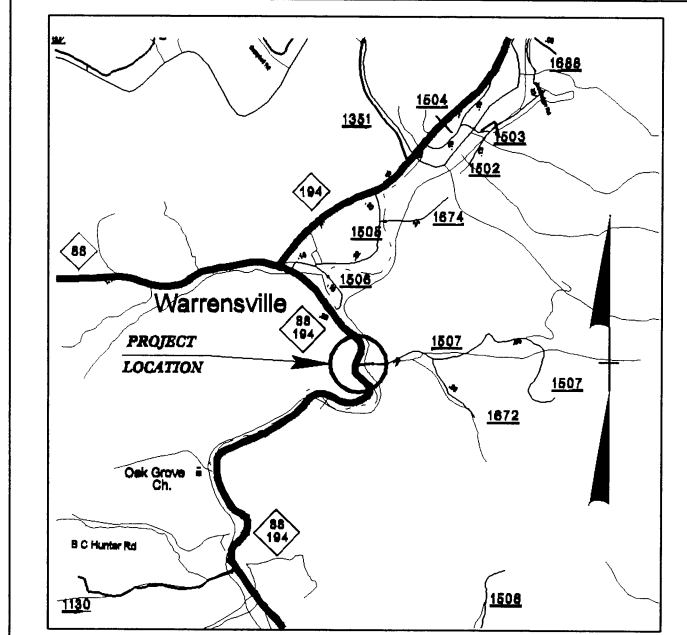
**-DRV-**



I:\AUC-2004\0033\Revised\plan\B3805-prm-PFL.dgn

09/08/04

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



VICINITY MAP

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

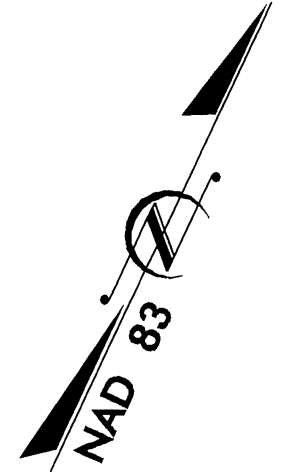
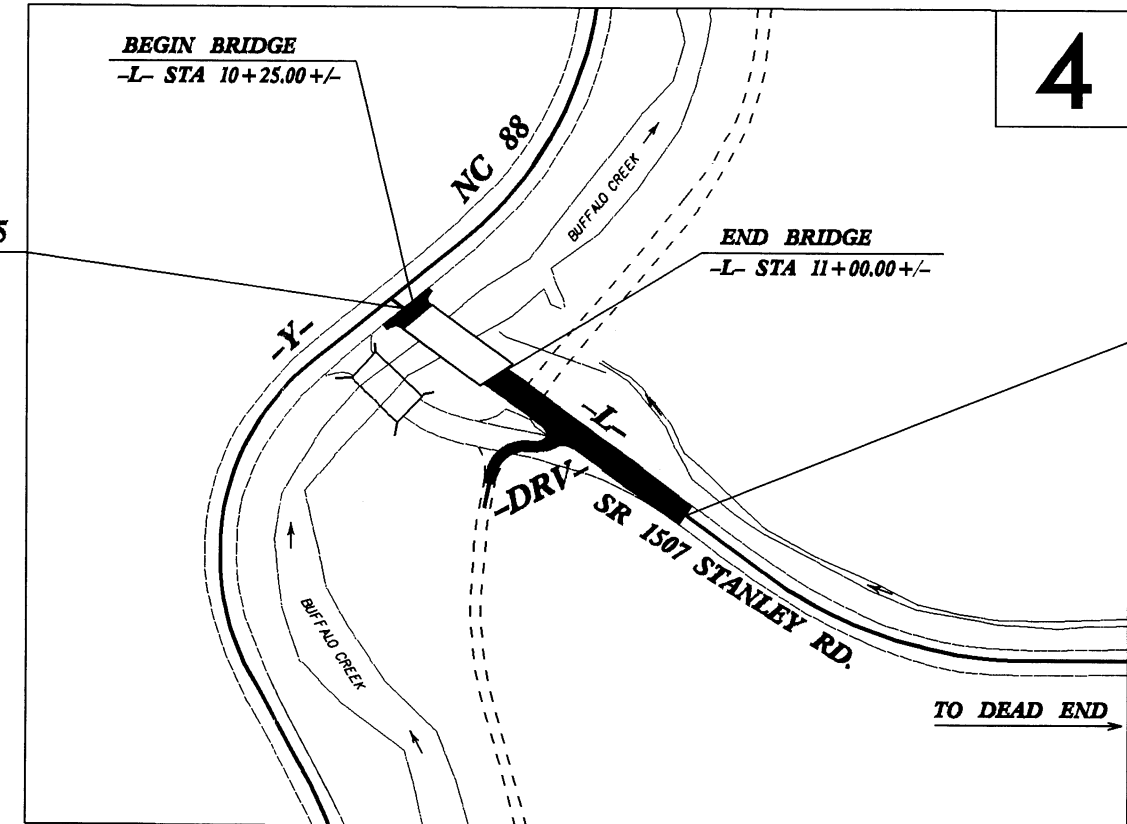
**ASHE COUNTY**

LOCATION: BRIDGE NO. 310 OVER BUFFALO CREEK ON SR 1507  
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

STATE	TIP PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3805	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33261.1.1	BRZ-1507(2)	PE	

TIP PROJECT: B-3805

STA 10+12.11 -L- BEGIN TIP PROJECT B-3805

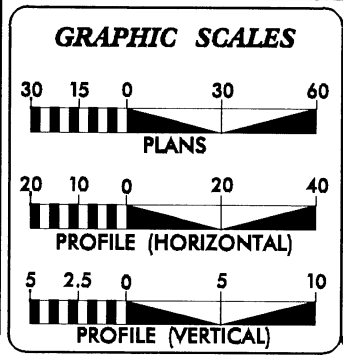


NOTE: THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.  
\*\* A DESIGN EXCEPTION WILL BE REQUIRED FOR CREST VERTICAL CURVE K (21), SAG VERTICAL CURVE K (16) AND VERTICAL STOPPING SIGHT DISTANCE (110').

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

CONTRACT:

22-OCT-2004 07:17  
R:\Roadway\Proj\B3805-RDY-TSH.dgn  
ACWest AT RD193405



**DESIGN DATA**

ADT 2005 =	217
ADT 2025 =	300
DHV =	15 %
D =	60 %
T =	6 % *
** V =	60 MPH
FUNC. CLASS =	RURAL LOCAL
* TTST 1% +	DUAL 5%

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-3805 =	0.050 MI
LENGTH STRUCTURE TIP PROJECT B-3805 =	0.014 MI
TOTAL LENGTH TIP PROJECT B-3805 =	0.064 MI

Prepared In the Office of:

**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2002 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	<b>GARY LOVERING, PE</b> PROJECT ENGINEER
JULY 16, 2004	
LETTING DATE:	<b>ANTHONY C. WEST</b> PROJECT DESIGN ENGINEER
JULY 19, 2005	

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

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

**DIVISION OF HIGHWAYS**  
STATE OF NORTH CAROLINA

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

STATE DESIGN ENGINEER

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DIVISION ADMINISTRATOR DATE



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

\*S.U.E = SUBSURFACE UTILITY ENGINEER

# CONVENTIONAL SYMBOLS

## ROADS & RELATED ITEMS

Edge of Pavement	-----
Curb	-----
Prop. Slope Stakes Cut	----- C
Prop. Slope Stakes Fill	----- F
Prop. Woven Wire Fence	-----
Prop. Chain Link Fence	-----
Prop. Barbed Wire Fence	-----
Prop. Wheelchair Ramp	----- WCR
Curb Cut for Future Wheelchair Ramp	----- ECFR
Exist. Guardrail	-----
Prop. Guardrail	-----
Equality Symbol	-----
Pavement Removal	-----

## RIGHT OF WAY

Baseline Control Point	-----
Existing Right of Way Marker	-----
Exist. Right of Way Line w/Marker	-----
Prop. Right of Way Line with Proposed RW Marker (Iron Pin & Cap)	-----
Prop. Right of Way Line with Proposed (Concrete or Granite) RW Marker	-----
Exist. Control of Access Line	-----
Prop. Control of Access Line	-----
Exist. Easement Line	----- E
Prop. Temp. Construction Easement Line	----- E
Prop. Temp. Drainage Easement Line	----- TDE
Prop. Perm. Drainage Easement Line	----- PDE

## HYDROLOGY

Stream or Body of Water	-----
River Basin Buffer	-----
Flow Arrow	-----
Disappearing Stream	-----
Spring	-----
Swamp Marsh	-----
Shoreline	-----
Falls, Rapids	-----
Prop Lateral, Tail, Head Ditches	-----

## STRUCTURES

MAJOR	
Bridge, Tunnel, or Box Culvert	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW

MINOR	
Head & End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Boxes	----- CB
Paved Ditch Gutter	-----

## UTILITIES

Exist. Pole	-----
Exist. Power Pole	-----
Prop. Power Pole	-----
Exist. Telephone Pole	-----
Prop. Telephone Pole	-----
Exist. Joint Use Pole	-----
Prop. Joint Use Pole	-----
Telephone Pedestal	-----
UG Telephone Cable Hand Hold	-----
Cable TV Pedestal	-----
UG TV Cable Hand Hold	-----
UG Power Cable Hand Hold	-----
Hydrant	-----
Satellite Dish	-----
Exist. Water Valve	-----
Sewer Clean Out	-----
Power Manhole	-----
Telephone Booth	-----
Cellular Telephone Tower	-----
Water Manhole	-----
Light Pole	-----
H-Frame Pole	-----
Power Line Tower	-----
Pole with Base	-----
Gas Valve	-----
Gas Meter	-----
Telephone Manhole	-----
Power Transformer	-----
Sanitary Sewer Manhole	-----
Storm Sewer Manhole	-----
Tank; Water, Gas, Oil	-----
Water Tank With Legs	-----
Traffic Signal Junction Box	-----
Fiber Optic Splice Box	-----
Television or Radio Tower	-----
Utility Power Line Connects to Traffic Signal Lines Cut Into the Pavement	----- TS

Recorded Water Line	-----
Designated Water Line (S.U.E.*)	-----
Sanitary Sewer	----- SS
Recorded Sanitary Sewer Force Main	----- FSS
Designated Sanitary Sewer Force Main(S.U.E.*)	----- FSS
Recorded Gas Line	----- G
Designated Gas Line (S.U.E.*)	----- G
Storm Sewer	----- S
Recorded Power Line	----- P
Designated Power Line (S.U.E.*)	----- P
Recorded Telephone Cable	----- T
Designated Telephone Cable (S.U.E.*)	----- T
Recorded UG Telephone Conduit	----- TC
Designated UG Telephone Conduit (S.U.E.*)	----- TC
Unknown Utility (S.U.E.*)	----- ?UTL
Recorded Television Cable	----- TV
Designated Television Cable (S.U.E.*)	----- TV
Recorded Fiber Optics Cable	----- FO
Designated Fiber Optics Cable (S.U.E.*)	----- FO
Exist. Water Meter	-----
UG Test Hole (S.U.E.*)	-----
Abandoned According to U/G Record	----- ATTUR
End of Information	----- E.O.I.

## BOUNDARIES & PROPERTIES

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Property Line Symbol	-----
Exist. Iron Pin	-----
Property Corner	-----
Property Monument	-----
Property Number	-----
Parcel Number	-----
Fence Line	-----
Existing Wetland Boundaries	----- WW & ISBW
Proposed Wetland Boundaries	----- WLB
Existing Endangered Animal Boundaries	----- EAB
Existing Endangered Plant Boundaries	----- EPB

## BUILDINGS & OTHER CULTURE

Buildings	-----
Foundations	-----
Area Outline	-----
Gate	-----
Gas Pump Vent or U/G Tank Cap	-----
Church	-----
School	-----
Park	-----
Cemetery	-----
Dam	-----
Sign	-----
Well	-----
Small Mine	-----
Swimming Pool	-----

## TOPOGRAPHY

Loose Surface	-----
Hard Surface	-----
Change in Road Surface	-----
Curb	-----
Right of Way Symbol	----- R/W
Guard Post	----- GP
Paved Walk	-----
Bridge	-----
Box Culvert or Tunnel	-----
Ferry	-----
Culvert	-----
Footbridge	-----
Trail, Footpath	-----
Light House	-----

## VEGETATION

Single Tree	-----
Single Shrub	-----
Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	----- VINEYARD

## RAILROADS

Standard Gauge	-----
RR Signal Milepost	----- MILEPOST 35
Switch	----- SWITCH

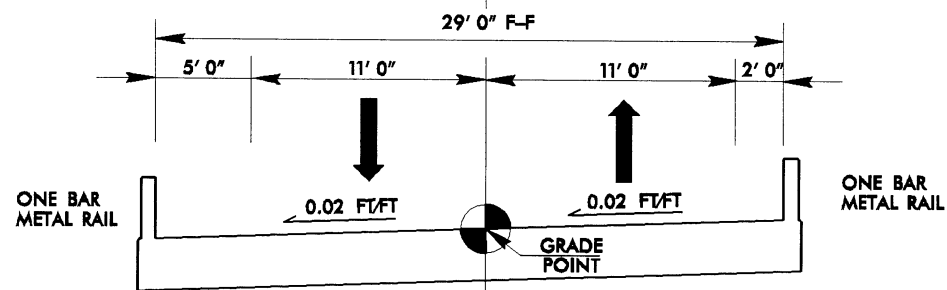
5/28/99  
22-OCT-2004 07:12  
C:\Roadway\Projects\B3805-RDY\_TYP.dgn  
B3805-RDY\_TYP.dgn

5/28/99

### FINAL PAVEMENT SCHEDULE

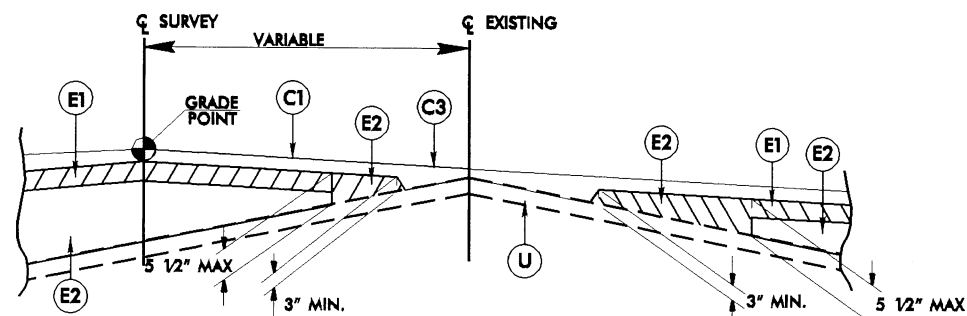
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVG. RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVG. RATE OF 137.5 LBS. PER SQ. YD. IN EA. OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVG. RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
E1	PROP. APPROX 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVG. RATE OF 228 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVG. 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.
J	PROPOSED 6" AGGREGATE BASE COURSE
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VAR. DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL, SHT 2-A)

### CL-L- (SR 1507)



### TYPICAL SECTION ON STRUCTURE

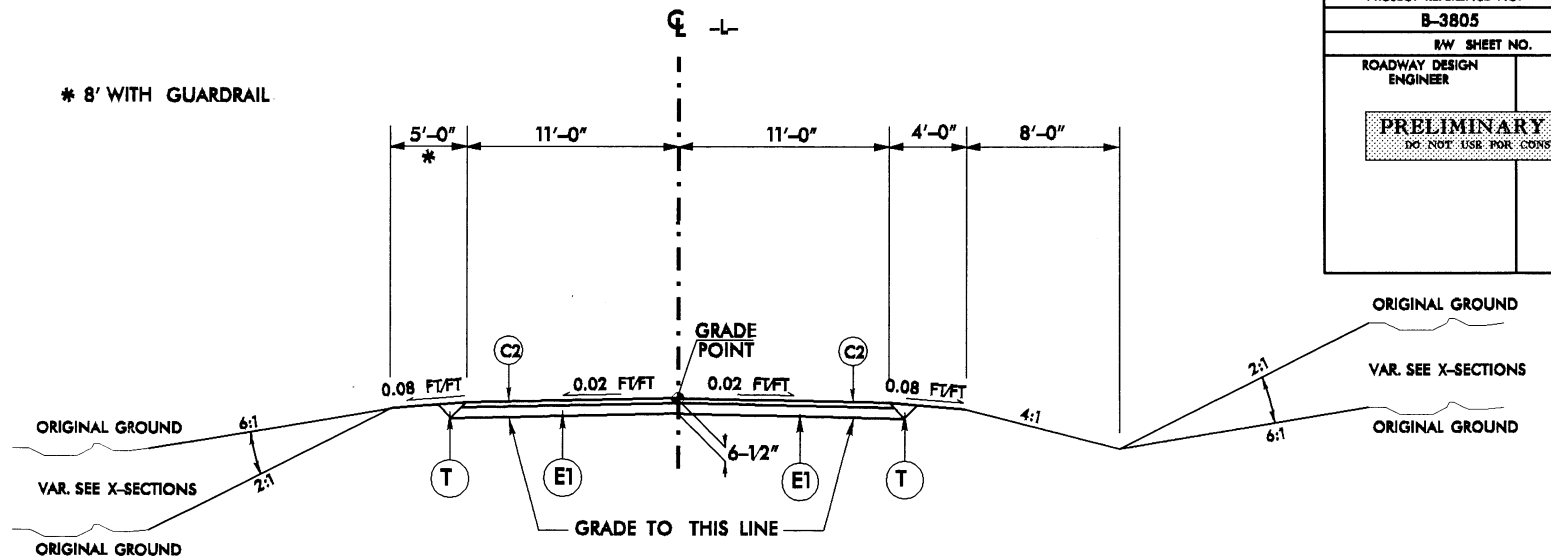
-L- STA 10+25 +/- (BEG BRG) TO 11+00 +/- (END BRG)



Detail Showing Method Of Wedging

PROJECT REFERENCE NO. B-3805	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> <small>DO NOT USE FOR CONSTRUCTION</small>	

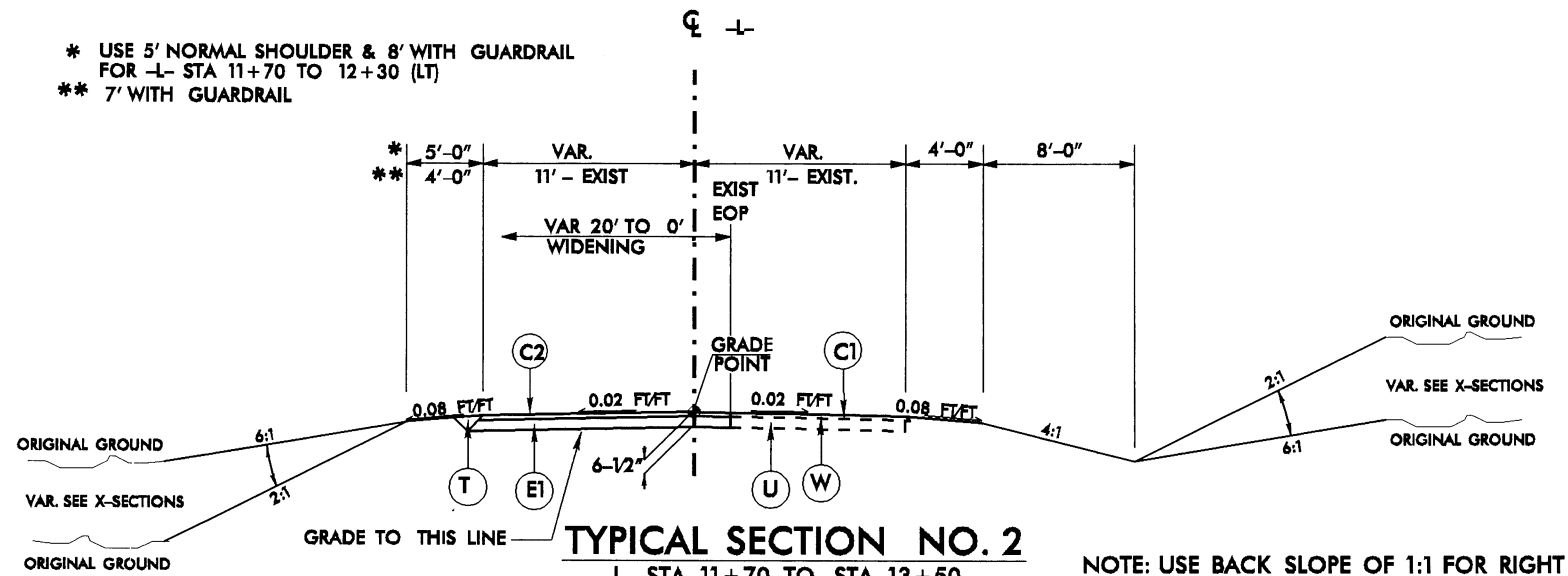
\* 8' WITH GUARDRAIL



### TYPICAL SECTION NO. 1

-L- STA 10+12.11 TO STA 10+25 +/- (BEG BRG)  
-L- STA 11+00 +/- (END BRG) TO STA 11+70

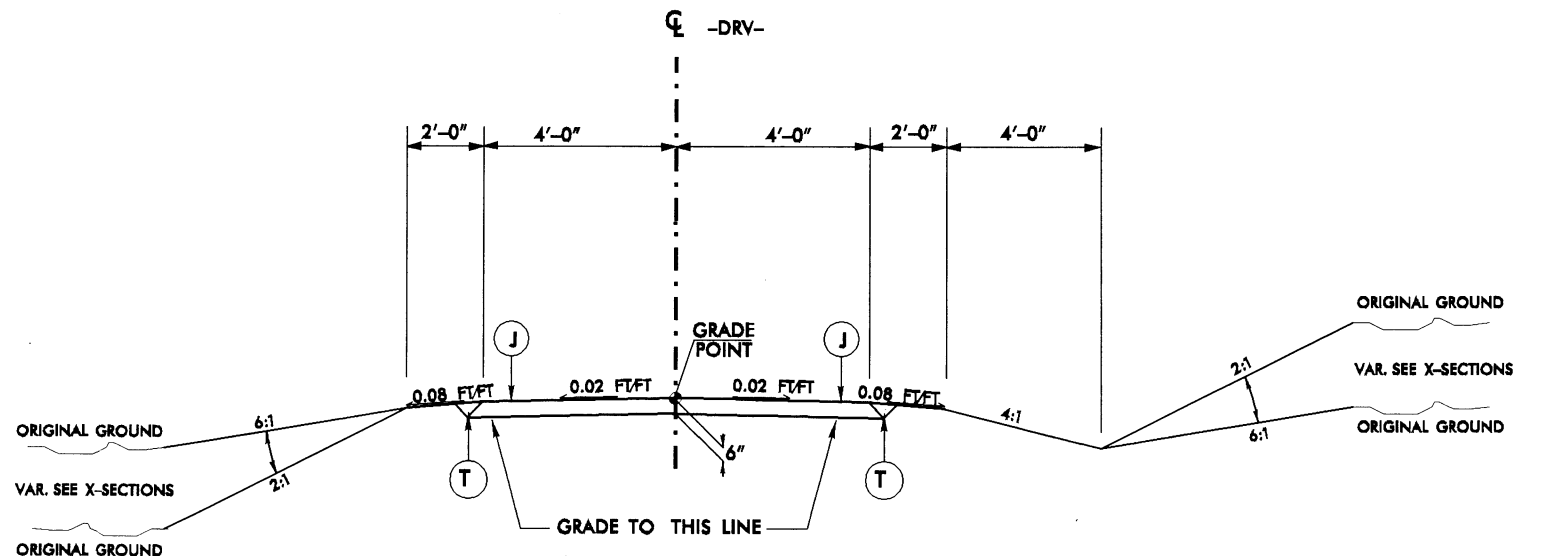
\* USE 5' NORMAL SHOULDER & 8' WITH GUARDRAIL FOR -L- STA 11+70 TO 12+30 (LT)  
\*\* 7' WITH GUARDRAIL



### TYPICAL SECTION NO. 2

-L- STA 11+70 TO STA 13+50

NOTE: USE BACK SLOPE OF 1:1 FOR RIGHT SIDE CUT  
-L- STA 12+00 TO STA 13+00



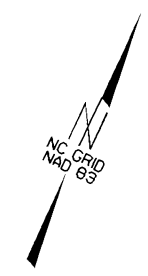
### TYPICAL SECTION NO. 3

-DRV- STA 10+11.35 TO STA 10+81.35

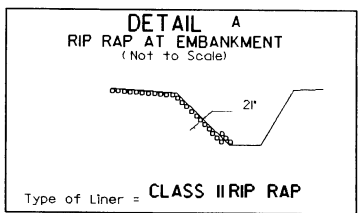
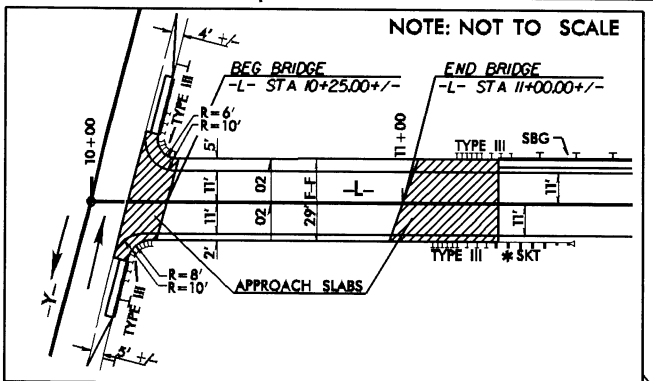
24-OCT-2004 07:16 B3805.RDY\_TYP.dgn

PROJECT REFERENCE NO. B-3805	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
NC 88 8317 12900 17 100 217 300 SR 1507 200 200 8500 13000 NC 88	
2005 ADT 2025 ADT	

SCALE: 1" = 30'



\* THIS PRODUCT IS MANUFACTURED BY ROAD SYSTEMS, INC. OF BIG SPRING, TX (919) 263-2435 AND HAS BEEN APPROVED FOR PROPRIETARY USE.



**BEGIN TIP PROJECT B-3805**

**-L- STA 10+12.11**

CLARENCE D HART  
JAMES D BOLICK  
DB 243 PG 1617

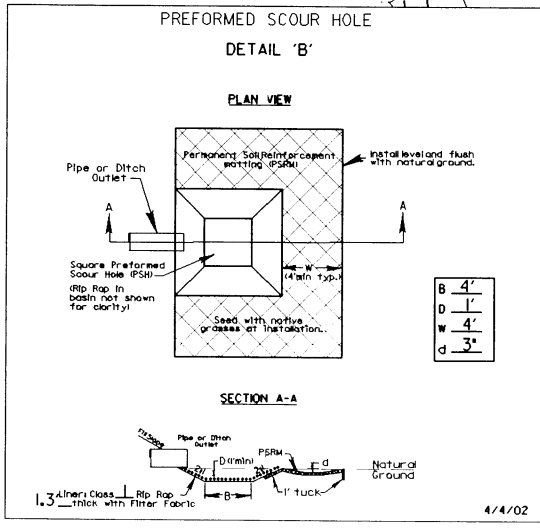
END SBG  
-Y- STA. 18+45.35 RT  
-Y- PTSta. 18+02.85

-BL-1 5+00.00 POT  
-L- STA 10+06.574  
OFFSET = 66.762  
-BY- 8+36.02 POT  
-TI- 101 5+00.00 POT  
ELEV=2707.38  
REBAR AND CAP SET

-Y- STA 17+66.00

BEGIN GUARDRAIL & BEGIN REMOVAL OF EXISTING GUARDRAIL  
REMOVE EXIST PAVEMENT ONLY  
RETAIN BRIDGE ABUTMENT

BL-105 6+12.60 PINC  
-L- STA 11+18.69  
OFFSET = 56.32  
-DRV- STA 10+65.01  
OFFSET = 20.84



-Y- PTSta. 14+53.20

-Y- PCSta. 15+36.74

GARY L ESTES  
PAMELA P ESTES  
DB 189 PG 2334  
DB 202 PG 1350  
DB 229 PG 704  
DB 18 PG 349  
DB N3 PG 133  
DB K5 PG 490

NOTES: A DESIGN EXCEPTION WILL BE REQUIRED FOR CREST VERTICAL CURVE K (21), SAG VERTICAL CURVE K (16) AND VERTICAL STOPPING SIGHT DISTANCE (110'). THE ENGINEER ON SITE WILL BE REQUIRED TO TRANSITION SUPER FROM EXISTING -Y- EOP RT TO RC ON THE BRIDGE.

**END TIP PROJECT B-3805**

**-L- STA 13+50.00**

BL-2 10+35.91 PINC  
-L- STA 15+24.400  
OFFSET = 16.101

TO DEAD END

-L- PTSta. 15+72.88

HALBERT J. TURNER  
DB 172 PG 744  
DB 164 PG 136

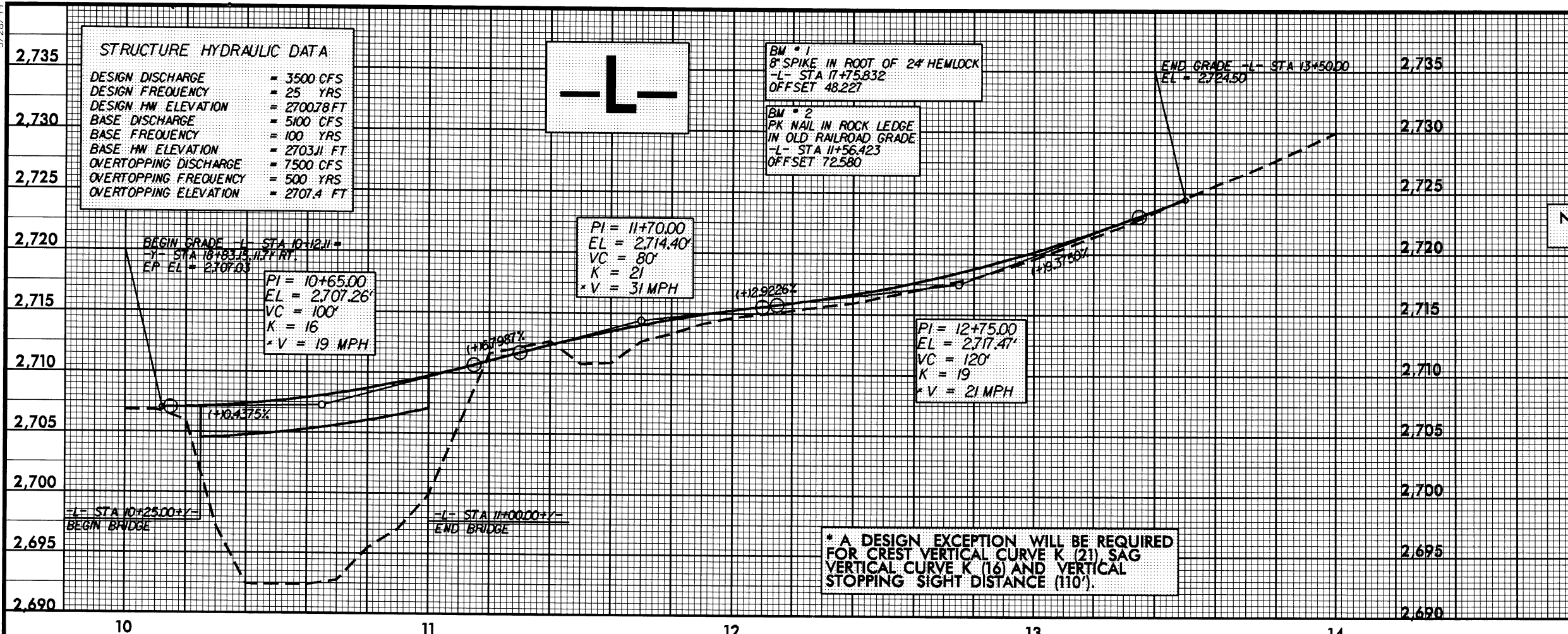
TO BE OBLITERATED

SEE SHEET 5 FOR -L- & -DRV- GRADES

8/17/99  
 P:\PROJECTS\2004\0718 - Roadway\PSH\B-3805\_LRDY\_PSH04.dgn  
 P:\PROJECTS\2004\0718 - Roadway\PSH\B-3805\_LRDY\_PSH04.dgn  
 4/4/02

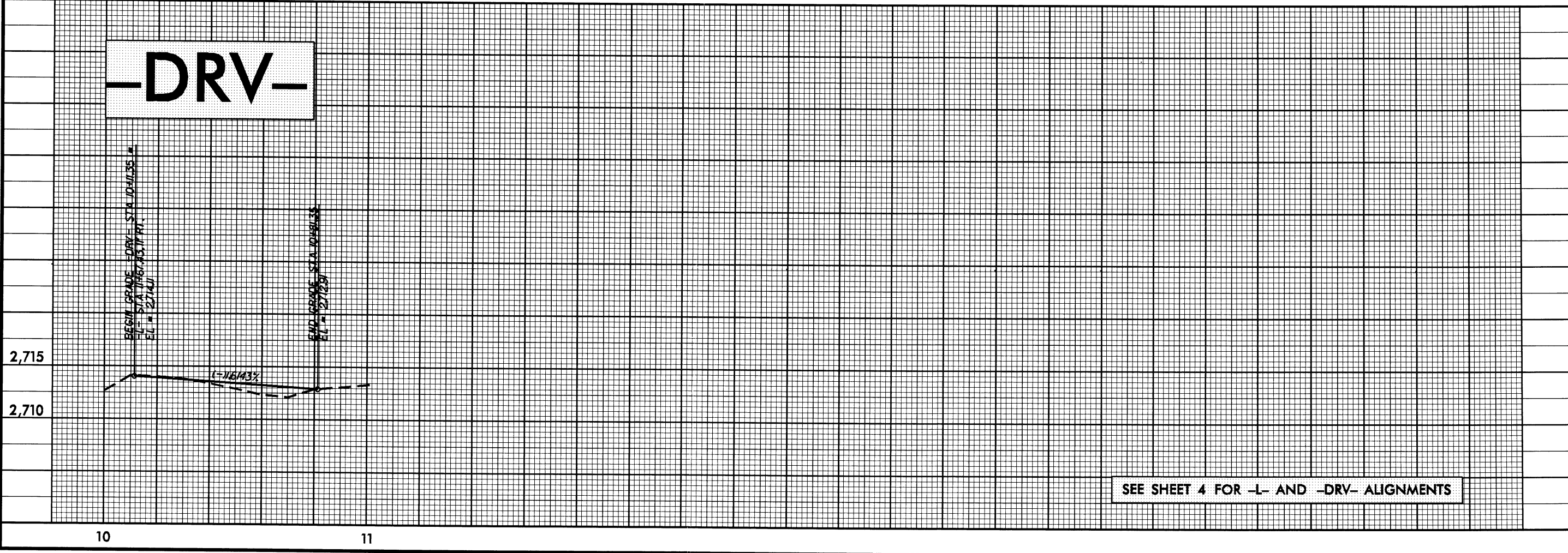
5/28/99

PROJECT REFERENCE NO. B-3805	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



NOTE: HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" = 5'

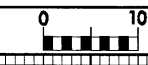
**-DRV-**



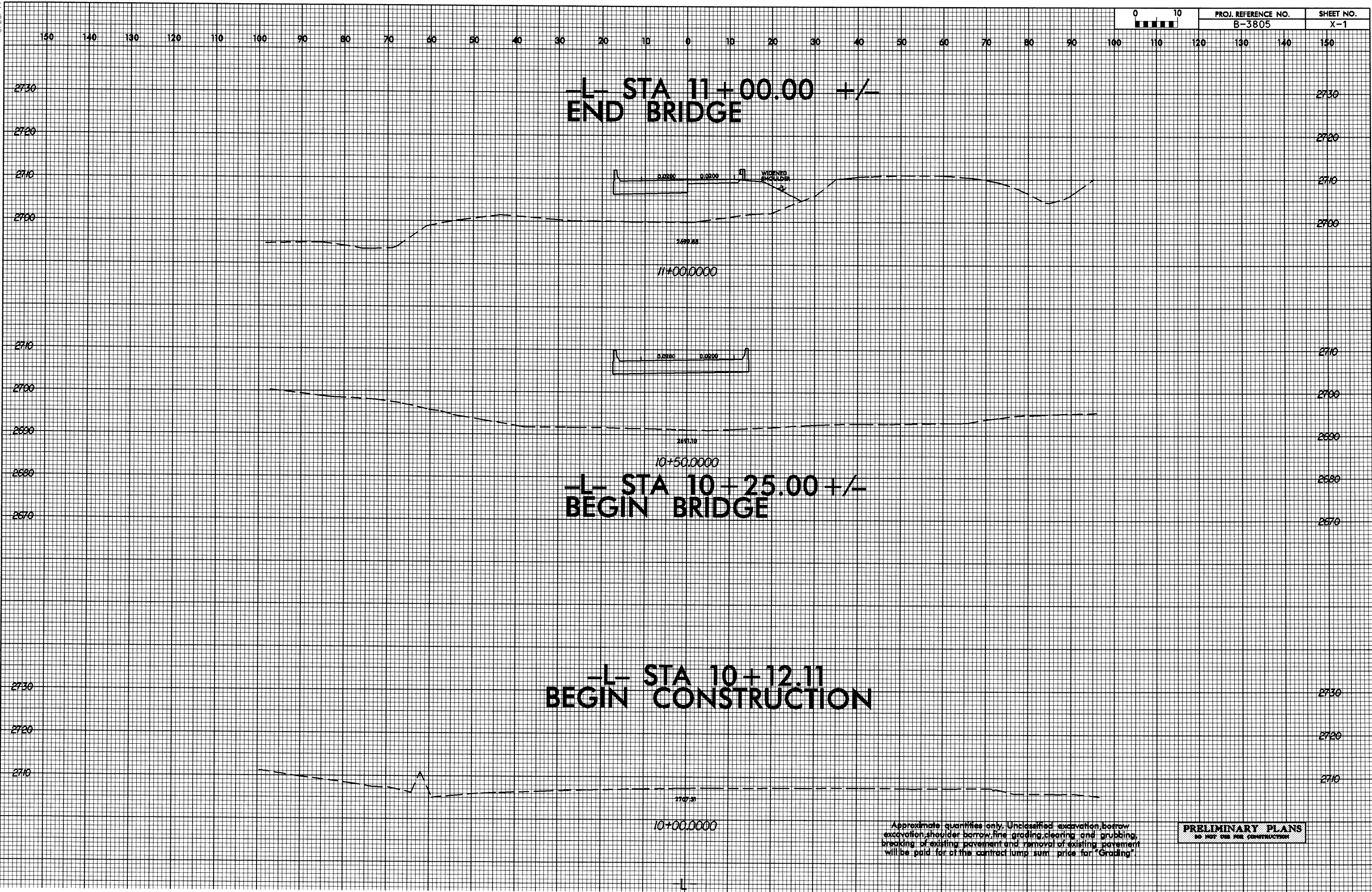
SEE SHEET 4 FOR -L- AND -DRV- ALIGNMENTS

22-OCT-2004 07:48 B3805-RDY\_PFL.dgn

8/23/99



PROJ. REFERENCE NO.	SHEET NO.
B-3805	X-1



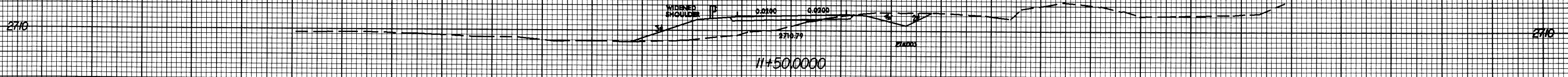
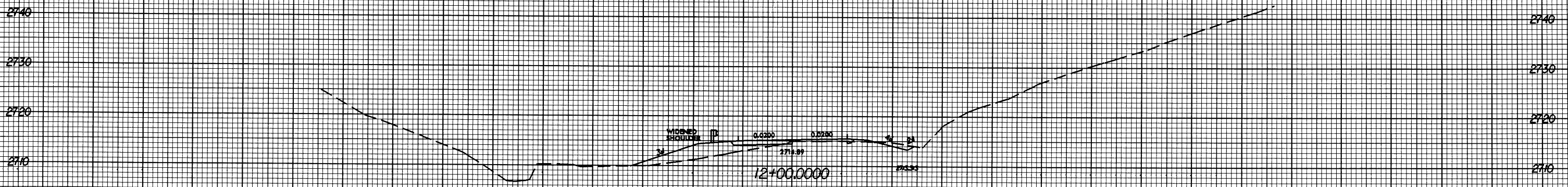
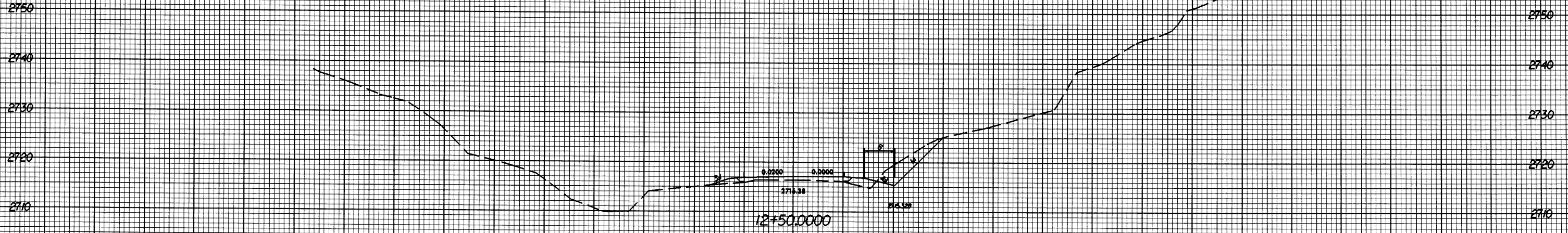
CT-2004\_0749  
Roadway\_VSO\_B3805\_RDY\_XPL.dgn  
cst Al RDY-3405

8/23/99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



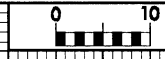
PROJ. REFERENCE NO. B-3805 SHEET NO. X-2



XCT\_2004\_0718\_3805\_RDY\_XPL.L.dgn  
8/23/99 10:18:38

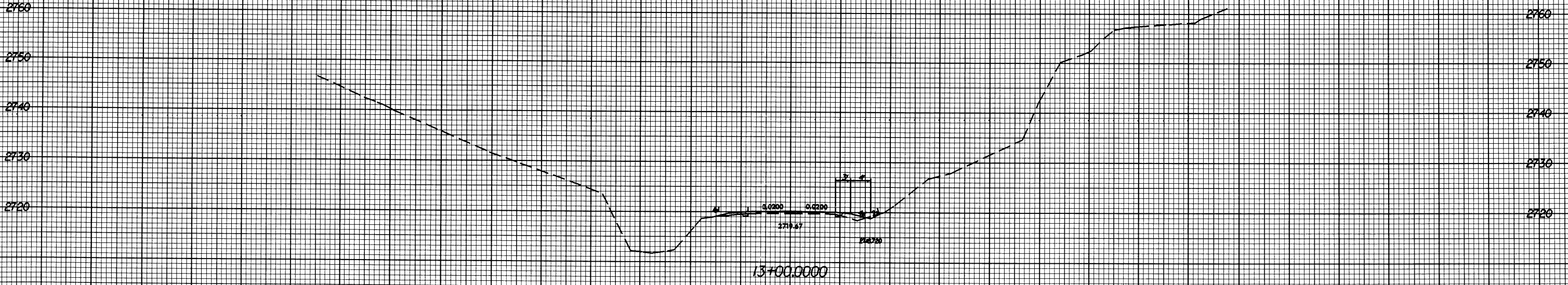
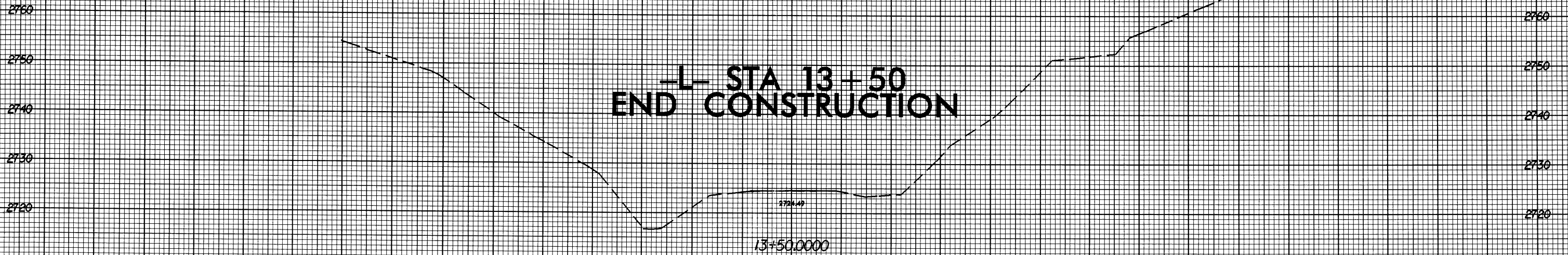
8/23/99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



PROJ. REFERENCE NO. B-3805	SHEET NO. X-3
-------------------------------	------------------

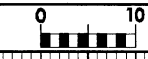
# -L- STA 13+50 END CONSTRUCTION



XC1-2004\_0720\_0805\_RDY\_XPL.L.dgn  
8/23/99 10:33:26

8/23/99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



PROJ. REFERENCE NO.  
B-3805

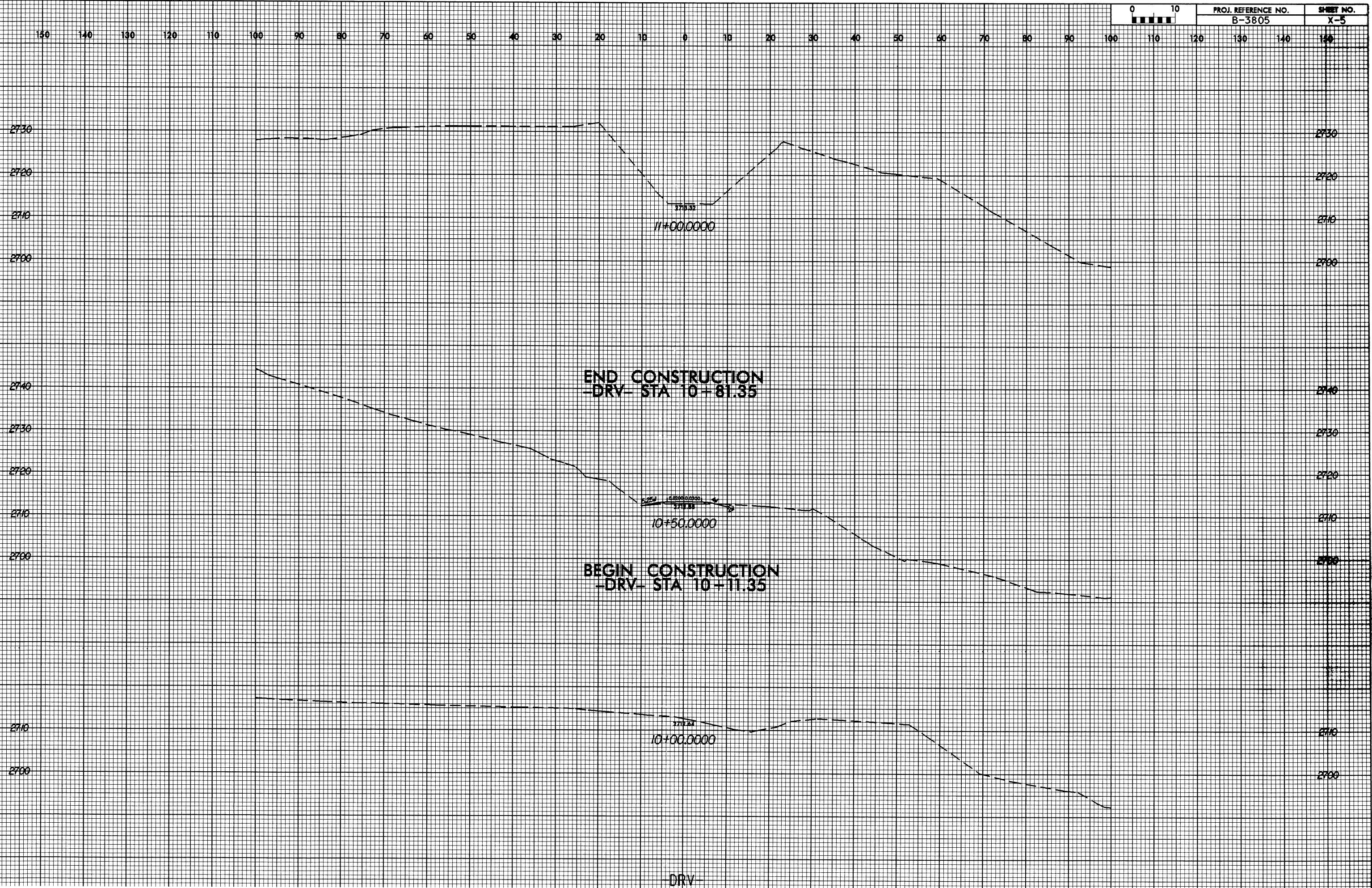
SHEET NO.  
X-4



3CT-2004 0712133005 RDY.XPL.L.dgn  
10:01:13 AM 8/23/99



8/23/99



CT-2004 07/21/2005 RDY\_XPL\_DRV.DGN  
C:\work\1503305

Ashe County  
Bridge No. 310 on SR 1507 (Stanley Drive)  
Over Buffalo Creek  
Federal Aid Project No. BRZ-1507(2)  
State Project No. 8.2712001  
T.I.P. Project No. B-3805

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

APPROVED:

12/16/02  
DATE

William T. Goodwin  
Gregory J. Thorpe, PhD,  
Environmental Management Director, PDEA

12/17/02  
DATE

Nicholas L. Graf  
Nicholas L. Graf, PE  
Division Administrator, FHWA

Ashe County  
Bridge No. 310 on SR 1507 (Stanley Drive)  
Over Buffalo Creek  
Federal Aid Project No. BRZ-1507(2)  
State Project No. 8.2712001  
T.I.P. Project No. B-3805

CATEGORICAL EXCLUSION

Documentation Prepared in  
Project Development and Environmental Analysis Branch By:

12/16/02

DATE

Karen B. Capps, PE

Karen B. Capps, PE

Project Development Engineer

12/16/02

DATE

William T. Goodwin, Jr., PE

William T. Goodwin, Jr., PE, Unit Head

Bridge Replacement Planning Unit

# PROJECT COMMITMENTS

**Replacement of Bridge No. 310  
on SR 1507 over Buffalo Creek  
Ashe County  
Federal-Aid No. BRZ-1507(2)  
State Project No. 8.2712001  
T.I.P. No. B-3805**

## *Project Development and Environmental Analysis Branch*

NCDOT performed a threatened and endangered species survey for Virginia spiraea on October 22, 2001. Habitat for Virginia spiraea is present in the project study area although no species were present. Therefore, the survey must be updated by October 22, 2003 before the project Right of Way let on March 19, 2004 and the project construction let on April 19, 2005.

Ashe County  
Bridge No. 310 on SR 1507 (Stanley Drive)  
Over Buffalo Creek  
Federal Aid Project No. BRZ-1507(2)  
State Project No. 8.2712001  
T.I.P. Project No. B-3805

**INTRODUCTION:** Bridge No. 310 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and in the Federal-Aid Bridge Replacement and Rehabilitation Program. The location is shown in Figure 1. No substantial environmental impacts are anticipated. The project is classified as a Federal “Categorical Exclusion”.

**I. PURPOSE AND NEED STATEMENT**

Bridge Maintenance Unit records indicate the bridge has a sufficiency rating of 41.7 out of a possible 100 for a new structure. The bridge is considered to be structurally deficient and functionally obsolete. The replacement of this inadequate structure will result in safer traffic operations.

**II. EXISTING CONDITIONS**

The project is located just north of Warrentonville (see Figure 1). The surrounding area is rural in nature with some residential homes in the vicinity of the existing bridge.

SR 1507 is classified as a rural local road in the Statewide Functional Classification System. This route is not a designated bicycle route and there is no indication that an unusual number of bicyclists use this roadway.

In the vicinity of the bridge, SR 1507 has an 18-foot (5.6 meter) pavement width with 2-foot (0.6 meter) grass shoulders (see Figures 3 and 4). The roadway grade is in a sag vertical curve approximately 25.0 feet (7.8 meters) above the creek bed. The intersection with NC 88 occurs in a sharp curve, causing poor horizontal sight distance.

Bridge No. 310 is a single-span structure that consists of steel I-beams with a timber deck and asphalt-wearing surface. The substructure consist of a reinforced concrete abutment on one end and an end bent composed of timber caps and piles with a concrete sill on the other. The existing bridge (see Figure 3) was constructed in 1963. The overall length of the structure is 51 feet (15.5 meters). The clear roadway width is 25.0 feet (7.6 meters). The posted weight limit on this bridge is 14 tons for single vehicles and 17 tons for TTST's.

Blue Ridge Electric Membership Corporation has aerial service east of the existing bridge. Skyline Telephone Membership Corporation has aerial service east of the existing bridge. There are no existing underground utilities in the project vicinity.

The current traffic volume of 200 vehicles per day (VPD) is expected to increase to 300 VPD by the year 2025. The projected volume includes one-percent truck-tractor semi-trailer (TTST) and five-percent dual-tired vehicles (DT). The road currently does not have a posted speed limit, therefore the speed limit is 55 mph by statute. There were no accidents reported in the vicinity of the Bridge No. 310 during a recent three-year period. There are no school buses that cross Bridge No. 310.

### **III. ALTERNATIVES**

#### **A. Project Description**

The existing Bridge No. 310 will be replaced with a bridge that can accommodate a minimum of two ten-foot lanes with two-foot offsets. The proposed structure will be at approximately the same elevation as the existing bridge and will not alter the existing 100-year floodplain of Buffalo Creek.

#### **B. Reasonable and Feasible Alternatives**

The two alternatives studied for replacing Bridge No. 310 are described below.

Alternative 1 (Preferred) involves replacement of Bridge No. 310 with a new 71-foot (21.6 meter) long bridge just to the north of the existing bridge. The typical section on the proposed bridge consists of two ten-foot (3.0-meter) lanes with two-foot (0.6-meter) offsets. Improvements to the approach roadways will be required for a distance of approximately twelve feet (3.7 meters) to the west and 185 feet (56.3 meters) to the east of the structure. Traffic will be maintained on the existing bridge during the majority of construction. To accommodate the construction of the bridge abutment on the west-end of the new bridge, traffic will be detoured on the old railroad bed currently being used for TIP Project No. B-3109. Existing Bridge No. 310 will be removed upon completion of the new bridge. The proposed new location of Bridge No. 310 does not improve the horizontal sight distance at the intersection of NC 88.

Alternative 2 involves replacement of Bridge No. 310 with a new bridge 430 feet (131.1 meters) south of the existing bridge. The typical section on the proposed bridge consists of two twelve-foot (3.7-meter) lanes with two-foot (0.6-meter) offsets. Traffic will be maintained on the existing bridge during construction. There will be approximately 50 feet (15.2 meters) of new approach work to the west of the proposed bridge and 415 feet (126 meters) to the east of the proposed structure. The horizontal sight distance at the intersection of NC 88 is not improved with this alternative.

#### **C. Alternatives Eliminated From Further Consideration**

The “do-nothing” alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by SR 1507.

Rehabilitation of the old bridge is not feasible due to its age and substructure design. The rehabilitation of the existing structure would require retrofitting the substructure for heavier loads, scour, and new earthquake design criteria.

**D. Preferred Alternative**

Bridge No. 310 will be replaced on new location as shown by Alternative 1 in Figure 2. Alternative 1 is recommended because it minimizes impacts on the sensitive natural ecosystems in the vicinity of the site and provides the most economical design. Also, this alternative will have a minimal impact on the adjacent properties.

**IV. ESTIMATED COSTS**

The estimated costs for the two alternatives studied for the replacement of Bridge No. 310 are summarized in the table below.

	<b>ALTERNATIVE 1</b>	<b>ALTERNATIVE 2</b>
Proposed Structure	\$ 139,760	\$ 194,880
Removal of Existing Structure	\$ 11,000	\$11,000
Approaches	\$ 149,774	\$ 795,560
Misc. & Mobilization	\$ 84,466	\$ 383,560
E & C	\$ 65,000	\$ 215,000
<b>Total Construction Costs</b>	<b>\$ 450,000</b>	<b>\$ 1,600,000</b>
Right of Way	\$ 41,500	\$ 57,500
<b>Total Project Costs</b>	<b>\$ 491,900</b>	<b>\$ 1,657,500</b>

**V. NATURAL RESOURCES**

The project study area lies in the Blue Ridge Mountain Physiographic Province in northwestern North Carolina in the central portion of Ashe County. Topography in Ashe County is hilly and mountainous with numerous peaks. Land use around the project area is rural, forested and agricultural with scattered residences. Elevation in the study area is approximately 2,760-2,850 feet (841-866 meters) above mean sea level.

**A. Soils**

The two main soil phases found in the project study area are Evard Stony loam and Evard loam. Both soils have slopes ranging from approximately 25 % to 45 %, with Evard Stony loam ranging as much as 60 % slopes. These soils have moderate

permeability and a very severe hazard of erosion. Neither of these soils are classified as hydric soils. **Therefore, wetlands, as defined in the “Corps of Engineers Wetland Delineation Manual”, 1987, were not present within the project study area.**

## **B. Water Resources**

### **Description**

Buffalo Creek [DWQ Index no. 10-2-20] is the only surface water directly affected by the proposed project and occurs in subbasin 050702 of the New River Basin. Parallel and adjacent to SR 1507 is an unnamed tributary to Buffalo Creek that has the potential to be affected by the bridge replacement, if the eastern approach is widened or improved. Buffalo Creek is approximately 25 to 30 feet (7 – 9 meters) wide with a depth of up to 1.5 feet (0.5 meters) during the site visit. Wrack lines indicate that Buffalo Creek had previously flooded and was likely four to six feet (1 – 2 meters) deeper than observed during the field visit. Buffalo Creek contains a nice riffle/pool sequence and is dominated by large boulders, rubble and sand. Buffalo Creek originates in the mountains, southwest of the project site on Bluff Mountain. From the project site, Buffalo Creek flows less than a mile before reaching the North Fork New River.

### **Best Usage Classification**

The Division of Water Quality assigns a Best Usage classification of “C trout” to Buffalo Creek. The “C” classification denotes waters protected for secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, agriculture and other uses suitable for “Class C” waters. The supplemental “trout” classification is intended to protect freshwaters for natural trout propagation and survival of stocked trout. **There are no waters classified as High Quality Waters (HQW), Water Supplies (WS-1: undeveloped watersheds or WS-II: predominately undeveloped watersheds) or Outstanding Resource Waters (ORW) within 1.0 mi (1.6 meters) of the project study area.**

### **Water Quality**

Buffalo Creek was sampled by the DWQ for benthic macroinvertebrates about 2.5 miles upstream of the project site in 1993 and 1998 and attained a bioclassification of “Excellent” and “Good-fair”, respectively. This reach of Buffalo Creek is listed as “fully supporting” in the New River Basinwide Water Quality Plan (2002), although non-point sources may be the cause for decline in water quality ratings from 1993 to 1998.

Point source dischargers located throughout North Carolina are permitted through the NPDES Program. There is a single point source located within one-mile (1.6 km) radius of the project study area. A private residence (John Medley Residence – NPDES #NCG550500) is permitted to discharge less than a mile upstream of the project site.



There are no AMS (Ambient Monitoring System) stations along this stretch of Buffalo Creek.

### **Summary of Anticipated Impacts**

Impacts to surface waters are anticipated as a result of construction activities. This may include scouring of the streambed, siltation, runoff of toxic substances, and damage to the stream banks. Limiting earth removal, vegetation removal, and in-stream activities best minimizes impacts to surface waters. NCDOT's Best Management Practices for the Protection of Surface Waters and Sedimentation Control Guidelines must be enforced during the construction stage of the project. Utilizing the full ROW width of 60 feet (18 meters) anticipated impacts to Buffalo Creek would be 60 feet. Usually, project construction does not require the entire ROW; therefore, actual impacts may be considerably less.

Although Ashe County is considered a "trout county", due to the lack of fishery resources in these waters, the Wildlife Resources Commission has not recommended an in-water moratorium.

### **Bridge Demolition and Removal**

Bridge No. 310 contains one span totaling 51.0 feet (15.5 meters) in length. The bridge superstructure consists of a timber floor on steel beams. The substructure consists of one reinforced concrete abutment and one timber end bent. The entire superstructure and the timber end bent will be removed without dropping any of their components into waters of the United States. However there is potential for the reinforced concrete abutment to be dropped into waters of the United States. The resulting potential temporary fill associated with the reinforced concrete abutment is approximately 31 yd<sup>3</sup> (24 m<sup>3</sup>). NCDOT's Best Management Practices for Bridge Demolition and Removal (BMP-BDR) must be applied for the removal of this bridge. This bridge is classified as "Case 3" where there are no special restrictions beyond those outlined in the BMP-BDR.

### **C. Biotic Resources**

Biotic resources include aquatic and terrestrial ecosystems. This section describes those ecosystems encountered in the study area, as well as the relationships between fauna and flora within these ecosystems. Five communities were found within the project boundaries: maintained/disturbed, montane oak – hickory, acidic cove forest, riparian fringe and perennial mountain stream. Dominant flora and fauna observed, or likely to occur, in each community are described and discussed.

## 1. Plant Communities

### Maintained/Disturbed Community

The maintained /disturbed community occurs along the existing road, abandoned railroad (currently used as a paved walkway) and along a power line corridor. Low-growing herbaceous plants such as various grasses and clovers (*Trifolium* spp.), aster (*Aster divericatus*), beggars ticks (*Bidens* spp), hay scented fern (*Dennstaedtia punctilobula*), heal-all (*Prunella vulgaris*) and Queen Anne's lace (*Daucus carota*) were found along the roadside. White pines (*Pinus strobus*), tulip poplar (*Liriodendron tulipifera*), eastern hemlock (*Tsuga canadensis*), Indian cigar tree (*Catalpa speciosa*), *hydrangea* (*Hydrangea arborescens*) and smooth sumac (*Rhus glabra*) also grew beyond the road shoulder. Residential plantings within the ROW include forsythia (*Forsythia* sp.) and lilac (*Syringa vulgaris*). The power line area contained sprouts of adjacent roadside trees along with golden ragwort (*Senecio aureus*), gentian (*Gentian quinquefolia*), running cedar (*Lycopodium flabelliforme*) and Christmas fern (*Polystichum acrostichoides*).

A disturbed area adjacent to the abandoned rail receives occasional maintenance. Cucumber tree (*Magnolia acuminata*), white pine, eastern hemlock, white oak (*Quercus alba*), northern red oak (*Quercus rubra*) and sugar maple (*Acer saccharum*) occur as dominant trees adjacent to the abandoned tracks. In addition, rhododendron (*Rhododendron maximum*) and mountain laurel (*Kalmia latifolia*) and scattered herbaceous growths of aster, goldenrod (*Solidago* spp.) and wingstem (*Verbesina occidentalis*) are found.

### Montane Oak – Hickory Forest

In the montane oak – hickory community, canopy constituents were comprised of northern red oak, chestnut oak (*Quercus prinus*) and hickories (*Caray* spp.). The subcanopy was dominated by black birch (*Betula lenta*) and ironwood (*Carpinus caroliniana*). Witch hazel (*Hamamelis virginiana*) was the dominant shrub and herbaceous growth was sparse. White pines were occasional and scattered. This community sloped steeply down to Buffalo Creek. Along the slopes, tulip poplar, black birch, sugar maple and scattered rhododendron grew with Christmas fern and galax (*Galax aphylla*) dominant on the forest floor. Some areas of predominately white pine are the early successional stage of the montane oak – hickory forest.

### Acidic Cove Forest

This hillside community comprised little of the project site on the eastern portion of the study area and a portion of it was maintained under the power line. Chestnut oak and scarlet oak (*Quarks coquina*) were dominant in the canopy while rhododendron and mountain laurel formed a dense shrub layer. Flowering dogwood (*Corns Florida*) and maple-leaf viburnum (*Viburnum acerifolium*) were present on exposed, dry, rocky hillsides.

## **Riparian Fringe**

The riparian corridor occupies a small fringe on either side of the creek. Because of adjacent gradients, sloping away from the creek, this community is restricted to a narrow band beside Buffalo Creek. The riparian community contains tag alder (*Alnus serrulata*), silky dogwood (*Cornus amomum*), elderberry (*Sambucus canadensis*), willow (*Salix humilus*) and spiraea (*Spiraea japonica*). Herbaceous flowering plants including aster, sneezeweed (*Helenium autumnale*), phlox (*Phlox* sp.) and jewelweed (*Impatiens capensis*). Japanese grass (*Microstegium vimineum*) and panic grass (*Panicum scoparium*) were also abundant. Buckeye (*Aesculus octandra*), sycamore (*Platanus occidentalis*) and hydrangea (*Hydrangea arborescens*) occurred on higher ground contiguous to the riparian fringe.

## **Perennial Mountain Stream**

Buffalo Creek is a mountain perennial stream that originates in mountains southwest of the project site. This stream is sinuous with riffle/pool sequences and large boulders dominating the stream substrate. Rubble, gravel and sand are also prevalent. Water clarity was good at the time of the site visit and there was evidence of at least occasional flooding (up to 4 to 6 ft higher than the 1-1.5 ft stage) during the site visit. Aquatic invertebrates such as crayfish (order: Decapoda), mayflies (order: Ephemeroptera), caddisflies (order: Trichoptera) and beetles (order: Coleoptera) were found instream.

An unnamed (Ut) tributary to Buffalo Creek occurs within the eastern portion of the Environmental Study Area and runs perpendicular to Buffalo Creek. After the Ut flows under the abandoned railroad tracks, it joins Buffalo Creek in the northeastern corner of the project. This Ut is 3 – 4 ft (1 m) wide and 1 – 8 in deep (3 – 20 cm). Boulder, rubble and gravel comprise the majority of the stream substrate. Swift, clear, well oxygenated waters were observed in this creek. Stoneflies (order: Plecoptera), mayflies and caddisflies were found in abundance under rocks and woody debris.

## **2. Wildlife**

### **Terrestrial Fauna**

Terrestrial fauna likely to occur throughout these communities includes Virginia opossum (*Didelphis virginiana*), raccoon\* (*Procyon lotor*), white-tailed deer\* (*Odocoileus virginianus*), eastern cottontail (*Sylvilagus floridanus*), pickerel frog\* (*Rana palustris*), eastern box turtle (*Terrapene carolina*), eastern garter snake (*Thamnophis sirtalis*) and rat snake (*Elaphe obsoleta*).

Avian fauna are likely to find a variety of habitat, water and cover at this site and would likely be plentiful. Birds likely to occur in this area includes permanent residents such as red tailed hawk (*Buteo jamaicensis*), rufous-sided towhee (*Pipilo erythrophthalmus*), northern cardinal\* (*Cardinalis cardinalis*), goldfinch\* (*Carduelis tristis*), eastern phoebe (*Sayornis phoebe*), chickadee\* (*Parus carolinensis*), tufted titmouse\* (*Parus bicolor*),

pileated woodpecker\* (*Dryocopus pileatus*), downy woodpecker\* (*Picoides pubescens*) and Carolina wren\* (*Thryothorus ludovicianus*). Migratory species that may use the area for feeding and nesting likely include a diversity of warblers. In the fall, a Louisiana waterthrush\* (*Seiurus moticilla*), was observed by the creek and wintering ruby-crowned kinglets (*Regulus calendula*) were also found.

### Aquatic Fauna

The NCDWQ does not have specific information on fish in Buffalo Creek; however, similar creeks were sampled in Ashe County and in the New River Basin. Fish that were commonly found in these creeks and would likely be found in Buffalo Creek include northern hogsucker (*Hypentelium nigricans*), fantail darter (*Etheostoma flabellare*), stoneroller (*Campostoma anomalum*), rosieside dace (*Clinostomus funduloides*), bluehead chub (*Nocomis leptcephalus*), New River shiner (*Notropis scabriceps*), mountain redbelly dace (*Phoxinus oreas*) and blacknose dace (*Rhinichthys atratulus*). A variety of salamanders would likely be found in both creeks. Benthic macroinvertebrates as previously mentioned were found in abundance.

### Summary of Anticipated Impacts

Calculated impacts to terrestrial resources reflect the relative abundance of each community present within the study area. Project construction may result in clearing and degradation of portions of these communities. Table 2 summarizes potential quantitative losses to these communities, resulting from project construction. Estimated impacts are derived using the entire proposed ROW. Usually, project construction does not require the entire ROW; therefore, actual impacts may be considerably less.

**Table 2. Anticipated Impacts to Terrestrial Communities**

Community type	Alternate 1 (A)	Alternate 2 (B)
Maintained/disturbed	0.30 (0.12)	0.22 (0.09)
Montane oak-hickory forest	0	0.29 (0.12)
Acidic cove forest	0.01 (0.004)	0
Riparian fringe	0.02 (0.008)	0.02 (0.008)
Total Terrestrial Impacts	0.33 (0.13)	0.53 (0.21)

Values cited are in acres (hectares).

Plant communities found within the proposed project area serve as nesting and sheltering habitat for various wildlife. Replacing Bridge No. 310 may reduce habitat for faunal species, thereby diminishing faunal numbers on a temporary basis if the bridge is replaced in place or close by, however if the bridge is replaced on a new longer alignment, it will be more detrimental to the terrestrial community as a result of fragmenting plant and animal populations. In addition, detrimental impacts (sedimentation) to Buffalo Creek may result from cutting through the mountain and moving considerable quantities of soil if Alternate 2 is chosen. **If Alternate 1 (replace**

**just north of existing bridge) is chosen, it is anticipated that impacts to fauna will be minimal.**

Areas modified by construction (but not paved) will become road shoulders and early successional habitat. Reduced habitat will displace some wildlife further from the roadway while attracting other wildlife by the creation of more early successional habitat. Animals temporarily displaced by construction activities will repopulate areas suitable for the species.

Direct impacts to Buffalo Creek would be equivalent for Alternates 1 and 2 since the ROW width is the same (60 ft) for both alternates. However, bridge 310 will be replaced with a bridge so that actual impacts will be substantially less than the stated ROW width. Alternate 1 comes close to the Ut to Buffalo Creek but does not impact it.

Aquatic communities are sensitive to small changes in their environment. Although direct impacts may be temporary, environmental impacts from these construction processes may result in long term or irreversible effects. Impacts often associated with in-stream construction include increased channelization and scouring of the streambed. In-stream construction alters the stream substrate and may remove streamside vegetation at the site. Disturbances to the substrate will produce siltation, which clogs the gills and/or feeding mechanisms of benthic organisms (sessile filter-feeders and deposit-feeders), fish and amphibian species. Benthic organisms can also be covered by excessive amounts of sediment. These organisms are slow to recover or repopulate a stream.

The removal of streamside vegetation and placement of fill material at the construction site alters the terrain. Alteration of the streambank enhances the likelihood of erosion and sedimentation. Revegetation stabilizes and holds the soil thus mitigating these processes. Erosion and sedimentation carry soils, toxic compounds and other materials into aquatic communities at the construction site. These processes magnify turbidity and can cause the formation of sandbars at the site and downstream, thereby altering water flow and the growth of vegetation. Streamside alterations also lead to more direct sunlight penetration and to elevation of water temperatures, which may impact many species.

#### **D. Jurisdictional Topics**

##### **1. Waters of the United States**

Surface waters and wetlands fall under the broad category of "Waters of the United States," as defined in Section 33 of the Code of Federal Register (CFR) Section 328.3(a). Wetlands, defined in 33 CFR Section 328.3(b), are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated conditions. Any action that proposes to place fill into these areas falls under the jurisdiction of the U.S. Army Corps of Engineers (USACE), and must follow the statutory provisions under Section 404 of the Clean Water Act (33 U.S.C. 1344). **Based on these criteria, jurisdictional wetlands are not present within the project**

**boundaries. Buffalo Creek and the Ut to Buffalo Creek are jurisdictional surface waters under Section 404 of the Clean Water Act (33 U.S.C. 1344).**

## **2. Summary of Anticipated Impacts To Surface Waters**

The anticipated total impact to surface waters from the proposed project is 60 linear feet (18 linear meters) which is derived by using the entire proposed ROW width. Usually, project construction does not require the entire ROW; therefore, actual surface water impacts may be considerably less.

In addition, as previously mentioned, there is potential for components of the bridge (reinforced concrete abutment and one timber end bent) to be dropped into Waters of the United States. The resulting temporary fill associated with bridge removal is approximately 31 yd<sup>3</sup> (24 m<sup>3</sup>). NCDOT's Best Management Practices for Bridge Demolition and Removal (BMP-BDR) must be applied for the removal of this bridge. This bridge is classified as "Case 3" where there is no in-water moratorium.

**It is recommended that Alternate 1 be chosen where the bridge will be replaced slightly north with an onsite (existing) traffic detour in order to minimize impacts to forested habitat and natural stream buffers. Alternate 2 traverses very steep terrain and would subject the slopes to severe erosion.**

## **3. Permits**

Impacts to jurisdictional surface waters and wetlands are anticipated. In accordance with provisions of Section 404 of the Clean Water Act, a permit will be required from the COE for the discharge of dredged or fill material into "Waters of the United States."

A Section 404 Nationwide 23 Permit is likely to be applicable for all impacts to waters of the United States from the proposed project. This permit authorizes activities undertaken, assisted, authorized, regulated, funded or financed in whole, or part, by another Federal agency or department where that agency or department has determined, pursuant to the Council on Environmental Quality Regulation for implementing the procedural provisions of the National Environmental Policy Act:

- (1) that the activity, work, or discharge is categorically excluded from environmental documentation because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment, and;
- (2) that the office of the Chief of Engineers has been furnished notice of the agency or department's application for the categorical exclusion and concurs with that determination.

A North Carolina Division of Water Quality Section 401 Water Quality Certification is required prior to the issuance of the Section 404 permit. Section 401 Certification states that water quality standards will not be violated.

The USACE has adopted, through the Council on Environmental Quality (CEQ), a wetland and stream mitigation policy which embraces the concept of "no net loss" and sequencing. The purpose of this policy is to restore and maintain the chemical, biological and physical integrity of Waters of the United States. Mitigation has been defined by the CEQ to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time and compensating for impacts (40 CFR Section 1508.20). Each of these three aspects (avoidance, minimization and compensatory mitigation) must be considered sequentially.

The concept of 'avoidance' examines all appropriate and practicable possibilities of averting impacts to Waters of the United States. A 1990 Memorandum of Agreement (MOA) between the Environmental Protection Agency (EPA) and the USACE states that in determining "appropriate and practicable" measures to offset unavoidable impacts, such measures should be appropriate to the scope and degree of those impacts and practicable in terms of cost, existing technology and logistics in light of overall project purposes.

Minimization includes the examination of appropriate and practicable steps to reduce the adverse impacts to Waters of the United States. Implementation of these steps will be required through project modifications and permit conditions. Minimization typically focuses on decreasing the footprint of the proposed project through the reduction of median widths, ROW widths, fill slopes and/or road shoulder widths. Other practical mechanisms to minimize impacts to Waters of the United States crossed by the proposed project include: strict enforcement of sedimentation and implementation of BMPs for the protection of surface waters during the entire life of the project; reduction of clearing and grubbing activity; reduction/elimination of direct discharge into streams; reduction of runoff velocity; re-establishment of vegetation on exposed areas, judicious pesticide and herbicide usage; minimization of "in-stream" activity; and litter/debris control.

Compensatory mitigation is not normally considered until anticipated impacts to Waters of the United States have been avoided and minimized to the maximum extent possible. It is recognized that "no net loss" of functions and values may not be achieved in each and every permit action. Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts that remain after all appropriate and practicable minimization has been required. Compensatory actions often include restoration, creation and enhancement of Waters of the United States. Such actions should be undertaken in areas adjacent to or contiguous to the discharge site.

#### **E. Rare and Protected Species**

Some populations of fauna and flora have been in, or are in, the process of decline either due to natural forces or their inability to coexist with human activities. Federal law (under the provisions of the Endangered Species Act of 1973, as amended) requires that any action, likely to adversely affect a species classified as federally-protected, be subject

to review by the United States Fish and Wildlife Service. Other species may receive additional protection under separate state laws.

### 1. Federally-Protected Species

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act (ESA) of 1973, as amended. As of March 7, 2002, there are seven Federally Protected Species for Ashe County as depicted in Table 3.

**Table 3. Federally-Protected Species for Ashe County**

SCIENTIFIC NAME	COMMON NAME	STATUS
<i>Clemmys muhlenbergii</i>	Bog turtle	T(S/A)
<b>B. Geum radiatum</b>	spreading avens	Endangered
<i>Helonias bullata</i>	Swamp pink	Threatened
<i>Gymnoderma lineare</i>	rock gnome lichen	Endangered
<i>Houstonia montana</i> (formerly <i>Hedyotis purpurea</i> var. <i>montana</i> )	Roan Mountain bluet	Endangered
<i>Liatris helleri</i>	Heller's blazing star	Threatened
<i>Spiraea virginiana</i>	Virginia spiraea	Threatened

Endangered (a species that is in danger of extinction throughout all or a significant portion of its range).

Threatened (a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range).

T(S/A) - Threatened due to similarity of appearance (e.g., American alligator)--a species that is threatened due to similarity of appearance with other rare species and is listed for its protection. These species are not biologically endangered or threatened and are not subject to Section consultation.

*Clemmys muhlenbergi* (bog turtle)      Threatened Due to Similarity of Appearance  
(southern population)

Animal Family: Emydidae  
Date Listed: June 4, 1987

The bog turtle is a small semi-aquatic reptile, measuring 3.0 – 4.5 in (7.5-11.4 cm) in length, with a weakly keeled, dark brown carapace and a blackish plastron with lighter markings along the midline. There is a conspicuous orange or yellow blotch on each side of the head. This species exhibits sexual dimorphism; the males have concave plastrons and longer, thicker tails, while females have flat plastrons and shorter tails.

The bog turtle is found in the eastern United States, in two distinct regions. The northern population, in Massachusetts, Connecticut, southern New York, New Jersey,



Pennsylvania, Maryland, and Delaware is listed as Threatened and is protected by the Endangered Species Act. The southern population, occurring in Virginia, North Carolina, South Carolina, Tennessee, and Georgia is listed as Threatened Due to Similarity of Appearance with the northern population.

This species is listed as Threatened Due to Similarity of Appearance, and is therefore not protected under Section 7 of the Endangered Species Act. However, in order to control the illegal trade of individuals from the protected northern population, federal regulations are maintained on the commercial trade of all bog turtles. No survey is required for this species.

---

*Geum radiatum* (spreading avens)

**Endangered**

Plant Family: Rosaceae

Federally Listed: April 5, 1990

Flowers Present: June - early July

Spreading avens is a perennial herb having stems with an indefinite cyme of bright yellow radially symmetrical flowers. Flowers of spreading avens are present from June to early July. Spreading avens has basal leaves which are odd-pinnately compound; terminal leaflets are kidney shaped and much larger than the lateral leaflets, which are reduced or absent.

Spreading avens is found only in the North Carolina and Tennessee sections of the southern Appalachian Mountains. Spreading avens occurs on scarps, bluffs, cliffs and escarpments on mountains, hills, and ridges. Known populations of this plant have been found to occur at elevations of greater than 5,000 ft (1524 m). Other habitat requirements for this species include full sunlight and shallow acidic soils. These soils contain a composition of sand, pebbles, humus, sandy loam, clay loam, and humus. Most populations are pioneers on rocky outcrops.

**BIOLOGICAL CONCLUSION**

**NO EFFECT**

Spreading avens is found at elevations greater than 5,000 ft mean sea level. Project elevation is less than 3,000 ft msl. In addition, The NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in this area. Therefore, replacing bridge No 310 will not affect spreading avens.

---

*Helonias bullata* (swamp pink)

**Threatened**

Plant Family: Liliaceae

Federally Listed: September 9, 1988

Flowers Present: first half of May

Swamp pink is a perennial plant that grows from tuberous rhizomes. It has lance-shaped, smooth, evergreen leaves that grow in basal rosette. Swamp pink has a hollow stem that is topped with a short, dense, spike-like raceme of pink or purplish flowers.

The North Carolina populations of swamp pink are limited to bogs in the southern Appalachians in Transylvania, Jackson, and Henderson counties. Swamp pink is found in freshwater wetland areas including spring seepages, swamps, bogs, meadows, and along the margins of meandering streams. This plant occurs in soils that are slightly acidic with a pH of 4.2 - 4.9 standard units. Preferred soils are described as having a thin layer of decomposed organic matter, underlain by a black to dark gray silty loam that is slightly sticky, with many small roots and fine mica chips. Populations are found in areas with varying amounts of shade but populations in open areas are less vigorous due to increased competition from other species.

#### **BIOLOGICAL CONCLUSION**

#### **NO EFFECT**

Bogs and freshwater wetlands do not exist within the project study area. In addition, The NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in this area. Therefore, replacing Bridge No. 310 will not affect swamp pink.

---

#### *Gymnoderma lineare* (rock gnome lichen)

#### **Endangered**

Plant Family: Cladoniaceae

Federally Listed: December 28, 1994

The rock gnome lichen is a squamulose lichen in the reindeer moss family. The lichen can be identified by its fruiting bodies, which are born singly or in clusters, black in color, and are found at the tips of the squamules. The fruiting season of the rock gnome lichen occurs from July through September.

The rock gnome lichen is a narrow endemic, restricted to areas of high humidity. These high humidity environments occur at high elevations (4000 ft /1220 m) such as mountaintops and cliff faces which are frequently bathed in fog or at lower elevation ( $\leq$  2500 ft /762 m) deep gorges in the southern Appalachians. The rock gnome lichen primarily occurs on vertical rock faces where seepage water from forest soils above flows at (and only at) very wet times. The rock gnome lichen is almost always found growing with the moss *Adreaea* in these vertical intermittent seeps. The major threat of extinction to the rock gnome lichen relates directly to habitat alteration/loss of high elevation coniferous forests. These coniferous forests usually lie adjacent to the habitat occupied by the rock gnome lichen. The high elevation habitat occurs in the counties of Ashe, Avery, Buncombe, Graham, Haywood, Jackson, Mitchell, Rutherford, Swain, Transylvania, and Yancey. The lower elevation habitat of the rock gnome lichen can be found in the counties of Jackson, Rutherford and Transylvania.

## BIOLOGICAL CONCLUSION

## NO EFFECT

The rock-gnome lichen is an endemic and is typically found at elevations greater than 4,000 ft mean sea level. Project elevation is slightly above 2,800 ft msl. Furthermore, habitat such as vertical rock faces with seepage water does not exist in the project boundaries. In addition, The NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in this area. Therefore, replacing Bridge No. 310 will not affect the rock-gnome lichen.

---

*Houstonia montana* (Roan Mountain bluet or mountain purple) **Endangered**

Plant Family: Rubiaceae

Federally Listed: April 5, 1990

Flowers Present: June - July (best time is mid June)

Roan Mountain bluet is a perennial species with roots and grows in low tufts. Roan Mountain bluet has several bright purple flowers arranged in a terminal cyme that are visible from June to July although best viewing is mid June. This plant can be found on grassy balds, cliffs, outcrops, steep slopes, and in the gravelly talus associated with cliffs. Known populations of Roan Mountain bluet occur at elevations of 4600 – 6200 ft (1400 – 1900 m) mean sea level. It grows best in areas where it is exposed to full sunlight and in shallow acidic soils composed of various igneous, metamorphic, and metasedimentary rocks.

## BIOLOGICAL CONCLUSION

## NO EFFECT

The Roan Mountain bluet is typically found at elevations greater than 4,600 ft mean sea level. Project elevation is approximately 2,800 ft msl and is too low for this species. Furthermore, habitat such as mountain cliffs does not exist in the project boundaries. In addition, The NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in this area. Therefore, replacing bridge 310 over Buffalo Creek will not affect the Roan Mountain bluet.

---

*Liatris helleri* (Heller's blazing star) **Threatened**

Plant Family: Asteraceae

Federally Listed: November 19, 1987

Flowers Present: late June - August

Heller's blazing star is a short, stocky plant that has one or more erect stems that arise from a tuft of narrow, pale green basal leaves. Leaves are acuminate and diminish in size and breadth upward on the stem. Heller's blazing star has small lavender flowers that are visible from late June to August, and its fruits appear from September to November.

Heller's blazing star is endemic to high elevation ledges of rock outcrops of the northern Blue Ridge Mountains in North Carolina. Known populations of this plant occur at elevations of 3500 – 6000 ft (1067 -1829 meters). Heller's blazing star is an early pioneer species growing on grassy rock outcrops where it is exposed to full sunlight. Heller's blazing star prefers shallow acid soils associated with granite rocks.

**BIOLOGICAL CONCLUSION**

**NO EFFECT**

Heller's blazing star is typically found at elevations greater than 3,500 ft mean sea level. Project elevation is approximately 2,800 ft msl and is too low for this species. Furthermore, habitat such as high elevation ledges or rock outcrops does not exist in the project boundaries. In addition, The NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in this area. Therefore, replacing bridge 310 over Buffalo Creek will not affect Heller's blazing star.

---

*Spiraea virginiana* (Virginia spiraea)

**Threatened**

Plant Family: Rosaceae

Federally Listed: June 15, 1990

Flowers Present: June - July

This shrub has arching and upright stems that grow from one to three meters tall. Virginia spiraea often grows in dense clumps, having alternate leaves, which vary greatly in size, shape, and degree of serration. The leaves are green above and somewhat glaucous below. The cream colored-flowers are present from June to July and occur in branched, flat-topped inflorescences. Virginia spiraea is easily located during the flowering period or late fall while herbaceous growth is minimal and the leaves are down.

Virginia spiraea is found in a very narrow range of habitats in the mountains of North Carolina. Habitats for the plants consist of scoured banks of high gradient streams, on meander scrolls, point bars, natural levees, or braided features of lower reaches. The scour must be sufficient to prevent canopy closure, but not extreme enough to completely remove small, woody species. This species occurs in the maximum floodplain, usually at the water's edge with various other disturbance-dependent species. It is most successful in areas with full sunlight, but can survive in shaded areas until it is released from competition.

**BIOLOGICAL CONCLUSION**

**NO EFFECT**

Preferred habitat for the Virginia spiraea such as high gradient scouring streams with point bars does exist within the project study area. Virginia spiraea was not observed during a biological reconnaissance of the project study area in mid-October 2001. Biologists walked the stretch of Buffalo Creek throughout the Environmental Study Area, which encompasses both alternates. In addition, The NC Natural Heritage Program database of rare and unique habitats does not contain records for this species in this area. Therefore, replacing bridge 310 over Buffalo Creek will not affect Virginia spiraea.

## 2. Federal Species of Concern and State Listed Species

There are 16 Federal Species of Concern (FSC) listed for Ashe County as of March 7, 2002. Federal Species of Concern are not afforded federal protection under the Endangered Species Act and are not subject to any of its provisions, including Section 7, until they are formally proposed or listed as Threatened or Endangered. Federal Species of Concern are defined as those species that may or may not be listed in the future. These species were formerly candidate species, or species under consideration for listing for which there was insufficient information to support a listing of Endangered, Threatened, Proposed Endangered and Proposed Threatened. Organisms which are listed as Endangered, Threatened, or Special Concern by the North Carolina Natural Heritage Program list of rare plant and animal species are afforded state protection under the State Endangered Species Act and the North Carolina Plant Protection and Conservation Act of 1979.

Table 4 lists Federal Species of Concern, the species' state status and the presence of suitable habitat for each species in the study area. This species list is provided for informational purposes as the status of these species may be upgraded in the future.

**Table 4. Federal Species of Concern for Ashe County**

Scientific Name	Common Name	State Status	Suitable Habitat
<i>Phenacobius teretulus</i>	Kanawha minnow	SC	yes
<i>Sylvilagus transitionalis</i>	New England cottontail	SR	no
<i>Thryomanes bewickii altus</i>	Appalachian Bewick's wren	E	no
<i>Lasmigona subviridis</i>	Green floater	E	yes
<i>Ophiogomphus howei</i>	Pygmy snaketail	SR	possibly
<i>Speyeria diana</i>	Diana fritillary butterfly	SH	possibly
<i>Speyeria idala</i>	Regal fritillary butterfly	SR	no
<i>Stenelmis gammoni</i>	Gammon's stenelmis riffle beetle	SR	no
<i>Delphinium exaltatum</i>	Tall larkspur	E-SC	no
<i>Euphorbia purpurea</i>	Glade spurge	SR-T	no
<i>Gymnocarpium appalachianum</i>	Appalachian oak fern	E	no
<i>Juglans cinerea</i>	Butternut	W5a	no
<i>Lilium grayi</i>	Gray's lily	T-SC	no
<i>Poa paludigena</i>	Bog bluegrass	E	no
<i>Saxifraga caroliniana</i>	Carolina saxifrage	SR-T	no
<i>Cladonia psoromica</i>	Bluff Mountain reindeer lichen	SR-L	no

"E"-- An **Endangered** species is one whose continued existence as a viable component of the State's flora or fauna is determined to be in jeopardy.

"T"-- A **Threatened** species is one which is likely to become endangered species within the foreseeable future throughout all or a significant portion of its range.

“SC”- A **Special Concern** species is one which requires monitoring but may be taken or collected and sold under regulations adopted under the provisions of Article 25 of Chapter 113 of the General Statutes (animals) and the Plant Protection and Conservation Act (plants). Only propagated material may be sold of Special Concern plants that are also listed as Threatened or Endangered.

“C”- A **Candidate** species is one which is very rare in North Carolina, generally with 1-20 populations in the state, generally substantially reduced in numbers by habitat destruction, direct exploitation or disease. The species is also either rare throughout its range or disjunct in North Carolina from a main range in a different part of the country or the world.

“SR”--A **Significantly Rare** species is one which has not been listed by the Wildlife Resources commission as Endangered, Threatened or Special concern species but exists in small numbers and has been determined by the NCNHP to need monitoring very rare in North Carolina, generally with 1-20 populations in the state, generally substantially reduced in numbers by habitat destruction, direct exploitation or disease. The species is generally more common elsewhere in its range, occurring peripherally in North Carolina.

“W5a” A **Watch Category 5a** species is a species that has declined sharply in NC. Since these species were once abundant, they may still be fairly common or frequently encountered, despite the strong decline.

“SH” Of **State Historical** occurrence in NC, perhaps not having been verified in the past 20 years and suspected to be still extant.

“-L” **Limited** range in NC and adjacent states (endemic or nearly endemic species)

“-T” These species are rare **throughout** their ranges (fewer than 100 populations total).

Surveys for these species were not conducted during the site visit, nor were any of these species incidentally observed. A review of the NC Natural Heritage Program database of rare species and unique habitats (May 1, 2002) revealed no records of Federal Species of Concern in or near the project study area.

## F. ENVIRONMENTAL COMMITMENTS

There are no environmental commitments at this time other than using NCDOT’s Best Management Practices for Bridge Demolition and Removal.

## VI. CULTURAL RESOURCES

### A. Compliance Guidelines

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, implemented by the Advisory council on Historic Preservation’s Regulations for Compliance with Section 106, codified at Title 36 CFR Part 800, Section 106 requires Federal agencies to take into account the effect of their undertakings (federally funded, licensed, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and afford the Advisory Council a reasonable opportunity to comment on such undertakings.

## **B. Historical Effects & Archaeological Effects**

On January 22, 2001, the State Historic Preservation Office (SHPO) reviewed the subject project. Subsequently, the SHPO recommended no architectural or archaeological surveys be conducted in connection with this project (see attachment).

## **VII. GENERAL ENVIRONMENTAL EFFECTS**

The project is expected to have an overall positive impact. Replacement of an inadequate bridge will result in safer traffic operations.

The project is considered to be a Federal "Categorical Exclusion" due to its limited scope and lack of substantial environmental consequences.

The bridge replacement will not have an adverse effect on the quality of the human or natural environment with the use of the current North Carolina Department of Transportation standards and specifications.

The project is not in conflict with any plan, existing land use, or zoning regulation. No change in land use is expected to result from the construction of the project.

No adverse impact on families or communities is anticipated. Right of way acquisition will be limited. No relocatees are expected with implementation of the proposed alternative.

No adverse effect on public facilities or services is expected. The project is not expected to adversely affect social, economic, or religious opportunities in the area.

The proposed project will not require right of way acquisition or easement from any land protected under Section 4(f) of the Department of Transportation Act of 1966.

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. There are no soils classified as prime, unique, or having state or local importance in the vicinity of the project. Therefore, the project will not involve the direct conversion of farmland acreage within these classifications.

This project is an air quality "neutral" project, so it is not required to be included in the regional emissions analysis and a project level CO analysis is not required. If vegetation is disposed of by burning, all burning shall be done in accordance with applicable local laws and regulations of the North Carolina State Implementation Plan (SIP) for air quality in compliance with 15 NCAC 2D.0520.

Noise levels could increase during construction but will be temporary. This evaluation completes the assessment requirements for highway traffic noise of Title 23, Code of

Federal Regulation (CFR), Part 772 and for air quality (1990 Clean Air Act Amendments and the National Environmental Policy Act) and no additional reports are required.

An examination of records at the North Carolina Department of Environmental and Natural Resources, Division of Environmental Management, Groundwater Section and the North Carolina Department of Human Resources, Solid Waste Management Section revealed no underground storage tanks or hazardous waste sites in the project area.

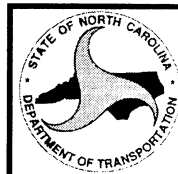
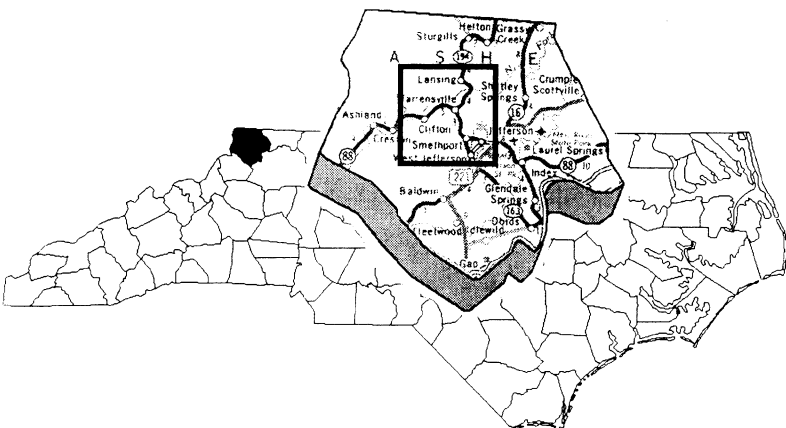
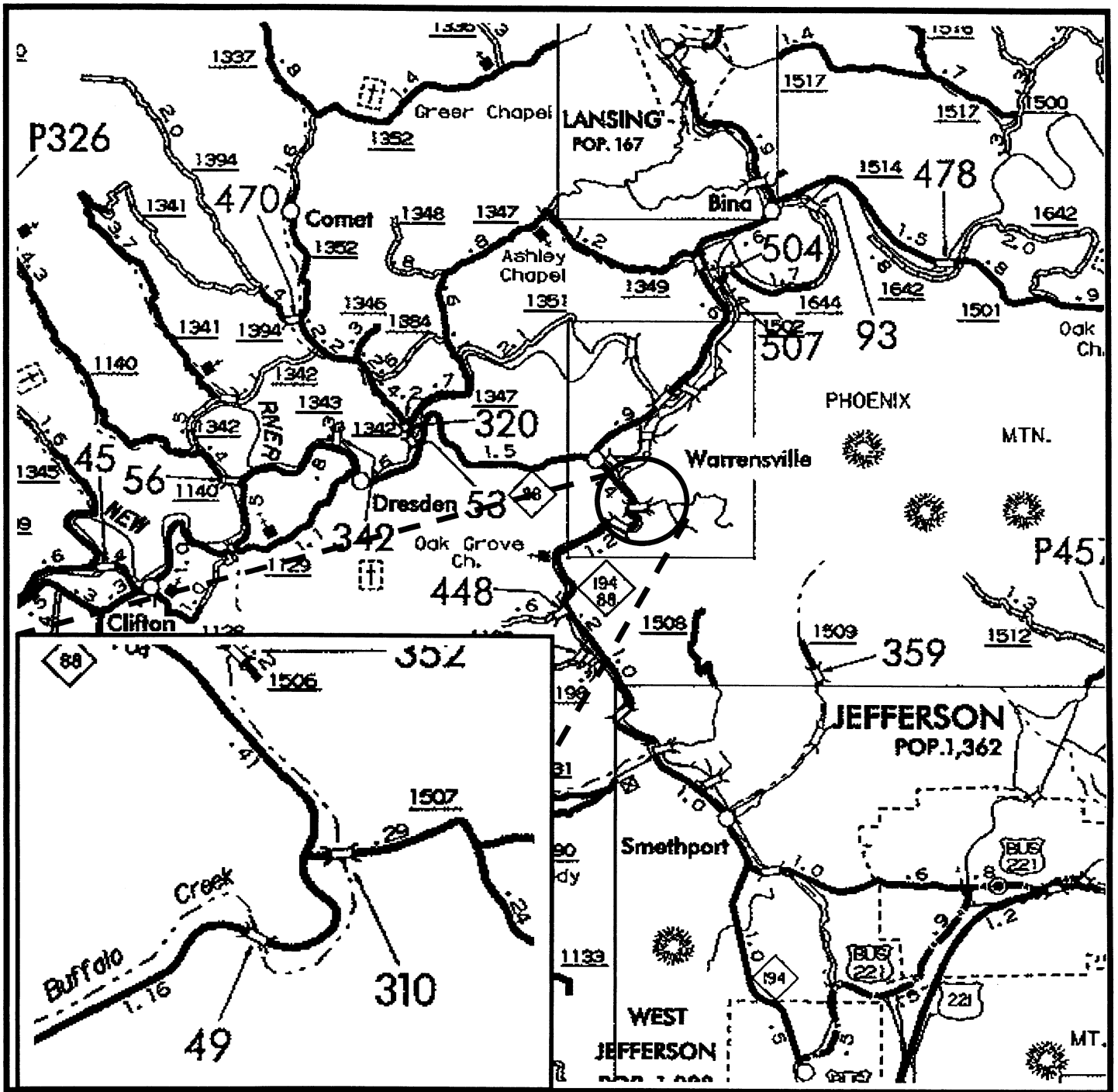
Ashe County is a participant in the National Flood Insurance Program. The approximate 100-year floodplain in the project area is shown in Figure 6. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream flood potential.

On the basis of the above discussion, it is concluded that no substantial adverse environmental impacts will result from implementation of the project.

#### **VIII. AGENCY COMMENTS**

None

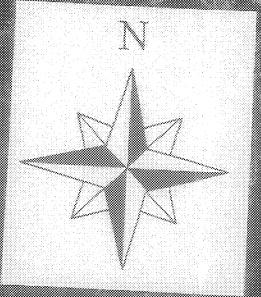




NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS BRANCH

ASHE COUNTY  
REPLACE BRIDGE NO. 310 ON SR 1507  
OVER BUFFALO CREEK  
B-3805

Figure 1



NC 88

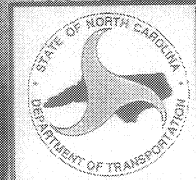
SR 1507

Proposed New Alignment for Alternate 1

Remove Existing Bridge No. 310

Proposed Bridge

Proposed New Alignment for Alternate 2



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

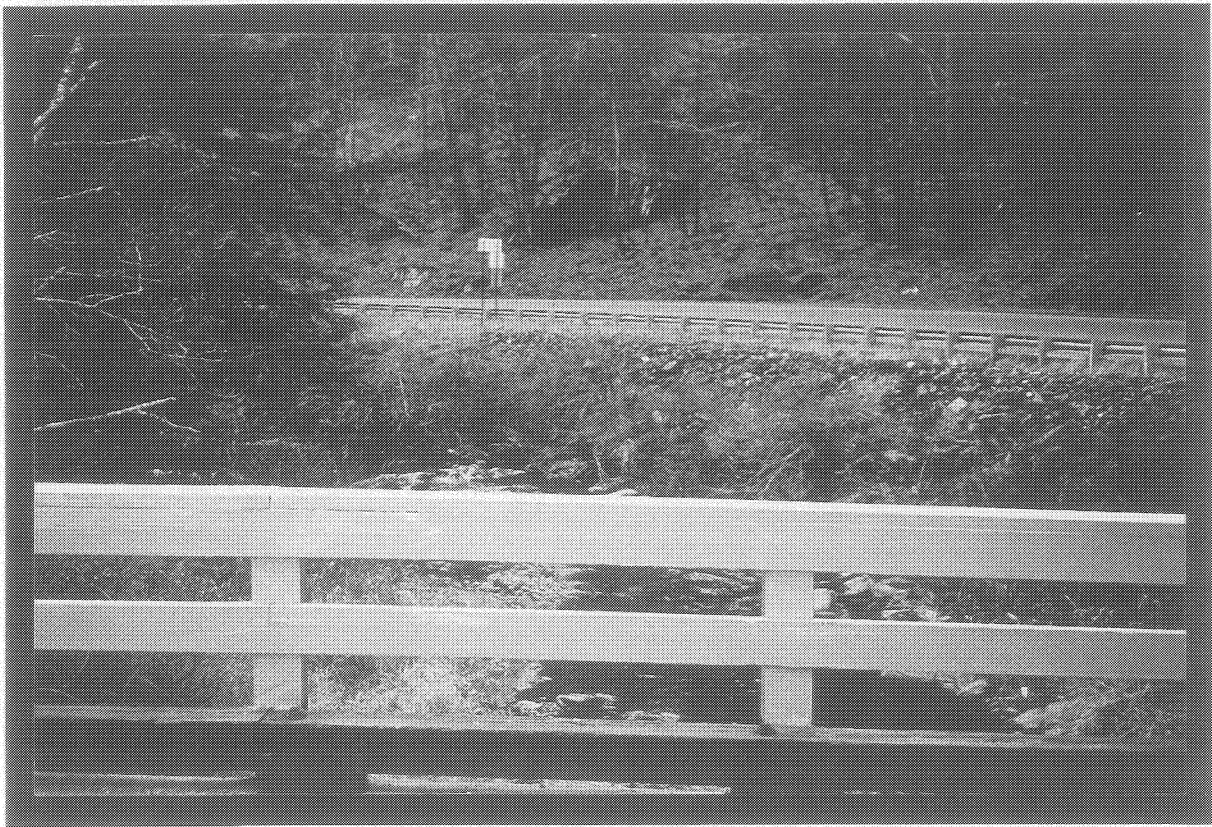
ASHE COUNTY  
REPLACE BRIDGE 310 ON SR 1507  
OVER BUFFALO CREEK  
B-3805

Scale 1"=100'

Figure Two



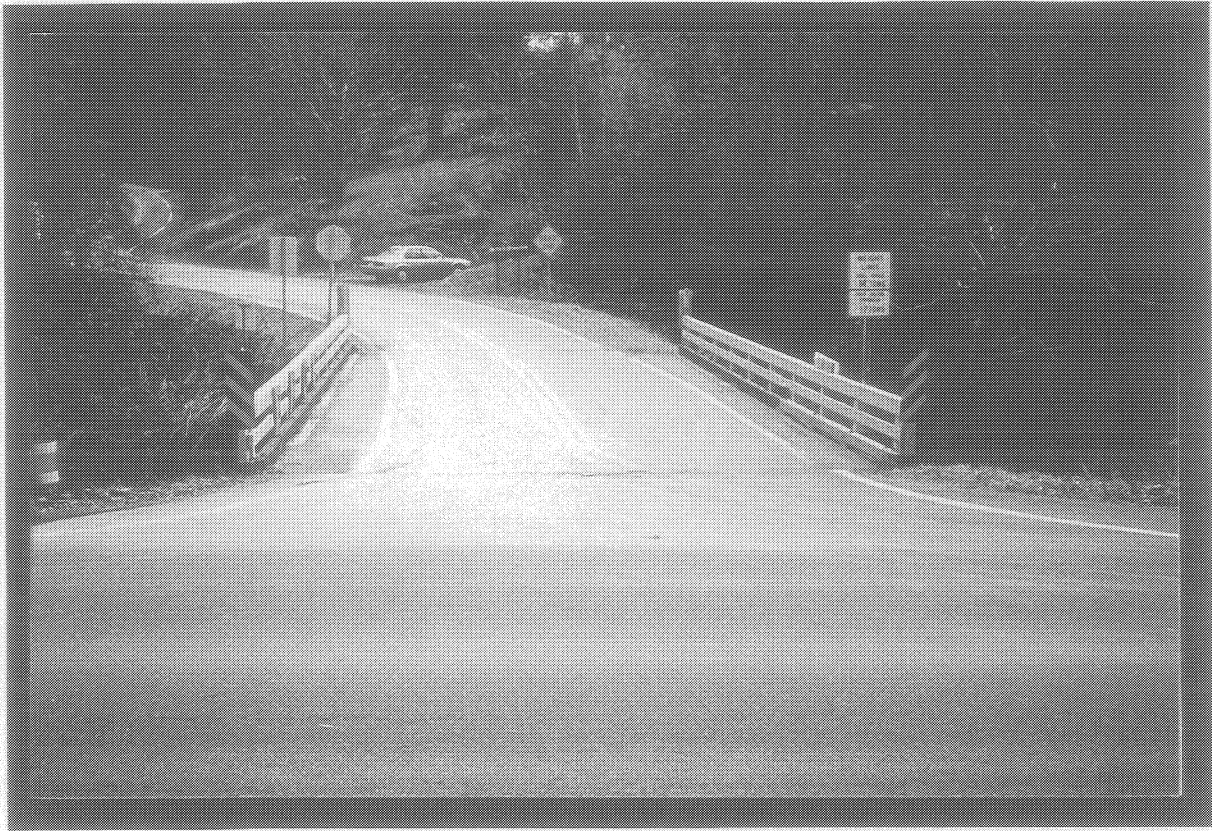
Looking North from the Bridge



Looking South from the Bridge

B-3805

FIGURE 3A



Looking East from the Intersection with NC 88



Looking West to the Intersection with NC 88



NC 88 Facing North



NC 88 Facing South

B-3805

FIGURE 3C



**Temporary Offsite Detour for B-3109**



**North Face of Bridge**

**B-3805**

**FIGURE 3D**



K. OLYMER

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

David L. S. Brook, Administrator

Michael F. Easley, Governor

Division of Archives and History  
Jeffrey J. Crow, Director

January 22, 2001

**MEMORANDUM**

To: William D. Gilmore, PE, Manager  
Project Development and Environmental Analysis Branch

From: David Brook *for David Brook*  
Deputy State Historic Preservation Officer

Re: Replace Bridge No. 310 on SR 1507 over Buffalo Creek,  
TIP No. B-3805, Ashe County, ER 01-7906

We regret that a member of our staff was unable to attend the December 14, 2000, meeting of the minds for the project. However, on December 15, 2000, April Montgomery of our staff met with Karen Orthner with the North Carolina Department of Transportation (NCDOT) concerning the project. She reported our available information on historic architectural and archaeological surveys and resources along with our recommendations. Ms. Orthner provided project area photographs and aerial photographs. Based upon our review of the photographs and the information discussed at the meeting, we offer our preliminary comments regarding this project.

In terms of historic architectural resources we are aware of no historic structures located within the area of potential effect. We recommend that no historic architectural survey be conducted for this project.

There are no known archaeological sites within the proposed project area. Based on our present knowledge of the area, it is unlikely that any archaeological resources which may be eligible for inclusion in the National Register of Historic Places, will be affected by the project construction. We, therefore, recommend that no archaeological investigation be conducted in connection with this project.

Having provided this information, we look forward to the receipt of either a Categorical Exclusion or Environmental Assessment, which indicates how NCDOT addressed our comments.

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 any questions concerning the above comment, contact Renee Gledhill-Earley, Environmental Review Coordinator, at 919 733-4763.

---

	Location	Mailing Address	Telephone/Fax
Administration	507 N. Blount St. Raleigh	4617 Mail Service Center. Raleigh 27699-4617	(919) 733-4763 • 715-8653
Restoration	515 N. Blount St. Raleigh	4613 Mail Service Center. Raleigh 27699-4613	(919) 733-6547 • 715-4801
Survey & Planning	515 N. Blount St. Raleigh	4618 Mail Service Center. Raleigh 27699-4618	(919) 733-4763 • 715-4801