



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 17, 2008

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

ATTENTION: Mr. David Baker
NCDOT Coordinator

SUBJECT: **Nationwide Permit 13 Application** for the replacement of Bridge No. 26 over Junaluska Creek on SR 1505 in Cherokee County, Federal Aid Project No. BRSTP-1501(1), State Project No. 8.2910501, WBS Element 33813.1.1, **TIP No. B-3635.**

Dear Sir:

Please see the enclosed PreConstruction Notification (PCN), Permit Drawings and Design plans for the above referenced project. A Categorical Exclusion was completed for this project in February 2005 and distributed shortly thereafter. Additional copies are available upon request. NCDOT proposes to replace the existing two-span, 33-foot long bridge, with a new 60-foot long single-span bridge. There will be 10 linear feet of permanent impacts from bank stabilization and no temporary impacts incurred from the construction of this project. As traffic must be maintained onsite and in order to minimize impacts to the environment and surrounding structures, the project will be built utilizing phased construction techniques with temporary signals.

IMPACTS TO WATERS OF THE UNITED STATES

General Description:

The single water resource impacted for project B-3635 is Junaluska Creek. Junaluska Creek is located in the Hiwassee River Basin (Division of Water Quality (DWQ) subbasin 04-05-02) and is approximately 20 feet wide and 0.5 foot deep within the project area. The DWQ Index number for this section of Junaluska Creek is 1-52-25 and the Hydrological Cataloguing Unit is 06020002. The DWQ classifies Junaluska Creek as "C". Within the project area, Junaluska Creek is not listed as a 303(d) water. There are no 303(d) waters within a mile downstream of the project area. No High

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

TELEPHONE: 919-715-1334
FAX: 919-715-5501

WEBSITE: WWW.NCDOT.ORG

LOCATION:
PARKER LINCOLN BUILDING,
2728 CAPITAL BLVD.
RALEIGH NC 27604

Quality Waters (HQW), Water Supplies (WS-I or WS-II), or Outstanding Resource Waters (ORW) occur within one mile of the project study area. There are no wetlands within the project study area.

Permanent Impacts:

There will be 10 linear feet of permanent stream impacts to Junaluska Creek resulting from bank stabilization from riprap at the outlet end of a new lateral ditch.

Temporary Impacts:

There will be no temporary impacts to Junaluska Creek.

Utility Impacts:

Duke and Verizon will have to relocate one pole each and reroute the conductor/cable. Cherokee Cable is attached to Verizon poles and will follow their new route. The rerouting of these utilities will not impact Junaluska Creek.

Bridge Demolition:

The existing bridge’s superstructure consists of asphalt-wearing surface over a timber deck on timber joints. The interior bent utilizes timer for both cap and piles. Bridge No. 26 can be removed without dropping components into Junaluska Creek. All guidelines for bridge demolition and removal will be followed in addition to Best Management Practices (BMPs) for the Protection of Surface Waters and BMPs for Bridge Demolition and Removal.

FEDERALLY PROTECTED SPECIES

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE) and Proposed Threatened (PT) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 31, 2008, the United States Fish and Wildlife Service (USFWS) lists six federally protected species for Cherokee County (Table 1). The Bald Eagle has been de-listed from the Endangered Species Act as of August 8, 2007 but is still protected under the Bald and Golden Eagle Act. A survey for Cumberland bean, Little-wing pearly mussel and Tan riffleshell was conducted on February 10, 2003; no mussels were found resulting in a biological conclusion of No Effect.

Table 1. Federally Protected Species for Cherokee County

Common Name	Scientific Name	Status	Habitat	Biological Conclusion
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T	No	De-listed
Bog Turtle	<i>Clemmys muhlenbergii</i>	T (S/A)	Not Subject	N/A
Cumberland bean	<i>Viollsa trabalis</i>	E	Yes	No Effect
Indiana bat	<i>Myotis sodalis</i>	E	No	No Effect
Little-wing pearly mussel	<i>Pegias fabula</i>	E	Yes	No Effect
Small whorled pogonia	<i>Isotria medeoloides</i>	E	No	No Effect
Tan riffleshell	<i>Epioblasma florentina walkeri</i>	E	Yes	No Effect

AVOIDANCE, MINIMIZATION AND MITIGATION

Avoidance and Minimization:

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. In addition, Best Management Practices will be followed as outlined in “NCDOT’s Best Management Practices for Construction and Maintenance Activities”.

- A longer bridge results in open floodplain approximately 27 feet (creating/enlarging) therefore allowing better hydrologic connectivity.
- The construction of this project has minimized the extent of the built-upon area by using the existing alignment for the widening.
- The existing structure will carry one lane of traffic until enough of the new bridge is constructed to accommodate the traffic.
- A trout moratorium on in-water construction is to be enforced from November 1 to April 15.

Mitigation:

NCDOT proposes no mitigation for the 10 linear feet of permanent impacts to Junaluska Creek because bank stabilization is not considered a loss of waters of the United States.

Schedule:

The project schedule calls for a December 16, 2008 Let date and a review date of **October 28, 2008**.

REGULATORY APPROVALS

Section 404 Permit:

It is anticipated that the permanent impacts to Junaluska Creek will be authorized under Section 404 Nationwide Permit 13 (Bank Stabilization). We are, therefore, requesting the issuance of a Nationwide Permit 13 to encompass the 10 feet of rip rap required for stabilization.

Section 401 Permit:

We anticipate 401 General Certification number 3689 will apply to this project. All general conditions of the General Certification will be adhered to, therefore we are not requesting concurrence from the DWQ. In accordance with 15A NCAC 2H .0501(a) We are submitting two

copies of this permit application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for your records.

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

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Jennifer Harrod at jwharrod@dot.state.nc.us or (919) 715-7241. The application will be posted at <http://207.4.62.65/PDEA/PermApps/>.

Sincerely,



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

cc:

W/attachment

Mr. Brian Wrenn, NCDWQ (2 copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC
Mr. Harold Draper, TVA

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Victor Barbour, P.E., Project Services Unit
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. J.B. Setzer, P.E., Division Engineer
Mr. Mark Davis, DEO
Mr. Jay Bennett, P.E., Roadway Design
Mr. Majed Alghandour, P.E., Programming and TIP
Mr. Art McMillian, P.E., Highway Design
Mr. Scott McLendon, USACE, Wilmington
Mr. John Williams, Project Planning Engineer

Office Use Only:

Form Version March 05

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 type="checkbox"/> 401 Water Quality Certification	<input type="checkbox"/> Express 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested: Nationwide13

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 Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, 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

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794
E-mail Address: jwharrod@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: Bridge No. 26 on SR 1505 over Junaluska Creek.
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-3635
3. Property Identification Number (Tax PIN): N/A
4. Location
County: Cherokee Nearest Town: Andrews, NC
Subdivision name (include phase/lot number): N/A
Directions to site (include road numbers/names, landmarks, etc.): I-40 West; to exit 27 towards US 74 West; Left at Robinson Rd. and Slight Left at Junaluska Road; Arrive at B-3635.
5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
Decimal Degrees (6 digits minimum): 35°11'44.13 °N 83°46'46.44 °W
6. Property size (acres): N/A
7. Name of nearest receiving body of water: Valley River
8. River Basin: Hiwassee
(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/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: White Pine Forest, Successional/Early Successional, Maintained yard/Disturbed Roadside, Maintained Trout Pond
10. Describe the overall project in detail, including the type of equipment to be used: Bridge No. 26 will be replaced with a single-span bridge that is 60 feet long.

11. Explain the purpose of the proposed work: NCDOT Bridge Maintenance Unit records indicate Bridge No. 26 has a sufficiency rating of 71.5 out of a possible 100 for a new structure. The bridge is considered structurally deficient and functionally obsolete. The replacement of this inadequate structure will result in safer and more efficient traffic operations.

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. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should 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 10 linear feet of permanent stream impacts from the use of riprap for bank stabilization and there will be no temporary stream impacts to the Junaluska Creek
2. Individually list wetland impacts. Types of 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.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
No Wetlands					
Total Wetland Impact (acres)					

3. List the total acreage (estimated) of all existing wetlands on the property: 0 _____
4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, 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. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
1	Junaluska Creek	Permanent	Perennial	20'	10	0.001
Total Stream Impact (by length and acreage)					10	0.001

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
Total Open Water Impact (acres)				0

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	0.001 (perm.)
Wetland Impact (acres):	0
Open Water Impact (acres):	0

Total Impact to Waters of the U.S. (acres)	0 (perm)
Total Stream Impact (linear feet):	10

7. Isolated Waters

Do any isolated waters exist on the property? Yes No

Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

8. 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.): _____

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

Current land use in the vicinity of the pond: _____

Size of watershed draining to pond: _____ Expected pond surface area: _____

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. The current bridge will be replaced just upstream of the existing location. As SR 1505 has no outlet, traffic must be maintained on site using phased construction on the new bridge. NCDOT Best Management Practices will be implemented during all phases of construction and demolition.

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 January 15, 2002, 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 NCEEP 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. NCDOT proposes no mitigation for the 10 linear feet of permanent impacts to Junaluska Creek. These impacts are from bank stabilization, which will not have an adverse effect or result in loss of waters of the United States.
2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCEEP is proposed, please check the appropriate box on page five 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)

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes No
2. 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

3. 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.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)? Yes No
2. If "yes", 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 (square feet)	Multiplier	Required Mitigation
1		3 (2 for Catawba)	
2		1.5	
Total			

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

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260. _____

XI. Stormwater (required by DWQ)

Describe impervious acreage (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. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. _____

All stormwater from this bridge replacement project shall be directed to special cut ditches which will allow for storm water treatment before discharging into Junaluska Creek.

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. Cumulative Impacts (required by DWQ)

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes No

If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/ncwetlands>. If no, please provide a short narrative description:

This project is limited to a bridge replacement. No indirect or cumulative impacts are anticipated

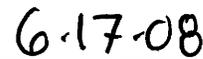
XV. Other Circumstances (Optional):

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).

N/A



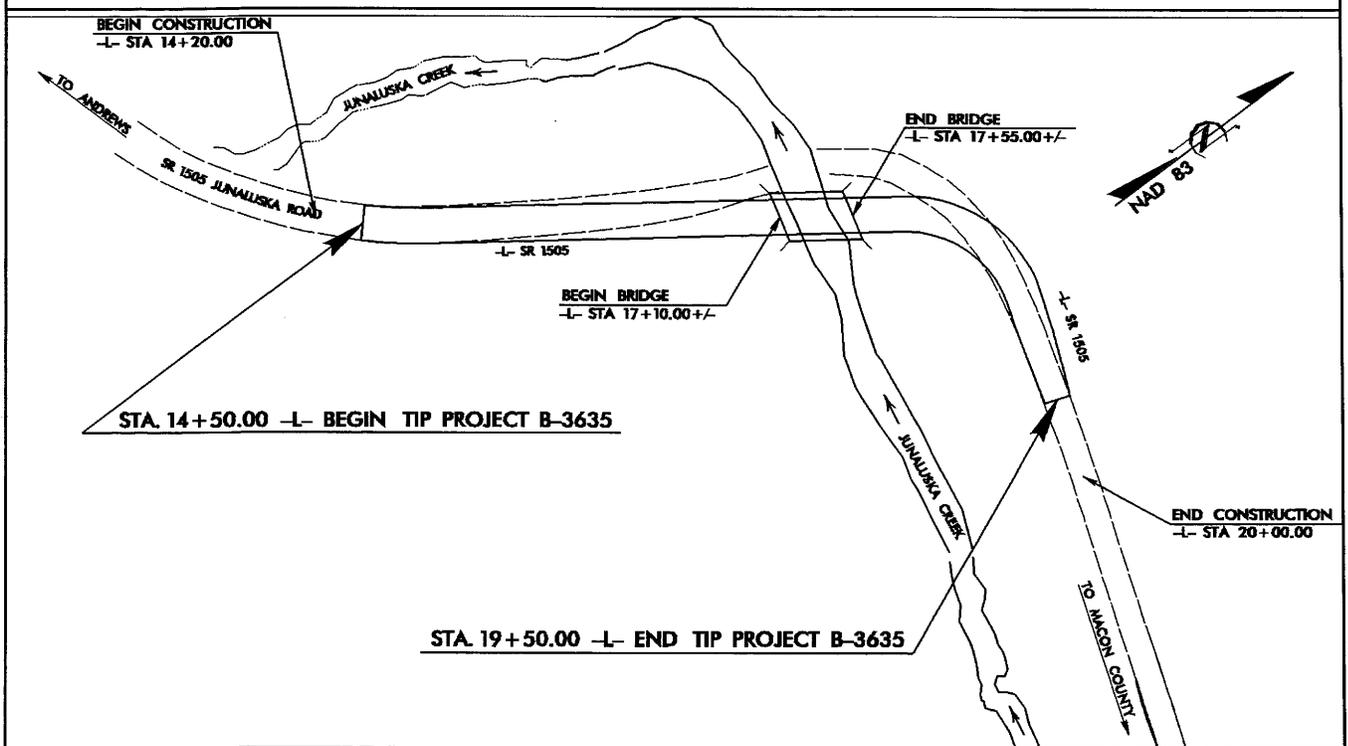
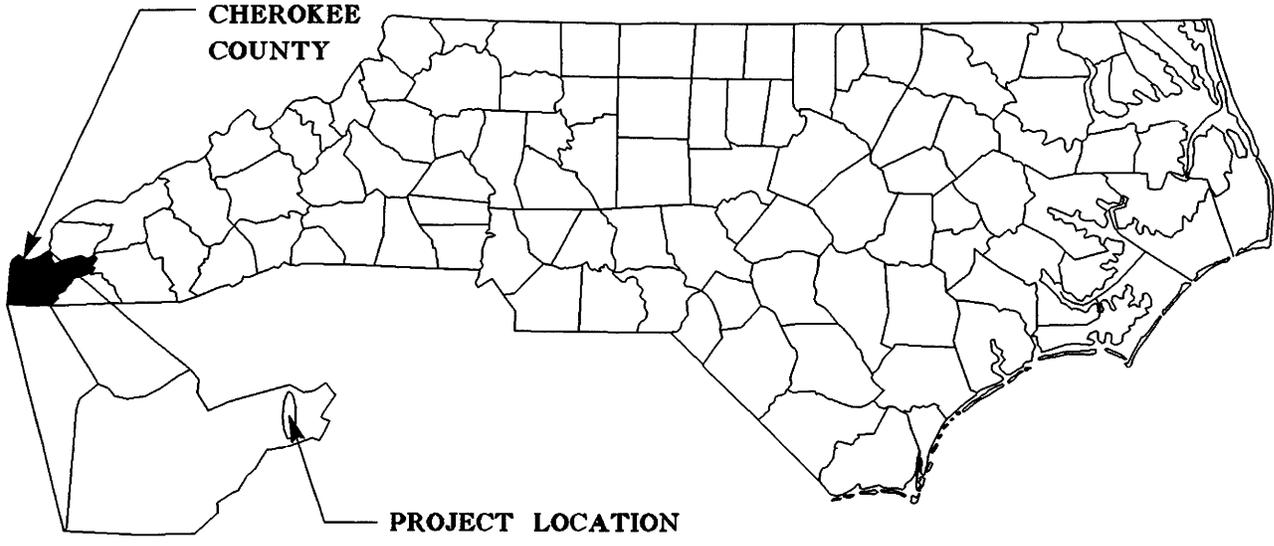
Applicant/Agent's Signature



Date

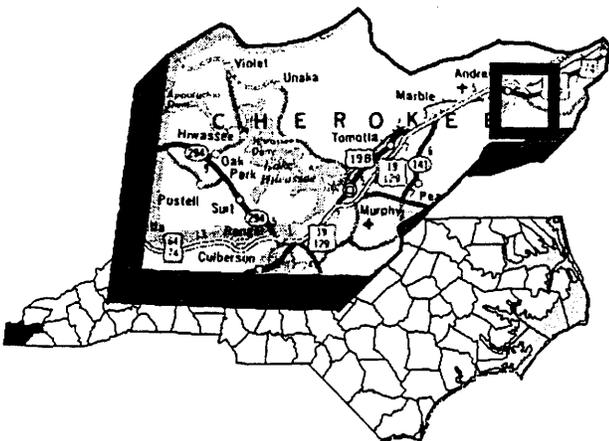
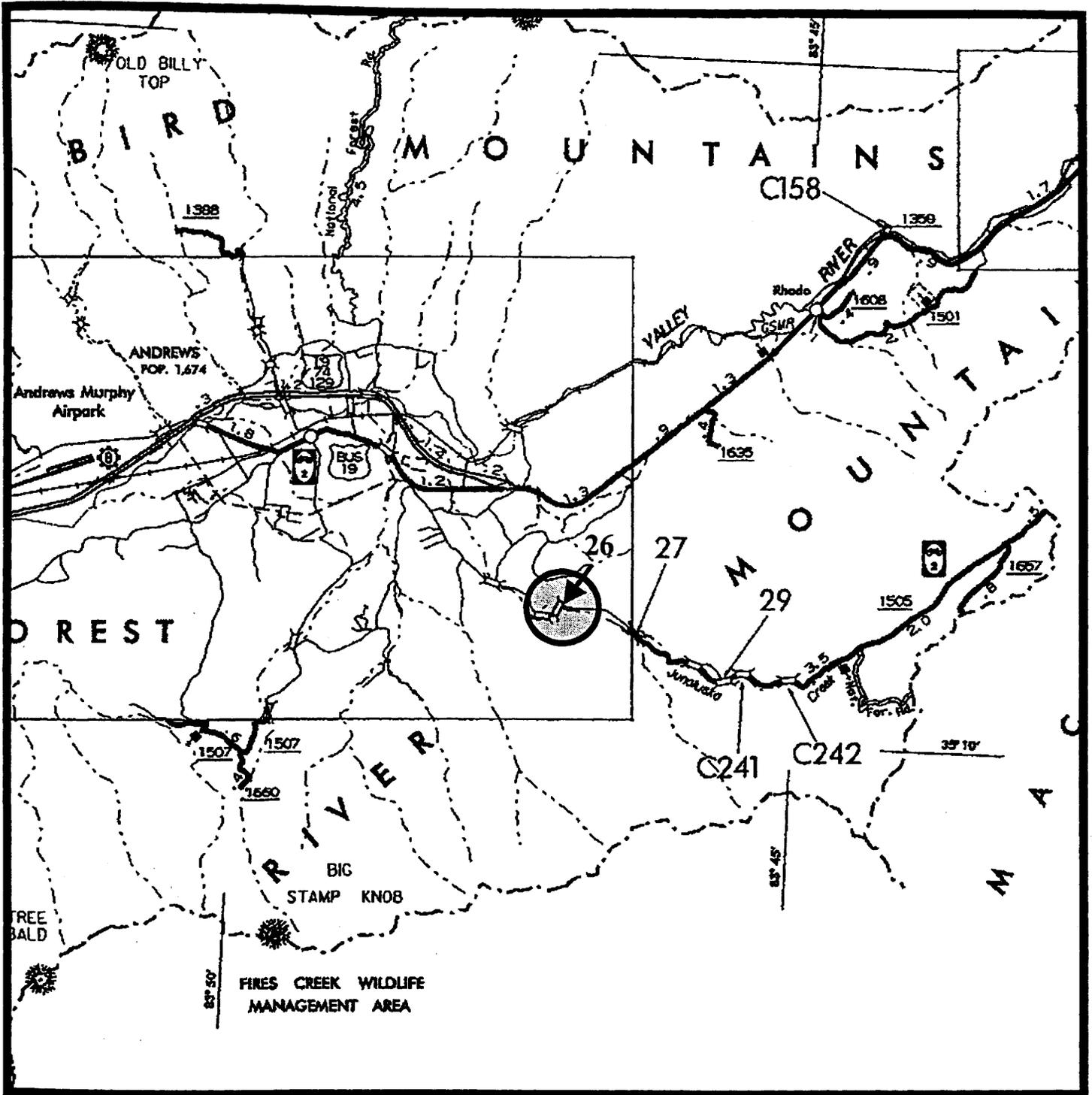
(Agent's signature is valid only if an authorization letter from the applicant is provided.)

NORTH CAROLINA



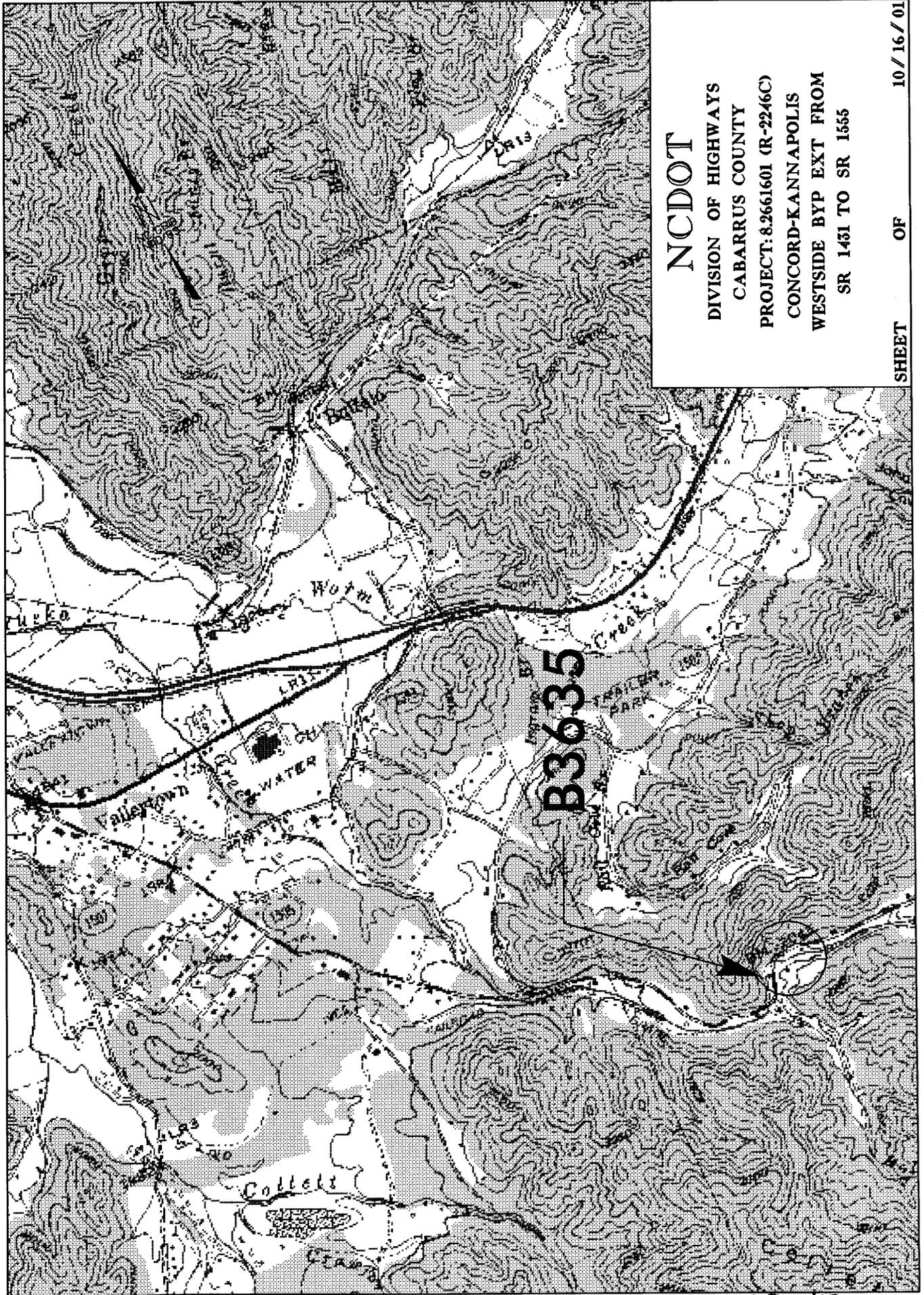
VICINITY MAPS

NCDOT
DIVISION OF HIGHWAYS
CHEROKEE COUNTY
PROJECT: 33183.1.1 (B-3635)
BRIDGE NO. 26 OVER JUNALUSKA
CREEK AND APPROACHES
ON SR 1505 (JUNALUSKA ROAD)



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH</p>
	<p>CHEROKEE COUNTY REPLACE BRIDGE 26 ON SR 1505 OVER JUNALUSKA CREEK B-3635</p>

Figure 1



NCDOT

DIVISION OF HIGHWAYS
CABARRUS COUNTY
PROJECT: 8.2661601 (R-2246C)
CONCORD-KANNAPOLIS
WESTSIDE BYP EXT FROM
SR 1451 TO SR 1655

SHEET OF 10/16/01

PROPERTY OWNERS

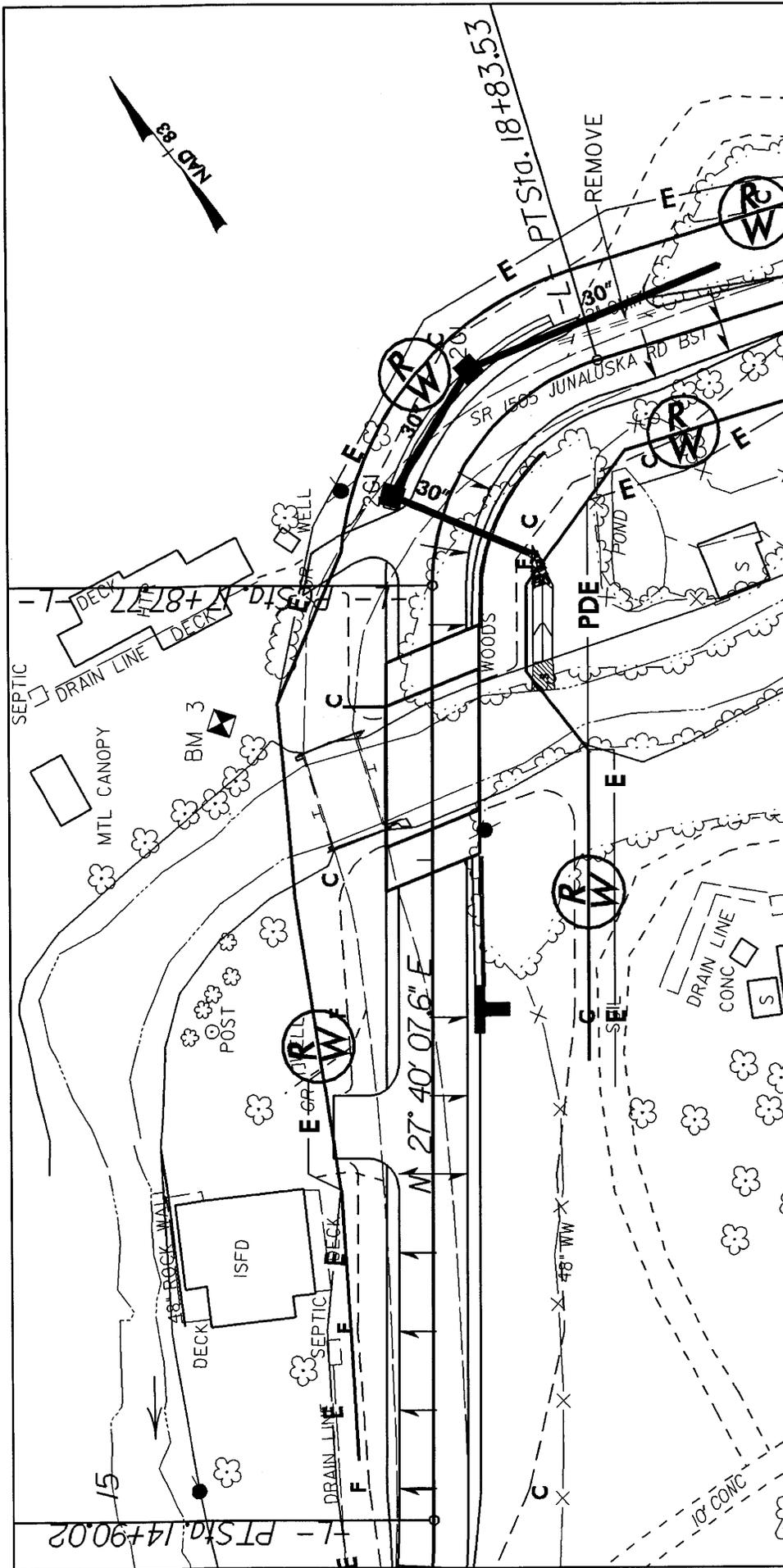
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
4	BONNIE McCLURE HEIRS	1970 JUNALUSKA ROAD ANDREWS, NC 28901
3	CORR HOYLE	1915 JUNALUSKA ROAD ANDREWS, NC 28901
2	PAUL LEE RUBY M. LEE	1310 RING STREET HIGH POINT, NC 27260
7	ROY ARLEN McCLURE CONNIE LEE McCLURE	1970 JUNALUSKA ROAD ANDREWS, NC 28901
1	WILLIAM DAVID BIRCHFIELD	P.O. BOX 35 ANDREWS, NC 28901
6	BONNIE McCLURE HEIRS	1970 JUNALUSKA ROAD ANDREWS, NC 28901
5	DOROTHY KUHN	1943 JUNALUSKA ROAD ANDREWS, NC 28901

NCDOT
 DIVISION OF HIGHWAYS
 CHEROKEE COUNTY
 PROJECT: 33183.1.1 (B-3635)
 BRIDGE NO. 26 OVER JUNALUSKA
 CREEK AND APPROACHES
 ON SR 1505 (JUNALUSKA ROAD)

SHEET OF 1 / 24 / 08

Permit Drawing
 Sheet 4 of 8

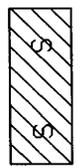


NCDOT
 DIVISION OF HIGHWAYS
 CHEROKEE COUNTY
 PROJECT: 33183.11 (B-3635)
 BRIDGE NO. 26 OVER JUNALUSKA
 CREEK AND APPROACHES
 ON SR 1505 JUNALUSKA ROAD

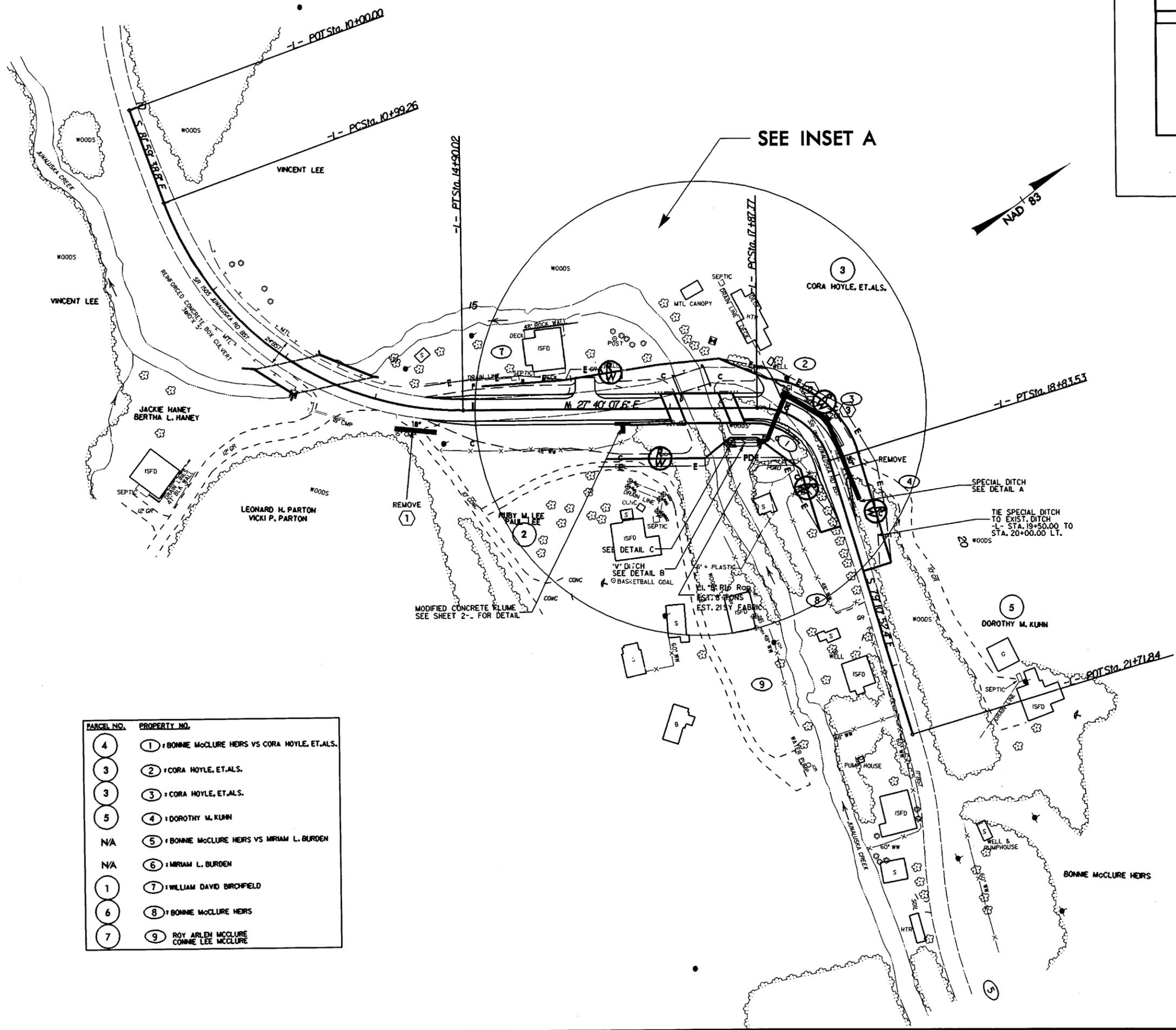
SHEET **OF** **1/25/08**

PLAN VIEW
INSET A

DENOTES IMPACTS IN
 SURFACE WATER



PROJECT REFERENCE NO.	SHEET NO.
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



REVISIONS

PARCEL NO.	PROPERTY NO.
4	1 : BONNIE McCLURE HEIRS VS CORA HOYLE, ET.ALS.
3	2 : CORA HOYLE, ET.ALS.
3	3 : CORA HOYLE, ET.ALS.
5	4 : DOROTHY M. KUHN
N/A	5 : BONNIE McCLURE HEIRS VS MIRIAM L. BURDEN
N/A	6 : MIRIAM L. BURDEN
1	7 : WILLIAM DAVID BIRCHFIELD
6	8 : BONNIE McCLURE HEIRS
7	9 : ROY ARLEN McCLURE CONNIE LEE McCLURE

8/17/99

24-JAN-2008 16:26
 F:\Hydro\autocad\p\1126355_hyd_psh.prm1.dgn

Hydro
 Drawings
 Permit Drawing

BM1 - ELEVATION = 2020.21
 N 555,225.4550 E 580,922.9830
 -BL- STATION 5+00.00
 S 84 12 53 W DIST. 139.59
 8" SPIKE IN 18" POPLAR TREE

BM2 - ELEVATION = 2029.49
 N 555,280.2060 E 570,421.8880
 -BL- STATION 8+57.00 10.00' RIGHT
 -L- STATION 13+24.86 27.35' RIGHT
 CRISLED SQUARE ON EAST END OF HEAD WALL

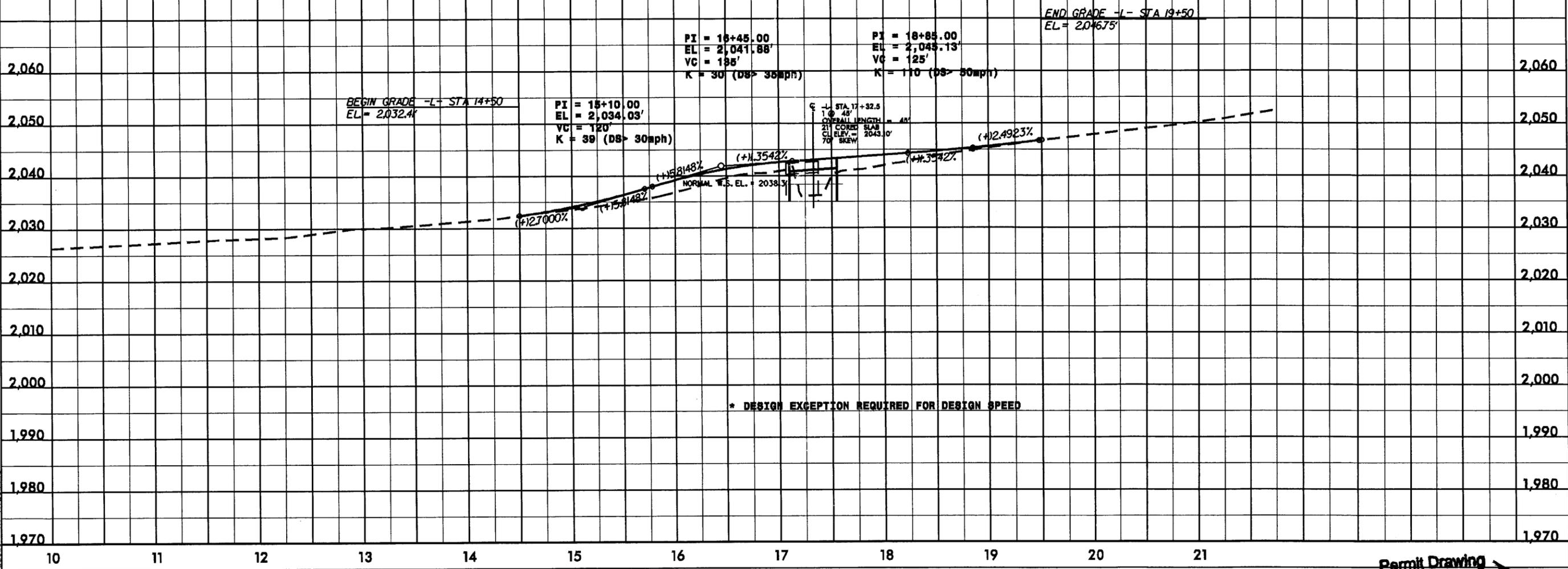
BM3 - ELEVATION = 2040.07
 N 555,659.9370 E 570,574.9330
 -BL- STATION 12+38.00 49.00' LEFT
 -L- STATION 17+43.94 67.76' LEFT
 CRISLED SQUARE ON ROCK

BM4 - ELEVATION = 2061.53
 N 555,545.7550 E 571,427.8480
 -BL- STATION 20+84.00
 S 85 01 23 E DIST. 120.88
 8" SPIKE IN BASE OF 18" PINE TREE

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE = 1650 CFS
 DESIGN FREQUENCY = 25 YRS
 DESIGN HW ELEVATION = 2043.4 FT
 BASE DISCHARGE = 2500 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 2044.2 FT
 OVERTOPPING DISCHARGE = 1200 CFS
 OVERTOPPING FREQUENCY = 10 YRS
 OVERTOPPING ELEVATION = 2042.3 FT

DATE OF SURVEY =
 W.S. ELEVATION = 2038.3 FT
 AT DATE OF SURVEY



5/14/99
 I4-FEB-2008 13:00
 \hydr\aulica\pwr\3635\3635_hyd_psh_p1.dgn
 cadour B1 H123413

9/09/99

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols
See Sheet 1-C For Survey Control Sheet

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

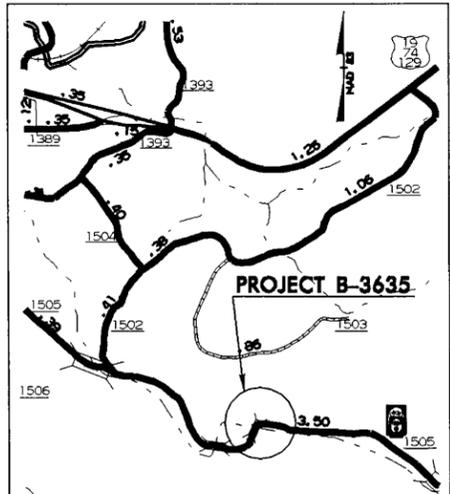
CHEROKEE COUNTY

LOCATION: BRIDGE NO. 26 OVER JUNALUSKA CREEK
AND APPROACHES ON SR 1505 (JUNALUSKA ROAD)

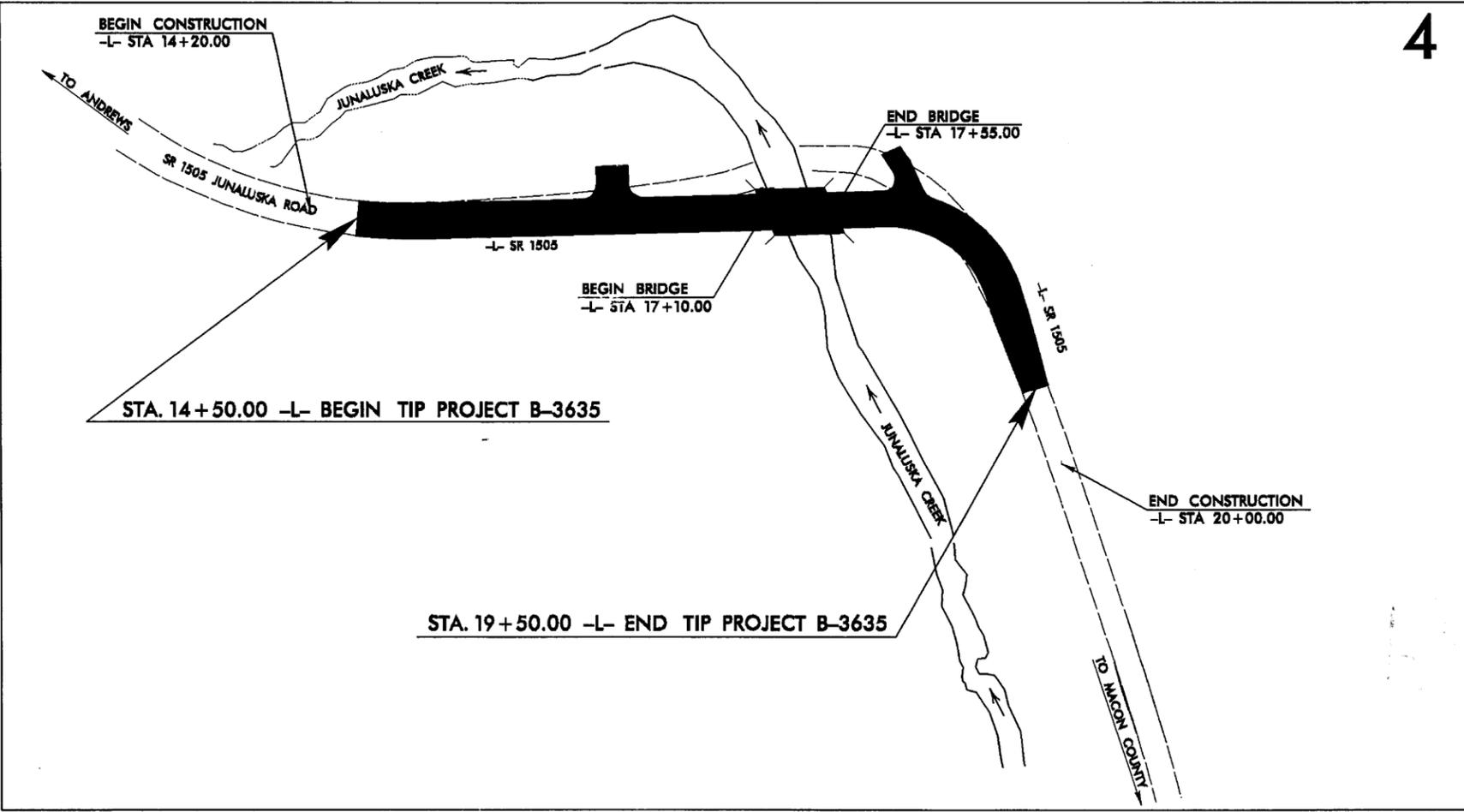
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE, AND GUARDRAIL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3635	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33183.1.1	BRSTP-1505(1)	P.E.	
33183.2.1	BRSTP-1505(1)	RW & UTILITIES	
33183.3.1	BRSTP-1505(1)	CONST.	

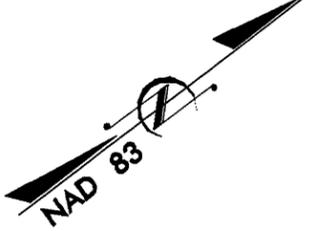
CONTRACT: C202038 TIP PROJECT: B-3635



VICINITY MAP

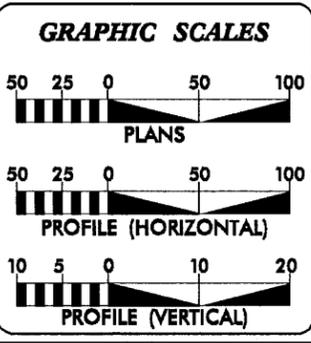


4



** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED, MINIMUM HORIZONTAL CURVE RADIUS, SUPERELEVATION, AND ASSOCIATED STOPPING SIGHT DISTANCE.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2008 =	1278
ADT 2025 =	1800
DHV =	14 %
D =	60 %
T =	3 % *
V =	30 MPH**
* TTST 1 %	DUAL 2 %

PROJECT LENGTH

LENGTH ROADWAY OF TIP PROJECT B-3635 = 0.086 MILES
 LENGTH STRUCTURES OF TIP PROJECT B-3635 = 0.009 MILES
 TOTAL LENGTH OF TIP PROJECT B-3635 = 0.095 MILES

Roadway Drawings

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
DECEMBER 9, 2005

LETTING DATE:
DECEMBER 16, 2008

JAMES A. SPEER, PE
PROJECT ENGINEER

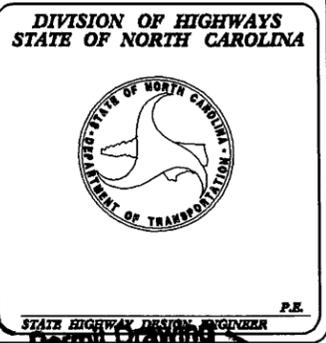
DANIEL W. GARDNER, JR., PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



14-FEB-2008 13:13
R:\Pro\B3635\14b
amc@dhwa AT HV2-94413

Permit Drawing

3/15/06

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○
Property Corner	→
Property Monument	□
Parcel/Sequence Number	⑫
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	W.L.B.
Proposed Wetland Boundary	W.L.B.
Existing Endangered Animal Boundary	E.A.B.
Existing Endangered Plant Boundary	E.P.B.

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	⋈
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	▬

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	JS
Buffer Zone 1	BZ 1
Buffer Zone 2	BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	*
Proposed Lateral, Tail, Head Ditch	▬
False Sump	◇

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	⊕
Proposed Control of Access	⊕
Existing Easement Line	E
Proposed Temporary Construction Easement	E
Proposed Temporary Drainage Easement	TDE
Proposed Permanent Drainage Easement	PDE
Proposed Permanent Utility Easement	PUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	C
Proposed Slope Stakes Fill	F
Proposed Wheel Chair Ramp	WCR
Proposed Wheel Chair Ramp Curb Cut	WCC
Curb Cut for Future Wheel Chair Ramp	CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊗

VEGETATION:

Single Tree	⊕
Single Shrub	⊙
Hedge	-----
Woods Line	-----
Orchard	⊕
Vineyard	⊕

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊕
Storm Sewer	S

UTILITIES:

POWER:	
Existing Power Pole	⊕
Proposed Power Pole	⊕
Existing Joint Use Pole	⊕
Proposed Joint Use Pole	⊕
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	⊕
H-Frame Pole	⊕
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	⊕
Proposed Telephone Pole	⊕
Telephone Manhole	⊕
Telephone Booth	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊕
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	A/G Water

TV:

TV Satellite Dish	⊕
TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	⊕
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

GAS:

Gas Valve	⊕
Gas Meter	⊕
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

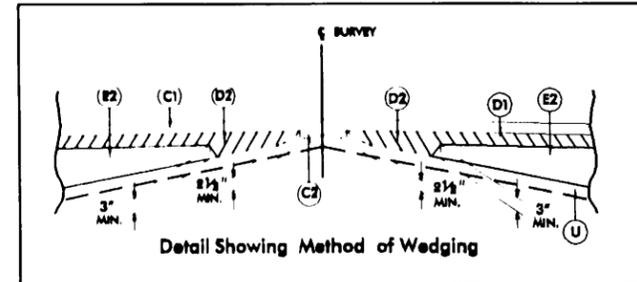
Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	SS
Above Ground Sanitary Sewer	A/G Sanitary Sewer
Recorded SS Forced Main Line	FSS
Designated SS Forced Main Line (S.U.E.*)	FSS

MISCELLANEOUS:

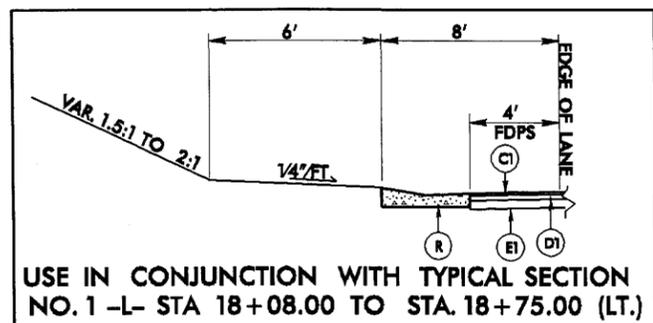
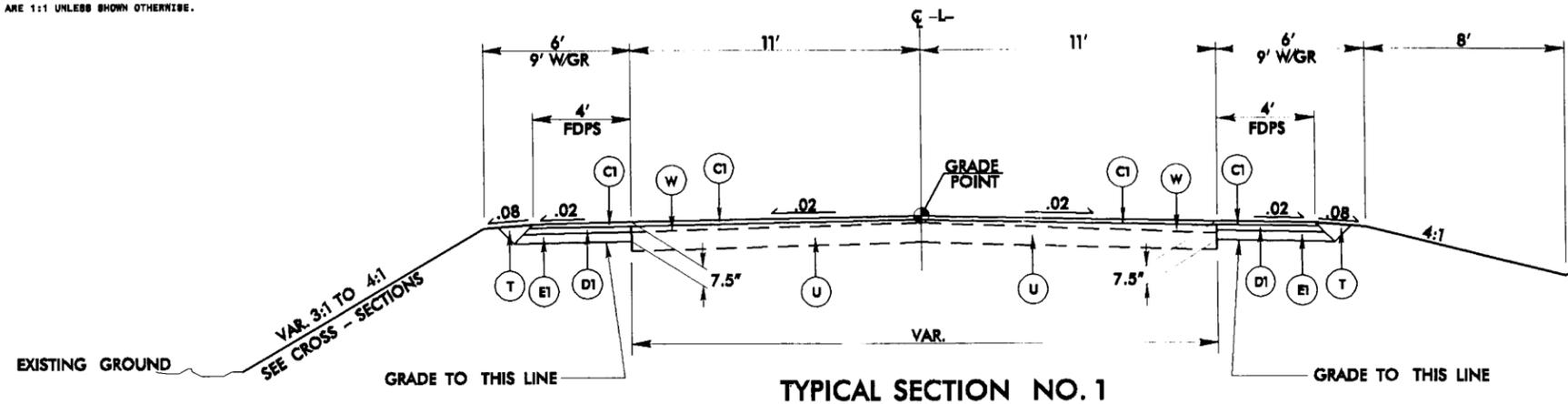
Utility Pole	⊕
Utility Pole with Base	⊕
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	U/L
U/G Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

PROJECT REFERENCE NO. B-3635	SHEET NO. 2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PAVEMENT SCHEDULE			
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	E2	PROP. VAR. ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 8 1/2" IN DEPTH.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.	R	EXPRESSWAY GUTTER
D1	PROP. APPROX. 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 289.5 LBS. PER SQ. YD.	T	EARTH MATERIAL
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.	U	EXISTING PAVEMENT
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 486 LBS. PER SQ. YD.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)



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

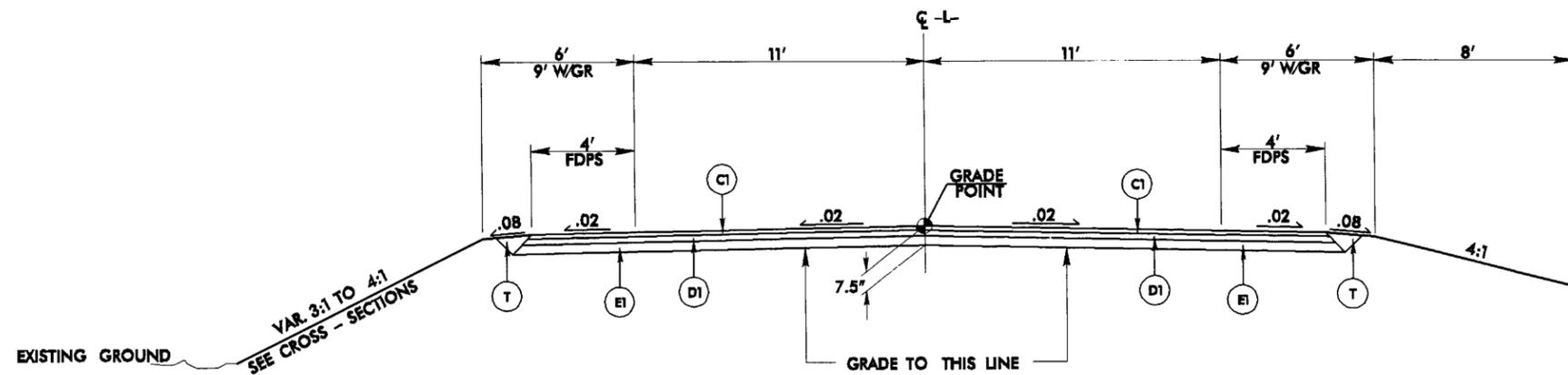


USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1 -L- STA 18+08.00 TO STA. 18+75.00 (LT.)

TRANSITION FROM EXISTING TO TYPICAL SECTION NO. 1 -L- STA 14+50.00 TO STA 15+00.00

USE TYPICAL SECTION NO. 1

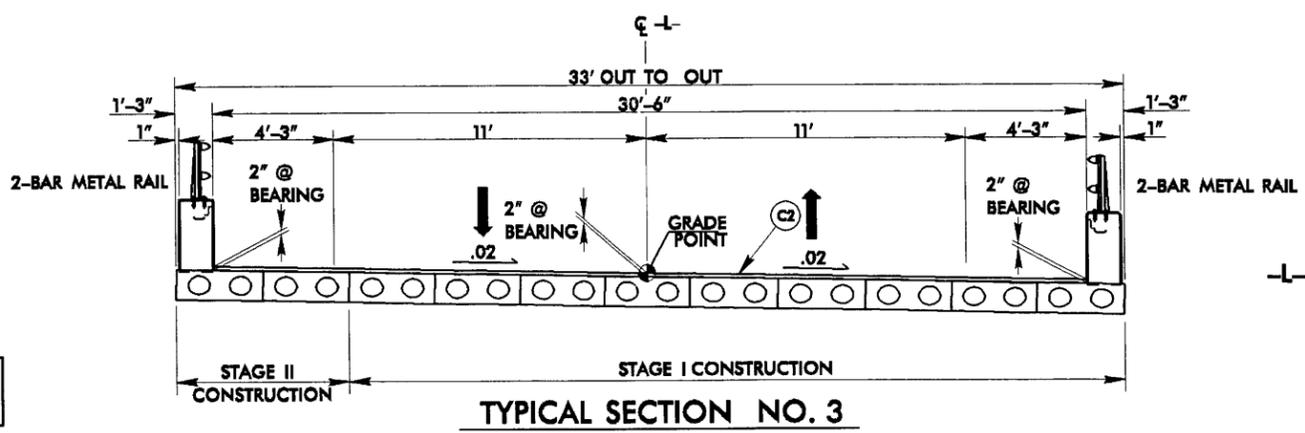
-L- STA. 15+00.00 TO STA. 15+75.00
-L- STA. 18+00.00 TO STA. 19+00.00



TRANSITION FROM TYPICAL SECTION NO. 1 TO EXISTING -L- STA 19+00.00 TO STA 19+50.00

USE TYPICAL SECTION NO. 2

-L- STA. 15+75.00 TO STA. 17+10.00 (BEGIN BRIDGE)
-L- STA. 17+55.00 (END BRIDGE) TO STA. 18+00.00



USE TYPICAL SECTION NO. 3

-L- STA. 17+10.00 (BEGIN BRIDGE) TO STA. 17+55.00 (END BRIDGE)

NOTE: SR 1505, JUNALUSKA RD. IS A DESIGNATED BICYCLE ROUTE (NC 2)

Permit Drawing
Sheet _____ of _____

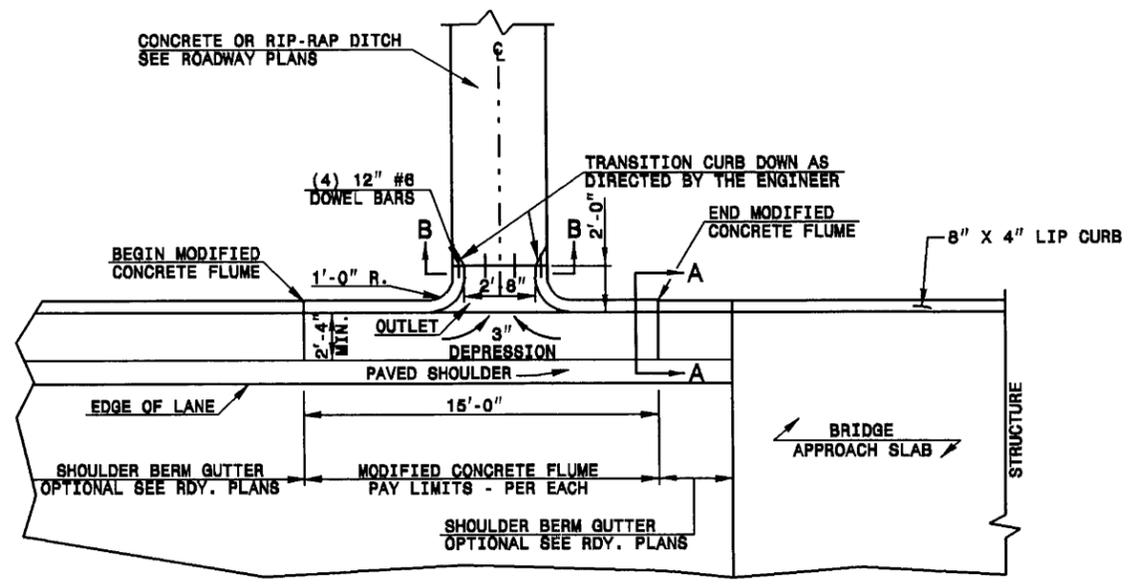
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STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

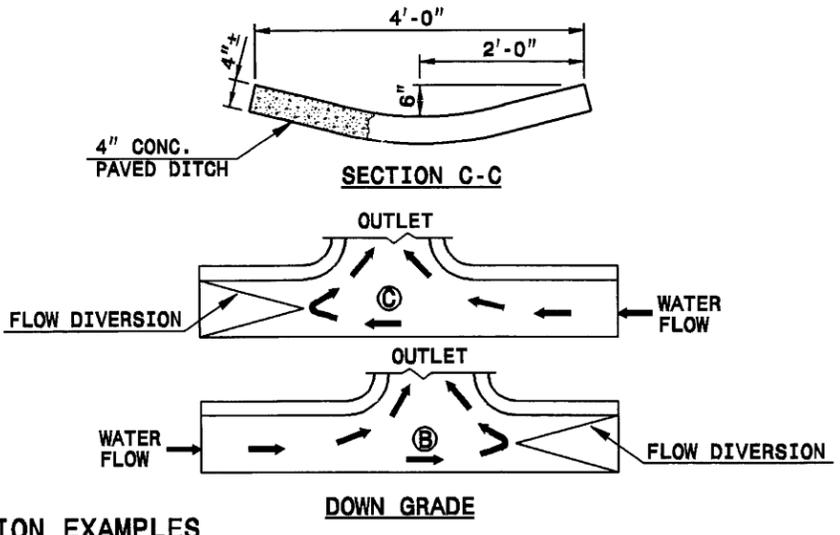
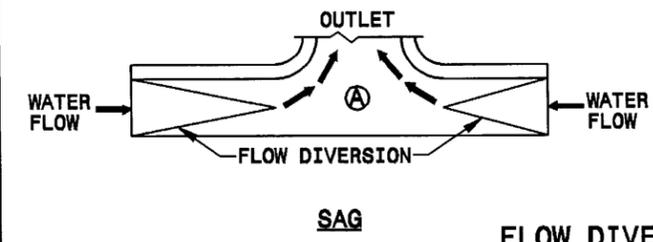
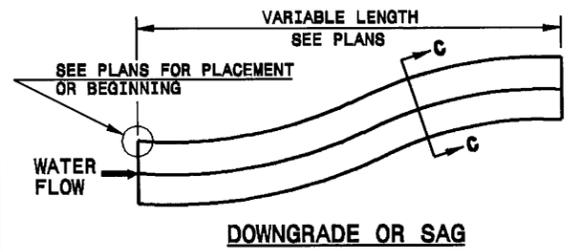
ENGLISH DETAIL DRAWING FOR
MODIFIED CONCRETE FLUME
WITH CONCRETE OR RIP-RAP DITCH

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

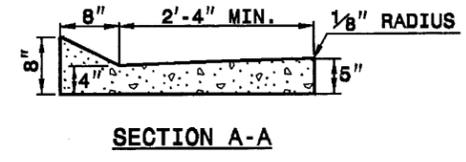
ENGLISH DETAIL DRAWING FOR
MODIFIED CONCRETE FLUME
WITH CONCRETE OR RIP-RAP DITCH



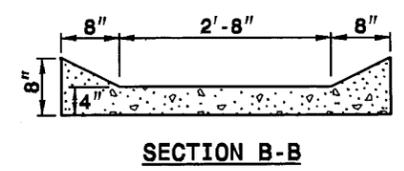
PLAN VIEW



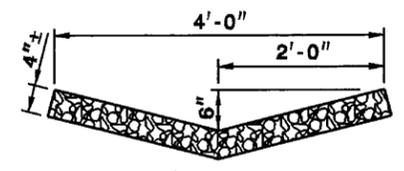
FLOW DIVERSION EXAMPLES



SECTION A-A



SECTION B-B



RIP-RAP LINED DITCH

NOTES:

- CONSTRUCT MODIFIED CONCRETE FLUME AND SHOULDER BERM GUTTER IN ACCORDANCE WITH THIS DETAIL.
- CONSTRUCT CONCRETE DITCH IN ACCORDANCE WITH STD. DWG. NO. 850.01.
- CONSTRUCT RIP RAP LINED DITCH IN ACCORDANCE WITH THIS DETAIL, IF CALLED FOR IN PLANS.
- CONCRETE OR RIP RAP LINED DITCH SHALL BE THE TYPE AND LENGTH SPECIFIED BY THE ROADWAY PLANS. THE DITCH SHALL TERMINATE AS SHOWN ON THE PLANS. IF NO TERMINATION IS INDICATED PLACE RIP-RAP AT THE END OF THE DITCH AS INDICATED BY STD. DWG. 876.02 FOR AN 18" PIPE. TRANSITIONS FROM THE DITCH TO TERMINATION SHALL BE AS DIRECTED BY THE ENGINEER.
- MODIFICATIONS SHALL BE AS DICTATED BY SITE CONDITIONS AND DIRECTED BY THE ENGINEER.

SHEET 1 OF 1
MODFLMDTCH

SHEET 1 OF 1
MODFLMDTCH

14-FEB-2008 13:03
c:\prow\133630\rdy_dtl_concrete_flume.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

Permit Drawing
Sheet ___ of ___

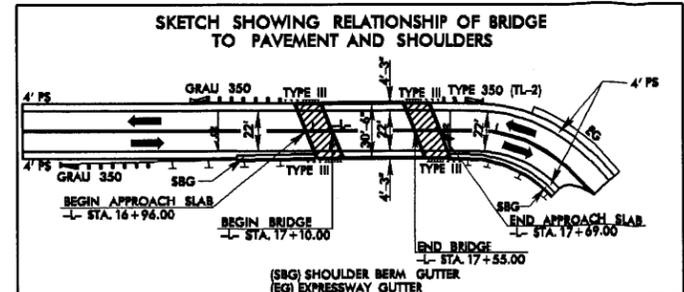
ORIGINAL BY: E.E. Ward DATE: Apr. 2002
MODIFIED BY: E.E. Ward DATE: July 2004
CHECKED BY: DATE:
FILE SPEC.: w:\detail\stand\modifiedflume.dgn

7/2/99

REVISIONS

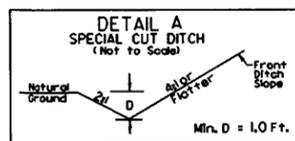
R/W REVISION (DWG) 05/02/06
THE UPDATED SURVEYS SHOW A NEW DRIVE, NEW HOME, AND A NEW PROPERTY LINE SOUTH OF JUNALUSKA CREEK. THE PROPOSED R/W WAS REVISED AND TCE WAS ADDED ON PARCEL 2 (RUBY M. LEE AND PAUL LEE). THE PROPOSED R/W, P.D.E. AND TCE WERE REVISED ON PARCEL 6 (BONNIE MCCLURE HEIRS). PARCEL 7 (ROY ARLEN MCCLURE AND CONNIE LEE MCCLURE) WAS ADDED.

PROJECT REFERENCE NO. B-3635		SHEET NO. 4	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

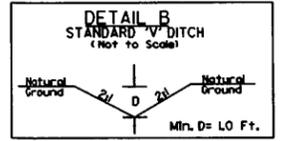


-L-	
PI Sta 13+23.54	PI Sta 18+43.42
$\Delta = 70' 20' 13.6'' (LT)$	$\Delta = 73' 09' 00.0'' (RT)$
$D = 18' 00' 00.0''$	$D = 76' 23' 39.7''$
$L = 390.76'$	$L = 95.75'$
$T = 224.28'$	$T = 55.65'$
$R = 318.31'$	$R = 75.00'$
	$SE = .04 (V=15 \text{ mph})$

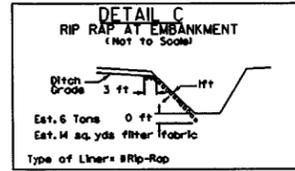
*NOTE: DESIGN EXCEPTION REQUIRED FOR MIN. HORIZ. CURVE RADIUS.



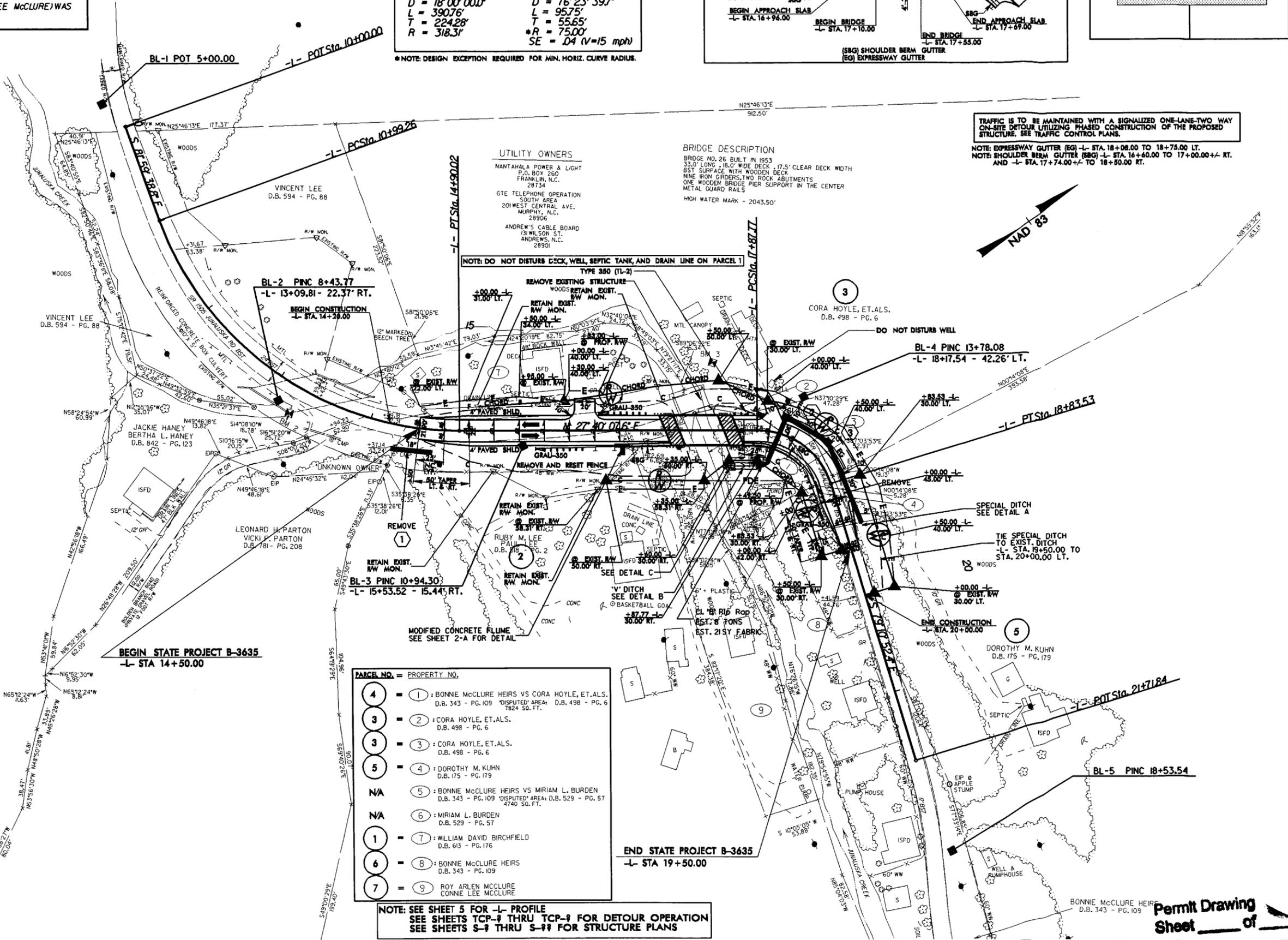
Sta. 19+30 to 19+50 -L- Lt



Sta. 17+65 to 18+15 -L- Rt



Sta. 17+65 to 18+15 -L- Rt



UTILITY OWNERS

NANTAHALA POWER & LIGHT
P.O. BOX 260
FRANKLIN, N.C.
28734

GTE TELEPHONE OPERATION
SOUTH AREA
201 WEST CENTRAL AVE.
MURPHY, N.C.
28906

ANDREW'S CABLE BOARD
13 WILSON ST.
ANDREWS, N.C.
28901

BRIDGE DESCRIPTION

BRIDGE NO. 26 BUILT IN 1953
33.0' LONG x 18.0' WIDE DECK - 17.5' CLEAR DECK WIDTH
BEST SURFACE WITH WOODEN DECK
NINE IRON GIRDERS, TWO ROCK ABUTMENTS
ONE WOODEN BRIDGE PIER SUPPORT IN THE CENTER
METAL GUARD RAILS

HIGH WATER MARK - 2043.50'

TRAFFIC IS TO BE MAINTAINED WITH A SIGNALIZED ONE-LANE-TWO WAY ON-SITE DETOUR UTILIZING PHASED CONSTRUCTION OF THE PROPOSED STRUCTURE. SEE TRAFFIC CONTROL PLANS.

NOTE: EXPRESSWAY GUTTER (EG) -L- STA. 18+08.00 TO 18+75.00 LT.
NOTE: SHOULDER BERM GUTTER (SBG) -L- STA. 16+60.00 TO 17+00.00 +R- RT.
AND -L- STA. 17+74.00 +L- TO 18+50.00 RT.

NOTE: DO NOT DISTURB DECK, WELL, SEPTIC TANK, AND DRAIN LINE ON PARCEL 1

PARCEL NO.	PROPERTY NO.
4	1 : BONNIE MCCLURE HEIRS VS CORA HOYLE, ET. ALS. D.B. 343 - PG. 109 'DISPUTED' AREA: D.B. 498 - PG. 6 7824 SQ. FT.
3	2 : CORA HOYLE, ET. ALS. D.B. 498 - PG. 6
3	3 : CORA HOYLE, ET. ALS. D.B. 498 - PG. 6
5	4 : DOROTHY M. KUHN D.B. 175 - PG. 179
NA	5 : BONNIE MCCLURE HEIRS VS MIRIAM L. BURDEN D.B. 343 - PG. 109 'DISPUTED' AREA: D.B. 529 - PG. 57 4740 SQ. FT.
NA	6 : MIRIAM L. BURDEN D.B. 529 - PG. 57
1	7 : WILLIAM DAVID BIRCHFIELD D.B. 613 - PG. 176
6	8 : BONNIE MCCLURE HEIRS D.B. 343 - PG. 109
7	9 : ROY ARLEN MCCLURE CONNIE LEE MCCLURE

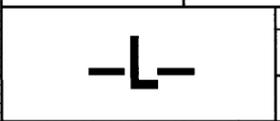
NOTE: SEE SHEET 5 FOR -L- PROFILE
SEE SHEETS TCP-1 THRU TCP-4 FOR DETOUR OPERATION
SEE SHEETS S-1 THRU S-11 FOR STRUCTURE PLANS

14-FEB-2008 13:03
C:\P\B\3635\3635.dwg
BONNIE MCCLURE HEIRS

Permit Drawing
Sheet 4 of 4

5/14/99

14-FEB-2008 13:03 \\s33\user\name\p1



BM1 - ELEVATION = 2020.21'
N 555,225.4550 E 569,922.6630
-BL- STATION 5+00.00
8 84 12 53 W DIST. 138.50'
8" SPIKE IN 18" POPLAR TREE

BM2 - ELEVATION = 2029.49'
N 555,260.2060 E 570,421.3680
-BL- STATION 8+57.00 10.00' RIGHT=
-L- STATION 13+24.86 27.35' RIGHT
CHISELED SQUARE ON EAST END OF HEAD WALL

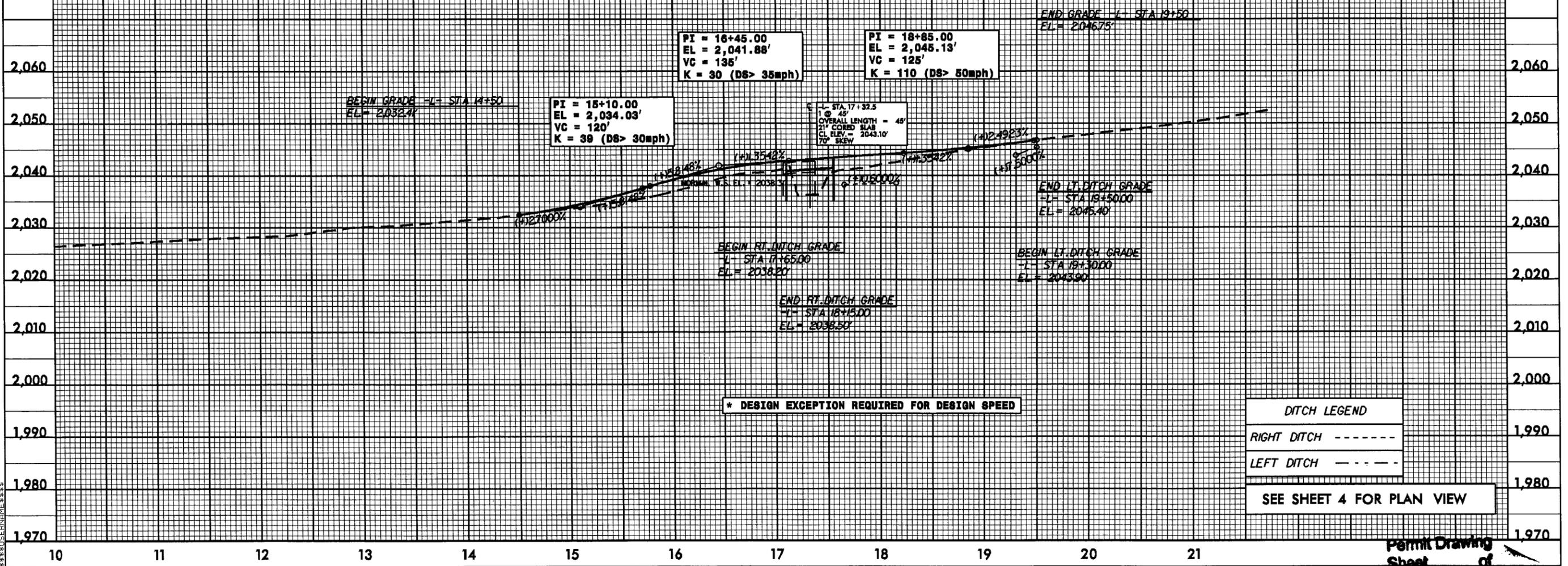
BM3 - ELEVATION = 2040.07'
N 555,659.9370 E 570,574.9330
-BL- STATION 12+96.00 49.00' LEFT=
-L- STATION 17+43.94 67.76' LEFT
CHISELED SQUARE ON ROCK

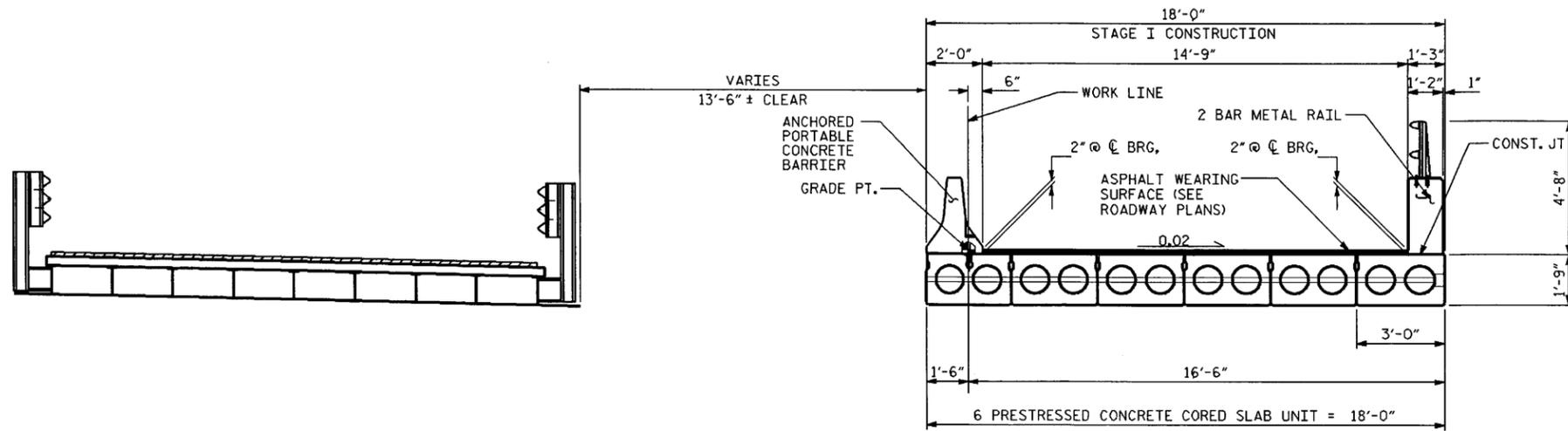
BM4 - ELEVATION = 2061.53'
N 555,545.7660 E 571,427.8480
-BL- STATION 20+64.00
8 85 01 23 E DIST. 120.65'
8" SPIKE IN BASE OF 18" PINE TREE

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE = 1650 CFS
DESIGN FREQUENCY = 25 YRS
DESIGN HW ELEVATION = 2043.4 FT
BASE DISCHARGE = 2500 CFS
BASE FREQUENCY = 100 YRS
BASE HW ELEVATION = 2044.2 FT
OVERTOPPING DISCHARGE = 1200 CFS
OVERTOPPING FREQUENCY = 10 YRS
OVERTOPPING ELEVATION = 2042.9 FT

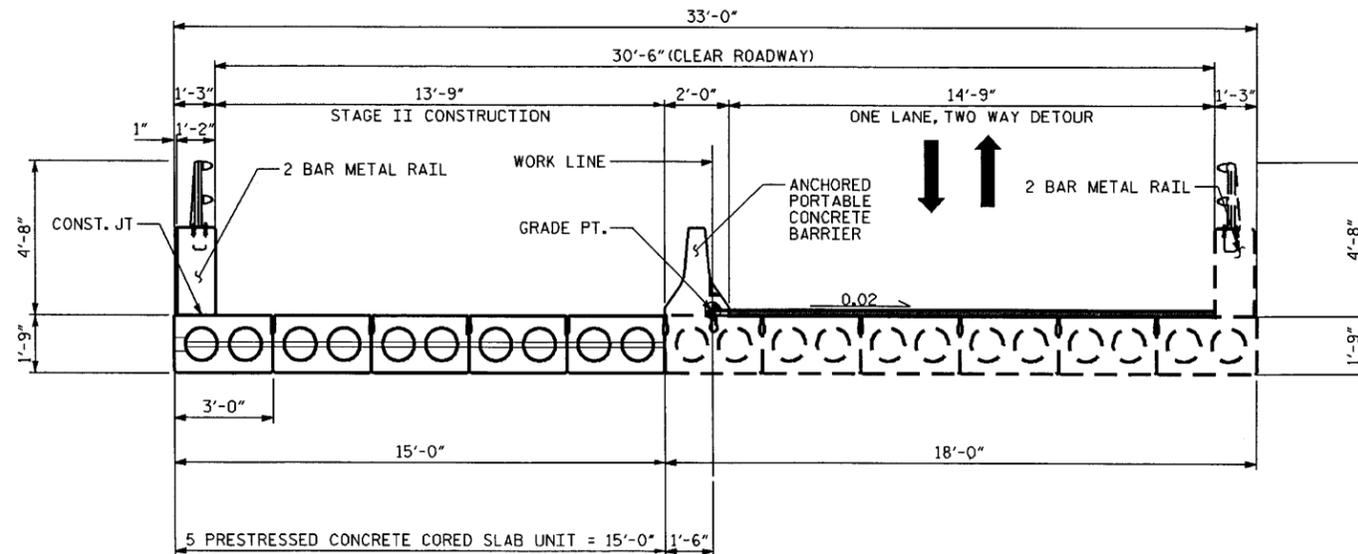
DATE OF SURVEY =
W.S.ELEVATION = 2038.3 FT
AT DATE OF SURVEY





STAGE I CONSTRUCTION

CONSTRUCT STAGE I CONSTRUCTION, ATTACH TEMPORARY ANCHORED PORTABLE CONCRETE BARRIER USING FERRULE INSERTS ON CORED SLAB UNITS, AND PLACE FIRST ASPHALT SURFACE COURSE ON STAGE I.



STAGE II CONSTRUCTION

REMOVE EXISTING STRUCTURE, CONSTRUCT STAGE II CONSTRUCTION.

**PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION**

PROJECT NO. B-3635
CHEROKEE COUNTY
 STATION: 17+32.50 -L-

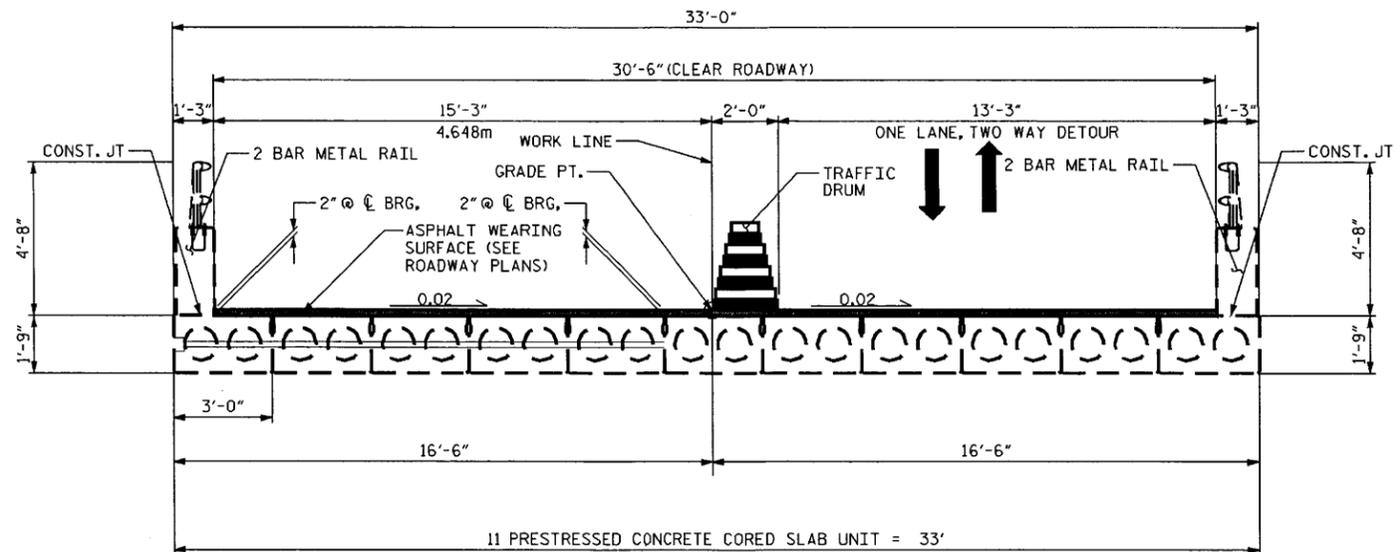
SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**CONSTRUCTION
SEQUENCE**

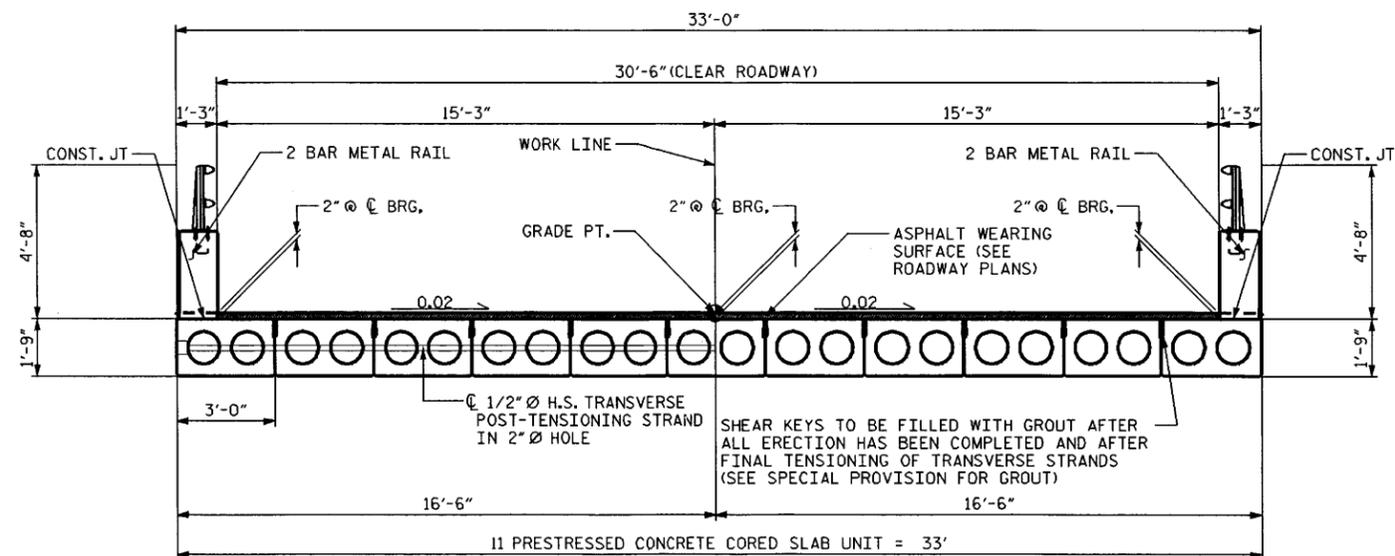
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			
2			4			

DRAWN BY: N.M.B. DATE: 7/19/05
 CHECKED BY: _____ DATE: _____



STAGE III CONSTRUCTION

PLACE TRAFFIC DRUMS AS SHOWN AND REMOVE TEMPORARY ANCHORED PORTABLE CONCRETE BARRIER IN STAGE I. FILL CONCRETE INSERTS WITH GROUT, PLACE REMAINING ASPHALT WEARING SURFACE.



FINAL TYPICAL SECTION

**PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION**

PROJECT NO. B-3635
CHEROKEE COUNTY
 STATION: 17+32.50 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**CONSTRUCTION
SEQUENCE**

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS

DRAWN BY: M. J. Ruffin DATE: 7/19/05
 CHECKED BY: _____ DATE: _____

14-FEB-2008 13:03
 *****DGN*****
 *****USERNAME*****

NC Permit Drawing
 Sheet of

**Cherokee County
Bridge No. 26 on SR 1505
Over Junaluska Creek
Federal Aid Project No. BRSTP-1505(1)
State Project No. 8.2910501
W.B.S. No. 33183.1.1
T.I.P. No. B-3635**

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

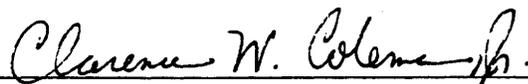
DIVISION OF HIGHWAYS

Approved:

1/28/05
DATE

for 
Gregory J. Thorpe, PhD,
Environmental Management Director, PDEA

2/1/05
DATE

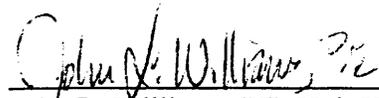
for 
John F. Sullivan, III
Division Administrator, FHWA

**Cherokee County
Bridge No. 26 on SR 1505
Over Junaluska Creek
Federal Aid Project No. BRSTP-1505(1)
State Project No. 8.2910501
W.B.S. No. 33183.1.1
T.I.P. No. B-3635**

CATEGORICAL EXCLUSION

Documentation Prepared in
Project Development and Environmental Analysis Branch By:

January 2005



John L. Williams, PE, Unit Head
Bridge Planning Unit

PROJECT COMMITMENTS:

**Cherokee County
Bridge No. 26 on SR 1505
Over Junaluska Creek
Federal Aid Project No. BRSTP-1505(1)
State Project No. 8.2910501
W.B.S. No. 33813.1.1
T.I.P. No. B-3635**

All Design Groups, Resident Engineer – Acidic Rock

High levels of acid are present in the surround rock formations of the project. All appropriate measures will be taken to address this situation.

Roadway Design – Designated Bicycle Route

SR 1505 is designated as Bicycle Route NC 2 and should be designed accordingly.

Geotechnical – Trout Stream

During subsurface investigations, equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

Construction – Trout Stream

- A moratorium on in-water construction is to be enforced from November 1 to April 15.
- Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of ground disturbing activities to provide long term erosion control.
- All work in or adjacent to stream waters should be in a dry work area. Sandbags, rock berms, cofferdams, or other diversion structures should be used where possible to prevent excavation in flowing water.
- If concrete is used during construction, a dry work area must be maintained to prevent direct contact between curing concrete and stream water. Uncured concrete affects water quality and is highly toxic to fish.
- Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams.
- Only clean, sediment-free rock should be used as temporary fill (causeways), and should be removed without excessive disturbance of the natural stream bottom when construction is completed.

Structures – This project lies within TVA jurisdiction.

Cherokee County
Bridge No. 26 on SR 1505
Over Junaluska Creek
Federal Aid Project No. BRSTP-1505(1)
State Project No. 8.2910501
W.B.S. No. 33813.1.1
T.I.P. No. B-3635

INTRODUCTION: Bridge No. 26 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and is eligible for 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 71.5 out of a possible 100 for a new structure. The rating was below 50 when the bridge was programmed but its condition deteriorated to the point that Bridge Maintenance had to add a temporary crutch to keep the bridge open. There are still problems with the timber deck and rubble masonry abutments. Despite the temporary improvement in sufficiency rating, the bridge is still considered to be structurally deficient and functionally obsolete and is eligible for replacement (See Section III Part C for further elaboration). The replacement of this inadequate structure will result in safer traffic operations.

II. EXISTING CONDITIONS

The project is located southeast of the City of Andrews in Cherokee County (see Figure 1). The area is rural and largely undeveloped with scattered residences.

SR 1505 is classified as a rural collector in the Statewide Functional Classification System and it is not a National Highway System Route. This road is a designated bicycle route (NC 2).

In the vicinity of the bridge, SR 1505 has an 18-foot pavement width with 4-foot grass shoulders. The roadway grade is relatively flat through the project area. The existing bridge is on a 5.8% gradient and lies within a reverse horizontal curve. The roadway is situated approximately 8 feet above the creek bed.

Bridge No. 26 is a two-span structure. The superstructure consists of an asphalt-wearing surface over a timber deck on timber joists. The interior bent utilizes timber for both cap and piles. The existing bridge (see Figure 3A) was constructed in 1953. The overall length of the structure is 33 feet. The clear roadway width is 18 feet. There is currently no posted weight limit on the bridge.

Utility impacts are anticipated to be low. There are aerial power, phone and cable television lines in the vicinity.

The current traffic volume of 1000 vehicles per day (VPD) is expected to increase to 1800 VPD by the year 2025. The projected volume includes one-percent truck-tractor semi-trailer (TTST) and two-percent dual-tired vehicles (DT). There is no posted speed limit and is therefore 55 miles per hour by statute in the project area. In the current year there are 4 school bus crossings per day across the bridge.

There have been 5 accidents reported in the vicinity of Bridge No. 26 during a check of a recent three-year period. All five were associated with the curvature of the approaches to the bridge.

III. ALTERNATIVES

A. Project Description

The replacement structure will consist of a new bridge 60 feet long and 30 feet wide. The roadway grade of the new structure will be approximately the same as the existing facility at this location.

The approaches will be improved approximately 240 feet south of the proposed bridge and 190 feet north and east of the proposed bridge. Along the length of the project the road will be widened to include two 11-foot lanes, 4-foot paved shoulders to accommodate bicyclists, expressway gutter, and guardrail. Expressway gutter will be incorporated to minimize cut into the mountain bluff on the south side of the road. This project will be designed with the criteria for a rural collector; however, a 30 mile per hour design speed is used for the majority of the project except for the horizontal curve north of the bridge.

A design exception will be required for design speed. Due to the presence of houses and topography, it is not practical to improve the alignment any more than has been proposed. The design curvature is comparable to other curvature on the SR 1505.

B. Reasonable and Feasible Alternatives

The one alternative for replacing Bridge No. 26 that was studied is described below.

Bridge No. 26 will be replaced on new alignment with a new bridge 60 feet long and 30 feet wide approximately 25 feet east of the existing structure (See Figure 2). The new alignment will be approximately 500 feet long. In order to minimize impacts to the surrounding structures, the new structure will partially overlap the location of the old structure. Because traffic must be maintained onsite and in order to minimize impacts to the environment and surrounding structures, the project will be built utilizing phased construction techniques with temporary signals. While maintaining traffic on the existing bridge, one lane of the new bridge will be built. Traffic will then be shifted to the new lane and the old bridge demolished. Then the remainder of the new bridge will be constructed.

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 1505.

An offsite detour was discussed during the scoping meeting and ruled out due to strong opposing comments from Emergency Services (EMS), the Division, and the School Bus Transportation Director for Cherokee County. The delay generated for EMS and school busses would be in excess of 15 minutes. The average road user would experience a delay of more than ten minutes.

Timber structures typically do not last beyond 30 to 40 years of age due to the natural deterioration rates of wood. Rehabilitation of a timber structure is generally practical only when a few members are damaged or prematurely deteriorated. However, past a certain degree of deterioration, timber structures become impractical to maintain and are programmed for replacement.

A temporary onsite detour was ruled out because it would have resulted in relocations.

A new alignment to the west was ruled out because it would result in two relocations.

D. Preferred Alternative

Bridge No. 26 will be replaced on new alignment as shown in Figure 2. This alignment is recommended because it is the only practical alternative for replacing the bridge. Impacts to the natural and human environments are minimal.

The NCDOT Division 14 Engineer concurs with this recommendation as the preferred alternative.

IV. ESTIMATED COSTS

The estimated costs for the build alternative is as follows:

Item	Cost
Structure	\$ 162,000
Roadway Approaches	116,000
Structure Removal	9,000
Misc. & Mob.	58,000
Eng. & Contingencies	55,000
Total Construction Cost	\$ 400,000
Right-of-way Costs	\$ 118,000
Total Project Cost	\$ 518,100

V. NATURAL RESOURCES

A. Physical Resources

Water Resources

Junaluska Creek will be the only surface water resource directly impacted by the proposed project. Junaluska Creek is located in sub-basin 04-05-02 of the Hiwassee River Basin. The average baseflow width is approximately 20.0 feet. The average depth is approximately 0.5 foot and ranges from 0.0 to 3.0 feet in depth. Junaluska Creek has a cobbly substrate.

Streams have been assigned a best usage classification by the North Carolina Division of Water Quality. The classification of Junaluska Creek (DEM Index No. 1-52-25) is **C Tr** (NCDWQ, 1997). Class **C** refers to waters suitable for aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture. The supplemental classification of **Tr** denotes Trout Waters that requires protection for natural trout propagation and survival of stocked trout.

Neither High Quality Waters (HQW), Water Supplies (WS-I: undeveloped watersheds or WS-II: predominately undeveloped watersheds) nor Outstanding Resource Waters (ORW) occur within 1.0 miles of the project study area.

Since the project is located in a WRC trout county, the WRC may require a moratorium for in-stream construction from November 1 to April 15.

Biotic Resources

Nine distinct terrestrial communities are identified in the project study area: White Pine Forest community, successional community, early successional slope community, slope community, riparian community, maintained garden, maintained trout pond, maintained yard, and maintained/disturbed roadside. Community boundaries within the study area are well defined without a significant transition zone between them. Faunal species likely to occur within the study area will exploit all communities for shelter and foraging opportunities or as movement corridors.

Table 1. Anticipated Impacts.

Community	<u>Aquatic</u>	<u>Upland</u>
White Pine Forest	-	0.08 ac
Successional	-	0.14 ac
Early Successional Slope	-	0.13 ac
Slope	-	0.06 ac
Riparian	-	0.02 ac
Maintained Garden	-	0.10 ac
Maintained Pond	0.02 ac	-
Maintained Yard	-	0.07 ac
Maintained/Disturbed Roadside	-	0.16 ac
Junaluska Creek	0.04 ac	-
Total	0.06 ac	0.76 ac

B. Jurisdictional Topics

Junaluska Creek is jurisdictional surface water under Section 404 of the Clean Water Act (33 USC 1344). Discussion of the biological, physical, and water quality aspects of all surface waters in the project area are presented in previous sections of this report.

Summary of Anticipated Impacts

The area of impact to Junaluska Creek will consist of a 30.00 feet wide, 60.00 feet long crossing for an area of 0.04 acres. The area of impact to the maintained pond will consist of 0.02 acres. Removal of Bridge No. 26 will not result in any fill in Junaluska Creek. Wetlands are not present within the project area.

Permits

Nationwide Permit 23 (33 CFR 330.5(a) (23)) is likely to be applicable for all impacts to “Waters of the United States” resulting 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 that pursuant to the Council on Environmental Quality regulation for implementing the procedural provisions of the National Environmental Policy Act.

This project will also require a 401 Water Quality Certification from the DWQ prior to the issuance of the Nationwide Permit. Section 401 of the Clean Water Act requires that the state issue or deny water certification for any federally permitted or licensed activity that may result in a discharge to “Waters of the United States.” Section 401 Certification allows surface waters to be temporarily impacted for the duration of the construction or other land manipulation. The issuance of a 401 permit from the DWQ is a prerequisite to issuance of a Section 404 permit.

A North Carolina Division of Water Quality (DWQ) Section 401 Water Quality General Certification is required prior to the issuance of the Section 404 Individual Permit. Since the

proposed project is located in a designated “Trout” county, the authorization of a nationwide permit by the COE is conditioned upon the concurrence of the Wildlife Resources Commission (WRC).

The proposed project is located in the Tennessee Valley Authority’s (TVA) Land Management District. A permit pursuant to Section 26a of the TVA Act, is required for all construction or development involving streams or floodplains in the Tennessee River drainage basin.

Federally-Protected Species

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE), and Proposed Threatened (PT) are protected under the provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of February 25, 2003, the U.S. Fish & Wildlife Service lists five federally protected species for Cherokee County (Table 2). A brief description of the characteristics and habitat requirements for these species along with a conclusion regarding potential project impacts follows Table 2.

Table 2. Federally Protected Species for Cherokee County.

Scientific Name	Common	Status
<i>Clemmys muhlenbergii</i>	Bog turtle	Threatened (S/A)
<i>Myotis sodalis</i>	Indiana bat	Endangered
<i>Pegias fibula</i>	Little-wing pearly mussel	Endangered
<i>Villosa trabalis</i>	Cumberland bean	Endangered
<i>Isotria medeoloides</i>	Small-whorled pagonia	Threatened

***Clemmys muhlenbergii* (bog turtle) Threatened (S/A)**

The bog turtle is listed as Threatened due to Similarity of Appearance (T S/A). This is due to its similarity of appearance to another rare species that is listed for protection. **T S/A species are not subject to Section 7 consultation and a biological conclusion for this species is not required.** The NCNHP database was checked on 15 May 2001 and revealed no records of bog turtles in the project area. No habitat was observed upon site inspection on 17 May 2001.

***Myotis sodalis* (Indiana bat) Endangered**

Habitat in the form of caves and abandoned mines does not occur within the project study area; therefore, there is no potential habitat for the Indiana bat in the study area. The NC Natural Heritage Program database of rare species and unique habitats was reviewed on 15 May 2000 and revealed no records of the Indiana bat within the project vicinity.

BIOLOGICAL CONCLUSION: NO EFFECT

***Pegias fabula* (little-wing pearly mussel) Endangered**

The North Carolina Natural Heritage Program (NHP) database was checked on 15 May 2001 and there were no records of existing populations of the little-wing pearly mussel in the project area. On February 10, 2003 surveys for mussel populations revealed various fish species, aquatic insects, and *Elimia* snails. However, no evidence (live individuals or shells) of mussel fauna were observed.

BIOLOGICAL CONCLUSION:

NO EFFECT

Villosa trabalis (Cumberland bean pearly mussel) **Endangered**

The North Carolina Natural Heritage Program (NHP) database was checked on 15 May 2001 and there were no records of existing populations of the little-wing pearly mussel in the project area. On February 10, 2003 surveys for mussel populations revealed various fish species, aquatic insects, and *Elimia* snails. However, no evidence (live individuals or shells) of mussel fauna were observed.

BIOLOGICAL CONCLUSION:

NO EFFECT

Isotria medeoloides (small-whorled pogonia) **Endangered**

Habitat in the form of "second growth deciduous" forest with an open canopy, open shrub layer, and sparse herb layer does not occur within the project study area; therefore, there is no potential habitat for small-whorled pogonia in the study area. The NC Natural Heritage Program database of rare species and unique habitats was reviewed on 15 May 2001 and revealed no records of small-whorled pogonia within the project vicinity. No species of *Isotria* were observed during field surveys conducted on 17 May 2001.

BIOLOGICAL CONCLUSION:

NO EFFECT

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. Historic Architecture

In a letter dated November 2, 2000 (see attached letter), The North Carolina Department of Cultural Resources (NCDRC) recommended a survey of the project site for historic architectural resources. A survey was conducted resulting in a finding of no structures of historic significance. The State Historic Preservation Office signed a concurrence form July 22, 2003 (see attached form).

C. Archaeology

In a letter dated November 2, 2000 (see attached letter), the NCDRC recommended an archaeological survey be conducted if a new alignment was proposed. In a subsequent review of maps provided, NCDRC modified their original recommendation in a letter dated December 20, 2002 (see attached letter). The letter indicates that there are no likely archaeological resources of historic significance that could be affected by the project. No archaeological work is recommended for this location.

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. A storage barn will be taken by the proposed alignment.

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.

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.

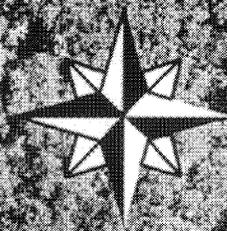
An examination of records at the North Carolina Department of Environment and Natural Resources, Division of Environmental Management, Groundwater Section and the North Carolina Department of Human Resources, Solid Waste Management Section revealed no underground storage tanks or hazardous waste sites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

Cherokee County is a participant in the National Flood Insurance Program. 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.

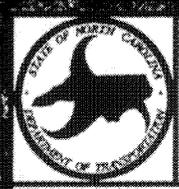
VIII. RESPONSE TO AGENCY LETTERS

In a letter dated May 16, 2000, the North Carolina Wildlife Resource Commission (NCWRC) indicated that Junaluska Creek is a Hatchery Supported Trout Stream and requested a spanning structure. The proposed design accommodates their request.



Bridge No. 26

SR 1505

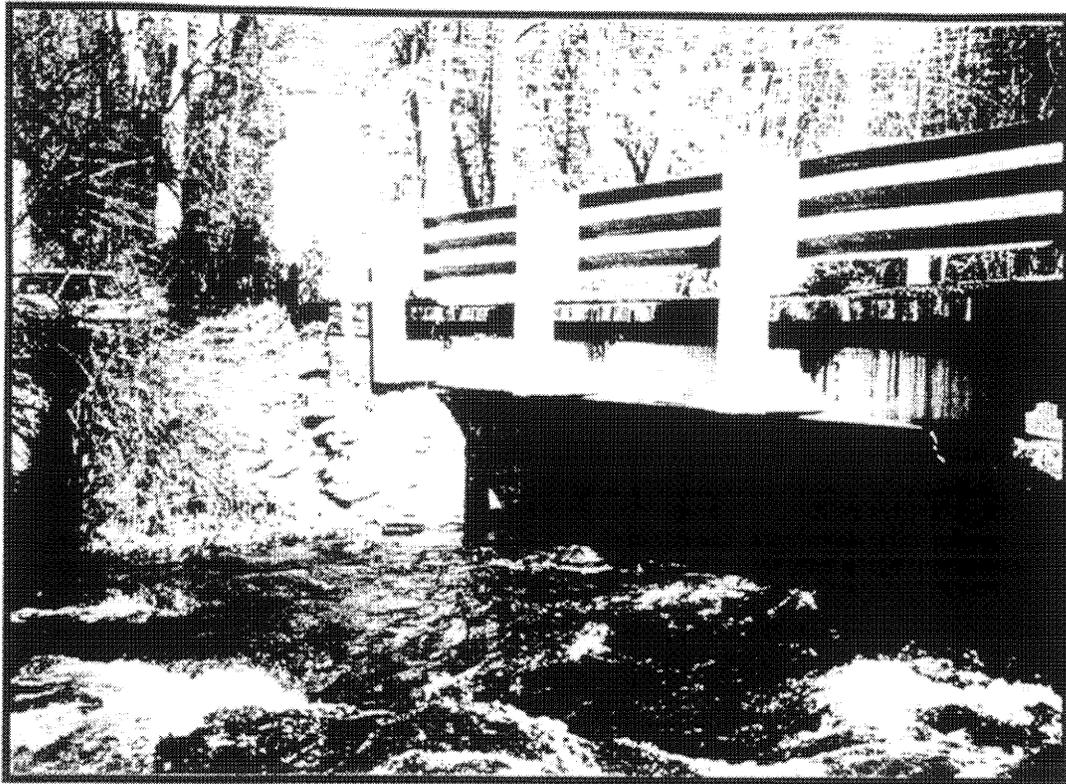


North Carolina
Department of Transportation
Project Development &
Environmental Analysis Branch

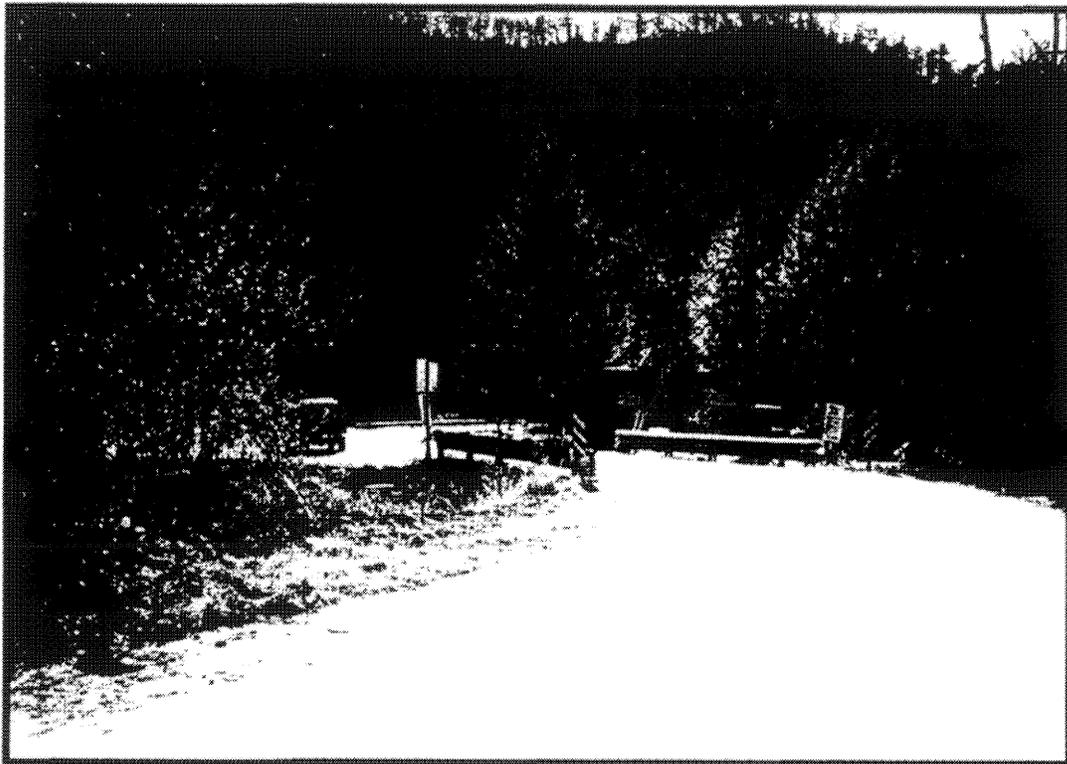
Cherokee County
Replace Bridge No. 26 on SR 1505
Over Junaluska Creek
B-3635

Scale 1" = 100'

Figure 2



West Face of Bridge

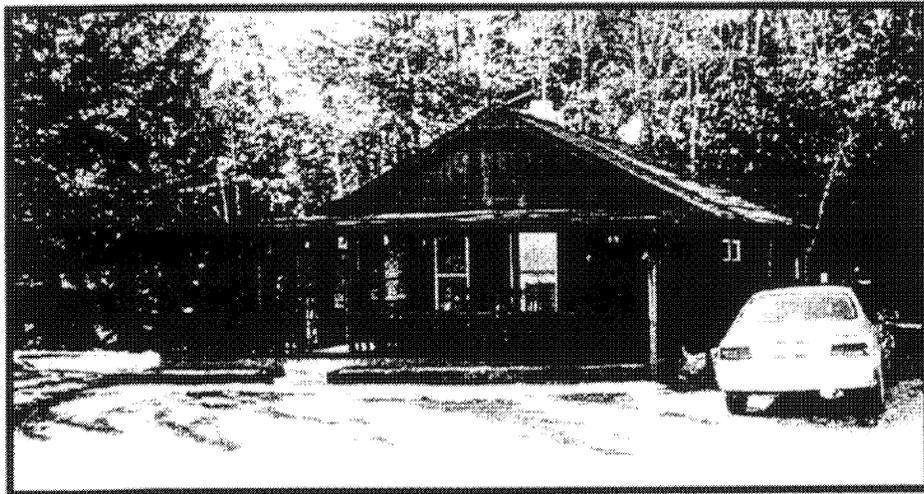


North Approach To Bridge

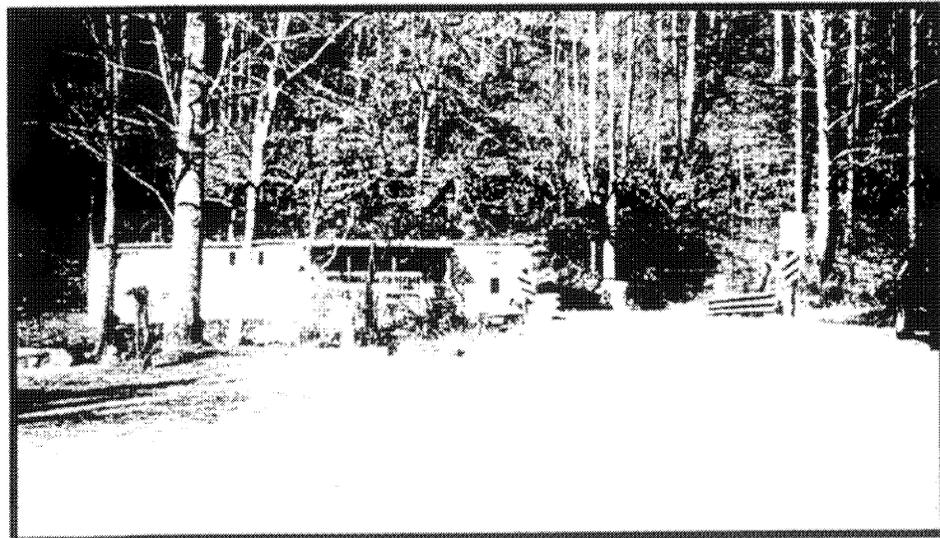
FIGURE 3A



House East of Bridge



House Southwest of Bridge



Mobile Home Northwest of Bridge

FIGURE 3B



North Carolina Department of Cultural Resources

State Historic Preservation Office

David L. S. Brook, Administrator

James B. Hunt Jr., Governor
Betty Ray McCain, Secretary

Division of Archives and History
Jeffrey J. Crow, Director

November 2, 2000

Nicholas L. Graf
Division Administrator
Federal Highway Administration
Department of Transportation
310 New Bern Avenue
Raleigh, North Carolina 27601-1442

Re: Replacement of Bridge No. 26 over Junaluska Creek on SR 1505.
TIP No. B-3635, Cherokee County. ER 00-8455

Dear Mr. Graf:

On May 7, 2000, April Montgomery met with North Carolina Department of Transportation (NCDOT) staff for a meeting of the minds concerning the above project. We reported our available information on historic architectural and archaeological surveys and resources along with our recommendations. NCDOT provided project area photographs at the meeting.

Based upon a 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 structures located within the area of potential effect. However, since the project area has not been surveyed in over a decade, there be structures of architectural or historical significance of which we are unaware. We recommend an architectural historic on your staff identify and evaluate any properties over fifty years of age within the project area and report the findings to us.

There are no recorded archaeological sites within the proposed project area. If the replacement is to be located along the existing alignment, it is unlikely that significant archaeological resources would be affected and no investigations would be recommended. If, however, the replacement is to be in a new location, please forward a map to this office indicating the location of the new alignment so we may evaluate the potential effects of the replacement upon archaeological resources.

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount St., Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919) 733-4763 • 733-8653
ARCHAEOLOGY	421 N. Blount St., Raleigh NC	4619 Mail Service Center, Raleigh NC 27699-4619	(919) 733-7342 • 715-2671
RESTORATION	515 N. Blount St., Raleigh NC	4613 Mail Service Center, Raleigh NC 27699-4613	(919) 733-6547 • 715-4801
			(919) 733-6545 • 715-4801



HISTORIC ARCHITECTURE SECTION
North Carolina Department of Transportation

MEMORANDUM

TO: John Williams, Project Planning Engineer
FROM: Richard Silverman, Office of Human Environment
SUBJECT: B-3635, Cherokee County
DATE: August 11, 2003
CC: Project File

Attached is a signed concurrence form which states that NCDOT and SHPO, agree that:

- There are properties over fifty years old within the project's area of potential effects, but based on the historical information available and the photographs of each property, none is considered eligible for the National Register and no further evaluation of them is necessary.
- There are no National Register-listed properties within the project's area of potential effects.
- The bridge itself is not eligible for the National Register.

Since there are no historical properties affected by the proposed project, compliance with Section 106 of the National Historic Preservation Act is complete. Please notify us in writing if the scope of this project changes. A change in scope may necessitate a new survey of the APE.



North Carolina Department of Cultural Resources
State Historic Preservation Office

David L. S. Brook, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Division of Historical Resources
David J. Olson, Director

December 20, 2002

MEMORANDUM

TO: Gerold Glover
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: David Brook *for David Brook*

SUBJECT: Bridge No. 26 on SR 1405 over Junaluska Creek, B-3635
Cherokee County, ER00-8455

Thank you for forwarding the new map and additional information concerning the above project.

We recommend that no archaeological work be conducted for this project as proposed.

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

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

DB:doc



☒ North Carolina Wildlife Resources Commission ☒

Charles R. Fullwood, Executive Director

MEMORANDUM

TO: John L. Williams, Bridge Planning Unit
Project Development and Environmental Analysis Branch, NCDOT

FROM: Mark S. Davis, Mountain Region Coordinator
Habitat Conservation Program

DATE: May 16, 2000

SUBJECT: Scoping comments on Bridge Replacement Projects
TIP Project No. B-3635 over Junaluska Creek, Cherokee County
TIP Project No. B-3701 over Alarka Creek, Swain County

This memorandum responds to your request for our concerns regarding impacts on fish and wildlife resources resulting from the subject projects. The North Carolina Wildlife Resources Commission (NCWRC) has reviewed the proposed projects, and our comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The proposed work involves 2 bridge replacement/demolition projects in western North Carolina (listed below). Construction impacts on wildlife and fisheries resources will depend on the extent of disturbance in the streambed and surrounding floodplain areas. We prefer bridge designs that do not alter the natural stream morphology or impede fish passage. Bridge designs should also include provisions for the deck drainage to flow through a vegetated upland buffer prior to reaching the subject surface waters. Demolition plans for the existing bridge structures should be addressed in the environmental documents prepared for these projects, as well as any proposed causeways, temporary access roads or detours. We are also concerned about impacts to Designated Public Mountain Trout Waters (DPMTW) and environmental documentation for these projects should include a description of any streams or wetlands on the project site and surveys for any threatened or endangered species that may be affected by construction.

B-3635 - Cherokee County, Bridge No. 26 on SR 1505 over Junaluska Creek

Junaluska Creek is managed by the NCWRC as Hatchery Supported trout water and also supports wild trout populations in the project area. The project scoping sheet indicates that the bridge will be replaced with a 3 @ 10' x 5' RCBC just upstream of the existing bridge. Due to the presence of trout in the project area, we recommend that the existing bridge be replaced with another spanning structure. We also recommend that instream work be prohibited during the trout spawning period of November 1 through April 15 to protect the egg and fry stages from off-site sedimentation.

11. During subsurface investigations, equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

Thank you for the opportunity to review and comment during the early stages of these projects. If you have any questions regarding these comments, please contact me at (828) 452-2546.

cc: Mr. Steve Lund, NCDOT Coordinator, COE, Asheville