



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

January 31, 2008

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

ATTENTION: Mr. Steve Lund
NCDOT Coordinator

Dear Sir:

SUBJECT: **Nationwide Permit 33, 13 and 23 Application** for the replacement of Bridge No. 100 over Buffalo Shoals Creek on SR 1526 (New Sterling Rd.) in Iredell County. Federal Project No. BRZ-1526(3), State Project No. 8.2822901, WBS Element 33765.1.1, Division 12, T.I.P. No. B-4552.

Please see the enclosed Pre-Construction Notification (PCN), US Fish and Wildlife (USFWS) concurrence letter (to be received), permit drawings and design plans for the above referenced project. A Programmatic Categorical Exclusion and Right of Way Consultation were completed for this project on January 26, 2005 and April 10, 2006, respectively, and distributed shortly thereafter. Additional copies are available upon request. The North Carolina Department of Transportation (NCDOT) proposes to replace the 76-foot, three-span Bridge No. 100 with a new 110-foot, two-span cored slab bridge over Buffalo Shoals Creek. The existing bridge will be replaced in place and traffic will be detoured off-site during construction. There will be 15 linear feet of permanent impacts to Buffalo Shoals Creek from bank stabilization and 0.03 acre of temporary impacts to Buffalo Shoals Creek from a temporary causeway.

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

IMPACTS TO WATERS OF THE UNITED STATES

General Description:

The single water resource impacted for project B-4552 is Buffalo Shoals Creek. Buffalo Shoals Creek is located in the Catawba River Basin (Division of Water Quality (DWQ) subbasin 03-08-32) and is approximately 25 feet wide and 0.5 feet deep within the project area. The DWQ Index number for this section of Buffalo Shoals Creek is 11-78-(0.5) and the Hydrological Cataloguing Unit is 03050101. The DWQ classifies Buffalo Shoals Creek as "WS-IV". Buffalo Shoals 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 Quality Waters (HQW), Water Supplies (WS-I or WS-II), or Outstanding Resource Waters (ORW) occur within one mile of the project study area. No jurisdictional wetlands will be impacted by this project.

Permanent Impacts:

There will be 15 linear feet of permanent impacts to Buffalo Shoals Creek as a result of bank stabilization with riprap at the termini of two roadside ditches on the east side of the bridge. In addition, there will be <0.01 acre (1.76 square feet) of permanent impacts from installation of the new piers.

Temporary Impacts:

There will be 0.03 acre of temporary impacts to Buffalo Shoals Creek from a temporary causeway, which will be used to install the new bents. There will be two 24" temporary pipes installed within the causeway to accommodate stream flow.

Bridge Demolition:

Bridge No. 100 consists of a three-span superstructure composed of a timber deck on steel I-beams. The substructure interior bents consist of timber caps and piles, with a concrete footing at bent no. 1. The existing end bents are yount masonry abutments. Using standard demolition techniques, the entire bridge will be removed without dropping components into Buffalo Shoals Creek. Consequently, there will be no temporary fill resulting from bridge demolition.

Utility Impacts:

There will be no jurisdictional impacts associated with utilities for this project.

Schedule:

The project schedule calls for an August 19, 2008 Let date and a review date of July 1, 2008. The date of availability for construction is on September 30, 2008.

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 November 5, 2007, the USFWS lists two federally protected species for Iredell County (Table 1). No habitat exists within the project construction limits for the bog turtle. During a survey on April 17, 2007, dwarf-flowered heartleaf was found in the project area, previously not known to exist in Iredell County (officially added to the list with the most recent update this November). Two

populations of *Hexastylis* sp. were discovered within the southwest quadrant of the project area. The southernmost population (consisting of 321 plants) is located along the south bank of an intermittent unnamed tributary (UT1) to Buffalo Shoals Creek. The northernmost population (consisting of multiple hundreds of plants) is located on the south bank of Buffalo Shoals Creek and extends well beyond the project study area to the west. James Padgett from the NC Natural Heritage Program believes the site to be a mix of *H. naniflora* and *H. heterophylla* including some hybrids of the two species. Both populations of plants exist well outside the right of way and construction limits for this project and will not be impacted as a result of this project. Concurrence from USFWS is currently pending for a May Affect, Not Likely to Adversely Affect conclusion since NCDOT will avoid impacting all of the plants. The concurrence letter will be forwarded to USACE upon receipt.

Table 1. Federally Protected Species for Iredell County

Common Name	Scientific Name	Status	Survey Notes	Biological Conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	T(S/A)	Not Required	N/A
Dwarf-flowered heartleaf	<i>Hexastylis naniflora</i>	T	Habitat and Plants Present	May Affect, Not Likely to Adversely Affect

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.

- The new bridge will be longer than the existing bridge, spanning Buffalo Shoals Creek.
- Traffic will be detoured off-site during construction. This eliminates the need for a temporary on-site detour.
- Water will not be directly discharged into Buffalo Shoals Creek via deck drains.

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

Compensatory Mitigation:

NCDOT proposes no mitigation for this project. Permanent impacts to Buffalo Shoals Creek are from 15 linear feet of bank stabilization in the project area and will not result in “loss of waters of the U.S.”.

REGULATORY APPROVALS

Section 404 Permit:

It is anticipated that the temporary dewatering of Buffalo Shoals Creek 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 the temporary dewatering of Big Horse Creek. NCDOT will make use of a Nationwide Permit 13

for 15 linear feet of impacts relating to bank stabilization. No written concurrence from the USACE is required for this use of Nationwide Permit 13. All other aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR § 771.115(b). The NCDOT requests that these activities be authorized by a Nationwide Permit 23 (FR number 10, pages 2020-2095; January 15, 2002).

Section 401 Permit:

We anticipate 401 General Certification numbers 3688, 3689 and 3701 will apply to this project. Therefore, in accordance with 15A NCAC 2H .0501(a) we are providing two copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their records. The NCDOT will adhere to all general conditions of the Water Quality Certification.

A copy of this application will be posted on the NCDOT website at <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Erin Cheely at ekcheely@dot.state.nc.us or (919) 715-5529.

Sincerely,



fw 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

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. Victor Barbour, P.E., Project Services Unit
Mr. Mark Staley, Roadside Environmental
Mr. M.L. Holder, P.E., Division Engineer
Ms. Trish Simon, DEO
Mr. Jay Bennett, P.E., Roadway Design
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Scott McLendon, USACE, Wilmington
Ms. Natalie Lockhart, PDEA 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: NW 33, 13 and 23

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: ekcheely@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. 100 over Buffalo Shoals Creek on SR 1526 (New Sterling Rd.)
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-4552
3. Property Identification Number (Tax PIN): N/A
4. Location
County: Iredell Nearest Town: Sharon
Subdivision name (include phase/lot number): N/A
Directions to site (include road numbers/names, landmarks, etc.):
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°46'49.26" °N -81°03'37.93" °W
6. Property size (acres): N/A
7. Name of nearest receiving body of water: Catawba River
8. River Basin: Catawba
(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: The land uses surrounding and within the project area are primarily agricultural and woodland with residential homes.
10. Describe the overall project in detail, including the type of equipment to be used: Standard construction equipment will be used (backhoes, bulldozers, cranes and/or other heavy machinery)

-
11. Explain the purpose of the proposed work: The purpose of the project is to replace a structurally deficient (sufficiency rating 21.5 out of 100) and functionally obsolete (geometry appraisal of 2 out of 9) structure to obtain 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: Temporary: 68 linear feet (0.03 acre) of impacts due to the installation of a temporary rock causeway. Permanent: 15 linear feet of impacts from bank stabilization with riprap at the termini of two roadside ditches and <0.01 acre of permanent impacts due to installation of the new piers.

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: N/A

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	Buffalo Shoals Creek	Permanent	Perennial	25	15	<0.01
1	Buffalo Shoals Creek	Permanent	Perennial	25	2	<0.01
1	Buffalo Shoals Creek	Temporary	Perennial	25	68	0.03
Total Permanent Stream Impact (by length and acreage)					17	<0.01

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)
No open water impacts				
Total Open Water Impact (acres)				

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

Stream Impact (acres):	0.03 (temporary) <0.01 (permanent)
Wetland Impact (acres):	0
Open Water Impact (acres):	0
Total Impact to Waters of the U.S. (acres)	0.03 (temporary) <0.01 (permanent)
Total Stream Impact:	68 linear feet (temporary) 17 linear feet (permanent)

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.

N/A

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. Traffic will be detoured off-site during construction and the new bridge will span Buffalo Shoals Creek. No deck drains will be used and NCDOT's Best Management Practices will be followed.

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 this project. Permanent impacts to Buffalo Shoals Creek are from 15 linear feet of bank stabilization in the project area and will not result in “loss of waters of the U.S.”.

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. N/A

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. Impervious surfaces will not significantly increase as a result of this project. There will be no deck drains installed.

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/newetlands>. If no, please provide a short narrative description: The new bridge will be constructed in the same location as the old bridge.

XV. Other Circumstances (Optional):

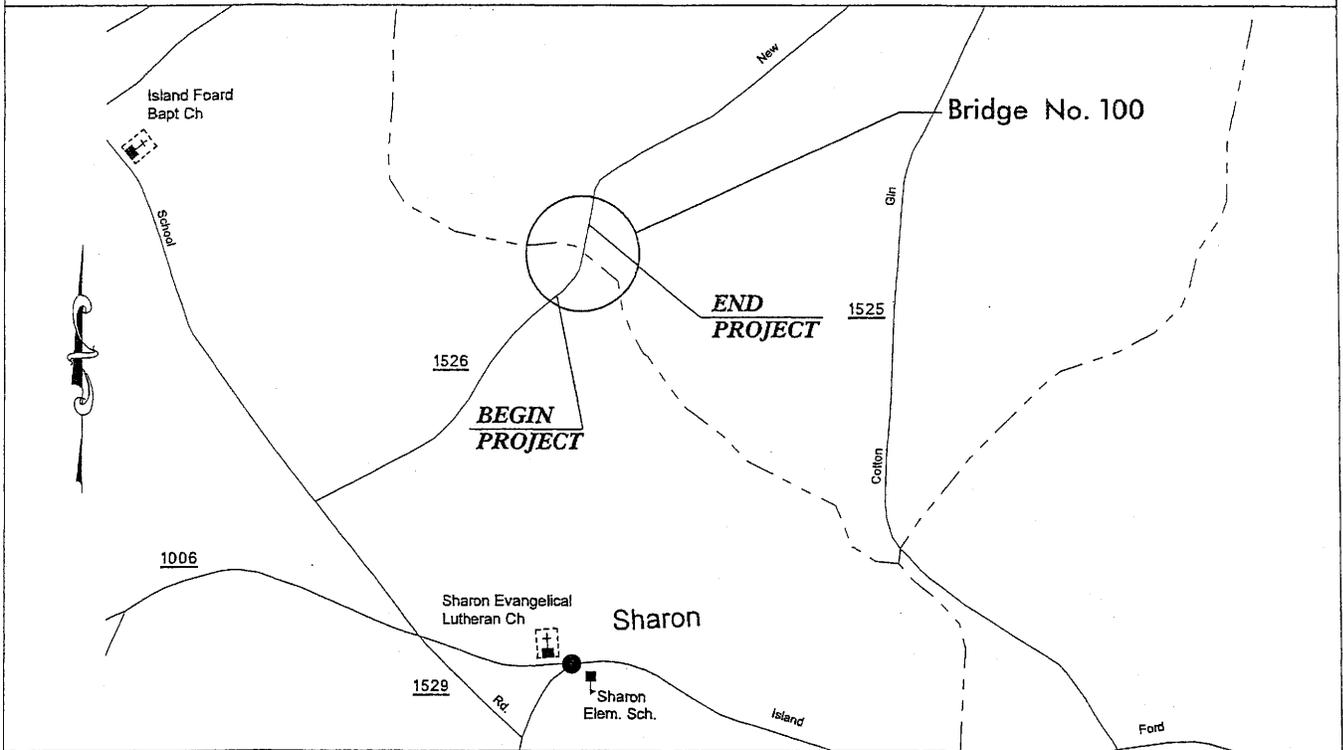
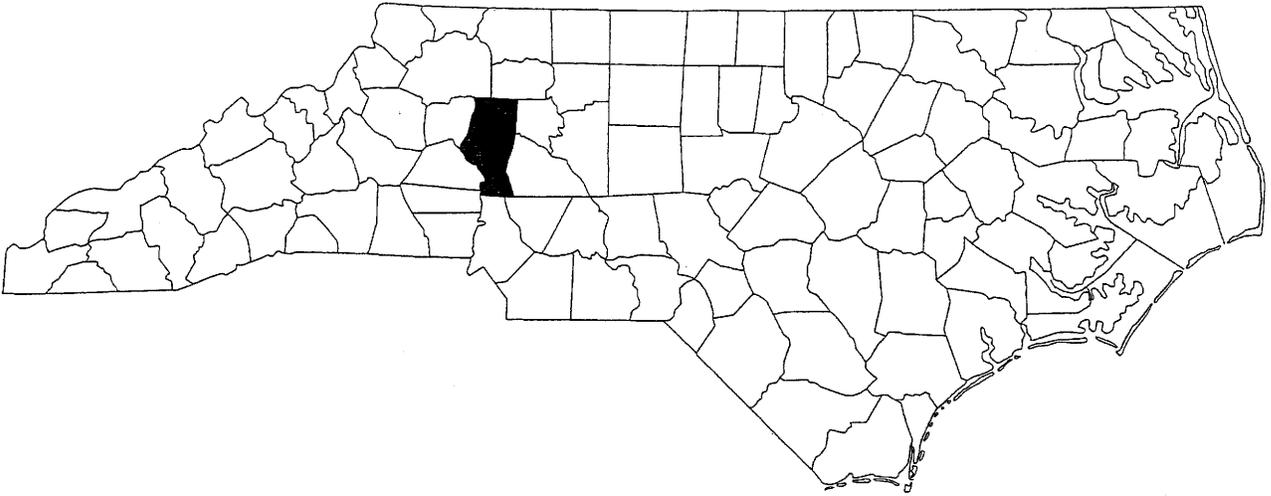
It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g.,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



1030-08

Applicant/Agent's Signature **Date**
(Agent's signature is valid only if an authorization letter from the applicant is provided.)

NORTH CAROLINA

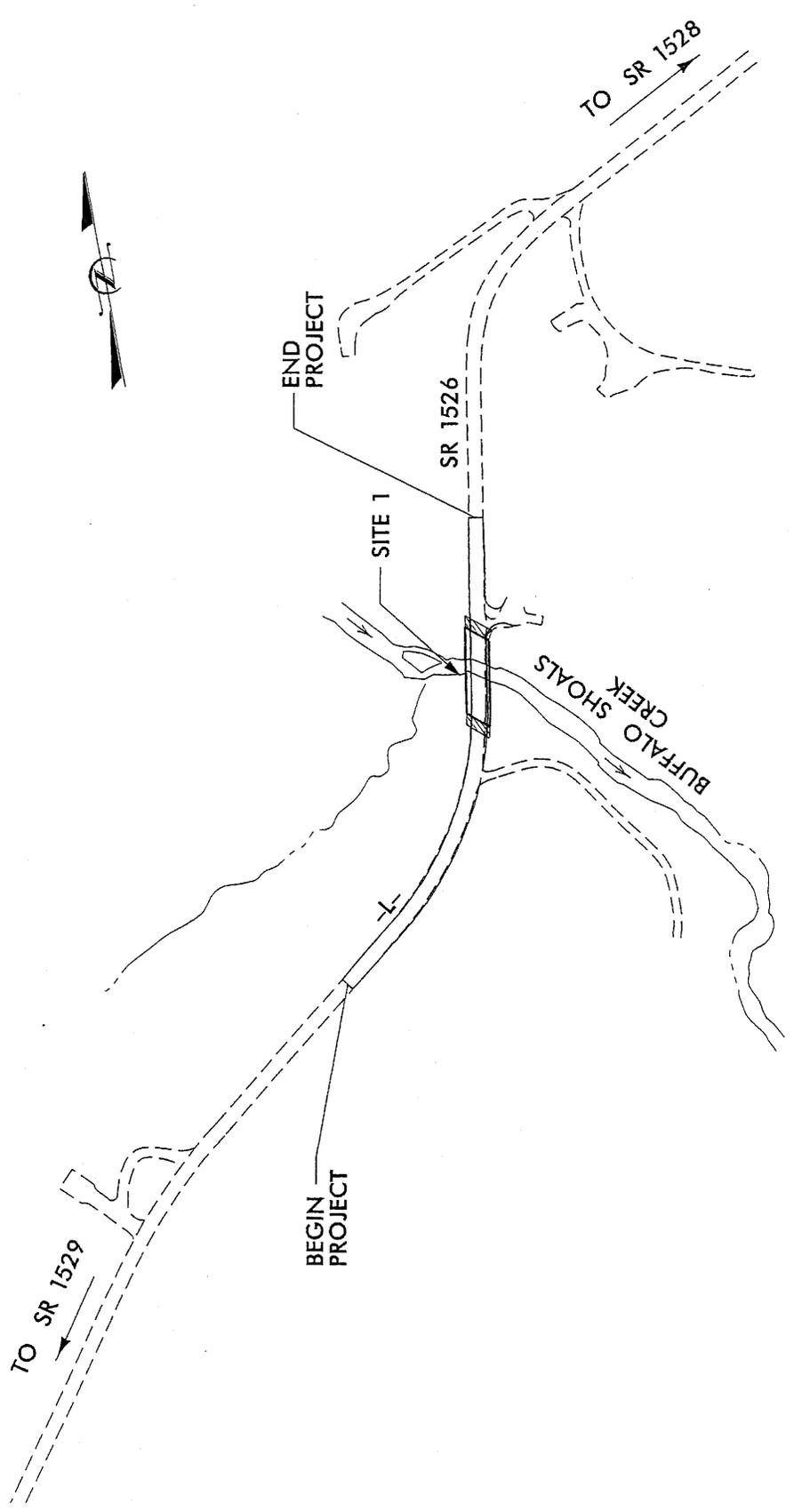


VICINITY
MAPS
(NOT TO SCALE)

NCDOT
DIVISION OF HIGHWAYS
IREDELL COUNTY
PROJECT: 33765.1.1 (B-4552)
BRIDGE NO.100 OVER
BUFFALO SHOALS CREEK AND
APPROACHES ON SR 1526

SHEET OF 10 / 5 / 2007

Permit Drawing
Sheet 1 of 8

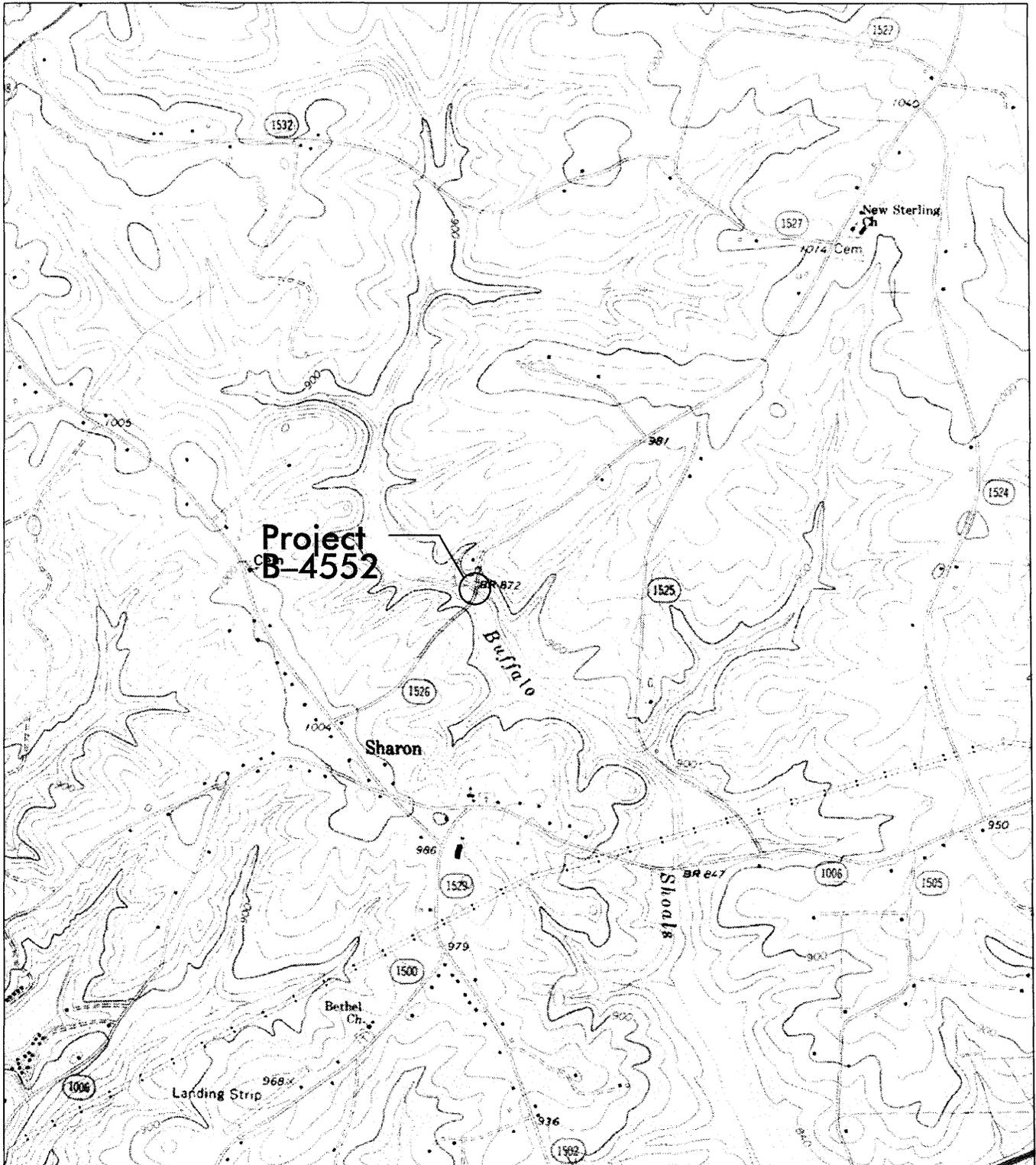


SITE MAP
(NOT TO SCALE)

NCDOT
 DIVISION OF HIGHWAYS
 IREDELL COUNTY
 PROJECT: 33765.1.1 (B-4552)
 BRIDGE NO.100 OVER
 BUFFALO SHOALS CREEK AND
 APPROACHES ON SR 1526

Permit Drawing
 Sheet 2 of 8

SHEET OF 10 / 5 / 2007



TOPO MAP

SCALE: 1" : 2000'

Permit Drawing
Sheet 3 of 8

NCDOT
 DIVISION OF HIGHWAYS
 IREDELL COUNTY
 PROJECT: 33765.1.1 (B-4552)
 BRIDGE NO.100 OVER
 BUFFALO SHOALS CREEK AND
 APPROACHES ON SR 1526

SHEET OF

10 / 5 / 2007

PROPERTY OWNERS

NAMES AND ADDRESSES

	NAMES	ADDRESSES
1	JEFFREY C. McNEELY & CINDY C. McNEELY	191 NEW STERLING ROAD STONY POINT, NC 28678
2	ALLEN R. MILLER	150 NEW STERLING ROAD STONY POINT, NC 28678
3	BETTIE KAY MECIMORE JOLLY	249 NEW STERLING ROAD STONY POINT, NC 28678
4	R.C. WIKE HEIRS	282 COTTON GIN ROAD STONY POINT, NC 28678
5	ARTHUR A. WAUGH	236 NEW STERLING ROAD STONY POINT, NC 28678

Permit Drawing
Sheet 4 of 8

NCDOT

DIVISION OF HIGHWAYS
IREDELL COUNTY
PROJECT: 33765.1.1 (B-4552)
BRIDGE NO. 100 OVER
BUFFALO SHOALS CREEK AND
APPROACHES ON SR 1526

SHEET OF

10 / 5 / 2007

8/17/99

REVISIONS

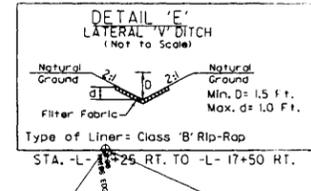
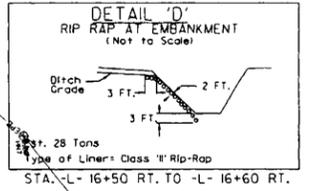
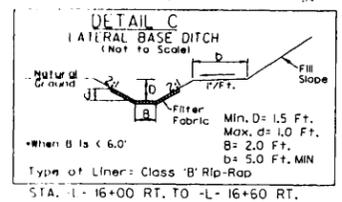
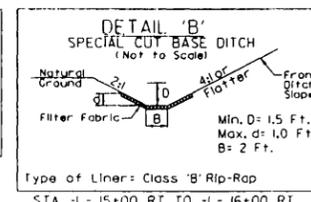
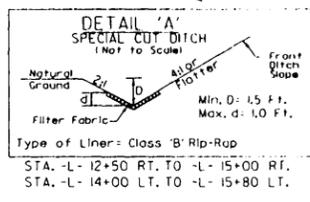
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PROJECT REFERENCE NO. B-4552		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

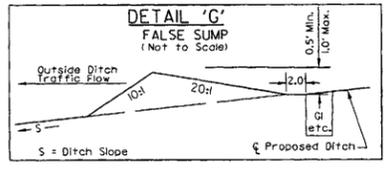
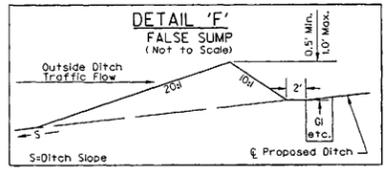
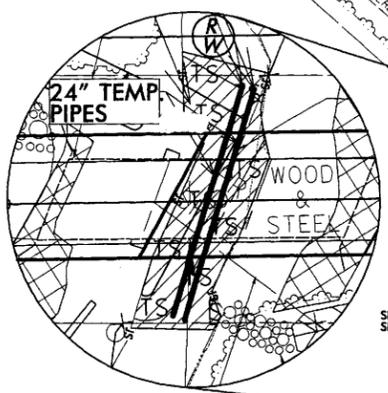
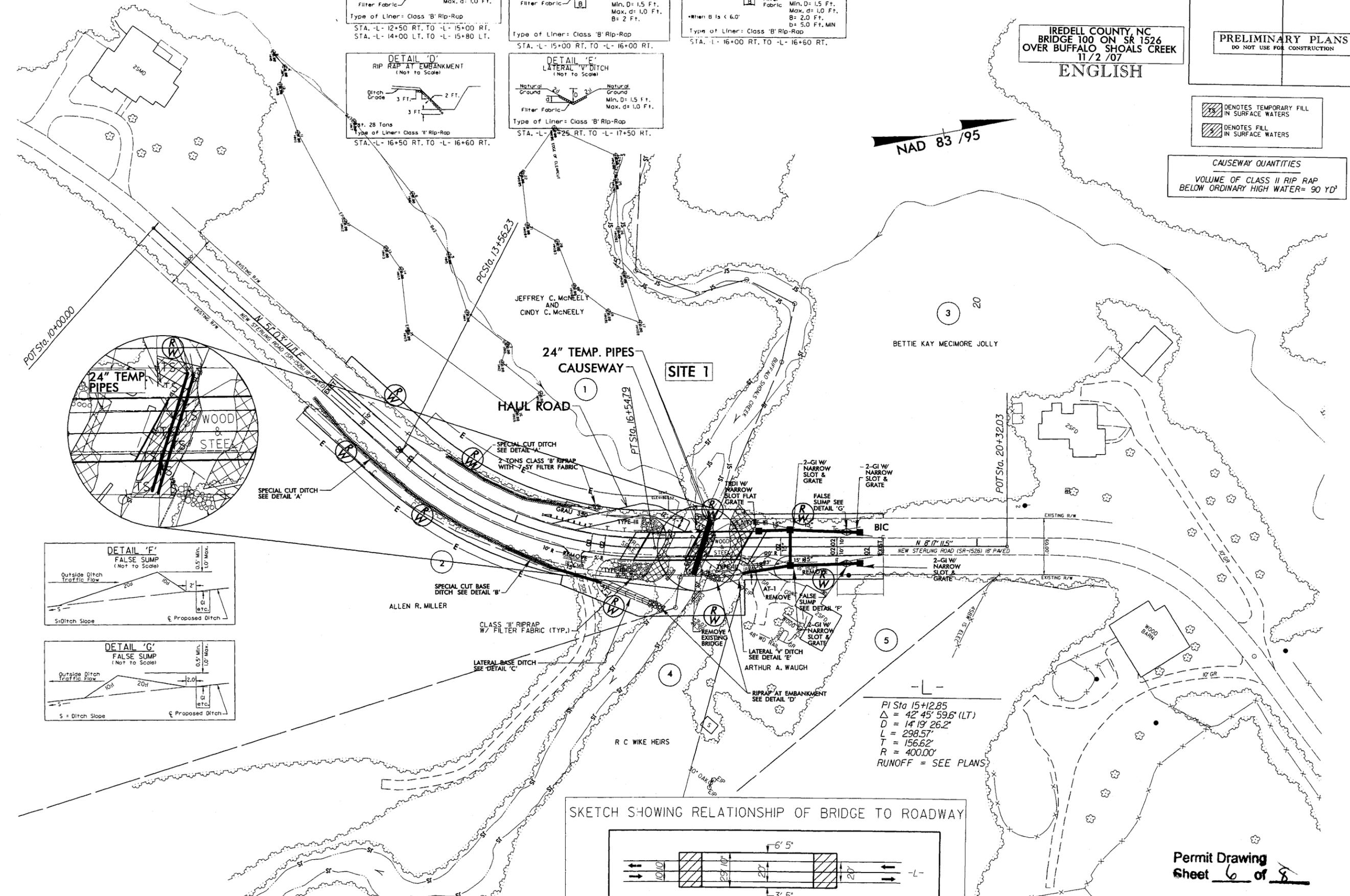
IREDELL COUNTY NC
BRIDGE 100 ON SR 1526
OVER BUFFALO SHOALS CREEK
11/2/07
ENGLISH

 DENOTES TEMPORARY FILL IN SURFACE WATERS
 DENOTES FILL IN SURFACE WATERS

CAUSEWAY QUANTITIES
 VOLUME OF CLASS II RIP RAP BELOW ORDINARY HIGH WATER = 90 YD³

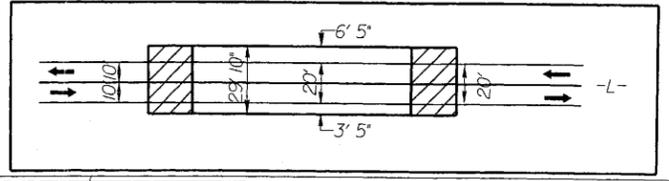


NAD 83 / 95



PI Sta 15+12.85
 $\Delta = 42' 45" 59.6" (LT)$
 $D = 14' 19" 26.2"$
 $L = 298.57'$
 $T = 156.62'$
 $R = 400.00'$
 RUNOFF = SEE PLANS

SKETCH SHOWING RELATIONSHIP OF BRIDGE TO ROADWAY



Permit Drawing
Sheet 6 of 8

SEE SHEET 5 FOR PROFILE

8/17/99

REVISIONS

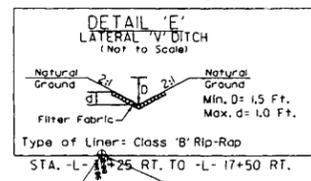
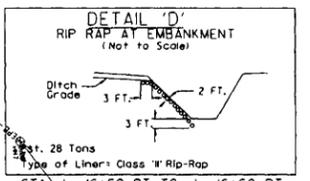
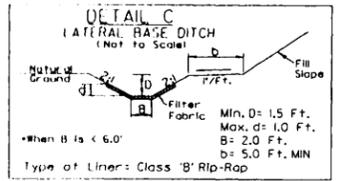
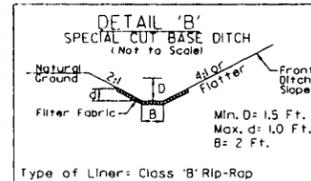
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PROJECT REFERENCE NO. B-4552	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

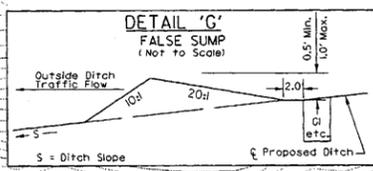
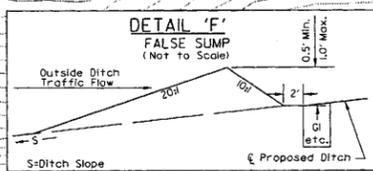
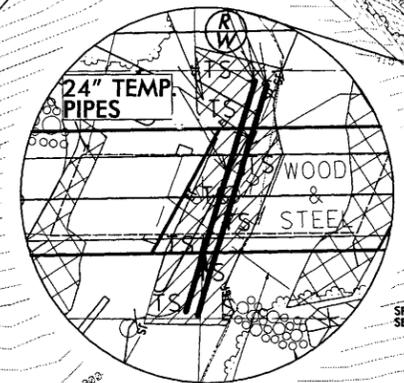
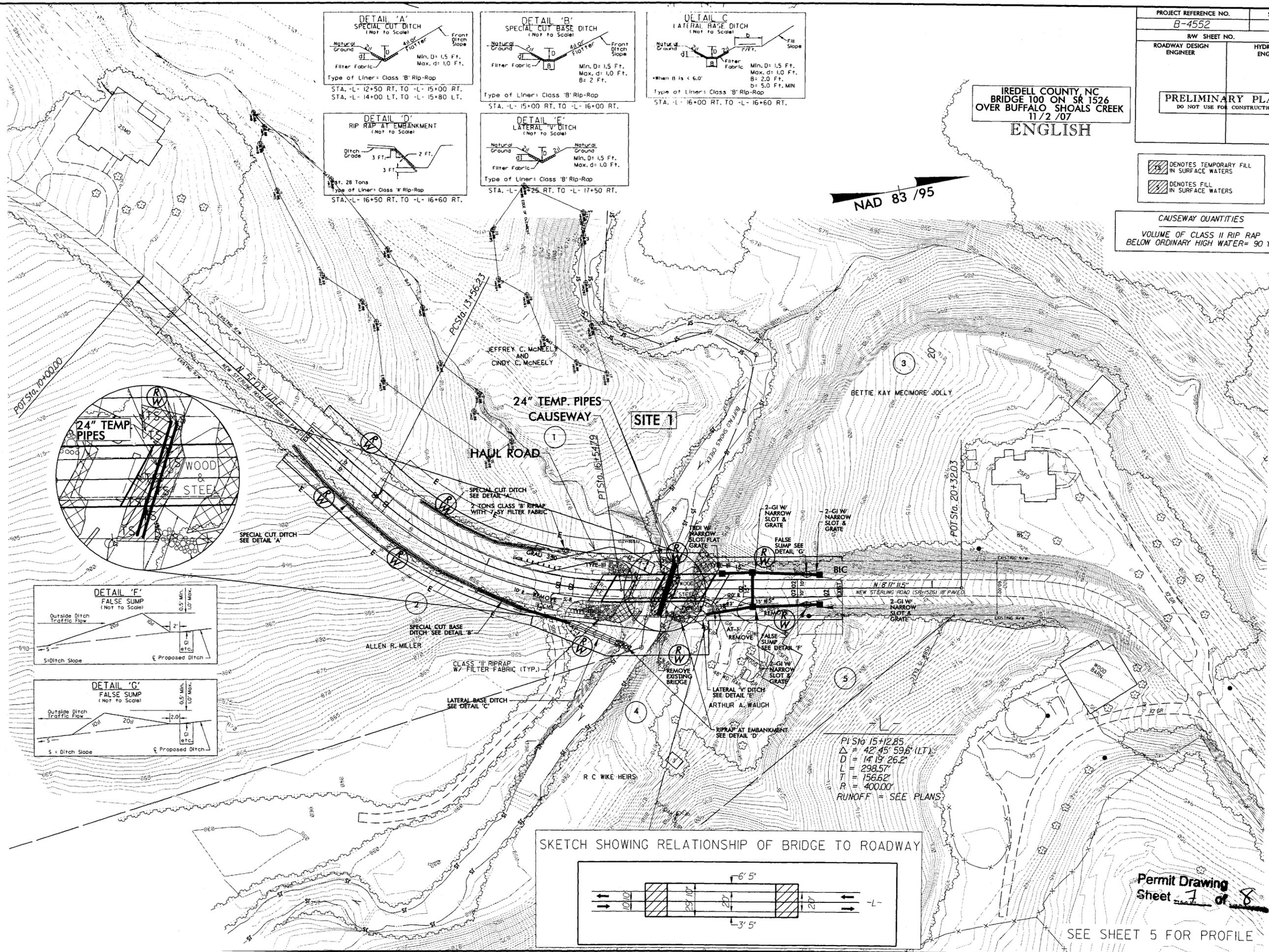
IREDELL COUNTY, NC
BRIDGE 100 ON SR 1526
OVER BUFFALO SHOALS CREEK
11/2/07
ENGLISH

DENOTES TEMPORARY FILL IN SURFACE WATERS
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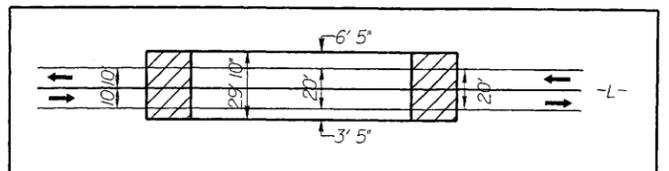


NAD 83 / 95



PI Sta. 15+12.85
Δ = 42° 45' 59.6" (LT)
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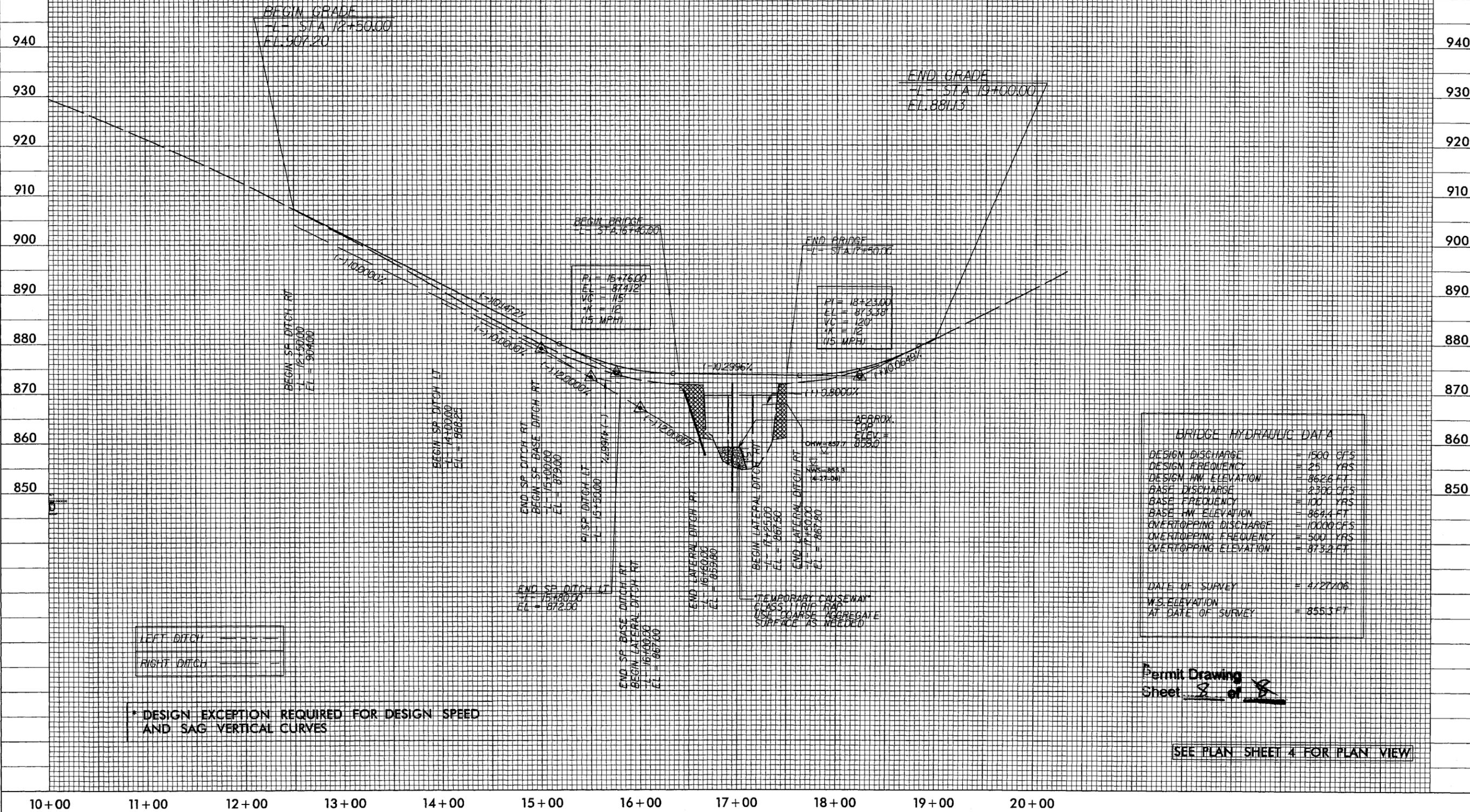
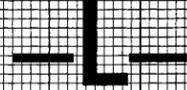
SKETCH SHOWING RELATIONSHIP OF BRIDGE TO ROADWAY



Permit Drawing
Sheet 7 of 8

SEE SHEET 5 FOR PROFILE

BM #2:
RR SPIKE IN 12 INCH POPLAR 59 FT
LT OF -L- Sta 16+61.63 4434'
ELEV. 865.48'



Permit Drawing
Sheet 5 of 8

SEE PLAN SHEET 4 FOR PLAN VIEW

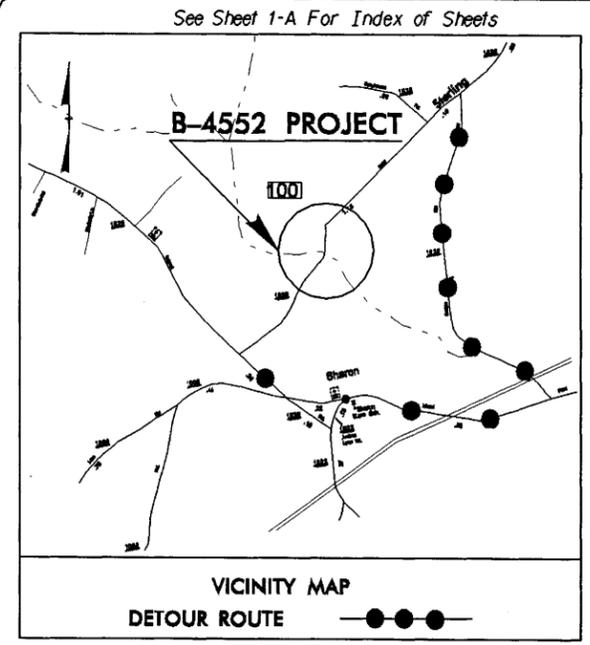
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N.C.	B-4552	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33765.1.1	BRZ-1526 (3)	PE	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY

LOCATION: BRIDGE 100 OVER A CREEK ON SR 1526 (NEW STERLING RD)

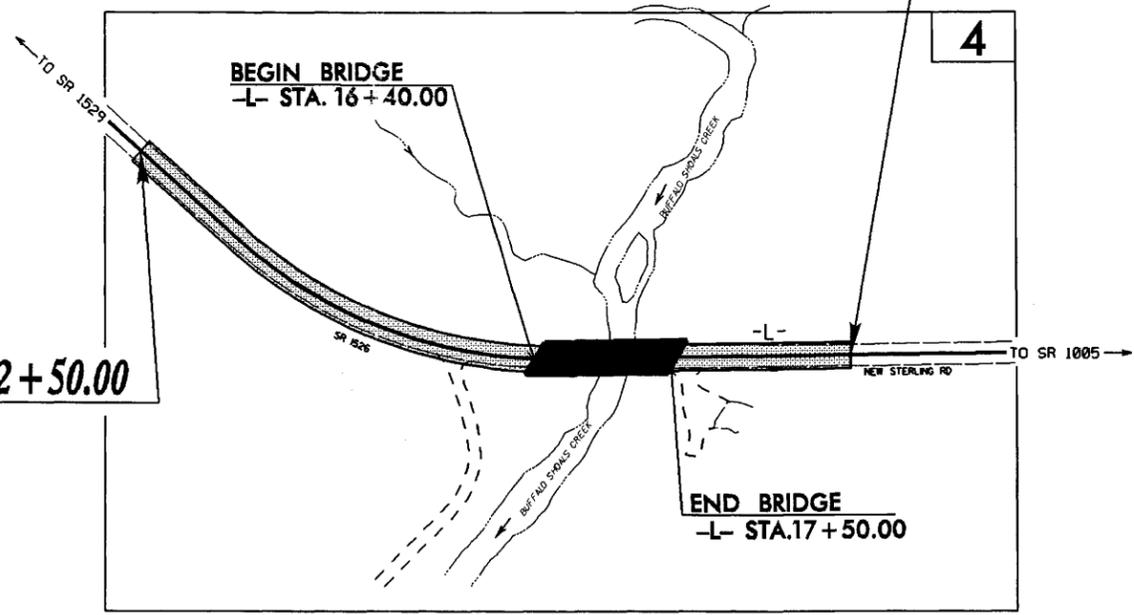
TYPE OF WORK: GRADING, PAVING, GUARDRAIL, DRAINAGE AND STRUCTURES



END TIP PROJECT B-4552 -L- STA. 19+00.00

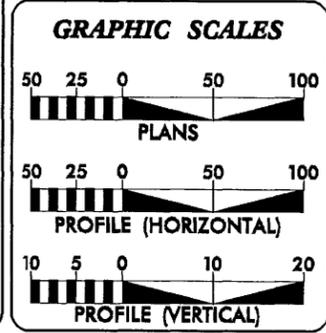
RECEIVED
OCT 15 2007
DIVISION OF HIGHWAYS
HYDRAULICS UNIT

BEGIN TIP PROJECT B-4552 -L- STA. 12+50.00



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARY
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2004 = 400
ADT 2030 = 800
DHV = 11 %
D = 60 %
T = 3 % *
** V = 25 MPH
* TTST 1 DUAL 2
** DESIGN EXCEPTION REQUIRED

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4552 = 0.102 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4552 = 0.021 MILES
LENGTH OF STATE TIP PROJECT B-4552 = 0.123 MILES

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

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 17, 2007

LETTING DATE:
AUGUST 19, 2008

TED S. WALLS
PROJECT ENGINEER

ALLISON K. WHITE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER P.E.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DIVISION ADMINISTRATOR

DATE

TIP PROJECT: B-4552

CONTRACT:

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10/25/05

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	○ _{IP}
Property Corner	-----
Property Monument	□ _{PM}
Parcel/Sequence Number	②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-v-l-b-
Proposed Wetland Boundary	-v-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	○ _S
Well	○ _W
Small Mine	⋈
Foundation	□
Area Outline	□
Cemetery	□ _C
Building	□ _B
School	□ _S
Church	□ _{CH}
Dam	□ _D

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	-j-s-
Buffer Zone 1	-b-z-1-
Buffer Zone 2	-b-z-2-
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Swamp Marsh	⋈
Proposed Lateral, Tail, Head Ditch	-----
False Sump	□

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ _{SM}
Switch	□ _{SW}
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}
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	□ _V

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ _{CB}
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	-----

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	-----

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	-----

SANITARY SEWER:

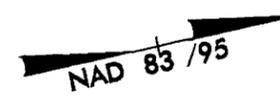
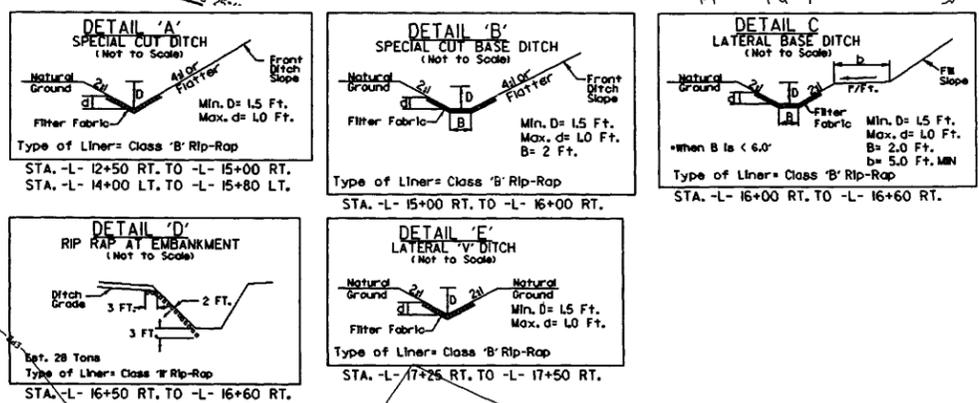
Sanitary Sewer Manhole	○
Sanitary Sewer Cleanout	○
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line	-----
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.

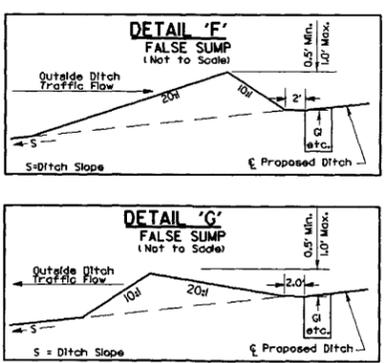
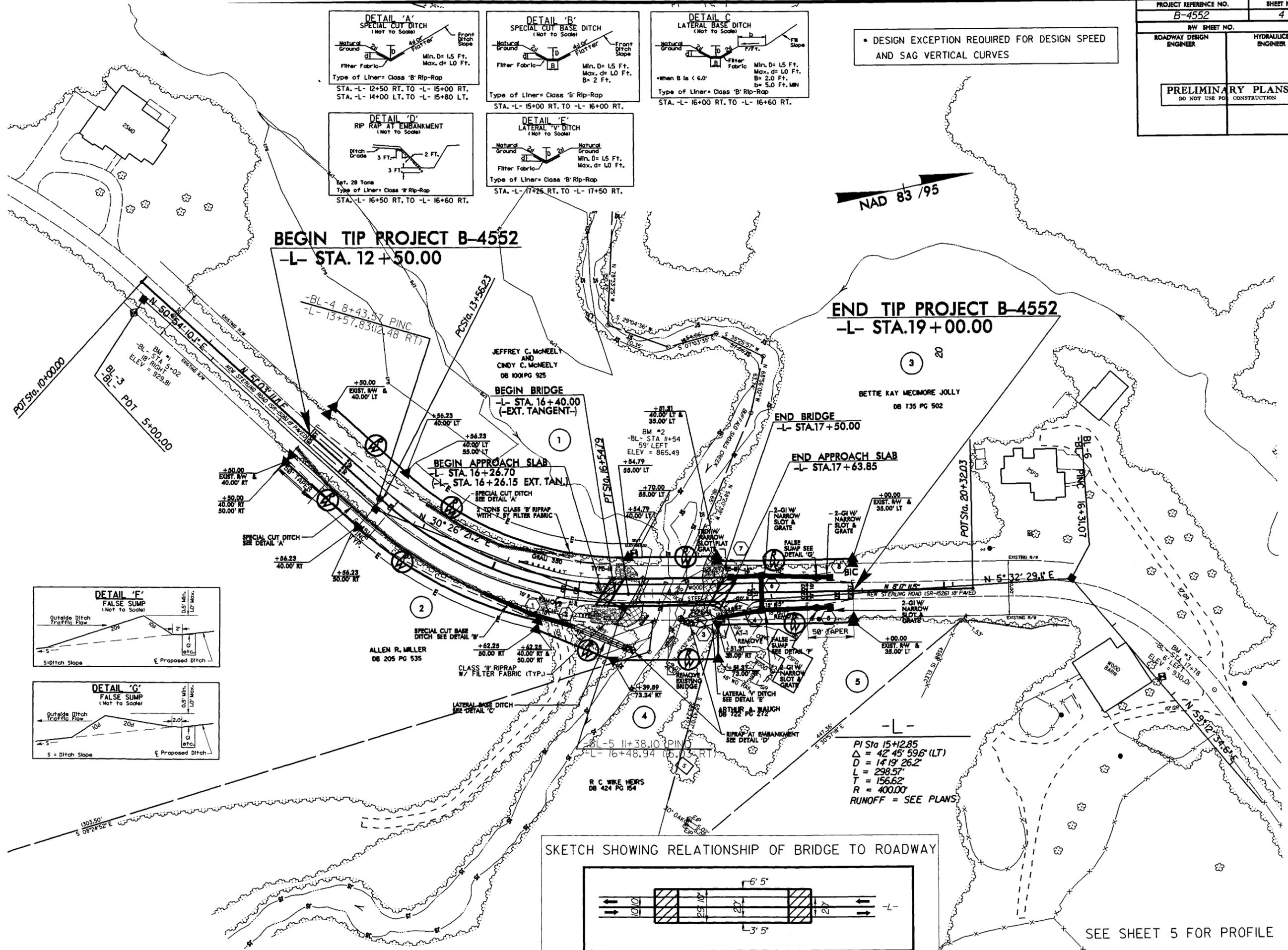
PROJECT REFERENCE NO. B-4552		SHEET NO. 4	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

• DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED AND SAG VERTICAL CURVES

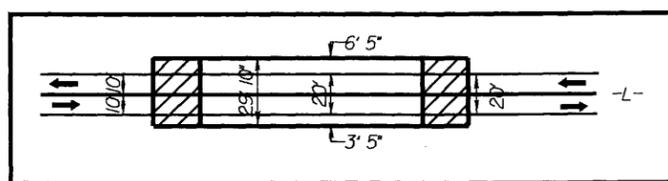


BEGIN TIP PROJECT B-4552
-L- STA. 12+50.00

END TIP PROJECT B-4552
-L- STA. 19+00.00



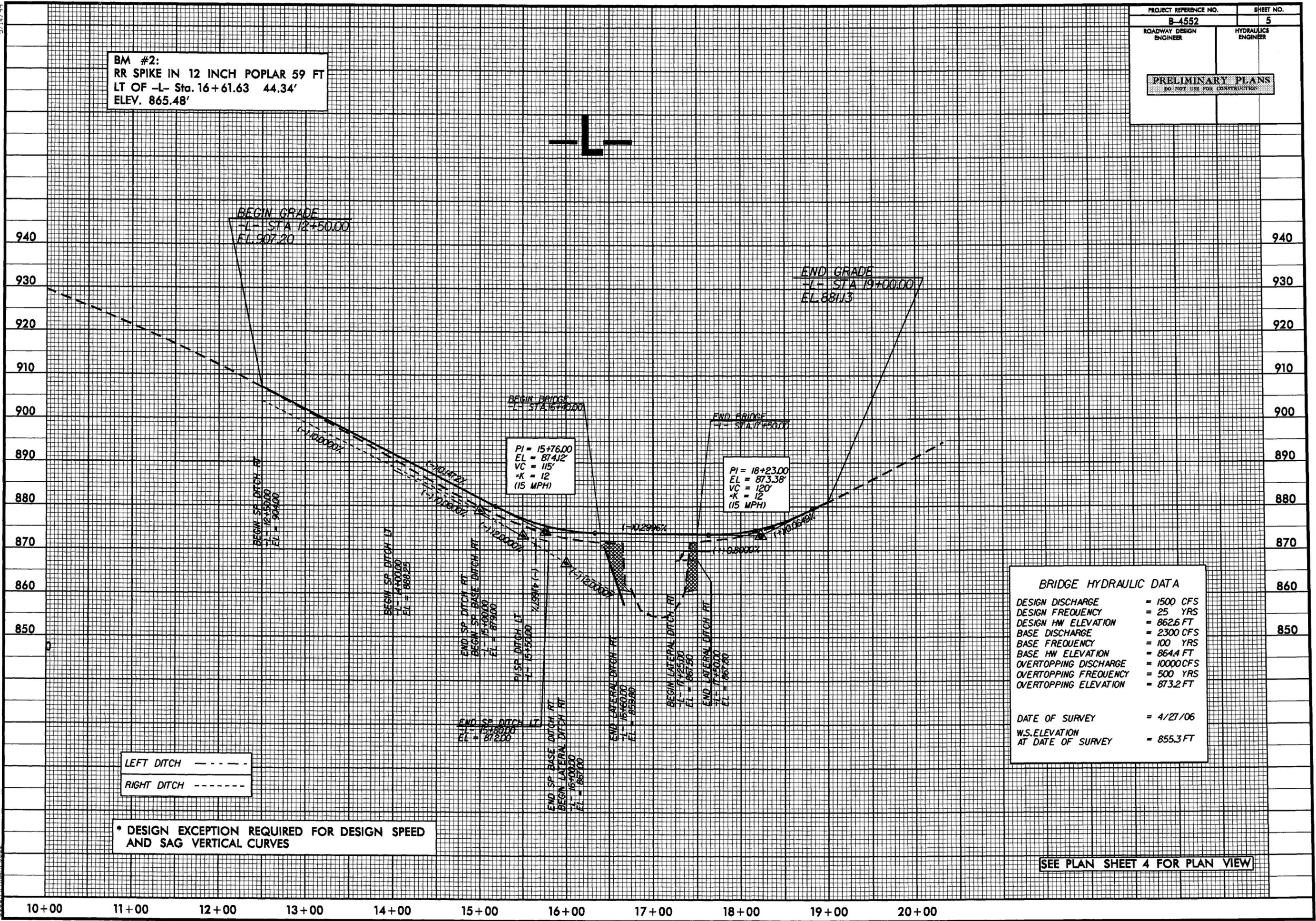
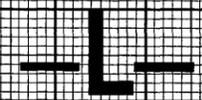
SKETCH SHOWING RELATIONSHIP OF BRIDGE TO ROADWAY



SEE SHEET 5 FOR PROFILE

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BM #2:
RR SPIKE IN 12 INCH POPLAR 59 FT
LT OF -L- Sta. 16+61.63 44.34'
ELEV. 865.48'



PI = 15+76.00
EL = 874.12'
VC = 115'
K = 12
(15 MPH)

PI = 18+23.00
EL = 873.38'
VC = 120'
K = 12
(15 MPH)

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1500 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 862.6 FT
BASE DISCHARGE	= 2300 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 864.4 FT
OVERTOPPING DISCHARGE	= 10000 CFS
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING ELEVATION	= 873.2 FT
DATE OF SURVEY	= 4/27/06
W.S. ELEVATION AT DATE OF SURVEY	= 855.3 FT

LEFT DITCH - - - - -
RIGHT DITCH - - - - -

* DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED AND SAG VERTICAL CURVES

SEE PLAN SHEET 4 FOR PLAN VIEW

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CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-4552</u>
State Project No.	<u>8.2822901</u>
W.B.S. No.	<u>33765.1.1</u>
Federal Project No.	<u>BRZ-1526(3)</u>

A. Project Description:

The purpose of this project is to replace Iredell County Bridge No. 100 on SR 1526 over Buffalo Shoals Creek. Bridge No. 100 is 76 feet long. The replacement structure will be a bridge approximately 110 feet long providing a minimum 31 feet clear deck width. The bridge will include two 11-foot lanes and 3-foot offset to the right side of the bridge and 6-foot offset to the left side of the bridge for hydraulic spread. The bridge length is based on preliminary design information and is set by hydraulic requirements. The cross slope of the new structure will be superelevated compared to the existing structure.

The approach roadway will extend approximately 390 feet from the north end of the new bridge and 150 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Five-foot grass shoulders will be provided on each side (8-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Route using 3R guidelines with a 25 mile per hour design speed.

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

B. Purpose and Need:

NCDOT Bridge Maintenance Unit records indicate Bridge No. 100 has a sufficiency rating of 21.5 out of a possible 100 for a new structure. The bridge is considered functionally obsolete due to deck geometry appraisal of 2 out of 9 according to Federal Highway Administration (FHWA) standards and therefore eligible for FHWA's Bridge Replacement Program. Bridge No. 100 is also considered structurally deficient with a superstructure rating of 3 out of 9.

The bridge includes a 3-span superstructure composed of a timber deck on steel I-beams. The substructure interior bents consist of timber caps and piles, with a concrete footing at Bent No. 1. The existing end bents are yount masonry abutments. The existing bridge, built in 1963, is 20.0 feet in width and 76 feet long. Timber bridge components typically do not last beyond 30 to 40 years of age due to the natural deterioration rates of wood. Past a certain degree of deterioration, structures with timber piles become impractical to maintain and are programmed for replacement, as is the case for this bridge. The bridge is nearing the end of its useful life.

C. Proposed Improvements:

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

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
 - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
 - b. Widening roadway and shoulders without adding through lanes
 - c. Modernizing gore treatments
 - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
 - e. Adding shoulder drains
 - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
 - g. Providing driveway pipes
 - h. Performing minor bridge widening (less than one through lane)
 - i. Slide Stabilization
 - j. Structural BMP's for water quality improvement

2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
 - a. Installing ramp metering devices
 - b. Installing lights
 - c. Adding or upgrading guardrail
 - d. Installing safety barriers including Jersey type barriers and pier protection
 - e. Installing or replacing impact attenuators
 - f. Upgrading medians including adding or upgrading median barriers
 - g. Improving intersections including relocation and/or realignment
 - h. Making minor roadway realignment
 - i. Channelizing traffic
 - j. Performing clear zone safety improvements including removing hazards and flattening slopes
 - k. Implementing traffic aid systems, signals, and motorist aid
 - l. Installing bridge safety hardware including bridge rail retrofit

3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
 - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
 - b. Rehabilitating or replacing bridge decks
 - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
 - d. Replacing a bridge (structure and/or fill)

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

D. Special Project Information:

The estimated costs, based on 2006 prices, are as follows:

Structure	\$ 475,000
Roadway Approaches	\$ 118,000
Structure Removal	\$ 23,000
Misc. & Mob.	\$ 91,000
Eng. & Contingencies	\$ 93,000
Total Construction Cost	\$ 800,000
Right-of-way Costs	\$ 65,000
Total Project Cost	\$ 865,000

Estimated Traffic:

Current	-	400 vpd
Year 2030	-	800 vpd
TTST	-	1%
Dual	-	2%

Accidents: Traffic Engineering has evaluated a recent three year period and found no accidents occurring in the vicinity of the project.

Design Exceptions: There is a design exceptions for design speed because of vertical curve.

Bridge Demolition: Bridge No. 100 includes a 3-span superstructure composed of an asphalt surface placed on a timber deck on steel I-beams. The substructure consists of timber caps and piles, with a concrete footings on interior Bent No. 1, and young masonry end bent abutments. Using standard demolition techniques, the entire bridge will be removed without dropping components into Waters of the United States.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1526.

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

Offsite Detour – Bridge No. 100 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user

resulting from the offsite detour. The offsite detour for this project would include SR 1525 and SR 1006. The majority of traffic on the road is through traffic. The detour for the average road user would result in 2 minutes additional travel time (1.3 miles additional travel). Up to a 12 month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone the detour is acceptable. Iredell County Emergency Services along with Iredell County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 12 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour.

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

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

New Alignment – Given that the alignment for SR 1526 is acceptable, a new alignment was not considered as an alternative.

Other Agency Comments:

The **N.C. Wildlife Resource Commission** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure.

Response: The hydraulic requirement is a bridge.

The **N.C. Division of Water Quality** and **The Army Corps of Engineers** had no special concerns for this project.

Public Involvement:

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

E. Threshold Criteria

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

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(5) Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(7) Does the project involve waters classified as Outstanding Water Resources (OWR) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(8) Will the project require fill in waters of the United States in any of the designated mountain trout counties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(9) Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
 <u>PERMITS AND COORDINATION</u>		
(10) If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(11) Does the project involve Coastal Barrier Resources Act resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(12) Will a U. S. Coast Guard permit be required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(13) Will the project result in the modification of any existing regulatory floodway?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(14) Will the project require any stream relocations or channel changes? x

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES NO

(15) Will the project induce substantial impacts to planned growth or land use for the area? x

(16) Will the project require the relocation of any family or business? x

(17) Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? x

(18) If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor? x

(19) Will the project involve any changes in access control? x

(20) Will the project substantially alter the usefulness and/or land use of adjacent property? x

(21) Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness? x

(22) Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)? x

(23) Is the project anticipated to cause an increase in traffic volumes? x

(24) Will traffic be maintained during construction using existing roads, staged construction, or on-site detours? x

(25) If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility? x

(26) Is there substantial controversy on social, economic, or environmental grounds concerning the project? x

(27) Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project? x

(28) Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places? x

- (29) Will the project affect any archaeological remains which are important to history or pre-history? x
- (30) Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)? x
- (31) Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? x
- (32) Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers? x

F. Additional Documentation Required for Unfavorable Responses in Part E

None

G. CE Approval

TIP Project No.	<u>B-4552</u>
State Project No.	<u>8.2822901</u>
W.B.S. No.	<u>33765.1.1</u>
Federal Project No.	<u>BRZ-1526(3)</u>

Project Description:

The purpose of this project is to replace Iredell County Bridge No. 100 on SR 1526 over Buffalo Shoals Creek. Bridge No. 100 is 76 feet long. The replacement structure will be a bridge approximately 110 feet long providing a minimum 31 feet clear deck width. The bridge will include two 11-foot lanes and 3-foot offset to the right side of the bridge and 6-foot offset to the left side of the bridge for hydraulic spread. The bridge length is based on preliminary design information and is set by hydraulic requirements. The cross slope of the new structure will be superelevated compared to the existing structure.

The approach roadway will extend approximately 390 feet from the north end of the new bridge and 150 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Six-foot grass shoulders will be provided on each side (9-foot shoulders where guardrail is included). The roadway will be designed as a Rural Local Route using 3R guidelines with a 25 mile per hour design speed.

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

Categorical Exclusion Action Classification:

 x TYPE II(A)
 TYPE II(B)

Approved:

<u>1/26/07</u> Date	<u>William T. Rodin</u> Bridge Project Development Engineer Project Development & Environmental Analysis Branch
<u>1/26/07</u> Date	<u>John F. Sullivan</u> Project Engineer Project Development & Environmental Analysis Branch
<u>1/25/07</u> Date	<u>Natalie N. Beckhart</u> Project Planning Engineer Project Development & Environmental Analysis Branch

For Type II(B) projects only:

<u> </u> Date	<u> N/A </u> John F. Sullivan, III, PE, Division Administrator Federal Highway Administration
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PROJECT COMMITMENTS:

**Iredell County
Bridge No. 100 on SR 1526
over Buffalo Shoals Creek
Federal Aid Project No. BRZ-1526(3)
State Project No. 8.2822901
W.B.S. No. 33765.1.1
T.I.P. No. B-4552**

Division Twelve Construction, Resident Engineer's Office – Offsite Detour

In order to have time to adequately reroute school busses, Iredell County Schools should be contacted at (704) 872-8931 at least one month prior to road closure.

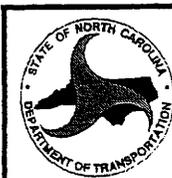
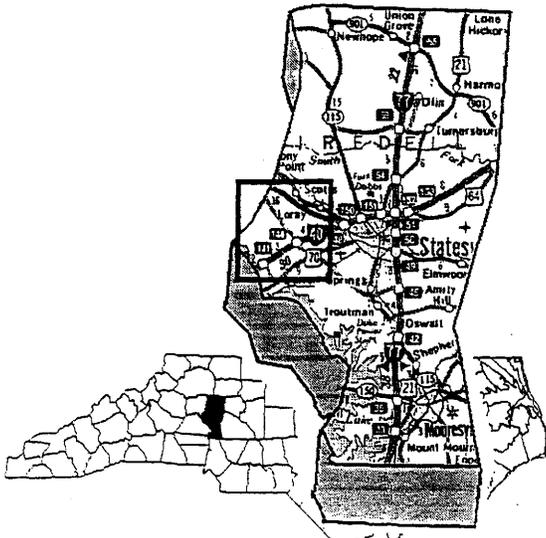
Iredell County Emergency Services needs to be contacted at (704) 878-5353 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Office of Natural Environment – Bridge Demolition

The bridge superstructure is constructed of timber and steel. Therefore, it is unlikely that there will be any temporary fill resulting from bridge demolition.



Studied Detour Route 

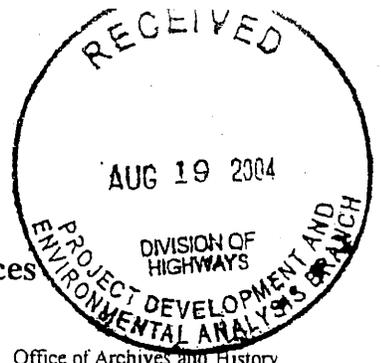


North Carolina Department of
Transportation
Division of Highways

Project Development & Environmental
Analysis Branch

Iredell County
Replace Bridge No. 100 on SR 1526
Over Buffalo Shoals Creek
B-4552

Figure 1



North Carolina Department of Cultural Resources
State Historic Preservation Office
 Peter B. Sandbeck, Administrator

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

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

August 12, 2004

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
 Project Development and Environmental Analysis Branch
 NCDOT Division of Highways

FROM: Peter B. Sandbeck *PBS for Peter Sandbeck*

SUBJECT: 2004 Bridge Projects, including B-3492, B-4408, B-4409, B-4410, B-4446, B-4466, B4469, B-4518, B-4545, B-4573, B-4631, B-4423, B-4424, B-4454, B-4520, B-4538, B-4540, B-4548, B-4549, B-4567, B-4578, B-4648, B-4664, B-4665, B-4504, B-4560, B-4587, B-4618, B-4644, B-4649, B-4651, B-4658, B-4671, B-3624, B-3819, B-3911, B-4404, B-4552, B-4613, B-4646, B-4675, B-3169, B-3606, B-3802, B-3803, B-3804, B-4523, B-4524, B-4525, B-4526, Multi-county, ER 04-1280-ER 04-1330

On July 28, 2004, Sarah McBride, our preservation specialist for transportation projects, met with the North Carolina Department of Transportation (NCDOT) staff for a meeting of the minds concerning the above projects. We reported on our available information on historic architectural and archaeological surveys and resources along with our recommendations. NCDOT provided project descriptions, area photographs, and aerial photographs at the meeting.

Based on our review of the photographs and the information discussed at the meeting, we have included our comments for each bridge project on a spreadsheet attached to this letter. These comments are provided for each project as proposed.

If an archaeological survey is requested on the spreadsheet, a separate memorandum from the Office of State Archaeology, explaining whether a general survey is required or if the survey is predicated upon an off-site detour or new location, is attached.

Having provided this information, we look forward to 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.

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please 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.

PBS:w

Attachments

1 Spreadsheet

16 Memos

cc: Matt Wilkerson, NCDOT
Mary Pope Furr

	TIP	BRIDGE	COUNTY	DIVISION	BUILT	PDE	Architecture	Archaeology
FR04	1314	B-3492	580056 McDOWELL	13	1962	Hancock	Yes	No
FR04	1285	B-4408	030265 ANSON	10	1961	Hancock	No	No
FR04	1286	B-4409	030308 ANSON	10	1922	Hancock	No	No
FR04	1287	B-4410	030307 ANSON	10	1931	Hancock	Yes	No
FR04	1301	B-4446	100227 BUNCOMBE	13	1956	Hancock	No	No
FR04	1290	B-4466	210004 CLAY	14	1952	Hancock	No	No
FR04	1297	B-4469	220219 CLEVELAND	12	1952	Hancock	No	No
FR04	1287	B-4518	350110 GASTON	12	1962	Hancock	No	No
FR04	1307	B-4545	440072 HENDERSON	14	1963	Hancock	No	No
FR04	1308	B-4573	540183 LINCOLN	12	1965	Hancock	No	No
FR04	1306	B-4631	800526 RUTHERFORD	13	1970	Hancock	No	No
FR04	1327	B-4423	060067 BEAUFORT	2	1965	Capps	No	No
FR04	1328	B-4424	060068 BEAUFORT	2	1966	Capps	No	No
FR04	1302	B-4454	150043 CARTERET	2	1963	Capps	No	No
FR04	1292	B-4520	360032 GATES	1	1952	Capps	Yes	No
FR04	1280	B-4538	410025 HALIFAX	4	1965	Capps	No	No
FR04	1281	B-4540	410142 HALIFAX	4	1962	Capps	Yes	Yes
FR04	1308	B-4548	450002 HERTFORD	1	1960	Capps	No	Yes
FR04	1309	B-4549	450042 HERTFORD	1	1960	Capps	Yes	Yes
FR04	1299	B-4567	530069 LENOIR	2	1971	Capps	Yes	Yes
FR04	1298	B-4578	570008 MARTIN	1	1974	Capps	No	No
FR04	1325	B-4648	880017 TYRRELL	1	1977	Capps	No	No
FR04	1317	B-4664	920025 WARREN	5	1957	Capps	Yes	Yes
FR04	1318	B-4665	920036 WARREN	5	1955	Capps	No	Yes
FR04	1305	B-4504	320052 EDGEcombe	4	1964	Johnson	No	Yes
FR04	1312	B-4560	500102 JOHNSTON	4	1956	Johnson	Yes	Yes
FR04	1297	B-4587	630082 NASH	4	1961	Johnson	No	Yes
FR04	1325	B-4618	770445 ROBESON	6	1955	Johnson	Yes	No
FR04	1289	B-4644	830057 STANLY	10	1961	Johnson	No	No
FR04	1324	B-4649	890377 UNION	10	1962	Johnson	No	No
FR04	1323	B-4651	890251 UNION	10	1957	Johnson	No	No
FR04	1315	B-4658	910345 WAKE	5	1960	Johnson	No	No
FR04	1313	B-4671	950035 WAYNE	4	1961	Johnson	No	Yes
FR04	1327	B-3624	130190 CALDWELL	11	1981	Pipkin	No	No
FR04	1328	B-3819	130184 CALDWELL	11	1962	Pipkin	No	No
FR04	1320	B-3911	850038 SURRY	11	1923	Pipkin	Yes	No
FR04	1286	B-4404	000102 ALAMANCE	7	1968	Pipkin	Yes	No
FR04	1310	B-4552	480100 IREDELL	12	1963	Pipkin	Yes	No
FR04	1285	B-4613	750415 RANDOLPH	8	1959	Pipkin	No	Yes
FR04	1294	B-4646	850132 SURRY	11	1962	Pipkin	Yes	No
FR04	1311	B-4675	960034 WILKES	11	1960	Pipkin	No	No
FR04	1293	B-3169	310158 DURHAM	5	1960	Williams	Yes	No
FR04	1303	B-3606	040070 ASHE	11	1963	Williams	Yes	No
FR04	1282	B-3802	040229 ASHE	11	1960	Williams	No	No
FR04	1304	B-3803	040334 ASHE	11	1966	Williams	Yes	No
FR04	1283	B-3804	040296 ASHE	11	1964	Williams	Yes	No
FR04	1319	B-4523	380164 GRANVILLE	5	1955	Williams	No	Yes
FR04	1320	B-4524	380193 GRANVILLE	5	1956	Williams	No	Yes
FR04	1321	B-4525	380133 GRANVILLE	5	1960	Williams	No	Yes
FR04	1322	B-4526	380200 GRANVILLE	5	1957	Williams	No	Yes

**CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR
THE NATIONAL REGISTER OF HISTORIC PLACES**

Project Description: **Replace Bridge #100 on SR 1526 over Buffalo Shoals Creek, Iredell County**

On **Feb. 8, 2005** representatives of the

- North Carolina Department of Transportation (NCDOT)
- Federal Highway Administration (FHWA)
- North Carolina State Historic Preservation Office (HPO)
- Other

Reviewed the subject project at

- Scoping meeting
- Historic architectural resources photograph review session/consultation
- Other

All parties present agreed

- There are no properties over fifty years old within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are properties over fifty years old within the project's Area of Potential Effects (APE), but based on the historical information available and the photographs of each property, the properties identified as **1 thru 3 (3 is bridge itself)** are considered not eligible for the National Register and no further evaluation of them is necessary.
- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are no historic properties affected by this project. (*Attach any notes or documents as needed*)

Signed:



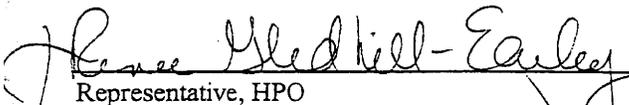
Representative, NCDOT

02-08-2005

Date

FHWA, for the Division Administrator, or other Federal Agency

Date



Representative, HPO

2-8-05

Date



State Historic Preservation Officer

2/8/05

Date