STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

January 7, 2005

U. S. Army Corps of Engineers
Regulatory Field Office
6508 Falls of the Neuse Road, Suite 120
Raleigh, NC 27615

ATTN: Mr. John T. Thomas, Jr.
NCDOT Coordinator

Subject: **Nationwide Permit 23 and 33 Application** for replacement of Bridge No. 113 on SR 1179 over South Fork New River, Ash County, Federal Aid Project No. BRZ-1179(1), State Project No. 8.3711301, WBS Element No. 32751.1.1, Division 11, TIP B-2905

Dear Sir:

Please see the enclosed Pre-Construction Notification (PCN), Ecosystem Enhancement Program mitigation acceptance letter, Categorical Exclusion, permit drawings and design plans for the subject project. The NCDOT proposes to replace the 122 foot "low water" Bridge No. 113 with a new 5-span, steel, I-beam 390 foot bridge. The new bridge will be built on the same alignment with a roadway elevation approximately 17 feet higher than the existing road. Traffic will be detoured offsite during construction. Due to a farmer's driveway relocation, there will be a 42 inch pipe installed on the southwest section of the project site imposing 121 linear feet of permanent impacts to the UT South Fork New River (on the south west side of the road). There will be 0.17 acre temporary fill in the South Fork New River due to temporary work pads needed for the bridge construction. The new bridge will have two interior bents in the water. The bridge and approach ways will be widened and lifted, minimizing the current overtopping and washing out of entire sections of the bridge, ultimately resulting in safer traffic passage. The South Fork New River is designated as High Quality Waters and is also an excellent small mouth bass fishery and will be subject to all Design Standards for Sensitive Watersheds. There are no jurisdictional wetlands in the project area.

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

TELEPHONE: 919-715-1500
FAX: 919-715-1501
WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
2728 CAPITOL BOULEVARD
PARKER LINCOLN BUILDING, SUITE 168
RALEIGH NC 27699

IMPACTS TO WATERS OF THE UNITED STATES

General Description: The project area has three perennial streams on site. The South Fork of the New River, an unnamed tributary (UT) South Fork of the New River and Pine Swamp Creek. Impacts from this project will be associated with South Fork of the New River and UT South Fork of the New River. The project is located in the New River Drainage Basin (DWQ subbasin 050701). The DWQ index for this section of the South Fork New River is 10-1-(20.5) and the Hydrological Cataloguing Unit is 05050001. The South Fork of the New River and the UT are classified WS-IV HQW.

Permanent Impacts: There will be 121 linear feet of permanent impacts to the UT South Fork New River. These impacts are due to the installation of a 42 inch pipe for the relocation of a tree farmer's driveway on the southwest side of the road (see sheets 6 and 7 of 15 of permit drawings). The driveway is being relocated due to the alignment of the new road. The existing driveway and 42 inch pipe will remain, although there will be no access to the road at this location.

Temporary Impacts: There will be a total of 0.17 acre of temporary impacts in the South Fork New River due to temporary workpads constructed into the river to aid in both the removal of the existing bents in the water and placement of the new interior bents. There are three existing bents in the river (see sheet 8 of 15 of the permit drawings). To remove the existing bents, the causeways will be installed one bank at a time and at no time will there be greater than half of the river impacted from the causeway. The causeway will be installed in phases:

- Phase 1. The causeway will be installed from one bank out to the nearest existing interior bent. As soon as the two existing bents on that side are removed, the causeway will be removed, except that part which will be necessary for construction of the new bents.
- Phase 2. The causeway will then be installed from the other bank around the remaining interior bent to remove it. After removing the last bent the second causeway can be removed except the part needed for construction. The remaining causeway will be removed as usual when the project construction is completed.

Bridge Demolition: Bridge No. 59 has a superstructure composed completely of timber and steel and will be removed without dropping components into the river. The substructure is composed of three concrete bents protruding approximately 1 foot from normal water levels. The majority of the bents are submerged and therefore not considered as fill. These bents will be removed with the use of a workpad extended out into the river. NCDOT shall adhere to Best Management Practices for the Protection of Surface Waters, as supplemented with Best Management Practices for Bridge Demolition and Removal.

Utility Impacts: There will be no jurisdictional impacts associated with relocation of utility lines on the project site. In addition there will be no relocation of water or sewer lines due to the construction on this project site.

Schedule: The project schedule calls for an April 19, 2005 LET date with a date of availability on May 25, 2005.

FEDERALLY PROTECTED SPECIES

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 29, 2003 the US Fish and Wildlife Service (USFWS) list 7 species under federal protection for Ashe County: rock gnome lichen, Roan Mountain Bluet and spreading avens are listed as endangered and swamp pink, Virginia spiraea and Heller's blazing star are listed as threatened. The bog turtle is listed threatened with similarity of appearance and does not require a biological conclusion. Site surveys were conducted in 1998 and Virginia spiraea were identified near the bridge approximately 20 feet downstream. The NC Natural Heritage database of rare species and unique habitats was reviewed in December 2004 and there is no documentation of any other federally protected species within 1 mile of the project area. See Table 1 for a summary of the federally listed species in Ashe County.

Table 1. Federally-Protected Species for Ashe County

Common Name	Scientific Name	Federal Status	Habitat Present	Biological Conclusion
Bog Turtle	*Clemmys muhlenbergii*	T(S/A)	N	NA
Rock gnome lichen	*Gymnoderma lineare*	E	N	No Effect
Roan Mountain Bluet	*Houstonia montana*	E	N	No Effect
Spreading Avens	*Geum radiatum*	E	N	No Effect
Swamp pink	*Helonias bullata*	T	N	No Effect
Virginia spiraea	*Spiraea virginiana*	T	Y	May Affect, Not Likely to Adversely Affect
Heller's Blazing Star	*Liatris helleri*	T	N	No Effect

The threatened Virginia spiraea is present in the project vicinity at two locations. The first location is immediately off the northwest corner of the bridge on an alluvial spit. The second location is about 50 feet downstream. The species will be flagged by NCDOT biologists prior to the beginning of construction. The plan for construction activities is to be designed and implemented such that no impact to the plant will result. The USFWS has concurred with the biological conclusion for the Virginia spiraea (see letter dated February 27, 2004 in the back of the CE document). As part of the concurrence, the USFWS has required adherence to seven conditions to protect the Virginia spiraea. See below Avoidance, Minimization and Mitigation section.

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 impacts, and to provide full compensatory mitigation of all remaining, unavoidable jurisdictional stages; minimization measures were incorporated as part of the project design.

- Best Management Practices will be followed for this project as outlined in "NCDOT's Best Management Practices for Construction and Maintenance Activities".
- There will be no deck drains allowed to discharge directing into the South Fork of the New River.
- NCDOT will implement Design Standards for Sensitive Watersheds to protect the fishery for small mouth bass.
- To minimize potential impacts to water resources in the project area. NCDOT's Best Management Practices for the protection of surface waters will be followed.
- To minimize impacts to the Virginia spiraea on the project site, construction will be avoided at the spiraea site noted on the construction plans and the following conditions will be adhered to:
    1. Limiting instream activities
    2. Installation of erosion control measures such as matting and crushed stone will occur within 5 days after grading is complete. Revegetating the river banks will occur closer to project completion (within the time given according to Design Standards for Sensitive Watersheds)
    3. Flagging or fencing areas where Virginia spiraea is growing, so equipment operators know to avoid those areas
    4. Reducing or eliminating river bank disturbance such as clearing and grubbing as much as possible. Where clearing is necessary, stumps should be retained where possible to stabilize soils and provide some early, native re-vegetation. Grubbing, where unavoidable should occur immediately prior to construction activity to limit the duration and extent of bare soil
    5. Impacts to the bedrock on the west bank will be minimized to the best extent possible. The shelf of bedrock along the west bank provides a diversion for water flow which protects the Virginia spiraea downstream. If during construction, it is determined that the bedrock will be disturbed causing a change in flow, then the Division will contact the Office of Natural Environment (Mary Frazer, Environmental Biologist). Protective measures such as rip/rap bank stabilization will need to be implemented to protect the spiraea located downstream from the bridge site
    6. Holding a pre-construction meeting so that the contractor knows what must be done to protect the spiraea
    7. Restoring the bed and banks of the river to their original contours as soon as work is completed

Mitigation:
The Ecosystem Enhancement Program (EEP) will provide stream mitigation for the 121 linear feet of stream impacts. (Please see attached EEP Mitigation Acceptance Letter dated January 4, 2005.)

REGULATORY APPROVALS

Section 404 Permit: It is anticipated that the temporary work pads will be authorized under Section 404 Nationwide Permit 33. We are therefore requesting the issuance of a Nationwide Permit 33 for this diversion. The remaining aspects of the 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 3403 and 3366 will apply to this project. All general conditions of the Water quality Certifications will be met. Therefore, in accordance with 15A NCAC 2H, Section .0500(a) and 15A NCAC 2B.0200 we are providing two copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality, for their notification.

Thank you for your time and assistance with this project. Please contact Carla Dagnino at (919) 715-1456 if you have any questions or need any additional information.

Sincerely,

Gregory J. Thorpe, Ph.D
Environmental Management Director, PDEA

cc:
w/attachment
- Mr. John Hennessy, Division of Water Quality
- Ms. Marla Chambers, Division 11 NCWRC
- Ms. Becky Fox, USEPA – Whittier, NC
- Mr. Ronald Mikulak, USEPA – Atlanta, GA
- Ms. Marella Buncick, Division 11 USFWS
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. David Chang, P.E., Hydraulics
- Mr. Michael A. Pettyjohn, P.E. , Division 11
- Mr. Heath Slaughter, Division 11 DEO

w/o attachment
- Mr. David Franklin, USACE, Wilmington
- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Omar Sultan, Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. Mark Staley, Roadside Environmental
- Mr. John Williams, PDEA Project Planning Engineer
- Ms. Beth Harmon, EEP

Office Use Only: Form Version May 2002

USACE Action ID No. _____ **DWQ No.** _____

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

I. Processing

1. Check all of the approval(s) requested for this project:
   - ☒ Section 404 Permit
   - ☐ Section 10 Permit
   - ☒ 401 Water Quality Certification
   - ☐ Riparian or Watershed Buffer Rules
   - ☐ Isolated Wetland Permit from DWQ

2. Nationwide, Regional or General Permit Number(s) Requested: NW23, NW33.

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

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

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

II. Applicant Information

1. Owner/Applicant Information
   Name: NC Department of Transportation
   Mailing Address: 1548 Mail Service Center
   Raleigh, NC 27699-1548
   Telephone Number: (919)-733-3141 Fax Number: (919)-715-1501
   E-mail Address: _____

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: NA
   Company Affiliation: _____
   Mailing Address: _____
   Telephone Number: _____ Fax Number: _____
   E-mail Address: _____

III. Project Information

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

1. Name of project: Replacement of bridge No. 113 on SR 1179 Over South Fork New River

2. T.I.P. Project Number or State Project Number (NCDOT Only): B-2905

3. Property Identification Number (Tax PIN): N/A

4. Location
   County: Ashe Nearest Town: Idlewild
   Subdivision name (include phase/lot number): N/A
   Directions to site (include road numbers, landmarks, etc.): From 421, take 221 north towards West Jefferson. Take a right onto Idlewild Road (SR1179). Follow until road is called Dick Phillips Road, project site will be soon after road name change.

5. Site coordinates, if available (UTM or Lat/Long): 36° 18.78'N, 81° 27.94'W
   (Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)

6. Property size (acres): 0.22 mile * 120 feet = 3.17 acres

7. Nearest body of water (stream/river/sound/ocean/lake): South Fork New River

8. River Basin: New River Basin
   (Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at http://h2o.enr.state.nc.us/admin/maps/.)

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 site is located in a rural area of Ashe County. There is a tree farm site adjacent to the project area. The site is primarily surrounded by fallow field, roadside shoulder and mesic forest.

10. Describe the overall project in detail, including the type of equipment to be used: The project will consist of replacing the old bridge with a new 390 ft 5-span span steel I-beam bridge at the same location The new bridge will be longer, wider and 17 feet higher than the existing bridge. The traffic will be detoured offsite during bridge construction. Construction equipment will consist of heavy duty trucks, earth moving equipment, cranes, etc.

Explain the purpose of the proposed work: The existing bridge is narrow and according federal guidelines is considered to be functionally obsolete. The existing bridge is a low water bridge design that results in frequent overtopping and washing out. The replacement of this bridge will result in safer 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.

NA

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.

NA

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

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. The applicant must also provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be

included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

Provide a written description of the proposed impacts: This project will have temporary impacts due to a workpad constructed to remove the existing bridge and for construction of the new bridge. There will be 121linear feet of permanent impacts associated with this project coming from a driveway relocation over a UT South Fork New River.

1. Individually list wetland impacts below:

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

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

** 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at http://www.fema.gov.

*** List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: 0 acre
Total area of wetland impact proposed: 0 acre

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

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
1a	Permanent	121	UT South Fork New River	5-10 feet	Perennial
1	Temporary fill	0.17 (acre)	South Fork New River	100 feet	Perennial

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included.

** Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at www.usgs.gov. Several internet sites also allow direct download and printing of USGS maps (e.g., www.topozone.com, www.mapquest.com, etc.).

Cumulative impacts (linear distance in feet) to all streams on site:_____

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

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

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

4. 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.): NA

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

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

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.

See Permit Application.

VIII. Mitigation

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

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

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

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.
   Mitigation for 121 linear feet of stream impact will be provided by EEP.

2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant's responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the NCWRP, check the NCWRP website at http://h2o.enr.state.nc.us/wrp/index.htm. If use of

the NCWRP is proposed, please check the appropriate box on page three and provide the following information:

Amount of stream mitigation requested (linear feet): 121linear feet
Amount of buffer mitigation requested (square feet): NA
Amount of Riparian wetland mitigation requested (acres): NA
Amount of Non-riparian wetland mitigation requested (acres): NA
Amount of Coastal wetland mitigation requested (acres): NA

IX. Environmental Documentation (required by DWQ)

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

Yes ☒ No ☐

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

Yes ☒ No ☐

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

Yes ☒ No ☐

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

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

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

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

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

Zone*	Impact (square feet)	Multiplier	Required Mitigation
Total			

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

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

XI. Stormwater (required by DWQ)

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

NA

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.

NA

XIII. Violations (required by DWQ)

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

Yes ☐ No ☒

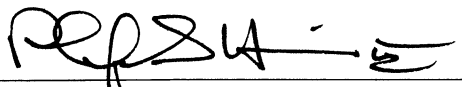
Is this an after-the-fact permit application?

Yes ☐ No ☒

XIV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

NA



1/10/25

Applicant/Agent's Signature **Date**

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

Ecosystem
Enhancement
PROGRAM

January 4, 2005

Mr. John T. Thomas, Jr.
US Army Corps of Engineers
Raleigh Regulatory Field Office
6508 Falls of the Neuse Road, Suite 120
Raleigh, North Carolina 27615

Dear Mr. Thomas:

Subject: EEP Mitigation Acceptance Letter:

B-2905, Bridge 113 over South Fork New River on SR 1179, Ashe County; New River Basin (Cataloging Unit 05050001); Northern Mountains Eco-Region

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide 1,210 feet of stream preservation as compensatory mitigation at a 10:1 ratio for the 121 feet of unavoidable stream impacts of the subject project. The preservation site that will be debited for this mitigation is:

Little Tablerock Site (Mitchell, McDowell and Avery Counties) 1,210 feet

The subject TIP project is listed in Exhibit 2 of the Memorandum of Agreement among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U. S. Army Corps of Engineers, Wilmington District dated July 22, 2003. The compensatory mitigation for the project will be provided in accordance with Section IX, EEP Transition Period, of the Agreement.

If you have any questions or need additional information, please contact Ms. Beth Harmon at (919) 715-1929.

Sincerely,

James B. Stanfill for

William D. Gilmore, P.E.
EEP Director

cc: Phil Harris, Office of Natural Environment, NCDOT
John Hennessy, Division of Water Quality, Wetlands/401 Unit
File: B-2905

Ecosystem Enhancement PROGRAM

January 4, 2005

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

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-2905, Bridge 113 over South Fork New River, Ashe County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide stream mitigation for the subject project. Based on the information supplied by you in a letter dated December 10, 2004, the impacts are located in CU 05050001 of the New River Basin in the Northern Mountains (NM) Eco-Region, and are as follows:

Stream Impacts: 121 feet (cold)

As stated in your letter, the subject project is listed in Exhibit 2 of the Memorandum of Agreement among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U. S. Army Corps of Engineers, Wilmington District dated July 22, 2003. The mitigation for the subject project will be provided in accordance with this agreement.

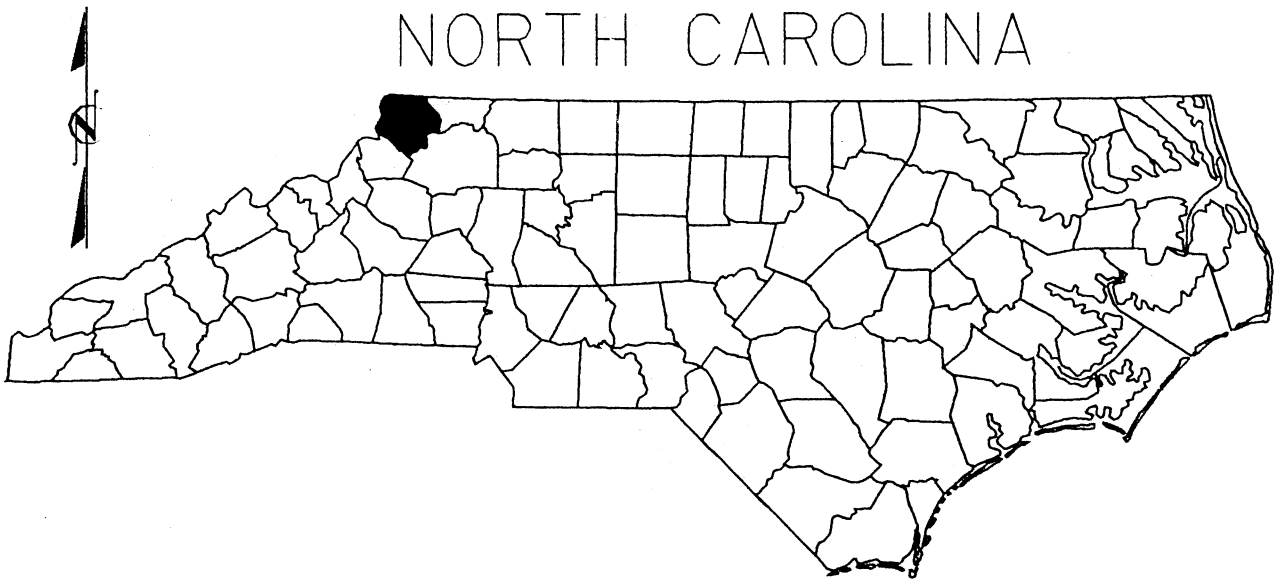
If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

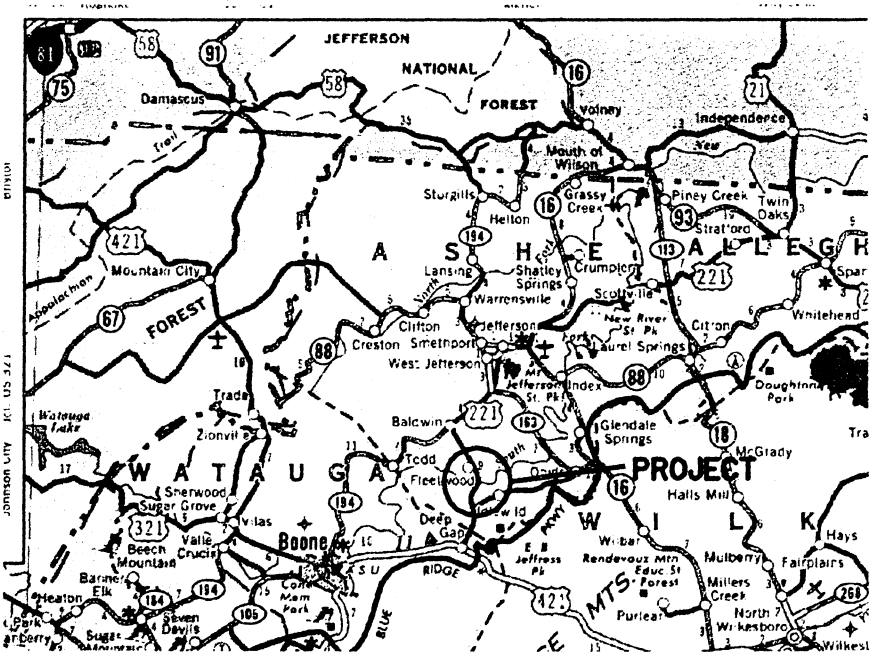
Sincerely,

James B Stanfill for

William D. Gilmore, P.E.
EEP Director

cc: Mr. John Thomas, USACE-Raleigh
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit
File: B-2905



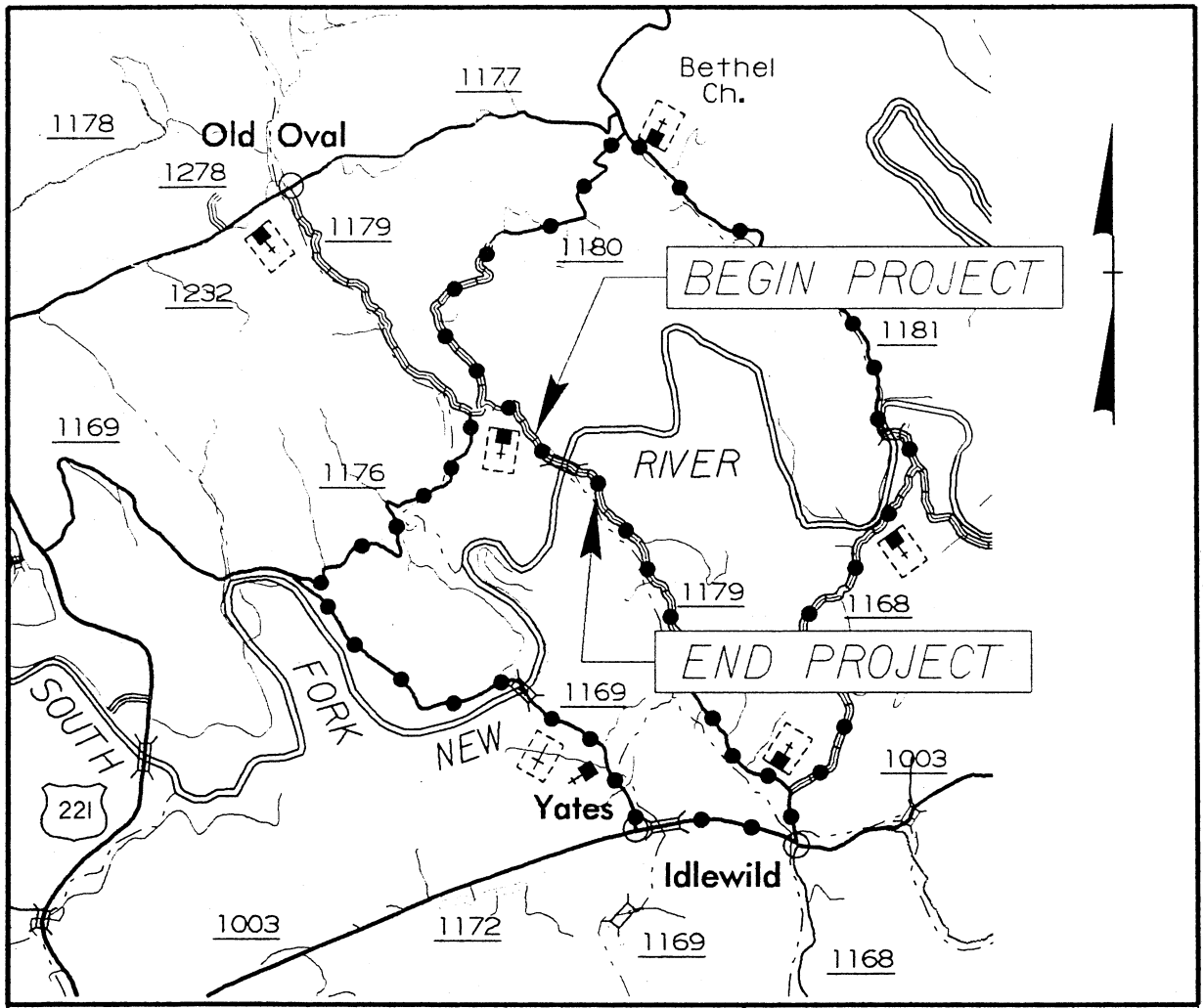


VICINITY MAPS

NCDOT

DIVISION OF HIGHWAYS
ASHE COUNTY
PROJECT: 8.2711301 (B-2905)
BRIDGE NUMBER 113 OVER
SOUTH FORK NEW RIVER
ALONG SR 1179
(DICK PHILLIPS RD.)

SHEET 1 OF 15 8/31/04



VICINITY MAP

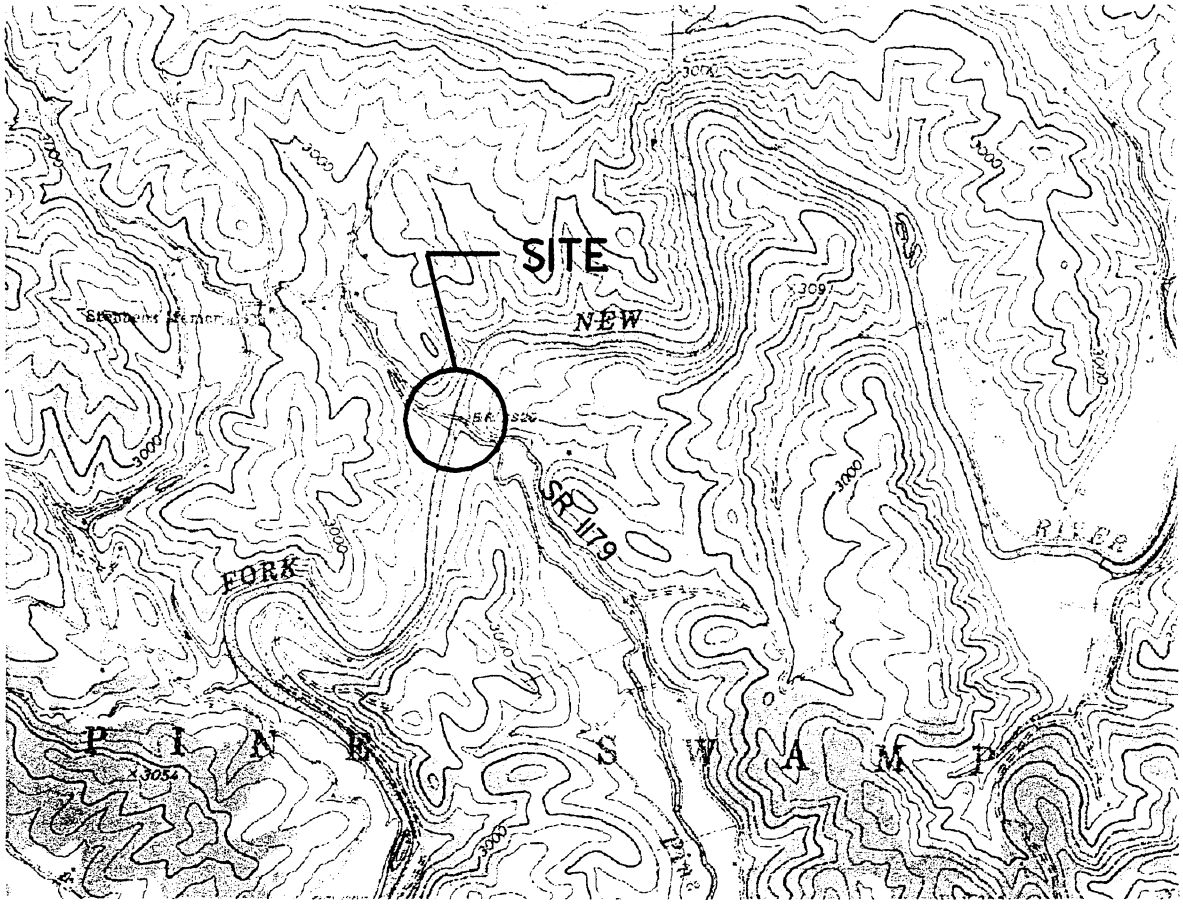
DETOUR ROUTE

N

NCDOT

DIVISION OF HIGHWAYS
ASHE COUNTY
PROJECT: 8.2711301 (B-2905)
BRIDGE NUMBER 113 OVER
SOUTH FORK NEW RIVER
ALONG SR 1179
(DICK PHILLIPS RD.)

SHEET 2 OF 15 **8/31/04**



NOT TO SCALE

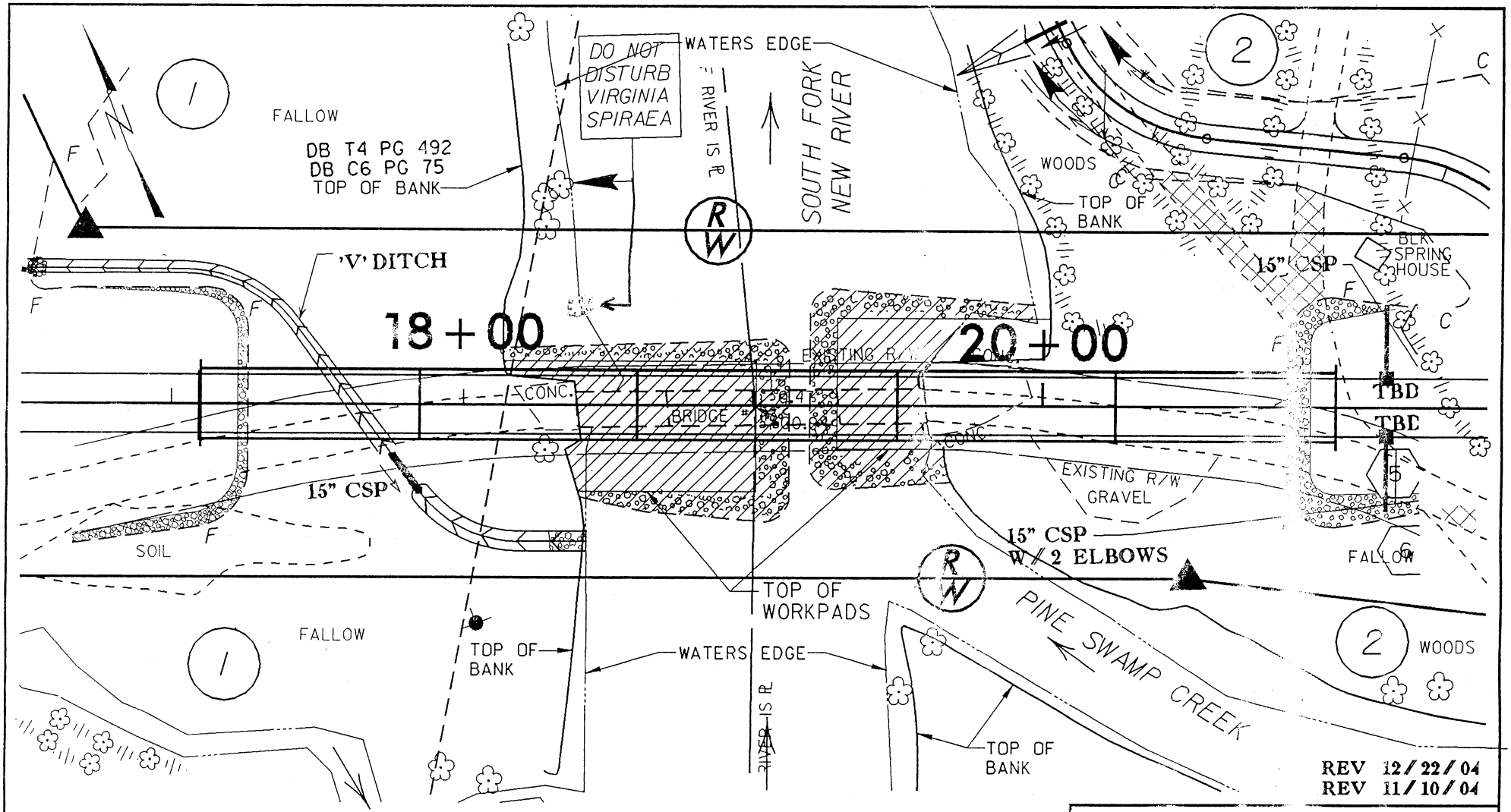
CONTOUR INTERVAL 40 FEET

TOPOGRAPHIC VIEW

NCDOT

DIVISION OF HIGHWAYS
ASHE COUNTY
PROJECT: 8.2711301 (B-2905)
BRIDGE NUMBER 113 OVER
SOUTH FORK NEW RIVER
ALONG SR 1179
(DICK PHILLIPS RD.)

SHEET 3 OF 15 8/31/04



PLAN VIEW
SITE 1

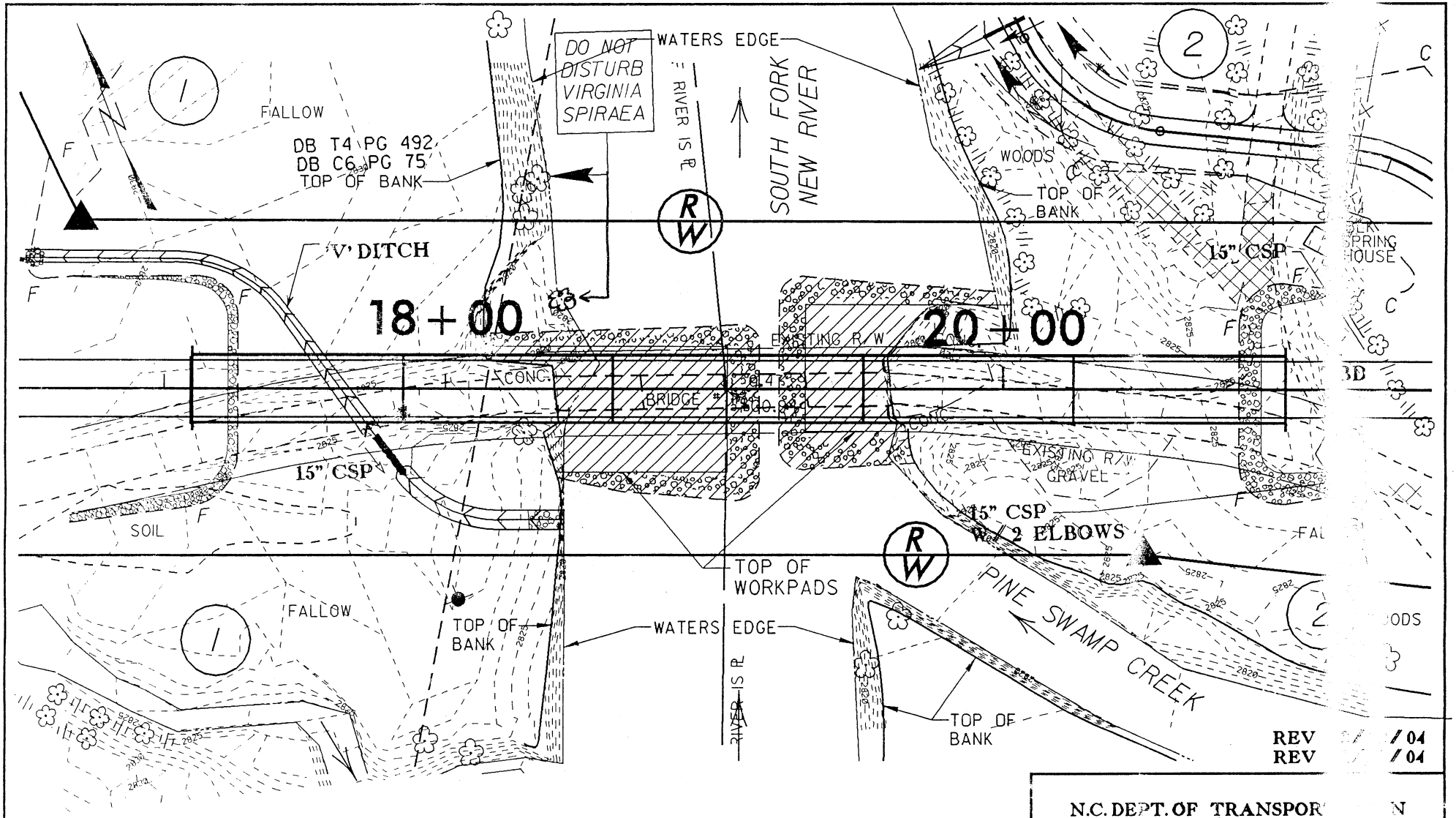
REV 12/22/04
REV 11/10/04

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.271301 (B-2905)
PROPOSED REPLACEMENT OF
BRIDGE NO. 113 ON SR 1179
OVER SOUTH FORK NEW RIVER

SHEET 4 OF 15 9/27/01



PLAN VIEW
SITE 1

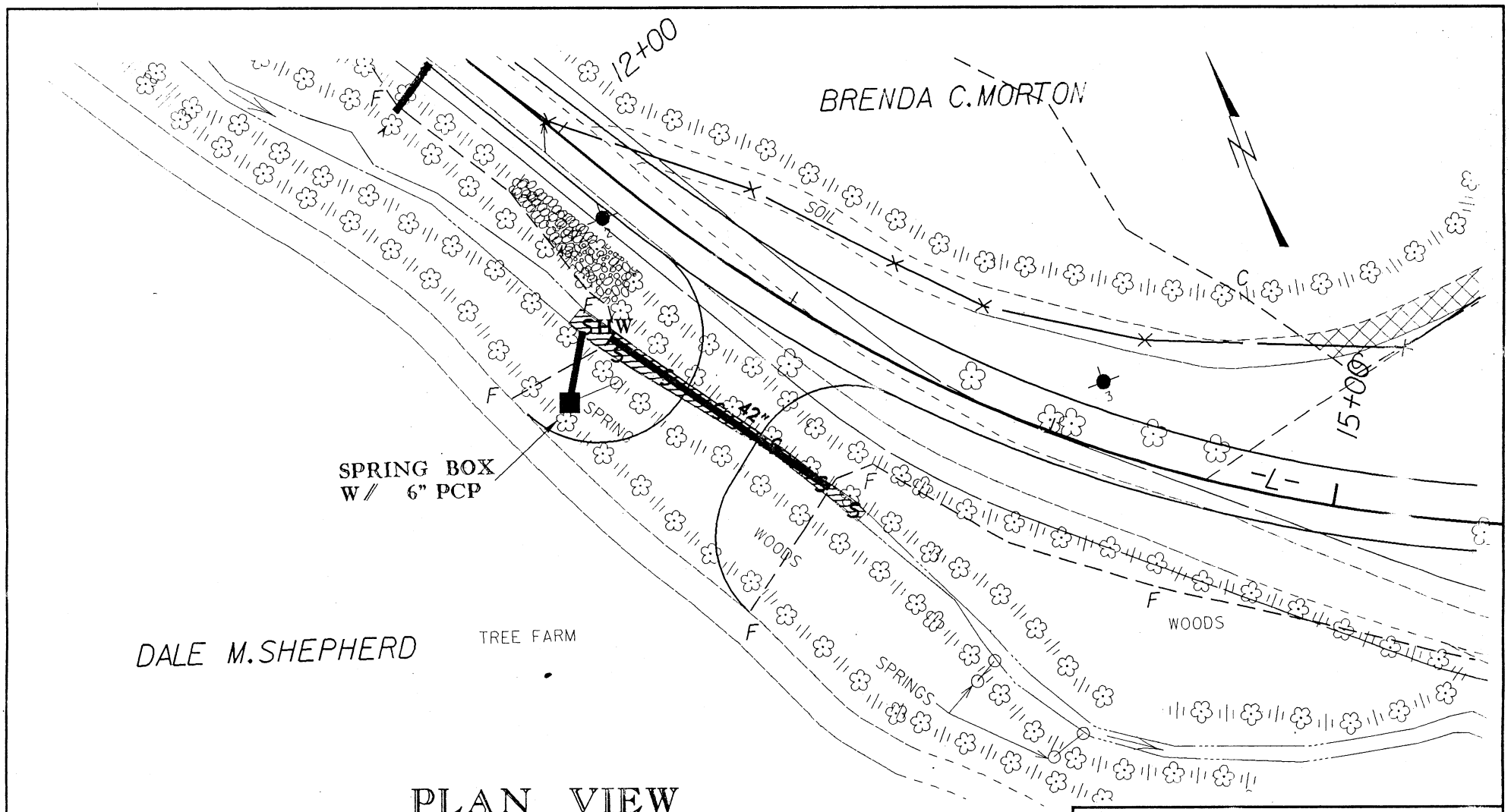
REV / 04
REV / 04

N.C. DEPT. OF TRANSPOR N
DIVISION OF HIGHW

ASHE COUNTY

PROJECT: 8.2711301 (B-
PROPOSED REPLACEMB
BRIDGE NO. 113 ON SI
OVER SOUTH FORK NEV ER

SHEET 5 OF 15 27/01



PLAN VIEW
SITE 1a

25 0 50

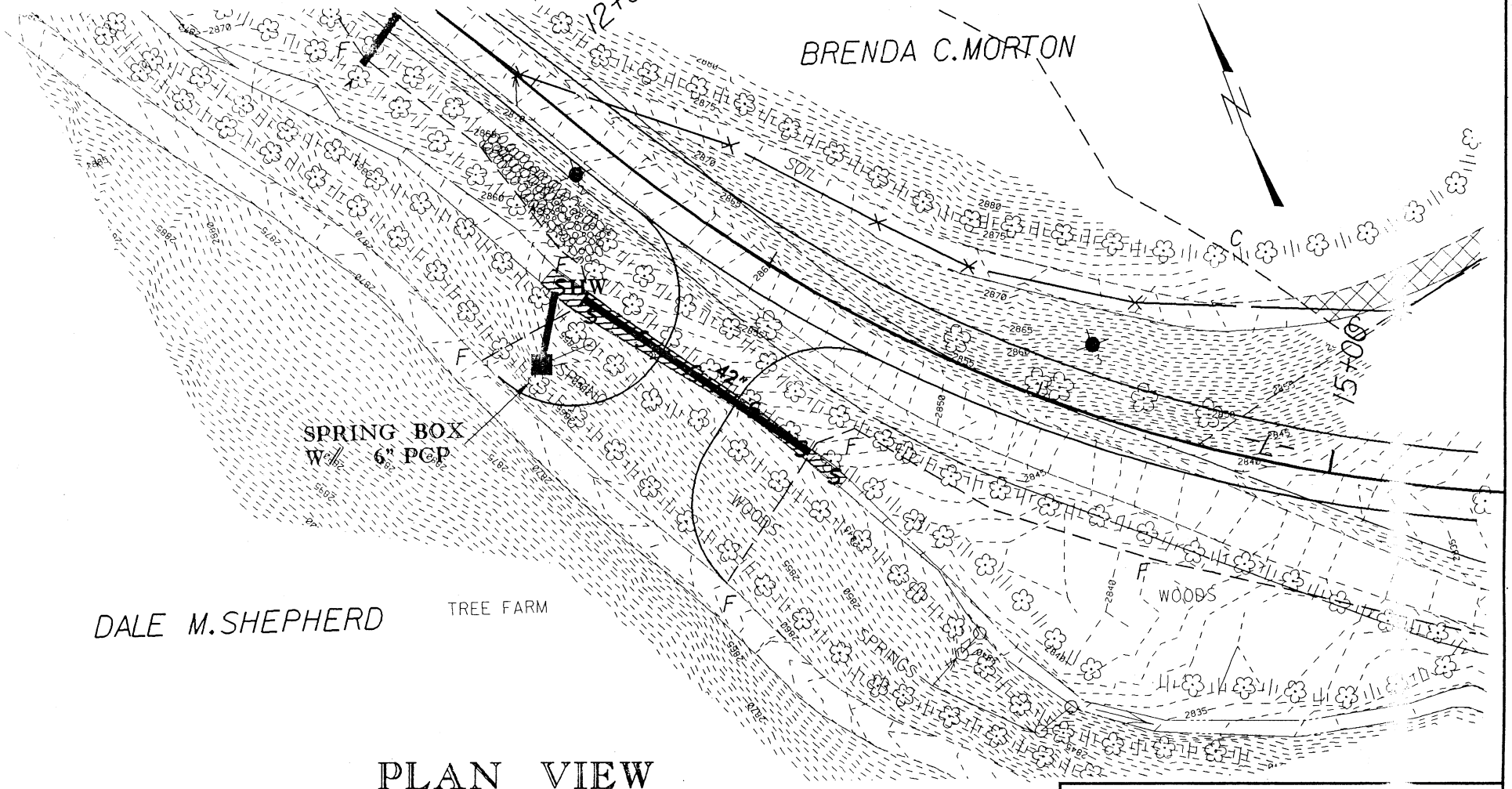
DENOTES FILL
IN SURFACE WATERS

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2711301 (B-2905)
PROPOSED REPLACEMENT OF
BRIDGE NO. 113 ON SR 1179
OVER SOUTH FORK NEW RIVER

SHEET 6 OF 15 9/14/



PLAN VIEW
SITE 1a

25 0 50

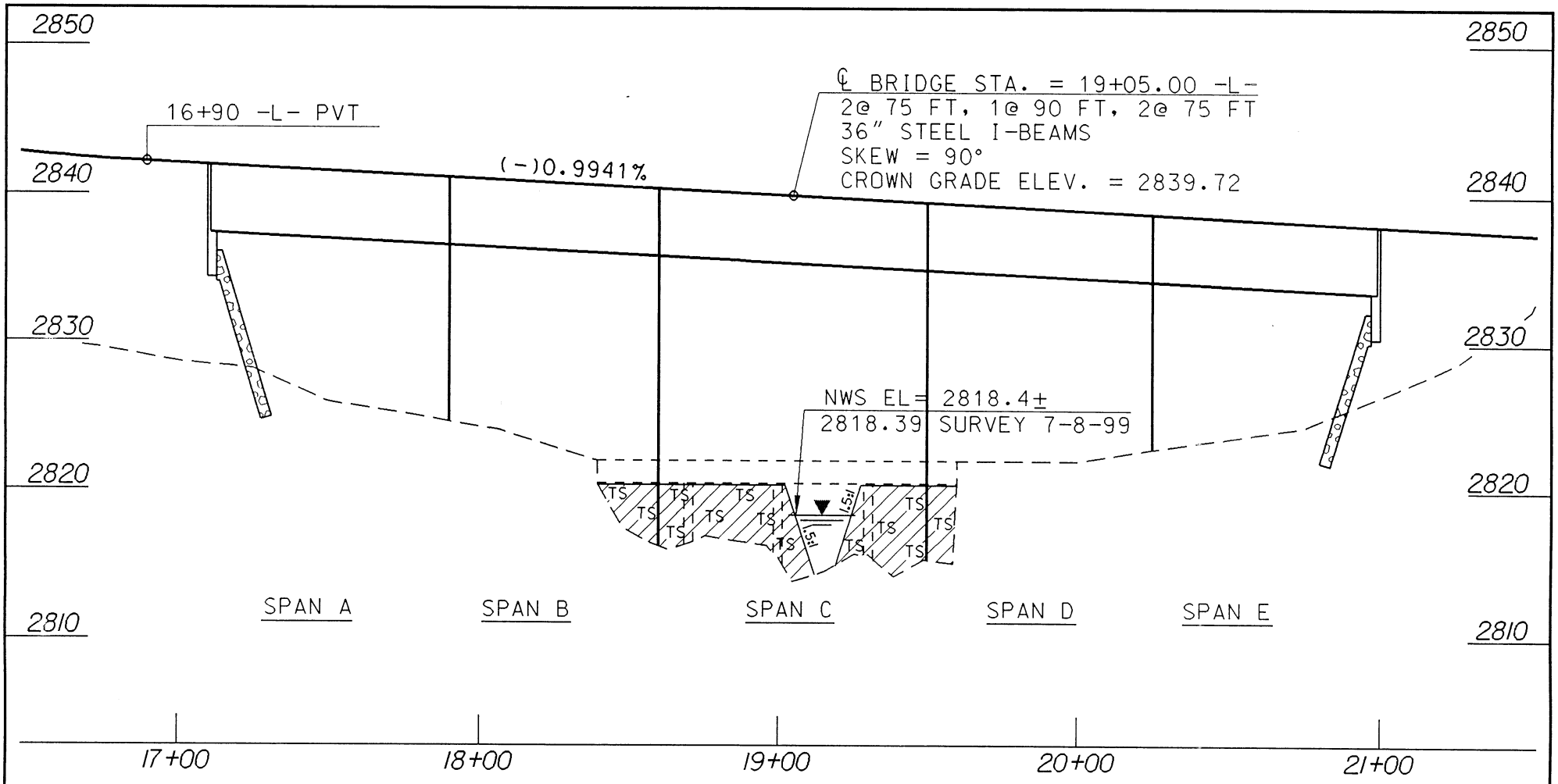
DENOTES FILL IN SURFACE WATERS

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2711301 (B-2705)
PROPOSED REPLACEMENT OF
BRIDGE NO. 113 ON SR 1179
OVER SOUTH FORK NEW RIVER

SHEET 7 OF 15 9/14/04



REV 12/22/04
REV 11/10/04

PROFILE
SITE 1

25 0 50 HORIZONTAL SCALE

5 0 10 VERTICAL SCALE

NOTE: CAUSEWAYS NOT TO BE INSTALLED SIMULTANEOUSLY.

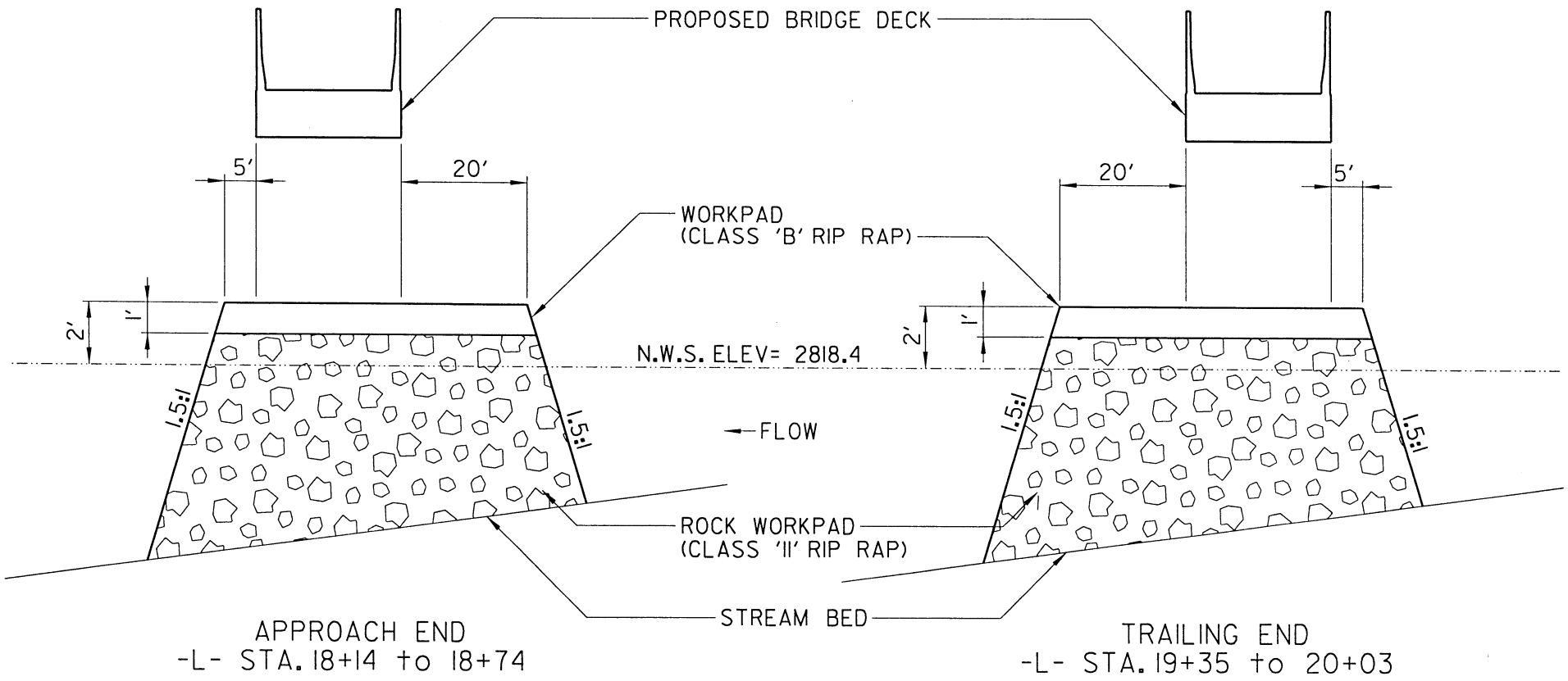
DENOTES TEMPORARY FILL IN SURFACE WATERS TS TS

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2711301 (B-2905)
PROPOSED REPLACEMENT OF
BRIDGE NO. 113 ON SR 1179
OVER SOUTH FORK NEW RIVER

SHEET S-4-15 3/29/01



WORKPAD DETAIL
(NOT TO SCALE)

QUANTITIES OF ESTIMATES

VOLUME OF CLASS 'II' RIP RAP= 305 cy
AREA OF CLASS 'II' RIP RAP= 0.09 ac.
Estimate 455 Tons Class 'II' Rip Rap

VOLUME OF CLASS 'B' RIP RAP= 15 cy
AREA OF CLASS 'B' RIP RAP= 0.07 ac.
Estimate 175 Tons Class 'B' Rip Rap

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2711301 (B-2905)
PROPOSED REPLACEMENT OF
BRIDGE NO. 113 ON SR 1179
OVER SOUTH FORK NEW RIVER

 9/1/01

PROJECT REFERENCE NO.	SHEET NO.
B-2905	4
R/W SHEET NO.	10 of 15
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

-L- CURVE DATA

PI Sta 11+11.55	PI Sta 14+14.64
Δ = 7° 10' 24.1" (RT)	Δ = 39° 20' 30.2" (LT)
D = 4° 14' 38.9"	D = 10° 59' 50.2"
L = 169.02'	L = 357.74'
T = 84.62'	T = 186.25'
R = 1,350.00'	R = 521.00'
SUPER = AS SHOWN	SUPER = AS SHOWN

-D2- CURVE DATA

PI Sta 10+80.99	PI Sta 12+15.78
Δ = 84° 32' 29.4" (LT)	Δ = 58° 09' 13.4" (RT)
D = 95° 29' 34.7"	D = 95° 29' 34.7"
L = 88.53'	L = 60.90'
T = 54.54'	T = 33.36'
R = 60.00'	R = 60.00'

-D3- CURVE DATA

PI Sta 11+15.30
Δ = 48° 26' 31.8" (RT)
D = 63° 39' 43.1"
L = 76.09'
T = 40.49'
R = 90.00'

DATUM DESCRIPTION

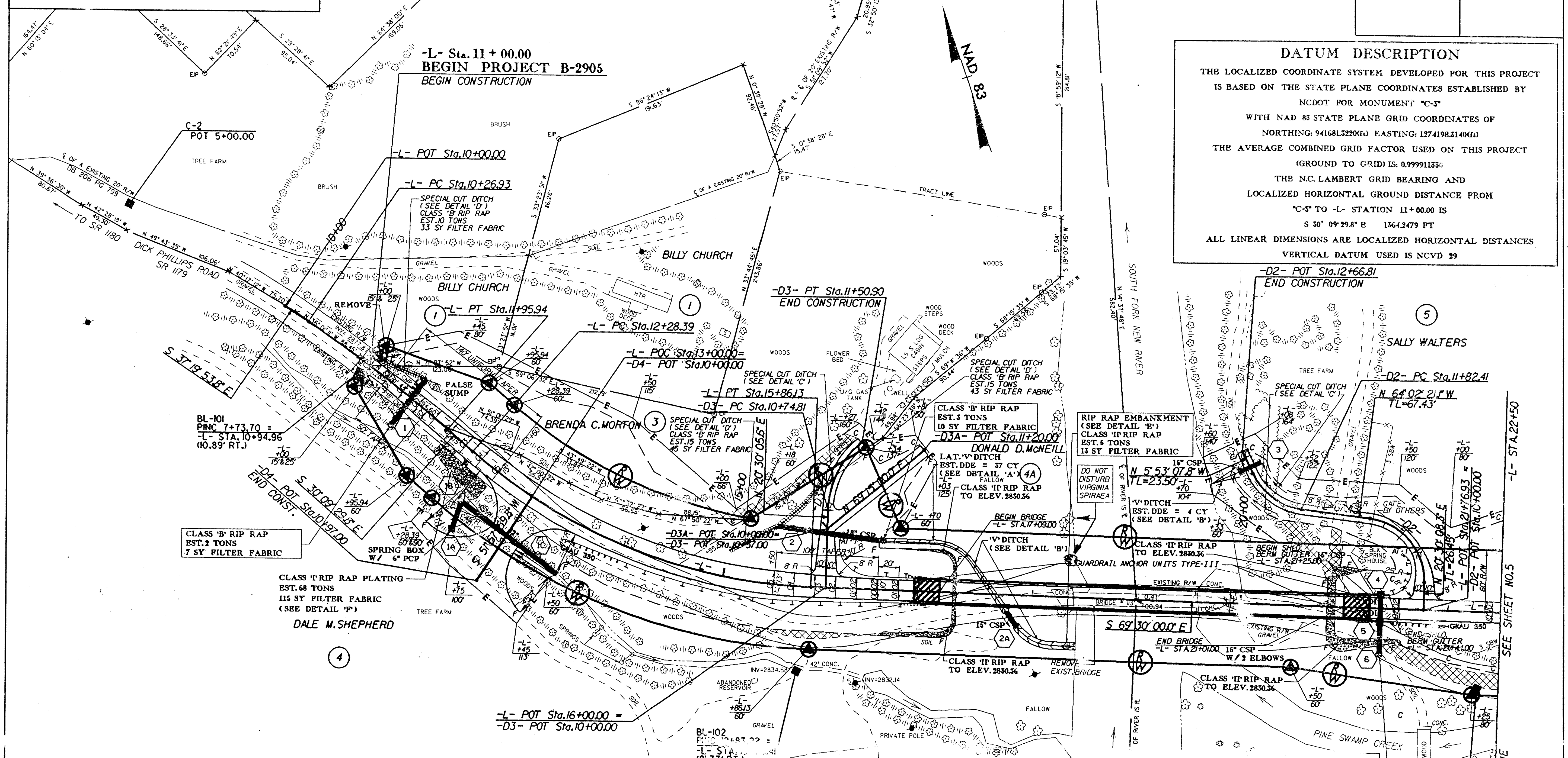
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "C-3" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 941681.3220(ft) EASTING: 1274198.3140(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991133

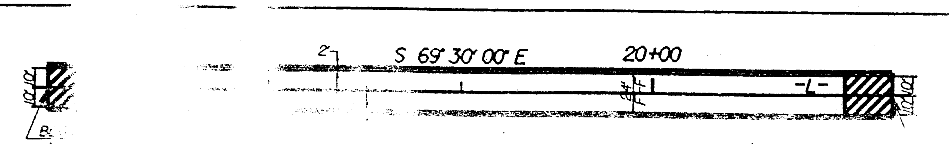
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "C-3" TO -L- STATION 11+00.00 IS S 30° 09' 29.8" E 1364.3479 FT

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NCVD 29



NOTES: (1) SEE SHEET 2-A FOR DRAINAGE DETAILS
(2) SEE SHEET 6 FOR -L- PROFILE
(3) SEE SHEET 7 FOR -D1-, -D2-, -D3-, -D3A- & -D4- PROFILES
SEE SHEETS S-1 TO S-33 FOR STRUCTURE DETAILS



...SHOWING BRIDGE IN RELATIONSHIP TO PAVEMENT
(NOT TO SCALE)

30-DEC-2004 10:24
R:\proj\Al\b\das_exc_b2905s4.psh
agamber AT

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

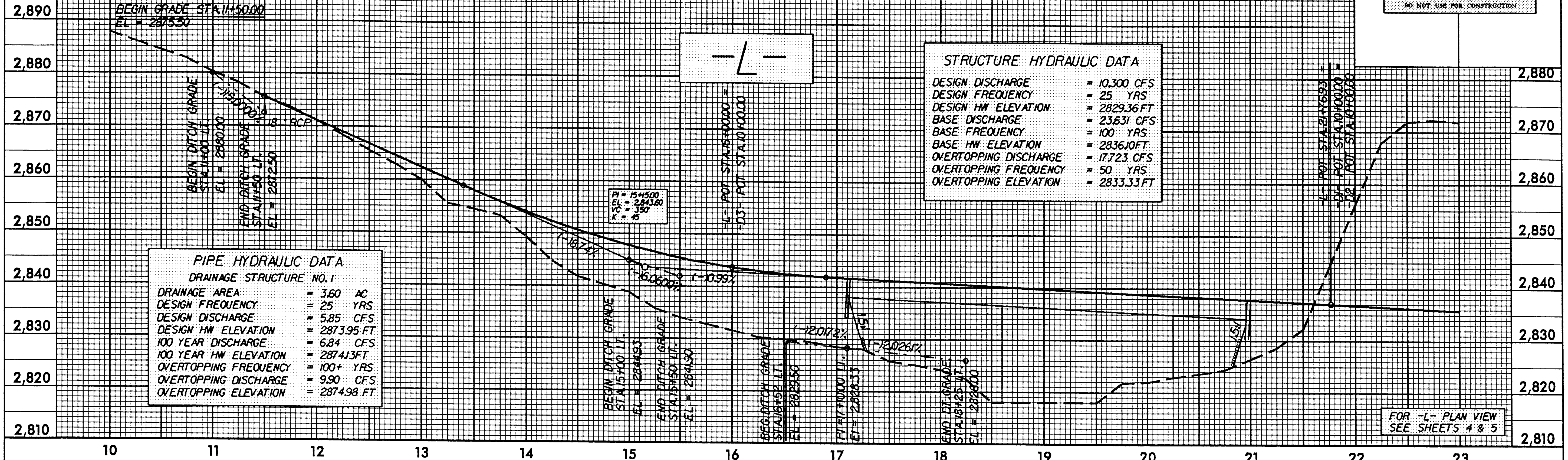
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

BM #1 EL. 2893.77
8" SPIKE IN ROOT OF 24" OAK
46.4' LT. OF -BL- STA.16+68.20
35.2' NE OF C/L SR 1179
-L- STA.19+59.35 (30.69' RT.)

BM #2 EL. 2822.64
PK NAIL IN SE CONC. WINGWALL OF
LOW WATER BRIDGE OVER
SOUTH NEW RIVER
88.1' LT. OF -BL- STA.16+68.2
10.9' NNE OF C/L SR 1179
-L- STA.19+58.90 (11.01' LT.)

BM #3 EL. 2840.67
8" SPIKE IN ROOT OF
20" FORKED YAHOO TREE
39.7' LT. OF -BL- STA.21+84.2
36.6' NE OF C/L SR 1179
-L- STA.24+66.20 (4.8' LT.)

BM #4 EL. 2840.27
8" SPIKE IN BASE OF
15" TWIN MAPLE TREE
203.8' LT. OF -BL- STA.24+88.0
64.4' NE OF C/L SR 1179



STRUCTURE HYDRAULIC DATA

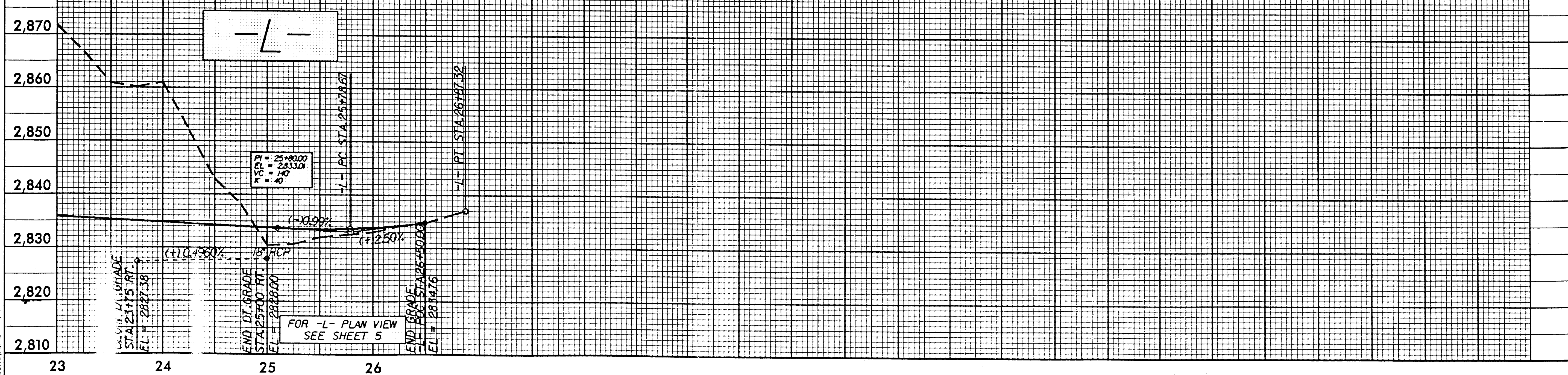
DESIGN DISCHARGE	=	10,300 CFS
DESIGN FREQUENCY	=	25 YRS
DESIGN HW ELEVATION	=	2829.36 FT
BASE DISCHARGE	=	23,631 CFS
BASE FREQUENCY	=	100 YRS
BASE HW ELEVATION	=	2836.10 FT
OVERTOPPING DISCHARGE	=	17,723 CFS
OVERTOPPING FREQUENCY	=	50 YRS
OVERTOPPING ELEVATION	=	2833.33 FT

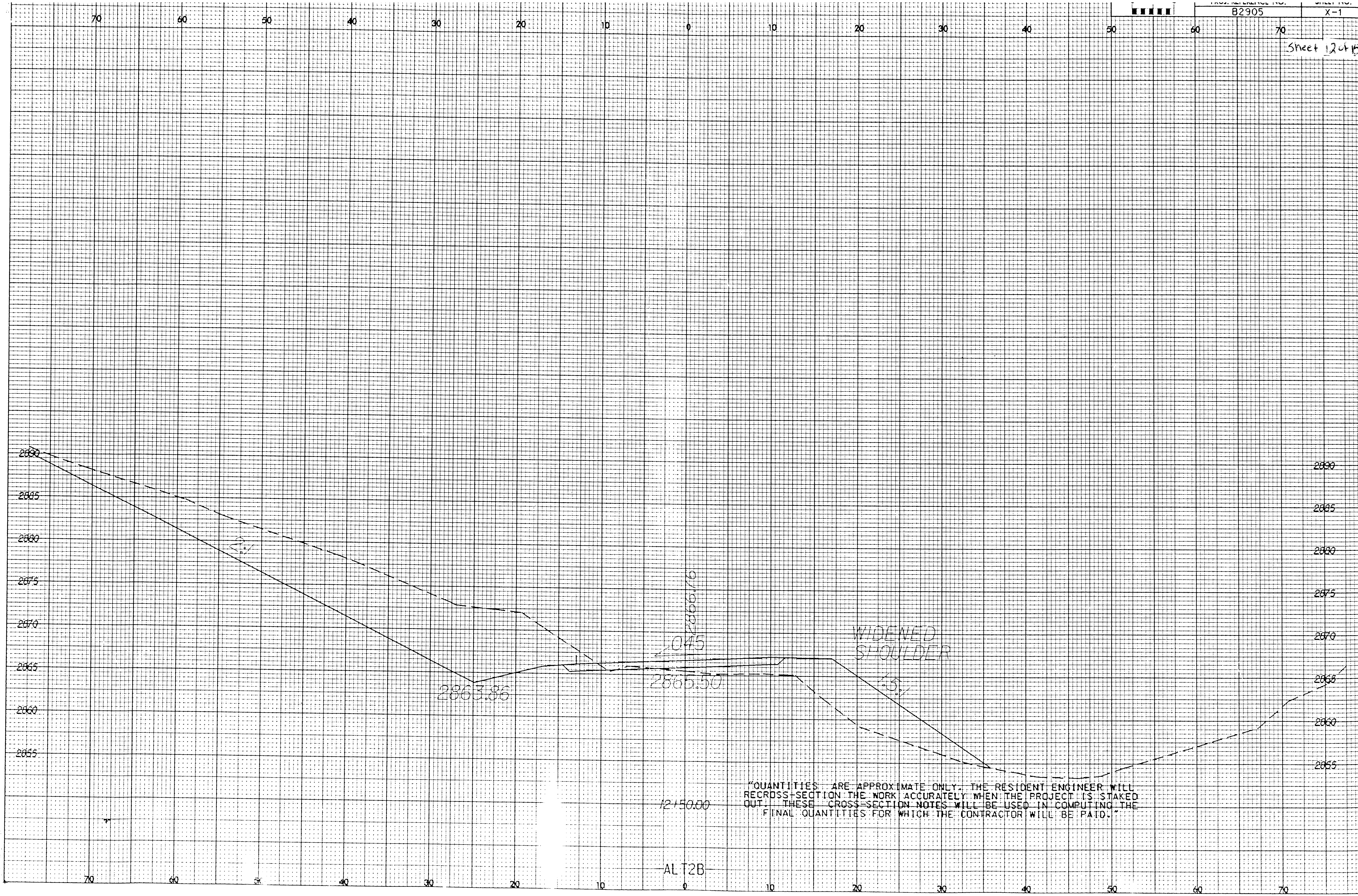
PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 1

DRAINAGE AREA	=	3.60 AC
DESIGN FREQUENCY	=	25 YRS
DESIGN DISCHARGE	=	5.85 CFS
DESIGN HW ELEVATION	=	2873.95 FT
100 YEAR DISCHARGE	=	6.84 CFS
100 YEAR HW ELEVATION	=	2874.13 FT
OVERTOPPING FREQUENCY	=	100+ YRS
OVERTOPPING DISCHARGE	=	9.90 CFS
OVERTOPPING ELEVATION	=	2874.98 FT

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 8

DRAINAGE AREA	=	1.93 AC
DESIGN FREQUENCY	=	25 YRS
DESIGN DISCHARGE	=	4.64 CFS
DESIGN HW ELEVATION	=	2832.46 FT
100 YEAR DISCHARGE	=	5.43 CFS
100 YEAR HW ELEVATION	=	2832.59 FT
OVERTOPPING FREQUENCY	=	100+ YRS
OVERTOPPING DISCHARGE	=	8.70 CFS
OVERTOPPING ELEVATION	=	2833.29 FT





"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."

B2905

X-2

Sheet 13 of 15

2895

2890

2885

2880

2875

2870

2865

2860

2855

2850

2859.42

2860.01

42" RCP

FILL IN SURFACE WATER

13+00.00

ALT2B

Project No. 8.2711301 (B-2905)
Property Owner List For Each Site

Site NO.	Station	Parcel NO.	Name DB and Pg	Address
1	-L- 18+14 Lt. to -L- 18+74	(1)	Dale M. Shepherd DB T4 Pg 492 DB C6 Pg 75	2219 NC Hwy 88 West West Jefferson, N.C. 28694
	-L- 19+35 to -L- 20+03 Lt.	(2)	Roy R. Church Sally H. Church DB 163 Pg 751	5375 Idlewild Rd. Fleetwood, N.C. 28626

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2711301 (B-2905)
PROPOSED REPLACEMENT OF
BRIDGE NO. 113 ON SR 1179
OVER SOUTH FORK NEW RIVER

3/29/01

IMPACT SUMMARY

			WETLAND IMPACTS				SURFACE WATER IMPACTS						BUFFER IMPACTS		
Site No.	Station (From/To)	Structure Size	Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	Temp. Fill In SW (ac)	Existing Channel Impacted (ft)	Relocated Channel (ft)	Enclosed Channel (ft)	Zone 1 (ac)	Zone 2 (ac)	Mech Clear (ac)
1a	-L- 12+40 Lt	42" Pipe					0.01			121					
	to 13+61														
1	-L- 18+14 Lt	BRIDGE							0.10						
	to 18+74														
1	-L- 19+35 Lt	BRIDGE							0.07						
	to 20+03														
		TOTALS:	0	0	0	0	0.01	0	0.17	121	0	0	0	0	0

2 bents in water @ 19.3 sq feet each
= 38.6 sq feet or ± 0.001 acre

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

ASHE COUNTY

PROJECT: 8.2711301
NCDOT T.I.P. No: B-2905

SHEET 15 of 15

Rev 12/22/04
9/14/2004

TIP PROJECT: B-2905

CONTRACT: C201199

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

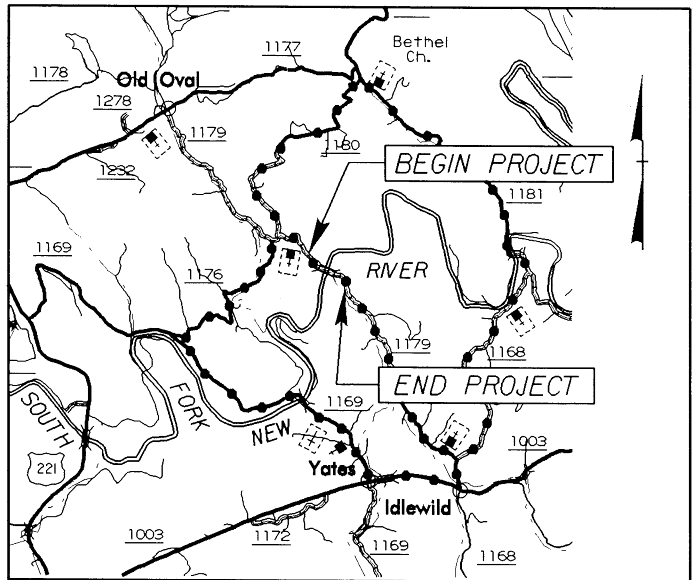
ASHE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2905	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
32751.1.1	BRZ-1179(1)	PE
32751.2.2	BRZ-1179(2)	R/W /UTIL

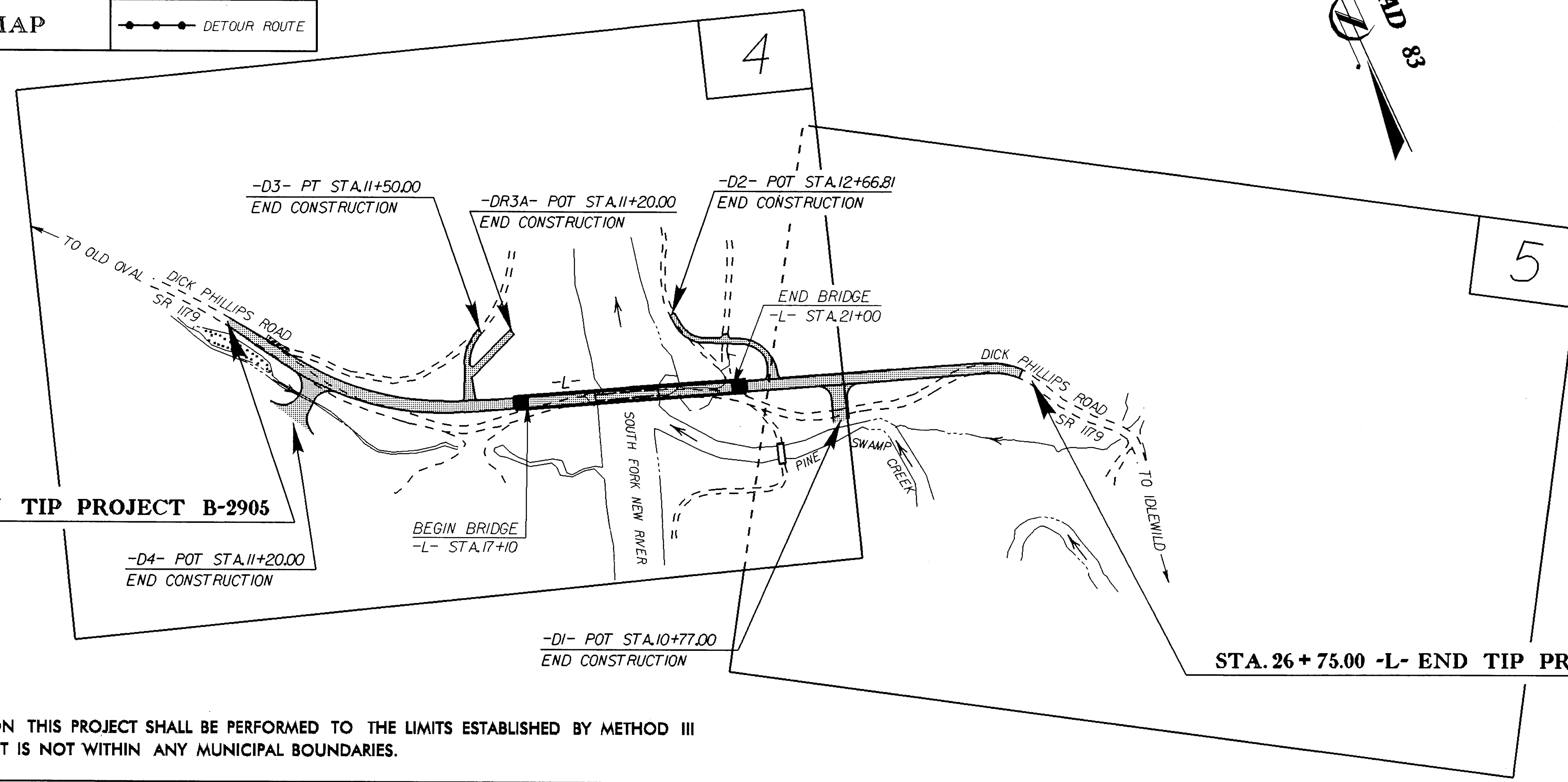
LOCATION: BRIDGE NO. 113 OVER SOUTH FORK NEW RIVER ON SR 1179

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE



VICINITY MAP — DETOUR ROUTE

NAD 83



NOTES: (1) CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III
(2) THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2004 = 200
ADT 2030 = 400
DHV = 10 %
D = 60 %
T = 3 % *
V = 40 MPH **

** DESIGN EXCEPTION REQ'D.

* TTST 1% DUAL 2%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-2905 = 0.224 mile
LENGTH STRUCTURE TIP PROJECT B-2905 = 0.074 mile
TOTAL LENGTH OF TIP PROJECT B-2905 = 0.298 mile

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

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY 6, 2004

LETTING DATE: APRIL 19, 2005

ROGER D. THOMAS, P.E.
PROJECT ENGINEER

MICHAEL W. LITTLE, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
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

05-NOV-2004 15:27
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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
B-2905	1-B

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CONVENTIONAL SYMBOLS

*S.U.E = SUBSURFACE UTILITY ENGINEER

ROADS & RELATED ITEMS

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

RIGHT OF WAY

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

HYDROLOGY

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

STRUCTURES

MAJOR

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

MINOR

- Head & End Wall
- Pipe Culvert
- Footbridge
- Drainage Boxes
- Paved Ditch Gutter

UTILITIES

- Exist. Pole
- Exist. Power Pole
- Prop. Power Pole
- Exist. Telephone Pole
- Prop. Telephone Pole
- Exist. Joint Use Pole
- Prop. Joint Use Pole
- Telephone Pedestal
- Cable TV Pedestal
- Hydrant
- Satellite Dish
- Exist. Water Valve
- Sewer Clean Out
- Power Manhole
- Telephone Booth
- Water Manhole
- Light Pole
- H-Frame Pole
- Power Line Tower
- Pole with Base
- Gas Valve
- Gas Meter
- Telephone Manhole
- Power Transformer
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Tank; Water, Gas, Oil
- Water Tank With Legs
- Traffic Signal Junction Box
- Fiber Optic Splice Box
- Television or Radio Tower
- Utility Power Line Connects to Traffic Signal Lines Cut Into the Pavement
- Recorded Water Line
- Designated Water Line (S.U.E.*)
- Sanitary Sewer
- Recorded Sanitary Sewer Force Main
- Designated Sanitary Sewer Force Main(S.U.E.*)
- Recorded Gas Line
- Designated Gas Line (S.U.E.*)
- Storm Sewer
- Recorded Power Line
- Designated Power Line (S.U.E.*)
- Recorded Telephone Cable
- Designated Telephone Cable (S.U.E.*)
- Recorded U/G Telephone Conduit
- Designated U/G Telephone Conduit (S.U.E.*)
- Unknown Utility (S.U.E.*)
- Recorded Television Cable
- Designated Television Cable (S.U.E.*)
- Recorded Fiber Optics Cable
- Designated Fiber Optics Cable (S.U.E.*)
- Exist. Water Meter
- U/G Test Hole (S.U.E.*)
- Abandoned According to U/G Record
- End of Information

BOUNDARIES & PROPERTIES

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

BUILDINGS & OTHER CULTURE

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

TOPOGRAPHY

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

VEGETATION

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

RAILROADS

- Standard Gauge
- RR Signal Milepost
- Switch

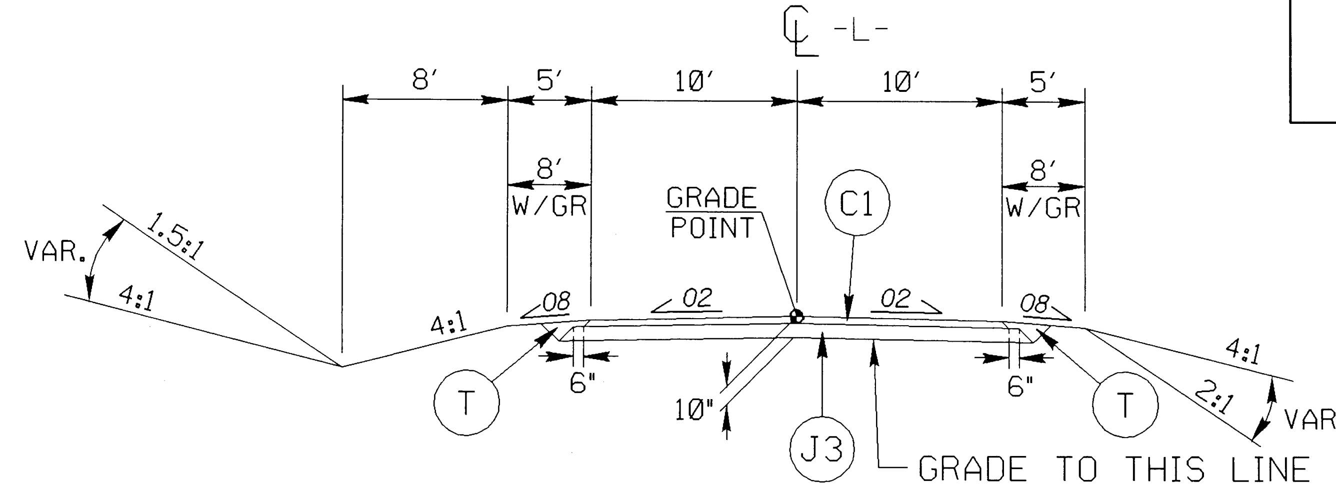
revised 02/25/97

PROJECT REFERENCE NO.	SHEET NO.
B-2905	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. APPROX. 2 ½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 140 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
J1	PROP. 4" AGGREGATE BASE COURSE
J2	PROP. 6" AGGREGATE BASE COURSE
J3	PROP. 8" AGGREGATE BASE COURSE
T	EARTH MATERIAL

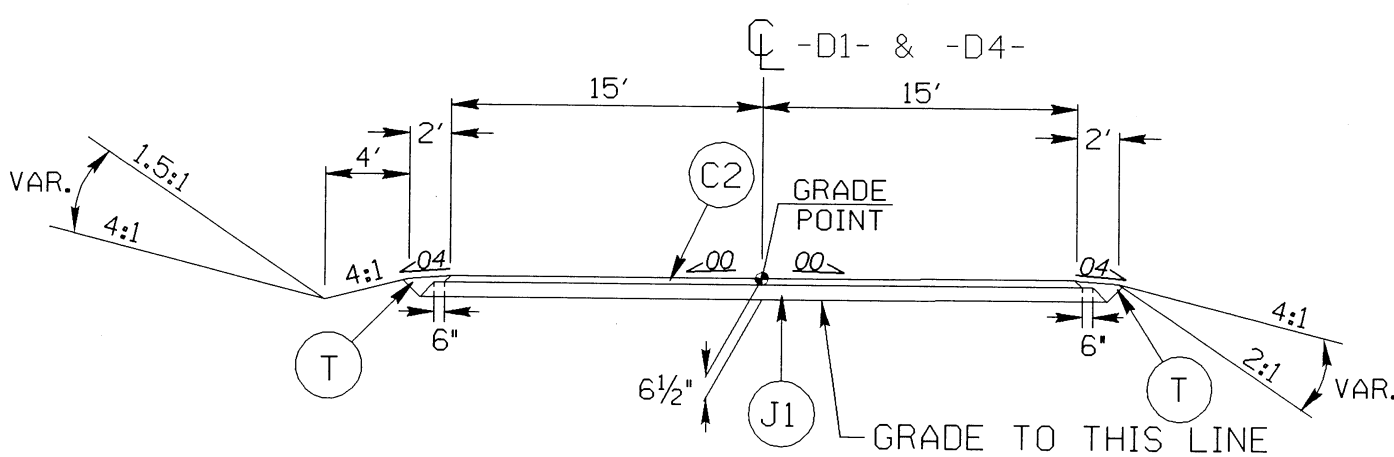
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



TYPICAL SECTION NO. 1

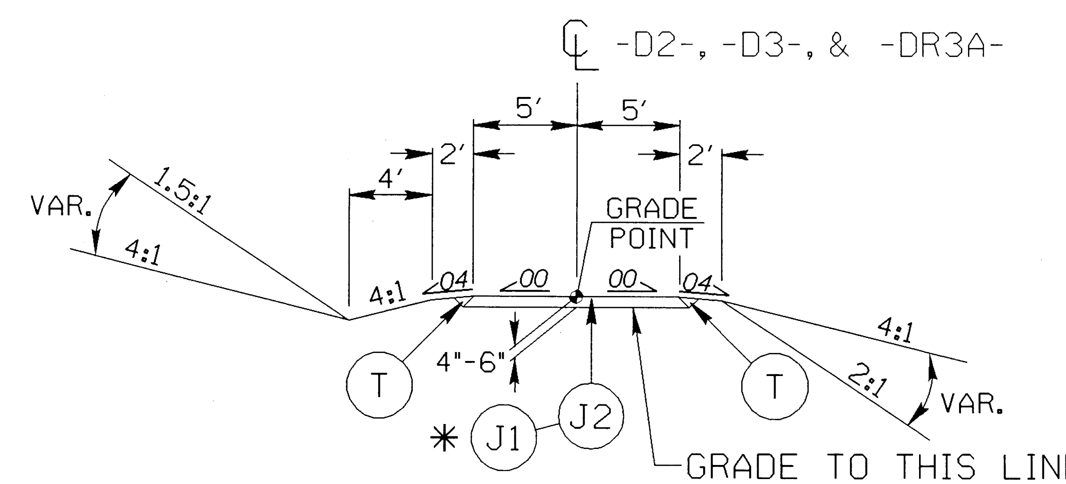
USE TYPICAL SECTION NO. 1
-L- Sta. 11+50 TO -L- Sta. 17+10 (BEGIN BRIDGE)
-L- Sta. 21+00 (END BRIDGE) TO -L- Sta. 26+50

NOTES: (1) TRANSITION FROM EXISTING TO T.S. NO. 1 -L- STA. 11+00 TO -L- STA. 11+50
(2) SEE PLANS FOR CURVE WIDENING -L- STA. 12+60 TO -L- STA. 15+50
(3) TRANSITION FROM EXISTING TO T.S. NO. 1 -D4- STA. 10+80 TO -D4- STA. 11+20



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
-D1- Sta. 10+10 TO -D1- Sta. 10+77
-D4- Sta. 10+00 TO -D4- Sta. 10+97



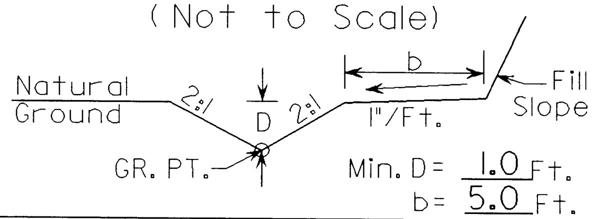
TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3
-D3- Sta. 10+10 TO -D3- Sta. 11+50.00
-DR3A- Sta. 10+10 TO -DR3A- Sta. 11+20.00
-D2- Sta. 10+10 TO -D2- Sta. 12+66.81 * USE J1

PROJECT REFERENCE NO.	SHEET NO.
B-2905	2-A
	HYDRAULICS DESIGN ENGINEER

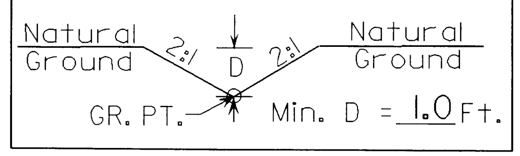
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DETAIL 'A'
LATERAL 'V' DITCH
(Not to Scale)



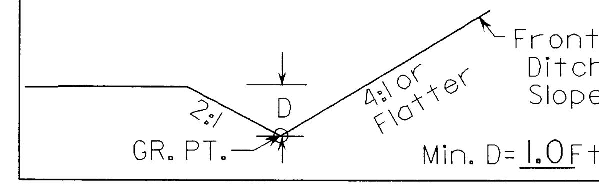
-L- STA. 16+52 to 17+10 (LT.)

DETAIL 'B'
'V' DITCH
(Not to Scale)



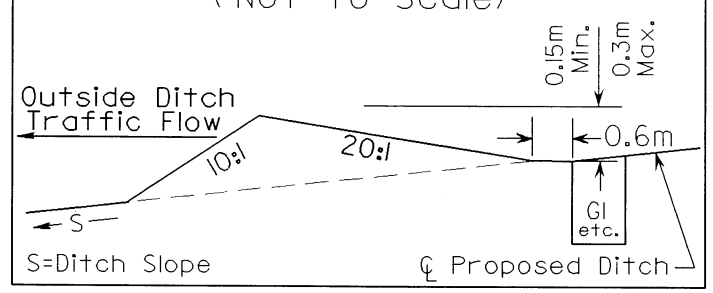
-L- STA. 17+10 to 18+25 (RT.)
-D2- STA. 12+50 (LT.)

DETAIL 'C'
SPECIAL CUT DITCH
(Not to Scale)



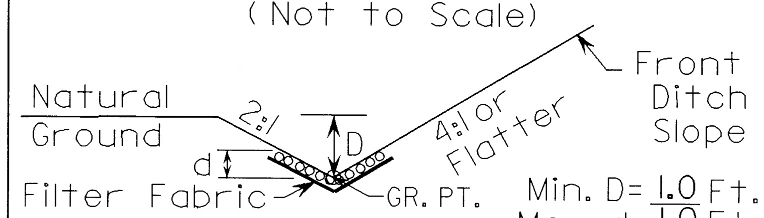
-L- STA. 23+75 to 25+00 (RT.)
-D2- STA. 12+00 to 12+50 (LT.)
-D2- STA. 12+00 to 12+50 (RT.)
-D3- STA. 11+00 to 11+50 (LT.)

DETAIL FSL
FALSE SUMP
(Not to Scale)



-L- STA. 11+60 (LT.)
-L- STA. 26+30 (LT.)

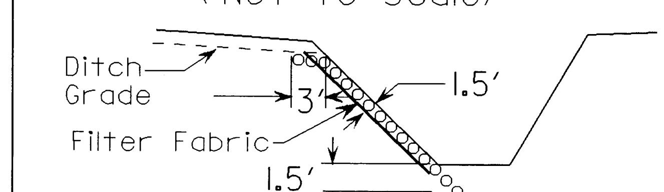
DETAIL 'D'
SPECIAL CUT DITCH
(Not to Scale)



Type of Liner = CLASS 'B'

-L- STA. 11+00 to 11+50 (LT.)
-L- STA. 15+00 to 15+50 (LT.)
-D3- STA. 10+57 to 11+00 (LT.)

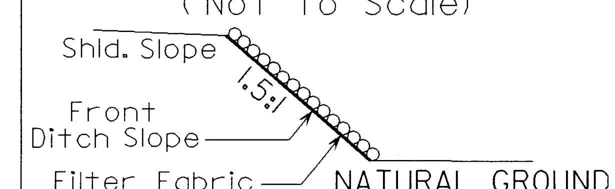
DETAIL 'E'
RIP RAP @ EMBANKMENT
(Not to Scale)



Type of Liner = CLASS 'I' (* CLASS 'II')

* -L- STA. 18+30 (LT.)
-L- STA. 23+50 to 24+00 (RT.)

DETAIL 'F'
CL. 'I' RIP RAP FILL SLOPE PLATING
(Not to Scale)



-L- STA. 12+00 to 12+60 (RT.)

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PROJECT REFERENCE NO.	SHEET NO.
B-2905	4
R/W SHEET NO.	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

R/W REV.- 1.- ADDED PARCEL 4A, DRIVE, AND TEMP. CONST. ESMT.
2.- RELOCTED DRIVE AND TEMP. CONST. ESMT.
11-02-04 MWL

-L- CURVE DATA

PI Sta 11+11.55	PI Sta 14+14.64
Δ = 7° 10' 24.1" (RT)	Δ = 39° 20' 30.2" (LT)
D = 4° 14' 38.9"	D = 10° 59' 50.2"
L = 169.02'	L = 357.74'
T = 84.62'	T = 186.25'
R = 1,350.00'	R = 521.00'
SUPER = AS SHOWN	SUPER = AS SHOWN

-DRIVE 2- CURVE DATA

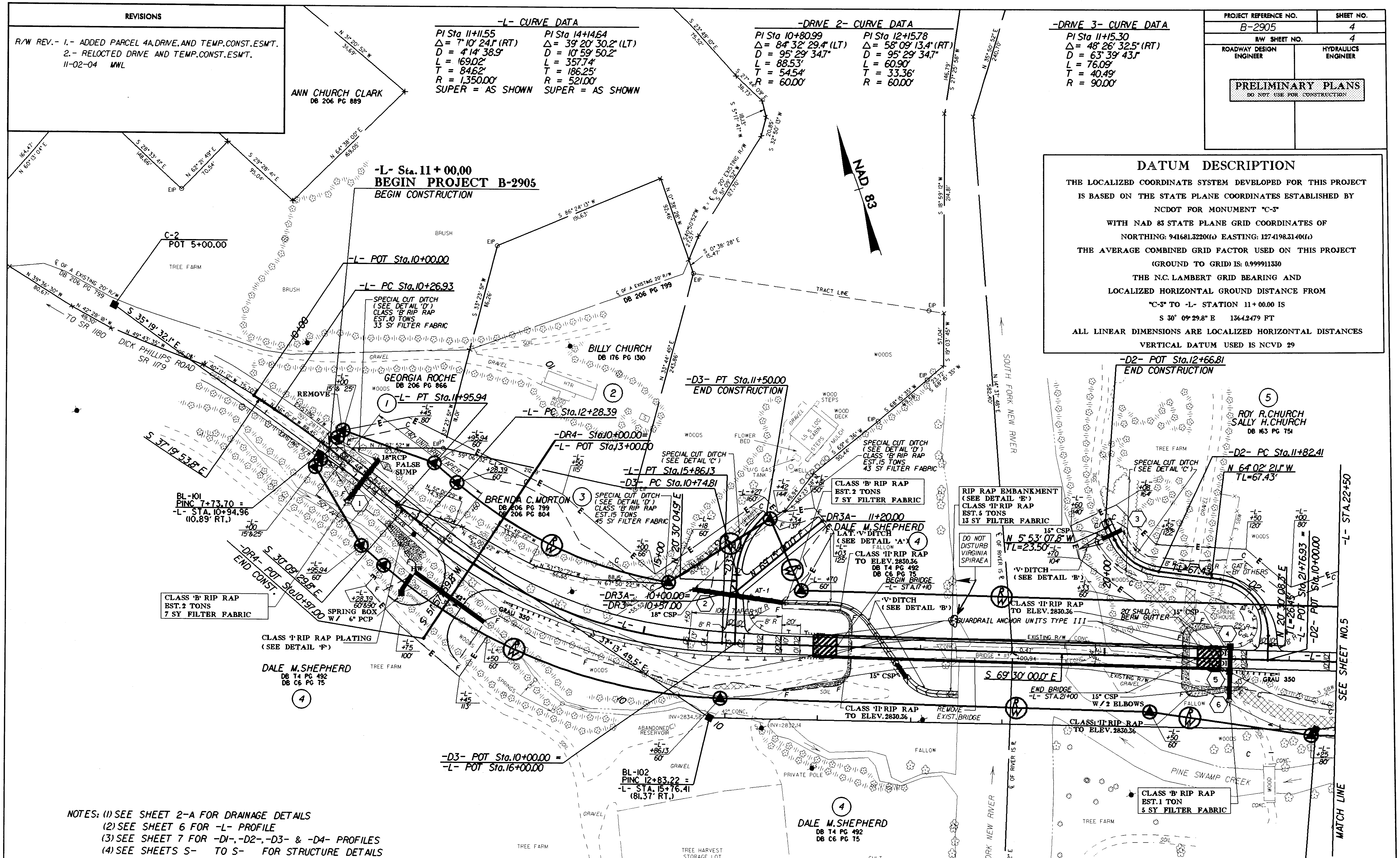
PI Sta 10+80.99	PI Sta 12+15.78
Δ = 84° 32' 29.4" (LT)	Δ = 58° 09' 13.4" (RT)
D = 95° 29' 34.7"	D = 95° 29' 34.7"
L = 88.53'	L = 60.90'
T = 54.54'	T = 33.36'
R = 60.00'	R = 60.00'

-DRIVE 3- CURVE DATA

PI Sta 11+15.30
Δ = 48° 26' 32.5" (RT)
D = 63° 39' 43.1"
L = 76.09'
T = 40.49'
R = 90.00'

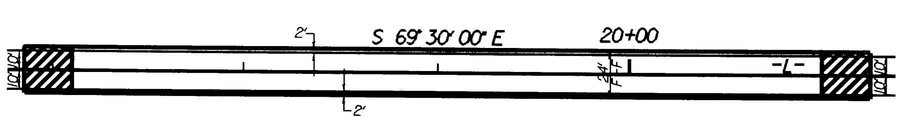
DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "C-3"
WITH NAD 83 STATE PLANE GRID COORDINATES OF
NORTHING: 941681.3220(ft) EASTING: 1274198.3140(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991330
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "C-3" TO -L- STATION 11+00.00 IS
S 30° 09' 29.8" E 1364.2479 FT
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NCVD 29



-L- Sta. 11+00.00
BEGIN PROJECT B-2905
BEGIN CONSTRUCTION
NAD 83
ANN CHURCH CLARK
DB 206 PG 889
C-2
POT 5+00.00
-L- POT Sta. 10+00.00
-L- PC Sta. 10+26.93
SPECIAL CUT DITCH (SEE DETAIL 'D') CLASS 'B' RIP RAP EST. 10 TONS 33 SY FILTER FABRIC
TO SR 1180
DICK PHILLIPS ROAD SR 1179
GEORGIA ROCHE
DB 206 PG 866
BILLY CHURCH
DB 176 PG 1310
-L- PT Sta. 11+95.94
-L- PC Sta. 12+28.39
-DR4- Sta. 10+00.00 =
-L- POT Sta. 13+00.00
BRENDA C. MORTON
DB 206 PG 799
DB 206 PG 804
SPECIAL CUT DITCH (SEE DETAIL 'D') CLASS 'B' RIP RAP EST. 15 TONS 45 SY FILTER FABRIC
-D3- PT Sta. 11+50.00
END CONSTRUCTION
-L- PT Sta. 15+86.13
-D3- PC Sta. 10+74.81
SPECIAL CUT DITCH (SEE DETAIL 'C')
SPECIAL CUT DITCH (SEE DETAIL 'D') CLASS 'B' RIP RAP EST. 15 TONS 43 SY FILTER FABRIC
CLASS 'B' RIP RAP EST. 2 TONS 7 SY FILTER FABRIC
-DR3A- 11+20.00
DALE M. SHEPHERD
DB T4 PG 492
DB C6 PG 75
LAT. 'V' DITCH (SEE DETAIL 'A')
CLASS 'II' RIP RAP TO ELEV. 2830.36
BEGIN BRIDGE -L- STA. 17+10
RIP RAP EMBANKMENT (SEE DETAIL 'E') CLASS 'II' RIP RAP EST. 5 TONS 13 SY FILTER FABRIC
DO NOT DISTURB VIRGINIA SPIRAEA
'V' DITCH (SEE DETAIL 'B')
-D2- POT Sta. 12+66.81
END CONSTRUCTION
ROY R. CHURCH
SALLY H. CHURCH
DB 163 PG 751
-D2- PC Sta. 11+82.41
N 64° 02' 21.1" W
TL=67.43'
SOUTH FORK NEW RIVER
BL-101
PINC 7+73.70 =
-L- STA. 10+94.96
(10.89' RT.)
-DR4- POT Sta. 10+97.00
END CONST.
CLASS 'B' RIP RAP EST. 2 TONS 7 SY FILTER FABRIC
SPRING BOX W/ 6" PCP
CLASS 'I' RIP RAP PLATING (SEE DETAIL 'F')
-DR3A- 10+00.00 =
-DR3- 10+57.00
CLASS 'II' RIP RAP TO ELEV. 2830.36
GUARDRAIL ANCHOR UNITS TYPE III
20' SHLD. BERM GUTTER
S 69° 30' 00.0" E
END BRIDGE -L- STA. 21+00
15" CSP W/2 ELBOWS
CLASS 'II' RIP RAP TO ELEV. 2830.36
REMOVE EXIST. BRIDGE
-L- STA 22+50
SEE SHEET NO. 5
MATCH LINE
-L- STA. 21+76.93 =
-D2- POT Sta. 10+00.00
-D3- POT Sta. 10+00.00 =
-L- POT Sta. 16+00.00
BL-102
PINC 12+83.22 =
-L- STA. 15+76.41
(81.37' RT.)
TREE HARVEST STORAGE LOT WITH POWER AND WATER
PINE SWAMP CREEK
CLASS 'B' RIP RAP EST. 1 TON 5 SY FILTER FABRIC
BL-103
PINC 19+37.69 =
-L- STA. 22+29.33
(74.16' RT.)

NOTES: (1) SEE SHEET 2-A FOR DRAINAGE DETAILS
(2) SEE SHEET 6 FOR -L- PROFILE
(3) SEE SHEET 7 FOR -D1-, -D2-, -D3- & -D4- PROFILES
(4) SEE SHEETS S- TO S- FOR STRUCTURE DETAILS



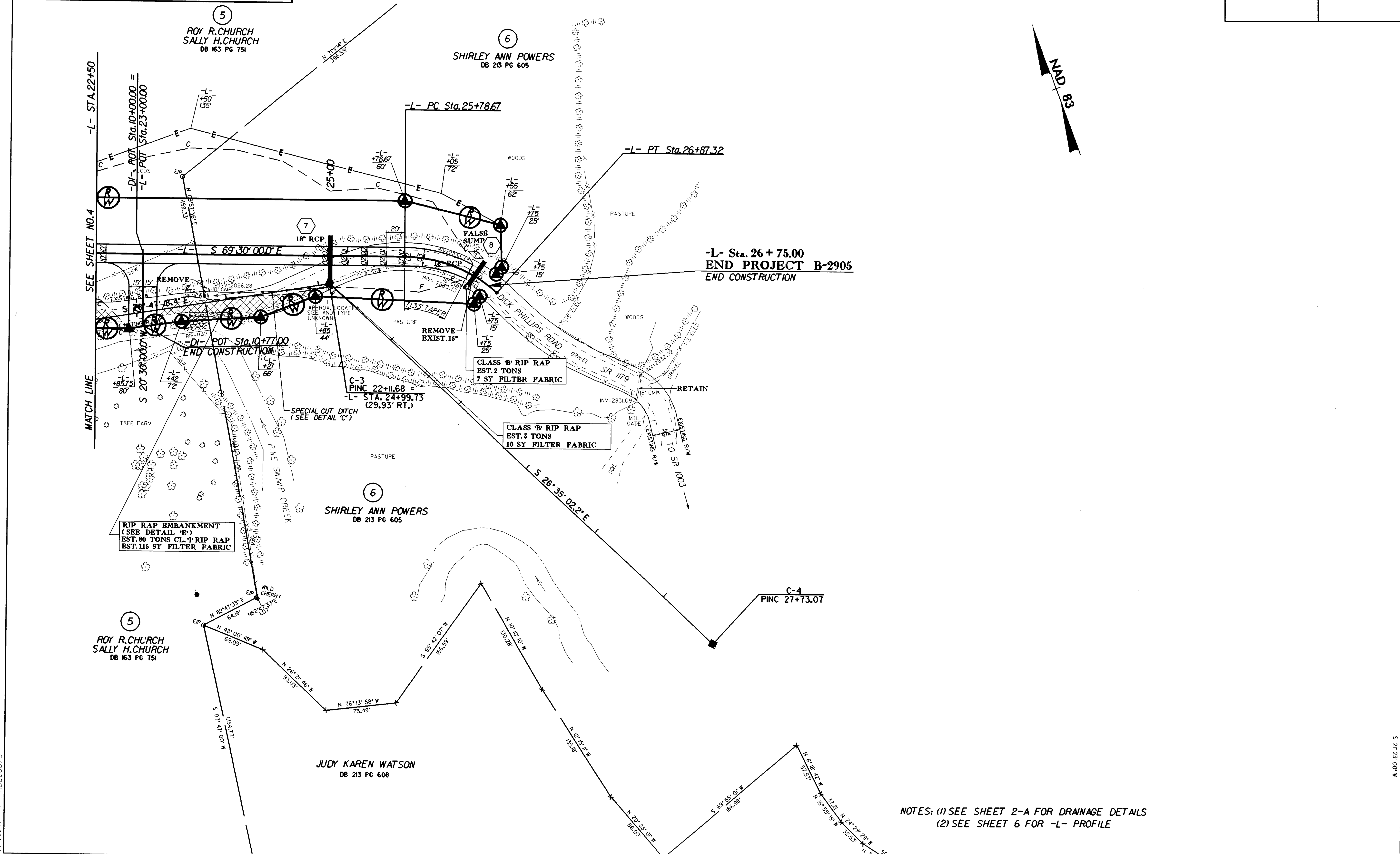
SKETCH SHOWING BRIDGE IN RELATIONSHIP TO PAVEMENT
(NOT TO SCALE)

REVISIONS
R/W REV.- PARCEL 5 - MOVE DRIVEWAY TO -L- STA.23+00 9-29-04 MWL

PROJECT REFERENCE NO.	SHEET NO.
B-2905	5
R/W SHEET NO.	5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L- CURVE DATA
PI Sta 26+35.50
Δ = 41° 30' 00.0" (RT)
D = 38° 11' 49.9"
L = 108.6467'
T = 56.8299'
R = 150.0000'
SUPER = AS SHOWN



NAD 83
ROY R.CHURCH
SALLY H.CHURCH
DB 163 PG 751
SHIRLEY ANN POWERS
DB 213 PG 605
-L- STA.22+50
SEE SHEET NO.4
MATCH LINE
-DI- POT Sta.10+00.00 =
-L- POT Sta.23+00.00
-L- PC Sta.25+78.67
-L- PT Sta.26+87.32
-L- Sta. 26 + 75.00
END PROJECT B-2905
END CONSTRUCTION
-L- S 69° 30' 00.0" E
18" RCP
FALSE SUMP
REMOVE
REMOVE EXIST.15"
-DI- POT Sta.10+77.00
END CONSTRUCTION
APPROX. LOCATION SIZE AND TYPE UNKNOWN
C-3
PINC 22+11.68 =
-L- STA. 24+99.73
(29.93' RT.)
SPECIAL CUT DITCH
(SEE DETAIL 'C')
CLASS 'B' RIP RAP
EST. 2 TONS
7 SY FILTER FABRIC
CLASS 'B' RIP RAP
EST. 3 TONS
10 SY FILTER FABRIC
RIP RAP EMBANKMENT
(SEE DETAIL 'E')
EST. 80 TONS CL.'I' RIP RAP
EST. 115 SY FILTER FABRIC
DICK PHILLIPS ROAD
SR 1179
TO SR 1003
RETAIN
WOODS
PASTURE
TREE FARM
PINE SWAMP CREEK
S 26° 35' 02.2" E
C-4
PINC 27+73.07
JUDY KAREN WATSON
DB 213 PG 608
NOTES: (1) SEE SHEET 2-A FOR DRAINAGE DETAILS
(2) SEE SHEET 6 FOR -L- PROFILE

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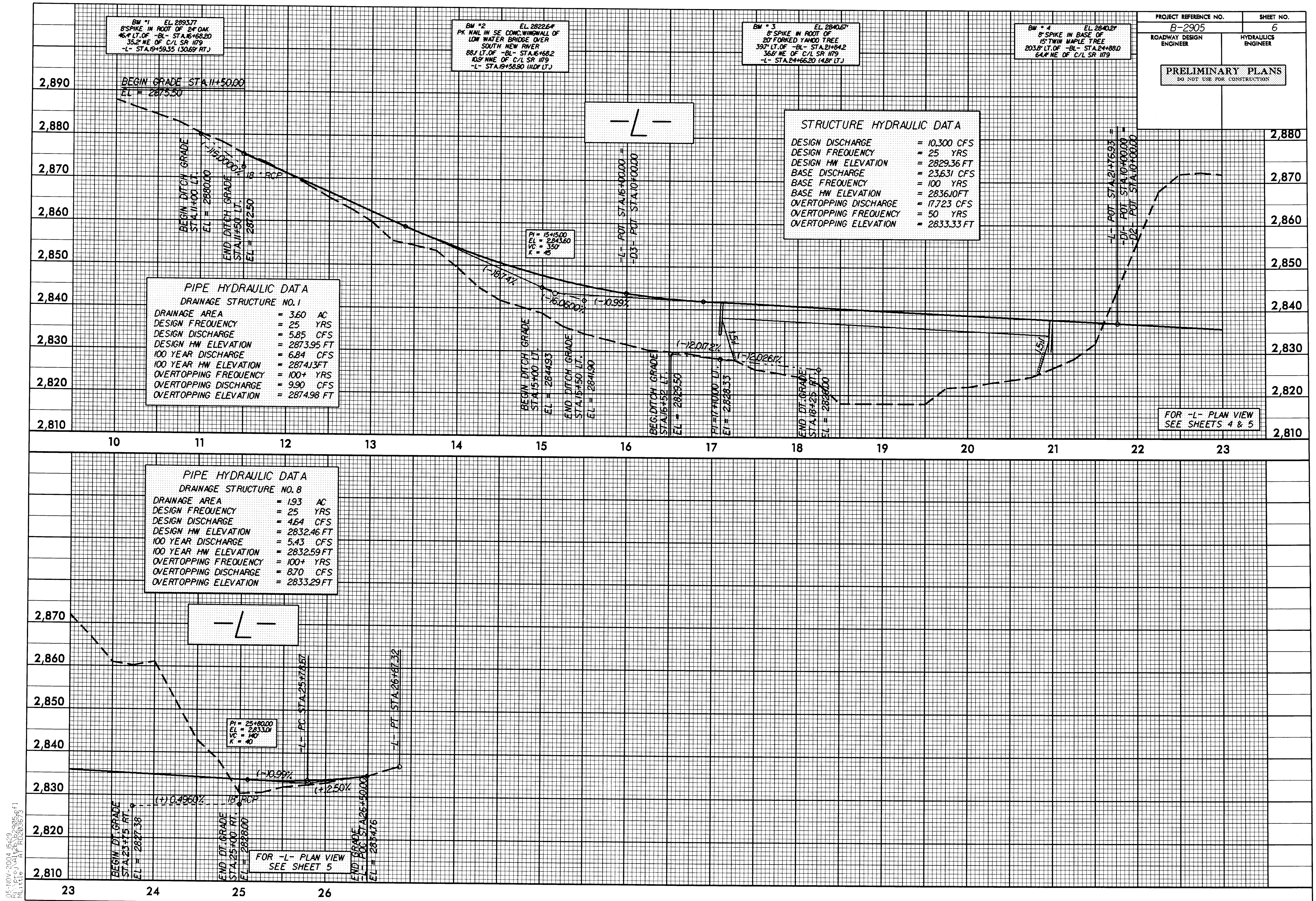
PROJECT REFERENCE NO. B-2905
SHEET NO. 6
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
BM #1 EL. 2893.77
8" SPIKE IN ROOT OF 24" OAK
46.4' LT. OF -BL- STA.16+68.20
35.2' NE OF C/L SR 1179
-L- STA.19+59.35 (30.69' RT.)
BM #2 EL. 2822.64
PK NAIL IN SE CONC. WINGWALL OF
LOW WATER BRIDGE OVER
SOUTH NEW RIVER
88.1' LT. OF -BL- STA.16+68.2
10.9' NNE OF C/L SR 1179
-L- STA.19+58.90 (11.01' LT.)
BM #3 EL. 2840.67
8" SPIKE IN ROOT OF
20" FORKED YAHOO TREE
39.7' LT. OF -BL- STA.21+84.2
36.6' NE OF C/L SR 1179
-L- STA.24+65.20 (4.8' LT.)
BM #4 EL. 2840.27
8" SPIKE IN BASE OF
15" TWIN MAPLE TREE
203.8' LT. OF -BL- STA.24+88.0
64.4' NE OF C/L SR 1179
BEGIN GRADE STA.11+50.00
EL = 2875.50
-L-
STRUCTURE HYDRAULIC DATA
DESIGN DISCHARGE = 10,300 CFS
DESIGN FREQUENCY = 25 YRS
DESIGN HW ELEVATION = 2829.36 FT
BASE DISCHARGE = 23,631 CFS
BASE FREQUENCY = 100 YRS
BASE HW ELEVATION = 2836.10 FT
OVERTOPPING DISCHARGE = 17,723 CFS
OVERTOPPING FREQUENCY = 50 YRS
OVERTOPPING ELEVATION = 2833.33 FT
BEGIN DITCH GRADE STA.11+00 LT. EL = 2880.00
END DITCH GRADE STA.11+50 LT. EL = 2872.50
(-)15.0000%
18" RCP
PI = 15+15.00
EL = 2843.60
VC = 350'
K = 45
-L- POT STA.16+00.00 = -D3- POT STA.10+00.00
(-)18.7.4%
(-)6.0600%
(-)0.99%
PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 1
DRAINAGE AREA = 3.60 AC
DESIGN FREQUENCY = 25 YRS
DESIGN DISCHARGE = 5.85 CFS
DESIGN HW ELEVATION = 2873.95 FT
100 YEAR DISCHARGE = 6.84 CFS
100 YEAR HW ELEVATION = 2874.13 FT
OVERTOPPING FREQUENCY = 100+ YRS
OVERTOPPING DISCHARGE = 9.90 CFS
OVERTOPPING ELEVATION = 2874.98 FT
BEGIN DITCH GRADE STA.15+00 LT. EL = 2844.93
END DITCH GRADE STA.15+50 LT. EL = 2841.90
BEG. DITCH GRADE STA.16+52 LT. EL = 2829.50
PI = 17+10.00 LT. EL = 2828.53
(-)2.0172%
(-)2.0261%
1.5:1
END DT. GRADE STA.18+25 RT. EL = 2826.00
-L- POT STA.21+76.93 = -D1- POT STA.10+00.00 = -D2- POT STA.10+00.00
FOR -L- PLAN VIEW SEE SHEETS 4 & 5
2,890 2,880 2,870 2,860 2,850 2,840 2,830 2,820 2,810
10 11 12 13 14 15 16 17 18 19 20 21 22 23
PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 8
DRAINAGE AREA = 1.93 AC
DESIGN FREQUENCY = 25 YRS
DESIGN DISCHARGE = 4.64 CFS
DESIGN HW ELEVATION = 2832.46 FT
100 YEAR DISCHARGE = 5.43 CFS
100 YEAR HW ELEVATION = 2832.59 FT
OVERTOPPING FREQUENCY = 100+ YRS
OVERTOPPING DISCHARGE = 8.70 CFS
OVERTOPPING ELEVATION = 2833.29 FT
-L-
PI = 25+80.00
EL = 2833.01
VC = 140'
K = 40
-L- PC STA.25+76.67
-L- PT STA.26+67.32
(-)0.99%
(+)2.50%
(+)0.4960%
18" RCP
BEGIN DT. GRADE STA.23+75 RT. EL = 2827.38
END DT. GRADE STA.25+00 RT. EL = 2828.00
END GRADE -L- POC STA.26+50.00 EL = 2834.76
FOR -L- PLAN VIEW SEE SHEET 5
2,870 2,860 2,850 2,840 2,830 2,820 2,810
23 24 25 26
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PROJECT REFERENCE NO.	SHEET NO.
B-2905	7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

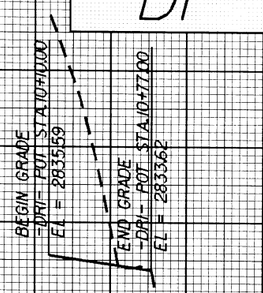
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PIPE HYDRAULIC DATA

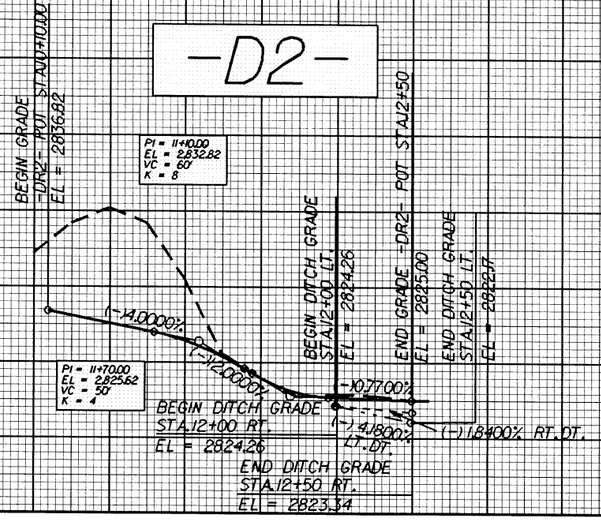
DRAINAGE STRUCTURE NO. 2

DRAINAGE AREA	= 2.30	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 3.74	CFS
DESIGN HW ELEVATION	= 2842.28	FT
100 YEAR DISCHARGE	= 4.37	CFS
100 YEAR HW ELEVATION	= 2842.39	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 8.80	CFS
OVERTOPPING ELEVATION	= 2843.40	FT

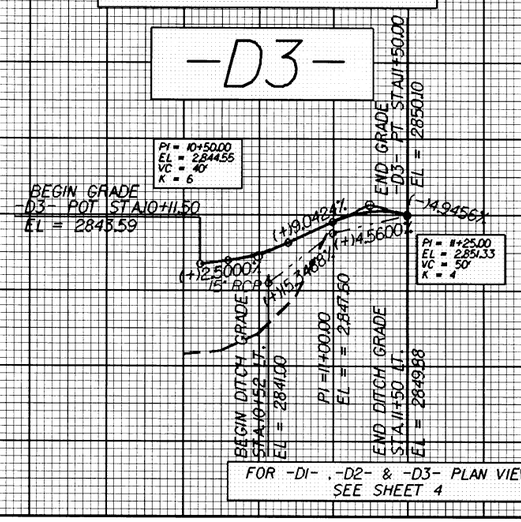
-D1-



-D2-

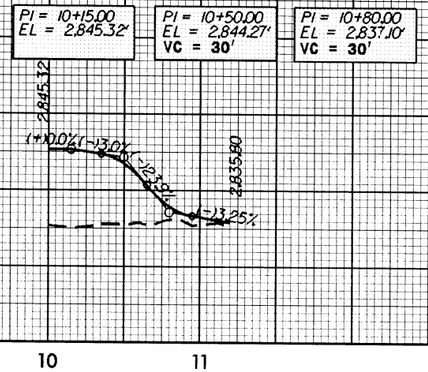


-D3-



FOR -D1- ,-D2- & -D3- PLAN VIEW
SEE SHEET 4

-DR3A-



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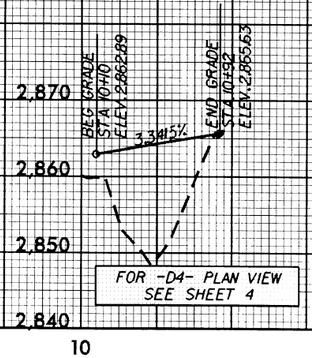
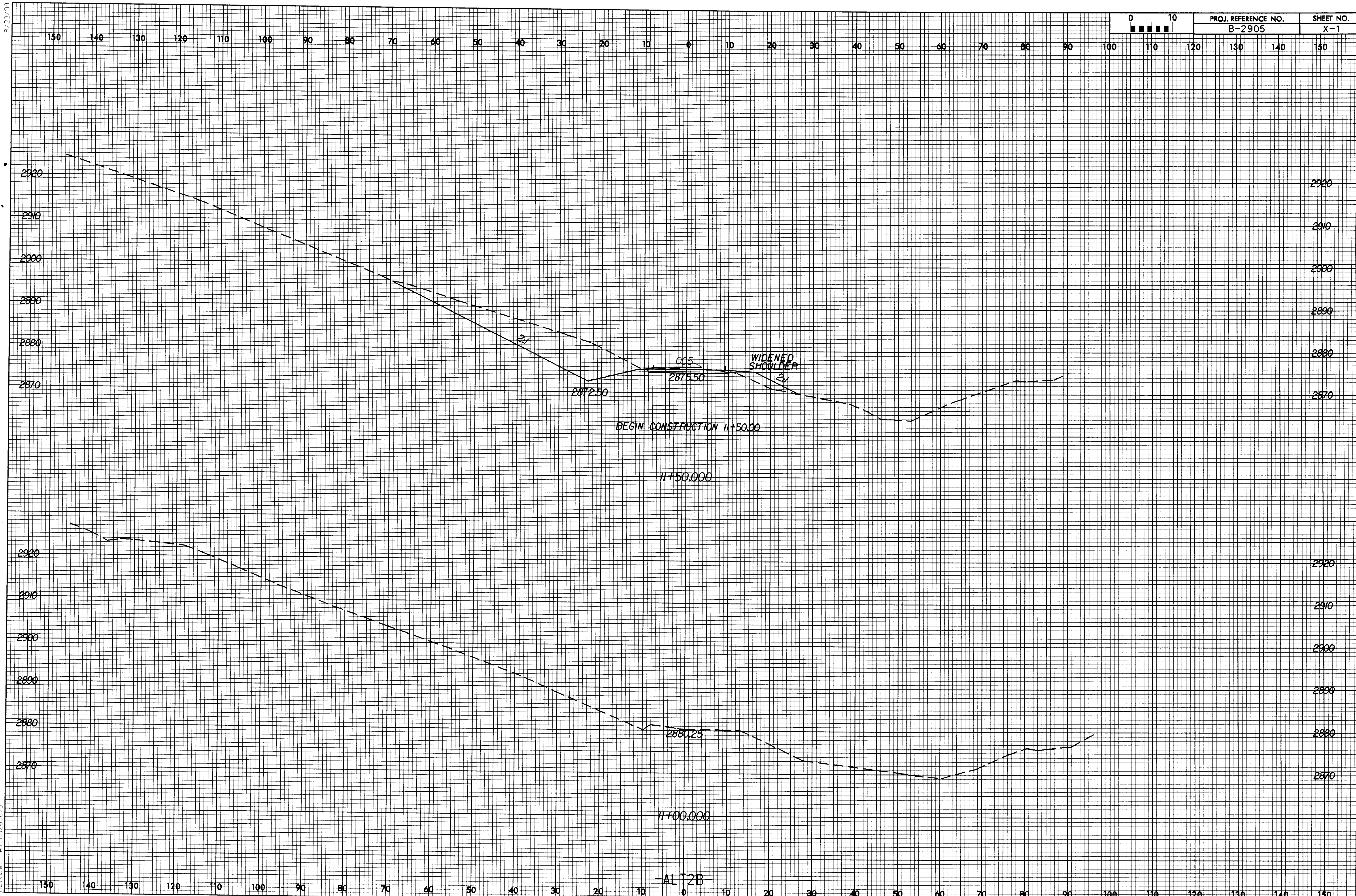


FOR -D4- PLAN VIEW
SEE SHEET 4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PROJ. REFERENCE NO.
B-2905
SHEET NO.
X-1
0 10
2920
2910
2900
2890
2880
2870
2:1
.005
WIDENED SHOULDER
2:1
2875.50
2872.50
BEGIN CONSTRUCTION 11+50.00
11+50.000
2880.25
11+00.000
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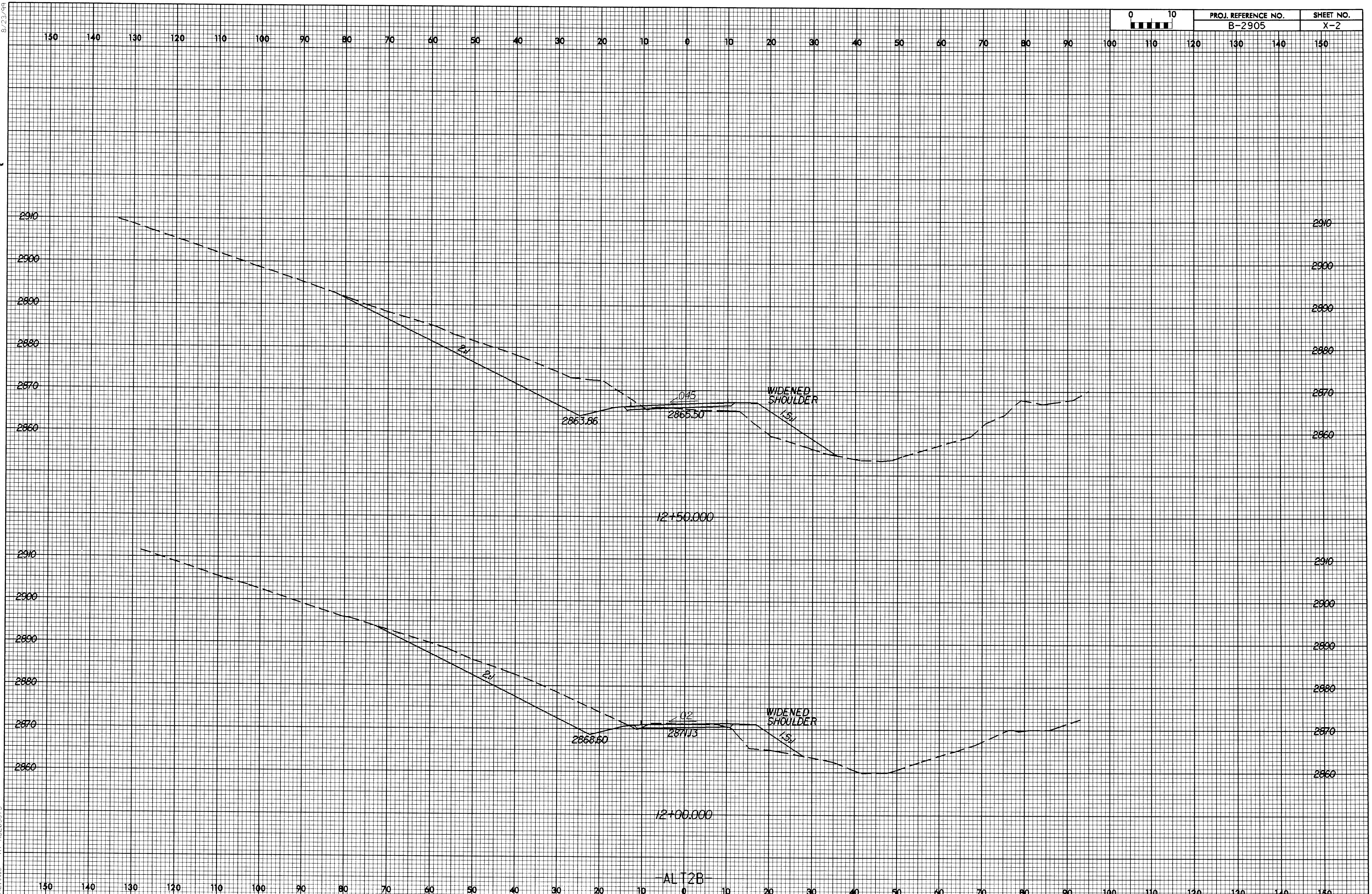
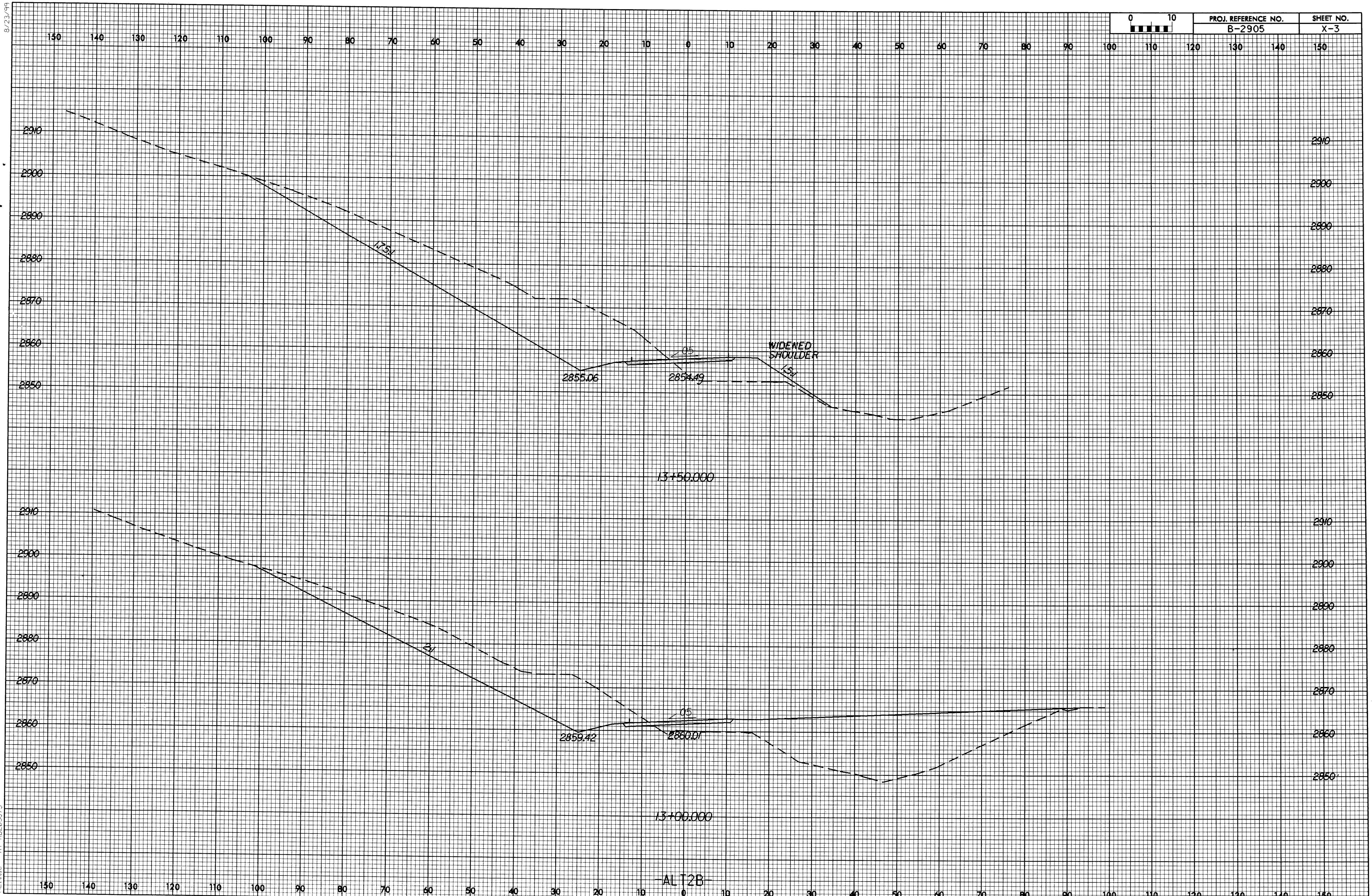
PROJ. REFERENCE NO.	SHEET NO.
B-2905	X-2





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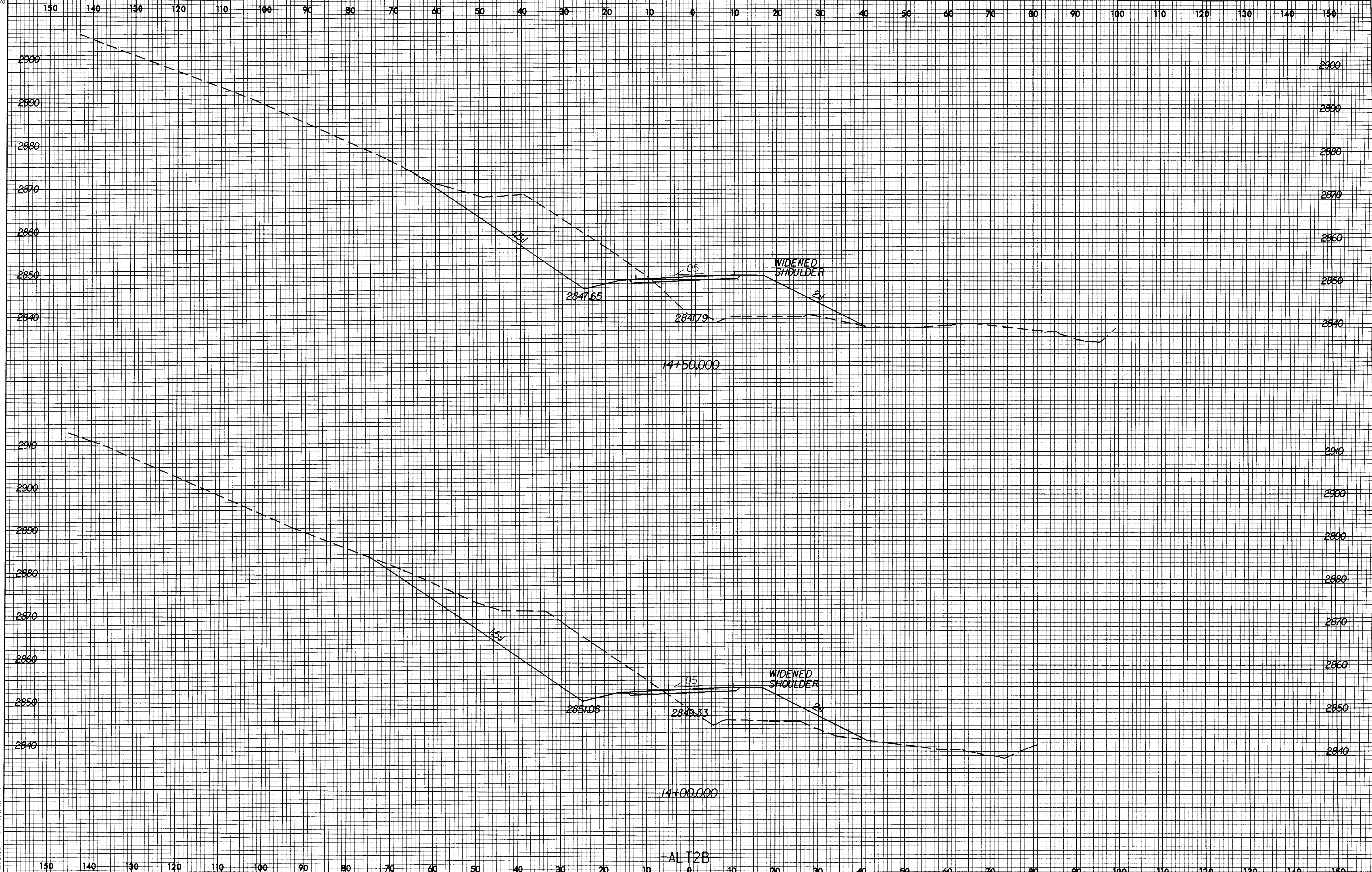
PROJ. REFERENCE NO.	SHEET NO.
B-2905	X-4

8/23/99



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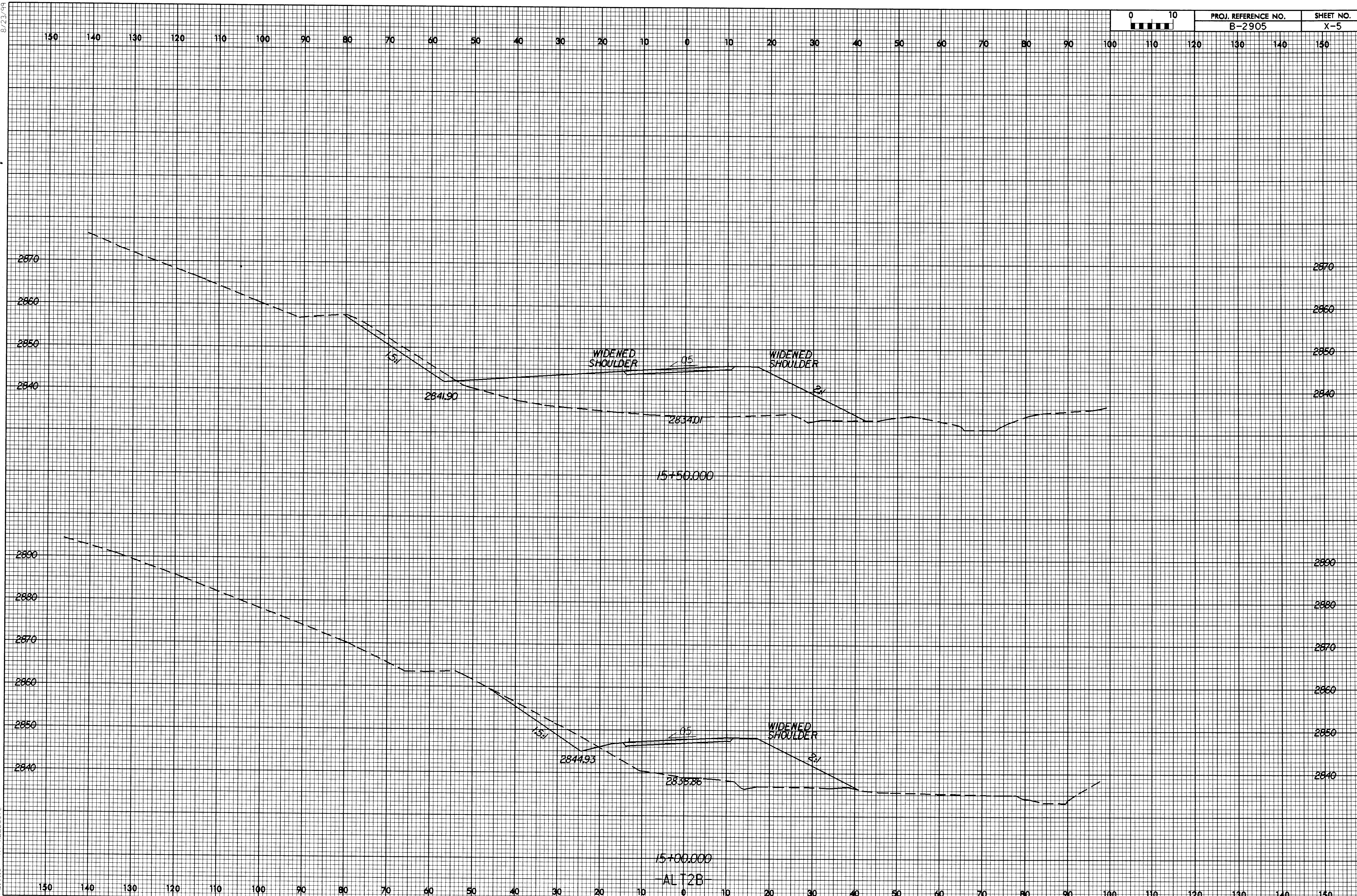

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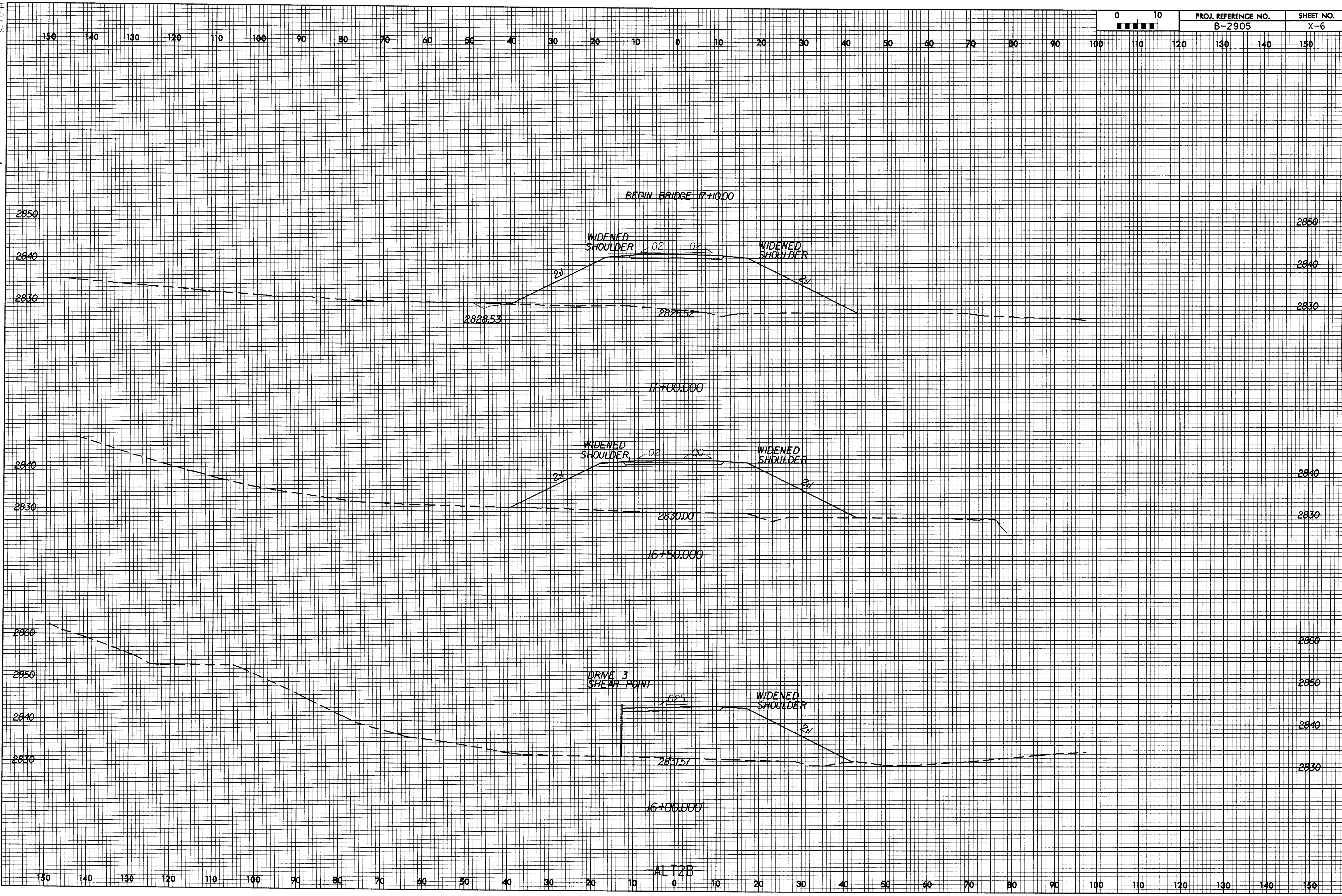

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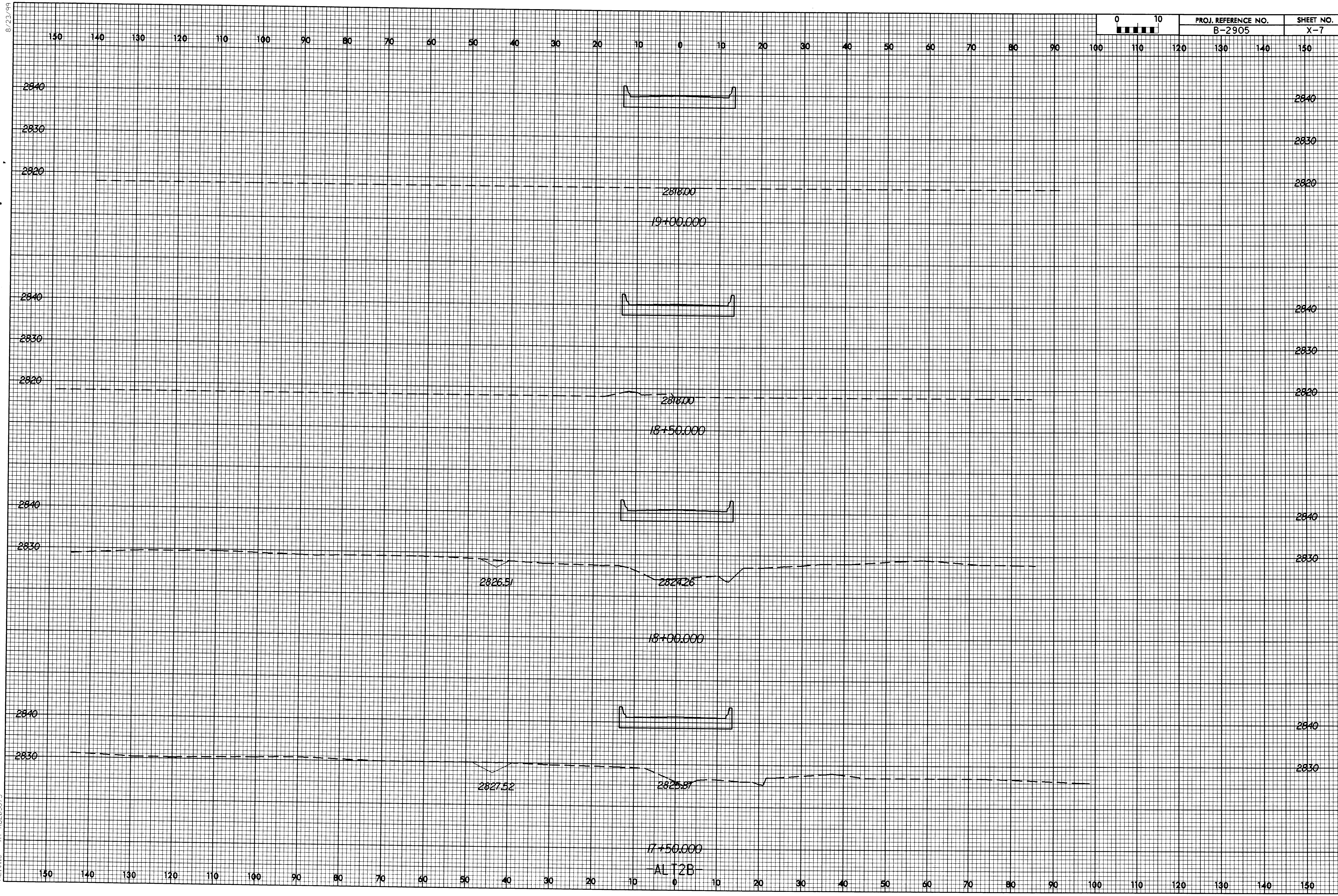

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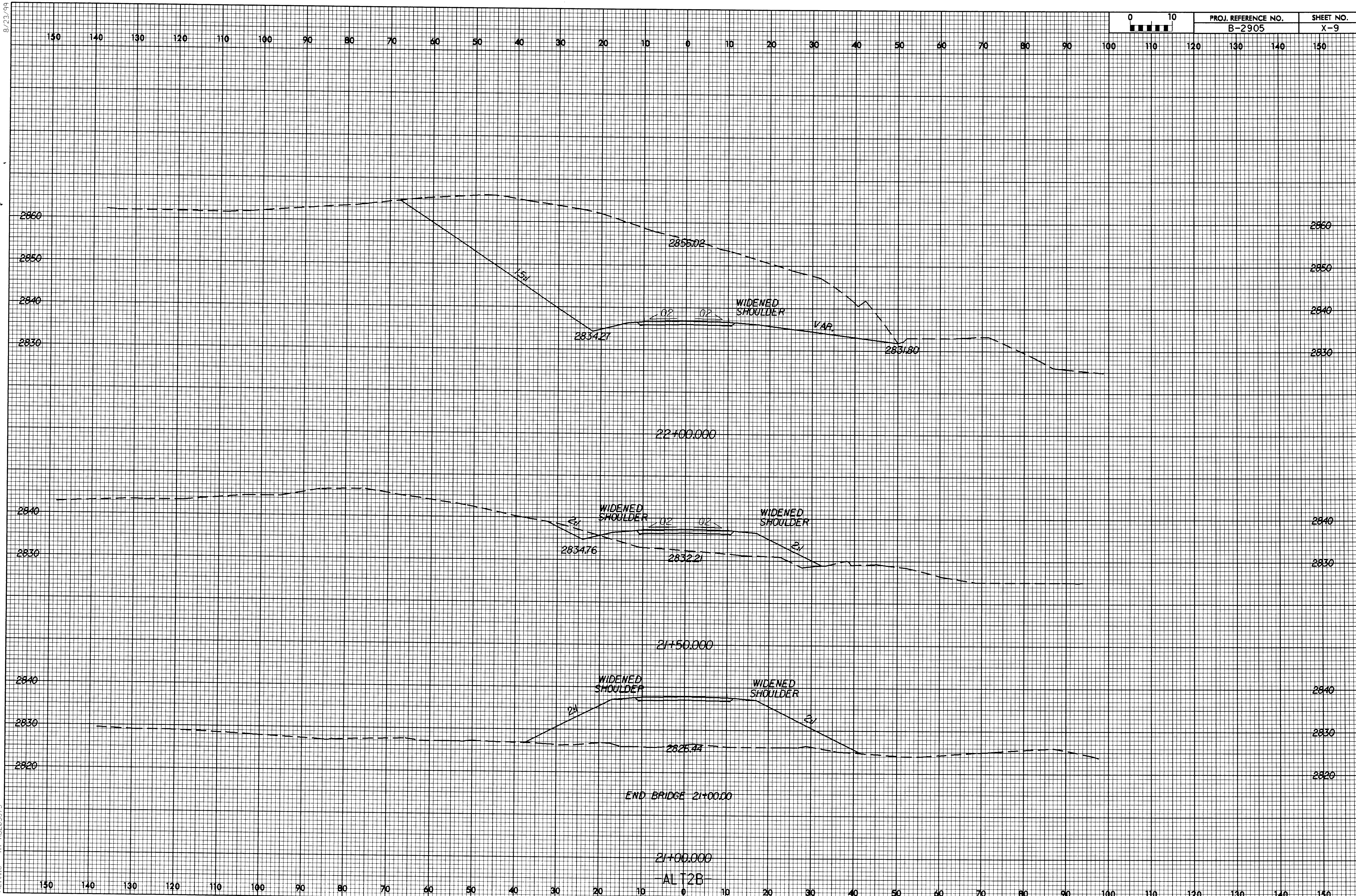

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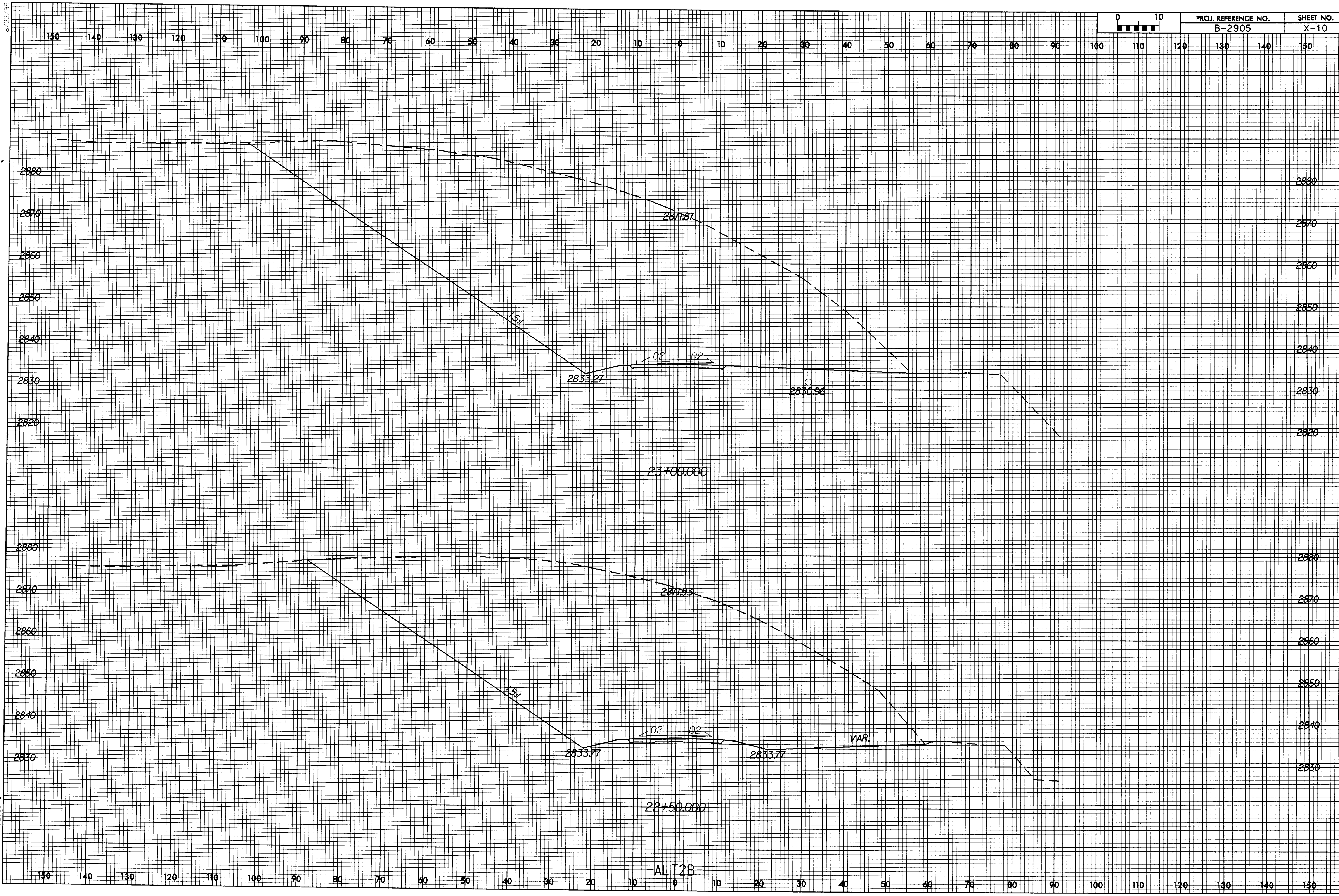

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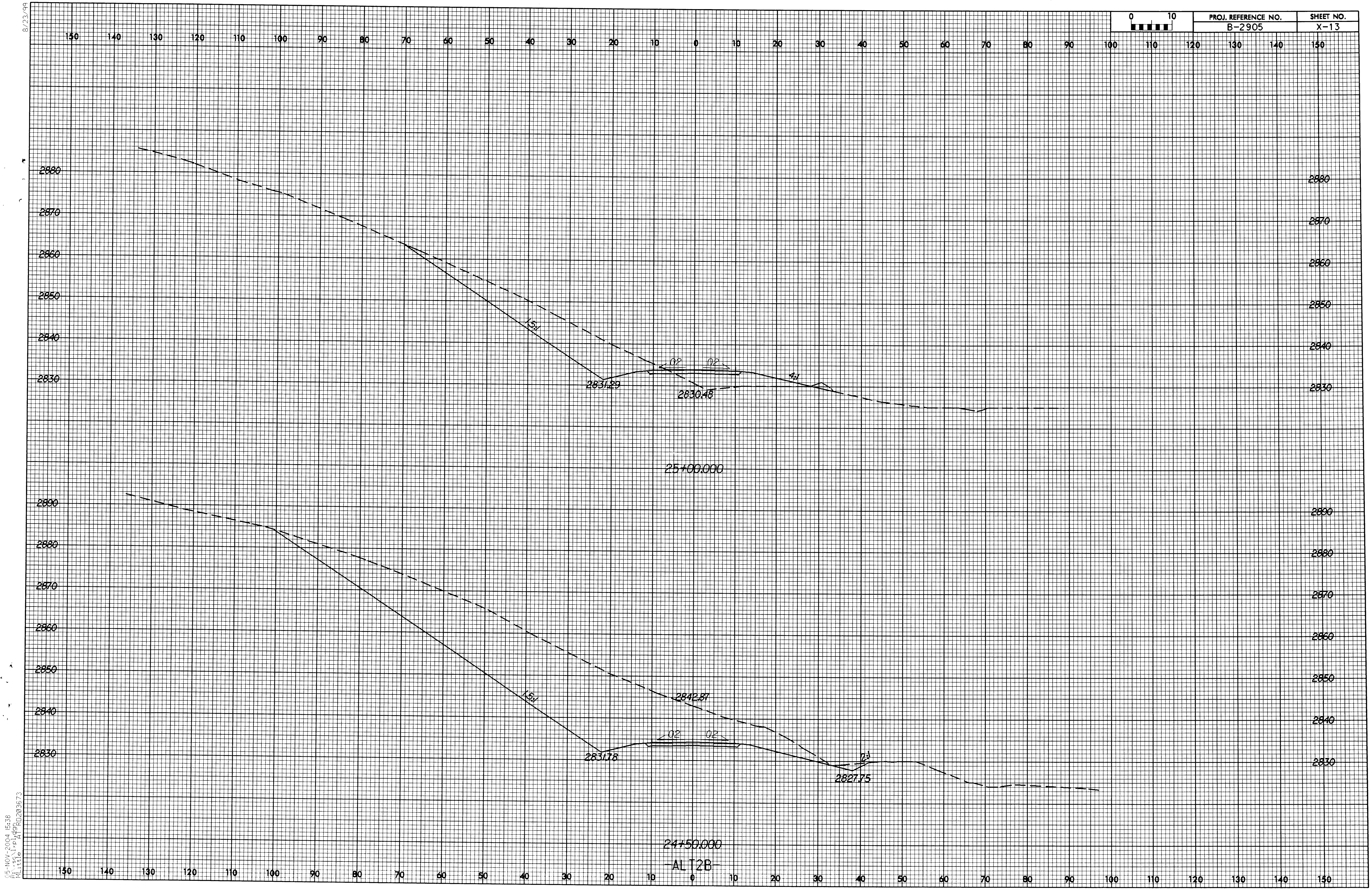
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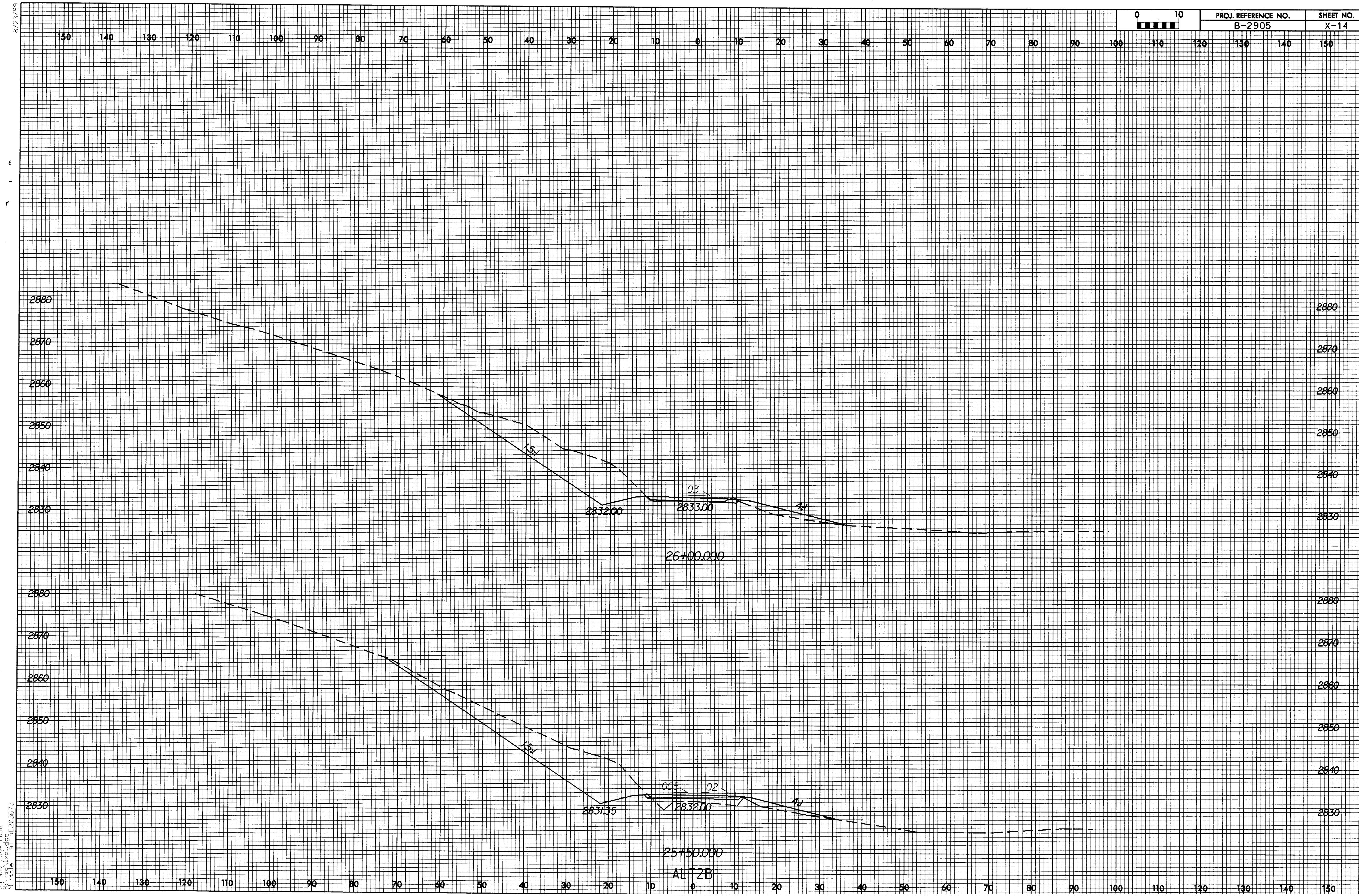

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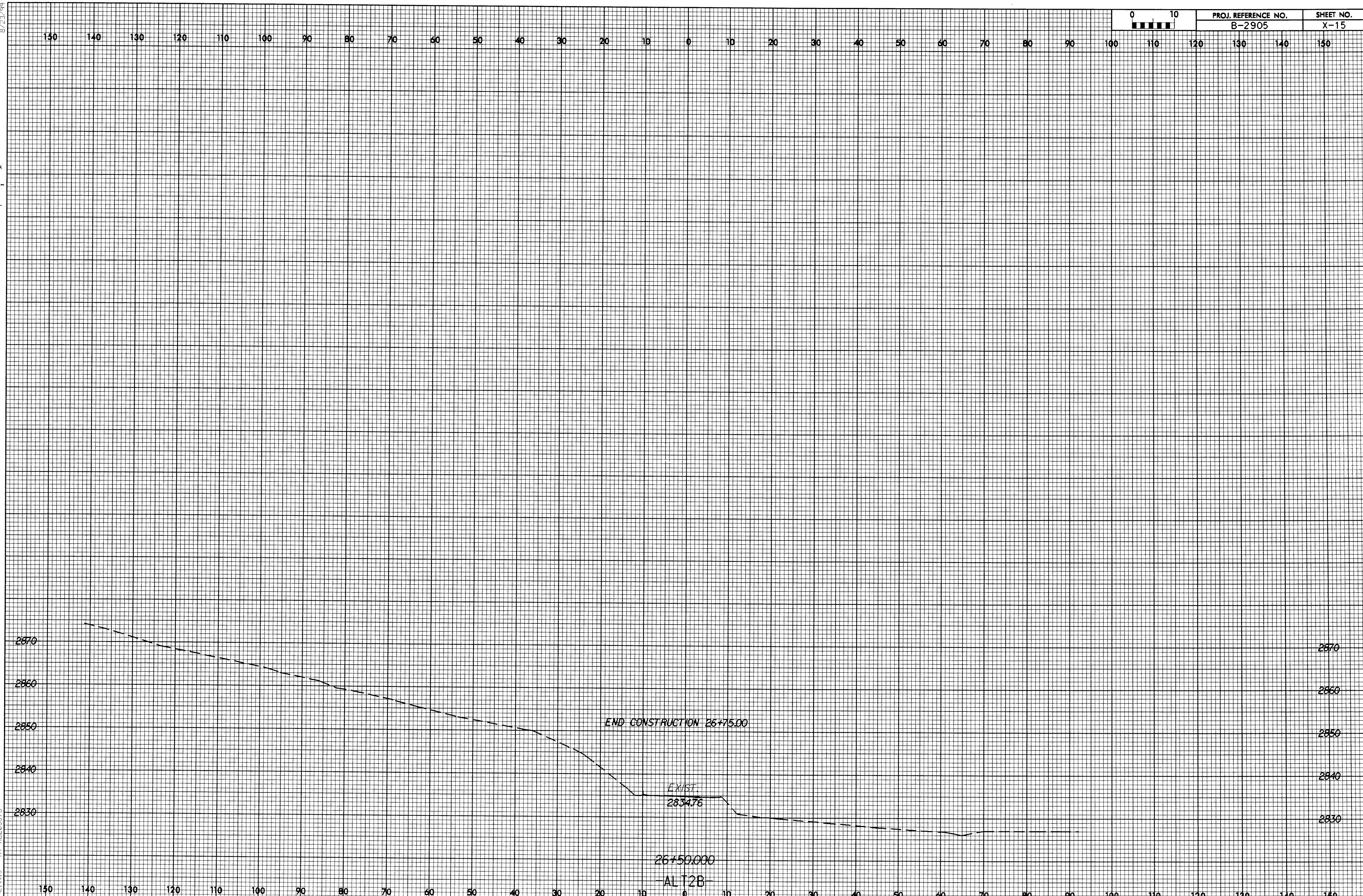

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Ashe County
Replacement of Bridge No. 113
On SR 1179 Over South Fork New River
Federal Aid Project No. BRZ-1179(1)
State Project No. 8.3711301
W.B.S. No. 32751.1.1
T.I.P. No. B-2905

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Approved:

3/9/04
DATE

for Gregory J. Thorpe, PhD, Environmental Management Director
Project Development & Environmental Management Branch

3/9/04
DATE

for John F. Sullivan, III, Division Administrator
Federal Highway Administration

Ashe County
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CATEGORICAL EXCLUSION

Documentation Prepared in
Project Development and Environmental Analysis Branch By:

March 2004

John L. Williams, PE
Project Planning Engineer

William T. Goodwin Jr., PE, Unit Head
Bridge Replacement Planning Unit

PROJECT COMMITMENTS:

Ashe County
Bridge No. 113 on SR 1179
Over South Fork New River
Federal Aid Project No. BRZ-1179(1)
State Project No. 8.3711301
W.B.S. No. 32751.1.1
T.I.P. No. B-2905

Hydraulics – High Quality Waters

South Fork New River is designated, as High Quality Waters and is also an excellent small mouth bass fishery and will be subject to all Design Standards for Sensitive Watersheds

Resident Engineer/Division Environmental Officer/Office of Natural Environment

Just prior to construction, the Resident Engineer and Division Environmental Officer shall coordinate with Office of Natural Environment to insure that the Threatened Virginia spiraea is flagged off so that the construction contractor may know what area is to be protected.

To the extent possible, clearing and grubbing, especially along stream banks, should be limited

Where clearing is necessary, stumps should be retained, where possible, to stabilize soils and provide some early, native re-vegetation. Grubbing, where unavoidable should occur immediately prior to construction activity to limit the duration and extent of bare soil.

Contractor/Resident Engineer

Should the contractor recognize beforehand that impact to the species would result from a proposed activity, the contractor should alert the resident engineer who should then coordinate with U.S. Fish & Wildlife Service.

All Design Groups & Division Construction – Virginia spiraea

The Threatened Virginia spiraea is present in the project vicinity at two locations. The first location is immediately off the northwest corner of the bridge on an alluvial spit. The second location is about 50 feet downstream. The species will be flagged by NCDOT biologists prior to the beginning of construction. The plan for construction activities is to be designed and implemented such that no impact to the plant will result.

Design Services – Virginia spiraea

Design service shall coordinate with David Harris, State Roadside Erosion Control and Vegetation Management Engineer, of Roadside Environmental to include a special provision for a penalty intended to discourage any impact to the Virginia spirea.

Roadway Design/Program Development – B-3805

B-3805 is on one of the potential detour routes for B-2905. The two projects are currently separated by 18 months. A Greensheet commitment will be included in the CE for B-3805 to make sure that it is not Let to Construction until B-2905 is complete.

Ashe County
Replacement of Bridge No. 113
On SR 1179 Over South Fork New River
Federal Aid Project No. BRZ-1179 (1)
State Project No. 8.3711301
W.B.S. No. 32751.1.1
T.I.P. No. B-2905

INTRODUCTION: Bridge No. 113 is included in the 2004-2010 North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and in the Federal-Aid Bridge Replacement 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

As of January 26, 2004, Bridge Maintenance Unit records indicate the bridge has a sufficiency rating of 48.4 out of a possible 100 for a new structure. The bridge's deck is narrow according to federal guidelines and is considered to be functionally obsolete with a deck geometry appraisal of three out of ten. Bridge No. 113 is therefore eligible for federal replacement funds. In addition, the bridge is a "low water" design that results in frequent overtopping which has on a few occasions resulted in washing out entire sections of the bridge. The replacement of this inadequate structure will result in safer traffic operations.

II. EXISTING CONDITIONS

The project is located in the southern portion of Ashe County near Idlewood Crossroads (see Figure One). Development in the area is scattered agricultural with a few residences.

SR 1179 is classified as a rural local route in the Statewide Functional Classification System. It is not on the Federal-Aid Highway System. This route is not a designated bicycle route and there is no indication that an unusual number of bicyclists use this roadway.

In the vicinity of the bridge, SR 1179 is a 10-foot wide unpaved road with 2-foot (0.6-meter) grass shoulders (see Figure Three). The roadway grade is in a sag vertical curve through the project area. The existing bridge is on a horizontal curve. The roadway is situated approximately 7.0 feet above the riverbed.

Bridge No. 113 is a four-span structure that consists of a timber floor on steel I-beams. The abutments and bents are reinforced concrete. The existing bridge (see Figure Three) was constructed in 1964. The overall length of the structure is 122 feet. The clear roadway width is 11.2 feet. The posted weight limit on this bridge is 22 tons for single vehicles and 28 tons for TTST's.

There are no utilities attached to the existing structure, but overhead power lines cross the river approximately 110 feet west of the bridge. Utility impacts are anticipated to be low.

The current traffic volume of 220 vehicles per day (VPD) is expected to increase to 320 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 in the vicinity and therefore subject to a statutory speed limit of 55 mph.

There have been no accidents reported in the vicinity of Bridge No. 113 during a recent three year period.

One school bus crosses the bridge daily on its morning and afternoon routes.

III. ALTERNATIVES

A. Project Description

The replacement structure will consist of a 390-foot long bridge. The proposed length is substantially longer than the existing bridge length to address hydraulic clearance needs. The structure will be of sufficient width to provide for two 10-foot lanes with 2-foot offsets on each side.

The existing roadway will be widened to a 20-foot travelway to provide two 10-foot lanes. There will be four-foot grass shoulders. This roadway will be designed as a rural local route.

B. Reasonable & Feasible Alternates

There were several constraining factors considered in the planning of this project. A species listed as threatened by the U.S. Fish & Wildlife Service (Virginia spiraea) is located 10 feet off the northeast corner of the existing structure. The south approach is paralleled on the west by Pine Swamp Creek and on the east by a steep mountainside. A Christmas tree farm is located on the northwest quadrant of the bridge. These issues eliminated several alternates described in the next section of the document and left the alternate of replacing the existing bridge on it's existing location and closing the road during construction.

Furthermore, the floodplain of this project is in a detailed flood study area that requires any new work in the floodplain not to raise the backwater during a flood more than one foot. This issue resulted in a careful study by the Hydraulics Unit who set an elevation for the deck of the new structure approximately 17 feet (5.2 meters) above the existing bridge deck.

As a result of these constraints there is only one reasonable and feasible alternate. NCDOT proposes to replace the existing bridge with a new 390-foot long bridge on approximately the same alignment with a roadway elevation approximately 17 feet higher than the existing road. Traffic would be detoured offsite during construction.

C. Alternatives Eliminated From Further Consideration

Do Nothing

The "do-nothing" alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by SR 1179.

Rehabilitation

Bridge No. 113 is a one-lane structure and can not be widened. To be eligible for federal funds, the bridge would have to reach a rehabilitated sufficiency of 80 percent. A one-lane structure can not meet the 80 percent sufficiency rating and therefore rehabilitation with federal funds is not possible. Furthermore, rehabilitation would not correct the frequent flooding and wash out problems with the current structure.

Replace In Kind With Another "Low Water" Bridge

At this location, the current bridge floods a minimum of eight times a year and water rises nearly to the level of the deck on several other rain events. As the water rises and debris rushes downstream, whole sections of bridge can be taken out posing a severe risk to anyone using the bridge at the time. In addition to these issues, the bridge does not have a guardrail because it would impede flow of water during a flood and create further risk of damage to property owners due to backwater and damage to the bridge due to the pressure. The result of no guardrail is that there is no real preventative measure taken to prevent motorists from running into the river. For these reasons, it is neither reasonable to maintain the existing bridge nor to construct a new one of the same type.

Various elevations were considered for the replacement structure. Another low water structure was ruled out due to the problems listed above.

Replace on New Alignment

At the earliest stages of planning, alternates were considered to maintain traffic onsite since the detour is relatively long. However, Pine Swamp Creek parallels the project on the west side of the south approach and a Christmas tree farm is located in the northwest quadrant. Realignment of the road to this side would create an undesirable relocation of the stream and impacts to the tree farm. Realignment to the east was originally developed as an alternate until it was learned that a threatened species (Virginia spirea) was located immediately on the northeast quadrant of the bridge. The topography limited looking at any alternates beyond an alignment immediately east or west of the existing bridge. For these reasons, the only replacement options considered were ones on the existing alignment.

D. Preferred Alternative

Bridge No. 113 will be replaced at the existing location as shown in Figure 2. Traffic will be detoured offsite during construction. This alternate is recommended because it is the only

alternative that meets all the design constraints and because it has minimal impacts to the sensitive natural ecosystems in the vicinity of the site. Also, this alternative will have a minimal impact on the floodplain and on adjacent properties.

The studied offsite detour would include SR 1176, SR 1169, SR 1003 back to SR 1179. The majority of traffic would experience a ten-minute delay (2.2 additional miles travel) for a period of one year during construction. This falls within the permissible range of delay for a project with environmental constraints according to NCDOT Guidelines for Evaluation of Offsite Detours.

The NCDOT Division 11 Engineer concurs with the selection of Alternative 1 as the preferred alternative. A design exception for both vertical and horizontal alignment will be required. The design speed is 40 mph. Improvement beyond this is not practical for this project.

IV. ESTIMATED COSTS

The estimated costs for the two alternatives are as follows (does not include greenway culvert):

	Cost
Structure	$ 595,000
Roadway Approaches	769,000
Structure Removal	11,000
Eng. & Contingencies	225,000
Total Construction Cost	$ 1,600,000
Right-of-way Costs	$ 47,000
Total Project Cost	$ 1,647,000

V. NATURAL RESOURCES

A. Physical Resources

Water Resources

Water resources within the study area are located in the New River Drainage Basin. The project crosses the South Fork of the New River, a perennial stream (DWQ Subbasin 05-07-01). Streams have been assigned a best usage classification by the Division of Water Quality (DWQ), which reflects water quality conditions and potential resource usage. The DWQ Index Number for this section of the South Fork of the New River is 10-1-(20.5) and it is classified as WS IV HQW. WS-IV (Water Supplies IV) refers to those waters protected as water supplies which are generally in moderately to highly developed watersheds; suitable for all Class C uses. Class C refers to waters suitable for aquatic life propagation and survival, fishing, wildlife, secondary recreation and agriculture. HQW (High Quality Waters) refers to waters that are rated as excellent based on biological and physical/chemical characteristics through division monitoring or special studies

Due to the location of this project in a High Quality Water Zone, recommendations set forth in "Design Standards in Sensitive Watersheds" (15A NCAC 04B .0024) apply to this project. Impacts can be further reduced by limiting instream activities and revegetating stream banks immediately following the completion of grading. No waters classified as Water Supplies (WS-I or WS-II) occur within 1.0 mile of the project study area.

The South Fork of the New River at Bridge No. 113 on SR 1179 is approximately 100 feet wide and ranges in depth from 2-4 feet. The substrate in the study area is composed mostly of rock and cobble.

Biotic Resources

Biotic communities include terrestrial and aquatic elements. Much of the flora and fauna described from biotic communities utilize resources from different communities, making boundaries between contiguous communities difficult to define. The four communities identified in the project study area include Fallow Fields, Roadside Shoulder, Mesic Forest and the South Fork of New River. A Christmas Tree Plantation occurs just west of the subject bridge but will not be impacted by this project, as currently proposed.

Impacts to terrestrial communities will result from project construction due to the clearing and paving of portions of the project area, and thus the loss of community area. Table 1 summarizes potential losses to these communities, resulting from project construction. Calculated impacts to terrestrial communities reflect the relative abundance of each community present in the study area. Estimated impacts are derived based on a project length of 1550 feet, and a proposed right-of-way width of 80 feet. However, project construction often does not require the entire right-of-way; therefore, actual impacts may be considerably less.

Table 1. Estimated area impacts to terrestrial communities.

Community Type	Impacts (Acres)
Fallow Field	1.46
Roadside Shoulder	0.05
Mesic Forest	0.17
Total Impacts	1.68

Impacts to the aquatic community of South Fork New River will result from the replacement of Bridge No. 113. Impacts are likely to result from the physical disturbance of aquatic habitats (i.e. substrate, water quality, stream banks). Disturbance of aquatic habitat has a detrimental effect on aquatic community composition by reducing species diversity and the overall quality of aquatic habitats. Physical alterations to aquatic habitats can result in the following impacts to aquatic communities.

The bridge will be removed without dropping any portions into the water. The substructure may require temporary pads in the water to remove the concrete sills. This will be determined during final design.

Jurisdictional Topics

This section provides inventories and impact analyses pertinent to two significant regulatory issues: Waters of the United States and rare and protected species. These issues retain particular significance because of federal and state mandates that regulate their protection. This section deals specifically with the impact analyses required to satisfy regulatory authority prior to project construction.

Waters of the United States

Criteria to delineate jurisdictional wetlands include evidence of hydric soils, hydrophytic vegetation and hydrology. **No jurisdictional wetlands were identified in the project study area.**

Impacts to jurisdictional surface waters are calculated based on the linear feet of the stream that is located within the proposed right-of-way. Approximately 80 linear feet (24 linear meters) of the South Fork New River may be impacted by the proposed project. However, since the river will be crossed with a new bridge, its actual impacts to the substrate will likely be minimal.

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 Section 401 permit from the DWQ is a prerequisite to issuance of a Section 404 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).

Federally-Protected Species

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered, and Proposed Threatened 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 FWS lists six federally protected species for Ashe County. The bog turtle (Clemmys muhlenbergii) is listed only because of its Similarity of Appearance to the northern subspecies of the Bog Turtle.

Table 2. Federally protected species listed for Ashe County.

Scientific Name	Common Name	Status
Geum radiatum	spreading avens	Endangered
Gymnoderma lineare	rock gnome lichen	Endangered
Hedyotis purpurea var. montana	Roan Mountain bluet	Endangered
Helonias bulatta	Swamp pink	Threatened
Liatris helleri	Heller's blazing star	Threatened
Spiraea virginiana	Virginia spiraea	Threatened

SPREADING AVENS **ENDANGERED**

The elevation of the subject project is 2840 feet above mean sea level. This elevation is well below the required elevational requirements of spreading avens. The NCNHP database of rare species was checked and no records for this species were found in the project study area. The construction of the proposed project will not affect spreading avens.

BIOLOGICAL CONCLUSION: **NO EFFECT**

ROCK GNOME LICHEN **ENDANGERED**

The elevation of the subject project is 2840 feet above mean sea level. This elevation is well below the required elevational requirements of rock gnome lichen. The NCNHP database of rare species was checked and no records for this species were found in the project study area. The construction of the proposed project will not affect rock gnome lichen.

BIOLOGICAL CONCLUSION: **NO EFFECT**

ROAN MOUNTAIN BLUET **ENDANGERED**

The elevation of the subject project is 2840 feet above mean sea level. This elevation is well below the required elevational requirements of Roan Mountain bluet. The NCNHP database of rare species was checked and no records for this species were found in the project study area. The construction of the proposed project will not affect Roan Mountain bluet.

BIOLOGICAL CONCLUSION: **NO EFFECT**

HELLER'S BLAZING STAR **THREATENED**

The elevation of the subject project is 2840 feet above mean sea level. This elevation is well below the required elevational requirements of Heller's blazing star. The NCNHP database of rare species was checked and no records for this species were found in the project study area. The construction of the proposed project will not affect Heller's blazing star.

BIOLOGICAL CONCLUSION: **NO EFFECT**

BLUE RIDGE GOLDENROD **THREATENED**

The elevation of the subject project is 2840 feet above mean sea level. This elevation is well below the required elevational requirements of Blue Ridge goldenrod. The NCNHP database of rare species was checked and no records for this species were found in the project study area. The construction of the proposed project will not affect Blue Ridge goldenrod.

BIOLOGICAL CONCLUSION **NO EFFECT**

SWAMP PINK **THREATENED**

A field investigation was conducted January 20, 2004 to determine that habitat is not present.

BIOLOGICAL CONCLUSION **NO EFFECT**

VIRGINIA SPIRAEA **THREATENED**

A new population of Virginia spiraea was identified within the project study area during the field investigation in 1998. The plants are located on the west side of the South Fork of the New River, north of Bridge No. 113. One small clump of plants is growing on an alluvial spit near the northwest corner of the bridge. Three larger clumps, occurring approximately 50 feet downstream from the bridge, are growing on the steep riverbank from the river's edge up to the top of the bank.

Project Related Impacts to Virginia Spiraea

Project related threats to Virginia spiraea can be separated into direct, secondary and cumulative impacts. Direct impacts refer to consequences that are directly attributed to the construction of the project, such as land clearing and paving. Secondary impacts are defined as those impacts that are "caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable" (40 CFR 1508.8). These impacts are not direct consequences of road construction, but result from modifications to adjacent parcels of land (Mulligan and Horowitz, 1986). Secondary land use impacts include residential, commercial and industrial developments

and urban sprawl. Cumulative impacts are those impacts that result from "the incremental impacts of an action when added to other past and reasonable foreseeable future actions" (40 CFR 1058.7). Direct, secondary and cumulative impacts to Virginia spiraea are discussed below.

Direct Impacts

The definition of a plant population is vague, however, for the purpose of this report, "population" refers to the Virginia spiraea plants occurring within the vicinity of bridge 113. This population occurs on the west bank of the South Fork of the New River for a linear distance of approximately 50 feet from bridge 113. This population is made up of four clumps of plants; the smallest clump is nearest the bridge. This population has not yet been assigned an Element Occurrence record by the North Carolina Natural Heritage Program.

The superstructure of the bridge is composed completely of timber and steel and is to be removed without dropping components into the river. In addition to the removal of the existing bridge, construction work in the river has the potential to impact the spiraea population. Piers will be constructed in the river to place supports for the new bridge, which may require the temporary diversion of water. Temporary work pads will be placed in the river in order to allow construction equipment to operate. However, it is anticipated that the bridge replacement work will not directly affect areas where the Virginia spiraea is growing.

Secondary Impacts

Project construction will likely require activities such as clearing and grubbing on streambanks, in-stream construction, the use of fertilizers and pesticides for revegetation, and the placement of riprap for riverbank stabilization. The following impacts are likely to result from the above mentioned construction activities.

1. Hydraulic/hydrologic alterations may include: increased sedimentation and siltation downstream of the crossing and increased erosion in the project area; alteration of water levels and flows due to construction; increased nutrient loading during construction via runoff from exposed areas; and increased potential for release of toxic compounds such as fuel and oil from construction equipment and other vehicles. These impacts could be detrimental to population since it is located downstream of where construction will occur and is close to the water's edge. Most of these impacts are anticipated to be temporary.

2. The substructure of the existing bridge is composed of three concrete bents protruding approximately one foot above normal water levels. One of these bents occurs just upstream of the spit of land on which the smallest clump of spiraea is growing. Currently all three of the bents are proposed for removal, which could change the river hydraulics and eventually erode the land spit. The removal of these bents is discussed further under the Mitigative Measures Considered section, below.

3. Removal of woody vegetation along the riverbank for bridge construction may encourage more predation by beavers on remaining shrubs and trees, including Virginia spiraea.

4. Stormwater from a proposed ditch running from SR 1179 to the river may cause scouring and/or erosion of the riverbed and riverbank.

5. Extensive use of riprap to stabilize the end of the ditch and reduce erosion along river banks may reduce the available habitat for Virginia spiraea.

6. Since the new bridge will be higher in elevation, it could shade the spiraea, which is located to the north of the bridge site. A study was conducted by NCDOT to determine the extent of shading. Computer generated 3D models of the site were created and then solar animations were run and recorded. It was concluded from this study that there would be no threat from shading to the spiraea population. The worst shading would occur in winter, when the species is dormant, and would only last for two to three hours a day at most. However, shading elsewhere along the riverbanks could possibly reduce the area that is suitable for future colonization.

Cumulative Impacts

Cumulative impacts include direct, secondary and long-term impacts. It is anticipated that there will be no direct impacts to the Virginia spiraea population if the bridge work is conducted carefully. A number of secondary impacts may be detrimental to the population, including changes in water quality and flow regime. It is possible that improvements to the bridge may allow for increased development in the future; the resulting changes in the watershed could cumulatively affect the species over time. If development were to increase to such a point that a wider bridge would be needed on SR 1179 in the future, construction impacts could again threaten the population.

BIOLOGICAL CONCLUSION **NOT LIKELY TO ADVERSELY AFFECT**

NCDOT acknowledges that secondary and cumulative impacts to Virginia spiraea may be detrimental to the species' habitat. Some of these impacts may only be temporary, while others could slowly affect the population over a period of several years. With the exception of the removal of the bridge bent, which may erode land on which a clump of spiraea occurs, most of the impacts are assumed to be insignificant.

Mitigative Measures Considered

Mitigative measures include attempts to avoid, minimize and compensate for impacts to Virginia spiraea as a result of project construction. These measures address both the direct and secondary impacts associated with construction.

NCDOT's Best Management Practices for the Protection of Surface Waters will be followed during the construction phase of the project. To minimize potential impacts, a proposed stormwater ditch has been re-routed to avoid the area where the spiraea is growing. In addition, the location of the temporary causeway on the west side of the river has been relocated as far from the spiraea as possible. Impacts can be further reduced by:

1. limiting instream activities,
2. revegetating river banks immediately following the completion of grading,
3. flagging or fencing areas where Virginia spiraea is growing, so equipment operators know to avoid those areas,
4. reducing or eliminating river bank disturbance as much as possible,
5. avoiding impacts to bedrock in the river along the west riverbank,
6. holding a pre-construction meeting so that the contractor knows what must be done to protect the spiraea, and
7. restoring the bed and banks of the river to their original contours as soon as work is completed.

The USFWS requested that NCDOT study how the removal of the old bridge and the construction of the new bridge will affect a particular section of the stream bank, where the spiraea occurs closest to the bridge. Two scenarios were assessed: 1) construct a new bridge at the existing location, removing the old bridge and supporting bents, and 2) construct a new bridge at the existing location, removing the old bridge but leaving the bents. It was thought that one of the bents might be important in protecting the spit of land on which spiraea is growing. The conclusion was that the removal of the bent may affect the spit. The USFWS has requested that the bent be removed to restore the river to a more normal flow regime, even though it may affect the spit.

The USFWS has requested that a penalty shall be placed upon the contractor should any harm come to the species as a result of contractor error. Shoulder the contractor determine beforehand that an action of theirs might harm the species, the contractor should alert the resident engineer who should contact USFWS. The details are included in the Greensheet and shall be a contract item.

No compensation is proposed by NCDOT.

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

A review of the project by the Department of Cultural Resources (DCR) yielded no need for a historic architectural survey (see attached letter)

C. Archaeology

During the review of the project, the Department of Cultural Resources (DCR) indicated the presence of known archaeological sites and recommended a survey be completed.

NCDOT staff performed a survey in April of 1998 and found no sites eligible for listing on the National Register of Historic Places. NCDOT recommends no further archaeological work and DCR concurs (see attached letter).

VII. GENERAL ENVIRONMENTAL EFFECTS

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

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

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

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

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

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

The proposed project will not require right-of-way acquisition or easement from any land protected under Section 4(f) of the Department of Transportation Act of 1966. Brian Strong of DENR Division of Parks & Recreation confirmed that this portion of the New River is not designated Wild & Scenic. There are no other 4(f) resources in the vicinity of the project.

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

This project is an air quality "neutral" project, so it is not required to be included in the regional emissions analysis and a project level CO analysis is not required.

Noise levels could increase during construction but will be temporary. 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. 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.

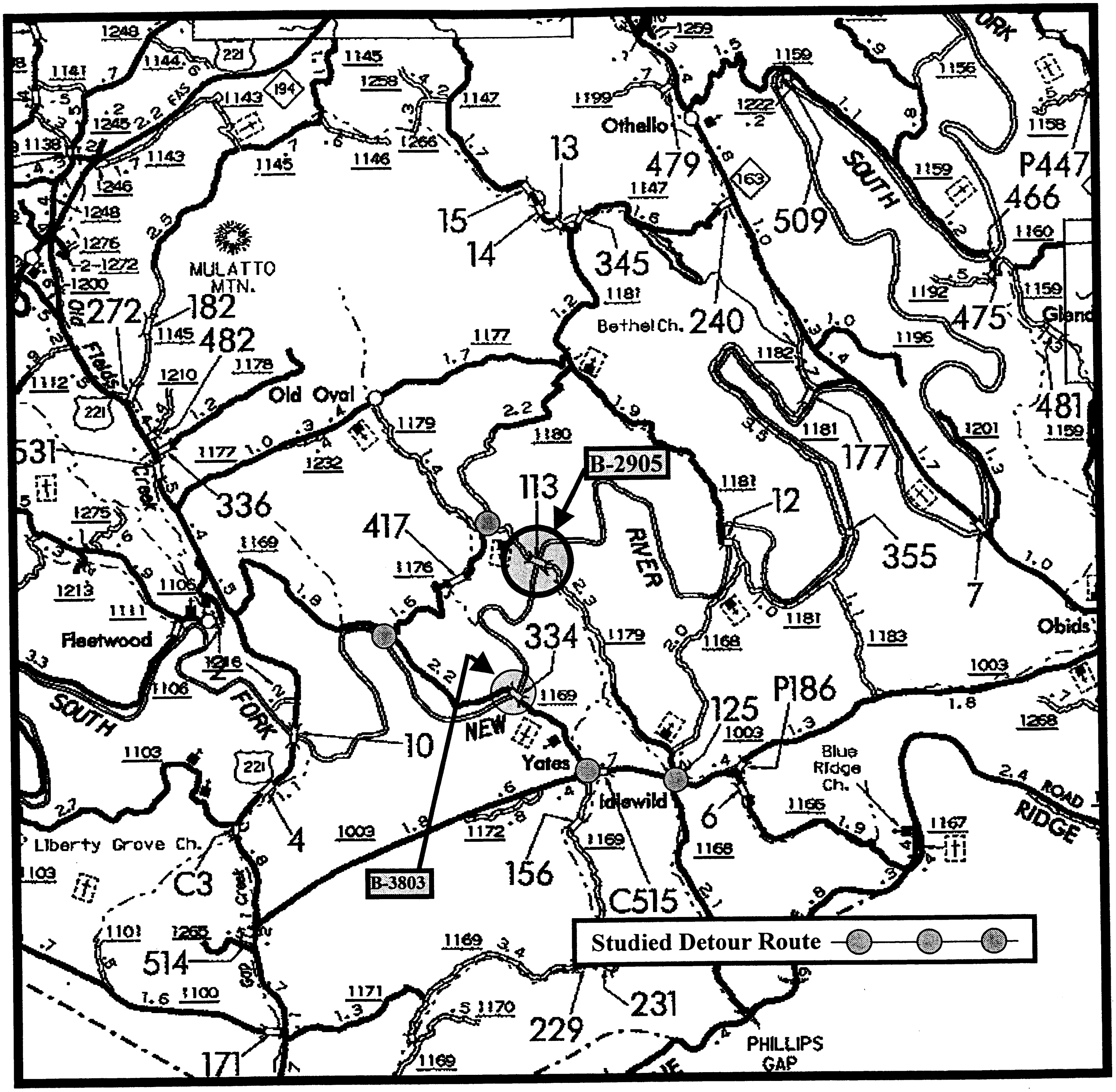
Ashe County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream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

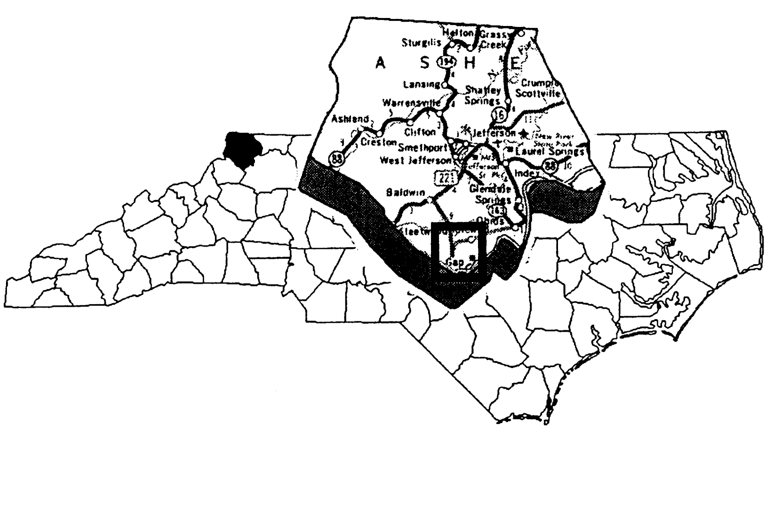
On the basis of the above discussion, it is concluded that no substantial adverse environmental impacts will result from implementation of the project.

VIII. AGENCY COMMENTS

All relevant agency comments have been incorporated in the development of this project. The Project Commitments "Greensheet" summarizes these comments as received to this point.

In a letter dated March 6, 1997 the N.C. Wildlife Resource Commission (NCWRC) indicates there are no trout concerns at this location but that it is an excellent fishery for small mouth bass. Accordingly, he requested that NCDOT implement Design Standards for Sensitive Watersheds. They further requested consideration of a canoe access. In a project located several miles downstream, NCDOT built a canoe access in conjunction with NCDENR who had previously purchased a piece of property directly abutting the bridge approach for the purpose of developing a parking area and launch site. NCWRC contacted NCDENR to determine if that might be feasible here but because of economic limits and because of environmental constraints onsite canoe access is not feasible at this location. NCDOT alerted NCWRC of other projects in the area where they may wish to consider developing an access in conjunction with an NCDOT project.

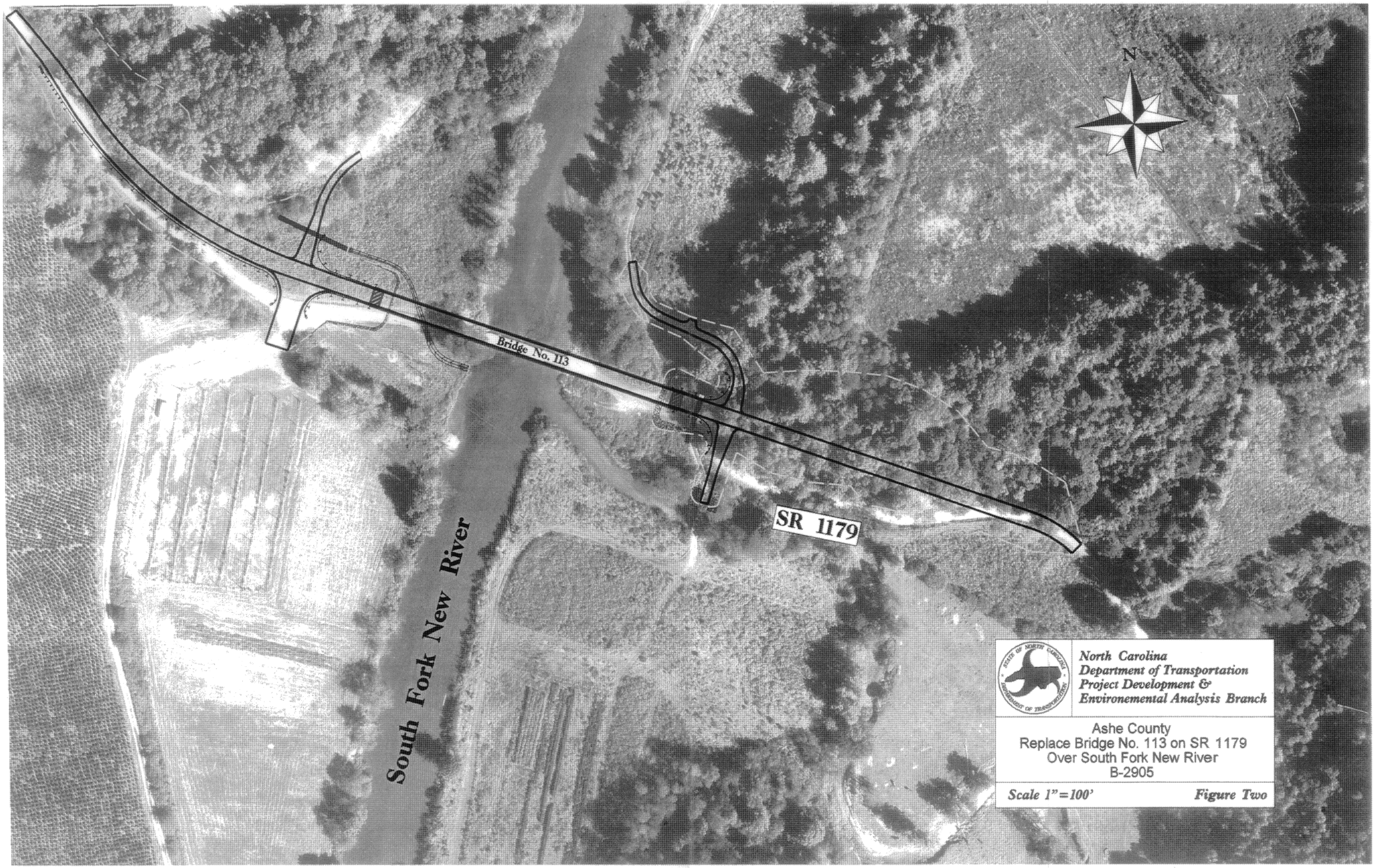




NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

ASHE COUNTY
REPLACE BRIDGE 113 ON SR 1179
OVER SOUTH FORK NEW RIVER
B-2905

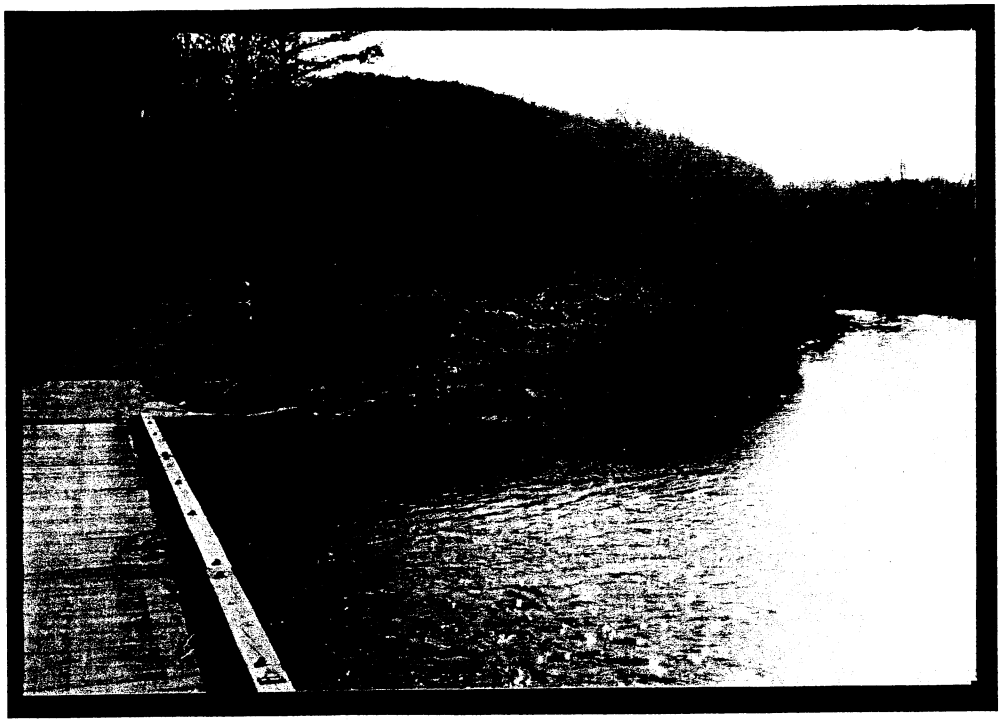
Figure One



North Carolina
Department of Transportation
Project Development &
Environemental Analysis Branch

Ashe County
Replace Bridge No. 113 on SR 1179
Over South Fork New River
B-2905

Scale 1"=100' *Figure Two*



Looking East Across
Bridge No. 113

Looking West Across
Bridge No. 113

North Carolina Department of Transportation

Division of Highways
Project Development &
Environmental Analysis Branch

Ashe County
Replace Bridge No. 113 on SR 1179
Over South Fork New River
B-2905

Figure Three

Elliott/Williams

North Carolina Department of Cultural Resources

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

Division of Archives and Histo
Jeffrey J. Crow, Direct

June 11, 1998

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

Re: Bridge 113 on SR 1179 over South Fork New River, Federal Aid Project BRZ-1179(1), State Project 8.2711301, TIP B-2905, ER 97-8355, ER 98-9143

Dear Mr. Graf:

Thank you for your letter of May 13, 1998, transmitting the archaeological survey report by Dr. Gerold Glover concerning the above project.

During the course of the survey two archaeological sites were located within the project area. Dr. Glover has recommended that no further archaeological investigation be conducted in connection with this project. We concur with this recommendation since this project will not involve significant archaeological resources. However, we request that Figure 2 be revised to provide accurate labels to the site map. Please forward copies of the revised figure to our office.

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, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

Renee Gledhill-Earley

for David Brook
Deputy State Historic Preservation Officer

DB:slw

cc: W. D. Gilmore
T. Padgett

North Carolina Department of Cultural Resources

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

Division of Archives and History
Jeffrey J. Crow, Director

March 18, 1997

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

Re: Bridge 113 on SR 1179 over South Fork New River, Ashe County, B-2905, Federal Aid Project BRZ-1179(1), State Project 8.2711301, ER 97-8355

Dear Mr. Graf:

On February 25, 1997, Debbie Bevin of our staff 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 and aerial photographs at the meeting.

Based upon our review of the photographs and the information discussed at the meeting, we offer our preliminary comments regarding this project.

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

Archaeological site 31AH192 is located one hundred to two hundred meters south of this project area. We recommend a survey for this area of high probability.

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 of 1966 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, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

David Brook
Deputy State Historic Preservation Officer

DB:slw

cc: H. F. Vick
B. Church
T. Padgett

North Carolina Wildlife Resources Commission

512 N. Salisbury Street, Raleigh, North Carolina 27604-1188, 919-733-3391
Charles R. Fullwood, Executive Director

MEMORANDUM

TO: John L. Williams, Project Planning Engineer
North Carolina Department of Transportation

FROM: Stephanie E. Goudreau, Eastern Mt. Region Coordinator
Habitat Conservation Program

DATE: March 6, 1997

SUBJECT: Scoping comments for replacement of Bridge #113 over South Fork New River along SR 1179, Ashe County, TIP #B-2905.

This correspondence responds to a request by you for our preliminary comments regarding the subject project.

David Cox of the North Carolina Wildlife Resources Commission recently provided you with the following comments:

- The South Fork New River supports an excellent smallmouth bass fishery.
- High Quality Waters erosion control measures should be used on this project.
- We prefer an alternative that does not involve relocation of the unnamed tributary that enters the South Fork New River to the south of the existing bridge.

I have the following additional comments regarding this project:

1) We prefer that the bridge be replaced at its existing location but would not object to replacing the bridge on new location to the north.

2) Construction must be accomplished so that wet concrete does not contact river water. This will lessen the chance of altering the river's water chemistry and causing a fish kill.

3) If possible, heavy equipment should be operated from the bank rather than in the river channel in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the river.

4) Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of project completion to provide long-term erosion control.

5) Existing trees and shrubs along the river should be preserved as much as possible to provide bank stability, shade, and a travel corridor for wildlife.

6) We are interested in increasing recreational access to the river, which is designated as a national Wild and Scenic River. If feasible, our agency may want to construct a small boat launch at the bridge, which would allow individuals to easily carry a canoe or other small boat to the river bank for launching. We request that the NCDOT examine the feasibility of either leaving a section of the old bridge approach in place for parking (if the bridge is replaced to the north of the existing bridge) or constructing wide shoulders to allow for parking near the new bridge (if the bridge is replaced at its existing location).

Thank you for the opportunity to review and comment during the early stages of this project. If you have any questions regarding these comments, please contact me at 704/652-4257.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

February 27, 2004

Mr. John L. Williams, Planning Engineer
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Mr. Williams:

Subject: Endangered Species Concurrence for the Replacement of Bridge No. 113 over the South Fork New River, SR 1179, Ashe County, North Carolina, Federal Aid Project No. RZ-1179(1), State Project No. 8.2711301, TIP No. B-2905

We have reviewed the biological assessment for the federally threatened Virginia spiraea (*Spiraea virginiana*) for the subject project. Our comments are provided in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

The NCDOT proposes to replace Bridge No. 113 at its current location. Site surveys conducted in 1998 identified two occurrences of Virginia spiraea near the bridge. One small clump of plants is approximately 20 feet from the existing bridge on an alluvial spit of land, and three other clumps of the plant occur approximately 50 feet downstream of the bridge on a steep bank, just above the river.

Given the proximity of one of the plant clones to the existing bridge and plans for the new bridge, we have concerns regarding the ability to construct this project without negative consequences for this group of plants. After numerous discussions with Division 11 personnel and PDEA in Raleigh, we believe this project can proceed as currently planned.

Page 5 of the biological assessment lists seven mitigative measures to avoid or reduce impacts to Virginia spiraea. If all of these measures are strictly adhered to, we concur with your conclusion of "not likely to adversely affect" for the federally threatened Virginia spiraea for this project. We believe the requirements under section 7(c) of the Act are fulfilled. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously

impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

As further precautions, we request that the following commitments be added:

1. To the extent possible, clearing and grubbing, especially along stream banks, should be limited.

2. Where clearing is necessary, stumps should be retained, where possible, to stabilize soils and provide some early, native revegetation. Grubbing, where unavoidable, should occur immediately prior to construction activity to limit the duration and extent of bare soil.

If you have questions about these comments, please contact Ms. Marella Buncick of our staff at 828/258-3939, Ext. 237. In any future correspondence concerning this project, please reference our Log Number 4-2-02-471.

Sincerely,

Brian P. Cole

Brian P. Cole
Field Supervisor

cc:
Mr. John Thomas, U.S. Army Corps of Engineers, Raleigh Regulatory Field Office, 6508 Falls of the Neuse Road, Suite 120, Raleigh, NC 27615
Ms. Marla J. Chambers, Highway Projects Coordinator, North Carolina Wildlife Resources Commission, 12275 Swift Road, Oakboro, NC 28129
Ms. Cynthia Van Der Wiele, North Carolina Department of Environment and Natural Resources, Division of Water Quality, Wetlands, Section, 1621 Mail Service Center, Raleigh, NC 27699-1621