



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

March 10, 2008

MEMORANDUM TO: Mr. C. E. Lassiter, Jr., PE
Division Two Engineer

FROM: Philip S. Harris, III, P.E., Unit Head *E. R. fuchs*
Natural Environment Unit *rev*
Project Development and Environmental Analysis Branch

SUBJECT: Lenoir County, Replace Bridge No. 9 on NC 55 over
Jericho Run; T.I.P. Number B-4172; Federal Aid Project
No. BRSTP-55 (21); WBS No. 33519.1.1

Attached is the Riparian Buffer Authorization for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/gyb

Attachment

Cc:

Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Randy Garris, P.E. State Contract Officer
Mr. Art McMillan, P.E., Highway Design
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Ms. Beth Harmon, EEP
Mr. Rob Hanson, P.E., PDEA Eastern Region Unit Head
Mr. Jay B. Johnson, Division Environmental Officer

PROJECT COMMITMENTS

Lenoir County
Bridge No. 9 on NC 55 Over Jericho Run
Federal-Aid Project No. BRSTP-55(21)
State Project No. WBS 33519.1.1
T.I.P. No. B-4172

In addition to NCDOT's Guidelines for Best Management Practices for Bridge Demolition and Removal, NCDOT's Guidelines for Best Management Practices for the Protection of Surface Waters, NCDOT's Design Standards in Sensitive Waters, the following special commitments have been agreed to by NCDOT:

Commitments Developed Through Project Development

Division Two

The Stream Crossing Guidelines for Anadromous Fish Passage will be implemented, as applicable. *Since Jericho Run is not considered an anadromous fish habitat by the NCWRC per their February 5, 2004 Memorandum, the Anadromous Fish Passage guidelines do not apply for this project.*

Road closure will be coordinated with the Lenoir County Schools and Lenoir County Emergency Medical Services prior to construction.

Commitments Developed Through Permitting

Division Two

The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.

Division Two and Roadside Environmental

All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular DOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated, with native woody species before the next growing season following completion of construction.



Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources
Coleen H. Sullins, Director
Division of Water Quality

**North Carolina Division of Water Quality
Transportation Permitting Unit
In-Field Minor 401 Water Quality Certification, Buffer Certification and Isolated Waters Permit
Modification**

Project Name/TIP Project No.: B-4172 Date: 1/22/08

DOT Division: 2 County: Lenoir DWQ Project No./Permit Type: 20071767 GC 3032

DOT Staff: Jay Johnson DWQ Staff: Garey Ward

ACE Staff: _____ DWQ Regional Office: WaRo

Modification Description:

Removal of condition 20 establishing a fish moratorium from Feb. 15 to
June 30. No moratorium is recommended for this stretch of Jacobs Run
as stated in an e-mail from Travis Wilson (WRG) to Worth Calfee (WRP)
dated 12/21/07.

No Fee

Modification Sketch:

NA



This in-field modification is required for the following reason(s):

- The information contained in the application or presented in support thereof is incorrect in the following manner:

- Conditions under which the original certification was issued have changed in the following manner:

Aradtemous fish moratorium waived

This in-field modification is valid only if issued by an authorized agent of the NC Division of Water Quality, Transportation Permitting Unit¹.

This in-field modification authorizes the NCDOT to

Not have to adhere to the Feb. 15 to June 30 moratorium

in Lenoir County. The project shall be constructed as described in the Modification Description and Sketch on Page 1 of this document dated 1/22/08 to improve/construct the section of NC 55 that extends from _____ to _____. The approved design is that described in the Modification Description and Modification Sketch on Page 1 of this document dated 1/22/08. Any further changes to the original Water Quality Certification dated 12/14/07 may require a formal written modification request.

The description of the proposed action provides adequate assurance that the proposed action in the Neuse River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Modification Approval shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Modification Approval:

1. As-built drawings of the proposed action shall be submitted to the NC DWQ Transportation Permitting Unit within 30-days of the completion of the action.
2. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated 12/14/07 and all other corresponding modifications still apply except where superseded by this certification.

3. Additional Conditions:

Failure to construct the proposed action as described in the Modification Description and Sketch on Page 1 of this document and/or violations of any condition herein set forth may result in revocation of this modification approval and may result in criminal and/or civil penalties. This modification approval shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. If the Corps of Engineers requires a formal written modification to the 404 permit for the proposed action, then NC DWQ must require a formal written modification to the 401 WQC, and therefore, this in-field modification is invalid. If additional (**wetland, stream, buffer**) impacts for this project (now or in the future) exceed (**one acre, 150 linear feet, or one-third of an acre/150 linear feet, respectively**), or if mitigation is required above and beyond the current mitigation requirements for this project, this in-field modification is invalid and a formal written modification is required.

This in-field modification is effective upon the date the last party signs this document. This in-field modification is made upon mutual agreement between DOT and DWQ as indicated by the signatures below and is, therefore, not subject to appeal by either party. Appeals by third parties must be made within sixty (60) days of notification pursuant to the contested case provisions of the Administrative Procedure Act, N.C. Gen. Stat. § 150B-23 et seq.

DWQ Staff Signature: *Nancy Ward*

Date: 1/22/08

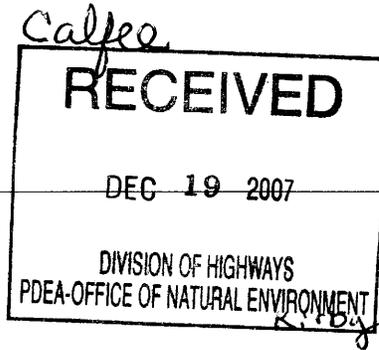
DOT Staff Signature: *Jay Johnson*

Date: 1/22/08

Staff Signature: _____

Date: _____

¹ - An authorized agent of the Transportation Permitting Unit is defined as DWQ staff that are DOT-funded and review and issue 401 Water Quality Certifications for DOT projects. These staff include Central Office and Regional Office personnel.



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Coleen H. Sullins, Director
Division of Water Quality

December 14, 2007
Lenoir County
DWQ Project No. 20071767

APPROVAL of 401 WATER QUALITY CERTIFICATION and NEUSE RIVER BUFFER AUTHORIZATION with ADDITIONAL CONDITIONS

Dr. Gregory J. Thorpe, PhD., Manager
Planning & Environmental Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

You have our approval, in accordance with the attached conditions and those listed below, for the following impacts:

Site Number	Wetlands (acres) Temporary Hand Clearing	Buffer Zone 1 (square ft)	Buffer Zone 2 (square ft)	Streams (sq ft)
TIP B-4172	< 0.01	2,477	1,446	0
Net Total Impacts	< 0.01	3,923		0

The project shall be constructed in accordance with your application dated October 17, 2007 for the purpose of replacing Bridge number 9 over Jericho Run on NC 55 in Lenoir County. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 3632. This certification corresponds to Nationwide Permit 23 issued by the Corps of Engineers. This approval is also valid for the Neuse River Buffer Rules (15A NCAC 2B .0233). In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit issued by the US Army Corps of Engineers (this supercedes Condition 10 of General Certification 3632 issued March 19, 2007).

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or total impacts to streams or buffers (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification.

- 1.) The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification.
- 2.) The dimension, pattern, and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams should be restored to natural geomorphic conditions.

- 3.) Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
- 4.) If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
- 5.) During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
- 6.) The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
- 7.) Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
- 8.) All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
- 9.) No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
- 10.) Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
- 11.) All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification..
- 12.) The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
- 13.) Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
- 14.) There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
- 15.) All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.

- 16.) All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular DOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated, with native woody species before the next growing season following completion of construction.
- 17.) Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.
- 18.) The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species.
- 19.) Bridge deck drains should not discharge directly into the stream. Stormwater should be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
- 20.) The permittee will need to adhere to all appropriate in-water work moratoriums (including the use of pile driving or vibration techniques) prescribed by the NC Wildlife Resources Commission, the US Fish and Wildlife Service, and National Marine Fisheries Service. No in-water work is permitted between February 15 and June 30 of any year, without prior approval from the NC Division of Water Quality and the NC Wildlife Resources Commission. In addition, the permittee shall conform with the NCDOT policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997) at all times.
- 21.) Upon completion of the project, the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.
- 22.) A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are final and binding unless you ask for a hearing.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Garcy Ward at (252) 948-3922.

Sincerely,


for Coleen H. Sullins

Attachment

cc: Wilmington District Corps of Engineers
Mr. William Wescott, US Army Corps of Engineers, Washington Field Office
Mr. Jay Johnson, Division 2 Environmental Officer, NCDOT
Mr. Garcy Ward, DWQ, Washington Regional Office
Central Files



DWQ Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1621 Mail Service Center, Raleigh, NC, 27699-1621. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

WQC #3632

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 23 (APPROVED CATEGORICAL EXCLUSIONS) AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (23) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. This Certification replaces Water Quality Certification Number 2670 issued on January 21, 1992, Certification Number 2734 issued on May 1 1993, Certification Number 3107 issued on February 11, 1997 and Water Quality Certification Number 3361 issued March 18, 2002 and WQC Number 3403 issued March 28, 2003. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 23 or when deemed appropriate by the Director of the DWQ.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality. Two copies shall be submitted to DWQ at the time of notification in accordance with 15A NCAC 2H .0501(a). Written concurrence from DWQ is not required unless any standard conditions of this Certification cannot be met;
2. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;
3. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. In addition, buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A determination of buffer, wetland and stream mitigation requirements shall be made for any Certification for this Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur. The mitigation plan must be implemented and/or constructed before any permanent building or structure on

WQC #3632

site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the travelling public;

4. Compensatory stream mitigation shall be required at a 1:1 ratio for not only perennial but also intermittent stream impacts equal to or exceeding 150 feet and that require application to DWQ in watersheds classified as ORW, HQW, Tr, WS-I and WS-II unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance;
5. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
6. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
7. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;
8. Impacts to any stream length in the Neuse, Tar-Pamlico, Randleman and Catawba River Basins (or any other river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
9. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
10. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Nationwide and Regional General Permits, whichever is sooner;
11. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.

Non-compliance with or violation of the conditions herein set forth by a specific fill project shall result in revocation of this Certification for the project and may result in criminal and/or civil penalties.

WQC #3632

The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland, stream or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 19 March 2007

DIVISION OF WATER QUALITY

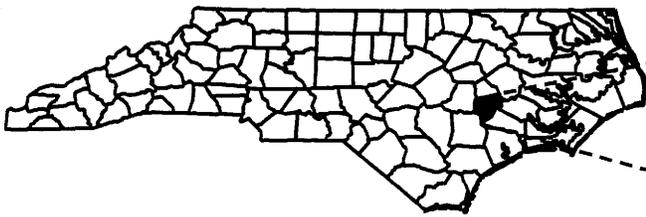
By

A handwritten signature in black ink that reads "Alan Klimek". The signature is written in a cursive, flowing style.

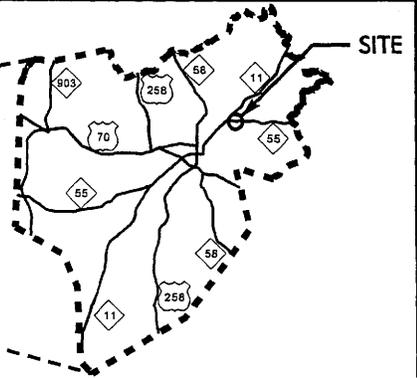
Alan W. Klimek, P.E.

Director

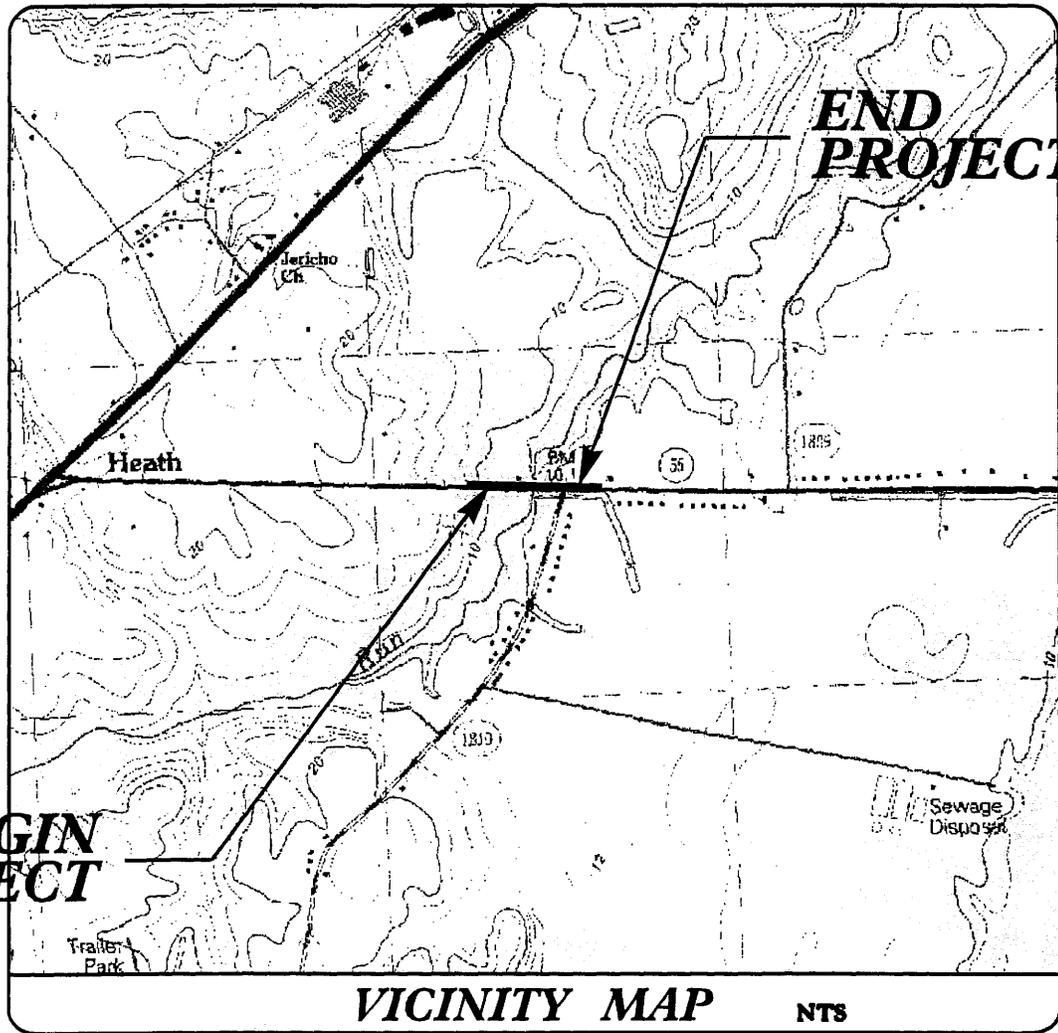
WQC # 3632



SEE INSET BELOW



LENOIR COUNTY



BEGIN PROJECT

END PROJECT

VICINITY MAP

NTS

BUFFER IMPACTS

**N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS**

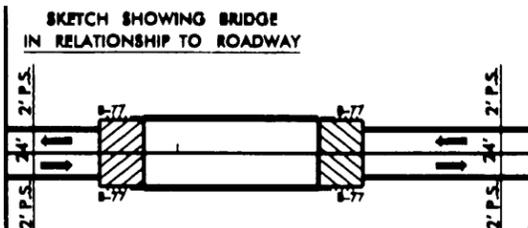
**LENOIR COUNTY
PROJECT: B-4173
BRIDGE NO. 9 OVER JERICO RUN
AND APPROACHES ON NC 55**

SHEET ____ OF ____

5 / 25 / 07

Buffer Drawing 29
Sheet 1 of 5

8/17/05



DESIGN EXCEPTION REQUIRED FOR BRIDGE WIDTH

Site 1

NAD 83/95

B-4172		4	
HWY SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

BEGIN TIP PROJECT B-4172
BEGIN CONSTRUCTION
POT Sta. 12+25.00 -L-

HARVEY ENTERPRISES, INC
DB 121 - PG 693
PC 5 - PG 152

LATERAL 'V' DITCH
STA 14+80 TO
STA 14+90 -L- LT
SEE DETAIL #2

SPECIAL LATERAL 'V' DITCH
STA 14+00 TO STA 14+80 -L- LT
SEE DETAIL #1

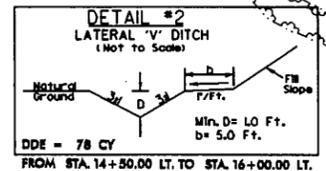
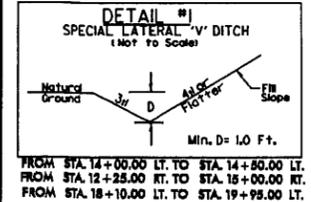
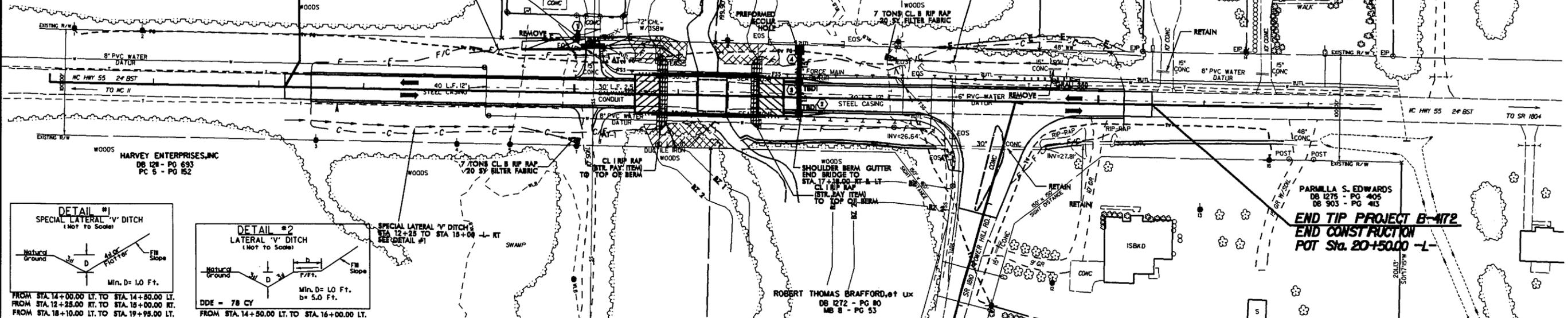
CITY OF KINSTON
DB 641 - PG 42

ALLOWABLE IMPACTS ZONE 1
ALLOWABLE IMPACTS ZONE 2

RUTH ELLEN FISHER
DB 1028 - PG 338
PC 4 - PG 345

PHILIP RAY, et ux
DB 1062 - PG 890
PC 4 - PG 365

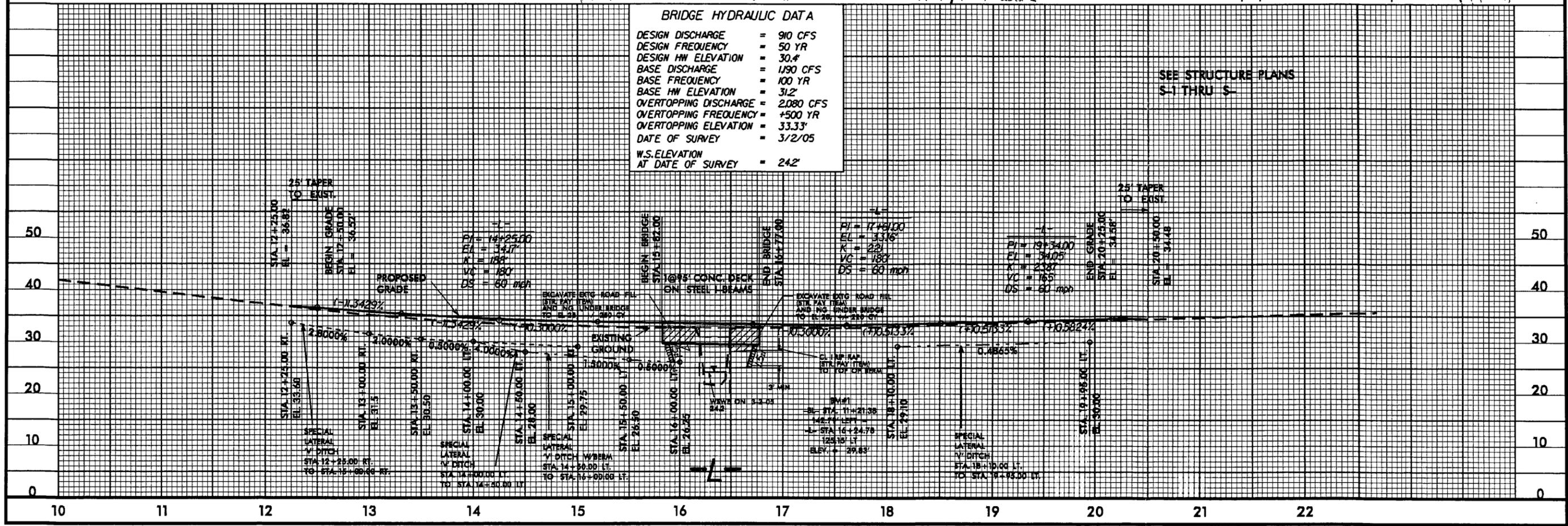
NOLBURT A. GREENE, et ux
DB 1007 - PG 456
PC 4 - PG 365



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 910 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 30.4'
BASE DISCHARGE	= 1190 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 31.2'
OVERTOPPING DISCHARGE	= 2080 CFS
OVERTOPPING FREQUENCY	= 500 YR
OVERTOPPING ELEVATION	= 33.33'
DATE OF SURVEY	= 3/2/05
W.S. ELEVATION AT DATE OF SURVEY	= 24.2'

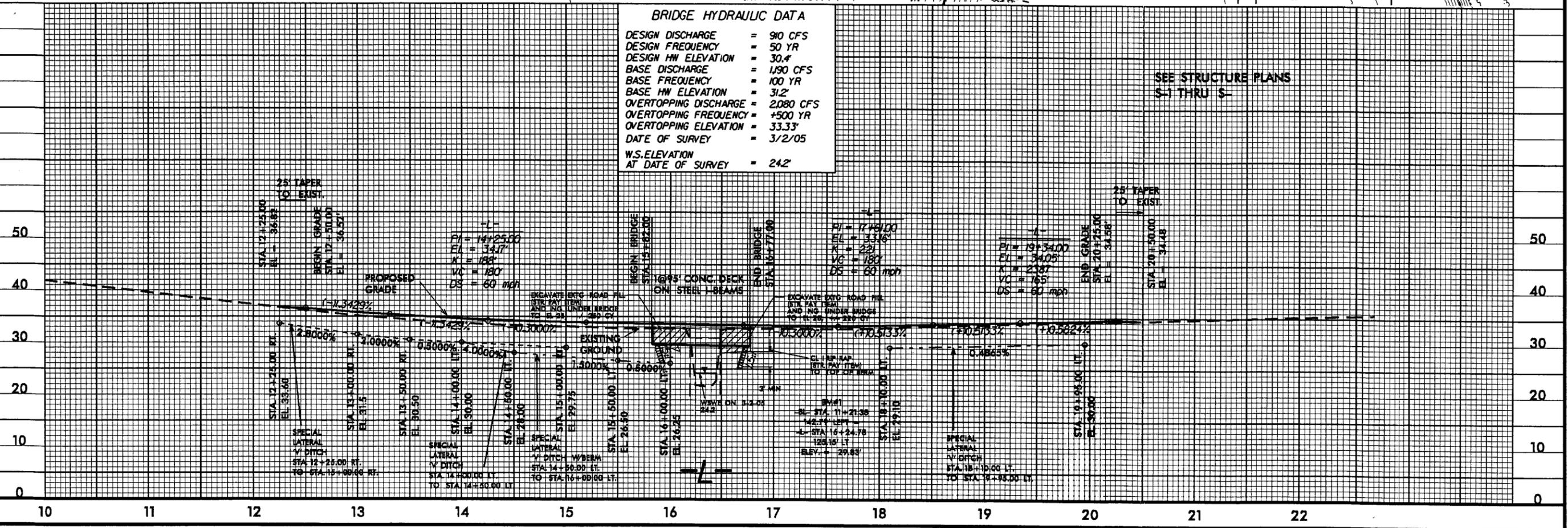
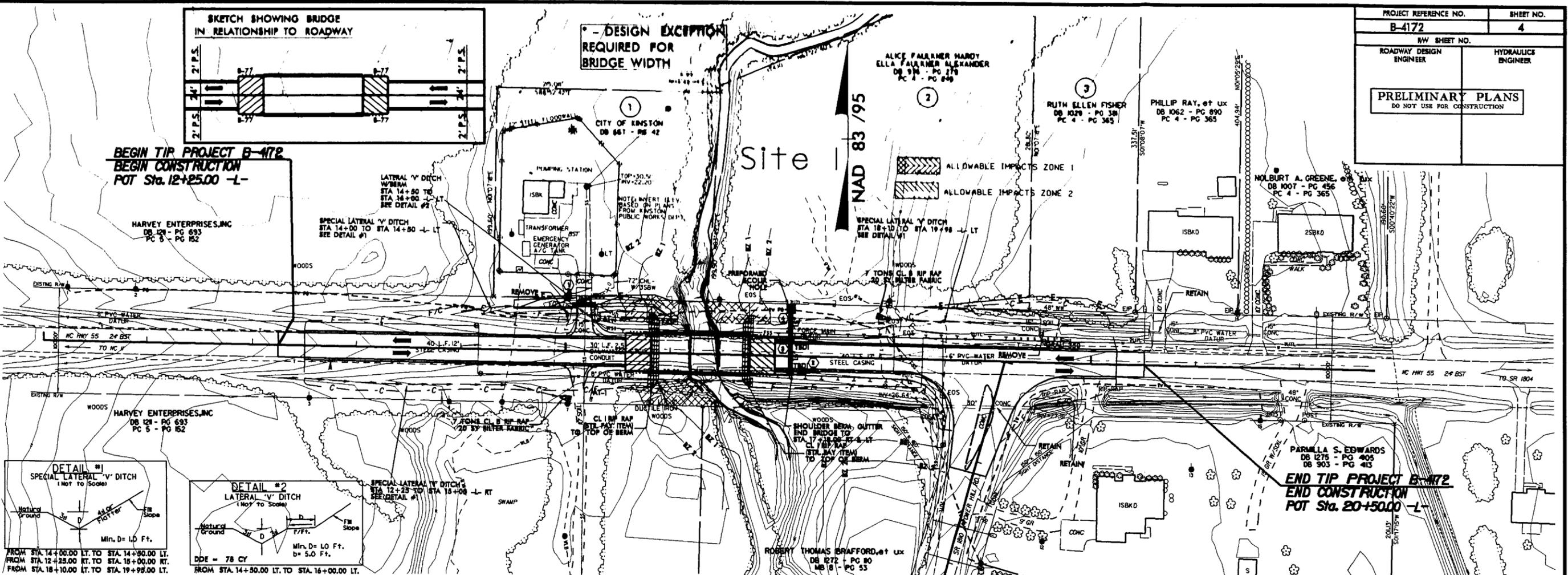
SEE STRUCTURE PLANS
S-1 THRU S-



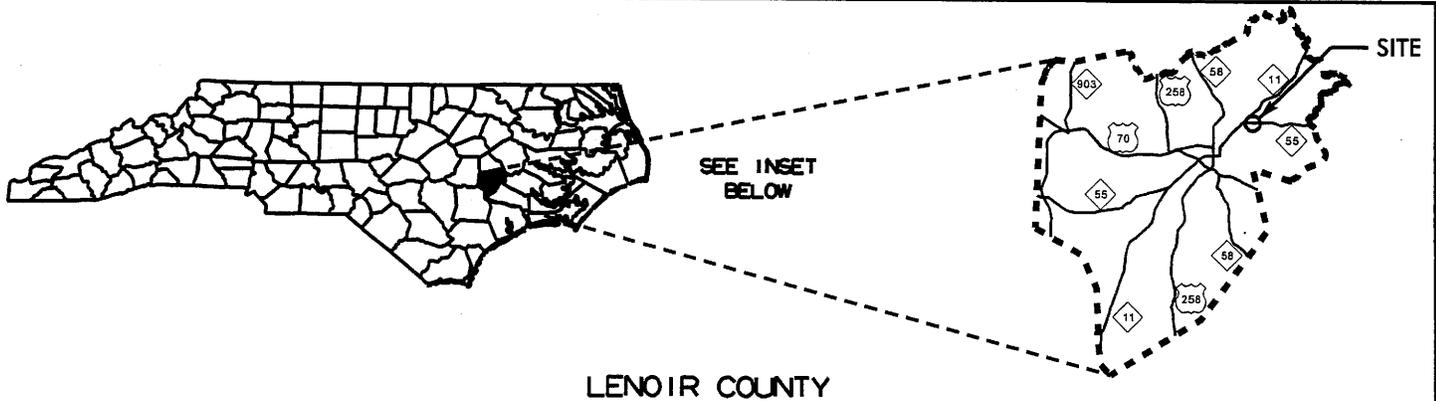
Buffer Drawing Sheet 4 of 5

8/17/95

PROJECT REFERENCE NO. B-4172	SHEET NO. 4
Roadway Design Engineer	Hydraulics Engineer
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

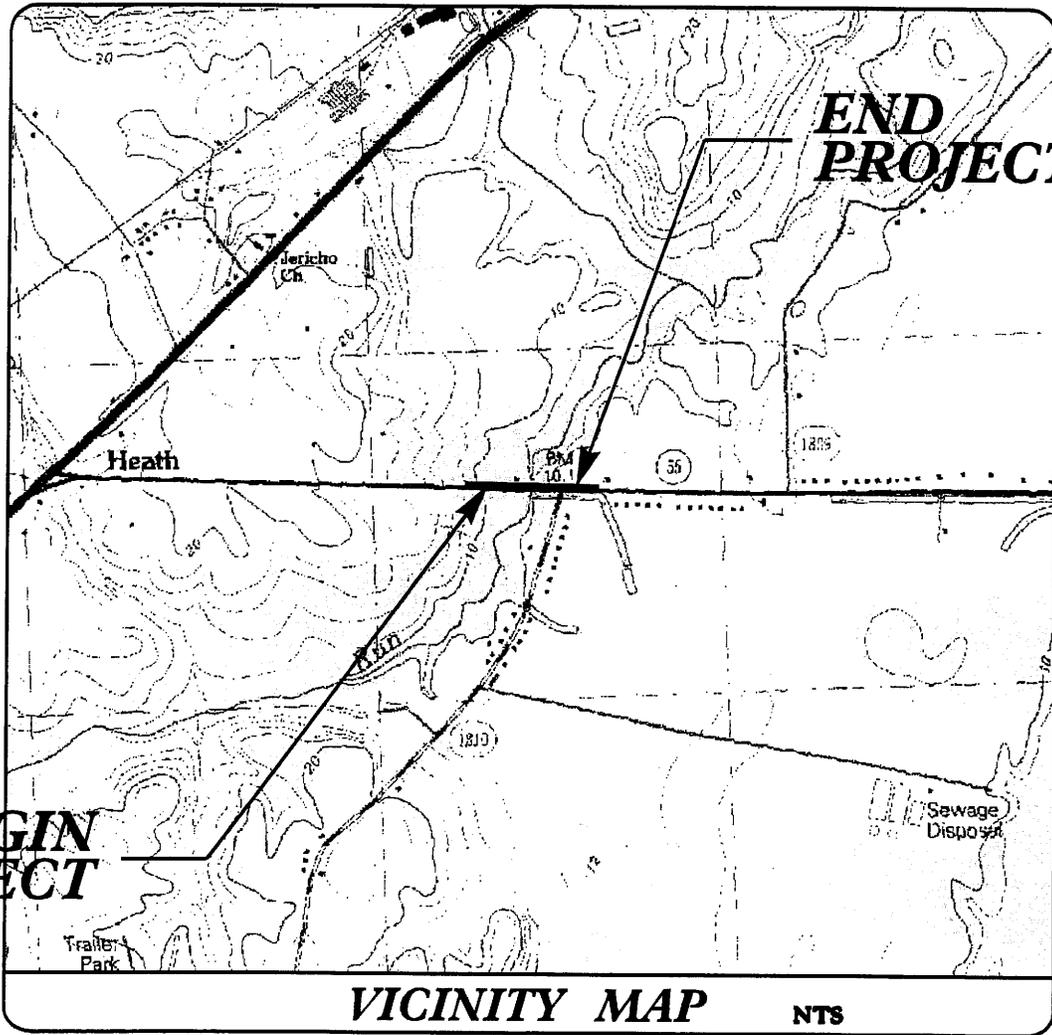


Buffer Drawing Sheet 5 of 5



SEE INSET
BELOW

LENOIR COUNTY



**BEGIN
PROJECT**

**END
PROJECT**

VICINITY MAP

NTS

**WETLAND/STREAM
IMPACTS**

Wetland
Drawing

Sheet 1 of 4

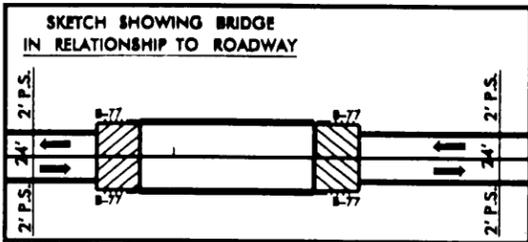
**N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**LENOIR COUNTY
PROJECT: B-4172
BRIDGE NO. 9 OVER JERICHO RUN
AND APPROACHES ON NC 55**

SHEET ____ OF ____

5 / 23 / 07

6/17/05

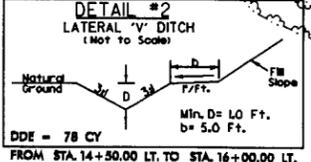
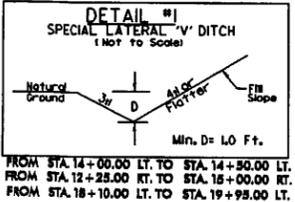
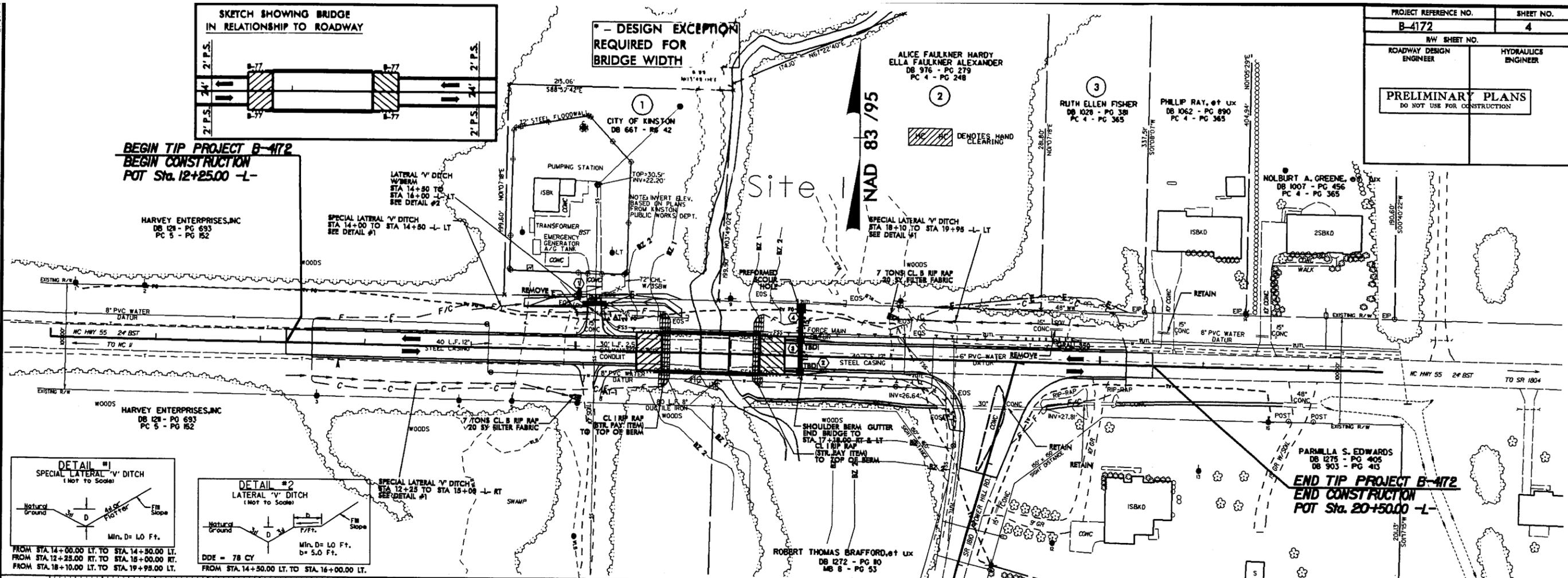


DESIGN EXCEPTION
REQUIRED FOR
BRIDGE WIDTH

PROJECT REFERENCE NO.	SHEET NO.
B-4172	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

BEGIN TIP PROJECT B-4172
BEGIN CONSTRUCTION
POT Sta. 12+25.00 -L-

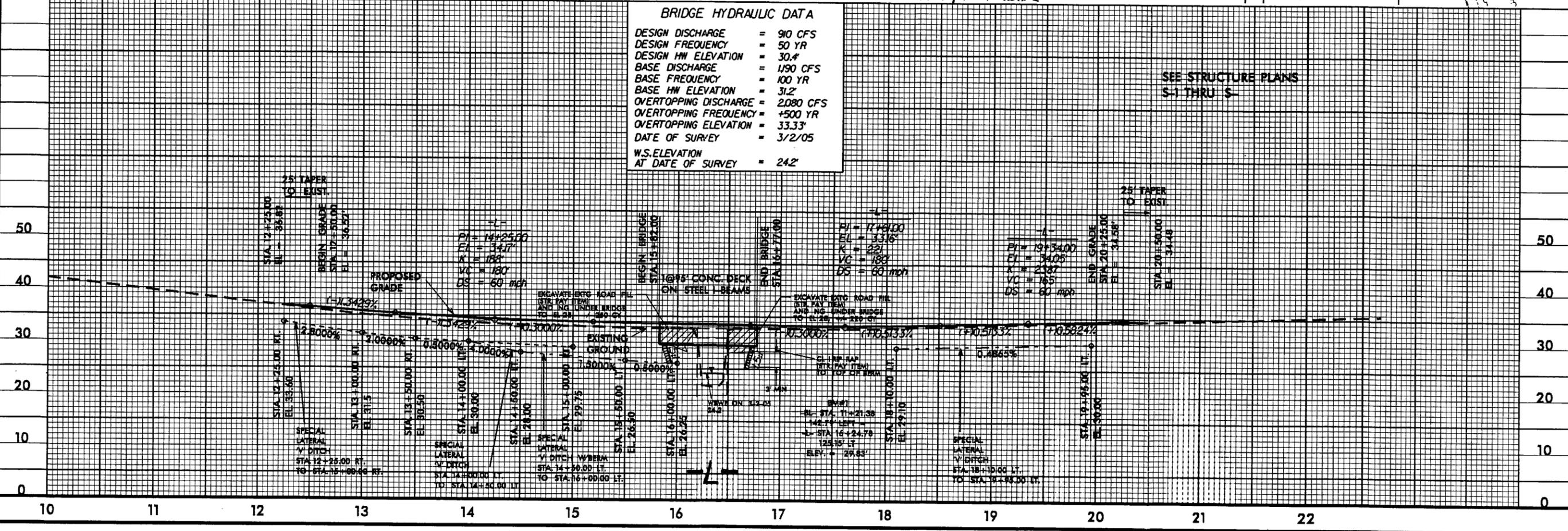
END TIP PROJECT B-4172
END CONSTRUCTION
POT Sta. 20+50.00 -L-



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 910 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 30.4'
BASE DISCHARGE	= 1,190 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 31.2'
OVERTOPPING DISCHARGE	= 2,080 CFS
OVERTOPPING FREQUENCY	= +500 YR
OVERTOPPING ELEVATION	= 33.33'
DATE OF SURVEY	= 3/2/05
W.S. ELEVATION AT DATE OF SURVEY	= 24.2'

SEE STRUCTURE PLANS
S-1 THRU S-



Wetland
Drawing 3 of 4
Sheet

