



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI
SECRETARY

March 30, 2011

U.S. Army Corps of Engineers
Regulatory Field Office
PO Box 1000
Washington, NC 27889-1000

Attention: Thomas Steffens
NCDOT Coordinator

Dear Sir:

Subject: **Application for Section 404 General Permit 198200031, Section 401 Water Quality Certification, and Neuse Riparian Buffer Authorization** for the proposed replacement of Bridge 120 over Walnut Creek on SR 1728, Wayne County TIP No. B-4673; Federal Aid Project No. BRZ-1728(2); Debit \$240.00 from WBS 33828.1.1.

Please find enclosed the PCN form, stormwater management plan, permit drawings, buffer drawings, and half-size plan sheets for the above referenced project. A Categorical Exclusion (CE) was completed for this project in May 2008, and distributed shortly thereafter. Additional copies will be made available upon request. The North Carolina Department of Transportation (NCDOT) proposes to replace existing Bridge No. 120 on SR 1728 over Walnut Creek in Wayne County. The project involves replacement of the existing 90-foot structure with a 130-foot long bridge in approximately the same location. There will be < 0.01 acre of permanent surface water impacts due to construction of a stormwater ditch and bents. In addition, there will be 4,736 sq. ft. of riparian buffer impacts.

The let date for this project is November 15, 2011; however, the let date may advance as additional funds become available.

Regulatory approvals

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that these activities be authorized by a General Permit No. 198200031

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

TELEPHONE: 919-707-6100
FAX: 919-212-5785
WEBSITE: WWW.NCDOT.ORG

LOCATION:
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610-4328

Section 401 Water Quality Certification: We anticipate 401 General Certification number 3820 will apply to this project. All general conditions of the Water Quality Certification will be met. NCDOT is providing five copies of this application to the NCDWQ for their review and approval. Authorization to debit the \$240 Permit Application Fee from WBS Element 33752.1.1 is hereby given.

Neuse Buffer Authorization: NCDOT requests that the NC Division of Water Quality review this application and issue a written approval for a Tar-Pamlico Riparian Buffer Authorization.

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

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Tyler Stanton at tstanton@ncdot.gov or (919) 707-6156.

Sincerely,



for

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

Cc:

NCDOT Permit Application Standard Distribution List



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number:	or General Permit (GP) number: 198200031	
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input checked="" type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge 120 over Walnut Creek on SR 1728
2b. County:	Wayne
2c. Nearest municipality / town:	Walnut Creek
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4673

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No:	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 212-5757
3g. Fax no.:	(919) 212-5785
3h. Email address:	tstanton@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.31616 (DD.DDDDD) Longitude: - 77.883336 (-DD.DDDDD)
1c. Property size:	1.5 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Walnut Creek
2b. Water Quality Classification of nearest receiving water:	C;NSW
2c. River basin:	Neuse
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: The primary natural community found on the site is mixed pine/hardwood forest; the principal land uses in the project vicinity include agriculture and residential development.	
3b. List the total estimated acreage of all existing wetlands on the property: 0.02	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 150	
3d. Explain the purpose of the proposed project: To replace a structurally deficient and functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 90-foot bridge with a 130-foot, 3-span bridge on the existing alignment with an off-site detour. Standard road and bridge building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Adam Karagosian	Agency/Consultant Company: STV/Ralph Whitehead Associates Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. The JD was issued on June 24, 2008 and expires on June 24, 2013	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory

1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

- Wetlands Streams - tributaries Buffers
 Open Waters Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
2g. Total wetland impacts					

2h. Comments:

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts						0 Perm 0 Temp

3i. Comments: I

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Walnut Creek	Fill	Stream	< 0.01
O2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Walnut Creek	Excavation	Stream	0.01
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				<0.01 Permanent 0.01 Temporary

4g. Comments: Permanent impacts due to ditch construction; temporary impacts due to abutment removal and bents

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, permit ID no:
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5i. Expected pond surface area (acres):

5j. Size of pond watershed (acres):

5k. Method of construction:

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?		<input checked="" type="checkbox"/> Neuse <input type="checkbox"/> Catawba		<input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Randleman		<input type="checkbox"/> Other:	
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)		
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Road Crossing	Walnut Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1,357	2,195		
B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge	Walnut Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1,176	8		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No				
6h. Total buffer impacts				2,533	2,203		
6i. Comments:							

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge is 40 feet longer than the existing bridge, the proposed bridge will be at approximately the same grade as the existing structure, there will be a preformed scour hole, and Design Standards in Sensitive Watersheds will be implemented.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT Best Management Practices for Bridge Demolition, Removal and Construction will be followed, as well as those for Sedimentation and Erosion Control; and the utilization of an off-site detour		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: Due to the minimal impacts to Waters of the U.S., no compensatory mitigation is proposed.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation? Yes No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.


Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments: see attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: see attached	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements? N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No
5b. Have all of the 401 Unit submittal requirements been met? N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H 1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary	
4. Sewage Disposal (DWQ Requirement)	
4a. 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 not applicable	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NHP, USFWS, NCDOT field surveys		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Flood maps		
Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	Mar 29, 11 Date



General Project Information

Project No.:	33828.1.1 (B-4673)		Date:	31-Jan-11	
City/Town:	Walnut Creek, NC		Project Manager:	Michael Kelly, TE I	
County(ies):	Wayne County		GAMA County?	no	
River Basin(s):	Neuse		NCDWQ Stream Index:	C,NSW	
Primary Receiving Water:	Walnut Creek (Lake Wakena)		Primary:	Class C	
Other Stream Classification:			Supplemental:	Nutrient Sensitive Waters (NSW)	
303(d) Stream?	yes		Type(s) of Impairment:	Low DO (2004)	Aquatic Weeds (1998)
State Stormwater Permit Required?	no		If yes, why?		
Could the Project Impact Threatened or Endangered Species?	no				

Description:					
Anadromous Fish Present?	no				
Description:					
Buffer Rules in Effect?	yes		Buffer Rules:	Neuse River Basin	

Existing Site

Description of Existing Project Area:	Two lane SR 1728				
Average Daily Traffic (existing):	3349				
Existing Cross Section:	11' Travel lanes, 6' to 10' Grassed Shoulders				
Surrounding Land Use:	Residence, Recreational				
General Comments:					

Project Description

Description of Proposed Project:	Replacement of Bridge #120 on SR 1728 over Walnut Creek					
Average Daily Traffic (proposed):	5719(2031)					
Proposed Cross-Section:	11' Travel lanes, 4' Paved Shoulders, 6' to 10' Grassed Shoulders, 2.7:1 to 9.5:1 Side Slopes					
Interchange Modification:	no		Median Type:			
Terminus:						
Terminus:						
Project Length (lin. miles/feet):	0.089 mi.				Added Impervious Area (ac.):	0.06 ac.
General Comments:						

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAYNE COUNTY

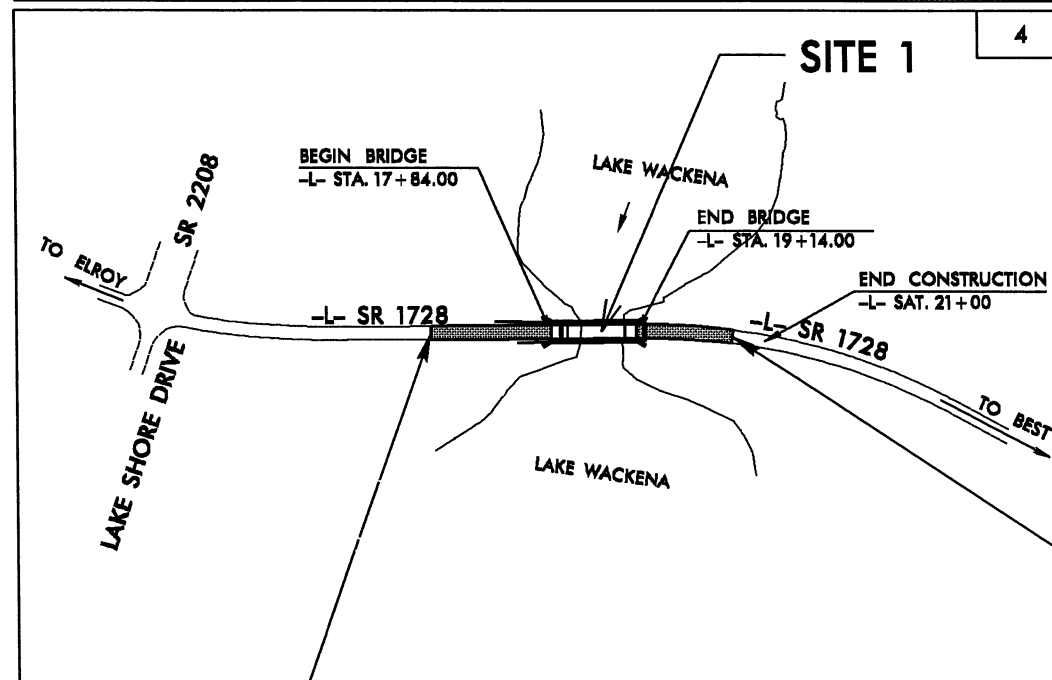
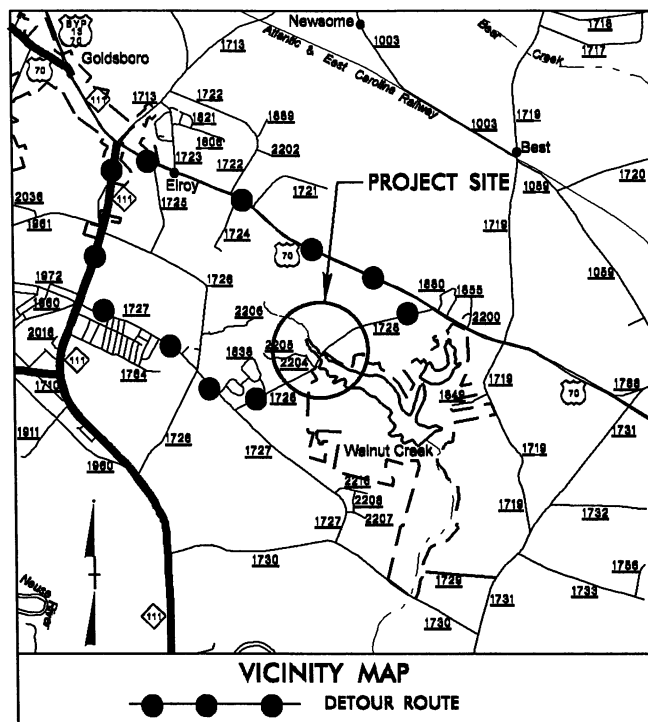
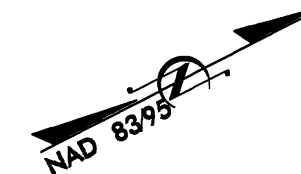
LOCATION: BRIDGE NO. 120 ON SR 1728 OVER WALNUT CREEK

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

WETLAND AND STREAM IMPACT PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4673	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33828.1.1	BRZ-1728(2)	PE	
33828.2.1	BRZ-1728(2)	RW, UTIL	

Permit Drawing
Sheet 1 of 8



STA. 15+80.00 -L- BEGIN TIP PROJECT B-4673

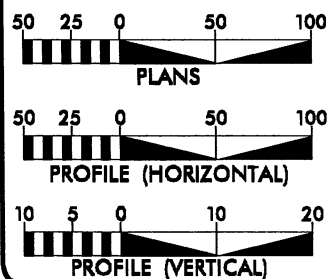
STA. 20+50.00 -L- END TIP PROJECT B-4673

THIS PROJECT IS WITHIN THE VILLAGE OF WALNUT CREEK MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2011 = 3349
ADT 2031 = 5719
DHV = 10 %
D = 60 %
T = 3 % *
V = 50 MPH
* TTST 1% DUAL 2%
FUNC. CLASS. = LOCAL RURAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4673 = 0.064 MILE
LENGTH STRUCTURE TIP PROJECT B-4673 = 0.025 MILE
TOTAL LENGTH TIP PROJECT B-4673 = 0.089 MILE

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 20, 2010

LETTING DATE:
NOVEMBER 15, 2011

BRENDA MOORE, PE
PROJECT ENGINEER

REKHA PATEL, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN
ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER P.E.

Submitted to NEU 2/16/11

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

Proposed Temporary Utility Easement — TUE —

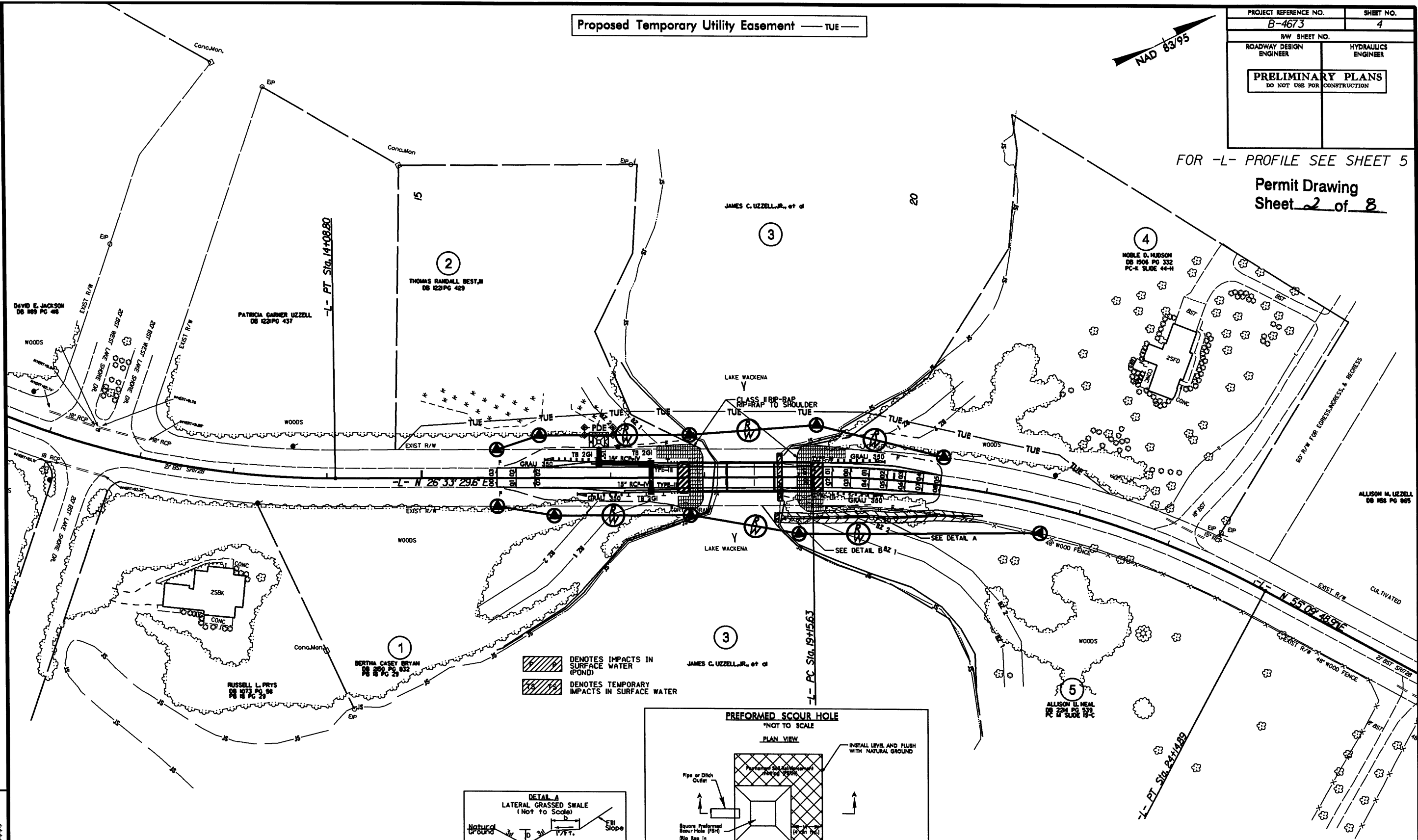


PROJECT REFERENCE NO. B-4673	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE SEE SHEET 5

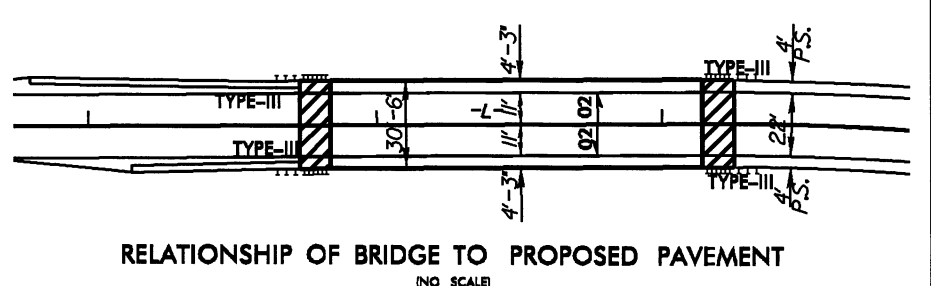
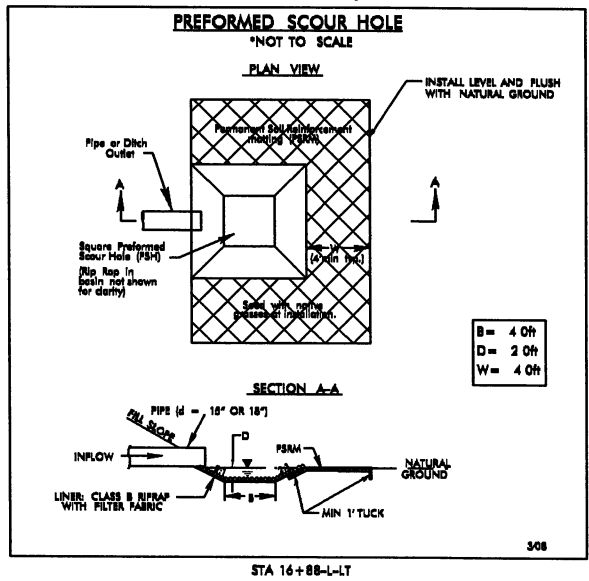
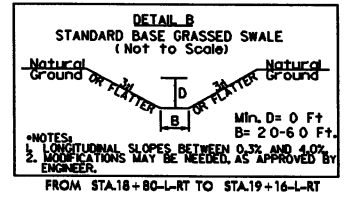
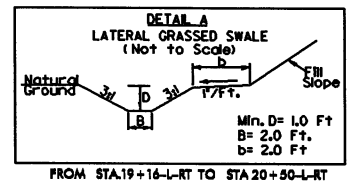
Permit Drawing
Sheet 2 of 8

R/W REV. 04/22/10 (R/W) REVISED STATION OFFSETS ACCORDING TO RIGHT OF WAY STAKING PLANS.



- DENOTES IMPACTS IN SURFACE WATER (POND)
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PI Sta 12+07.69	PI Sta 21+70.58
$\Delta = 24^{\circ} 55' 03.9" (LT)$	$\Delta = 28^{\circ} 36' 19.2" (RT)$
$D = 6^{\circ} 05' 43.7"$	$D = 5^{\circ} 43' 46.5"$
$L = 408.80'$	$L = 499.26'$
$T = 207.69'$	$T = 254.95'$
$R = 940.00'$	$R = 1,000.00'$



SYSTEMS DESIGN
 2/15/11
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PROJECT REFERENCE NO. B-4673	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

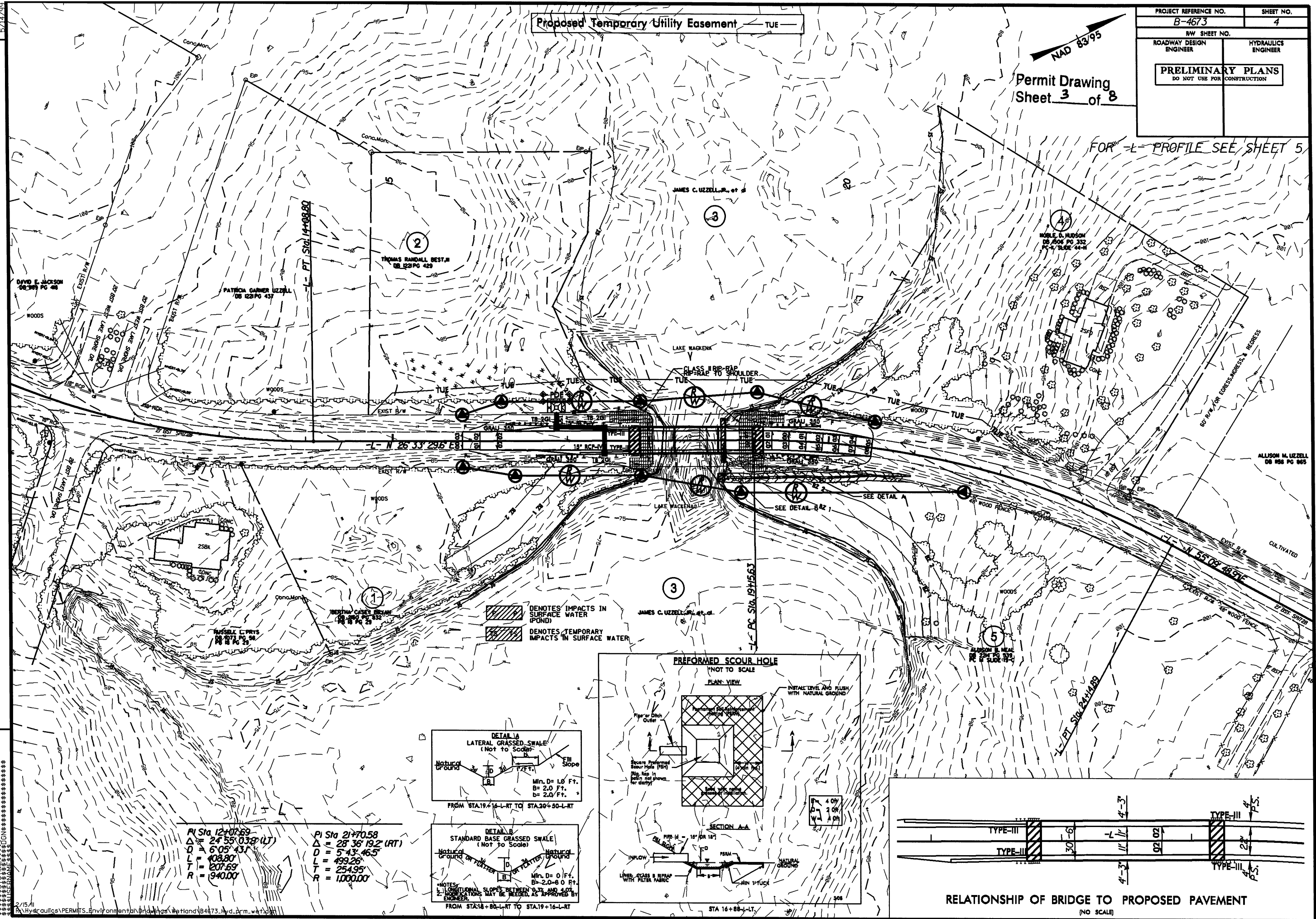
Permit Drawing
Sheet 3 of 8

FOR L-PROFILE SEE SHEET 5

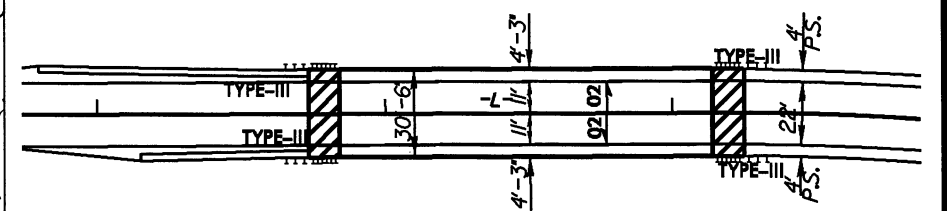
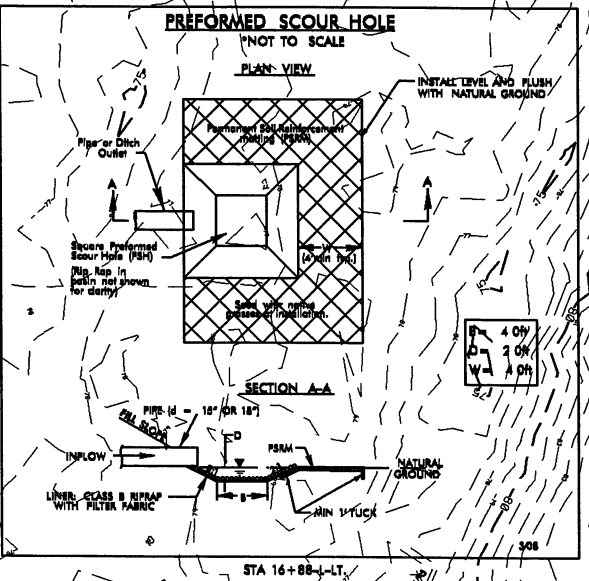
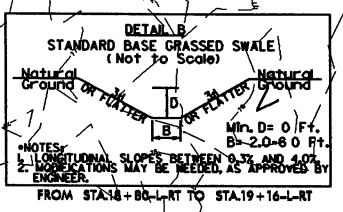
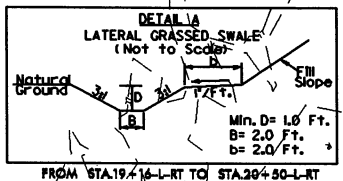
Proposed Temporary Utility Easement TUE



REVISIONS
RAW REV. 04/22/10 (RWP) REVISED STATION OFFSETS ACCORDING TO RIGHT OF WAY STAKING PLANS.



- DENOTES IMPACTS IN SURFACE WATER (POND)
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



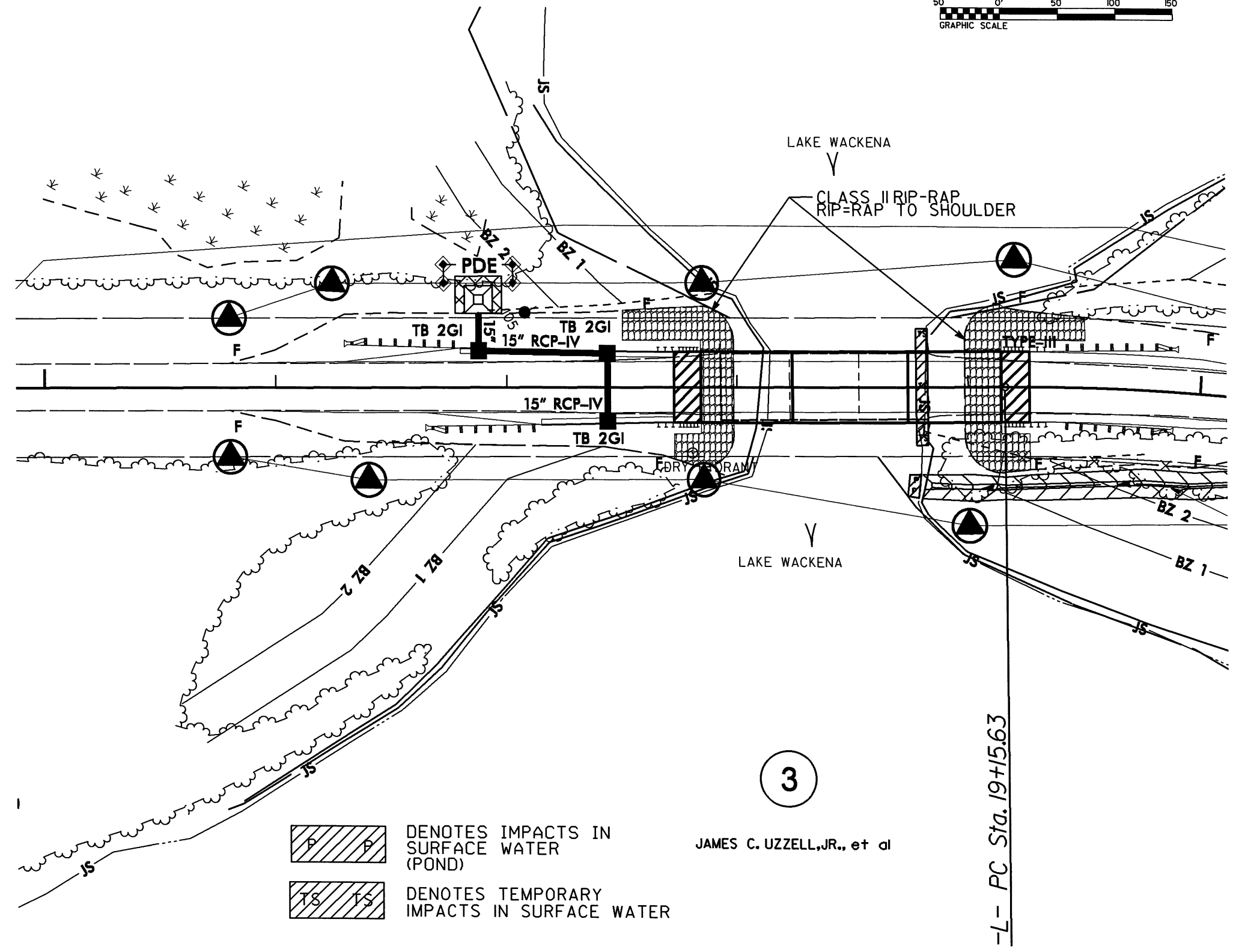
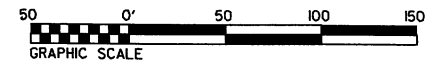
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 $R = 940.00'$

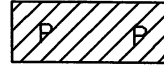
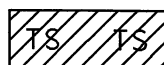
PI Sta 21+70.58
 $\Delta = 28^\circ 36' 19.2\"$ (RT)
 $D = 5' 43.465'$
 $L = 499.26'$
 $T = 254.95'$
 $R = 1,000.00'$

2/15/11
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PROJECT REFERENCE NO. B-4673	SHEET NO. 4
HW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Permit Drawing
Sheet 4 of 8



 DENOTES IMPACTS IN SURFACE WATER (POND)
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

3

JAMES C. UZZELL, JR., et al

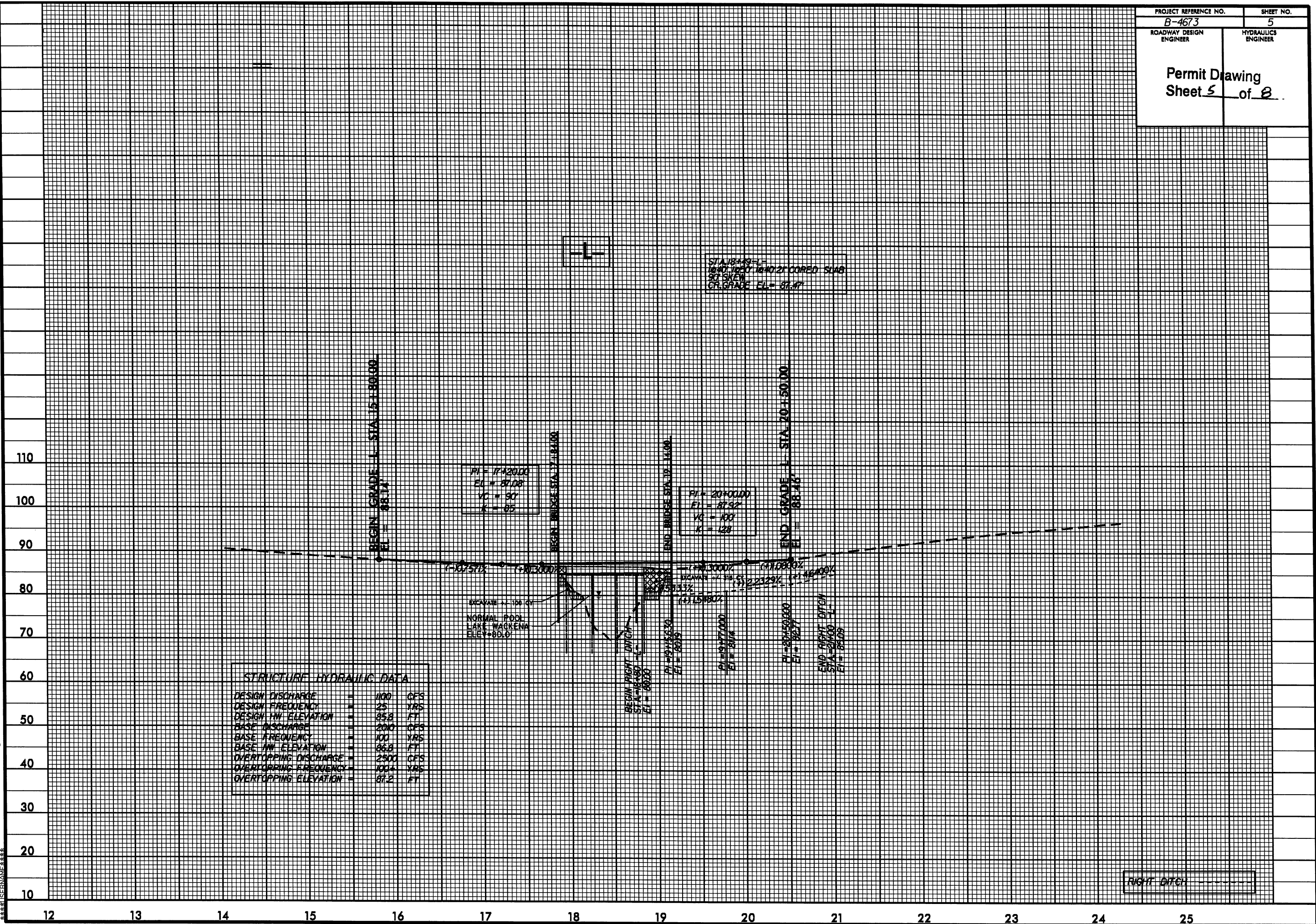
-L- PC Sta. 19+15.63



5/14/99
 2/16/11
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5/14/99

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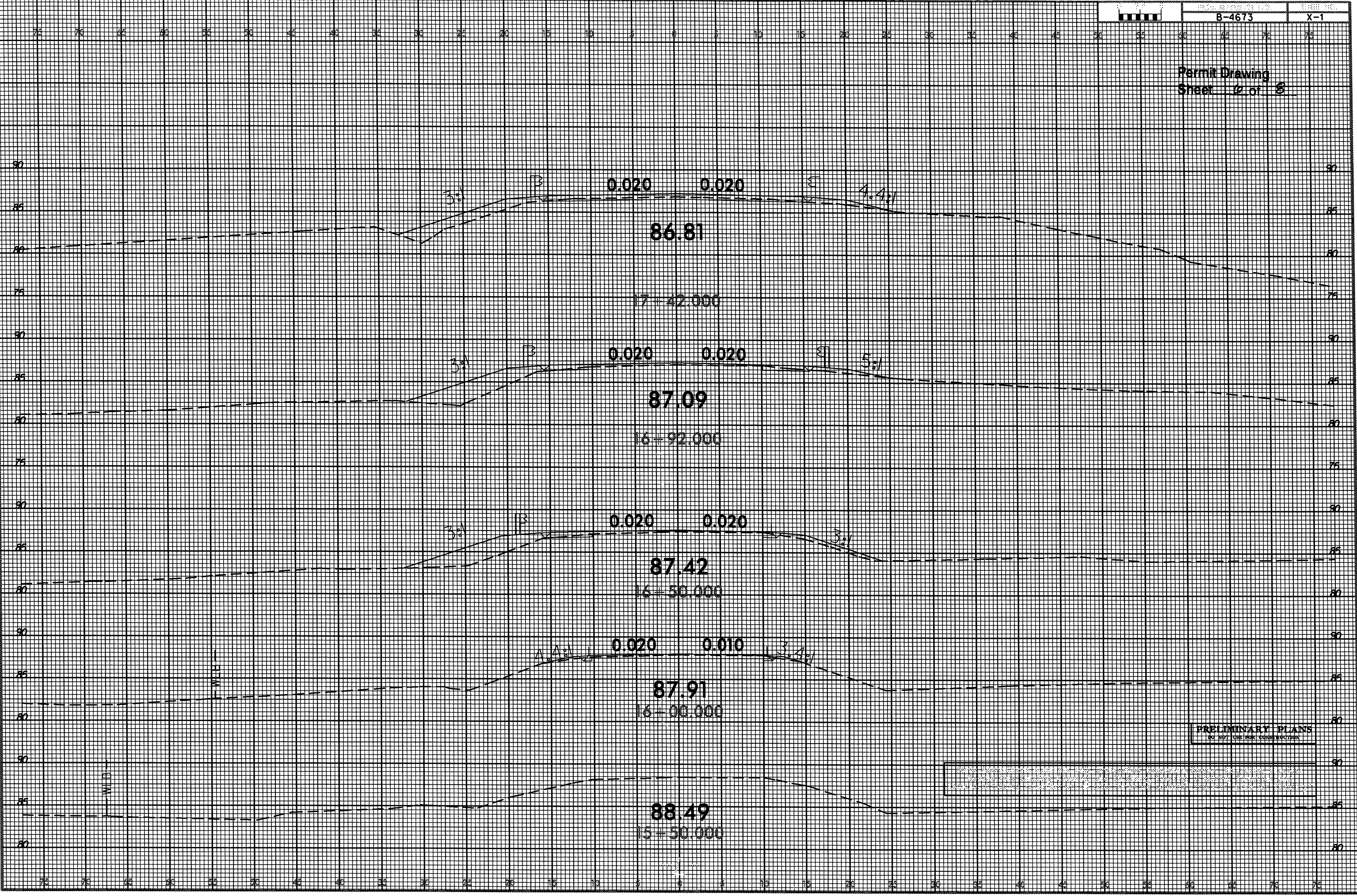


STRUCTURE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1100 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 85.8 FT
BASE DISCHARGE	= 2000 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 86.8 FT
OVERTOPPING DISCHARGE	= 2500 CFS
OVERTOPPING FREQUENCY	= 100+ YRS
OVERTOPPING ELEVATION	= 87.2 FT

RIGHT DITCH

8/23/99

Permit Drawing
Sheet 2 of 8



\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$USFRNAME\$\$\$\$\$

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

WETLAND PERMIT IMPACT SUMMARY

Site No	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS								
			Permanent Fill In Wetlands (ac)	Temp Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp (ft)	Natural Stream Design (ft)			
1	18+77 to 18+82 -L-	Abutment Removal								0.01					
1	18+80-L-RT	Ditch								<0.01					
TOTALS:															

Permanent Surface Water Impacts from piers= 2 1sf

**Permit Drawing
Sheet 7 of 8**

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

WAYNE COUNTY
WBS - 33828 1 1 (B-4673)

SHEET 2/16/2011

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	BERTHA CASEY BRYAN	5005 U. S. HWY. 70 E GOLDSBORO, NC 27534
2	THOMAS RANDALL BEST, III	111 MEADOW LARK RD. GOLDSBORO, NC 27534
3	JAMES UZZELL, JR., etal	441 LAKE WACKENA RD. GOLDSBORO, NC 27534
4	NOBLE D. & JODIE U. HUDSON	558 LAKE WACKENA RD. GOLDSBORO, NC 27534
5	ALLISON U. NEAL	535 LAKE WACKENA RD. GOLDSBORO, NC 27534

Permit Drawing
Sheet 8 of 8

NCDOT
DIVISION OF HIGHWAYS
WAYNE COUNTY
PROJECT: 33828.1.1 (B-4673)
REPLACEMENT OF
BRIDGE #120 ON SR 1728 OVER
WALNUT CREEK (LAKE WACKENA)

SHEET OF 1 / 2011

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAYNE COUNTY

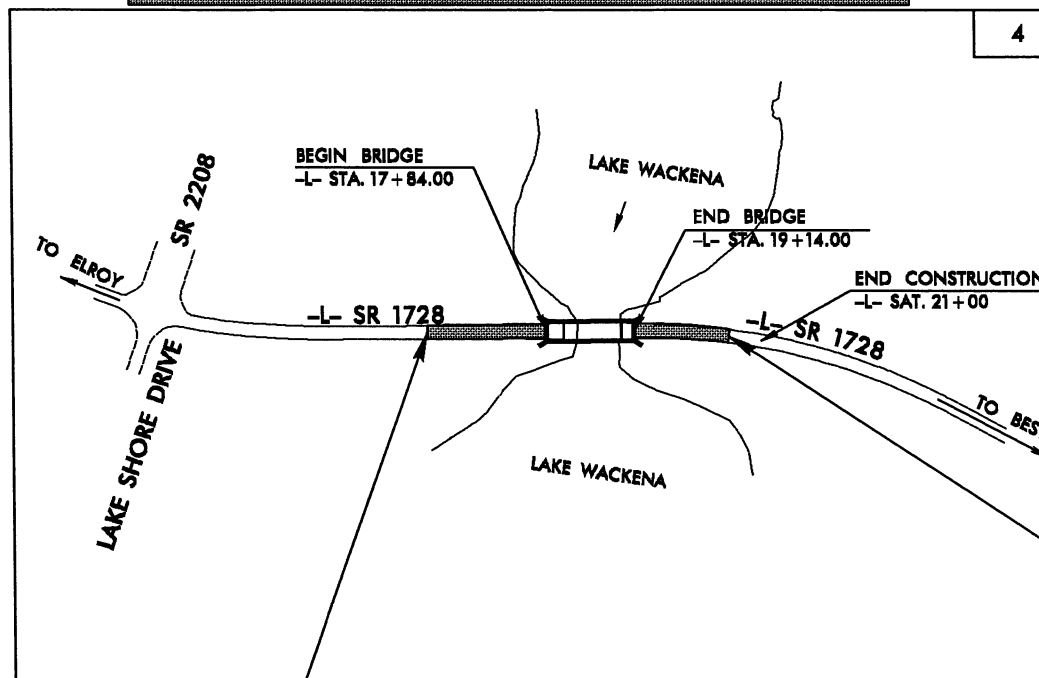
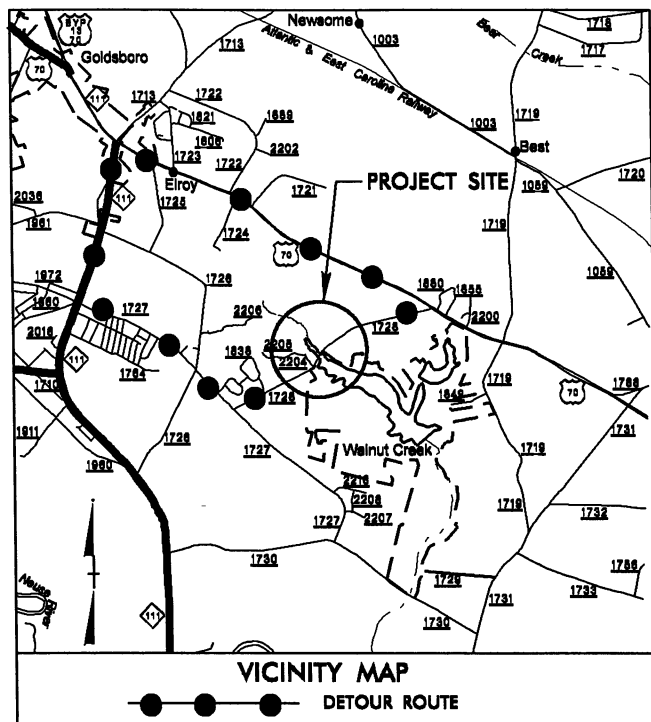
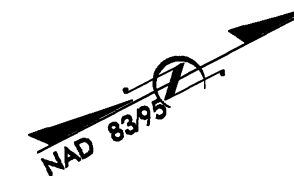
LOCATION: BRIDGE NO. 120 ON SR 1728 OVER WALNUT CREEK

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

BUFFER PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4673	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
33828.1.1	BRZ-1728(2)	PE	
33828.2.1	BRZ-1728(2)	RAW, UTIL	

Buffer Drawing
Sheet 1 of 6



STA. 15+80.00 -L- BEGIN TIP PROJECT B-4673

THIS PROJECT IS WITHIN THE VILLAGE OF WALNUT CREEK MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2011 = 3349
ADT 2031 = 5719
DHV = 10 %
D = 60 %
T = 3 % *
V = 50 MPH
* TTST 1% DUAL 2%
FUNC. CLASS. = LOCAL RURAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4673 = 0.064 MILE
LENGTH STRUCTURE TIP PROJECT B-4673 = 0.025 MILE
TOTAL LENGTH TIP PROJECT B-4673 = 0.089 MILE

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 20, 2010

LETTING DATE:
NOVEMBER 15, 2011

BRENDA MOORE, PE
PROJECT ENGINEER

KATRINA N. WASHINGTON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN
ENGINEER

SIGNATURE: _____ P.E.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER P.E.

05/08/09
\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

Proposed Temporary Utility Easement — TUE —

-  ALLOWABLE IMPACTS ZONE 1
-  ALLOWABLE IMPACTS ZONE 2

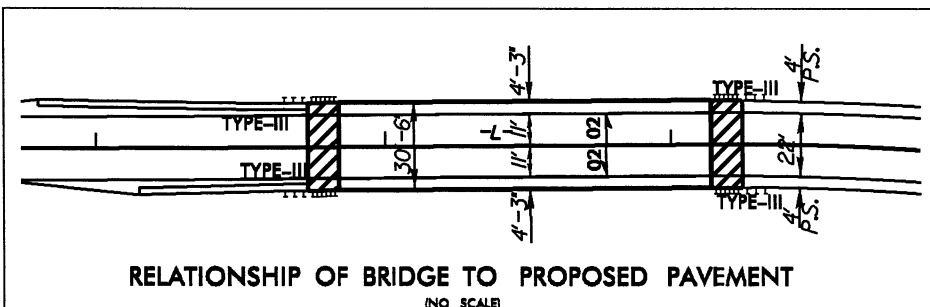
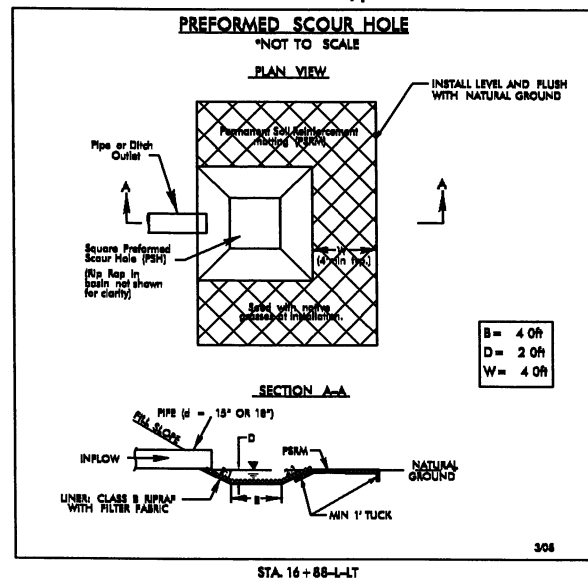
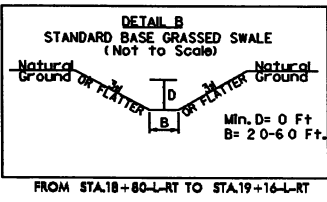
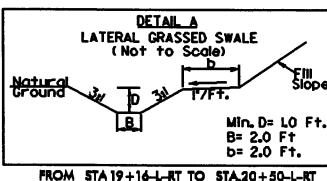
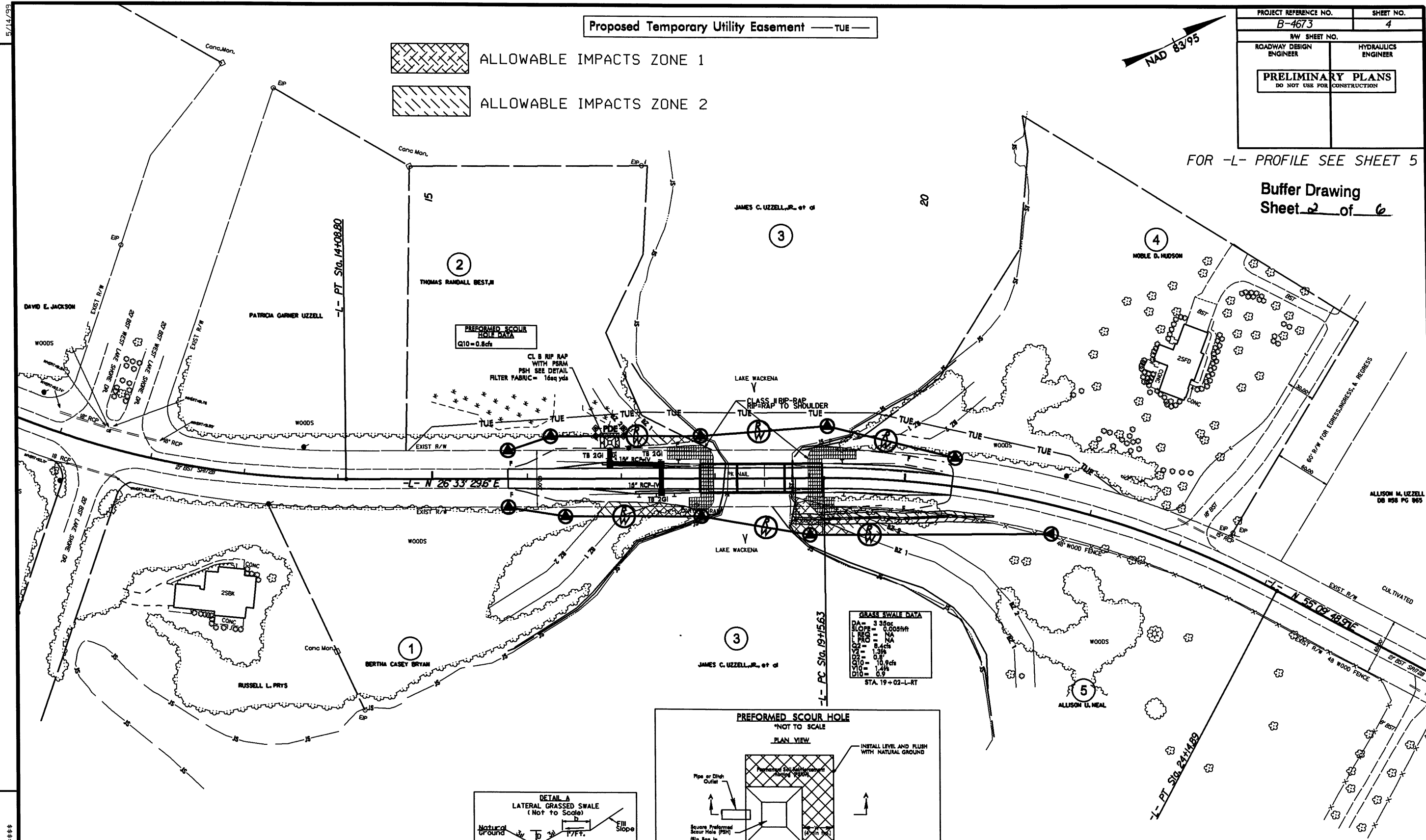
PROJECT REFERENCE NO. B-4673	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



FOR -L- PROFILE SEE SHEET 5

Buffer Drawing
Sheet 2 of 6

R/W REV. 04/22/10 (RVP) REVISED STATION OFFSETS ACCORDING TO RIGHT OF WAY STAKING PLANS.

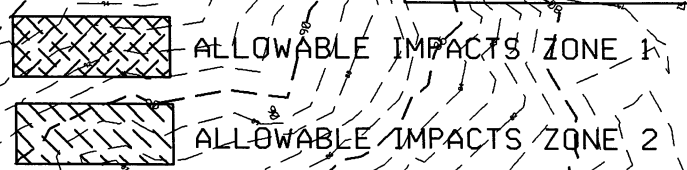


2/16/11
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PROJECT REFERENCE NO. B-4673	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
Buffer Drawing	
Sheet <u>3</u> of <u>6</u>	

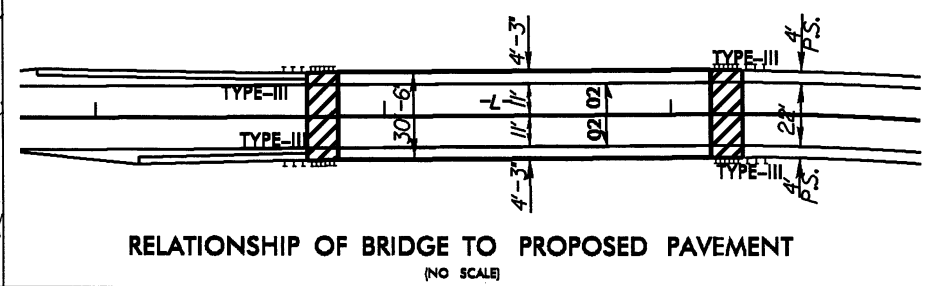
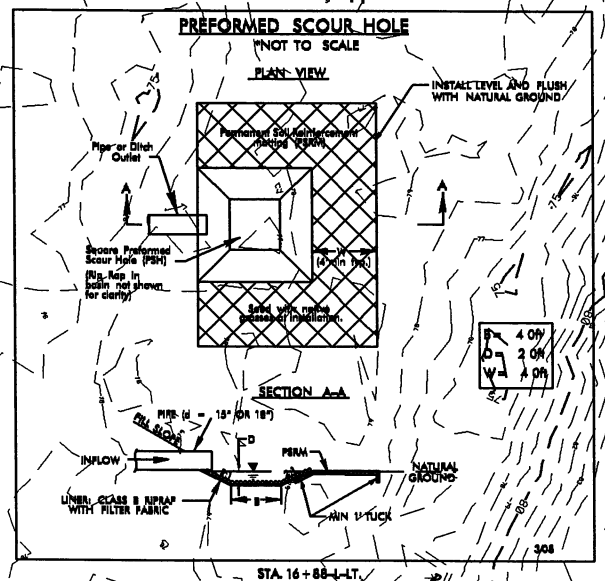
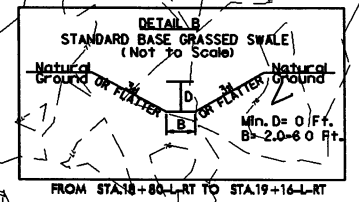
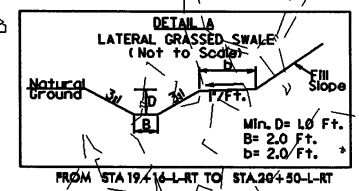
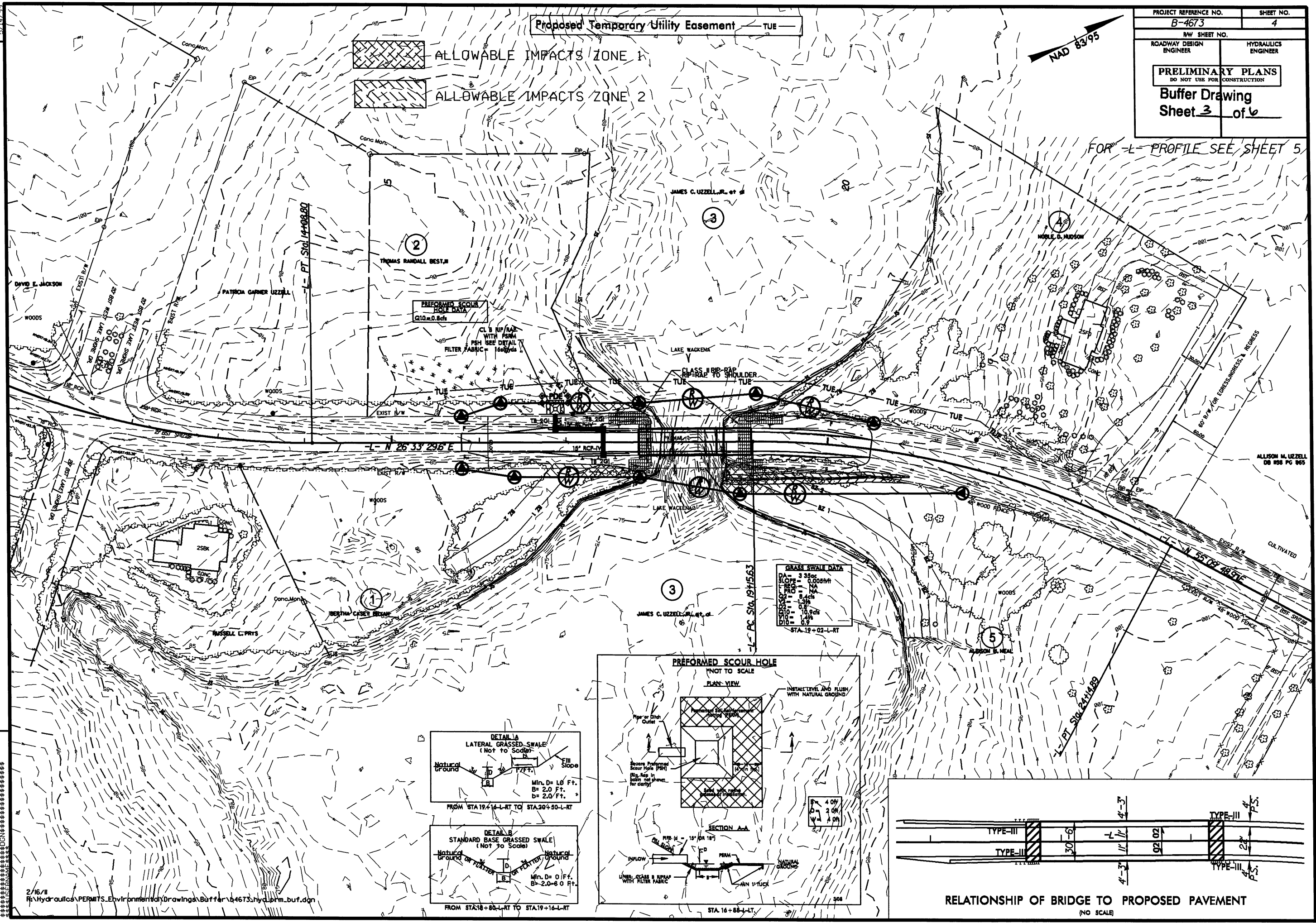


Proposed Temporary Utility Easement — TUE —

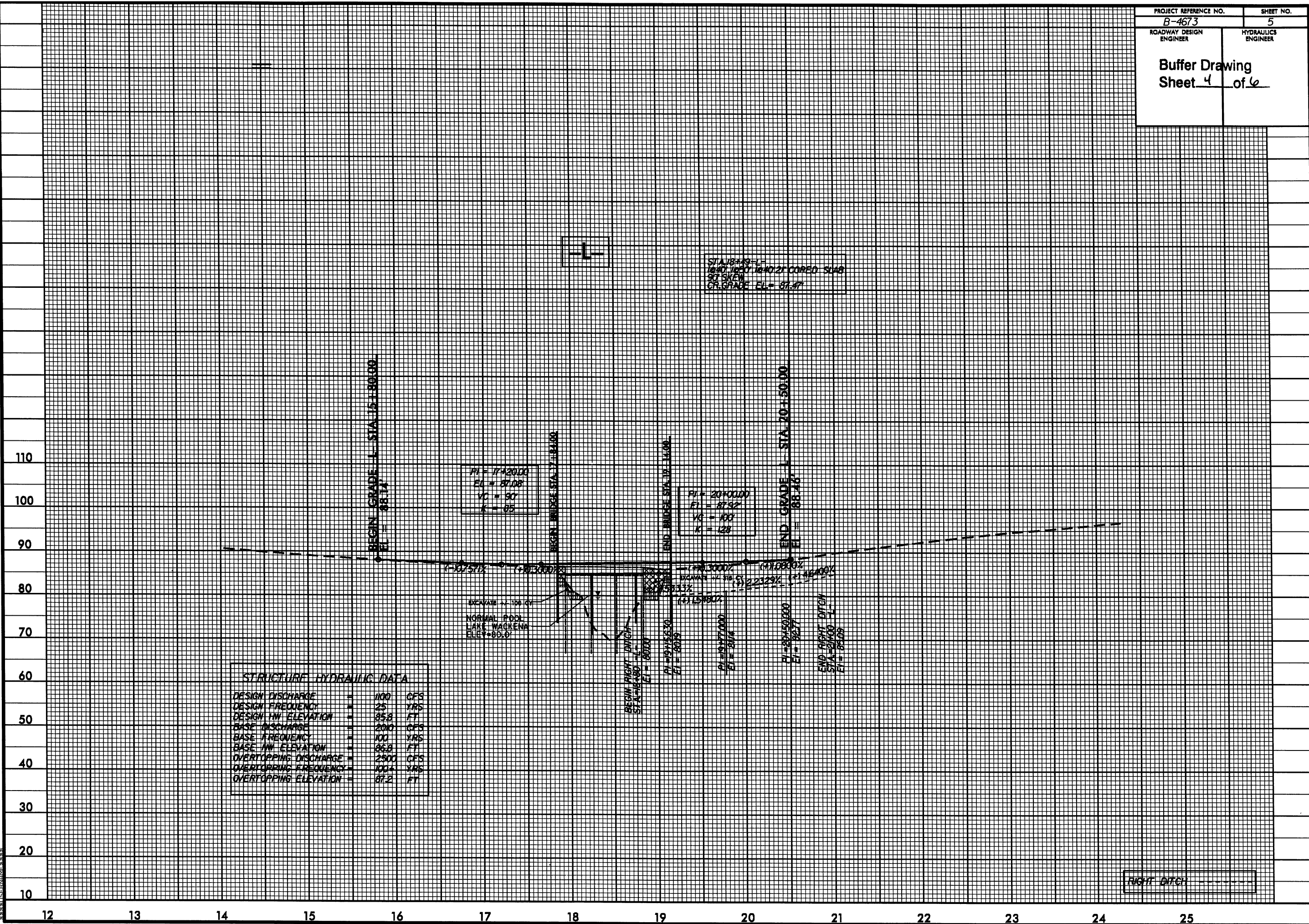


FOR — L — PROFILE SEE SHEET 5

REVISIONS
R/W REV. 04/22/10 (R/W) REVISED STATION OFFSETS ACCORDING TO RIGHT OF WAY STAKING PLANS.



5/14/99
 February 16, 2011
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 3:38 PM
 3:38 PM



STRUCTURE HYDRAULIC DATA		
DESIGN DISCHARGE	=	100 CFS
DESIGN FREQUENCY	=	25 YRS
DESIGN HW ELEVATION	=	85.8 FT
BASE DISCHARGE	=	200 CFS
BASE FREQUENCY	=	100 YRS
BASE HW ELEVATION	=	86.8 FT
OVERTOPPING DISCHARGE	=	2500 CFS
OVERTOPPING FREQUENCY	=	100+ YRS
OVERTOPPING ELEVATION	=	87.2 FT

RIGHT DITCH

BUFFER IMPACTS SUMMARY

SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	IMPACT					MITIGABLE		BUFFER REPLACEMENT			
			TYPE			ALLOWABLE		TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft ²)	ZONE 2 (ft ²)						
1	Road	17+12 to 17+84-L-LT	X				277	278	555				
		16+82 to 17+83 -L- RT					763	607	1370				
		19+37 to 20+61 -L- LT					48	0	48				
		19+13 to 20+08-L-RT					269	1310	1579				
1	Bridge	17+84 to 17+92 -L- LT		X			19		19				
		17+83 to 17+95-L- RT					38		38				
		18+71 to 19+13-L- RT					1119	8	1127				
TOTALS:							2533	2203	4736				

N C DEPT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 WAYNE COUNTY
 PROJECT: 33828 1 1 (B-4673)

Buffer Draining
Sheet 5 of 6

2/16/2011
 SHEET OF

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	BERTHA CASEY BRYAN	5005 U. S. HWY. 70 E GOLDSBORO, NC 27534
2	THOMAS RANDALL BEST, III	111 MEADOW LARK RD. GOLDSBORO, NC 27534
3	JAMES UZZELL, JR., etal	441 LAKE WACKENA RD. GOLDSBORO, NC 27534
4	NOBLE D. & JODIE U. HUDSON	558 LAKE WACKENA RD. GOLDSBORO, NC 27534
5	ALLISON U. NEAL	535 LAKE WACKENA RD. GOLDSBORO, NC 27534

Buffer Drawing
Sheet 6 of 6

NCDOT
DIVISION OF HIGHWAYS
WAYNE COUNTY
PROJECT: 33828.11 (B-4673)
REPLACEMENT OF
BRIDGE #120 ON SR 1728 OVER
WALNUT CREEK (LAKE WACKENA)

SHEET

OF

1 / 2011

09/08/10

See Sheet 1-A For Index of Sheets

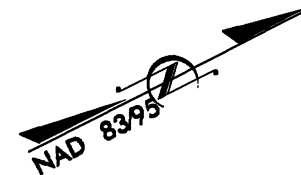
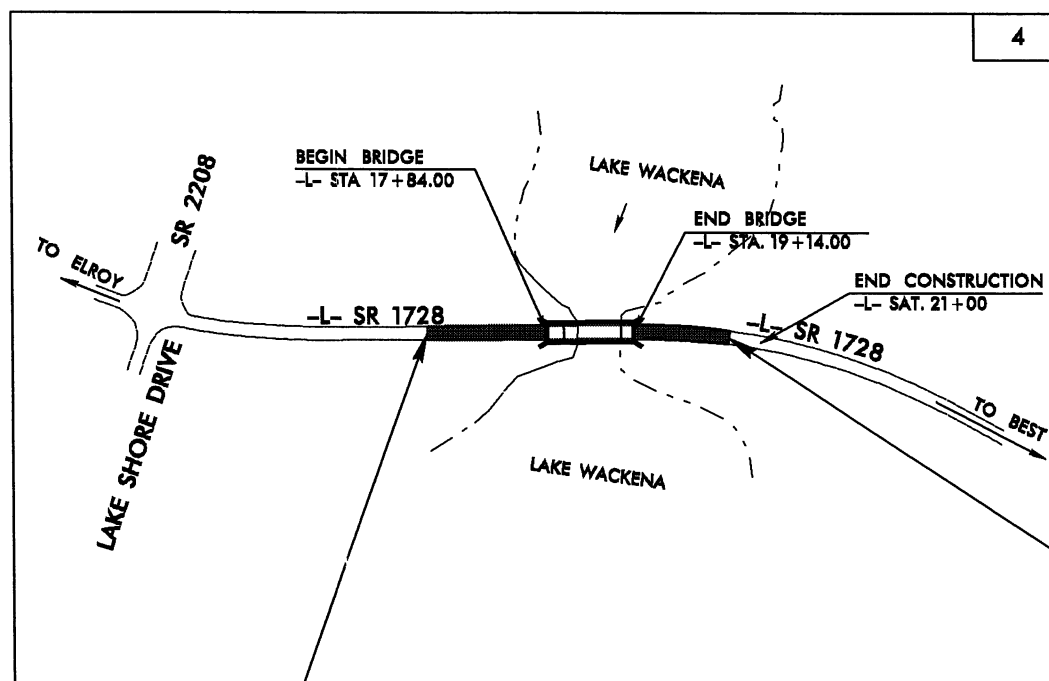
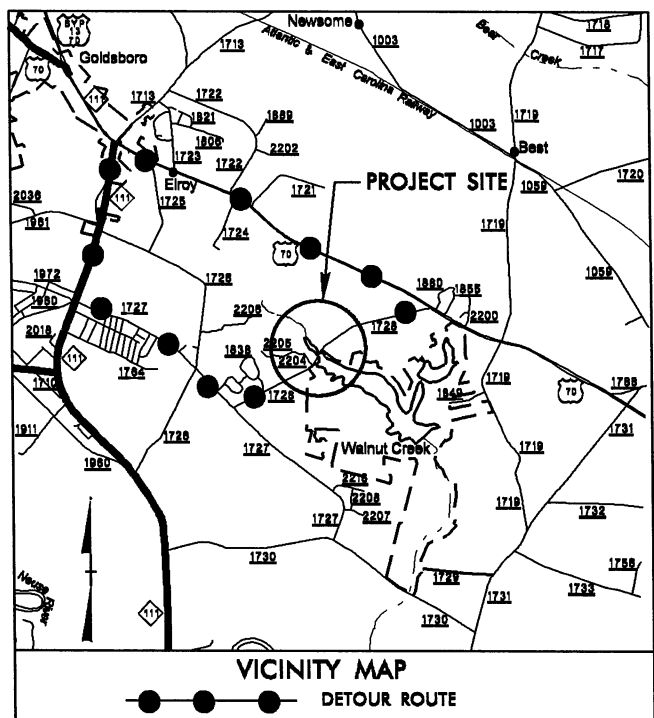
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

WAYNE COUNTY

LOCATION: BRIDGE NO. 120 ON SR. 1728 OVER WALNUT CREEK

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4673	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
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33828.2.1	BRZ-1728(2)	RW, UTIL	



TIP PROJECT: B-4673

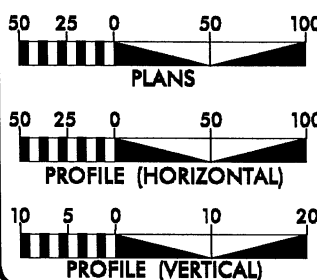
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STA. 20+50.00 -L- END TIP PROJECT B-4673

THIS PROJECT IS WITHIN THE VILLAGE OF WALNUT CREEK MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



DESIGN DATA

ADT 2011 = 3349
ADT 2031 = 5719
DHV = 10 %
D = 60 %
T = 3 % *
V = 50 MPH
* TTST 1% DUAL 2%
FUNC. CLASS. = LOCAL RURAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4673 = 0.064 MILE
LENGTH STRUCTURE TIP PROJECT B-4673 = 0.025 MILE
TOTAL LENGTH TIP PROJECT B-4673 = 0.089 MILE

Prepared In the Office of:

DIVISION OF HIGHWAYS

1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 20, 2010

LETTING DATE:
NOVEMBER 15, 2011

BRENDA MOORE, PE
PROJECT ENGINEER

KATRINA N. WASHINGTON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN
ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER

29-NOV-2010 15:01
C:\PROG\DWG\PROJECTS\0910\B4673.rdy_tsh.dgn
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CONTRACT:

Proposed Temporary Utility Easement — TUE —

PROJECT REFERENCE NO. B-4673	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>(DO NOT CONSIDER FOR CONSTRUCTION)</small>	

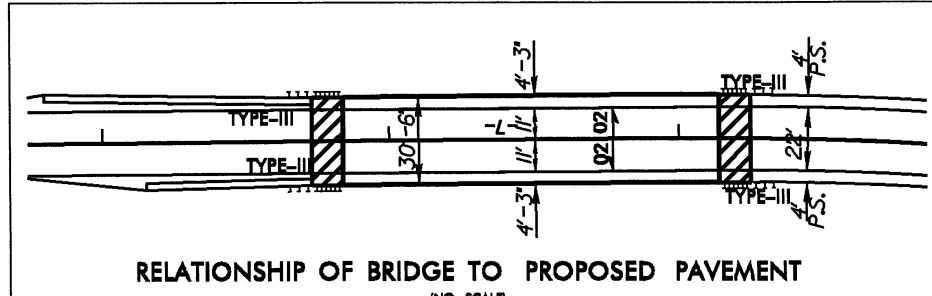
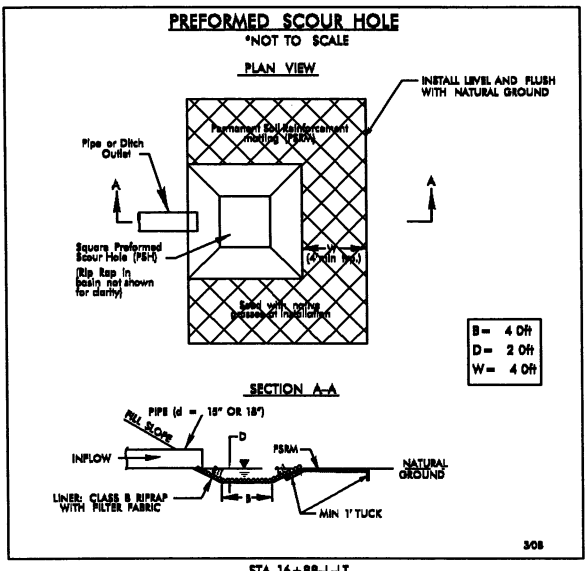
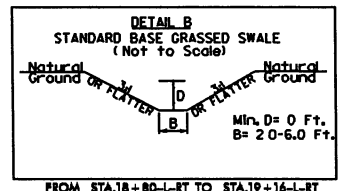
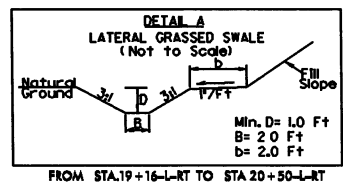
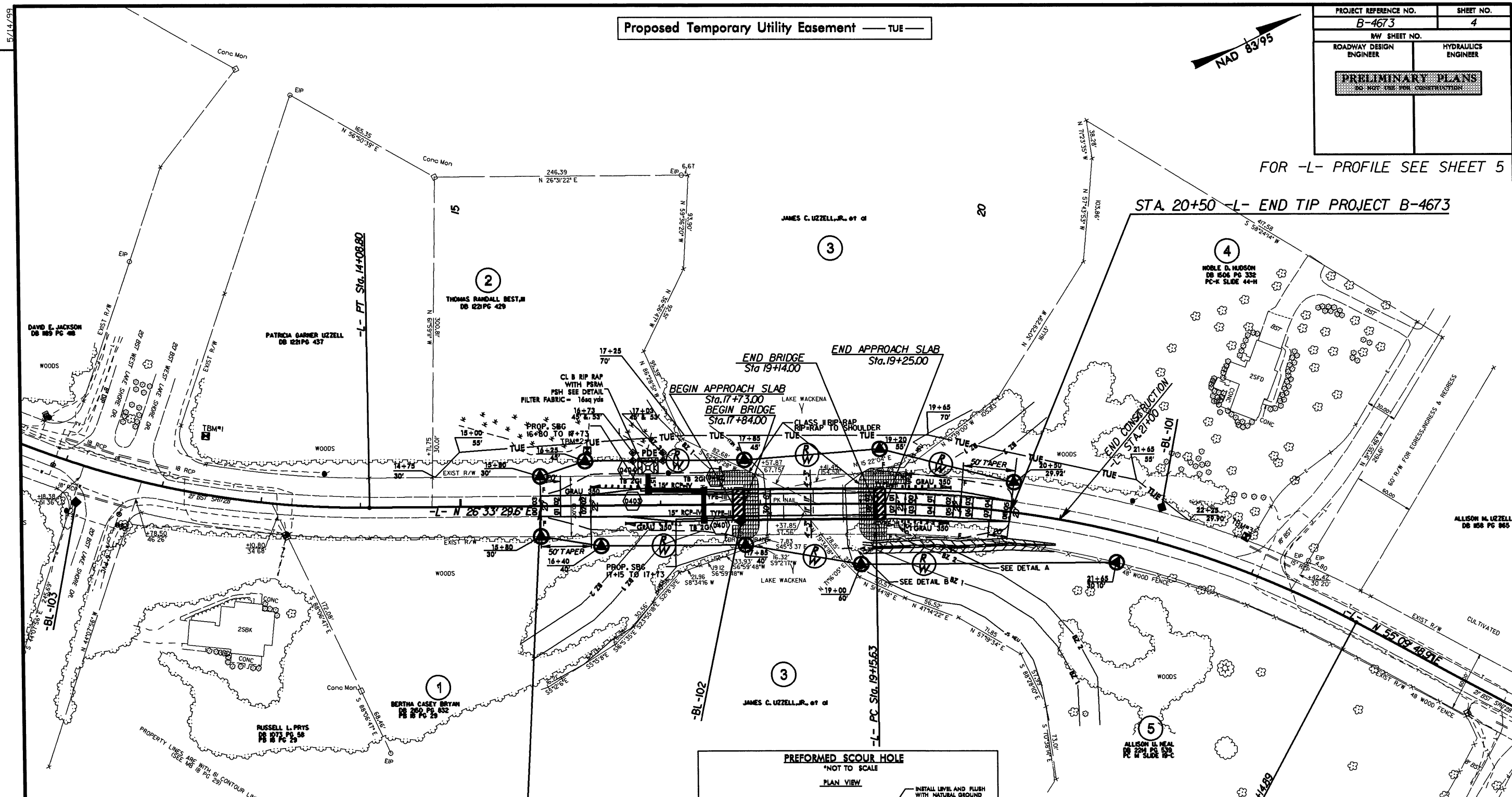


FOR -L- PROFILE SEE SHEET 5

STA. 20+50 -L- END TIP PROJECT B-4673

STA. 15+80 -L- BEGIN TIP PROJECT B-4673

R/W REV. 04/22/10 (R/W) REVISED STATION OFFSETS ACCORDING TO RIGHT OF WAY STAKING PLANS.



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