



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY PERDUE
GOVERNOR

EUGENE CONTI
SECRETARY

April 1, 2010

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

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

SUBJECT: Beaufort County, Replace Bridge No.77 on NC 99 over Pantego Creek; T.I.P.
Number B-3611; Federal Aid Project No. BRSTP-99(3); State Project 8.1151201

Attached are the U.S. Army Corps of Engineers Section 404 Nationwide Permit Number 23, N.C. Division of Water Quality Section 401 General Water Quality Certification, N.C. Division Coastal Management CAMA Permit and Riparian Buffer Authorization for the above referenced project. All environmental permits have been received for the construction of this project.

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

PSH/gyb

Attachment

Cc: W/attachment
Mr. Randy Garris, P.E. State Contract Officer
Mr. Jay B. Johnson, Division Environmental Officer
Ms. Beth Harmon, EEP

Cc: W/o attachment (see website for attachments)
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Art McMillan, P.E., Highway Design
Mr. Tom Koch, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Mr. Mike Robinson, P.E., State Bridge Construction Engineer
Mr. Bill Goodwin, P.E., PDEA Bridge Unit Head

PROJECT COMMITMENTS

Beaufort County
Bridge No. 77 on NC 99
Over Pantego Creek
Federal Aid Project No. BRSTP-99(3)
W.B.S. No. 33162.1.1
State Project No. 8.1151201
T.I.P. No. B-3611

COMMITMENTS DEVELOPED THROUGH PROJECT DEVELOPMENT AND DESIGN

All Design Groups/ Division Resident Construction Engineer – Anadromous Fish

A moratorium on in-water construction will be in place from February 15 to June 15 of any given year.

Stream Crossing Guidelines for Anadromous Fish will be implemented in the design and construction of this project.

Roadside Environmental Unit, Division Resident Engineer – Sensitive Watersheds

NCDOT will adhere to the Design Standards in Sensitive Watersheds since the project lies within a buffer zone.

All Design Groups & Division Construction – West Indian manatee

Due to the presence of suitable habitat for the West Indian manatee, NCDOT will implement USFWS's Guidelines for Avoiding Impacts to the West Indian Manatee-Precautionary Measures for Construction Activities in North Carolina Waters.

NEU – Public Trust Areas

The Division of Coastal Management has indicated the presence of Public Trust Resources within the project study area. They have verbally expressed concerns that the standard applications of guardrail and of rip rap armoring on the streambanks inhibits access to these resources for recreational purposes such as fishing. The Department of Transportation acknowledges the inconvenience to those accessing the stream but believes that the standard applications are warranted by the protection offered to the traveling public and to the streambank and this inconvenience is not considered undue interference by NCDOT.

Roadway Design/Structure Design/PDEA

Bridge No. 77 is on a designated bicycle route. Bike lanes will be provided on both sides of the bridge. Therefore, standard bicycle rail will be required on the proposed structure.

The design for Alternative 3B will be revised to avoid and minimize impacts to the CAMA wetlands and to public trust waters. NC Division of Coastal Management will be coordinated with during the design phase.

The U.S. Coast Guard has not made a final determination on the need for a Coast Guard Permit for this project. Therefore, coordination will be continued to resolve this issue. The PDEA Project Engineer, in coordination with Structure Design, will be responsible for sending the initial information that has been requested.

Division Resident Engineer's Office – Geodetic Markers

There is a Geodetic survey marker on the northeast corner of the existing bridge that will be impacted by this project. The NC Geodetic Survey will be contacted one month prior to the start of construction.

GeoEnvironmental Section – Impacts to Underground Storage Tanks (UST's)

If further design indicates potential impact to UST's, preliminary site assessments for soil and groundwater contamination will be performed prior to right of way purchase.

All Design Units, Division Resident Construction Engineer – Buffer Rules

The Tar-Pamlico River Basin Rule applies to this project.

COMMITMENTS DEVELOPED THROUGH PERMITTING

Geotechnical Engineering Unit – Division 2 Construction

The U.S. Army Corps of Engineers (USACE), N.C. Division of Coastal Management (NCDCM), and N.C. Division of Water Quality (NCDWQ) have indicated spudding is considered an acceptable method for pile installation. All spudding activities shall occur within turbidity curtains. If spudding is necessary, USACE, NCDCM, and NCDWQ shall be notified at least two weeks in advance of the anticipated start date.

U.S. Coast Guard – Advanced Approval

The U.S. Coast Guard issued Advanced Approval after determining a permit would not be required; however, the following must be met:

- a. At no time during the bridgework will the waterway be closed to navigation without the prior notification and approval of the Coast Guard.
- b. The Bridge Administration Branch of the Fifth Coast Guard District should be notified as soon as possible to commencement and completion of bridgework so the appropriated announcements may be prepared for the Local Notice to Mariners publication.
- c. The lowest portion of the superstructure of the bridge across the waterway should clear the 100-year flood height elevation, if feasible.

Division 2 Construction

CAMA Condition #25 states, "In accordance with commitments made by the permittee in the permit application drawings, the portion of the temporary work bridge located at the navigational channel between Station 47 + 55' and Station 47 + 87' shall maintain the existing horizontal and vertical navigational clearances."

A gap shall be provided in the work bridge at the navigational span of the proposed bridge maintaining the existing horizontal clearance

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action ID: SAW-2007-02941

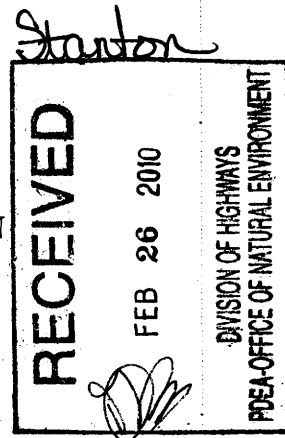
County: Beaufort

USGS Quad: NC-Pantego

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Property Owner / Authorized Agent: NCDOT/ Greg Thorpe PhD

Address: 1598 Mail Service Center
Raleigh, North Carolina
27699-1598



Telephone No.: 919-431-2000

Size and location of property (water body, road name/number, town, etc.): B-3611 Bridge 77 over Pantego Creek, NC99, near Belhaven, Beaufort County, North Carolina.

Description of projects area and activity: Replace obsolete bridge structure with new structure.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344)
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number: _____
Nationwide Permit Number: NW 23

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted plans. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Quality (telephone (919) 733-1786) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management .

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact Tom Steffens at 910-251-4615.


Corps Regulatory Official *[Signature]*

Date: 02/23/2010

Expiration Date of Verification: 02/28/2012

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at <http://regulatory.usacesurvey.com/> to complete the survey online.

Determination of Jurisdiction:

- Based on preliminary information, there appear to be waters of the US including wetlands within the above described project area. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).
- There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are waters of the US and/or wetlands within the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The jurisdictional areas within the above described project area have been identified under a previous action. Please reference jurisdictional determination issued 09122007. Action ID 200702941 

Basis of Jurisdictional Determination: _____

Appeals Information (This information applies only to approved jurisdictional determinations.)

Attached to this verification is an approved jurisdictional determination. If you are not in agreement with that approved jurisdictional determination, you can make an administrative appeal under 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division
Attn: Tom Steffens, Project Manager,
Washington Regulatory Field Office
Post Office Box 1000
Washington, North Carolina 27889

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by _____.

****It is not necessary to submit an RFA form to the District Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: _____

Date _____ Expiration Date _____

SURVEY PLATS, FIELD SKETCH, WETLAND DELINEATION FORMS, PROJECT PLANS, ETC., MUST BE ATTACHED TO THE FILE COPY OF THIS FORM, IF REQUIRED OR AVAILABLE.

Copy Furnished:
RGW-file

Action ID Number: 2007-02941

County: Beaufort

Permittee: NCDOT/ Greg Thorpe

Date Verification Issued: 02/23/2010

Project Manager: Tom Steffens

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
WASHINGTON REGULATORY FIELD OFFICE
POST OFFICE BOX 1000
WASHINGTON, NORTH CAROLINA 27889

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Additional Special Conditions

Action I.D. # SAW-2007-02941 - NCDOT, B-3611, NC Highway 99, Bridge No. 77
Replacement, Pantego Creek, Beaufort County

- a) To avoid adverse impacts to spawning populations of fish species at this project site, no in-water work will be conducted between February 15 and June 15 of any given year. For the purpose of this moratorium, in water is defined as those waters within Pantego Creek and its adjacent wetlands that during periods of inundation have an active connection to Pantego Creek.
- b) The Permittee shall adhere to the following guidelines:
 - NCDOT: Stream Crossing Guidelines for Anadromous Fish.
 - NCDOT: Best Management Practices for Bridge Demolition and Removal
 - NCDOT: Best Management Practices for the Protection of Surface Waters and Sedimentation and Erosion Control measures.
 - NCDOT: Design Standards in Sensitive Watersheds.
 - USFWS: Guidelines for Avoiding Impacts to the West Indian Manatee-Precautionary Measures for Construction Activities in North Carolina Waters. A copy of these guidelines is attached to the permit conditions.
- c) Remove all temporary structures (temporary work bridges, cofferdam, and erosion control devices etc.) upon completion of the project.
- d) The authorized structure and associated activity must not interfere with the public's right to free navigation on all navigable waters of the United States. No attempt will be made by the Permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work for reason other than safety. The temporary work bridges shall have a vertical and horizontal opening no less than the existing bridge structure if they span the entire navigational channel. If the temporary work bridge does not span the existing navigational channel and a horizontal navigational opening is left equal to or greater than the existing navigational zone under the existing bridge, then the temporary work bridges vertical clearance can be less than the existing opening.
- e) The Permittee must install and maintain, at his expense, any signal lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on authorized facilities. For further information, the Permittee should contact the U.S. Coast Guard Marine Safety Office at (910) 772-2191.

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- f) The Permittee will acquire the necessary permit from the US Coast Guard for the B-3611 project and submit a copy of the permit to the US Army Corps of Engineers, Washington Regulatory Field Office, Post Office Box 1000, Washington, NC 27889
- g) Compensatory mitigation for the unavoidable impacts to 0.88 acres of riparian wetlands associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated October 20, 2009, from William D. Gilmore, EEP Director. Pursuant to the Tri-Party Memorandum of Agreement (MOA) between the NC Department of Environment and Natural Resources, the NC Department of Transportation and the US Army Corps of Engineers executed on March 8, 2007, and in accordance with Section X of Amendment No. 2 to the MOA, the EEP will provide 1.76 acres of restoration equivalent riparian wetlands in the Tar-Pamlico River Basin (Hydrologic Cataloging Unit 03020104). For wetlands, a minimum of 1:1 (impact to mitigation) must be in the form of wetland restoration. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.
- h) All excavated materials will be confined above normal high water and landward of regularly or irregularly flooded wetlands behind adequate dikes or retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- i) Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill, or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands, or any activities that cause the degradation of waters or wetlands, except as authorized by this permit, or any modification to this permit. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional waters or wetlands associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and fill activities connected with this project. To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the Permittee shall require its contractors and/or agents to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The Permittee shall provide the USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the Permittee has that information. The Permittee will coordinate with the USACE before approving any borrow or waste sites that are within 400 feet of any streams or wetlands.
- j) The Permittee shall ensure that all such areas comply with condition (i) of this permit, and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the preceding condition (i). All information will be available to the USACE upon request. NCDOT shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have

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been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

- k) The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions and any Corps approved modifications shall be available at the project site during construction and maintenance of this project.
- l) Any violation of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District, U.S. Army Corps of Engineers, within 24 hours of the violation.
- m) Failure to institute and carry out the details of special conditions a. - m., may result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with TIP No. B-3611, or such other remedy as the District Engineer or his authorized representatives may seek.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

GUIDELINES FOR AVOIDING IMPACTS TO THE WEST INDIAN MANATEE Precautionary Measures for Construction Activities in North Carolina Waters

The West Indian manatee (*Trichechus manatus*), also known as the Florida manatee, is a Federally-listed endangered aquatic mammal protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C 1461 *et seq.*). The manatee is also listed as endangered under the North Carolina Endangered Species Act of 1987 (Article 25 of Chapter 113 of the General Statutes). The U.S. Fish and Wildlife Service (Service) is the lead Federal agency responsible for the protection and recovery of the West Indian manatee under the provisions of the Endangered Species Act.

Adult manatees average 10 feet long and weigh about 2,200 pounds, although some individuals have been recorded at lengths greater than 13 feet and weighing as much as 3,500 pounds. Manatees are commonly found in fresh, brackish, or marine water habitats, including shallow coastal bays, lagoons, estuaries, and inland rivers of varying salinity extremes. Manatees spend much of their time underwater or partly submerged, making them difficult to detect even in shallow water. While the manatee's principal stronghold in the United States is Florida, the species is considered a seasonal inhabitant of North Carolina with most occurrences reported from June through October.

To protect manatees in North Carolina, the Service's Raleigh Field Office has prepared precautionary measures for general construction activities in waters used by the species. Implementation of these measure will allow in-water projects which do not require blasting to proceed without adverse impacts to manatees. In addition, inclusion of these guidelines as conservation measures in a Biological Assessment or Biological Evaluation, or as part of the determination of impacts on the manatee in an environmental document prepared pursuant to the National Environmental Policy Act, will expedite the Service's review of the document for the fulfillment of requirements under Section 7 of the Endangered Species Act. These measures include:

1. The project manager and/or contractor will inform all personnel associated with the project that manatees may be present in the project area, and the need to avoid any harm to these endangered mammals. The project manager will ensure that all construction personnel know the general appearance of the species and their habit of moving about completely or partially submerged in shallow water. All construction personnel will be informed that they are responsible for observing water-related activities for the presence of manatees.
2. The project manager and/or the contractor will advise all construction personnel that

there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act and the Endangered Species Act.

3. If a manatee is seen within 100 yards of the active construction and/or dredging operation or vessel movement, all appropriate precautions will be implemented to ensure protection of the manatee. These precautions will include the immediate shutdown of moving equipment if a manatee comes within 50 feet of the operational area of the equipment. Activities will not resume until the manatee has departed the project area on its own volition (i.e., it may not be herded or harassed from the area).

4. Any collision with and/or injury to a manatee will be reported immediately. The report must be made to the U.S. Fish and Wildlife Service (ph. 919.856.4520 ext. 16), the National Marine Fisheries Service (ph. 252.728.8762), and the North Carolina Wildlife Resources Commission (ph. 252.448.1546).

5. A sign will be posted in all vessels associated with the project where it is clearly visible to the vessel operator. The sign should state:

CAUTION: The endangered manatee may occur in these waters during the warmer months, primarily from June through October. Idle speed is required if operating this vessel in shallow water during these months. All equipment must be shut down if a manatee comes within 50 feet of the vessel or operating equipment. A collision with and/or injury to the manatee must be reported immediately to the U.S. Fish and Wildlife Service (919-856-4520 ext. 16), the National Marine Fisheries Service (252.728.8762), and the North Carolina Wildlife Resources Commission (252.448.1546).

6. The contractor will maintain a log detailing sightings, collisions, and/or injuries to manatees during project activities. Upon completion of the action, the project manager will prepare a report which summarizes all information on manatees encountered and submit the report to the Service's Raleigh Field Office.

7. All vessels associated with the construction project will operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

8. If siltation barriers must be placed in shallow water, these barriers will be: (a) made of material in which manatees cannot become entangled; (b) secured in a manner that they cannot break free and entangle manatees; and, (c) regularly monitored to ensure that manatees have not become entangled. Barriers will be placed in a manner to allow manatees entry to or exit from essential habitat.

Prepared by (rev. 06/2003):
U.S. Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726
919/856-4520

Figure 1. The whole body of the West Indian manatee may be visible in clear water; but in the dark and muddy waters of coastal North Carolina, one normally sees only a small part of the head when the manatee raises its nose to breathe.

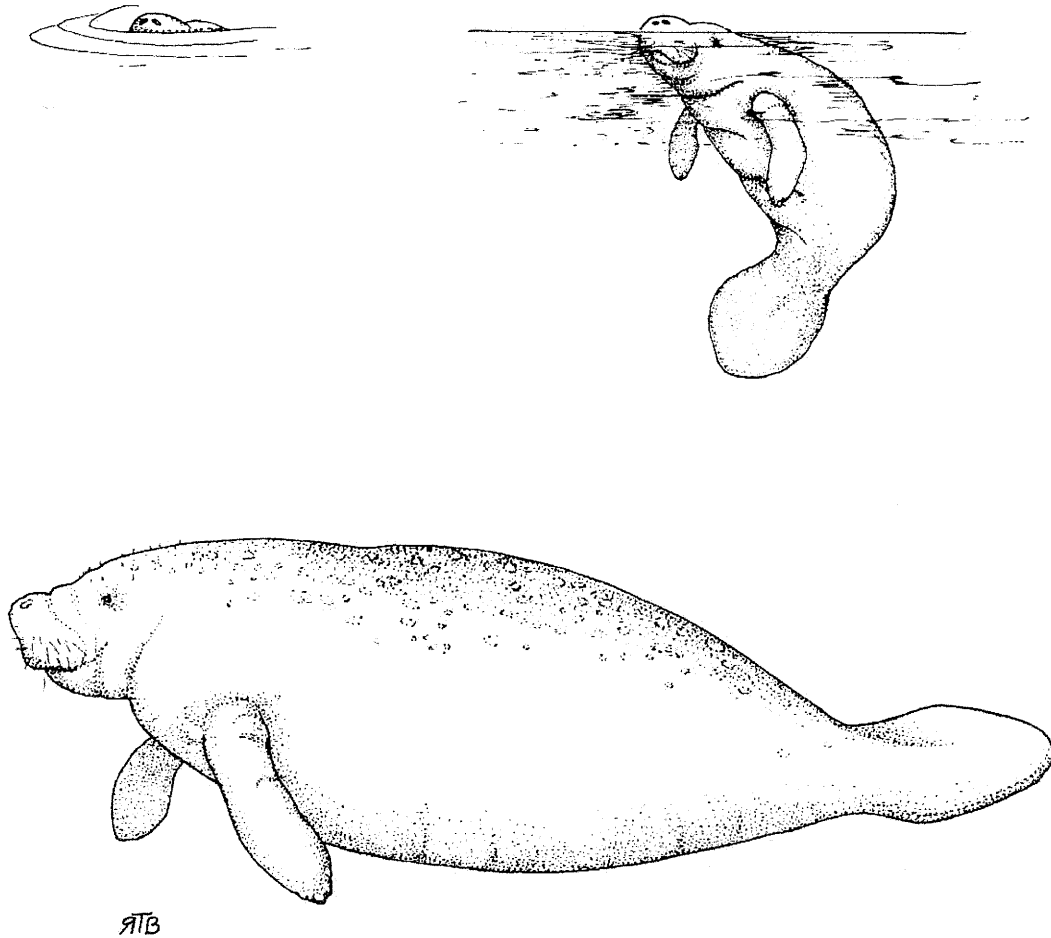


Illustration used with the permission of the North Carolina State Museum of Natural Sciences.
Source: Clark, M. K. 1987. Endangered, Threatened, and Rare Fauna of North Carolina: Part I. A re-evaluation of the mammals. Occasional Papers of the North Carolina Biological Survey 1987-3. North Carolina State Museum of Natural Sciences. Raleigh, NC. pp. 52.

**NATIONWIDE PERMIT 23
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
FINAL NOTICE OF ISSUANCE AND MODIFICATION OF NATIONWIDE PERMITS
FEDERAL REGISTER
AUTHORIZED MARCH 19, 2007**

Approved Categorical Exclusions. Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where:

(a) That agency or department has determined, pursuant to the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity is categorically excluded from environmental documentation, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment; and

(b) The Office of the Chief of Engineers (Attn: CECW-CO) has concurred with that agency's or department's determination that the activity is categorically excluded and approved the activity for authorization under NWP 23.

The Office of the Chief of Engineers may require additional conditions, including pre-construction notification, for authorization of an agency's categorical exclusions under this NWP.

Notification: Certain categorical exclusions approved for authorization under this NWP require the permittee to submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 27). The activities that require pre-construction notification are listed in the appropriate Regulatory Guidance Letters. (Sections 10 and 404)

Note: The agency or department may submit an application for an activity believed to be categorically excluded to the Office of the Chief of Engineers (Attn: CECW-CO). Prior to approval for authorization under this NWP of any agency's activity, the Office of the Chief of Engineers will solicit public comment. As of the date of issuance of this NWP, agencies with approved categorical exclusions are the: Bureau of Reclamation, Federal Highway Administration, and U.S. Coast Guard. Activities approved for authorization under this NWP as of the date of this notice are found in Corps Regulatory Guidance Letter 05-07, which is available at:

<http://www.usace.army.mil/inet/functions/cw/cecwo/reg/rglsindx.htm>. Any future approved categorical exclusions will be announced in Regulatory Guidance Letters and posted on this same web site.

NATIONWIDE PERMIT CONDITIONS

The following General Conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.
(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.
3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.
6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized

under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have “no effect” on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal “takes” of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State

Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWP.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

22. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:
“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate

the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received an NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) Forty-five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained.

Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment

(after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

FURTHER INFORMATION

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

DEFINITIONS

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a

decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or

flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through

which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a “single and complete project” is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWP, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

REGIONAL CONDITIONS FOR NATIONWIDE PERMITS IN THE WILMINGTON DISTRICT

1.0 Excluded Waters

The Corps has identified waters that will be excluded from the use of all NWP's during certain timeframes. These waters are:

1.1. Anadromous Fish Spawning Areas

Waters of the United States identified by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are excluded during the period between February 15 and June 30, without prior written approval from NCDMF or NCWRC and the Corps.

1.2. Trout Waters Moratorium

Waters of the United States in the twenty-five designated trout counties of North Carolina are excluded during the period between October 15 and April 15 without prior written approval from the NCWRC. (see Section I. b. 7. for a list of the twenty-five trout counties).

1.3. Sturgeon Spawning Areas

Waters of the United States designated as sturgeon spawning areas are excluded during the period between February 1 and June 30, without prior written approval from the National Marine Fisheries Service (NMFS).

2.0 Waters Requiring Additional Notification

The Corps has identified waters that will be subject to additional notification requirements for activities authorized by all NWP's. These waters are:

2.1. Western NC Counties that Drain to Designated Critical Habitat

Waters of the U.S. that requires a Pre-Construction Notification pursuant to General Condition 27 (PCN) and located in the sixteen counties listed below, applicants must provide a copy of the PCN to the US Fish and Wildlife Service, 160 Zillicoa Street, Asheville, North Carolina 28805. This PCN must be sent concurrently to the US Fish and Wildlife Service and the Corps Asheville Regulatory Field Office. Please see General Condition 17 for specific notification requirements related to Federally Endangered Species and the following website for information on the location of designated critical habitat.

Counties with tributaries that drain to designated critical habitat that require notification to the Asheville US Fish and Wildlife Service: Avery, Cherokee, Forsyth, Graham, Haywood,

Henderson, Jackson, Macon Mecklenburg, Mitchell, Stokes, Surry, Swain, Transylvania, Union and Yancey.

Website and office addresses for Endangered Species Act Information:

The Wilmington District has developed the following website for applicants which provide guidelines on how to review linked websites and maps in order to fulfill NWP general condition 17 requirements.

<http://www.saw.usace.army.mil/wetlands/ESA>

Applicants who do not have internet access may contact the appropriate US Fish and Wildlife Service offices or the US Army Corps of Engineers office listed below.

US Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801
Telephone: (828) 258-3939

Asheville US Fish and Wildlife Service Office counties: All counties west of and including Anson, Stanly, Davidson, Forsyth and Stokes Counties

US Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Telephone: (919) 856-4520

Raleigh US Fish and Wildlife Service Office counties: all counties east of and including Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

2.2. Special Designation Waters

Prior to the use of any NWP in any of the following North Carolina identified waters and contiguous wetlands, applicants must comply with Nationwide Permit General Condition 27 (P.C.N). The North Carolina waters and contiguous wetlands that require additional notification requirements are:

“Outstanding Resource Waters” (ORW) and “High Quality Waters” (HQW) (as designated by the North Carolina Environmental Management Commission), or
“Inland Primary Nursery Areas” (IPNA) (as designated by the North Carolina Wildlife Resources Commission), or “Contiguous Wetlands” (as defined by the North Carolina Environmental Management Commission), or “Primary Nursery Areas” (PNA) (as designated by the North Carolina Marine Fisheries Commission).

2.3. Coastal Area Management Act (CAMA) Areas of Environmental Concern

Non-Federal applicants for any NWP in a designated “Area of Environmental Concern” (AEC) in the twenty (20) counties of Eastern North Carolina covered by the North Carolina Coastal Area Management Act (CAMA), must also obtain the required CAMA permit. Construction activities for non-Federal projects may not commence until a copy of the approved CAMA permit is furnished to the appropriate Wilmington District Regulatory Field Office (Wilmington Field Office – P.O. Box 1890, Wilmington, NC 28402 or Washington Field Office – P.O. Box 1000, Washington, NC 27889).

2.4. Barrier Islands

Prior to the use of any NWP on a barrier island of North Carolina, applicants must comply with Nationwide Permit General Condition 27 (PCN).

2.5. Mountain or Piedmont Bogs

Prior to the use of any NWP in a “Mountain or Piedmont Bog” of North Carolina, applicants shall comply with Nationwide Permit General Condition 27 (PCN).

Note: The following wetland community types identified in the N.C. Natural Heritage Program document, “Classification of Natural communities of North Carolina (Michael P. Schafale and Alan S. Weakley, 1990), are subject to this regional condition.

| Mountain Bogs | Piedmont Bogs |
|---|--------------------------------|
| Swamp Forest-Bog Complex | Upland depression Swamp Forest |
| Swamp Forest-Bog Complex (Spruce Subtype) | |
| Southern Appalachian Bog (Northern Subtype) | |
| Southern Appalachian Bog (Southern Subtype) | |
| Southern Appalachian Fen | |

2.6. Animal Waste Facilities

Prior to use of any NWP for construction of animal waste facilities in waters of the US, including wetlands, applicants shall comply with Nationwide Permit General Condition 27 (PCN).

2.7. Trout Waters

Prior to any discharge of dredge or fill material into streams or waterbodies within the twenty-five (25) designated trout counties of North Carolina, the applicant shall comply with

Nationwide Permit General Condition 27 (PCN). The applicant shall also provide a copy of the notification to the appropriate NCWRC office to facilitate the determination of any potential impacts to designated Trout Waters. Notification to the Corps of Engineers will include a statement with the name of the NCWRC biologist contacted, the date of the notification, the location of work, a delineation of wetlands, a discussion of alternatives to working in the mountain trout waters, why alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to mountain trout waters.

NCWRC and NC Trout Counties

| | | | |
|--|-----------|----------|---------|
| Mr. Ron Linville | | | |
| Western Piedmont Region Coordinator | Alleghany | Caldwell | Watauga |
| 3855 Idlewild Road | Ashe | Mitchell | Wilkes |
| Kernersville, NC 27284-9180 | Avery | Stokes | |
| Telephone: (336) 769-9453 | Burke | Surry | |

| | | | |
|--------------------------------------|----------|-----------|--------------|
| Mr. Dave McHenry | | | |
| Mountain Region Coordinator | Buncombe | Henderson | Polk |
| 20830 Great Smoky Mtn. Expressway | Cherokee | Jackson | Rutherford |
| Waynesville, NC 28786 | Clay | Macon | Swain |
| Telephone: (828) 452-2546 | Graham | Madison | Transylvania |
| Fax: (828) 452-7772 | Haywood | McDowell | Yancey |

3.0 List of Corps Regional Conditions for All Nationwide Permits

The following conditions apply to all Nationwide Permits in the Wilmington District:

3.1. Limitation of Loss of Perennial Stream Bed

NWPs may not be used for activities that may result in the loss or degradation of greater than 300 total linear feet of perennial streams. The NWPs may not be used for activities that may result in the loss or degradation of greater than 300 total linear feet of ephemeral and intermittent streams that exhibit important aquatic function(s)* Loss of stream includes the linear feet of stream bed that is filled, excavated, or flooded by the proposed activity. The District Commander can waive the 300 linear foot limit for ephemeral and intermittent streams on a case-by-case basis if he determines that the proposed activity will result in minimal individual and cumulative adverse impacts to the aquatic environment. Waivers for the loss of ephemeral and intermittent streams must be in writing. This waiver only applies to the 300 linear feet threshold for NWPs. Mitigation may still be required for impacts to ephemeral and intermittent streams, on a case-by-case basis, depending on the impacts to the aquatic environment of the proposed project. [*Note: The Corps uses the Stream Quality Assessment Worksheet, located with Permit Information on the Regulatory Program Web Site, to aid in the determination of aquatic function within the intermittent stream channel.]

3.2. Mitigation for Loss of Stream Bed Exceeding 150 Feet.

For any NWP that results in a loss of more than 150 linear feet of perennial and/or ephemeral/intermittent stream, the applicant shall provide a mitigation proposal to compensate for the loss of aquatic function associated with the proposed activity. For stream losses less than 150 linear feet, that require a PCN, the District Commander may determine, on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effect on the aquatic environment.

3.3. Pre-construction Notification for Loss of Streambed Exceeding 150 Feet.

Prior to use of any NWP for any activity which impacts more than 150 total linear feet of perennial stream or ephemeral/ intermittent stream, the applicant must comply with Nationwide Permit General Condition 27 (PCN). This applies to NWPs that do not have specific notification requirements. If a NWP has specific notification requirements, the requirements of the NWP should be followed.

3.4. Restriction on Use of Live Concrete

For all NWPs which allow the use of concrete as a building material, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened.

3.5. Requirements for Using Riprap for Bank Stabilization

For all NWPs that allow for the use of riprap material for bank stabilization, the following measures shall be applied:

3.5.1. Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters.

3.5.2. The placement of riprap shall be limited to the areas depicted on submitted work plan drawings.

3.5.3. The riprap material shall be clean and free from loose dirt or any pollutant except in trace quantities that would not have an adverse environmental effect.

3.5.4. It shall be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal conditions.

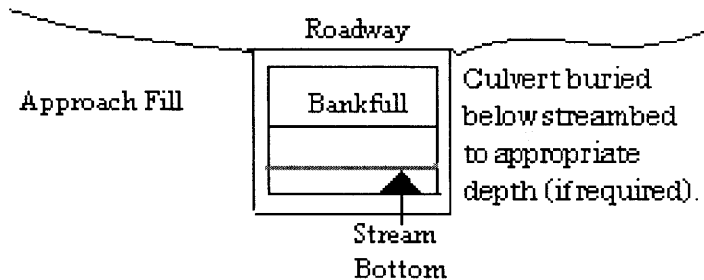
3.5.5. The riprap material shall consist of clean rock or masonry material such as, but not limited to, granite, marl, or broken concrete.

3.5.6. A waiver from the specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional condition would result in greater adverse impacts to the aquatic environment.

3.6. Safe Passage Requirements for Culvert Placement

For all NWP's that involve the construction/installation of culverts, measures will be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert should not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gage data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

In the twenty (20) counties of North Carolina designated as coastal counties by the Coastal Area Management Act (CAMA): All pipe and culvert bottoms shall be buried at least one foot below normal bed elevation when they are placed within the Public Trust Area of Environmental Concern (AEC) and/or the Estuarine Waters AEC as designated by CAMA, and/or all streams appearing as blue lines on United States Geological Survey (USGS) quad sheets.



In all other counties: Culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter or less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain the existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions.

Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert.

A waiver from the depth specifications in this condition may be requested in writing. The waiver will be issued if it can be demonstrated that the proposal would result in the least impacts to the aquatic environment.

All counties: Culverts placed in wetlands do not have to be buried.

3.7. Notification to NCDENR Shellfish Sanitation Section

Applicants shall notify the NCDENR Shellfish Sanitation Section prior to dredging in or removing sediment from an area closed to shell fishing where the effluent may be released to an area open for shell fishing or swimming in order to avoid contamination from the disposal area and cause a temporary shellfish closure to be made. Such notification shall also be provided to the appropriate Corps of Engineers Regulatory Field Office. Any disposal of sand to the ocean beach should occur between November 1 and April 30 when recreational usage is low. Only clean sand should be used and no dredged sand from closed shell fishing areas may be used. If beach disposal were to occur at times other than stated above or if sand from a closed shell fishing area is to be used, a swimming advisory shall be posted, and a press release shall be issued.

3.8. Preservation of Submerged Aquatic Vegetation

Adverse impacts to Submerged Aquatic Vegetation (SAV) are not authorized by any NWP within any of the twenty coastal counties defined by North Carolina's Coastal Area Management Act of 1974 (CAMA).

4.0 Additional Regional Conditions for Specific Nationwide Permits

4.1 The following regional condition is required for NWP #23 – Approved Categorical Exclusions

No development activities authorized by this NWP may begin until the permittee obtains a consistency determination or a CAMA permit from the North Carolina Division of Coastal Management, if either required.

NC DIVISION OF WATER QUALITY - GENERAL CERTIFICATION CONDITIONS

For the most recent General Certification conditions, call the NC Division of Water Quality, Wetlands/401 Certification Unit at (919) 733-1786 or access the following website:
<http://h2o.enr.state.nc.us/newetlands/certs.html>

NC DIVISION OF COASTAL MANAGEMENT - STATE CONSISTENCY

In a letter dated May 7, 2007, the North Carolina Division of Coastal Management found this NWP consistent with the North Carolina Coastal Zone Management Program. Updates on CAMA Consistency for NC can be found on the NC DCM web site at:
<http://dcm2.enr.state.nc.us/Permits/consist.htm>

EASTERN BAND OF THE CHEROKEE INDIANS TRIBAL WATER QUALITY CERTIFICATIONS

In a letter dated May 8, 2007, US EPA, on behalf of the Eastern Band of Cherokee Indians, provided Tribal General Conditions for Nationwide Permits on Cherokee Indian Reservation. These Tribal General Conditions are located on the Corps website at:
<http://www.saw.usace.army.mil/WETLANDS/NWP2007/EBCI-certs.html>

Citations:

2007 Nationwide Permits Public Notice for Final Issue Date: March 15, 2007

Correction Notice for Nationwide Permits, Federal Register / Vol. 72, No. 88 / Tuesday, May 8, 2007 / Notices p.26082

2007 SAW Regional Conditions – Authorized June 1, 2007

This and other information can be found on the Corps web site at:
<http://www.saw.usace.army.mil/WETLANDS/NWP2007/nationwide-permits.html>



North Carolina Department of Environment and Natural Resources

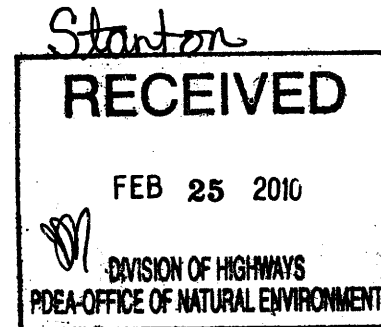
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

February 22, 2010
Beaufort County
NCDWQ Project No. 20091224 v.1
Bridge No. 77 on NC 99
TIP No. B-3611

**APPROVAL of 401 WATER QUALITY CERTIFICATION and TAR-PAMLICO BUFFER
AUTHORIZATION with ADDITIONAL CONDITIONS**



Dr. Greg Thorpe, PhD., Manager
Planning and Environmental Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of replacing Bridge No. 77 on NC 99 over Pantego Creek near Belhaven, NC in Beaufort County:

Stream Impacts in the Tar-Pamlico River Basin

| Site | Station (from/to) | Permanent Fill in Intermittent Stream (linear ft.) | Temporary Fill in Intermittent Stream (linear ft) | Permanent Fill in Perennial Stream (linear ft) | Temporary Fill in Perennial Stream (linear ft) | Total Stream Impact (linear ft) | Stream Impacts Requiring Mitigation (linear ft) |
|---------------|-----------------------|--|---|--|--|---------------------------------|---|
| 1 | -L- 11+50 to 17+71 LT | 0 | 0 | 15 | 0 | 15 | 0 |
| 2 | -L- 17+39 to 31+59 RT | 0 | 0 | 973 | 722 | 1,695 | 0* |
| 3 | -L- 30+79 to 36+70 LT | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | -L- 59+26 to 62+04 | 0 | 0 | 137 | 0 | 137 | 0 |
| 5 | -L- 62+36 to 70+33 LT | 0 | 0 | 764 | 0 | 764 | 0* |
| 6 | -L- 64+98 to 66+54 RT | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | -L- 66+95 to 71+45 RT | 0 | 0 | 48 | 0 | 48 | 0 |
| TOTAL: | | 0 | 0 | 1,937 | 722 | 2,659 | 0 |

Total Stream Impact for Project: 2,659 linear feet

*Impacted streams are man-made canals and therefore do not require mitigation.

Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: <http://h2o.enr.state.nc.us/ncwetlands/>



Wetland Impacts in the Tar-Pamlico River Basin

| Site | Station (from/to) | Permanent Fill (ac) | Temporary Fill (ac) | Excavation (ac) | Mechanized Clearing (ac) | Hand Clearing (ac) | Total Wetland Impact (ac) |
|---------------|-----------------------|---------------------|---------------------|-----------------|--------------------------|--------------------|---------------------------|
| 1 | -L- 11+50 to 17+71 LT | 0.01 | 0 | 0 | 0 | 0.03 | 0.04 |
| 2 | -L- 17+39 to 31+59 RT | 0.19 | 0.27 | 0.69 | 0 | 0.31 | 1.46 |
| 3 | -L- 30+79 to 36+70 LT | 0 | 0 | 0 | 0 | 0.34 | 0.34 |
| 4 | -L- 59+26 to 62+04 | 0.04 | 0 | <0.01 | 0 | 0.04 | 0.08 |
| 5 | -L- 62+36 to 70+33 LT | 0.06 | 0 | <0.01 | 0 | 0.04 | 0.1 |
| 6 | -L- 64+98 to 66+54 RT | <0.01 | 0 | 0 | 0 | 0.01 | 0.01 |
| 7 | -L- 66+95 to 71+45 RT | 0.01 | 0 | 0 | 0 | 0.04 | 0.05 |
| TOTAL: | | 0.31 | 0.27 | 0.69 | 0 | 0.81 | 2.08 |

Total Wetland Impact for Project: 2.08 acres.

Open Water Impacts in the Tar-Pamlico River Basin

| Site | Station (from/to) | Permanent Fill in Open Waters (ac) | Temporary Fill in Open Waters (ac) | Total Fill in Open Waters (ac) |
|---------------|-----------------------|------------------------------------|------------------------------------|--------------------------------|
| 1 | -L- 11+50 to 17+71 LT | <0.01 | 0 | 0 |
| 2 | -L- 17+39 to 31+59 RT | 0.58 | 0.50 | 1.08 |
| 3 | -L- 30+79 to 36+70 LT | 0 | 0 | 0 |
| 4 | -L- 59+26 to 62+04 | 0.13 | 0 | 0.13 |
| 5 | -L- 62+36 to 70+33 LT | 0.37 | 0 | 0.37 |
| 6 | -L- 64+98 to 66+54 RT | 0 | 0 | 0 |
| 7 | -L- 66+95 to 71+45 RT | <0.01 | 0 | 0 |
| TOTAL: | | 1.08 | 0.50 | 1.58 |

Total Open Water Impact for Project: 1.58 acres.

Tar-Pamlico Riparian Buffer Impacts

| Site | Zone 1 Impact (sq ft) | minus Wetlands in Zone 1 (sq ft) | = Zone 1 Buffers (not wetlands) (sq ft) | Zone 1 Buffer Mitigation Required* | Zone 2 Impact (sq ft) | minus Wetlands in Zone 2 (sq ft) | = Zone 2 Buffers (not wetlands) (sq ft) | Zone 2 Buffer Mitigation Required* | Total Buffer Impact (Zone 1 + Zone 2) |
|---------------|-----------------------|----------------------------------|---|------------------------------------|-----------------------|----------------------------------|---|------------------------------------|---------------------------------------|
| 1 (allowable) | 4,556 | 0 | 4,556 | N/A | 1,315 | 0 | 1,315 | N/A | 5,871 |
| 1 (mitigable) | 1,565 | 0 | 1,565 | N/A | 2,644 | 0 | 2,644 | N/A | 4,209 |
| TOTAL: | 6,121 | 0 | 6,121 | N/A | 3,959 | 0 | 3,959 | N/A | 10,080 |

* N/A = Total for Site is less than 1/3 acre and 150 linear feet of impact, no mitigation required

Total Buffer Impact for Project: 10,080 square feet.

The project shall be constructed in accordance with your application dated received November 12, 2009 and the modification request dated received February 9, 2010. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 3701. This certification corresponds to the Nationwide Permit 23 issued by the Corps of Engineers. This approval is also valid for the Tar-Pamlico Riparian Buffer Rules 15A NCAC 2B .0250. 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.

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 NCDWQ 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 of total impacts to streams (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.

Condition(s) of Certification:

1. All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.
2. 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 NCDOT 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.
3. Pursuant to NCAC15A 2B .0259(6), sediment and erosion control devices shall not be placed in Zone 1 of any Tar-Pamlico Buffer without prior approval by NCDWQ. At this time, NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided *that Zone 1 is not compromised and that discharge is released as diffuse flow.*
4. Bridge deck drains should not discharge directly into the stream. Stormwater shall 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.*
5. 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.
6. 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.
7. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from NCDWQ first.
8. "Spudding" for purposes of pile installation will be allowed as necessary. All spudding activities shall occur within turbidity curtains. If spudding is necessary, the NCDOT shall notify the DWQ at least two weeks in advance of the anticipated start date.
9. All pile driving or drilling activities shall be enclosed in turbidity curtains unless otherwise approved by NCDWQ in this certification.
10. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly.
11. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water.
12. The permittee will need to adhere to all appropriate in-water work moratoria (including the use of pile driving or vibration techniques) prescribed by the National Marine Fisheries Service. No in-water work is permitted between February 15 and June 15 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.

13. Adherence to *The Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters* will be required throughout construction.
14. Turbidity curtains shall be used to isolate all work areas from the stream, including pile or casement installation, placement of riprap, excavation or filling. Strict adherence to the Construction and Maintenance Best Management Practices will be required.
15. Compensatory mitigation for impacts to 1.0 acre of wetlands is required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands through the North Carolina Ecosystem Enhancement Program (EEP) as well as debits from NCDOT's Campbell Creek Mitigation Site. The EEP has agreed to implement partial mitigation for the project. EEP has indicated in a letter dated October 20, 2009 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project for impacts to 0.88 acres of impacts (with 1.76 acres of credits of riparian wetlands at a 2:1 ratio) in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004. The remaining balance of 0.12 acres of impacts will be debited from NCDOT's Campbell Creek Mitigation Site located in Beaufort County by debiting 0.24 acres (2:1 ratio) of brackish marsh wetland from the debit ledger.

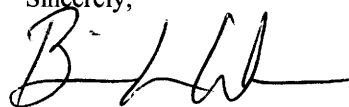
General Conditions

16. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
17. 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.
18. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
19. 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.
20. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
21. 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.
22. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
23. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
24. 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 NCDWQ 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, NCDWQ may reevaluate and modify this certification.
25. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.
26. A copy of this Water Quality Certification shall be maintained 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.

27. 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.
28. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
29. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery.
30. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the 401 Certification has been completed.
31. Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
32. 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, or access roads to 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.
33. 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:
34. 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*.
35. 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.
36. 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*.
37. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
38. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.

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, 6714 Mail Service Center, Raleigh, N.C. 27699. 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 David Wainwright at (919)715-3415.

Sincerely,


Coleen H. Sullins
Director

Cc: Tom Steffens, US Army Corps of Engineers, Washington Field Office
Neil Lassiter, PE, Division 2 Engineer
Jay Johnson, Division 2 Environmental Officer
Jennifer Derby, Environmental Protection Agency
Chris Militscher, Environmental Protection Agency (electronic copy only)
Travis Wilson, NC Wildlife Resources Commission
Steve Sollod, Division of Coastal Management
Ecosystem Enhancement Program
Garcy Ward, DWQ Washington Regional Office

File Copy

NCDWQ CERTIFICATE OF COMPLETION

NCDWQ 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 Transportation Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to NCDWQ 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 _____

Water Quality Certification N^o. 3701

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

Water Quality Certification Number 3701 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. The category of activities shall include only Federally-approved Categorical Exclusion projects.

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.

Any proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality (the "Division"). Two (2) copies shall be submitted to the Division at the time of notification in accordance with 15A NCAC 2H .0501(a).

If any one (1) of the Conditions of Certification cannot be met, or, if the activities meet any one (1) of the following thresholds, then require *written approval* from the Division of Water Quality (the "Division") is required:

- I. Stream and/or buffer impacts:
 - a. Stream impacts equal or greater than 40 linear feet.
 - b. Any impacts to streams and/or buffers in the Neuse, Tar-Pamlico, Randleman and Catawba River Basins (or any other basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application [in accordance with 15A NCAC 2B .0200]), *unless* the activities are listed as "EXEMPT" from these Rules.
- II. Impacts to waters of equal to or greater than one-third (1/3) of an acre.
- III. Wetland impacts:
 - a. Equal to or greater than one-third (1/3) acre East of Interstate-95.
 - b. Equal to or greater than one-tenth (1/10) acre West of Interstate-95.
 - c. Any impacts to wetlands adjacent to waters designated as: ORW, SA, WS-I, WS-II, or Trout, or wetlands contiguous to waters designated as a North Carolina or National Wild and Scenic River.
 - d. Any impacts to coastal wetlands [15A NCAC 7H .0205], or Unique Wetlands (UWL) [15A NCAC 2H .0506].
- IV. If the activity is associated with or in response to a Notice of Violation or an enforcement action initiated by the Division and/or the Division of Land Resources.
- V. Projects with any impacts to streams, wetlands, and/or waters that have received a Notice of Violation from the Division and/or Division of Land Resources.

In accordance with North Carolina General Statute Section 143-215.3D(e), any requirement for written approval for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, then one payment to both agencies shall be submitted and will be the higher of the two fees.

Water Quality Certification N^o. 3701

Conditions of Certification:

1. **No Impacts Beyond those Authorized in the Written Approval or Beyond the Thresholds for use of This Certification**

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts authorized in the written approval or beyond the thresholds allowed for use of this General Certification, including incidental impacts. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

2. **Standard Erosion and Sediment Control Practices**

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:

- a. 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.
- b. 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*.
- c. Reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
- d. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times, except for publicly funded linear transportation projects when materials can be accessed offsite in a timely manner.
- e. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNA's), Trout (Tr), SA, WS-I, WS-II, High Quality (HQW), or Outstanding Resource (ORW) waters, then the sediment and erosion control requirements contained within *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) supercede all other sediment and erosion control requirements.

3. **No Sediment and Erosion Control Measures in Wetlands or Waters**

Sediment and erosion control measures should not be placed in wetlands or waters outside of the permitted impact areas without prior written approval by the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.

Water Quality Certification N^o. 3701

4. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by the Division is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at http://h2o.enr.state.nc.us/su/Forms_Documents.htm.

NCDOT shall be required to be in full compliance with the conditions related to construction activities within the most recent version of their individual NPDES (NCS000250) stormwater permit.

5. Construction Moratoriums and Coordination

If activities must occur during periods of high biological activity (i.e. sea turtle or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities. This condition can be waived through written concurrence on a case-by-case basis upon reasonable justification.

All moratoriums on construction activities established by the NC Wildlife Resources Commission (WRC), US Fish and Wildlife Service (USFWS), NC Division of Marine Fisheries (DMF), or National Marine Fisheries Service (NMFS) to lessen impacts on trout, anadromous fish, larval/post-larval fishes and crustaceans, or other aquatic species of concern must be obeyed. This condition can be waived through written concurrence on a case-by-case basis upon reasonable justification.

Work within the twenty-five (25) designated trout counties or identified state or federal endangered or threatened species habitat shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.

6. If concrete is used during the construction, then 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/fish kills.

7. Riparian Area Protection (Buffer) Rules

Activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman, or Catawba River Basins (or any other basin with buffer rules), shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0233, .0259, .0250, and .0243, and 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. All riparian area protection rule requirements, including diffuse flow requirements, must be met.

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8. Water Supply Watershed Buffers

The 100-foot wide (high-density development) or the 30-foot wide vegetative buffer (all other development) shall be maintained adjacent to all perennial waters except for allowances as provided in the Water Supply Watershed Protection Rules [15A NCAC 2B .0212 through .0215].

9. Work in the Dry

All work in or adjacent to stream waters shall be conducted in a dry work area. Approved best management practices from the most current version of the NC Sediment and Erosion Control Manual, or the NC DOT Construction and Maintenance Activities Manual, such as sandbags, rock berms, cofferdams, and other diversion structures shall be used to minimize excavation in flowing water. Channel realignments shall be constructed by excavating the new channel from downstream to upstream before connecting it to the existing channel. Exceptions to this condition require submittal to, and approval by, the Division of Water Quality.

10. For all activities requiring re-alignment of streams, a stream relocation plan must be included for written Division approval. Relocated stream designs should include the same dimensions, patterns and profiles as the existing channel (or a stable reference reach if the existing channel is unstable), to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. Vegetation used for permanent bank stabilization shall be limited to native woody species, and should include establishment of a 30-foot wide wooded and an adjacent 20-foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating appropriate erosion control matting materials and seedling establishment is allowable. Rip-rap, A-Jacks, concrete, gabions or other hard structures may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage. Please note that if the stream relocation is conducted as a stream restoration as defined in the US Army Corps of Engineers Wilmington District, April 2003 *Stream Mitigation Guidelines* (or its subsequent updates), the restored length can be used as compensatory mitigation for the impacts resulting from the relocation.

11. Placement of Culverts and Other Structures in Waters and Wetlands

The application must include construction plans with cross-sectional details in order to indicate that the current stability of the stream will be maintained or enhanced (i.e., not result in head cuts).

Culverts required for this project shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life unless otherwise justified and approved by the Division.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain

Water Quality Certification N°. 3701

the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

Any rip rap required for normal pipe burial and stabilization shall be buried such that the original stream elevation is restored and maintained.

The establishment of native, woody vegetation and other soft stream bank stabilization techniques must be used where practicable instead of rip-rap or other bank hardening methods.

12. Compensatory Mitigation

In accordance with 15A NCAC 2H .0506 (h), compensatory mitigation may be required for losses of 150 linear feet or more of streams and/or one (1) acre or more of wetlands. For linear, public transportation projects, impacts equal to or exceeding 150 lines feet per stream may require mitigation.

In watersheds classified as: ORW, HQW, Tr, WS-I, and WS-II, compensatory stream mitigation may 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 and written approval from the Division, unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance.

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 Buffer Rules or require a variance under the Buffer Rules.

A determination of buffer, wetland and stream mitigation requirements shall be made for any General Certification for this Nationwide Permit.

When compensatory mitigation is required for a project, the mitigation plans must be approved by the Division, in writing, before the impacts approved by this Certification occur. The most current design and monitoring protocols from the Division shall be followed and written plans submitted for the Division approval as required in those protocols. Alternately, the Division will accept payment into an in-lieu fee program or mitigation bank. Before any permanent building or structure on site is occupied, the mitigation plan must be implemented and/or constructed or proof of payment to a mitigation bank or in-lieu fee program must be provided to the Division. In the case of public road projects, the mitigation plan must be implemented, before the road is opened to the traveling public whenever practical or at the earliest reasonable time during the construction of the project

13. If an environmental document is required under NEPA or SEPA, then this General Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse.
14. For activities requiring written approval, additional site-specific conditions may be added to the cover letter projects in order to ensure compliance with all applicable water quality and effluent standards.
15. Certificate of Completion

When written authorization is required for use of this certification, upon completion of all permitted impacts included within the approval and any subsequent modifications, the applicant shall be required to return the certificate of completion attached to the approval. One copy of the certificate shall be sent to the DWQ Central Office in Raleigh at 1650 Mail Service Center, Raleigh, NC, 27699-1650.

Water Quality Certification N^o. 3701

16. This General Certification shall expire three (3) years from the date of issuance of the written approval or on the same day as the expiration date of the corresponding Nationwide and Regional General Permits. In accordance with General Statute 136-44.7B, certifications issued to the NCDOT shall expire only upon expiration of the federal 404 Permit. The conditions in effect on the date of issuance of Certification for a specific project shall remain in effect for the life of the project, regardless of the expiration date of this Certification. If the construction process for approved activities will overlap the expiration and renewal date of the corresponding 404 Permit and the Corps allows for continued use of the 404 Permit, then the General Certification shall also remain in effect without requiring re-application and re-approval to use this Certification for the specific impacts already approved.
17. The applicant/permittee and their authorized agents shall conduct all 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 the Division determines that such standards or laws are not being met, including 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, then the Division may reevaluate and modify this General Water Quality Certification.

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

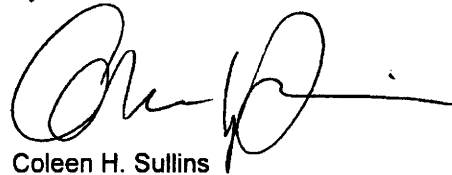
The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity, if it is determined that the project is likely to have a significant adverse effect upon water quality including state or federally listed endangered or threatened aquatic species 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: November 1, 2007

DIVISION OF WATER QUALITY

By



Coleen H. Sullins

Director

History Note: Water Quality Certification (WQC) Number 3701 replaces Water Quality Certification Number 2670 issued on January 21, 1992, WQC Number 2734 issued on May 1 1993, WQC Number 3107 issued on February 11, 1997, WQC Certification Number 3361 issued March 18, 2002, WQC Certification Number 3403 issued March 2003, and WQC Number 3632 issued March 2007. This General Certification is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 23 or when deemed appropriate by the Director of the DWQ.



North Carolina Department of Environment and Natural Resources
Division of Coastal Management

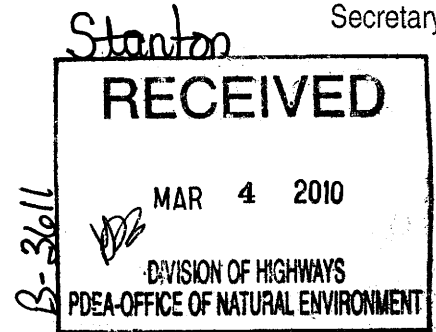
Beverly Eaves Perdue
Governor

James H. Gregson
Director

Dee Freeman
Secretary

March 1, 2010

Gregory J. Thorpe, Ph.D.
Environmental Manager Director
Project Development and Environmental Analysis Branch
NC Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598



Dear Dr. Thorpe:

The enclosed permit constitutes authorization under the Coastal Area Management Act, and where applicable, the State Dredge and Fill Law, for you to proceed with your project proposal. The original (buff-colored form) is retained by you and it must be available on site when the project is inspected for compliance. Please sign both the original and the copy and return the copy to this office in the enclosed envelope. Signing the permit and proceeding means you have waived your right of appeal described below.

If you object to the permit or any of the conditions, you may request a hearing pursuant to NCGS 113A-121.1 or 113-229. Your petition for a hearing must be filed in accordance with NCGS Chapter 150B with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27611-6714, (919) 733-2698 within twenty (20) days of this decision on your permit. You should also be aware that if another qualified party submits a valid objection to the issuance of this permit within twenty (20) days, the matter must be resolved prior to work initiation. The Coastal Resources Commission makes the final decision on any appeal.

The project plan is subject to those conditions appearing on the permit form. Otherwise, all work must be carried out in accordance with your application. Modifications, time extensions, and future maintenance require additional approval. Please read your permit carefully prior to starting work and review all project plans, as approved. If you are having the work done by a contractor, it would be to your benefit to be sure that he fully understands all permit requirements.

From time to time, Department personnel will visit the project site. To facilitate this review, we request that you complete and mail the enclosed Notice Card just prior to work initiation. However, if questions arise concerning permit conditions, environmental safeguards, or problem areas, you may contact Department personnel at any time for assistance. By working in accordance with the permit, you will be helping to protect our vitally important coastal resources.

Sincerely,

Douglas V. Huggett
Major Permits and Consistency Manager

Enclosure

Permit Class
NEW

Permit Number
24-10

STATE OF NORTH CAROLINA
Department of Environment and Natural Resources
and
Coastal Resources Commission

Permit

for

Major Development in an Area of Environmental Concern
pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

Issued to N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1548

Authorizing development in Beaufort County at Pantego Creek, Bridge No. 77 on
NC 99 as requested in the permittee's application dated 11/4/09 and

application revision dated 2/5/10, including the attached thirty nine (39) drawings as referenced in Condition No. 1 of this permit.

This permit, issued on 3/1/10, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

Bridge No. 77 Replacement (TIP No. B-3611)

1) Unless specifically altered herein, all work authorized by this permit shall be carried out in accordance with the following workplan drawings:

½ size drawings: Twenty six (26) drawings dated 6/9/09, eight (8) drawings dated 1/28/10, four (4) drawings dated 11/5/09, and one (1) drawing dated 6/8/09.

2) Unless specifically altered herein, the permittee shall implement NCDOT's Stream Crossing Guidelines for Anadromous Fish Passage.

(See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date. An appeal requires resolution prior to work initiation or continuance as the case may be.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

No Expiration Date, pursuant to GS 136-44.7B

In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.



James H. Gregson, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.

Signature of Permittee

ADDITIONAL CONDITIONS

- 3) In order to protect anadromous fish during spawning periods and through embryonic, larval or juvenile life stages, no in-water work shall be conducted from February 15 through June 15 without prior approval of the NC Division of Coastal Management (DCM), in consultation with the NC Wildlife Resources Commission (WRC).
- 4) The West Indian Manatee, *Trichechus manatus*, which is listed as a federally endangered species, has been reported in North Carolina waters. Therefore, in accordance with commitments made by the permittee and in order to protect the West Indian manatee all work should be done during the period from November 1 to May 31. If work must be done during the period from June through October the enclosed guidelines prepared by the U.S. Fish and Wildlife Service (USFWS), entitled "Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters (rev. 06/03)" shall be followed.
- 5) Unless specifically altered herein, the NCDOT document "Best Management Practices for Bridge Demolition and Removal" (final 9/20/99) shall be followed during demolition and construction activities.
- 6) The installation of permanent and temporary bridge piles shall be accomplished by pile driving, vibratory hammer, or similar method. Should the permittee and/or its contractor desire to utilize another type of pile installation, such as drilled shaft construction or jetting, additional authorization from DCM shall be required.
- 7) Pilings from the existing bridge and the temporary work bridge, as well as any remnant pilings from previous bridges, shall be removed in their entirety, except that in the event that a piling breaks during removal and cannot be removed in its entirety, the piling may be cut off flush with the bed of the water body and DCM shall be notified of each occurrence within one working day.
- 8) Debris resulting from demolition of the existing bridge, including deck components, shall not enter wetlands or waters of the State, even temporarily.
- 9) Any waste materials or debris generated in the demolition and removal of the existing bridge and/or construction of the new bridge or roadway shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations from any relevant state, federal, or local authorities are obtained.
- 10) All excavated materials shall be confined above normal water level and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- 11) Excavated material may either be used in fill areas associated with the project or shall be removed from the site and taken to a high ground location.
- 12) No excavation or filling shall take place in any vegetated wetlands or surrounding waters outside the areas indicated on the attached workplan drawings, without permit modification.
- 13) All fill material shall be clean and free of any pollutants except in trace quantities.

ADDITIONAL CONDITIONS

- 14) All temporary fill shall be placed on geo-textile fabric to facilitate the total removal upon completion of the project.
- 15) Turbidity curtains shall be used at all times to isolate all work areas from the adjacent waters of Pantego Creek, including pile or casement installation, pile removal, or excavation. The turbidity curtains shall be of sufficient length and effectiveness to prevent a visible increase in the amount suspended sediments in adjacent waters. The turbidity curtains shall encircle the immediate work area but, shall not impede navigation. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels.
- 16) Live concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.
- 17) Construction mats shall be utilized to support equipment within wetland areas to minimize temporary wetland impacts. These mats shall be removed immediately following project completion.

NOTE: The permittee is encouraged to minimize the need to cross wetlands to the maximum extent practicable in transporting equipment or for hand clearing operations.

- 18) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State.
- 19) There shall be no clearing or grubbing of wetlands outside of the areas indicated on the attached workplan drawings without prior approval from the NC Division of Coastal Management.
- 20) Placement of riprap shall be limited to the areas as depicted on the attached work plan drawings. The riprap material shall be free from loose dirt or any pollutant. The riprap material shall consist of clean rock or masonry materials, such as but not limited to, granite, marl, or broken concrete.
- 21) Riprap shall be of a size sufficient to prevent its movement from the authorized alignment by wave or current action.
- 22) The permittee shall exercise all available precautions in the day-to-day operation of the facility to prevent waste and/or debris from entering the adjacent waters and wetlands.
- 23) The temporary work bridge shall be removed in its entirety within 90 days after it is no longer needed and saved for reuse, recycled, or disposed of at an approved high ground site. However, if this timeframe occurs while the moratorium referenced in Condition No. 3 of this permit is in effect, then the temporary work bridge shall be removed in its entirety within 30 days of the moratorium end date.
- 24) Construction access shall be accomplished by construction of a temporary work bridge.

ADDITIONAL CONDITIONS

- 25) In accordance with commitments made by the permittee in the permit application drawings, the portion of the temporary work bridge located at the navigational channel between Station 47 + 55' and Station 47 + 87' shall maintain the existing horizontal and vertical navigational clearances.
- 26) The placement, removal, and use of barges (if utilized) shall be accomplished such as to ensure that impacts to shallow water habitats are avoided and minimized by; not sinking the barge onto the bottom and dragging into place, unloading barges prior to removal, and promptly removing barges when they are no longer needed.

Sedimentation and Erosion Control

- 27) This project shall conform to all requirements of the NC Sedimentation Pollution Control Act and NC DOT's Memorandum of Agreement with the Division of Land Resources.
- 28) Unless specifically altered herein, the permittee shall follow "Best Management Practices for the Protection of Surface Waters (3/97)" and shall also implement sedimentation and erosion control measures sufficient to protect aquatic resources. At a minimum, appropriate sedimentation and erosion control devices, measures or structures shall be implemented to ensure that eroded materials do not enter adjacent wetlands, watercourses and property (e.g. silt fence, diversion swales or berms, etc.).
- 29) In accordance with project commitments made within attachments to the CAMA permit application and the Categorical Exclusion document, dated 11/7/07, Design Standards in Sensitive Watersheds, 15A NCAC 4B .0124, shall be utilized during demolition of the existing bridge and construction of the new bridge.
- 30) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.
- 31) Bridge deck drains shall not be located over the open waters of Pantego Creek. Discharge of deck drains shall not be at erosive velocities and cause erosion of the former road bed or adjacent wetlands.

Utilities Relocation

- 32) Any relocation of utility lines that is not already depicted on the attached work plan drawings, or described within the attached permit application, shall require additional approval by DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.

Stormwater Management

NOTE: The Division of Water Quality (DWQ) provided confirmation that the subject project is excluded from State Coastal Stormwater permitting requirements by way of a Stormwater Permit Exclusion letter, dated 1/6/09 (Project No. SW7081018).

ADDITIONAL CONDITIONS

Wetland Mitigation

NOTE: The proposed project will permanently impact 0.88 acres of 404 wetlands due to fill and excavation. Coastal Wetland impacts include 5,105 sq. ft. due to fill and 170 sq. ft. due to excavation, for a total of 5,275 sq. ft. or 0.12 acres.

NOTE: The Ecosystem Enhancement Program (EEP) has agreed to provide compensatory mitigation (per 10/20/09 acceptance letter to NCDOT and the USACE) for permanent impacts to 0.88 acres of riparian wetlands associated with the proposed project in accordance with Section X of Amendment No.2 of the Memorandum of Agreement between the NC Department of Transportation (NCDOT), the U.S. Army Corps of Engineers (USACE), and the NC Department of Environment and Natural Resources (NCDENR), executed on March 8, 2007.

- 33) In accordance with requirements of the DWQ 401 Water Quality Certification, compensatory mitigation for 0.12 acres of Coastal Wetland impacts shall be provided at a minimum of a 2:1 ratio with Coastal Wetlands located at the Campbell Creek Mitigation Site (Phase I) in Beaufort County and shall be reflected in the debit ledger for this site. Authorization of the use of the Campbell Creek Mitigation Site at this time is pending final approval by DCM at the end of the required monitoring period. If it is determined that the site does not meet the required success criteria at the end of the monitoring period, then the applicant shall coordinate with DCM and DWQ to determine appropriate remedial actions.

General

- 34) If it is determined that additional permanent and/or temporary impacts will occur that are not shown on the attached permit drawings, additional authorization from DCM shall be required.
- 35) The N.C. Division of Water Quality (DWQ) authorized the proposed project under General 401 Water Quality Certification Numbers 3701 (DWQ Project No. 20091224 v.1), on 2/22/10. Any violation of the Certification approved by the DWQ shall be considered a violation of this CAMA permit.

NOTE: The bridge demolition debris may be suitable for use as artificial reef material. The permittee is encouraged to contact the Artificial Reef Coordinator at the N.C. Division of Marine Fisheries Morehead City Office at (252) 726-7021 to coordinate review of the suitability of the material and arrangements for such use.

NOTE: The permittee and/or his contractor is strongly encouraged to contact the N.C. Division of Coastal Management Transportation Project Coordinator in Morehead City to request a pre-construction conference prior to project initiation.

NOTE: This permit does not eliminate the need to obtain any additional state, federal, or local permits, approvals, or authorizations that may be required, including but not limited to, any required authorizations by the USACE and the US Coast Guard.

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, VA 23704-5004
Staff Symbol: (dpb)
Phone: (757) 398-6557
Fax: (757) 398-6334
Email: Sandra.S.Elliott@uscg.mil

16591
03 MAR 10

RECEIVED
Division of Highways

MAR 09 2010

Project Development and
Environmental Analysis Branch

Mr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
North Carolina Environmental Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Mr. Thorpe:

Review of your proposed bridge replacement project is complete. Based on the documentation provided and that no comments were received to Public Notice 5-1159, it is determined that a formal Coast Guard bridge permit will not be required for proposed replacement of Bridge No. 77 over Pantego Creek located in Beaufort County on NC 99, Belhaven, NC. The project will be placed in our Advance Approval category as per Title 33 Code of Federal Regulations Part 115.70. This Advance Approval determination is for the location and replacement of the existing Bridge No. 77 over Pantego Creek and **is valid for five years from the date of this letter**. If the replacement does not commence within this time period, you must contact this office for reaffirmation of this authorization. Future bridge projects along the same waterway will have to be independently evaluated before they may be considered for Advance Approval.

The fact that a Coast Guard bridge permit is not required does not relieve you of the responsibility for compliance with the requirements of any other Federal State, or local agency who may have jurisdiction over any aspect of the project.

Although the project will not require a bridge permit, other areas of Coast Guard jurisdiction apply. The following must be met:

- a. At no time during the bridgework will the waterway be closed to navigation without the prior notification and approval of the Coast Guard.
- b. This office should be notified as soon as possible to commencement and completion of bridge work so that appropriate announcements may be prepared for our Local Notice to Mariners publication.
- c. The lowest portion of the superstructure of the bridge across the waterway should clear the 100-year flood height elevation, if feasible.

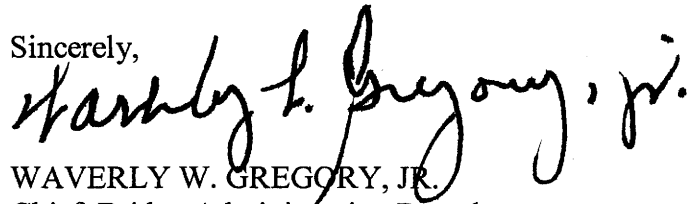
The National Ocean Service (NOS) of the National Oceanic and Atmosphere Administration (NOAA) is responsible for maintaining the charts of U.S. waters; therefore they must be notified of this proposed work. You must notify our office and the NOS upon completion of the activity approved in this letter. Your notification of completion must include as-built drawings, which certifies the location and clearance of the bridge that was constructed. This information will be sent to the following address:

16591
03 MAR 10

Ken Forster
National Ocean Service
N/CS26, Room 7317
1315 East-West Highway
Silver Spring, MD 20910-3282

If you have any further questions, please contact Mrs. Sandra S. Elliott at the above-listed address or telephone number.

Sincerely,

A handwritten signature in black ink that reads "Waverly W. Gregory, Jr." The signature is written in a cursive style with a large, prominent "W" and "G".

WAVERLY W. GREGORY, JR.
Chief, Bridge Administration Branch
By direction of the Commander
Fifth Coast Guard District

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



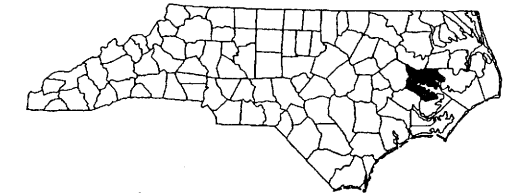
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|-------------------|-----------------------------|-------------|--------------|
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
| N.C. | B-3611 | 1 | |
| STATE PROJECT NO. | P.L. PROJECT NO. | DESCRIPTION | |
| 33162.1.1 | BRSTP-99(3) | PE | |
| 33162.2.2 | BRSTP-99(3) | RAW & UTIL | |

BEAUFORT COUNTY

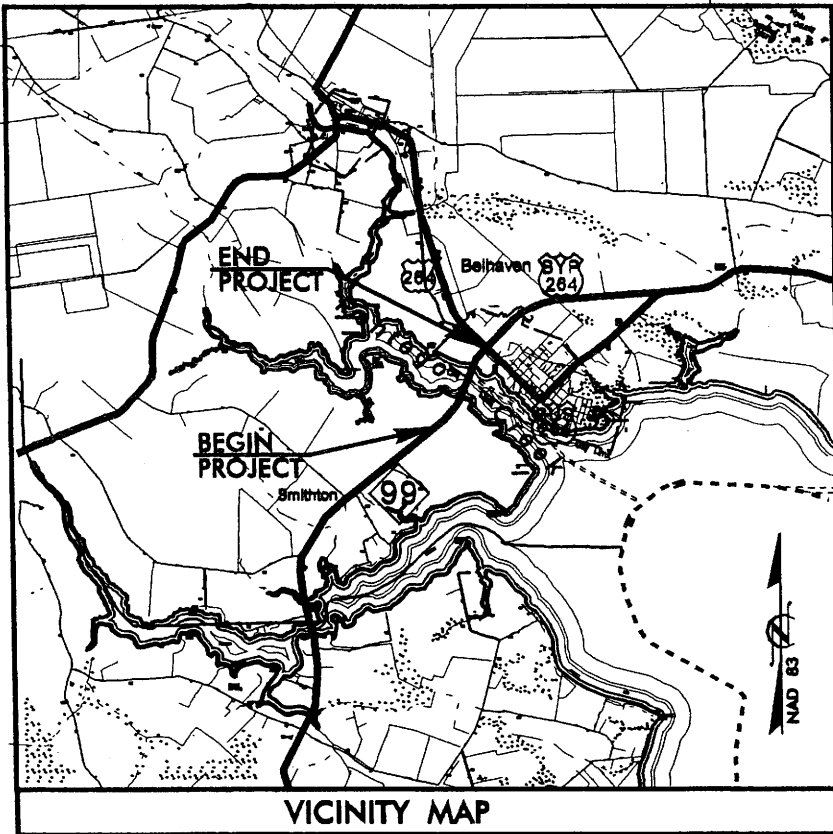
LOCATION: BRIDGE NO. 77 OVER PANTEGO CREEK ON NC 99

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

Permit Drawing
Sheet 1 of 17



TIP PROJECT: B-3611



WETLAND/SURFACE WATER PERMIT DRAWINGS

BEGIN STATE PROJECT B-3611
-L- STA. 11+50

SITE 1

BEGIN BRIDGE
-L- STA. 26+49.00

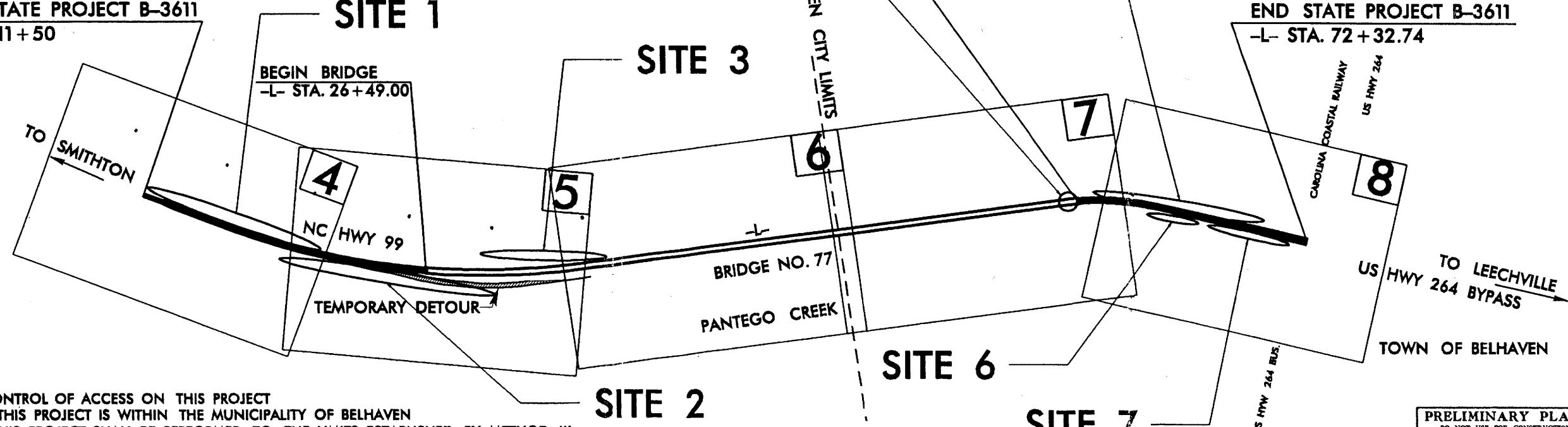
SITE 4

SITE 5

END BRIDGE
-L- STA. 60+01.00

SITE 3

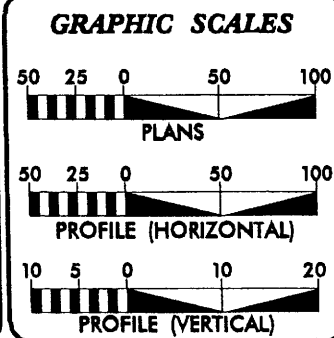
END STATE PROJECT B-3611
-L- STA. 72+32.74



THERE IS NO CONTROL OF ACCESS ON THIS PROJECT
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPALITY OF BELHAVEN
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

| | |
|---------------|-----------|
| ADT 2009 = | 6270 |
| ADT 2030 = | 9600 |
| DHV = | 10 % |
| D = | 60 % |
| T = | 9 % |
| V = | 50/40 MPH |
| * TTST 6 | DUAL 3 |
| FUNC. CLASS = | COLLECTOR |

PROJECT LENGTH

| | |
|---------------------------------------|-------------|
| LENGTH ROADWAY TIP PROJECT B-3611 = | 0.517 Miles |
| LENGTH STRUCTURE TIP PROJECT B-3611 = | 0.635 Miles |
| TOTAL LENGTH TIP PROJECT B-3611 = | 1.152 Miles |

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

2006 STANDARD SPECIFICATIONS

| | |
|--------------------------------------|---|
| RIGHT OF WAY DATE: MARCH 18, 2009 | JIMMY GOODNIGHT, PE PROJECT ENGINEER |
| LETTING DATE: MARCH 16, 2010 | MARK HUSSEY PROJECT DESIGN ENGINEER |

HYDRAULICS ENGINEER

P.E.

ROADWAY DESIGN ENGINEER

P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

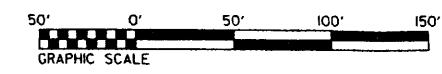
STATE HIGHWAY DESIGN ENGINEER

P.E.

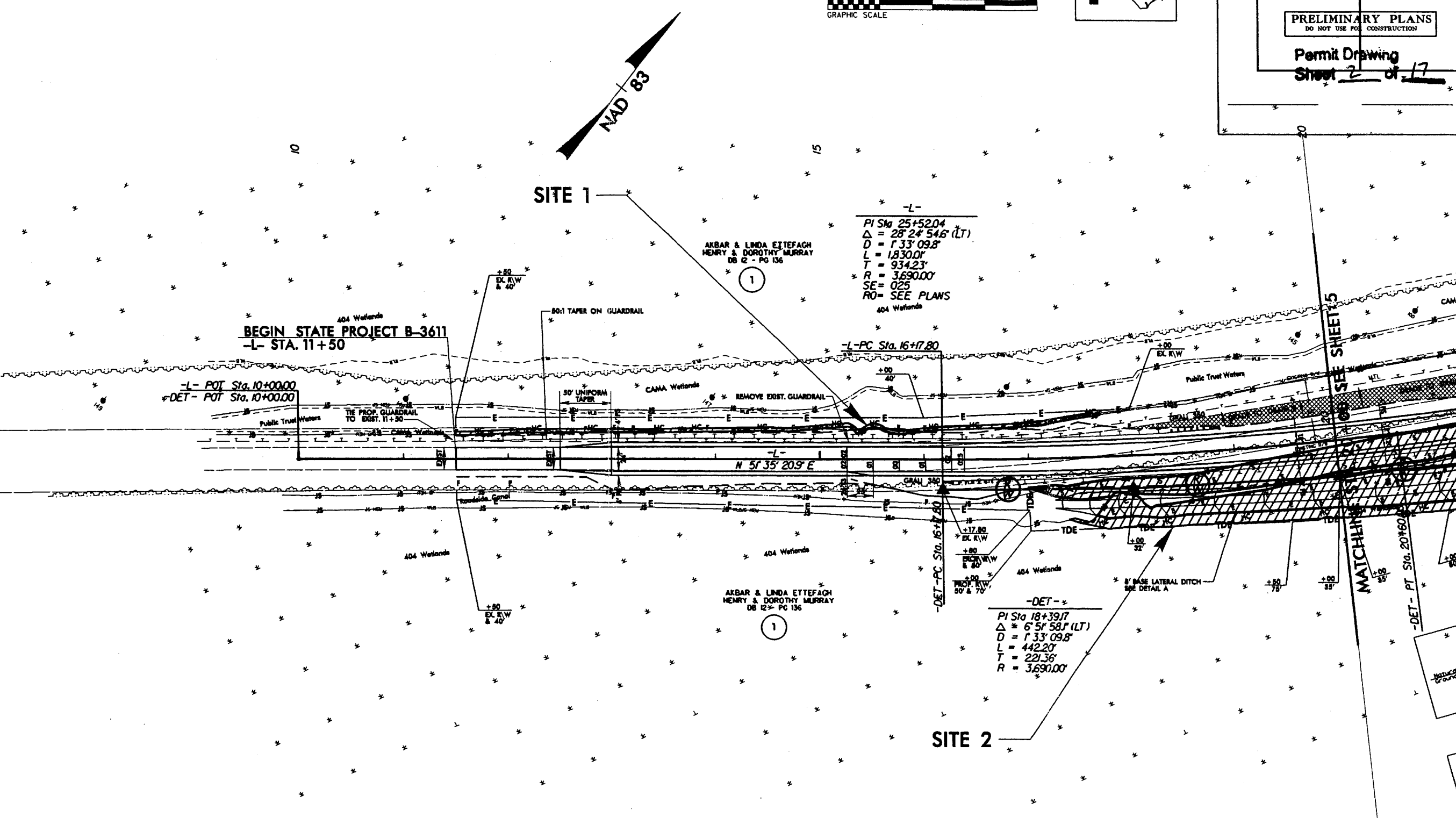
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|--|--------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 4 |
| R/W SHEET NO. | HYDRAULIC ENGINEER |
| ROADWAY DESIGN ENGINEER | |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Permit Drawing Sheet 2 of 17 | |

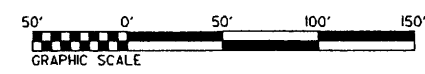
WETLANDS SURFACE WATER PERMIT DWG.



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 8/17/99
 REVISIONS
 09-JUN-2009 12:44
 F:\Hydro\p\101\101.dwg
 8/17/99

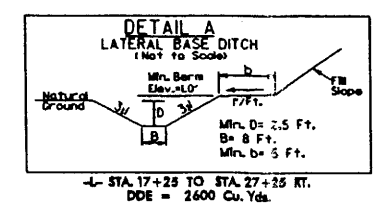


- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING



-L-
 PI Sta 25+52.04
 $\Delta = 28^\circ 24' 54.6''$ (LT)
 $D = 1,333.098'$
 $L = 1,830.01'$
 $T = 934.23'$
 $R = 3,690.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$
 404 Wetlands

-DET-
 PI Sta 18+39.17
 $\Delta = 6^\circ 51' 58.7''$ (LT)
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 $L = 442.20'$
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 $R = 3,690.00'$

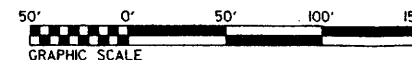


-L- STA. 17+25 TO STA. 27+25 RT.
 DDE = 2600 Cu. Yds.

SEE DETAIL SHEET 2-B FOR DETOUR DESIGN
 SEE SHEET 9 FOR -L- PROFILE
 SEE SHEET 11 FOR -DET- PROFILE

09 JUN 2009 12:45
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 B/17.099
 REVISIONS

WETLAND/SURFACE WATER PERMIT DWG.



| | |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 4 |
| RDW SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | |

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 3 of 17

SITE 1

-L-
 PI Sta 25+52.04
 $\Delta = 28^\circ 24' 54.6''$ (LT)
 D = 133' 09.8"
 L = 1830.0'
 T = 934.23'
 R = 3690.00'
 SE = 025
 RO = SEE PLANS
 404 Wetlands

BEGIN STATE PROJECT B-3611
 -L- STA. 11+50

-L- POT Sta. 10+00.00
 *DET- POT Sta. 10+00.00

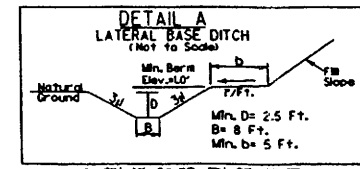
-L- PC Sta. 16+17.80

N 51° 35' 20.9" E

SITE 2

-DET-
 PI Sta 18+39.17
 $\Delta = 6^\circ 51' 58.1''$ (LT)
 D = 133' 09.8"
 L = 442.20'
 T = 221.36'
 R = 3690.00'

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING



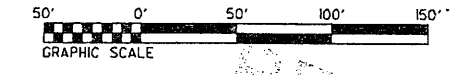
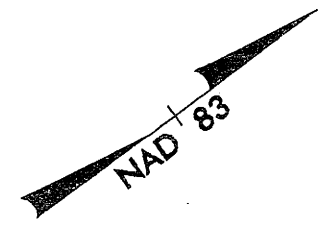
-L- STA. 17+25 TO STA. 27+25 RT.
 DDE = 2600 Cu. Yds.

SEE DETAIL SHEET 2-B FOR DETOUR DESIGN
 SEE SHEET 9 FOR -L- PROFILE
 SEE SHEET 11 FOR -DET- PROFILE



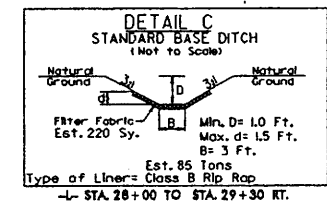
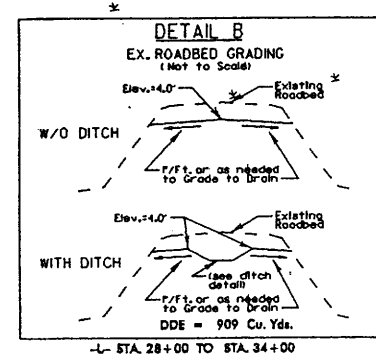
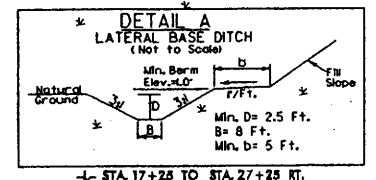
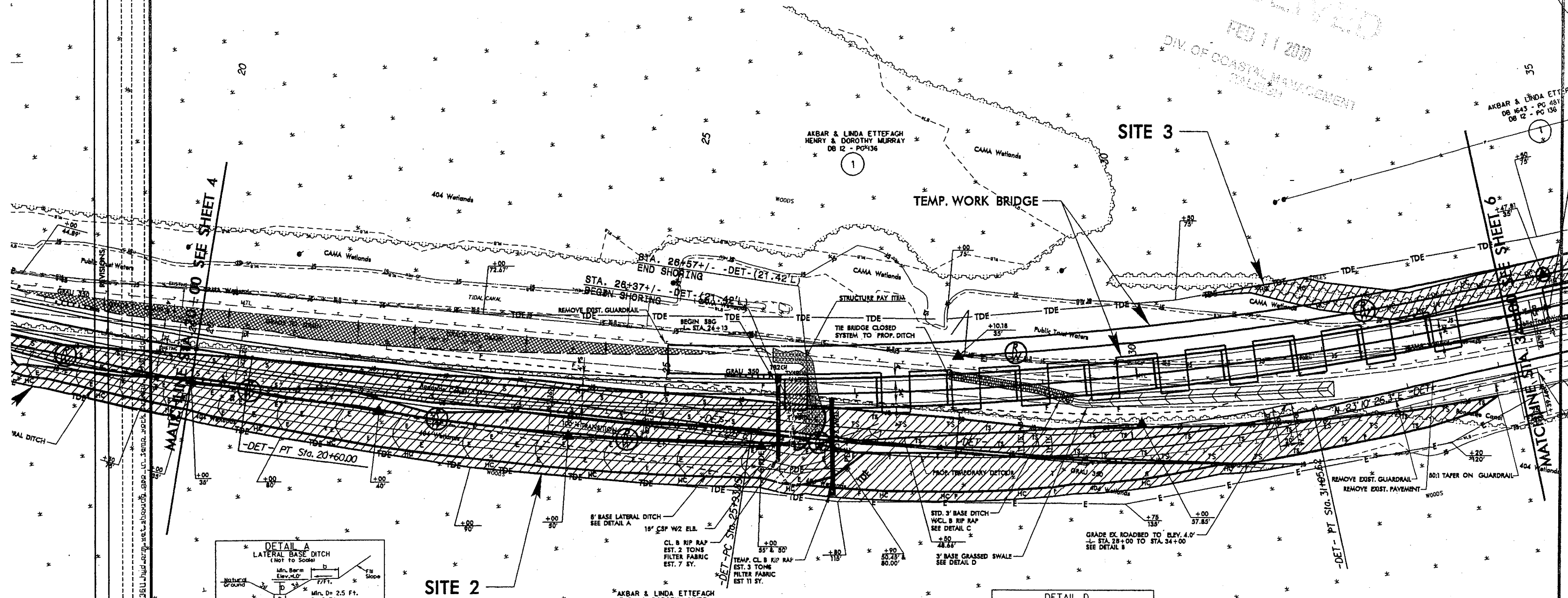
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|---------------------------------|---------------------|
| PROJECT REFERENCE NO. 8-3611 | SHEET NO. 5 |
| RAW SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | ENGINEER |
| Permit Drawing Sheet 4 of 17 | |
| REVISED 1-28-10 | |

-L-
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 $D = 1' 33" 09.8"$
 $L = 1830.0'$
 $T = 934.23'$
 $R = 3.69000'$
 $SE = 025$
 $RO = SEE PLANS$



RECEIVED
 FEB 11 2010
 DIV. OF COASTAL MANAGEMENT
 COLLECTION

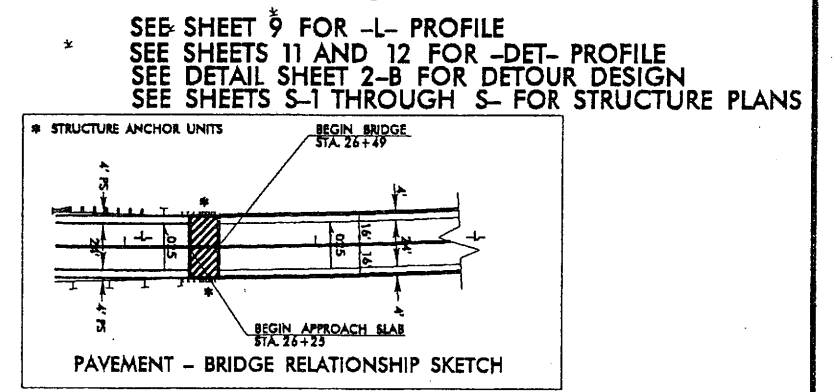
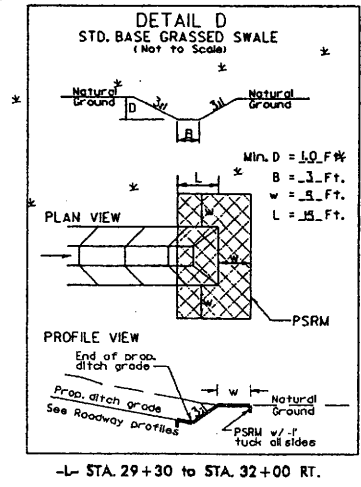
AKBAR & LINDA ETTEFACH
 DB 12 - PG 136



AKBAR & LINDA ETTEFACH
 HENRY & DOROTHY MURRAY
 DB 12 - PG 136

-DET-
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 $D = 3' 34" 51.6"$
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 $SE = 025$
 $RO = SEE PLANS$

- DENOTES EXCAVATION IN WETLAND
- DENOTES FILL IN WETLAND
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES HAND CLEARING

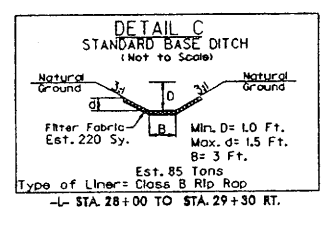
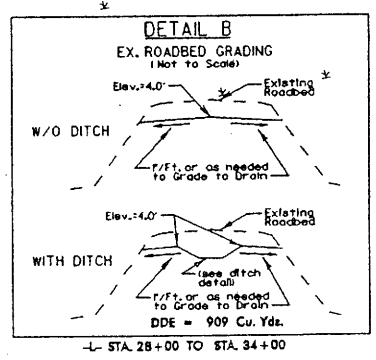
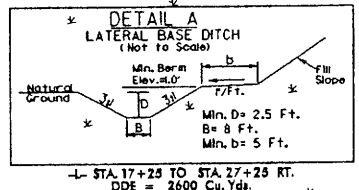
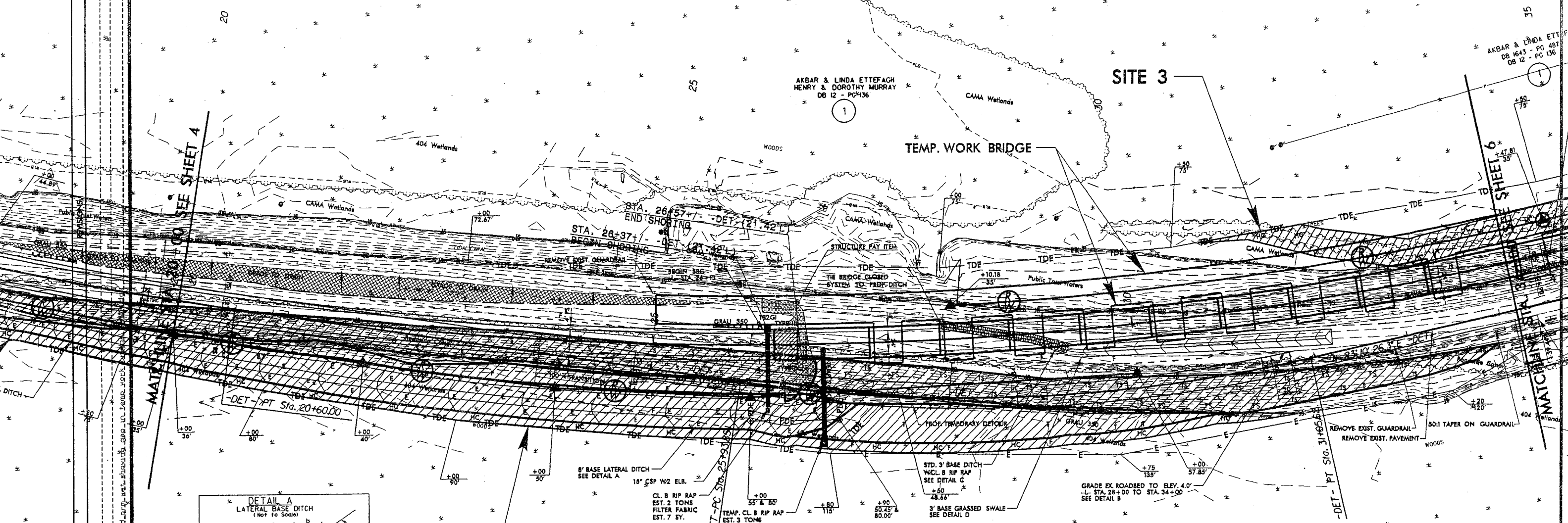




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| PROJECT REFERENCE NO. E-3671 | SHEET NO. 5 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing | |
| Sheet 5 of 17 | |
| REVISED 1-28-10 | |

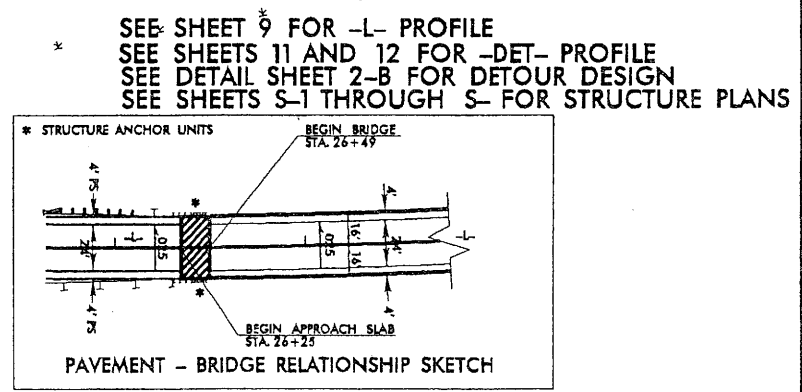
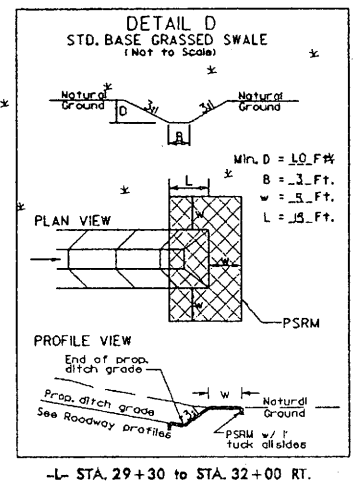
-L-

PI Sta 25+52.04
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 $D = 133.098'$
 $L = 1830.0'$
 $T = 934.23'$
 $R = 3690.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$



AKBAR & LINDA ETTEFACH
HENRY & DOROTHY MURRAY
DB 12 - PG 136

- DET-
- PI Sta 28+98.33
 $\Delta = 2^\circ 32' 56.5" (LT)$
 $D = 3' 34.516"$
 $L = 601.76'$
 $T = 304.48'$
 $R = 1600.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$
- DENOTES EXCAVATION IN WETLAND
 - DENOTES FILL IN WETLAND
 - DENOTES TEMPORARY FILL IN WETLAND
 - DENOTES IMPACTS IN SURFACE WATER
 - DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 - DENOTES HAND CLEARING

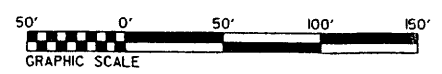


ENGLISH

WETLAND/SURFACE WATER PERMIT DWG.

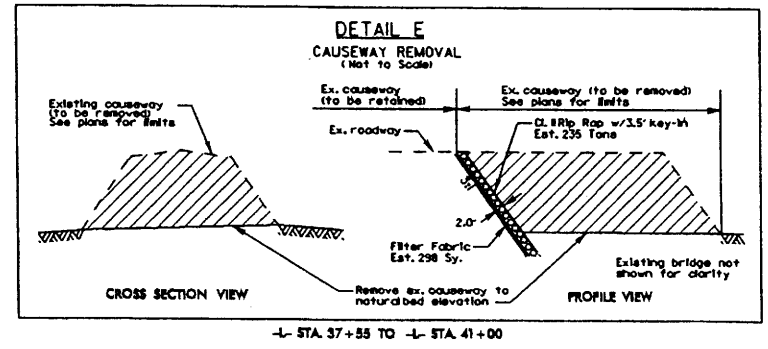
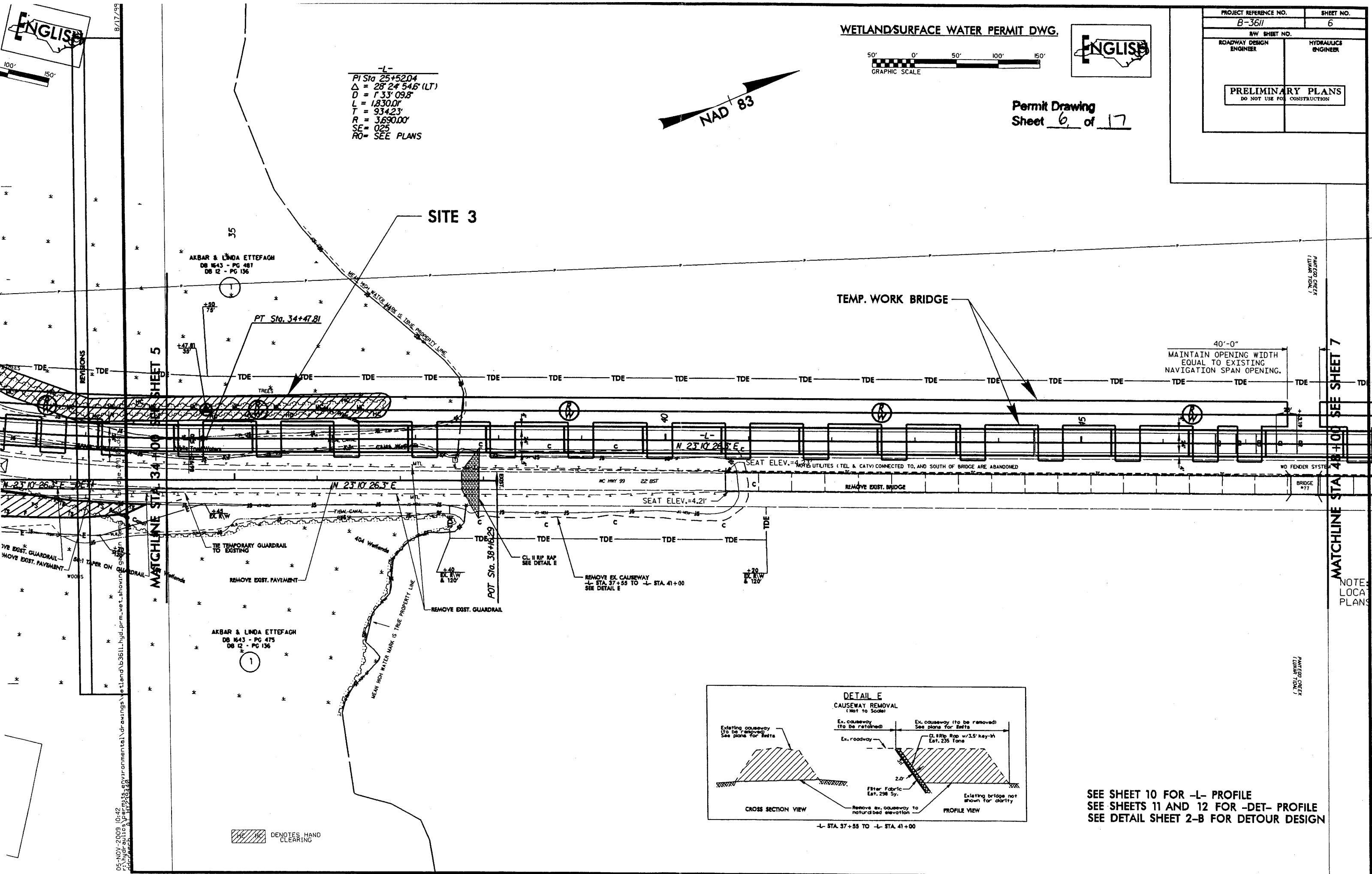
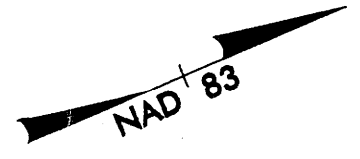
ENGLISH

| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 6 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |



Permit Drawing
Sheet 6 of 17

-L-
 PI Sta 25+52.04
 $\Delta = 28' 24" 54.6'$ (LT)
 $D = 1' 33" 09.8'$
 $L = 1830.0'$
 $T = 934.23'$
 $R = 3,690.00'$
 $SE = 0.25$
 RO = SEE PLANS



SEE SHEET 10 FOR -L- PROFILE
 SEE SHEETS 11 AND 12 FOR -DET- PROFILE
 SEE DETAIL SHEET 2-B FOR DETOUR DESIGN

DENOTES HAND CLEARING

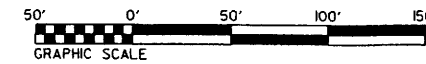
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 8/17/99
 100' 150'



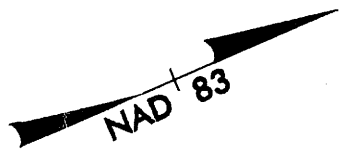
WETLAND/SURFACE WATER PERMIT DWG.



| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 6 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |



Permit Drawing Sheet 2 of 12



-L-
 P1 Sta 25+52.04
 $\Delta = 28^{\circ} 2' 54.6" (LT)$
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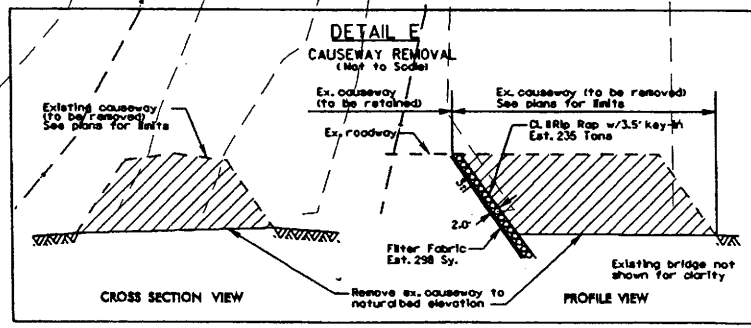
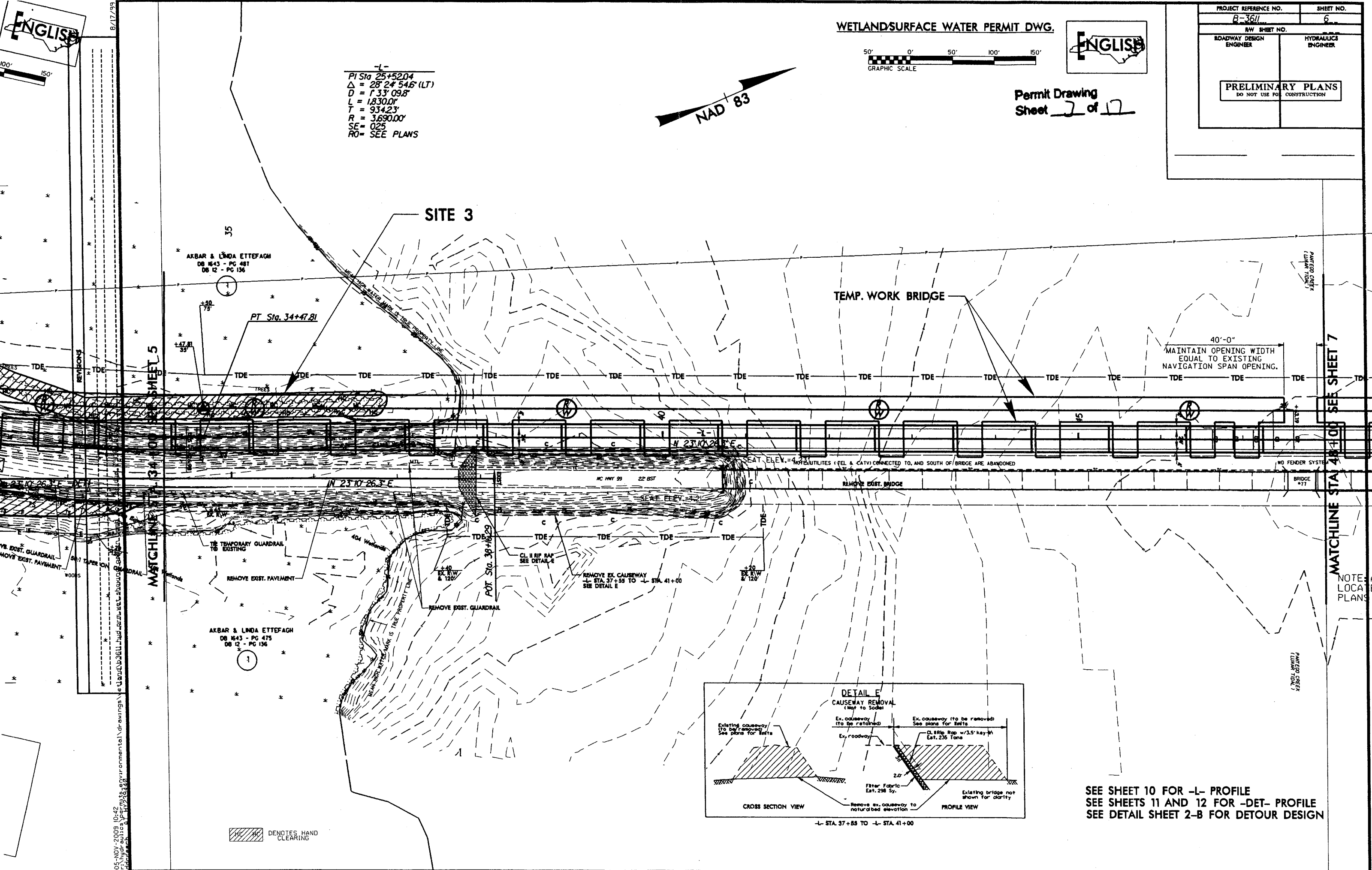
SITE 3

AKBAR & LINDA ETTEFAGH
 DB 1643 - PG 481
 DB 12 - PG 136

PT Sta. 34+47.81

TEMP. WORK BRIDGE

40'-0"
 MAINTAIN OPENING WIDTH
 EQUAL TO EXISTING
 NAVIGATION SPAN OPENING.



-L- STA. 37+55 TO -L- STA. 41+00

HC BC DENOTES HAND CLEARING

SEE SHEET 10 FOR -L- PROFILE
 SEE SHEETS 11 AND 12 FOR -DET- PROFILE
 SEE DETAIL SHEET 2-B FOR DETOUR DESIGN

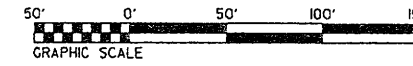
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 8/17/09

MATCHLINE STA. 34+00 SEE SHEET 5

MATCHLINE STA. 41+00 SEE SHEET 7

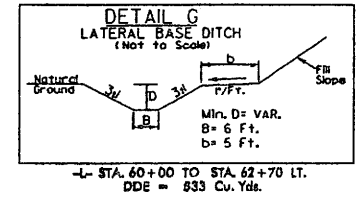
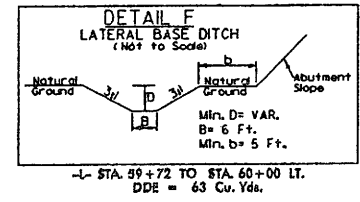
NOTE: LOCAL PLANS

WETLAND/SURFACE WATER PERMIT DWG.



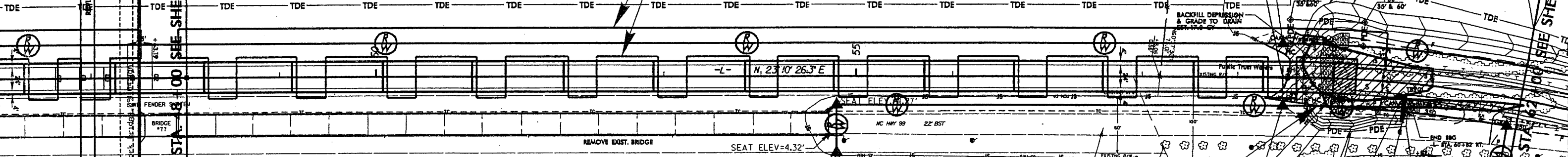
ENGLISH

| | |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 7 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing Sheet 8 of 17 | |
| REVISED 1-28-10 | |



-L-
PI Sta 61+97.52
Δ = 20° 39' 57.2" (RT)
D = 4' 10" 55.8"
L = 494.14
T = 249.79
R = 1,370.00'
SE = 03
R0 = SEE PLANS

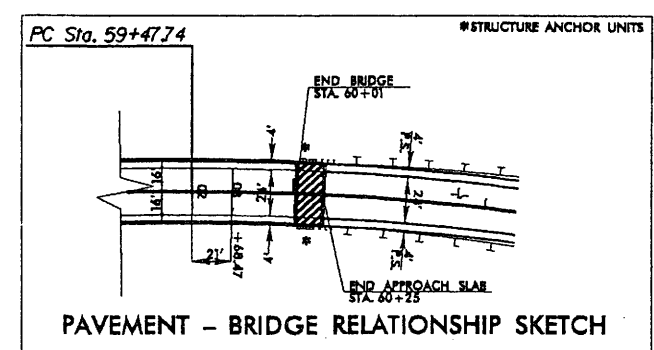
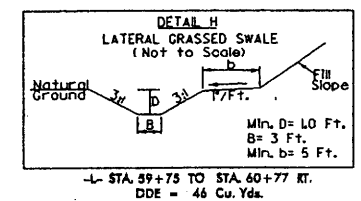
40'-0"
MAINTAIN OPENING WIDTH
EQUAL TO EXISTING
NAVIGATION SPAN OPENING.



MATCHLINE STA. 0+00 SEE SHEET 6

NOTE: ALL UNDERGROUND UTILITY DATA WAS LOCATED BY TRANSFERENCE FROM DRAWN PLANS FURNISHED BY THE UTILITY OWNERS

- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES HAND CLEARING



SEE SHEET 10 FOR -L- PROFILE
SEE SHEETS S-1 THROUGH S- FOR STRUCTURE PLANS

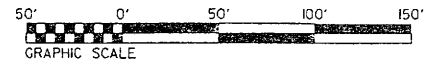


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 PERMITS, Environmental Drawings
 01/15/2010 11:20

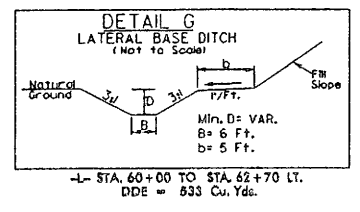
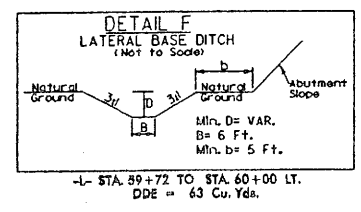
WETLANDS/SURFACE WATER PERMIT DWG.

| | |
|--|---------------------|
| PROJECT REFERENCE NO. 2E-3611 | SHEET NO. 7 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing Sheet 9 of 17 RAISED 1-28-10 | |

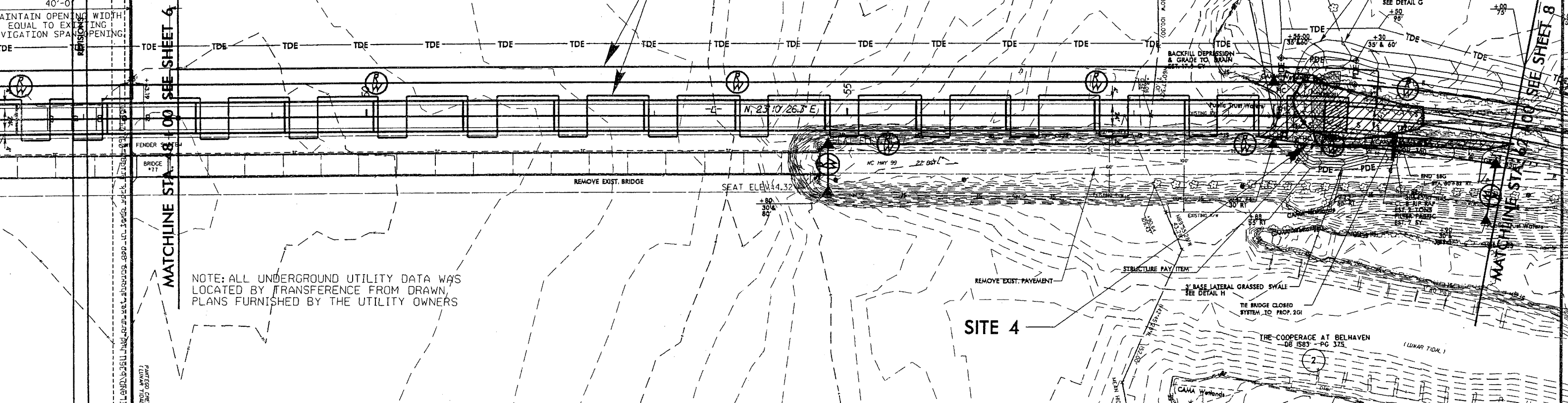
ENGLISH



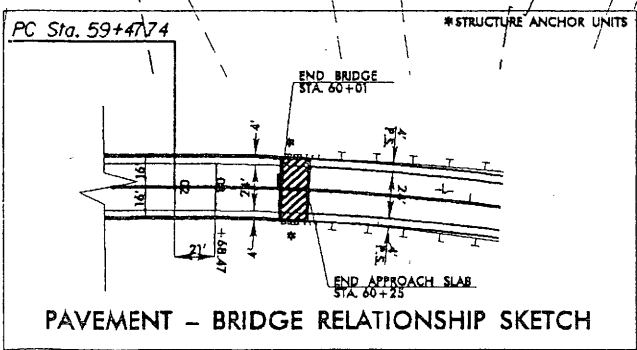
-L-
 PI Sta 61+97.52
 $\Delta = 20^{\circ} 39' 57.2''$ (RT)
 $D = 4' 10'' 55.8''$
 $L = 494.14'$
 $T = 249.79'$
 $R = 1,370.00'$
 $SE = 03$
 $RO = \text{SEE PLANS}$



40'-0"
 MAINTAIN OPENING WIDTH
 EQUAL TO EXISTING
 AVIGATION SPAN

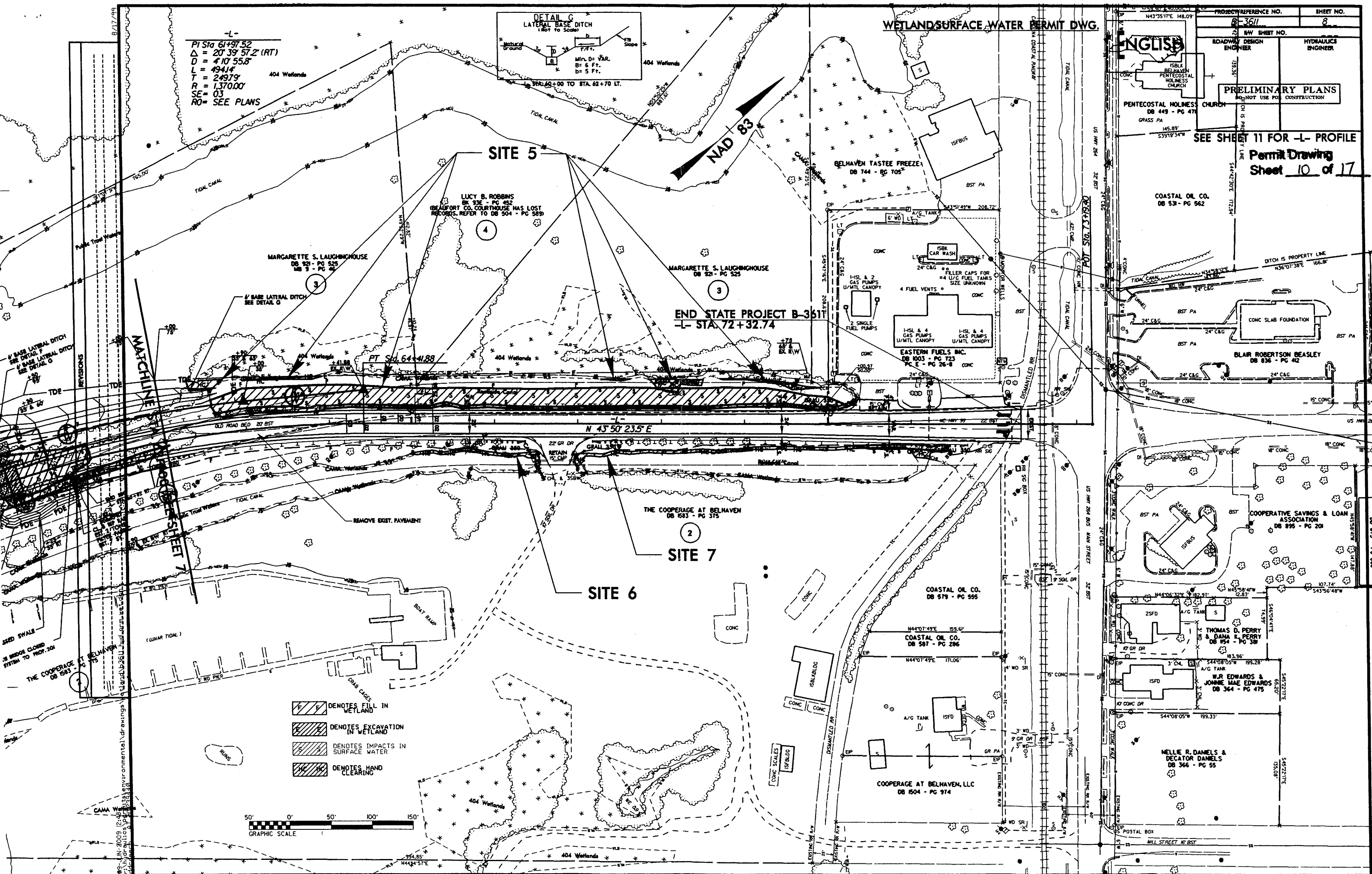


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 AT 11:24:55
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 C:\Program Files\Autodesk\AutoCAD 2010\acad.lsp

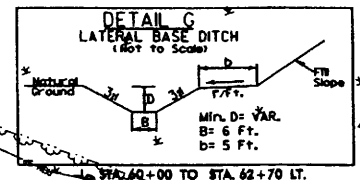


SEE SHEET 10 FOR -L- PROFILE
 SEE SHEETS S-1 THROUGH S- FOR STRUCTURE PLANS





-L-
PI Sta 61+97.52
Δ = 20°39'57.2" (RT)
D = 4'10" 55.8"
L = 4941.4'
T = 2497.9'
R = 1,370.00'
SE = 03
R0 = SEE PLANS



WETLANDS SURFACE WATER PERMIT DWG.

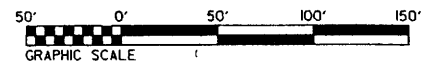
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|--|-----------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 8 |
| RDW SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | |

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SEE SHEET 11 FOR --L-- PROFILE

Permit Drawing Sheet 10 of 17

- [Hatched Box] DENOTES FILL IN WETLAND
- [Hatched Box] DENOTES EXCAVATION IN WETLAND
- [Hatched Box] DENOTES IMPACTS IN SURFACE WATER
- [Hatched Box] DENOTES HAND CLEARING



09-JUN-2009 12:48
C:\p1\environmental\drawings\land\B-3611\dwg\dwg.plt
P:\ndr\m...
CAMA

| | | | |
|--|--|---|--|
| PROJECT REFERENCE NO. | | SHEET NO. | |
| B-3611 | | 8 | |
| ROADWAY DESIGN ENGINEER | | HYDRAULICS ENGINEER | |
| INGLIS | | INGLIS | |
| ISBLK BELHAVEN PENTECOSTAL HOLINESS CHURCH | | PENTECOSTAL HOLINESS CHURCH DB 449 - PG 476 | |
| PRELIMINARY PLANS | | DO NOT USE FOR CONSTRUCTION | |

SEE SHEET 11 FOR -L- PROFILE
 Permit Drawing
 Sheet 11 of 17

COASTAL OIL CO. DB 53 - PG 562

BLAIR ROBERTSON BEASLEY DB 836 - PG 42

CONC SLAB FOUNDATION

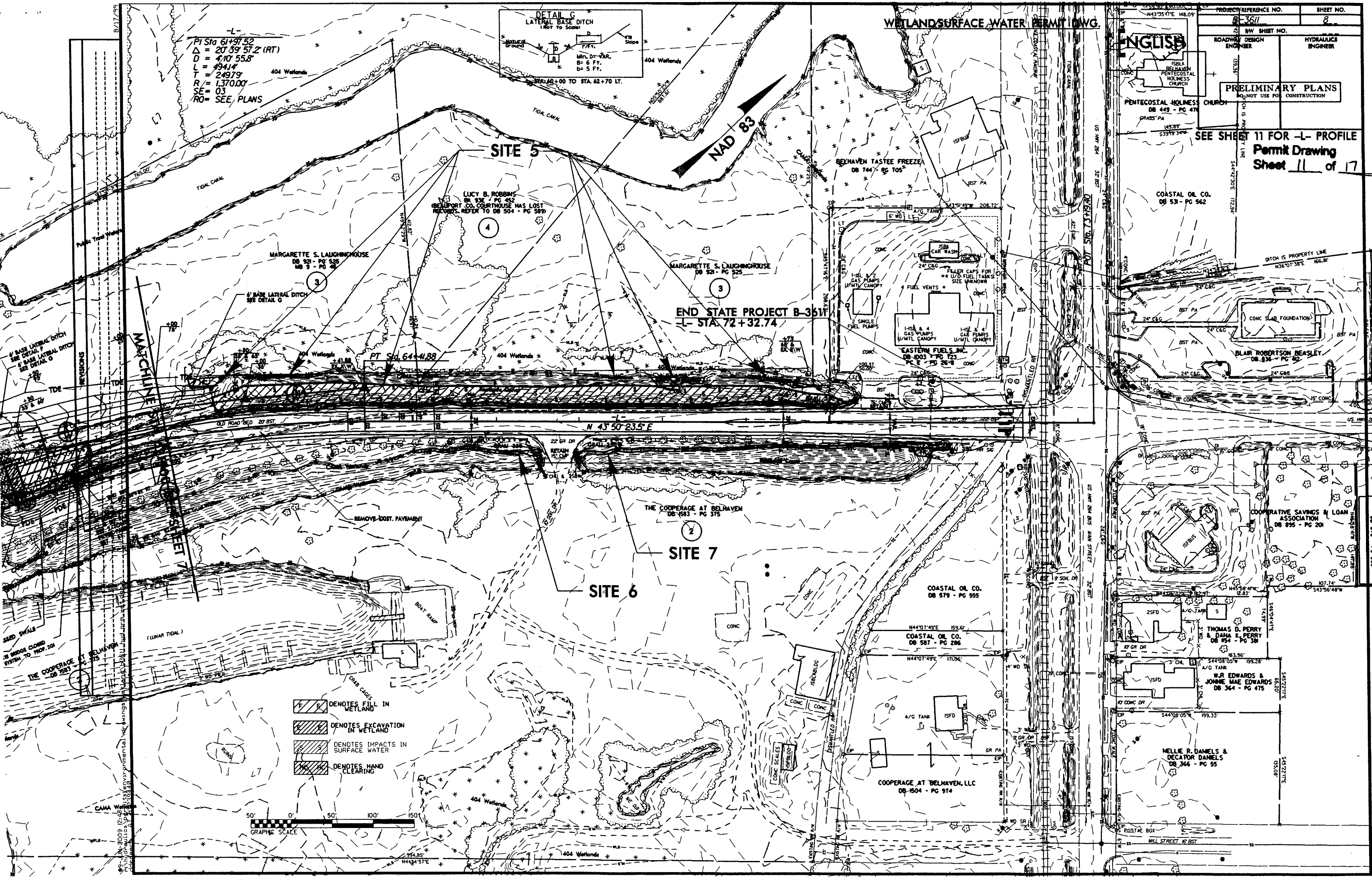
BLUR ROBERTSON BEASLEY DB 836 - PG 42

COOPERATIVE SAVINGS & LOAN ASSOCIATION DB 895 - PG 201

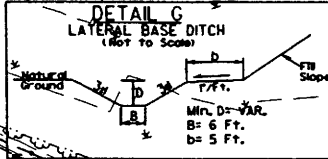
THOMAS D. PERRY & DANA F. PERRY DB 154 - PG 38

W.R EDWARDS & JOANNE MAE EDWARDS DB 364 - PG 475

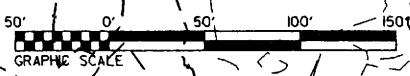
NELLIE R. DANIELS & DECAPOR DANIELS DB 366 - PG 55



-L-
 PI Sta 61+97.52
 Δ = 20' 39" 57.2' (RT)
 D = 410' 55.8"
 L = 494.14'
 T = 2497.9'
 R = 1,370.00'
 SE = 03'
 RO = SEE PLANS



- [Hatched pattern: diagonal lines] DENOTES FILL IN WETLAND
- [Hatched pattern: diagonal lines] DENOTES EXCAVATION IN WETLAND
- [Hatched pattern: horizontal lines] DENOTES IMPACTS IN SURFACE WATER
- [Hatched pattern: vertical lines] DENOTES HAND CLEARING

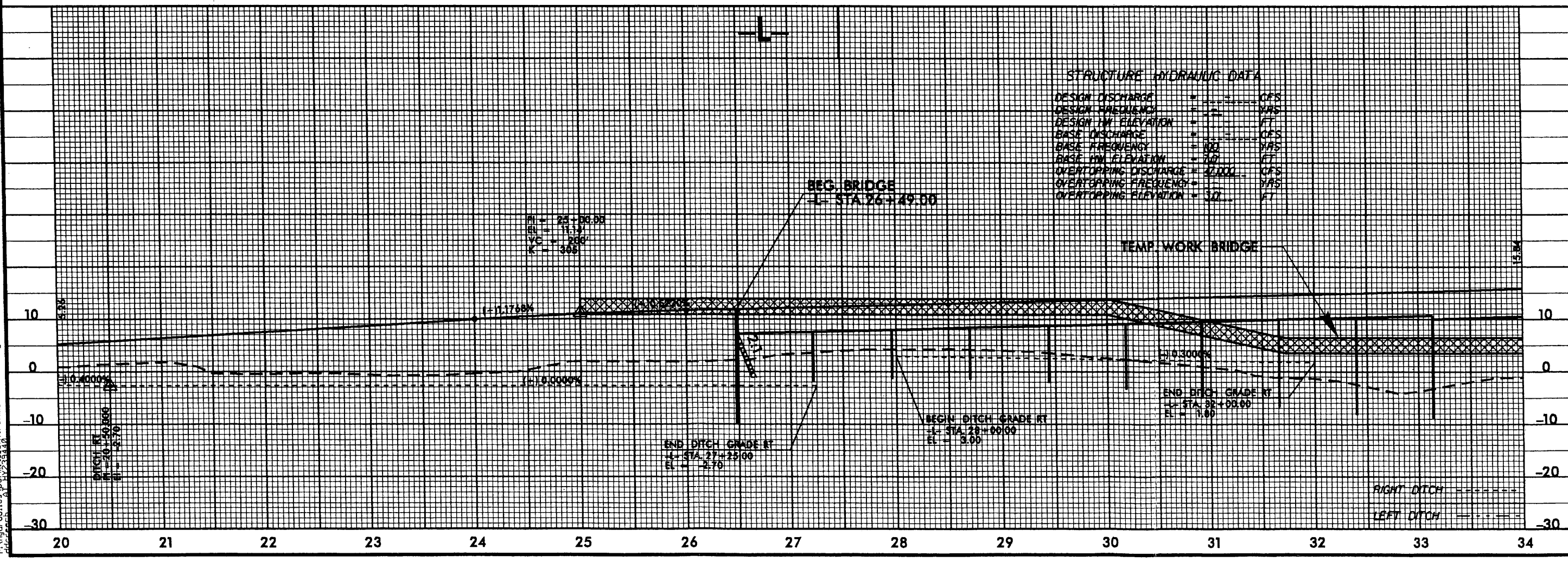
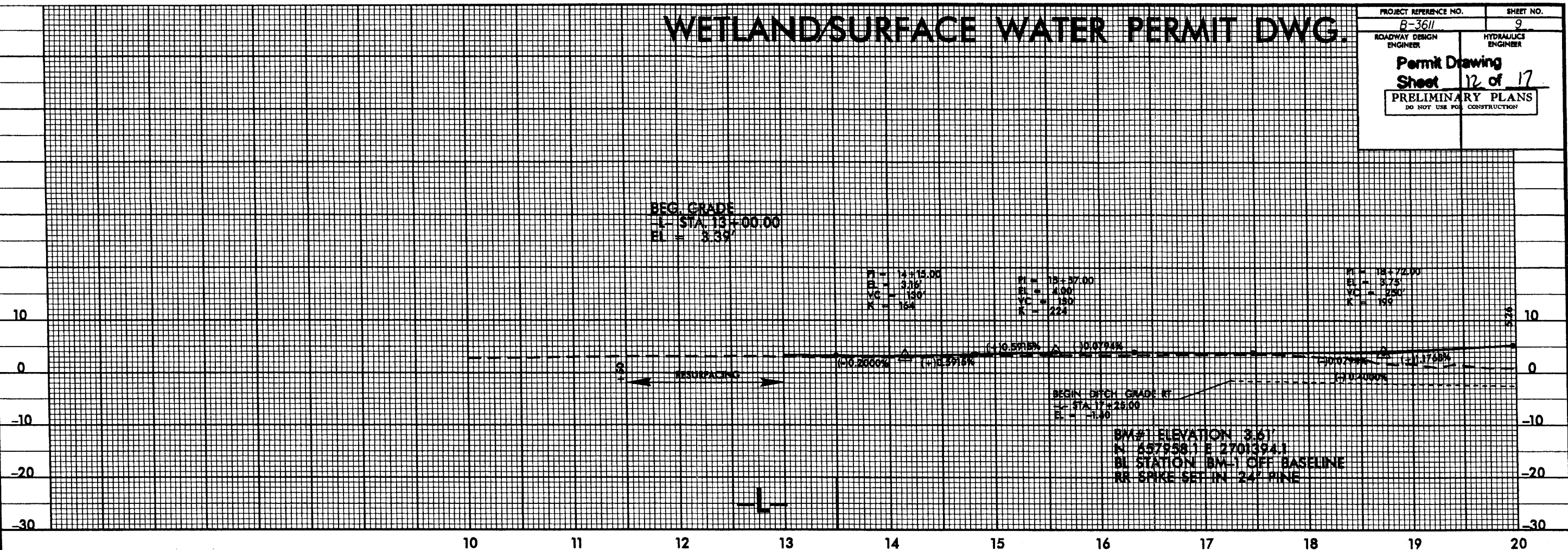


DATE: 2009 (2-4-09)
 W. H. WILSON, INC.

WETLANDS SURFACE WATER PERMIT DWG.

| | |
|--|-----------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 9 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing | |
| Sheet 12 of 17 | |
| PRELIMINARY PLANS | |
| <small>DO NOT USE FOR CONSTRUCTION</small> | |

5/28/99



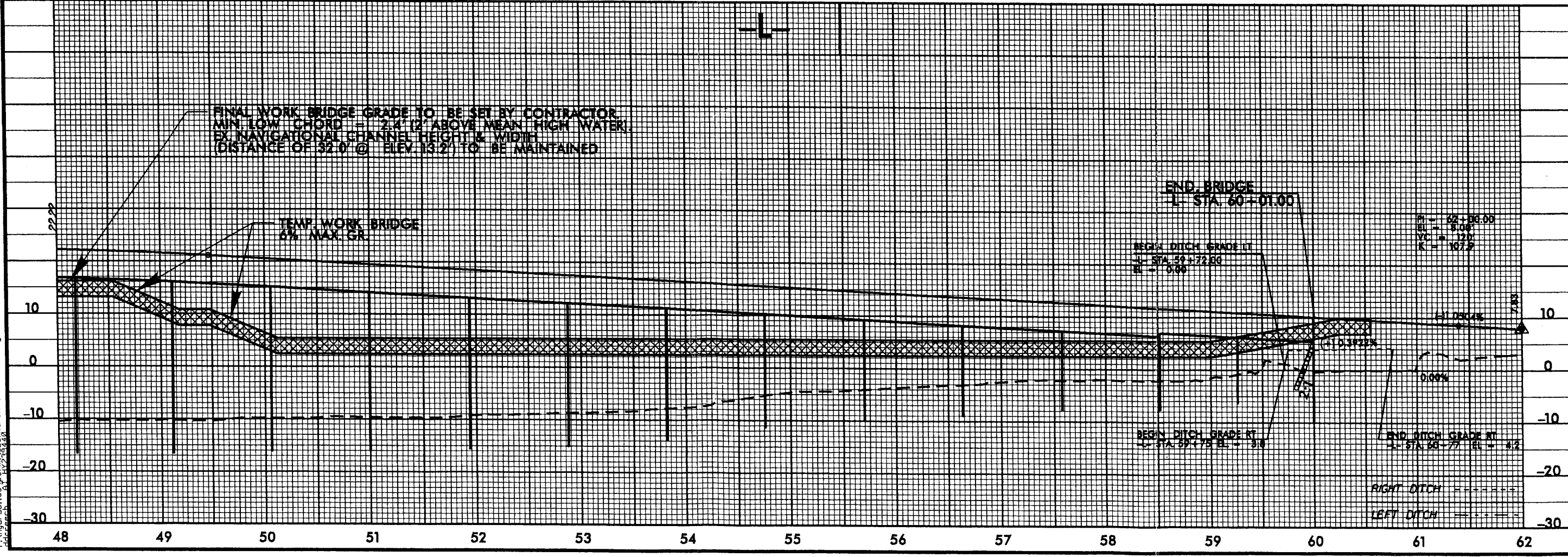
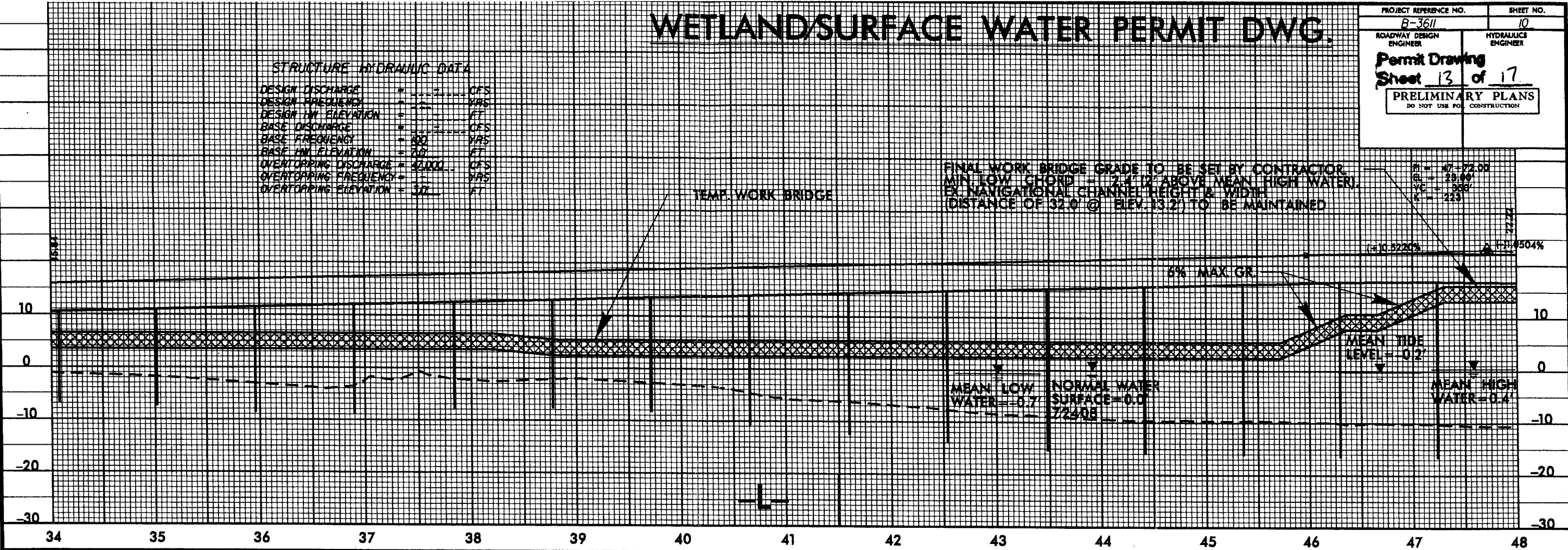
09-JUN-2009 12:48
r:\Hydro\public\p\p\3611\wetland\drawings\wetland\3611_hyd_perm_wet.dgn

WETLAND/SURFACE WATER PERMIT DWG.

| | |
|--|------------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 10 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing Sheet 13 of 17 | |
| PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> | |

STRUCTURE HYDRAULIC DATA

| | | | |
|-----------------------|---|-------|-----|
| DESIGN DISCHARGE | = | ----- | CFS |
| DESIGN FREQUENCY | = | ----- | YRS |
| DESIGN HW ELEVATION | = | ----- | FT |
| BASE DISCHARGE | = | ----- | CFS |
| BASE FREQUENCY | = | 100 | YRS |
| BASE HW ELEVATION | = | 7.0 | FT |
| OVERTOPPING DISCHARGE | = | 4000 | CFS |
| OVERTOPPING FREQUENCY | = | ----- | YRS |
| OVERTOPPING ELEVATION | = | 3.0 | FT |



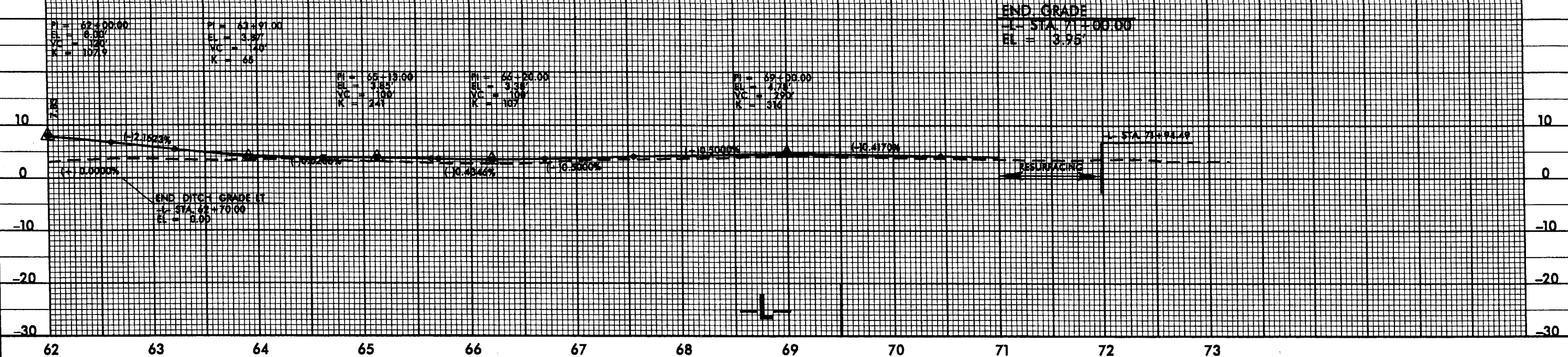
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5/28/99

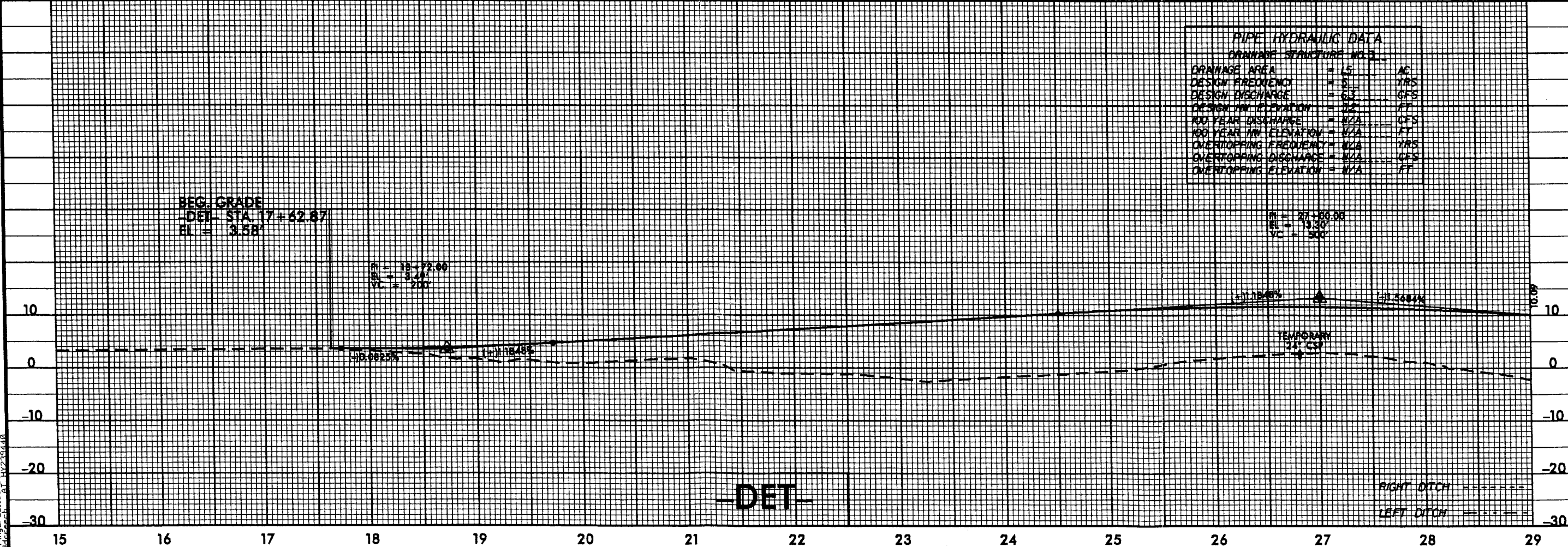
WETLAND/SURFACE WATER PERMIT DWG.

| | |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 11 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing | |
| Sheet 14 of 17 | |
| PRELIMINARY PLANS | |
| DO NOT USE FOR CONSTRUCTION | |

BM#2 ELEVATION 3.78'
 N 662747.9 E 2703962.8
 BL STATION 58+70.79 233' IT
 RN SPIKE SET IN EDGE OF TEXACO
 CONVENIENCE STORE PARKING LOT



| PIPE HYDRAULIC DATA | |
|--------------------------|-----------|
| DRAINAGE STRUCTURE NO. 3 | |
| DRAINAGE AREA | = 15 AC |
| DESIGN FREQUENCY | = 5 YRS |
| DESIGN DISCHARGE | = 63 CFS |
| DESIGN HW ELEVATION | = 12 FT |
| 100 YEAR DISCHARGE | = N/A CFS |
| 100 YEAR HW ELEVATION | = N/A FT |
| OVERTOPPING FREQUENCY | = N/A YRS |
| OVERTOPPING DISCHARGE | = N/A CFS |
| OVERTOPPING ELEVATION | = N/A FT |



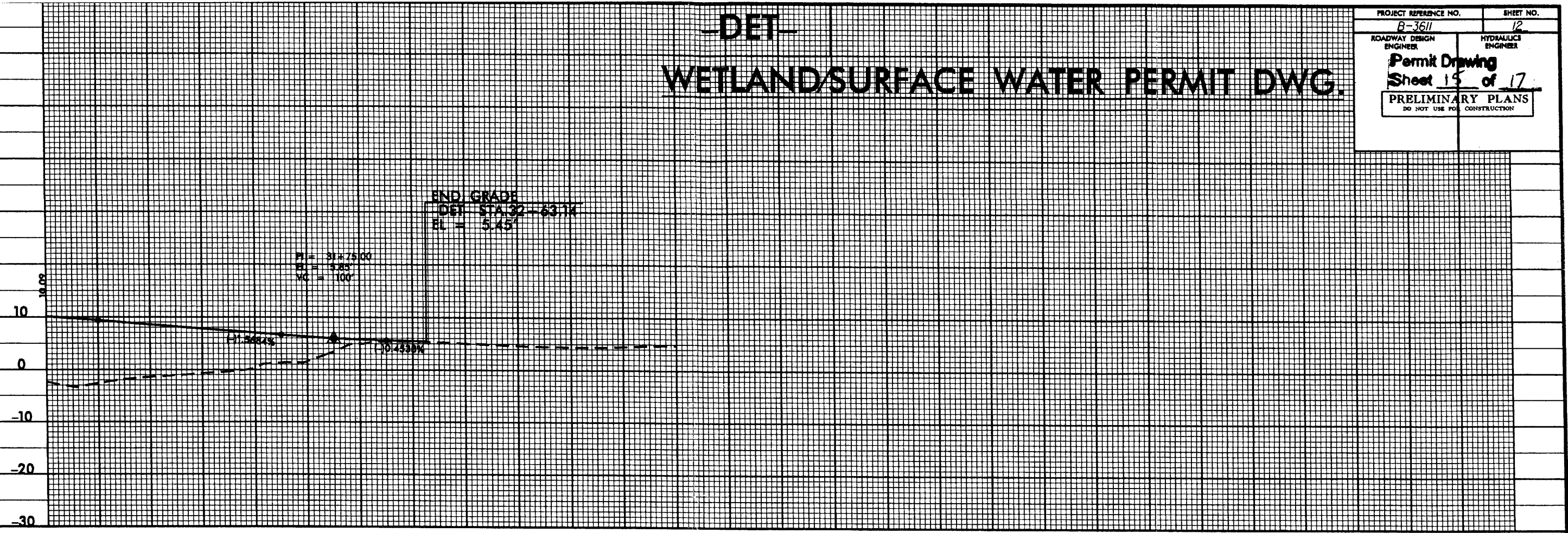
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 11/23/99

5/28/99

-DET-

WETLAND/SURFACE WATER PERMIT DWG.

| | |
|---|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 12 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Permit Drawing | |
| Sheet 15 of 17 | |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |



09-JUN-2009 12:49
c:\hydraulic\permits\environmental\drawings\wetland\b3611_hyd_perm_wet.dgn
d:\creech

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 Designr (ft) | | | |
| 1 | -L- 11+50 to 17+71 LT. | | 0.01 | | | | | 0.03 | | | <0.01* | | 15 | | |
| 2 | -L- 17+39 to 31+59 RT. | | 0.19 | 0.27 | 0.69 | | | 0.31 | | | 0.58 | 0.50 | 973 | 722 | |
| 3 | -L- 30+79 to 36+70 LT. | TEMP. BRIDGE | | | | | 0.34 | | | | | | | | |
| 4 | -L- 59+26 to 62+04 | BRIDGE | 0.04 | | <0.01* | | 0.04 | | | | 0.13 | | 137 | | |
| 5 | -L- 62+36 to 70+33 LT. | | 0.06 | | <0.01* | | 0.04 | | | | 0.37 | | 764 | | |
| 6 | -L- 64+98 to 66+54 RT. | | <0.01* | | | | 0.01 | | | | | | | | |
| 7 | -L- 66+95 to 71+45 RT. | | 0.01 | | | | 0.04 | | | | <0.01* | | 48 | | |
| TOTALS: | | | 0.31 | 0.27 | 0.69 | 0.00 | 0.81 | 1.08 | 0.50 | 1937 | 722 | 0 | | | |

*The sum of "less thans" does not total more than 0.01 acre.

Additional Impacts Notes:

Permanent impacts due to bents in water or wetlands: 630 sq. ft. (0.01 acres)
 Temporary impacts due to temporary work bridge bents in water or wetlands: 8100 sq. ft. (0.19 acres)
 0.02 acres of temporary fill in wetlands in the hand clearing areas of the 404 wetlands for erosion control measures
 0.01 acres of temporary fill in wetlands in the hand clearing areas of the CAM wetlands for erosion control measures

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

BEAUFORT COUNTY
 WBS - 33162.1.1 (B-3611)

REV. 1/28/2010
 SHEET

Permit Drawing
 Sheet 16 of 17

B-3611 Beaufort Co.
Property Owner Information

| Courtesy Title | Alternate Courtesy Title | Last Name | First Name | Alternate Name | Address | City/Town | State | Zip Code | Home Phone | Business Phone | Contacted | How Contacted | Whom Contacted |
|----------------|--------------------------|--|-------------|------------------|---------------------|------------|-------|----------|-------------------------------|----------------|-----------|---------------|----------------|
| Mr. | Mr. | Etefeigh | Atbor | Linda Etefeigh | 2216 Timberlake Dr. | Raleigh | NC | 27604 | (919) 872-6093 | | TRUE | Person | Akbar |
| Ms. | Mrs. | Laughinghouse | Margret S. | | PO Box 279 | Pantego | NC | 27860 | 0 943-6182 | | TRUE | Person | Margrett |
| | | River Mill Inn, Inc. | | | PO Box 31788 | Raleigh | NC | 27822 | | | TRUE | Letter | River Mill Inn |
| | | Belhaven Tasele Freeze | | | PO Box 279 | Pantego | NC | 27860 | | | TRUE | Person | Margrett |
| | | Eastern Fuels, Inc. | | | PO Box 1388 | Ahoskie | NC | 27810 | | | FALSE | Phone | Richard Short |
| | | Eastern Fuels, Inc. | | | PO Box 1386 | Ahoskie | NC | 27810 | (252) 332-5021 | | FALSE | Letter | |
| | | Flowers | Ronnie | Annie C. Flowers | 725 Main Str. | Belhaven | NC | 27810 | | | FALSE | Letter | Ronnie |
| Mr. | Mrs. | Laughinghouse | Margrett S. | | PO Box 279 | Pantego | NC | 27860 | (252) 943-3641 | | TRUE | Person | Hilda |
| Ms. | Mrs. | Wood, Sr. | Paul R. | Hilda Wood | PO Box 122 | Belhaven | NC | 27810 | (252) 944-0277 | | TRUE | Person | Celia |
| Mr. | Mr. | Chevez | Jeime | | 102 California Str. | Belhaven | NC | 27810 | (252) 943-3357 | | TRUE | Person | Christopher |
| Mr. | Mrs. | Herns | Christopher | Mamie Harris | 882 W. Main Str. | Belhaven | NC | 28342 | | | TRUE | Letter | NCCPHChurch |
| | | NC Conference of Pentecostal Holiness Church, Inc. | | | PO Box 67 | Falcon | NC | 27910 | | | FALSE | Letter | |
| | | Eastern Fuels, Inc. | | | PO Box 1388 | Ahoskie | NC | 27910 | | | TRUE | Letter | Blair |
| Mr. | Mr. | Beasley | Blair R. | | PO Box 38 | Colerain | NC | 27924 | | | TRUE | Person | Deborah Dewey |
| | | Cooperative Savings and Loan Assoc. | | | 770 W. Main Str. | Belhaven | NC | 27810 | (252) 943-2149 | | TRUE | Person | Dana |
| Mr. | Mrs. | Perry | Thomas D. | Dena K. Perry | PO Box 234 | Belhaven | NC | 27810 | (252) 944-0228 | | TRUE | Person | Ricky Edwards |
| Mr. | Mr. | Edwards | W. Ralph | | 519 Tooley Str. | Belhaven | NC | 27810 | (252) 943-2266 | | TRUE | Person | Archie |
| Mr. | Mr. | Daniels | Archie C. | | PO Box 2511 | Belhaven | NC | 27810 | (703) 365-2104 | | TRUE | Phone | G. Ellis |
| Mr. | Mr. | Carawan | G. Ellis | | 316 W. 3rd. Str. | Fairfax | VA | 22031 | (252) 946-2607 (252) 946-4137 | | TRUE | Person | Thomas |
| Mr. | Mrs. | Buckman | Thomas F. | Melanie Buckman | PO Box 40 | Washington | NC | 27889 | | | TRUE | Letter | Thomas |
| Mr. | Mr. | Howell | Fred T. | Colon W. Howell | PO Box 9886 | Pinetown | NC | 27885 | | | TRUE | Letter | Vernon |
| | | BK Investors Limited Partnership | | | PO Box 9886 | Greensboro | NC | 27429 | | | TRUE | Letter | |
| Ms. | Ms. | Robbins | Lucy B. | | 681 E. Water Str. | Belhaven | NC | 27810 | | | FALSE | Letter | |
| Ms. | Ms. | Robbins | Lucy B. | | 681 E. Water Str. | Belhaven | NC | 27810 | | | FALSE | Letter | |
| Ms. | Ms. | Robbins | Lucy B. | | 681 E. Water Str. | Belhaven | NC | 27810 | | | FALSE | Letter | |
| Ms. | Ms. | Robbins | Lucy B. | | 681 E. Water Str. | Belhaven | NC | 27810 | | | FALSE | Letter | |
| Ms. | Ms. | Robbins | Lucy B. | | 681 E. Water Str. | Belhaven | NC | 27810 | | | FALSE | Letter | |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



| | | | |
|-----------------|-----------------------------|-------------|--------------|
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
| N.C. | B-3611 | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 33162.1.1 | BRSTP-99(3) | PE | |
| 33162.2.2 | BRSTP-99(3) | RW & UTIL | |

BEAUFORT COUNTY

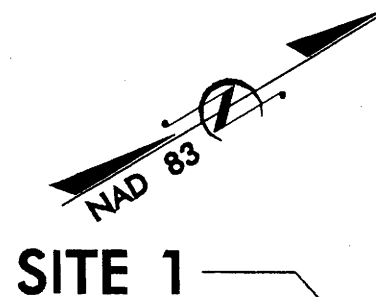
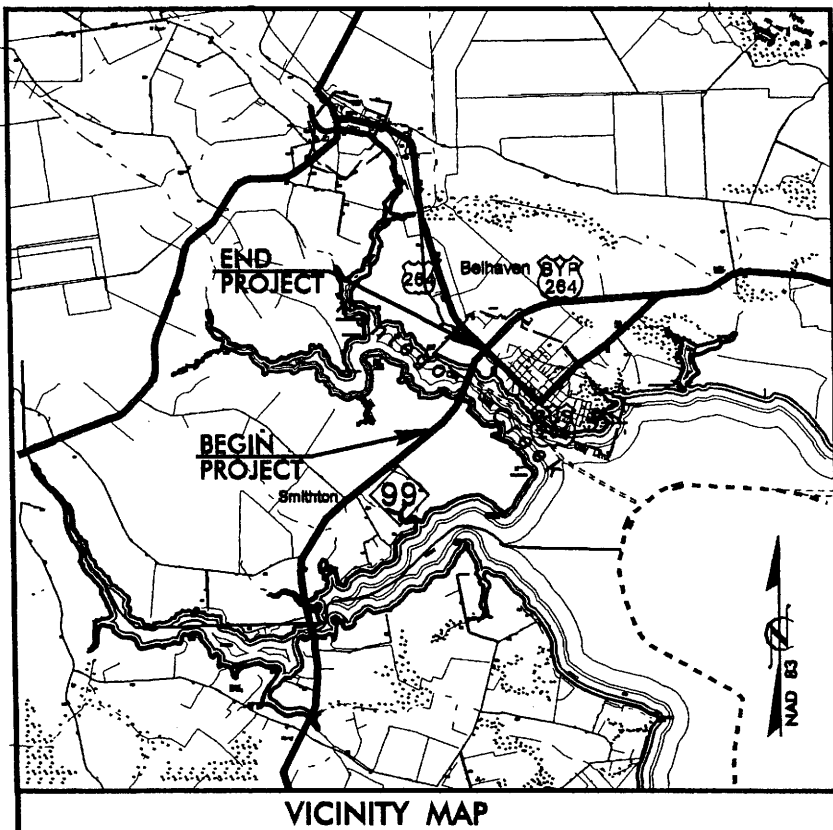
LOCATION: BRIDGE NO. 77 OVER PANTEGO CREEK ON NC 99

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

Buffer Drawing
Sheet 1 of 17



TIP PROJECT: B-3611



BUFFER PERMIT DRAWINGS

BEGIN STATE PROJECT B-3611
-L- STA. 11 + 50

BEGIN BRIDGE
-L- STA. 26 + 49.00

END BRIDGE
-L- STA. 60 + 01.00

END STATE PROJECT B-3611
-L- STA. 72 + 32.74

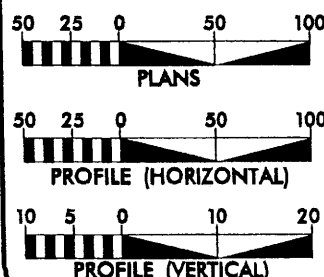


THERE IS NO CONTROL OF ACCESS ON THIS PROJECT
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPALITY OF BELHAVEN
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2009 = 6270
ADT 2030 = 9600
DHV = 10 %
D = 60 %
T = 9 % *
V = 50/40 MPH
* TTST 6 DUAL 3
FUNC. CLASS = COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-3611 = 0.517 Miles
LENGTH STRUCTURE TIP PROJECT B-3611 = 0.635 Miles
TOTAL LENGTH TIP PROJECT B-3611 = 1.152 Miles

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 18, 2009

LETTING DATE:
MARCH 16, 2010

JIMMY GOODNIGHT, PE
PROJECT ENGINEER

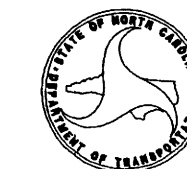
MARK HUSSEY
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____
ROADWAY DESIGN ENGINEER

SIGNATURE: _____
STATE HIGHWAY DESIGN ENGINEER

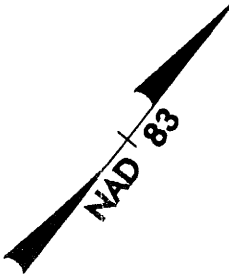
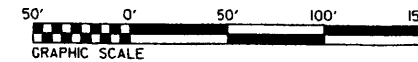
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER

| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 4 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Buffer Drawing Sheet <u>2</u> of <u>17</u> | |

BUFFER PERMIT DWG.



-L-
PI Sta 25+52.04
 $\Delta = 28^{\circ} 24' 54.6''$ (LT)
D = 133' 09.8"
L = 1830.0'
T = 934.23'
R = 3690.00'
SE = 025
RO = SEE PLANS
404 Wetlands

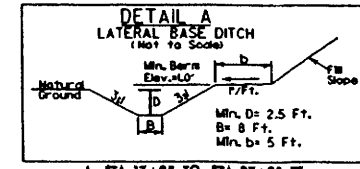
BEGIN STATE PROJECT B-3611
-L- STA. 11+50

-L- POT Sta. 10+00.00
-DET- POT Sta. 10+00.00

-L- PC Sta. 16+17.80

N 51° 35' 20.9" E

-DET-
PI Sta 18+39.7
 $\Delta = 6^{\circ} 51' 58.1''$ (LT)
D = 133' 09.8"
L = 442.20'
T = 221.36'
R = 3690.00'



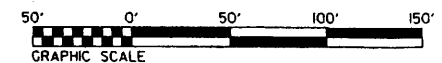
SEE DETAIL SHEET 2-B FOR DETOUR DESIGN
SEE SHEET 9 FOR -L- PROFILE
SEE SHEET 11 FOR -DET- PROFILE

REVISIONS

09 JUN 2009 12:34 pm C:\p1\env\env\drawings\buffer\pcm-buf.dwg 8/17/98

| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 4 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Buffer Drawing Sheet 3 of 17 | |

BUFFER PERMIT DWG.

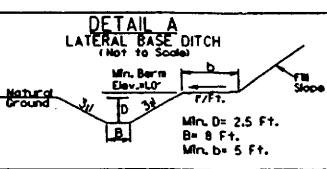


-L-
PI Sta 25+5204
 $\Delta = 28^\circ 24' 54.6''$ (LT)
D = 133' 09.8"
L = 1830.0'
T = 934.23'
R = 3690.00'
SE = 025
RO = SEE PLANS
404 Wetlands

-DET-
PI Sta 18+39.7
 $\Delta = 6^\circ 51' 58.1''$ (LT)
D = 133' 09.8"
L = 442.20'
T = 221.36'
R = 3690.00'

BEGIN STATE PROJECT B-3611
-L- STA. 11+50

-L- POT Sta. 10+00.00
-DET- POT Sta. 10+00.00



-L- STA. 17+25 TO STA. 27+25 RT.
DDE = 2600 Cu. Yds.

SEE DETAIL SHEET 2-B FOR DETOUR DESIGN
SEE SHEET 9 FOR -L- PROFILE
SEE SHEET 11 FOR -DET- PROFILE

REVISIONS

8/17/99

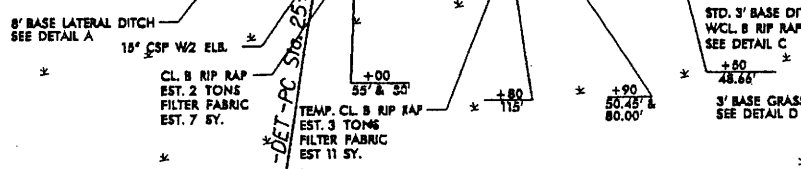
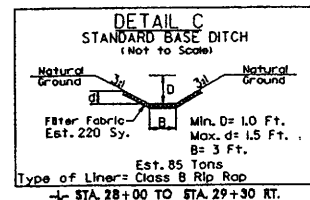
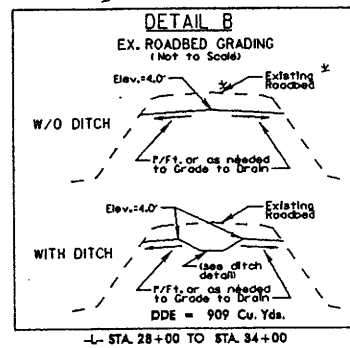
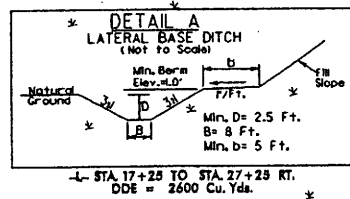
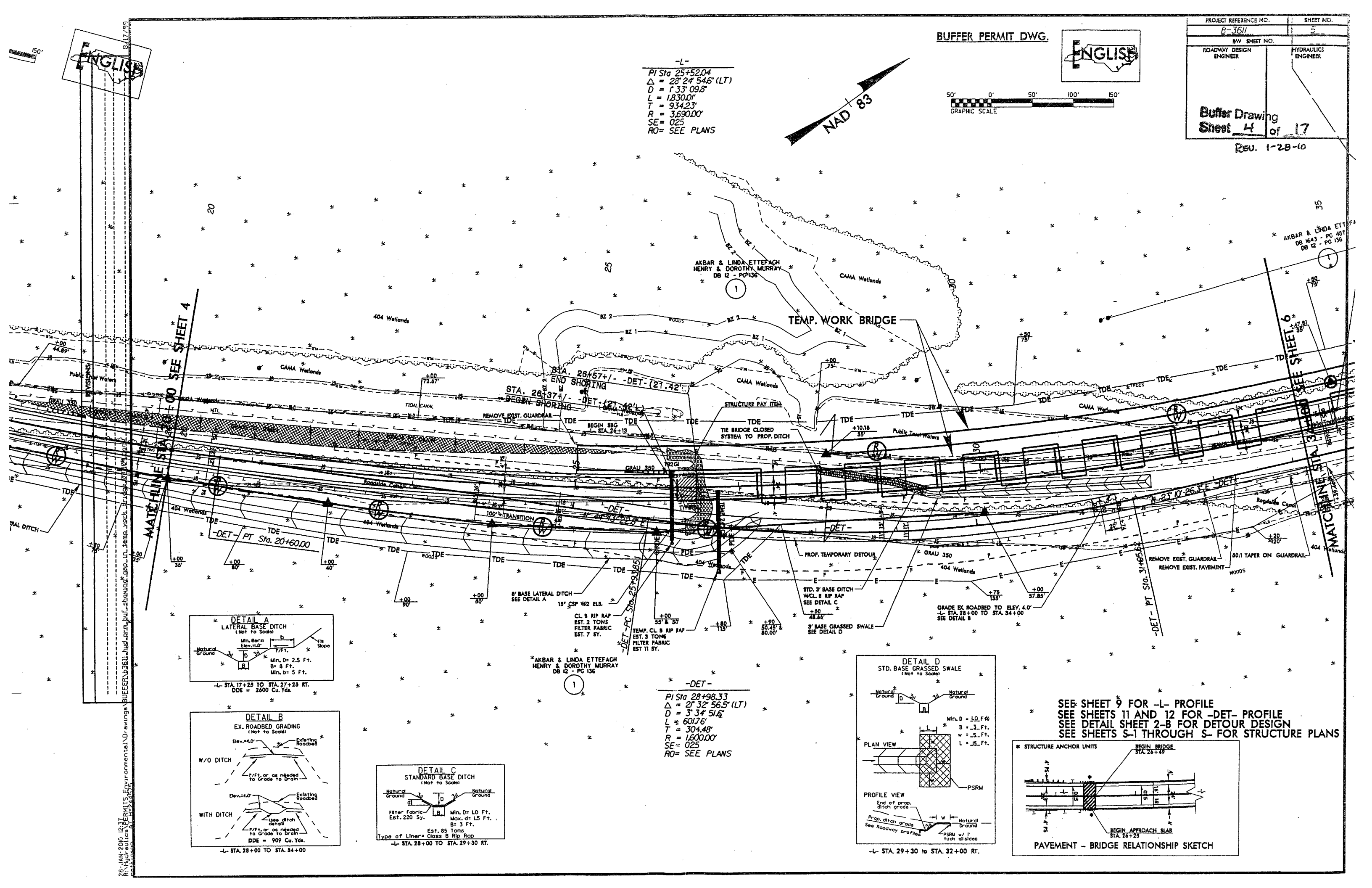
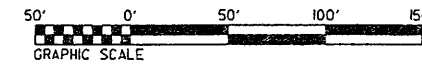
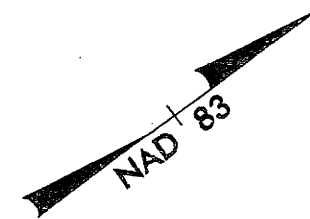
09-JUN-2009 12:34
C:\Hydraulics\B-3611\enviro\enviro\drawings\Nuffec\B-3611\buf.ecm-buf.dgn

BUFFER PERMIT DWG.

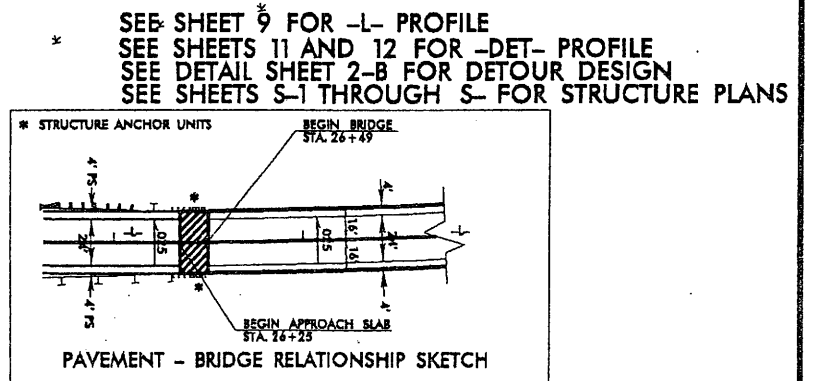
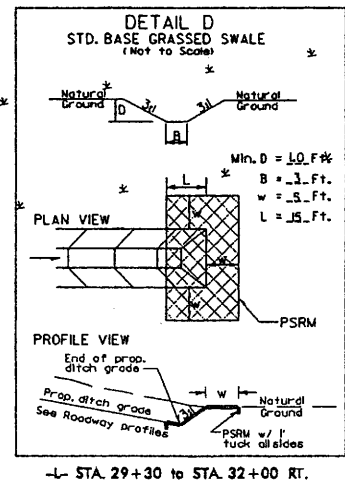


| | |
|------------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| B-3611 | 5 |
| REV SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| Buffer Drawing Sheet 4 of 17 | |
| REV. 1-28-10 | |

-L-
 PI Sta 25+52.04
 $\Delta = 28^\circ 24' 54.6"$ (LT)
 $D = 1,333.098'$
 $L = 1830.0'$
 $T = 934.23'$
 $R = 3,690.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$



-DET-
 PI Sta 28+98.33
 $\Delta = 27^\circ 32' 56.5"$ (LT)
 $D = 3,345.16'$
 $L = 601.76'$
 $T = 304.48'$
 $R = 1,600.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$



28-MAN-206 12/31 PERMITS-Environmental Drawings BUFFER\3611_hud_perm_buf_ahouoc.dwg in temp work bridge 2/11/10
 150'

ENGLISH

BUFFER PERMIT DWG.

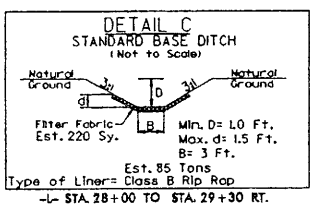
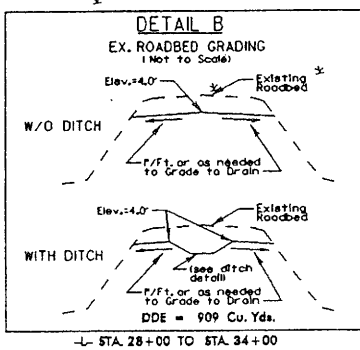
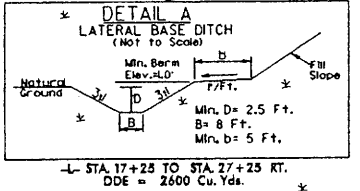
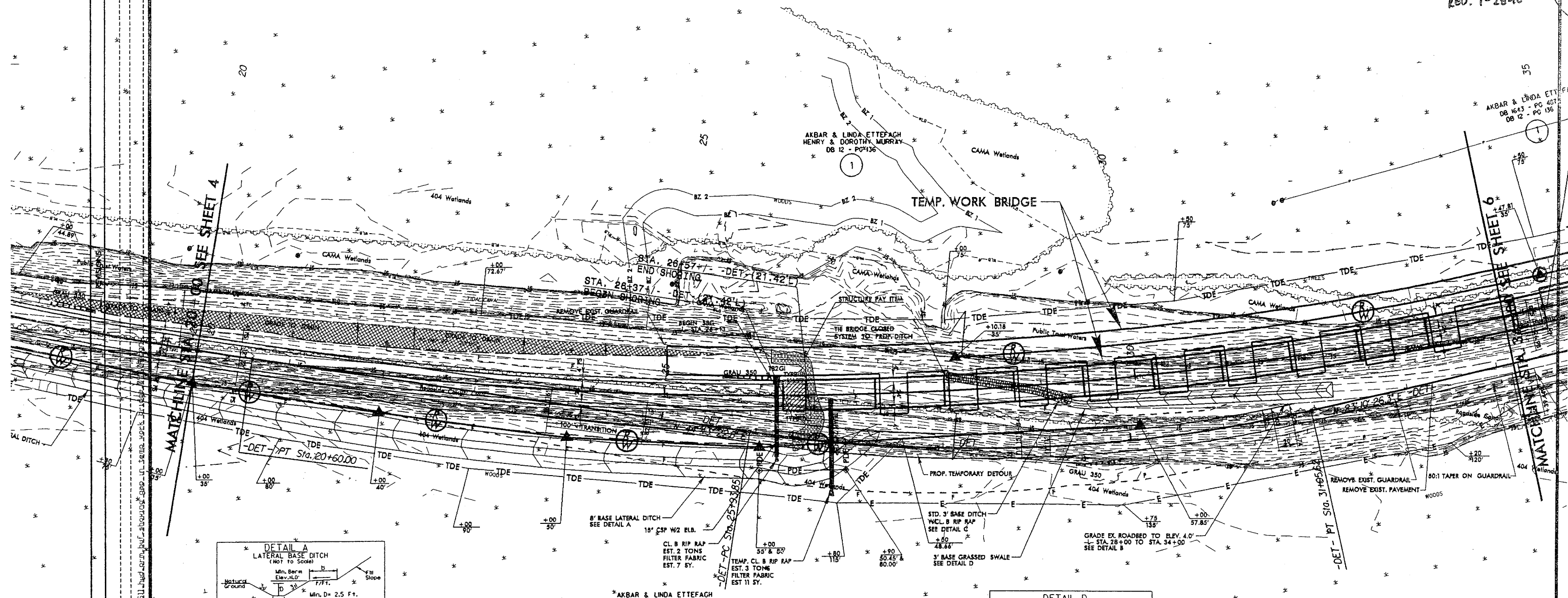
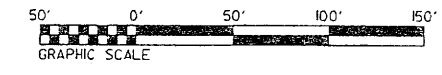
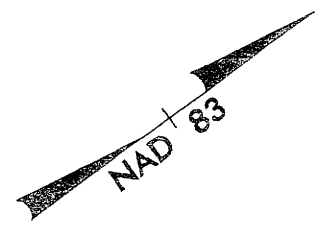
ENGLISH

| | |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO. E-3611 | SHEET NO. 5 |
| RDW SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | |

Buffer Drawing
Sheet 5 of 17

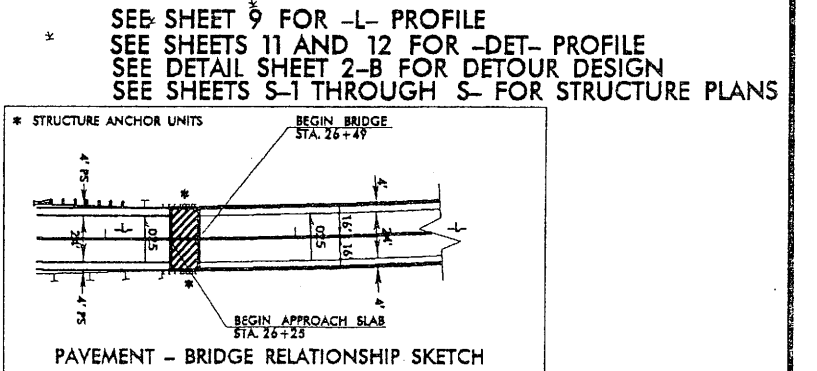
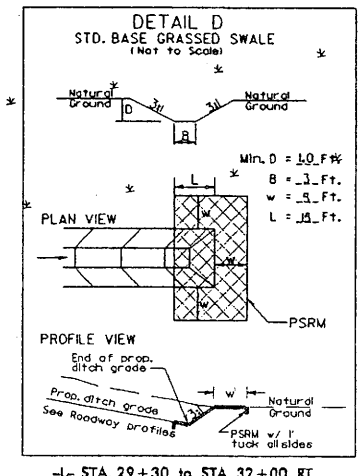
REV. 1-29-10

-L-
 PI Sta 25+52.04
 $\Delta = 28^\circ 24' 54.6"$ (LT)
 $D = 1'33' 09.8"$
 $L = 1830.01'$
 $T = 934.23'$
 $R = 3690.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$



*AKBAR & LINDA ETTEFACH
HENRY & DOROTHY MURRAY
DB 12 - PG 136

-DET-
 PI Sta 28+98.33
 $\Delta = 21^\circ 32' 56.5"$ (LT)
 $D = 3' 34' 51.6"$
 $L = 601.76'$
 $T = 304.48'$
 $R = 1600.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$



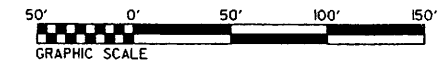
28-JAN-2010 12:37
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 BUEEN\3611\hd\car\buf\showing\gsp_in_same_work_dir\gsp_in_same_work_dir.dwg
 8/17/99



BUFFER PERMIT DWG.

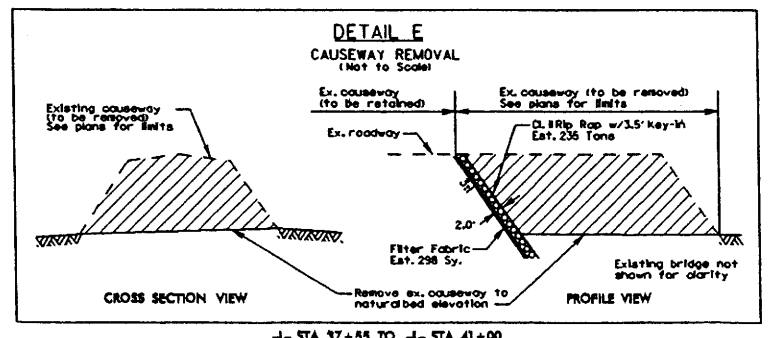
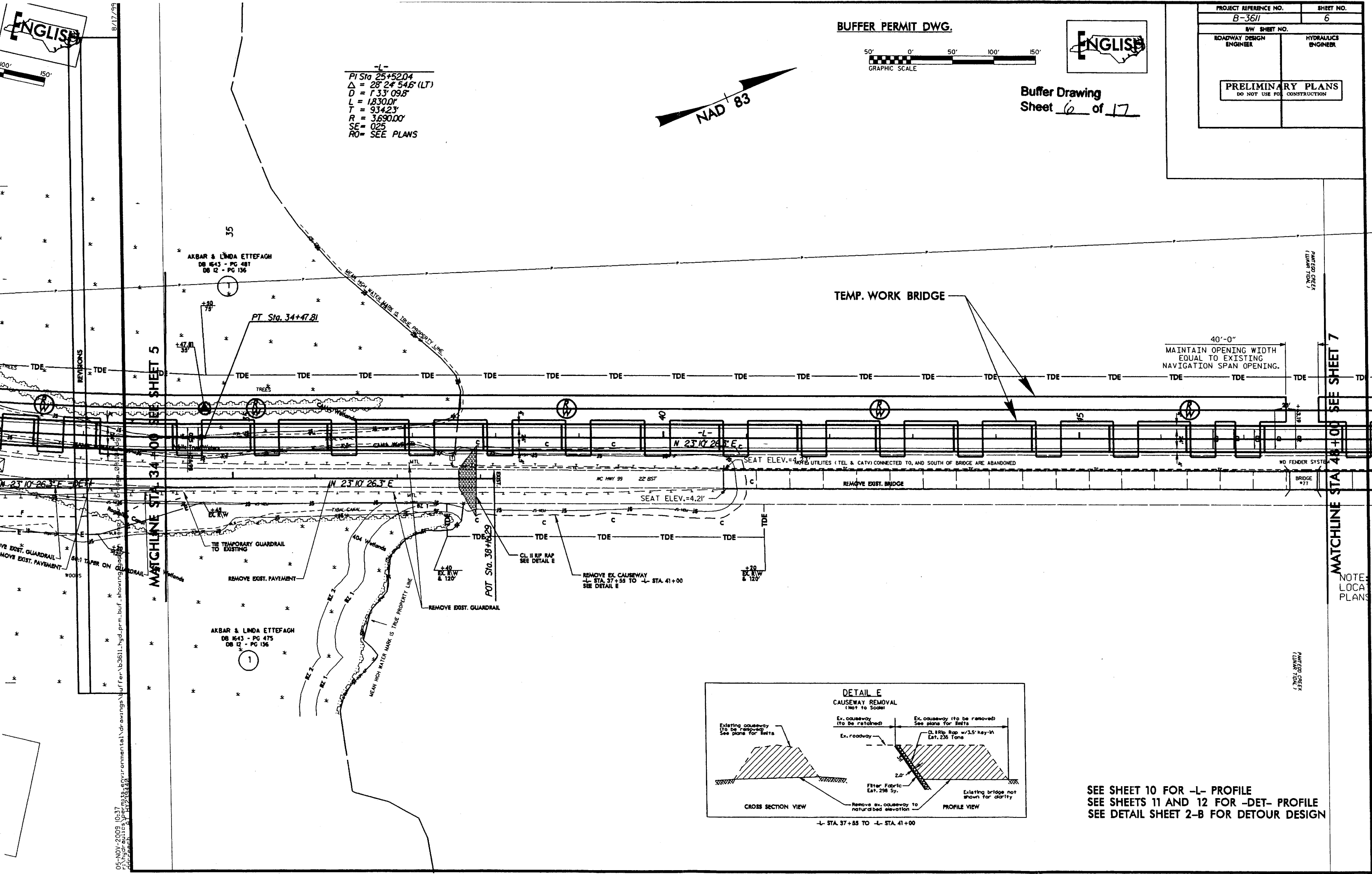


| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 6 |
| HW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |



Buffer Drawing Sheet 6 of 17

-L-
 PI Sta 25+52.04
 $\Delta = 28^\circ 24' 54.6" (LT)$
 $D = 1333.098'$
 $L = 1830.0'$
 $T = 934.23'$
 $R = 3690.00'$
 $SE = 025$
 $RO = \text{SEE PLANS}$



SEE SHEET 10 FOR -L- PROFILE
 SEE SHEETS 11 AND 12 FOR -DET- PROFILE
 SEE DETAIL SHEET 2-B FOR DETOUR DESIGN

05-NOV-2005 10:37 mts_...
 05-NOV-2005 10:37 mts_...
 05-NOV-2005 10:37 mts_...

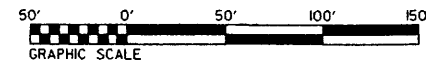
MATCHLINE STA 34+00 SEE SHEET 5
 MATCHLINE STA 41+00 SEE SHEET 7
 NOTE: LOCATE PLANS

ENGLISH

BUFFER PERMIT DWG.

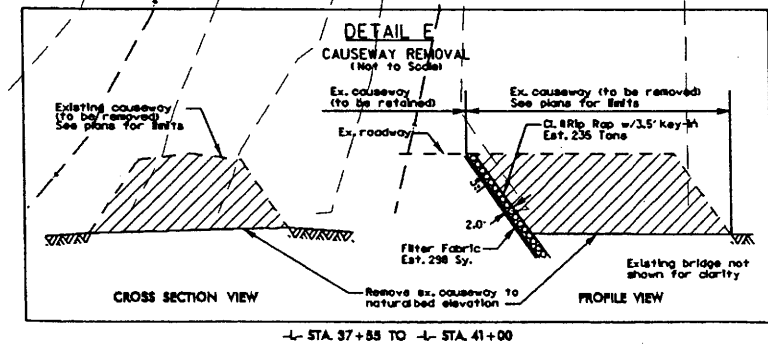
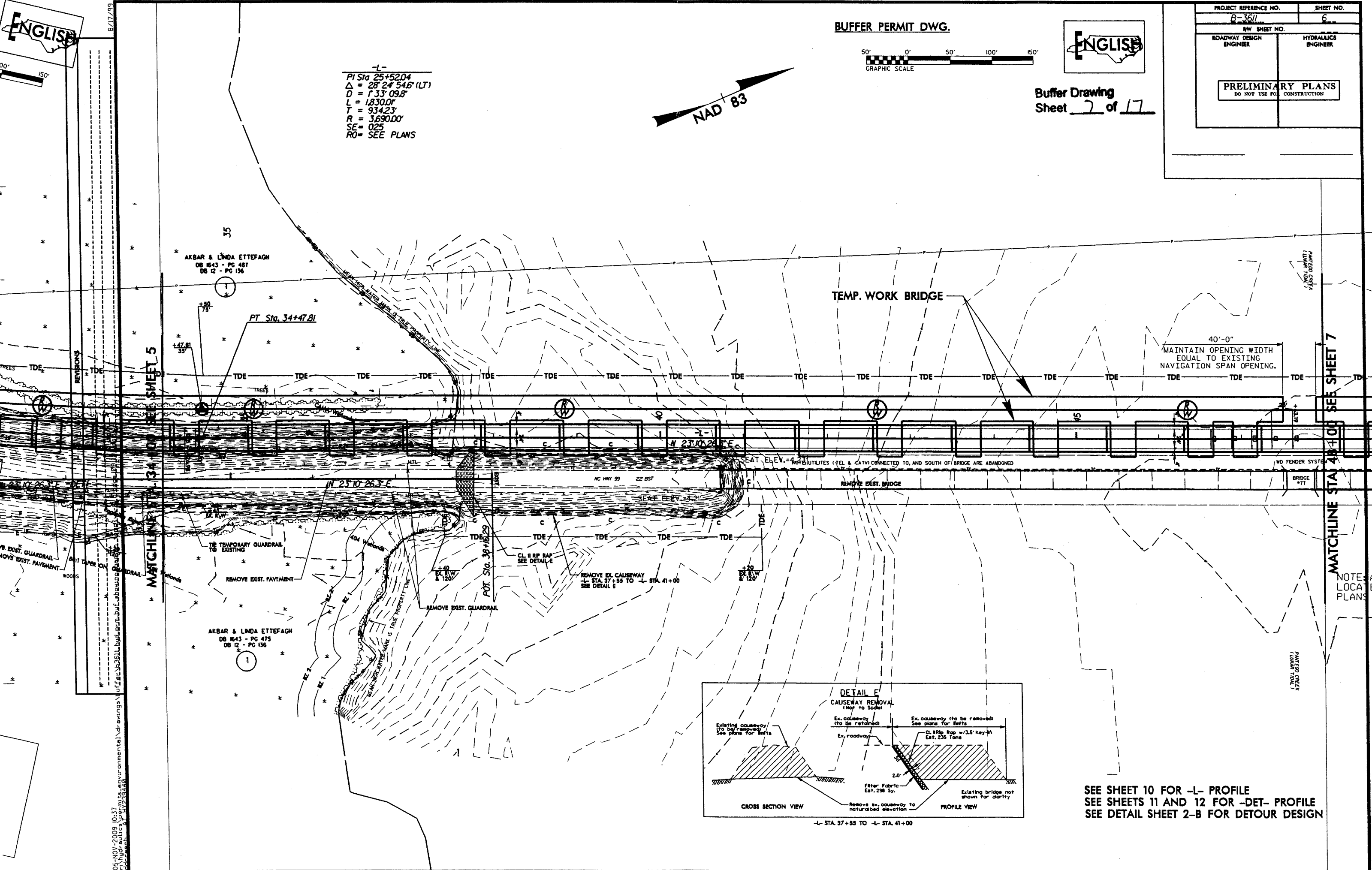
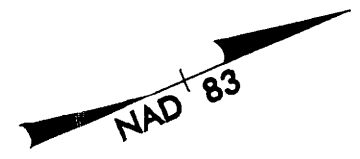
ENGLISH

| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 6 |
| R/W SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |



Buffer Drawing Sheet 2 of 17

-L-
 PI Sta 25+52.04
 $\Delta = 28^\circ 2' 54.6" (LT)$
 $D = 1' 33" 09.8"$
 $L = 1,830.0'$
 $T = 934.23'$
 $R = 3,690.00'$
 $SE = 0.25$
 RO = SEE PLANS



SEE SHEET 10 FOR -L- PROFILE
 SEE SHEETS 11 AND 12 FOR -DET- PROFILE
 SEE DETAIL SHEET 2-B FOR DETOUR DESIGN

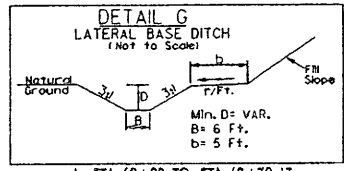
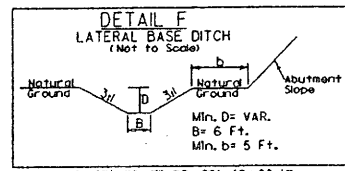
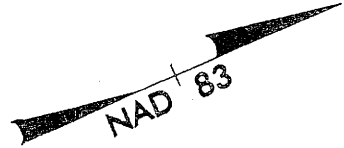
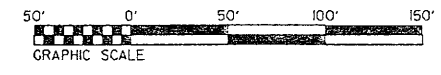
05-NOV-2009 10:37
 C:\hydra\lic\env\environmental\drawings\lic\3611\buffer\buf-2.dwg
 8/17/99

MATCHLINE STA 34+00 SEE SHEET 5

MATCHLINE STA 48+00 SEE SHEET 7

NOTES & LOCAL PLANS

BUFFER PERMIT DWG.



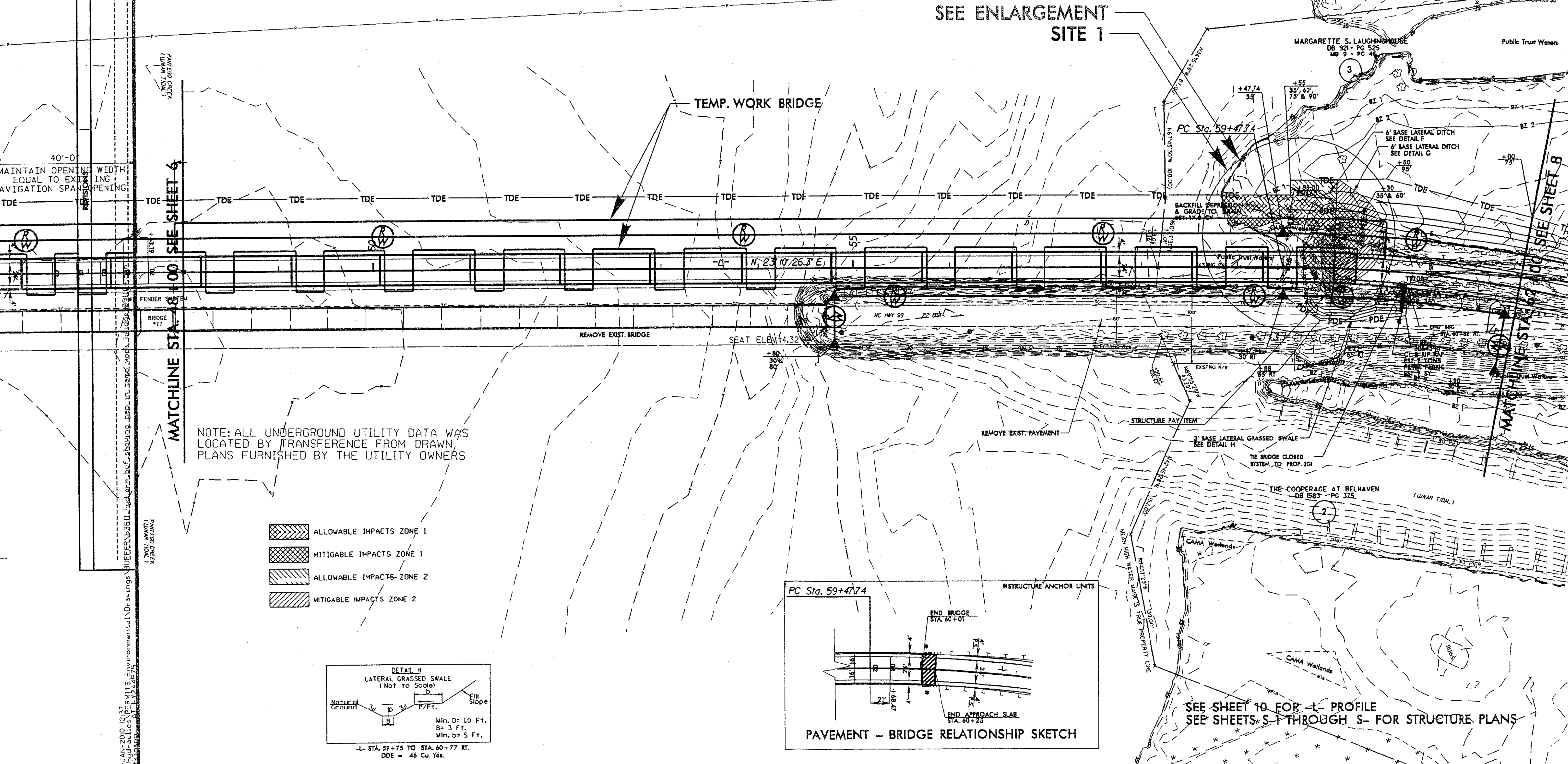
-L-
PI Sta 61+97.52
 $\Delta = 20' 39' 57.2''$ (RT)
D = 4' 10' 55.8"
L = 494.14'
T = 249.79'
R = 1,370.00'
SE = 03
RO = SEE PLANS

SEE ENLARGEMENT
SITE 1

40'-0"
MAINTAIN OPENING WIDTH
EQUAL TO EXISTING
NAVIGATION SPAN OPENING

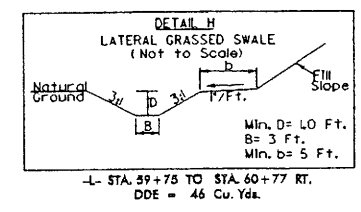
MATCHLINE STA. 48+00 SEE SHEET 6

MATCHLINE STA. 67+00 SEE SHEET 8



NOTE: ALL UNDERGROUND UTILITY DATA WAS LOCATED BY TRANSFERENCE FROM DRAWN PLANS FURNISHED BY THE UTILITY OWNERS

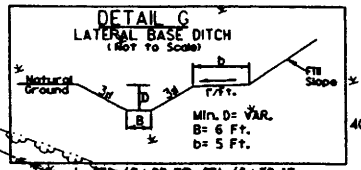
- ALLOWABLE IMPACTS ZONE 1
- MITIGABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2
- MITIGABLE IMPACTS ZONE 2



SEE SHEET 10 FOR 1- PROFILE
SEE SHEETS S-1 THROUGH S- FOR STRUCTURE PLANS

19-JAN-2010 12:37 PERMITS:Environmental\Drawings\BUEEEN\3611\hyd\grn\buf\shding.gsp...in temp work bridge...BUEEEN\3611\hyd\grn\buf\shding.gsp...in temp work bridge...BUEEEN\3611\hyd\grn\buf\shding.gsp...in temp work bridge...

-L-
 PI Sta 61+97.52
 $\Delta = 20' 39" 57.2" (RT)$
 $D = 410' 55.8"$
 $L = 4941'$
 $T = 24979'$
 $R = 1,370.00'$
 $SE = 03$
 $RO = \text{SEE PLANS}$



BUFFER PERMIT DWG.

| | |
|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| B-3611 | 8 |
| R/W SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | |

ENGLISH

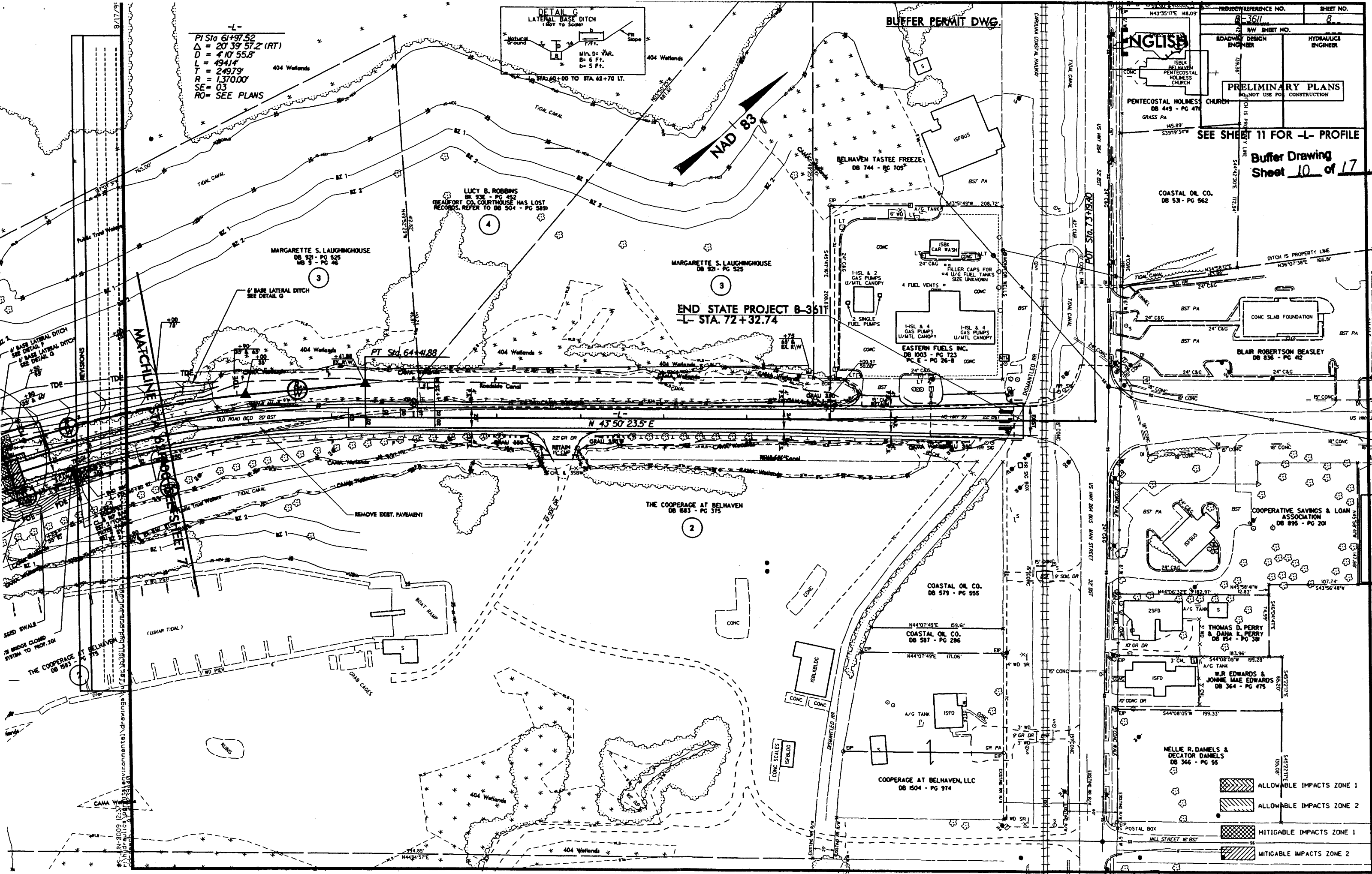
ISBLK BELHAVEN PENTECOSTAL HOLINESS CHURCH

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

PENTECOSTAL HOLINESS CHURCH DB 449 - PG 47
 GRASS PA

SEE SHEET 11 FOR -L- PROFILE

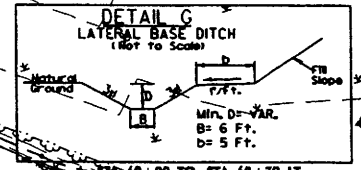
Buffer Drawing
 Sheet 10 of 17



- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2
- MITIGABLE IMPACTS ZONE 1
- MITIGABLE IMPACTS ZONE 2

09-JAN-2009 12:33
 C:\environmental\drawings\B-3611\bu-dcm-bu\09-01-09-10.dwg
 P:\environmental\drawings\B-3611\bu-dcm-bu\09-01-09-10.dwg

PI Sta 61+97.52
 $\Delta = 20' 39' 57.2''$ (RT)
 $D = 410' 55.8''$
 $L = 4941.4'$
 $T = 249.79'$
 $R = 1,370.00'$
 $SE = 03$
 $RO = \text{SEE PLANS}$

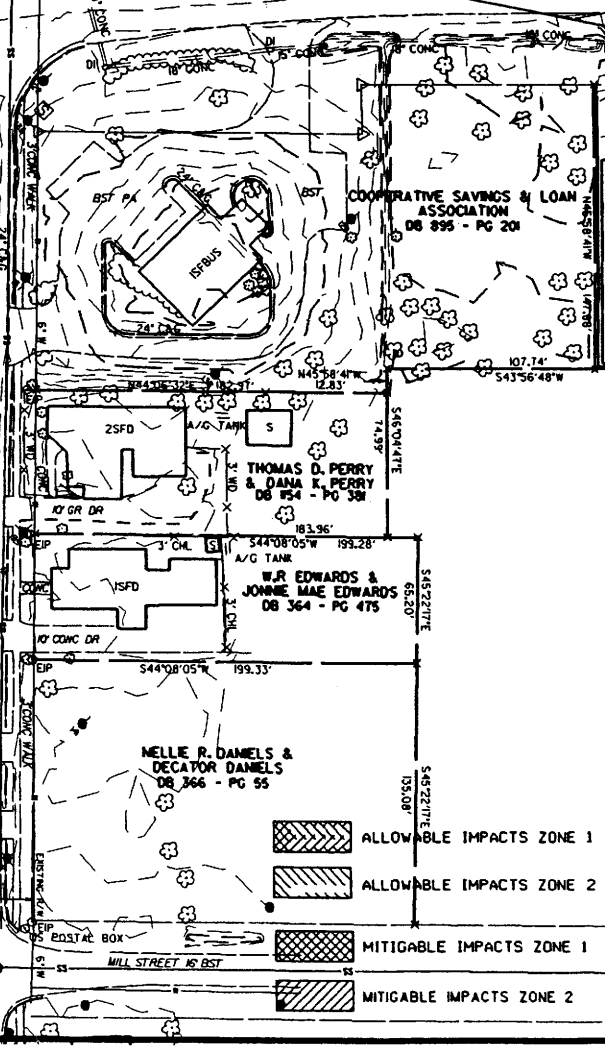
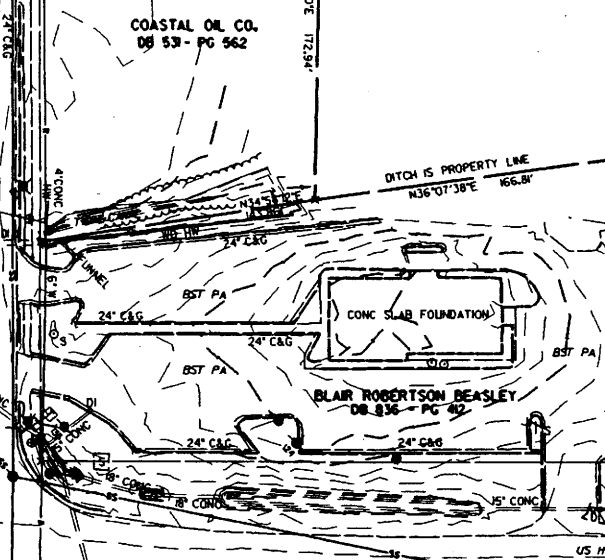
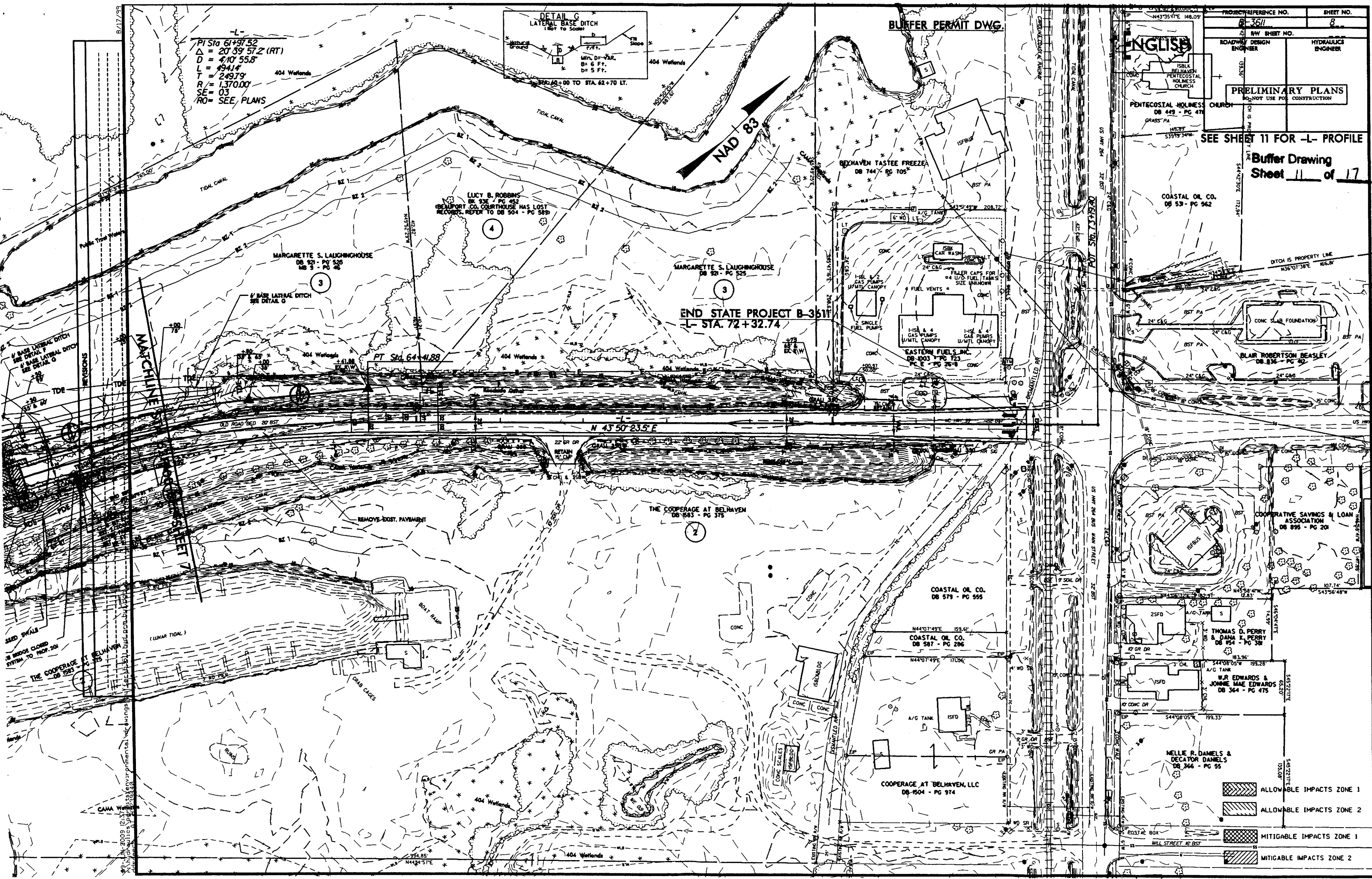


BUFFER PERMIT DWG.

| | |
|---|---------------------|
| PROJECT REFERENCE NO. B-3511 | SHEET NO. 8 |
| ROADWAY DESIGN ENGINEER ENGLISH | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |

SEE SHEET 11 FOR --L-- PROFILE

Buffer Drawing Sheet 11 of 17

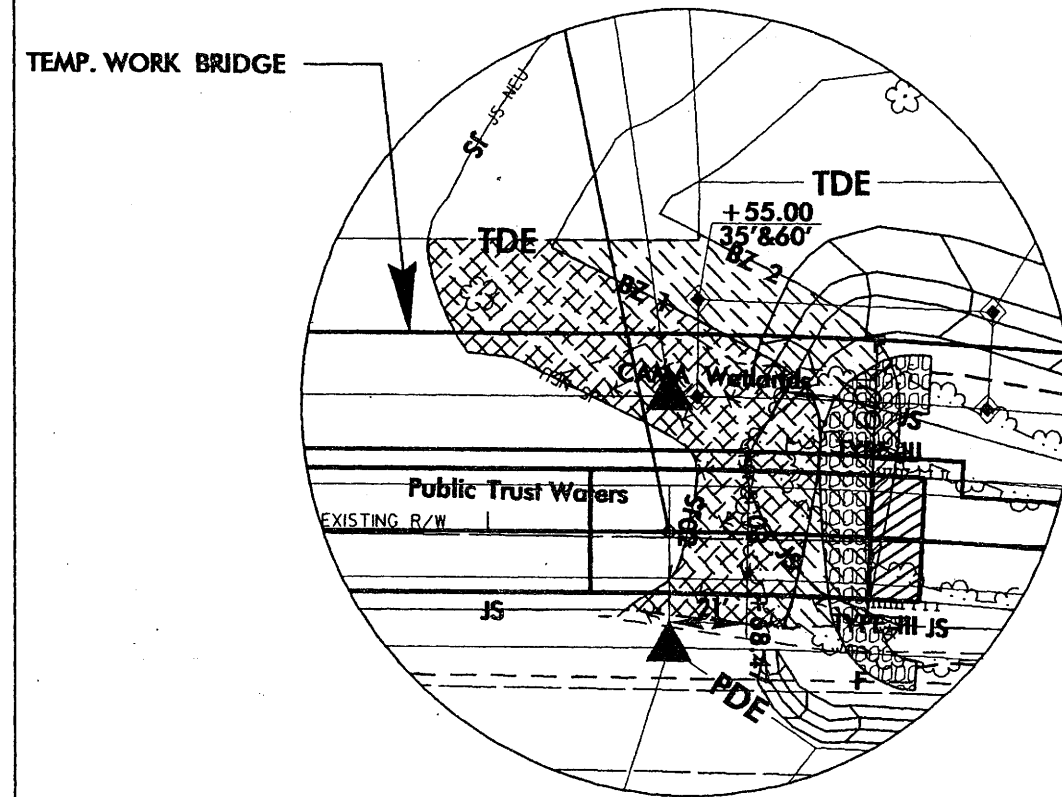


- ALLOWABLE IMPACTS ZONE 1
- ALLOWABLE IMPACTS ZONE 2
- MITIGABLE IMPACTS ZONE 1
- MITIGABLE IMPACTS ZONE 2

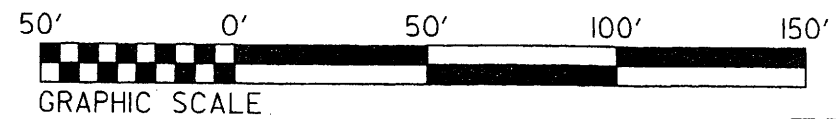
8/17/09
 Environmental
 2009
 Environmental
 2009



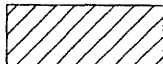
ENLARGEMENT

SITE 1



NOTE: ABUTMENT RIP RAP SYMBOLS OMITTED FOR CLARITY



-  ALLOWABLE IMPACTS ZONE 1
-  ALLOWABLE IMPACTS ZONE 2
-  MITIGABLE IMPACTS ZONE 2

PLAN VIEW

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
BEAUFORT COUNTY

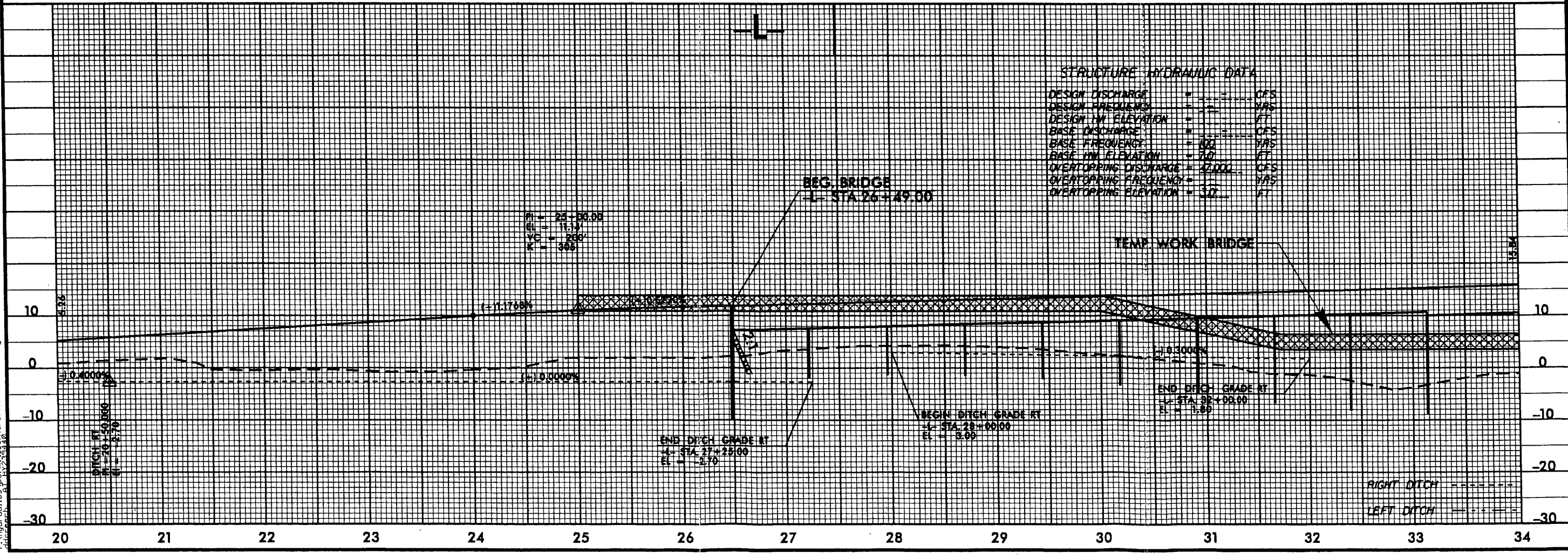
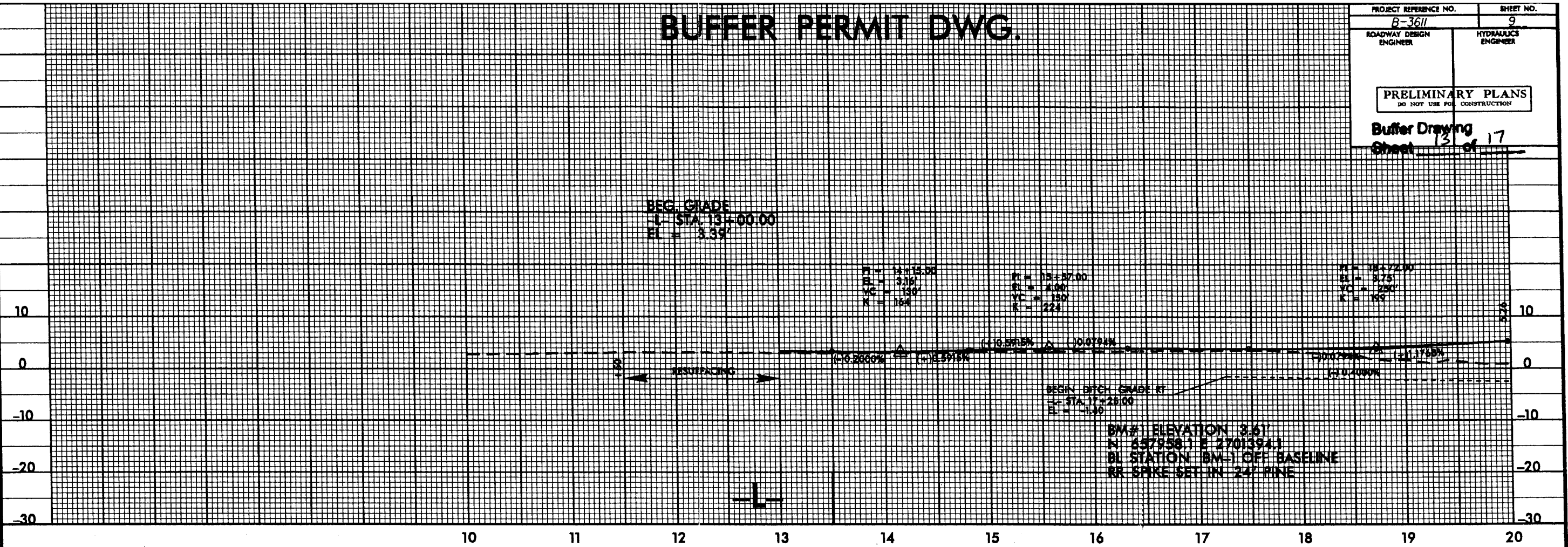
PROJECT: 33162.L1 (B-3611)
BRIDGE NO. 77 OVER
PANTEGO CREEK ON NC 99

6/08/09
Buffer Drawing

5/28/99

BUFFER PERMIT DWG.

| | |
|--|---------------------|
| PROJECT REFERENCE NO. B-3611 | SHEET NO. 9 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Buffer Drawing Sheet 13 of 17 | |



09-JUN-2009 12:39 r:\hydro\builts\prelim\3611\environmental\drawings\buf\buf3611_hyd_prem_buf.dgn

BUFFER PERMIT DWG.

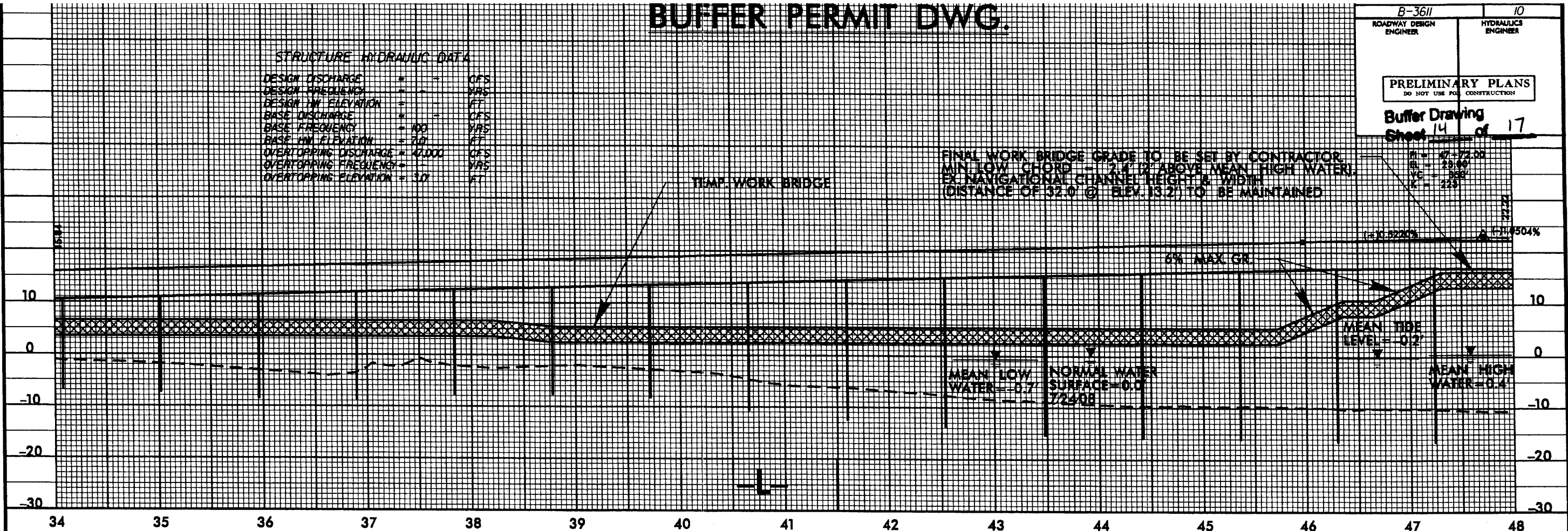
| | |
|---|---------------------|
| B-3611 | 10 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Buffer Drawing Sheet 4 of 17 | |

STRUCTURE HYDRAULIC DATA

| | | | |
|-----------------------|---|-------|-----|
| DESIGN DISCHARGE | = | - | CFS |
| DESIGN FREQUENCY | = | - | YRS |
| DESIGN LW ELEVATION | = | - | FT |
| BASE DISCHARGE | = | - | CFS |
| BASE FREQUENCY | = | 100 | YRS |
| BASE LW ELEVATION | = | 7.0 | FT |
| OVERTOPPING DISCHARGE | = | 47000 | CFS |
| OVERTOPPING FREQUENCY | = | - | YRS |
| OVERTOPPING ELEVATION | = | 3.0 | FT |

FINAL WORK BRIDGE GRADE TO BE SET BY CONTRACTOR.
MIN LOW CHORD = 2.4' (2' ABOVE MEAN HIGH WATER).
EX NAVIGATIONAL CHANNEL HEIGHT & WIDTH
(DISTANCE OF 32.0' @ ELEV 13.2') TO BE MAINTAINED

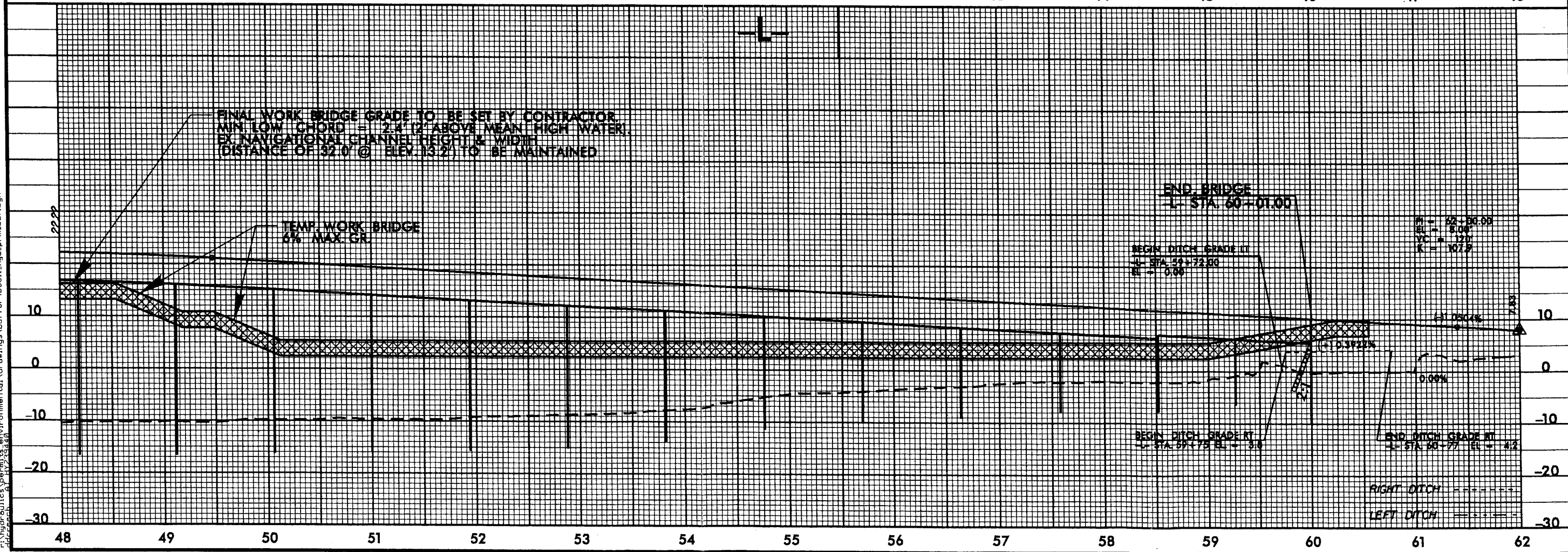
PI = 47+72.00
BL = 23.00
VC = 250'
K = 225



FINAL WORK BRIDGE GRADE TO BE SET BY CONTRACTOR.
MIN LOW CHORD = 2.4' (2' ABOVE MEAN HIGH WATER).
EX NAVIGATIONAL CHANNEL HEIGHT & WIDTH
(DISTANCE OF 32.0' @ ELEV 13.2') TO BE MAINTAINED

END BRIDGE
L- STA 60+01.00

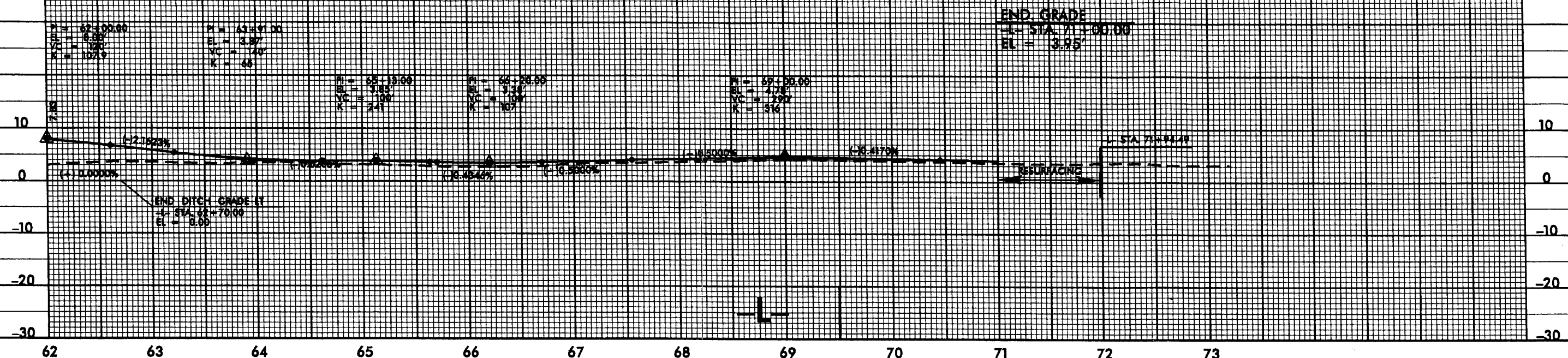
PI = 62+80.00
BL = 8.00
VC = 170'
K = 107.5



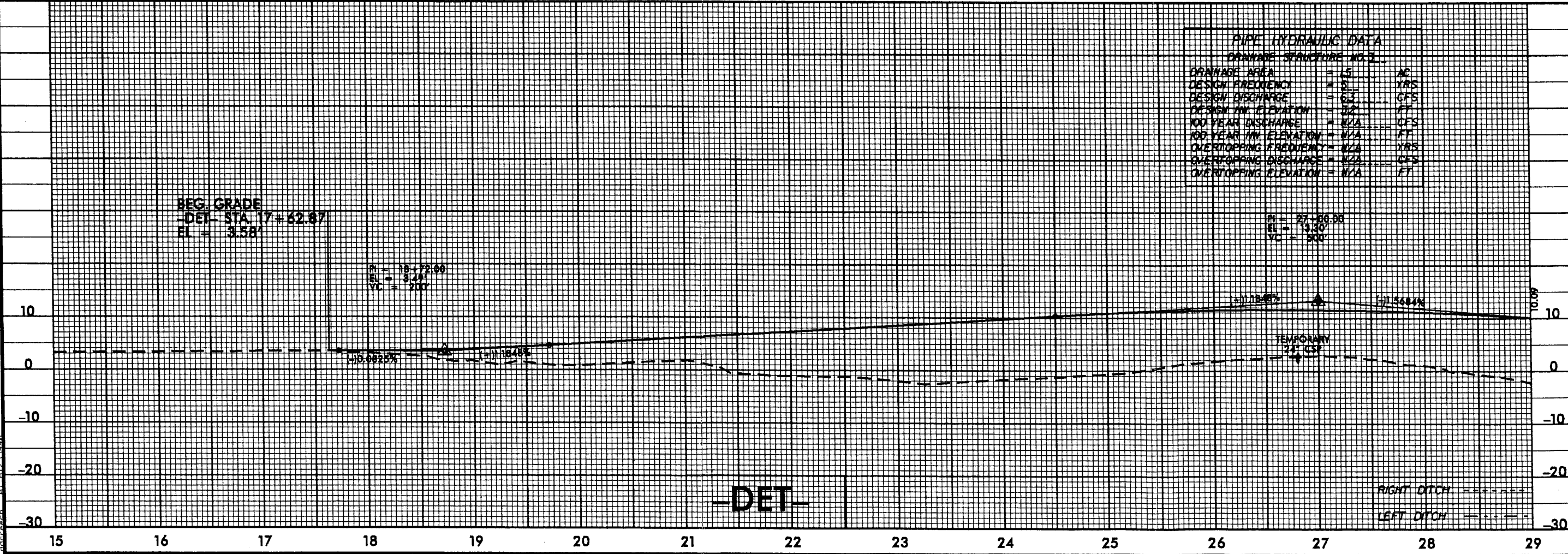
BUFFER PERMIT DWG.

| | |
|--|------------------------|
| B-3611 | 11 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Buffer Drawing Sheet 15 of 17 | |

BM#2 ELEVATION 3.78'
 N 662747.9 E 2703962.8
 81 STATION 58+70.79 235' LT
 RR SPIKE SET IN EDGE OF TEXACO
 CONVENIENCE STORE PARKING LOT



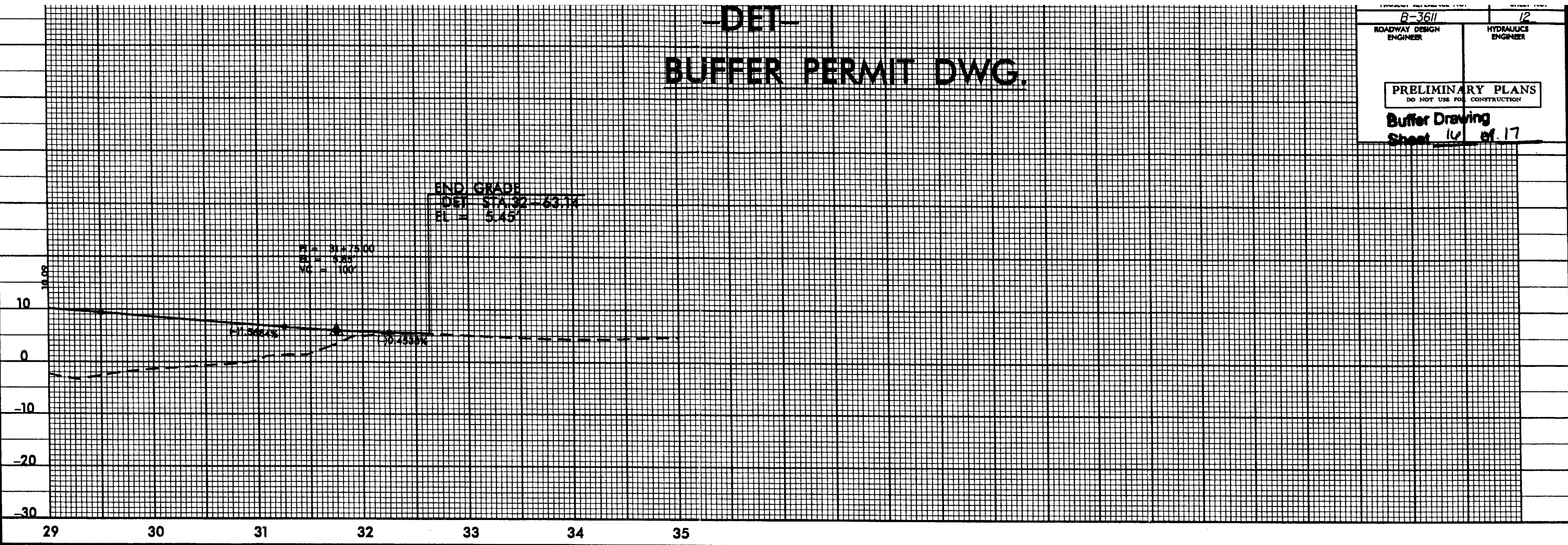
| PIPE HYDRAULIC DATA | |
|--------------------------|-----------|
| DRAINAGE STRUCTURE NO. 3 | |
| DRAINAGE AREA | = 15 AC |
| DESIGN FREQUENCY | = 5 YRS |
| DESIGN DISCHARGE | = 6.3 CFS |
| DESIGN HW ELEVATION | = 7.2 FT |
| 100 YEAR DISCHARGE | = N/A CFS |
| 100 YEAR HW ELEVATION | = N/A FT |
| OVERTOPPING FREQUENCY | = N/A YRS |
| OVERTOPPING DISCHARGE | = N/A CFS |
| OVERTOPPING ELEVATION | = N/A FT |



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BUFFER PERMIT DWG.

| | |
|---|------------------------------|
| B-3611 ROADWAY DESIGN ENGINEER | 12 HYDRAULICS ENGINEER |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | |
| Buffer Drawing Sheet 12 of 17 | |



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