

PROJECT COMMITMENTS

Bridge No. 11 on NC 11/ NC 53 over Moore's Creek
Pender County
State Project No. 8.1270801
Federal Aid Project No. BRSTP-11(3)
TIP Project No. B-3011

In addition to the standard Nationwide Permit #23 Conditions, the General Nationwide Permit Conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, General Certification Conditions, and Section 401 Conditions of Certification, the following special commitments have been agreed to by NCDOT:

Commitments Developed Through Project Development and Design

All standard procedures and measures, including Best Management Practices for Protection of Surface Waters, will be implemented to avoid or minimize environmental impacts. *This is a standard NCDOT Procedure.*

Roadside Environmental Unit/ Division 3

The temporary, on-site detour bridge and approaches will be removed to pre-construction contour and revegetated with native tree species at 320 stems per acre.

Commitments Developed Through Permitting

Project Development and Environmental Analysis Branch

Due to the possibility that compaction and/or other site alterations might prevent the temporary wetland impact area from re-attaining wetland jurisdictional status, NCDOT will provide an annual update on the wetland areas temporarily impacted this project. This annual update will consist of photographs provided during the agency monitoring report meeting and a brief report on the progress of these temporarily impacted areas in re-attaining wetland jurisdictional status. Three years after project completion, NCDOT will schedule an agency meeting with the NC Division of Coastal Management, the NC Division of Water Quality, and the NC Wildlife Resources Commission to determine if the wetland areas temporarily impacted by this project have re-attain wetland jurisdictional status. If at the end of 3 years the wetland areas temporarily impacted by this project have not re-attained wetland jurisdictional status NCDOT and the above listed agencies shall determine whether a compensatory wetland mitigation plan will be required.

Project Development and Environmental Analysis Branch

Mitigation plan will be developed that will provide species to be planted, planting methods, source of plants, a map, photos, methods of regrading the site, and removal of rip-rap. The plan will be submitted prior to project construction.

Division 3/ Roadside Environmental Unit

Wetlands which are temporarily impacted shall be returned to natural grade and replanted with indigenous plant species at reference densities.

Hydraulics Unit

A culvert or similar structure will be placed in the northwest quadrant of the temporary construction causeway to allow for adequate hydrological flow between Moore's Creek and the wetland drain to the northwest.

Division 3

No excavated or fill material will be placed at any time in any wetlands or surrounding waters outside of the alignment of the fill area as indicated on the workplan drawings(s).

Division 3

All back fill material must be obtained from a high ground source and will be clean and free of any pollutants except in trace quantities.

Division 3

The temporary placement or double handling of any material within waters or vegetated wetlands is not authorized, with the exception of that fill necessary for the construction of the temporary causeway. This condition also applies to the removal of the existing bridge structure.

Division 3

All temporary fill must be placed on geo-textile fabric to facilitate the total removal upon the completion of the project.

Division 3

All temporary causeway material must be removed in its entirety within thirty (30) days following project completion.

Division 3

Any materials resulting from the removal of the temporary detour or causeways must be placed on high ground.

Sedimentation and Erosion Control:

Division 3/ Roadside Environmental Unit

Erosion control structures must be installed on the out board edge of both the temporary and permanent fill in or adjacent to wetlands, between the area to be filled and the existing creek.

Division 3/ Roadside Environmental Unit

In order to protect water quality, to reduce the amount of suspended sediments in adjacent waters a floating turbidity curtain will be used during project construction.

Division 3/ Roadside Environmental Unit

All disturbed areas shall be properly graded and provided a ground cover sufficient to restrain erosion within thirty days of project completion.



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS

P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

November 24, 1999

IN REPLY REFER TO

Regulatory Division

Action ID No. 199901657 and Nationwide Permit No. 23 (Approved Categorical Exclusions),
TIP B-3011.

Mr. William D. Gilmore, P.E., Manager
Planning Development and Environmental Branch
Division of Highways
North Carolina Department of Transportation
Post Office Box 25201
Raleigh, North Carolina 27611-5201



Dear Mr. Gilmore:

Reference your letter dated July 30, 1999 describing the North Carolina Department of Transportation proposal to replace Bridge No. 11 on NC 11/NC 53 over Moore's Creek, Pender County, North Carolina. According to your letter, the existing 121' span will be replaced at the same location with a new bridge span 159' in length. Based on right-of-way width, permanent impacts to wetlands will be 0.33 acres. Traffic will be maintained with an on-site detour, constructed south of the existing bridge, while the existing bridge is replaced. Wetland impacts associated with the on-site detour consist of 1.48 acres of fill in wetlands and 0.31 acres of mechanized land clearing. Work associated with the proposed on-site detour shall be accomplished in accordance with the special conditions below:

Special Condition A. Compensatory mitigation for the 1.48 acres of wetland impacts associated with the onsite detour shall be performed as described in the letter from NCDOT dated July 30, 1999 and as detailed in the mitigation plan, submitted and approved by the District Engineer prior to the commencement of construction on TIP project B-3011.

Special Condition B. No more than 30 days following completion of the TIP project B-3011, the on-site detour and associated fill, including all rip-rap, shall be removed in their entirety, and the disturbed area shall be re-graded to its original elevation. The on-site detour area shall be replanted with vegetation at 320 stems per acre using native species in accordance with the approved mitigation plan required under Special Condition A above.

For the purposes of the Corps of Engineers' Regulatory Program, the "December 13, 1996 Federal Register, Final Notice of Issuance, Reissuance, and Modification of Nationwide Permits (61 FR 65874)" listed nationwide permits. Authorization, pursuant to Section 10 of the Rivers

and Harbors Act of 1899 and Section 404 of the Clean Water Act, was provided by Nationwide Permit 23 for activities undertaken, assisted, authorized, regulated, funded or financed, in whole or in part, by another Federal agency or department where that agency or department has determined, pursuant to the Council on Environmental Quality (CEQ) Regulation for the Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Part 1500 et seq.), that the activity, work or discharge 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 the Office of the Chief of Engineers (ATTN: CECW-OR) has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination.

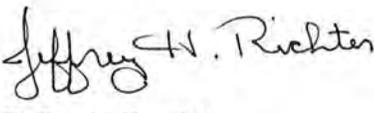
Your work is authorized by this nationwide permit provided it is accomplished in strict accordance with the enclosed conditions and provided you receive a Section 401 water quality certification from the North Carolina Division of Water Quality (NCDWQ) and, in the coastal area, a consistency determination from the North Carolina Division of Coastal Management (NCDCM). You should contact Mr. John Dorney, telephone (919) 733-1786, regarding water quality certification, and Mr. Steve Benton, telephone (919) 733-2293, regarding consistency determination. This nationwide permit does not relieve you of the responsibility to obtain other required State or local approval.

This verification will be valid until the nationwide permit is modified, reissued or revoked. It is incumbent upon you to remain informed of changes to the nationwide permits, which will be announced by public notice when they occur. If you commence, or are under contract to commence, this activity before the date the nationwide permit is modified or revoked, you will have twelve months from the date of the modification or revocation to complete the activity under the present terms and conditions of this nationwide permit.

We have evaluated potential impacts of your activity, and we have determined that your proposal will not likely have an adverse affect on any endangered species.

When you have completed your work and any required mitigation, please sign and return the enclosed certification form. Should you have any questions please contact Mr. David Timpy, Wilmington Field Office, at (910) 251-4634.

Sincerely,

for 
E. David Franklin
Special Projects Manager

Enclosures

Copies Furnished (without enclosures):

Mr. John Hefner, Field Supervisor
U.S. Fish and Wildlife Service
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Mr. John Dorney
North Carolina Dept. of Environment and Nat. Res.
Water Quality Division
1621 Mail Service Center
Raleigh, North Carolina 27699-1621

M. Randall Turner, Division Environmental Officer
North Carolina Department of Transportation
Division 3
124 Division Drive
Wilmington, North Carolina 28401

Mrs. Cathy Brittingham
Division of Coastal Management
1638 Mail Service Center
Raleigh, NC 27699-1638

Mr. David Cox
Highway Coordinator
North Carolina Wildlife Resources Commission
1142 I-85 Service Road
Creedmoor, North Carolina 27522

LCK



**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF COASTAL MANAGEMENT**

November 15, 1999



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

DONNA D. MOFFITT
DIRECTOR

NC Dept. of Transportation
Planning & Environmental Branch
P. O. Box 25201
Raleigh, NC 27611

Dear Sir:

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, P.O. Drawer 11666, Raleigh, NC 27611, (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.

Very sincerely,

Douglas V Huggett

Douglas Huggett
Major Permits/Consistency Manager



DH/amw

Enclosure

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 NC Department of Transportation, P.O. Box 25201, Raleigh, NC 27611

authorizing development in Pender County at Moore's Creek, Bridge No. 11 on NC 11/NC 53,
TIP No. B-3011, as requested in the permittee's application dated dated 7/30/99 including attached
workplan drawings, 2 through 19 of 20, all dated received on 8/12/99.

This permit, issued on 11/10/99, 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 a fine, imprisonment or civil action; or may cause the permit to be null and void.

Bridge Construction

- 1) The permittee shall provide a culvert or similar structure in the northwest quadrant of the temporary construction causeway to allow for adequate hydrological flow between Moore's Creek and the wetland drain to the northwest.
- 2) No excavated or fill material will be placed at any time in any wetlands or surrounding waters outside of the alignment of the fill area as indicated on the workplan drawing(s).
- 3) All back fill material must be obtained from a high ground source and will be clean and free of any pollutants except in trace quantities.

(See attached sheet 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.

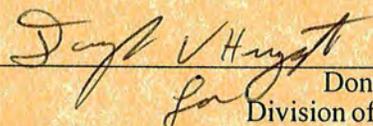
This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

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

All work must cease when the permit expires on
December 31, 2002

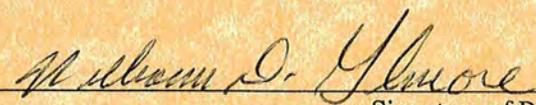
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

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



Donna D. Moffitt, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

ADDITIONAL CONDITIONS

- 4) The temporary placement or double handling of any material within waters or vegetated wetlands is not authorized, with the exception of that fill necessary for the construction of the temporary causeway. This condition also applies to the removal of the existing bridge structure.
- 5) All temporary fill must be placed on geo-textile fabric to facilitate the total removal upon the completion of the project.
- 6) All temporary causeway material must be removed in its entirety following project completion.
- 7) Any materials resulting from the removal of the temporary detour or causeways must be placed on high ground.
- 8) In accordance with authorization received from the NC Division of Water Quality under General Water Quality Certification No. 3112 (DWQ Project No. 991042), the wetlands which are temporarily impacted shall be returned to natural grade and replanted with indigenous plant species at reference densities.
- 9) Due to the possibility that compaction and/or other site alterations might prevent the temporary wetland impact area from re-attaining wetland jurisdictional status, the permittee shall provide an annual update on the wetland areas temporarily impacted by this project. This annual update will consist of photographs provided during the agency monitoring report meeting and a brief report on the progress of these temporarily impacted areas in re-attaining wetland jurisdictional status. Three years after project completion, the permittee shall schedule an agency field meeting with DCM, the NC Division of Water Quality and the NC Wildlife Resources Commission to determine if the wetland areas temporarily impacted by this project have re-attained wetland jurisdictional status. If at the end of 3 years the wetland areas temporarily impacted by this project have not re-attained jurisdictional wetland status, DOT and the above listed agencies shall determine whether a compensatory wetland mitigation plan will be required.

Sedimentation and Erosion Control

- 10) Erosion control structures must be installed on the out board edge of both the temporary and permanent fill in or adjacent to wetlands, between the area to be filled and the existing creek.
- 11) In order to protect water quality, runoff from construction must not visibly increase the amount of suspended sediments in adjacent waters.
- 12) All disturbed areas shall be properly graded and provided a ground cover sufficient to restrain erosion within thirty days of project completion.

General

NOTE: This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required.

NOTE: The U.S. Army Corps of Engineers authorized the proposed project under Nationwide Permit Number 23 (COE Action ID No. 199603340).

NOTE: The N.C. Division of Water Quality has authorized the proposed project under General Water Quality Certification No. 3112 (DWQ Project No. 991042), which was issued on 10/7/99.

NOTE: The permittee is encouraged to contact the Public Health Pest Management Section at (919) 733-6407 to schedule a pre-construction conference to discuss mosquito control measures.

State of North Carolina
Department of Environment
and Natural Resources
Division of Water Quality



James B. Hunt, Jr., Governor
Bill Holman, Secretary
Kerr T. Stevens, Director

October 7, 1999
Pender County
DWQ Project # 991042

APPROVAL OF 401 Quality Certification and ADDITIONAL CONDITIONS

Bill Gilmore
NC DOT
PO Box 25201
Raleigh NC 27611-5201

Dear Mr. Gilmore:

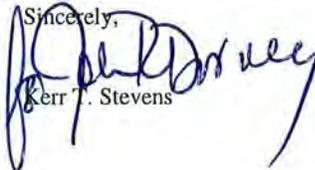
You have our approval, in accordance with the attached conditions and those listed below, to place fill material in 0.55 acres of wetlands and temporary fill in 1.54 acres of wetlands for the purpose of replacing Bridge 11 at NC 53/11 over Moore's Creek as you described in your application dated September 30, 1999. After reviewing your application, we have decided that this fill is covered by General Water Quality Certification Number 3112. In addition, you should get any other federal, state or local permits before you go ahead with your project including (but not limited to) Sediment and Erosion Control, Coastal Stormwater, Non-Discharge and Water Supply Watershed regulations. This approval will expire when the accompanying 404 or CAMA permit expires unless otherwise specified in the General Certification.

This approval is only valid for the purpose and design that you described in your application except as modified below. If you change your project, you must notify us and you may be required to send us 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 conditions. If total wetland fills for this project (now or in the future) exceed one acre, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). This approval shall expire when the corresponding Nationwide Permit expires or as otherwise provided in the General Certification. For this approval to be valid, you must follow the conditions listed in the attached certification and any additional conditions listed below.

1. The wetlands which are temporarily impacted shall be returned to natural grade and replanted with indigenous plant species at reference densities.

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, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are final and binding unless you ask for a hearing.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please telephone John Dorney at 919-733-9646.

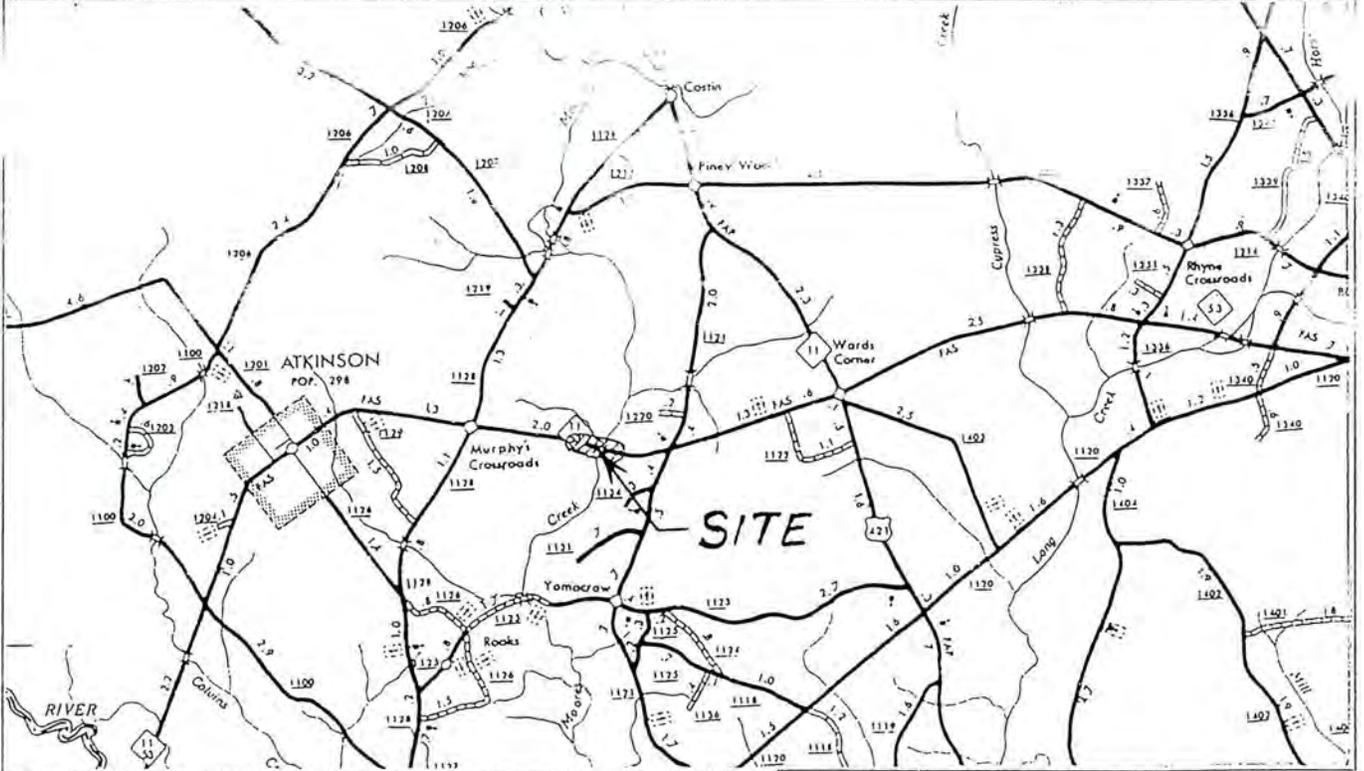
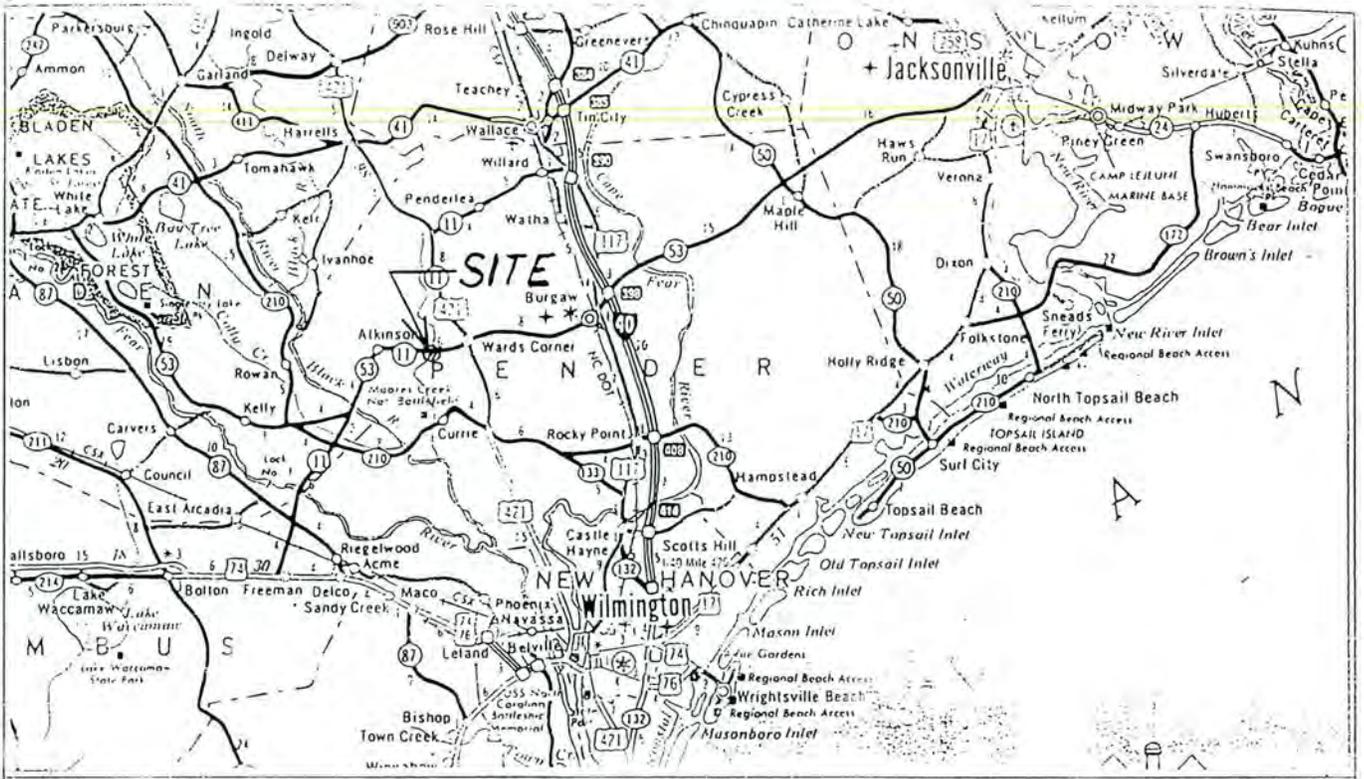
Sincerely,

Kerr T. Stevens

Attachment

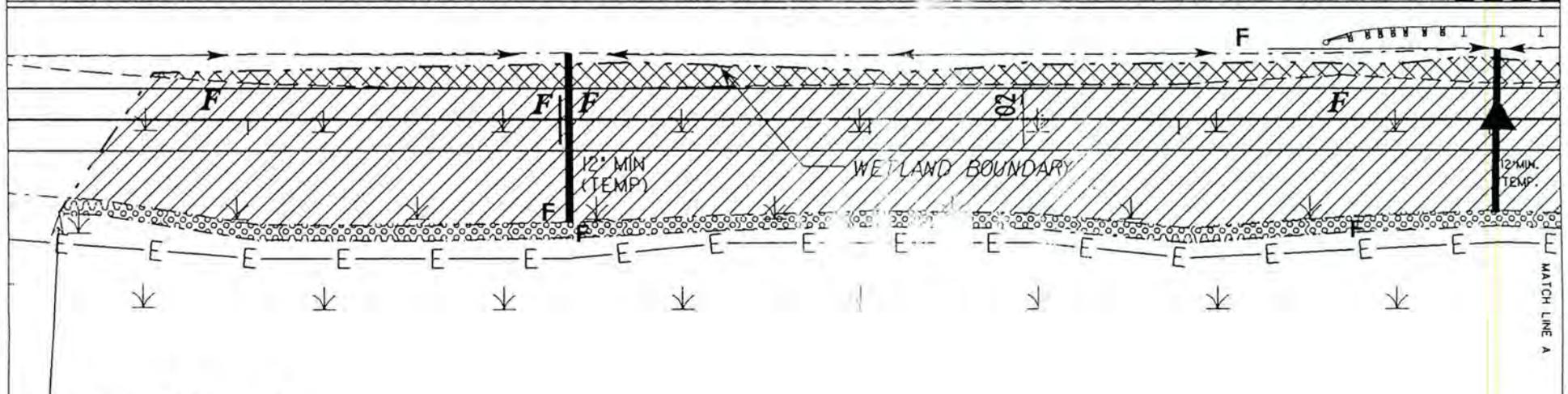
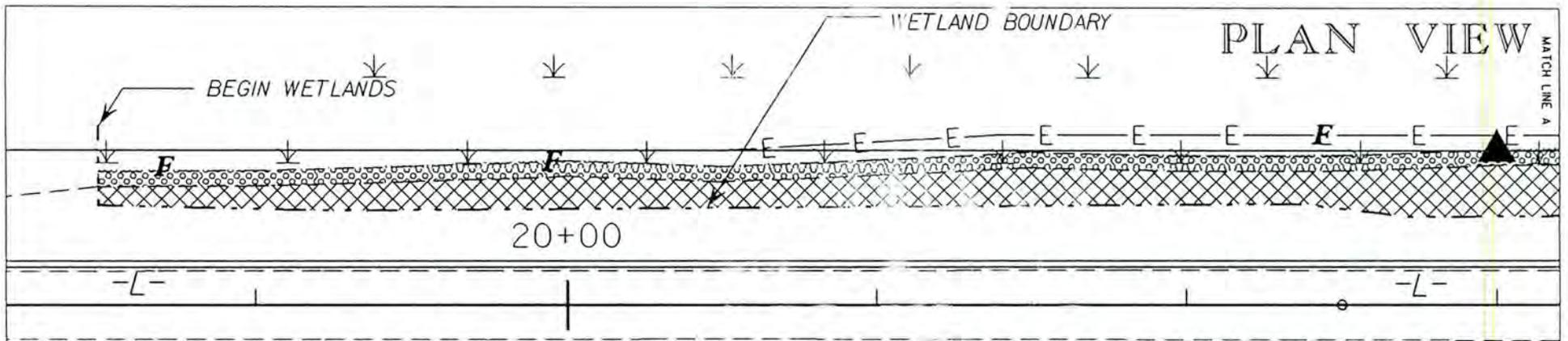
cc: Corps of Engineers Wilmington Field Office
Wilmington DWQ Regional Office
File Copy
Central Files
Doug Huggett; DCM

991042.ltr

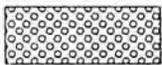
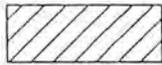
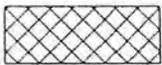


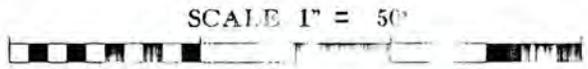


N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PENDER COUNTY
 PROJECT: 8.1270801 (B-5011)
 BRIDGE NO. 11 OVER
 MOORES CREEK
 SHEET ___ OF ___



BEGIN WETLANDS
STA. 18+40

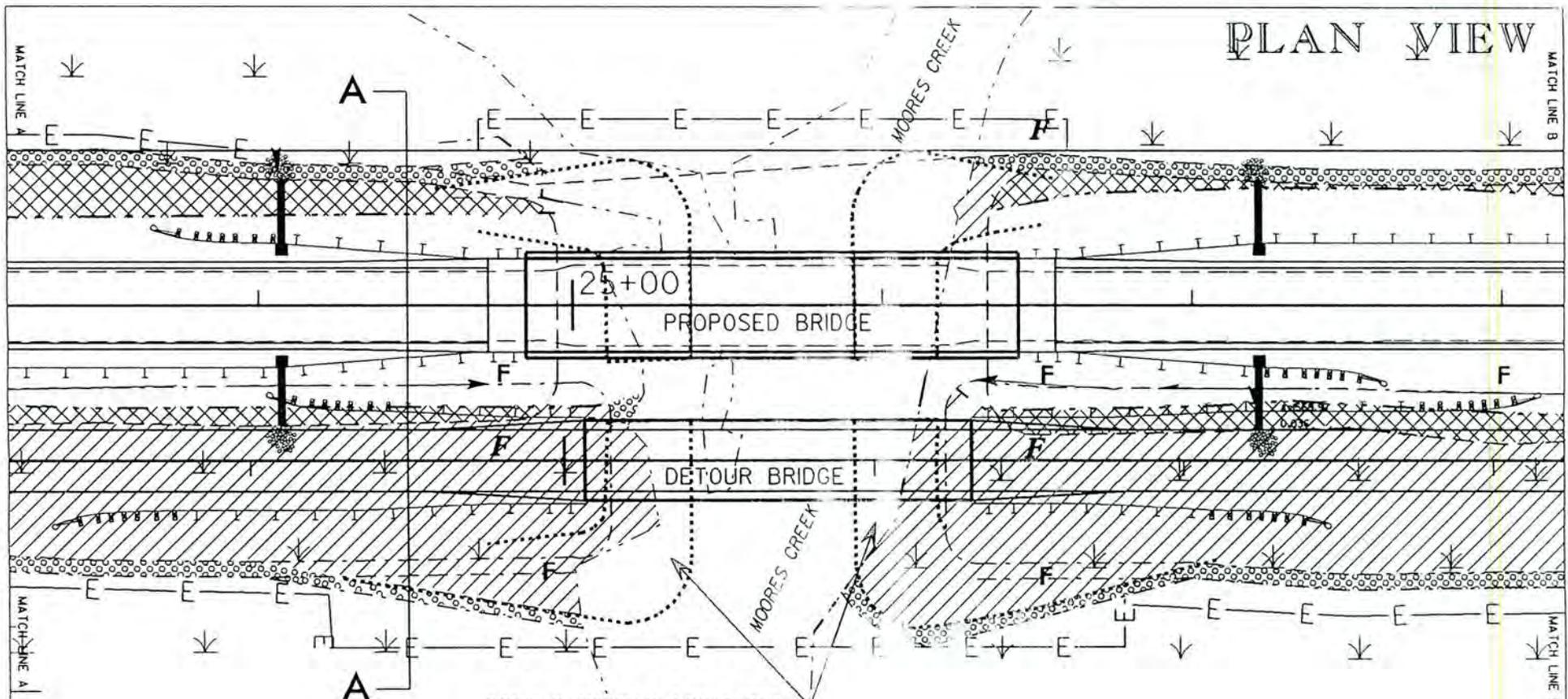
-  DENOTES TEMP. CLEARING IN WETLANDS
-  DENOTES TEMP. FILL IN WETLANDS
-  DENOTES FILL IN WETLANDS



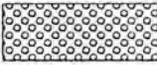
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
PENDER COUNTY
PROJECT: 8.1270801 (B-3011)
BRIDGE NO. 11 OVER
MOORES CREEK

SHEET ___ OF ___

PLAN VIEW



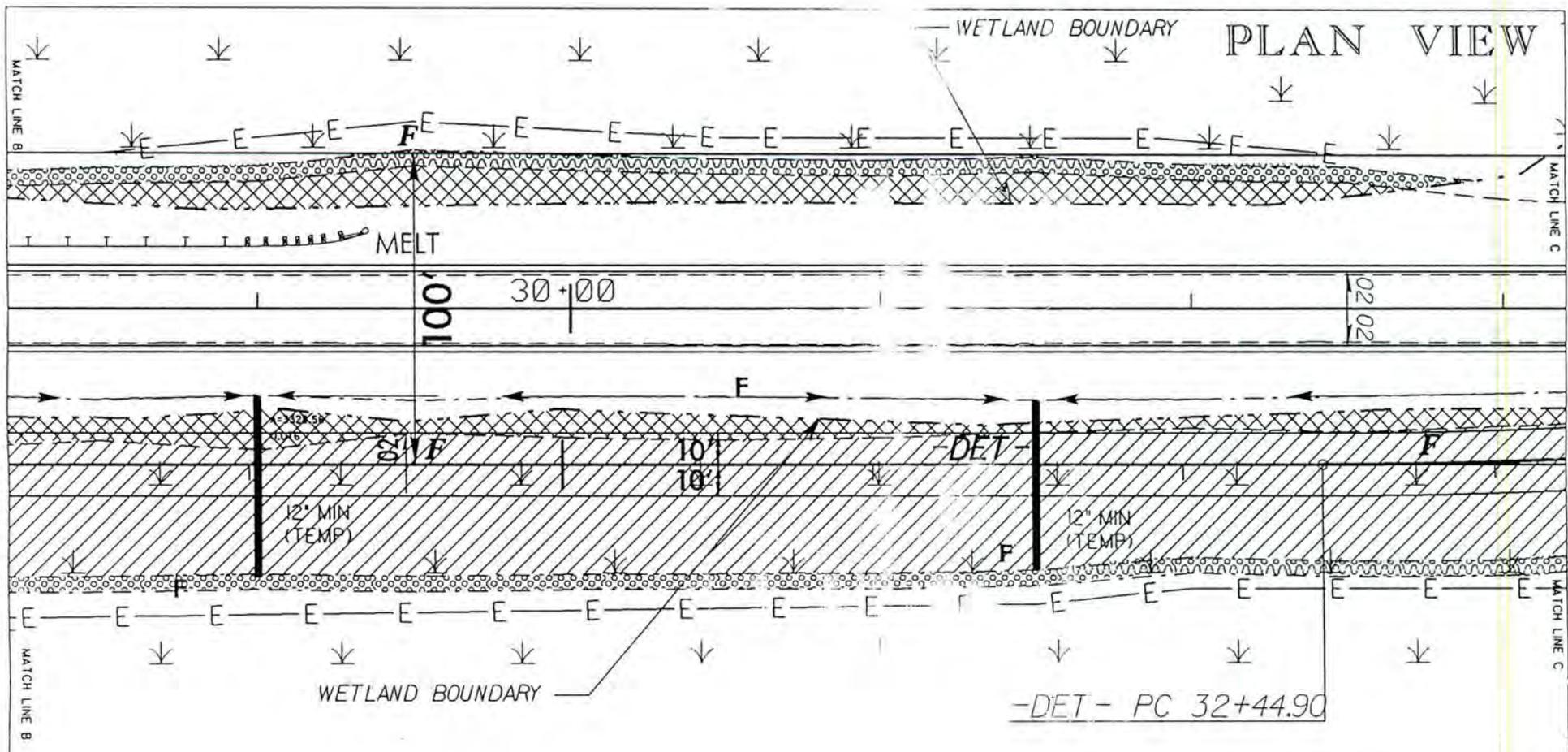
ROCK CAUSEWAY LOCATIONS
SEE ADDITIONAL SHEETS FOR
SURFACE WATER IMPACTS.

-  DENOTES TEMP. CLEARING IN WETLANDS
-  DENOTES TEMP. FILL IN WETLANDS
-  DENOTES FILL IN WETLANDS



N. C. DEPT. OF TRANSPORTATION
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SHEET ___ OF ___

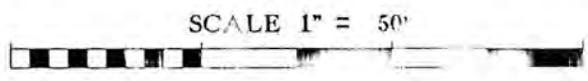


PLAN VIEW

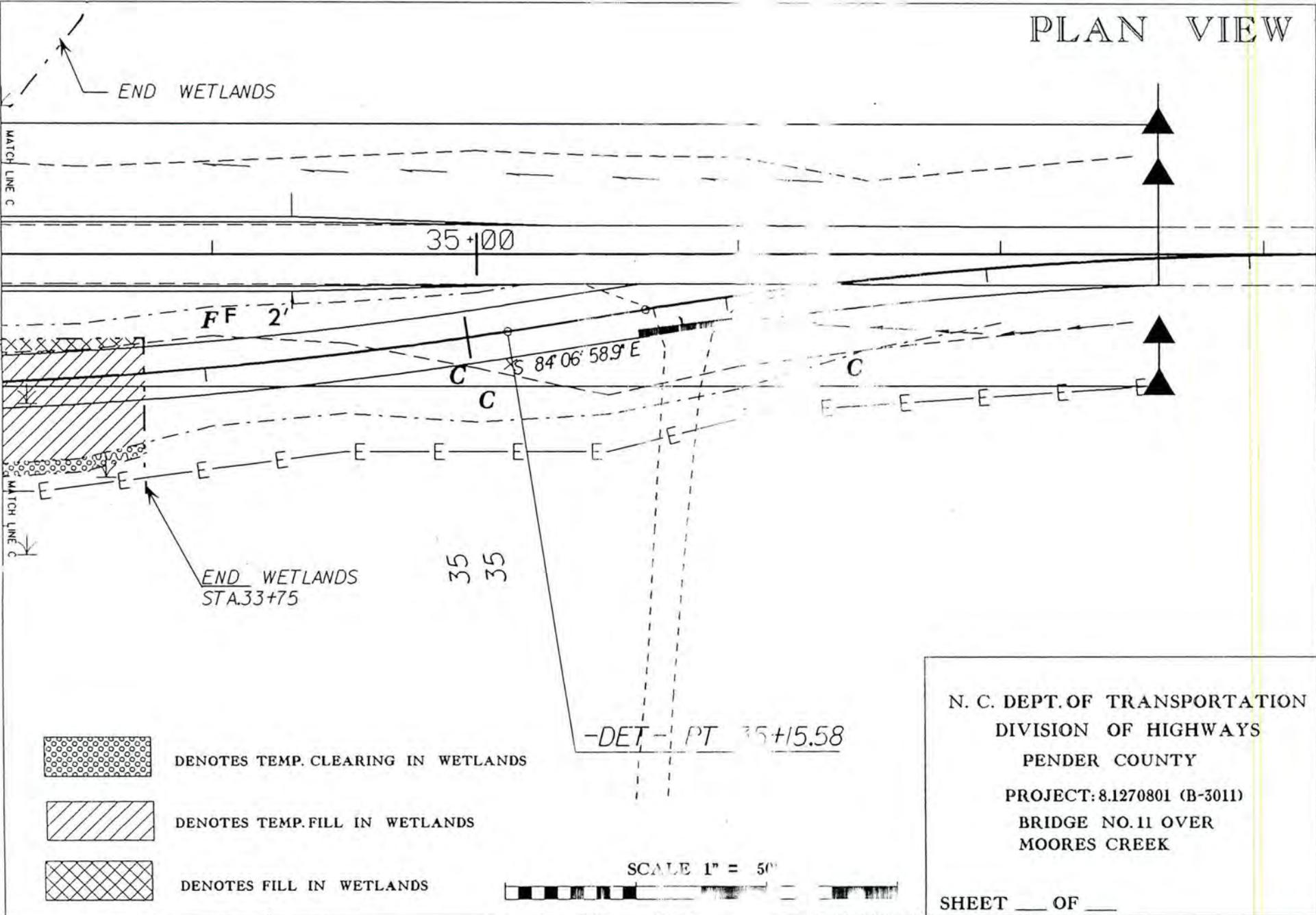
N. C. DEPT. OF TRANSPORTATION
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SHEET ___ OF ___

-  DENOTES TEMP. CLEARING IN WETLANDS
-  DENOTES TEMP. FILL IN WETLANDS
-  DENOTES FILL IN WETLANDS



PLAN VIEW



END WETLANDS

MATCH LINE C

35+00

FF 2'

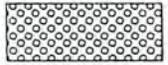
$S 84^{\circ} 06' 58.9" E$

MATCH LINE C

END WETLANDS
STA. 33+75

35 35

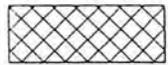
-DET- PT 35+15.58



DENOTES TEMP. CLEARING IN WETLANDS



DENOTES TEMP. FILL IN WETLANDS



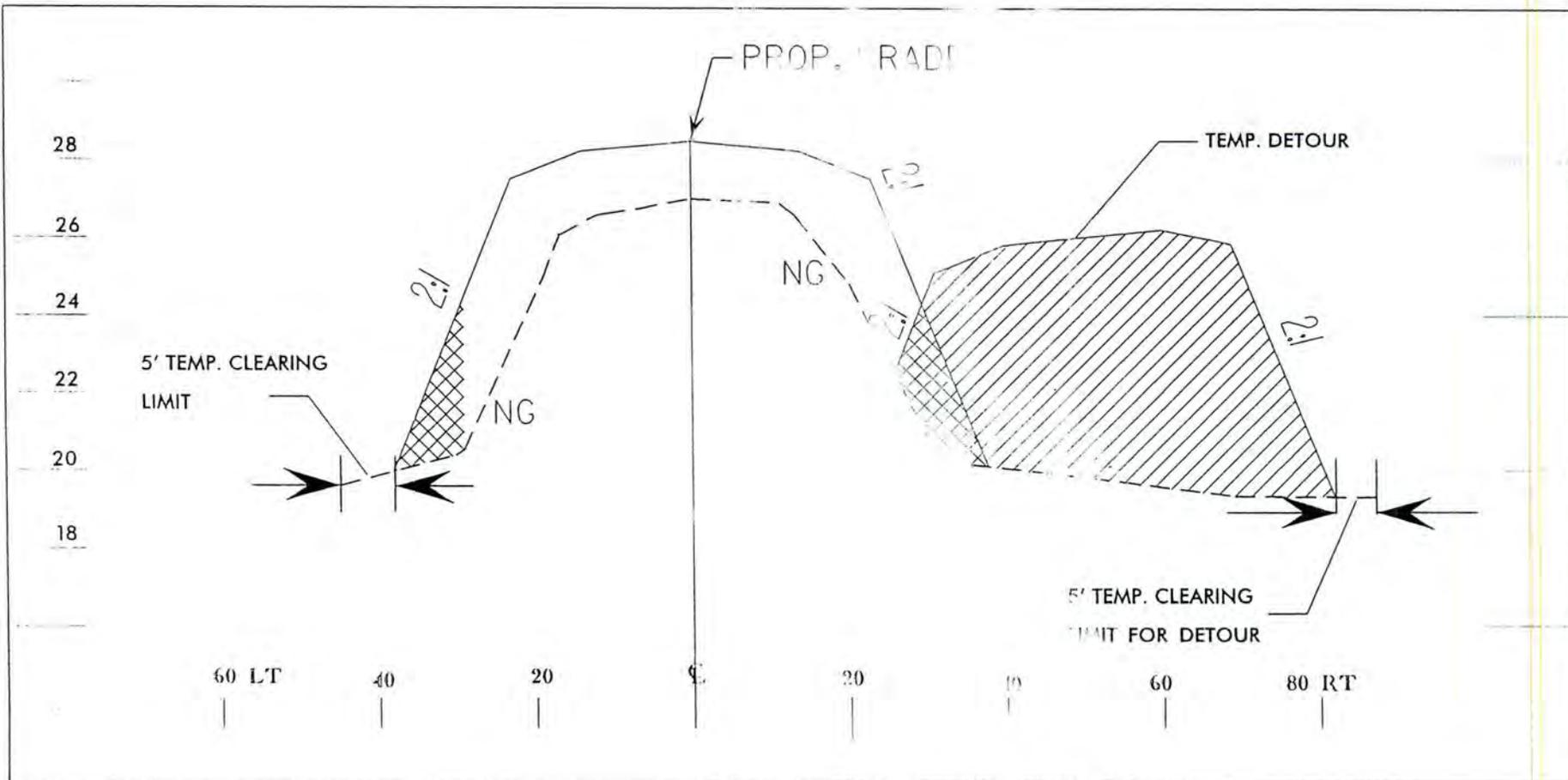
DENOTES FILL IN WETLANDS

SCALE 1" = 50'



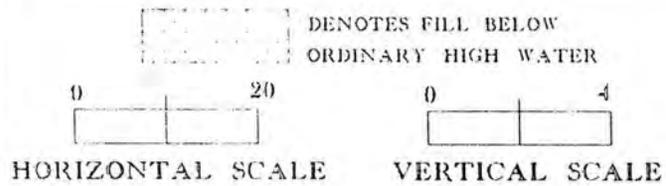
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
PENDER COUNTY
PROJECT: 8.1270801 (B-3011)
BRIDGE NO. 11 OVER
MOORES CREEK

SHEET ___ OF ___



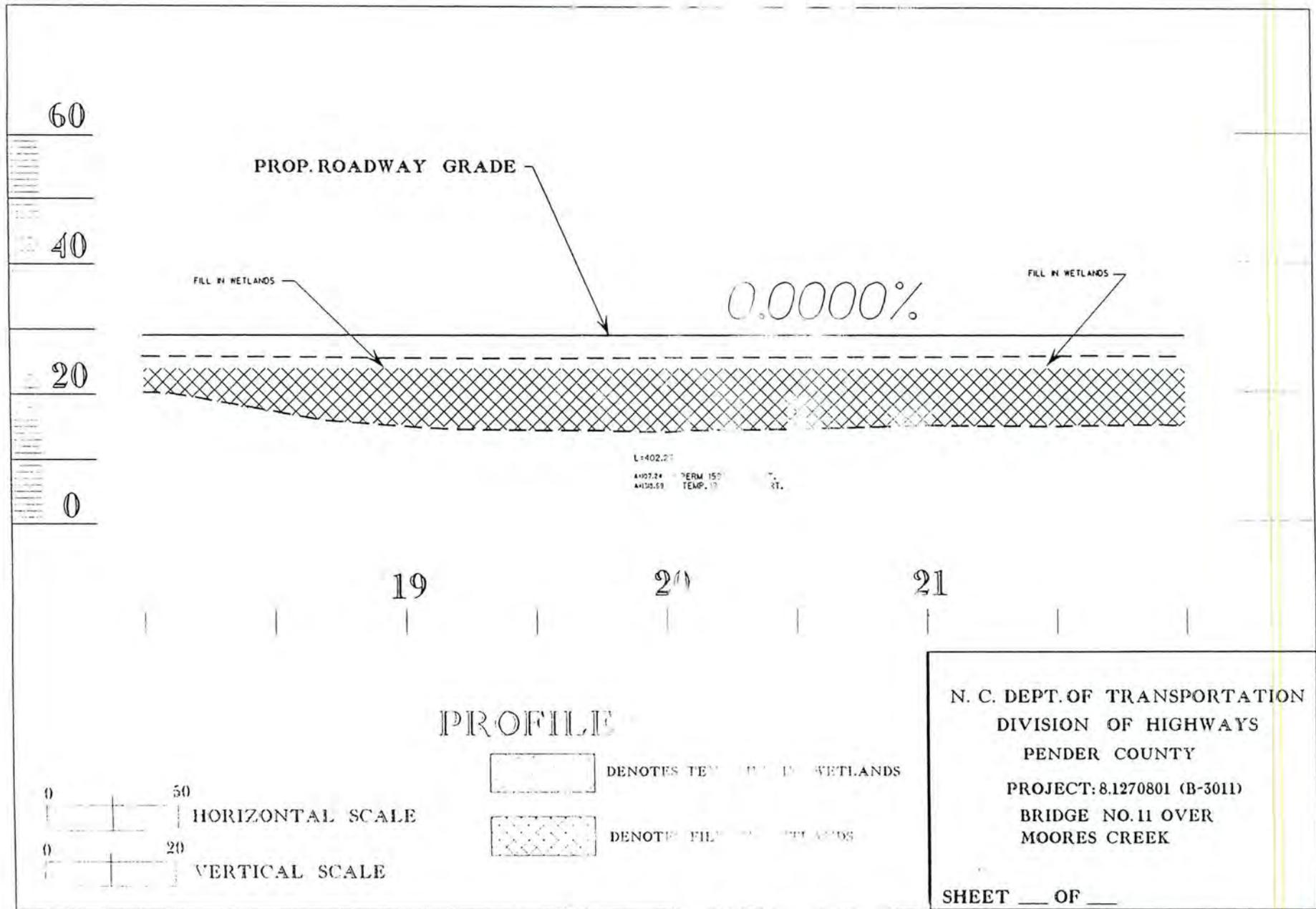
SECTION -A-

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PENDER COUNTY
 PROJECT: 8.1270801 (B-3011)
 BRIDGE NO. 11 OVER
 MOORES CREEK



SITE QUANTITIES
 FILL IN WETLANDS _____ AC
 FILL BELOW H.W. _____ CY
 TOTAL FILL _____ CY

SHEET ___ OF ___



60

40

20

0

PROP. ROADWAY GRADE

FILL IN WETLANDS

0.0000%

FILL IN WETLANDS

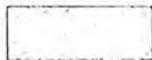
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20

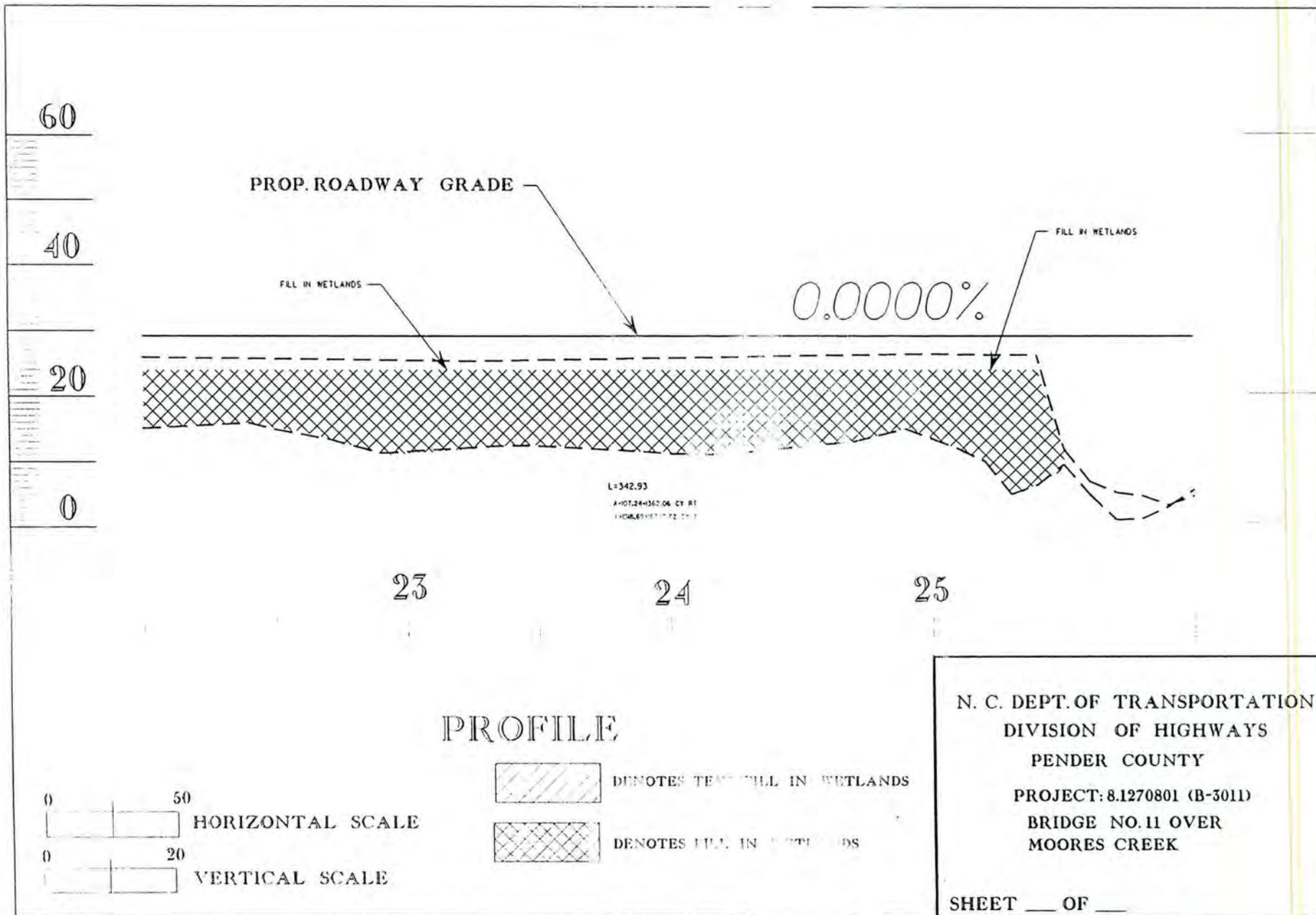
21

PROFILE

0 50
 HORIZONTAL SCALE
 0 20
 VERTICAL SCALE

 DENOTES TEMP. ORIGINAL GROUND
 DENOTES FILL IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PENDER COUNTY
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 BRIDGE NO. 11 OVER
 MOORES CREEK
 SHEET ___ OF ___



60

40

20

0

PROP. ROADWAY GRADE

FILL IN WETLANDS

FILL IN WETLANDS

0.0000%

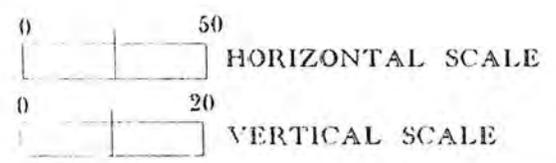
L=342.93
A=107.24+367.04 OF RT
H=68.87+107.72 OF L

23

24

25

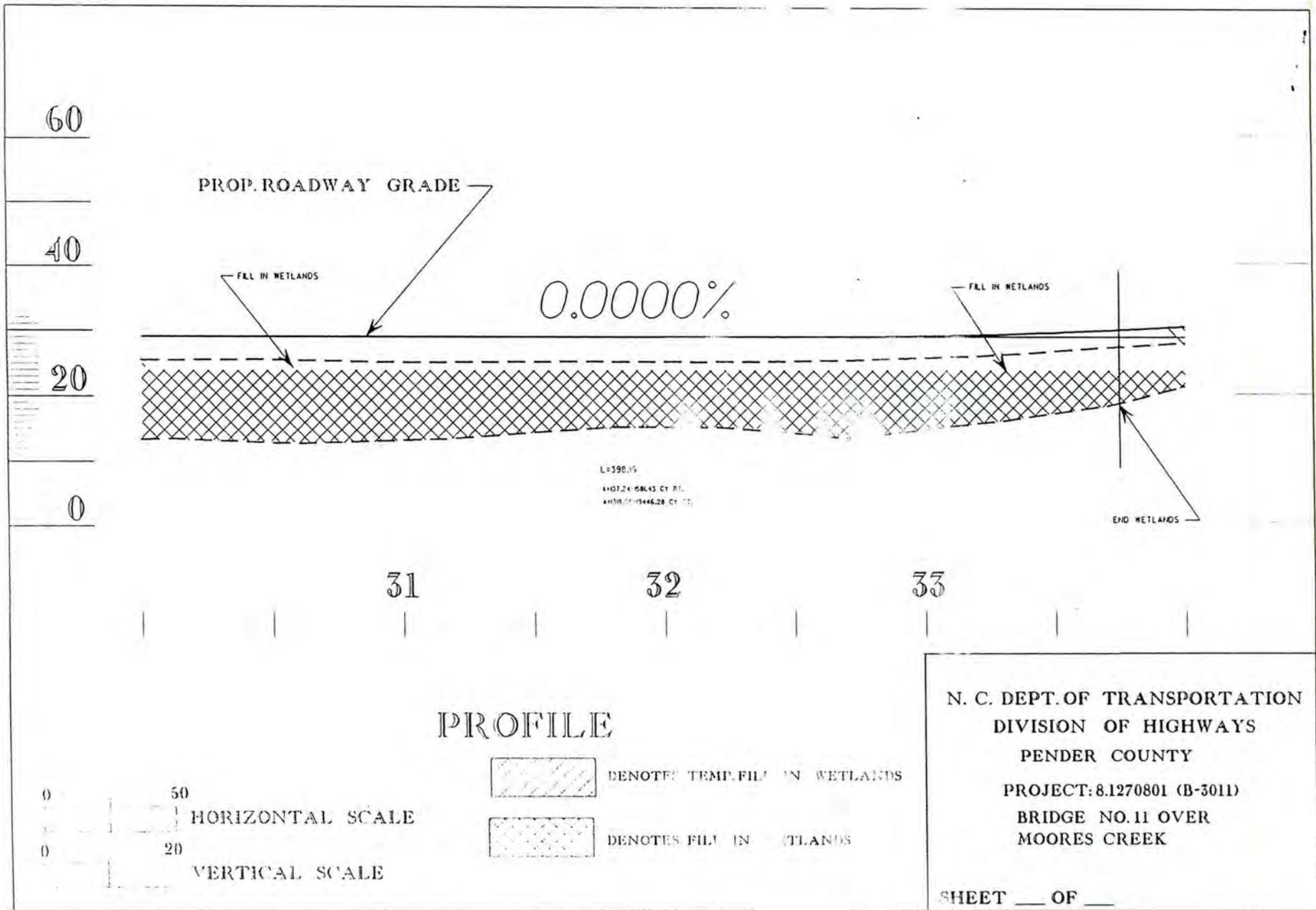
PROFILE



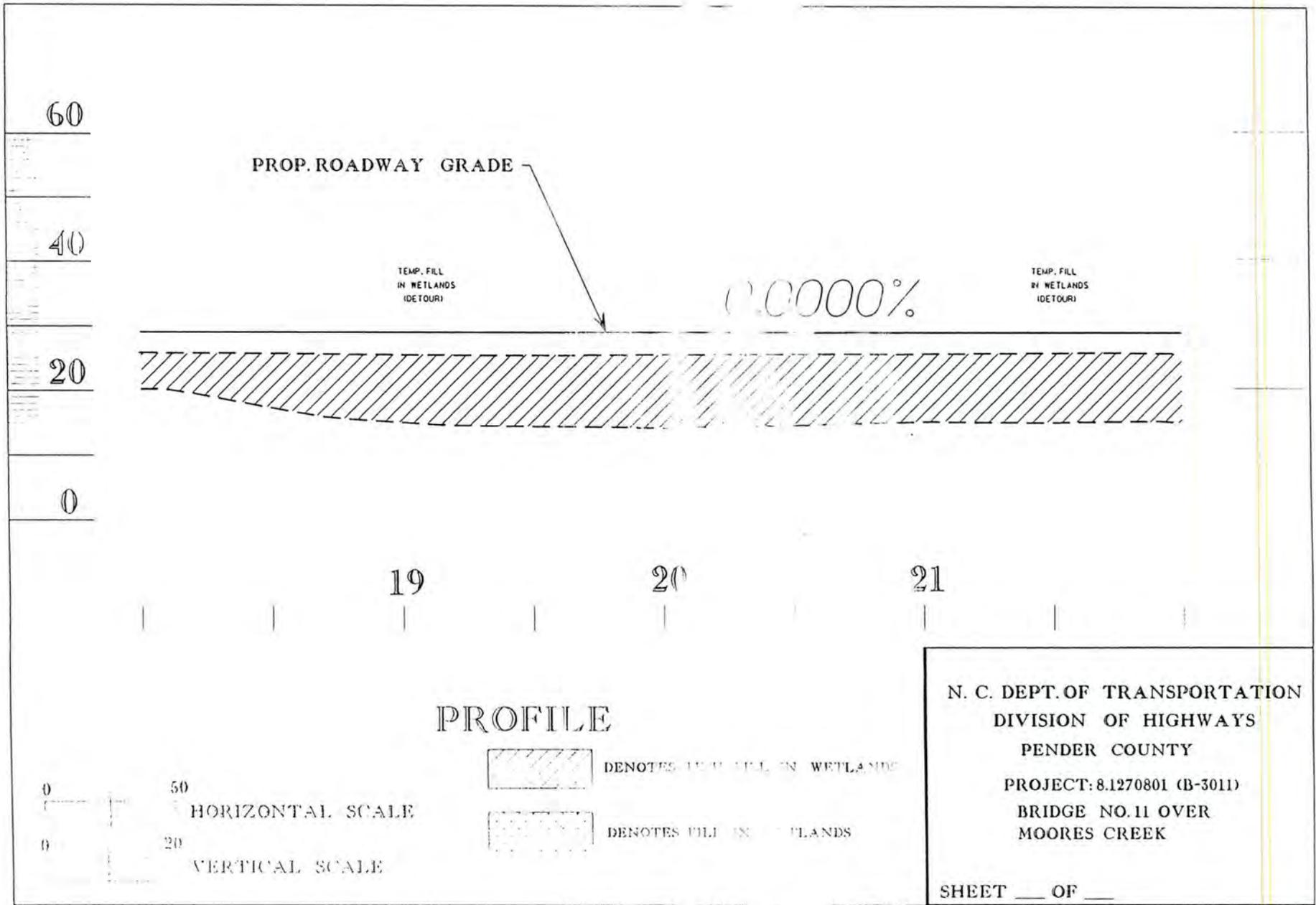
-  DENOTES TEMP FILL IN WETLANDS
-  DENOTES FILL IN WETLANDS

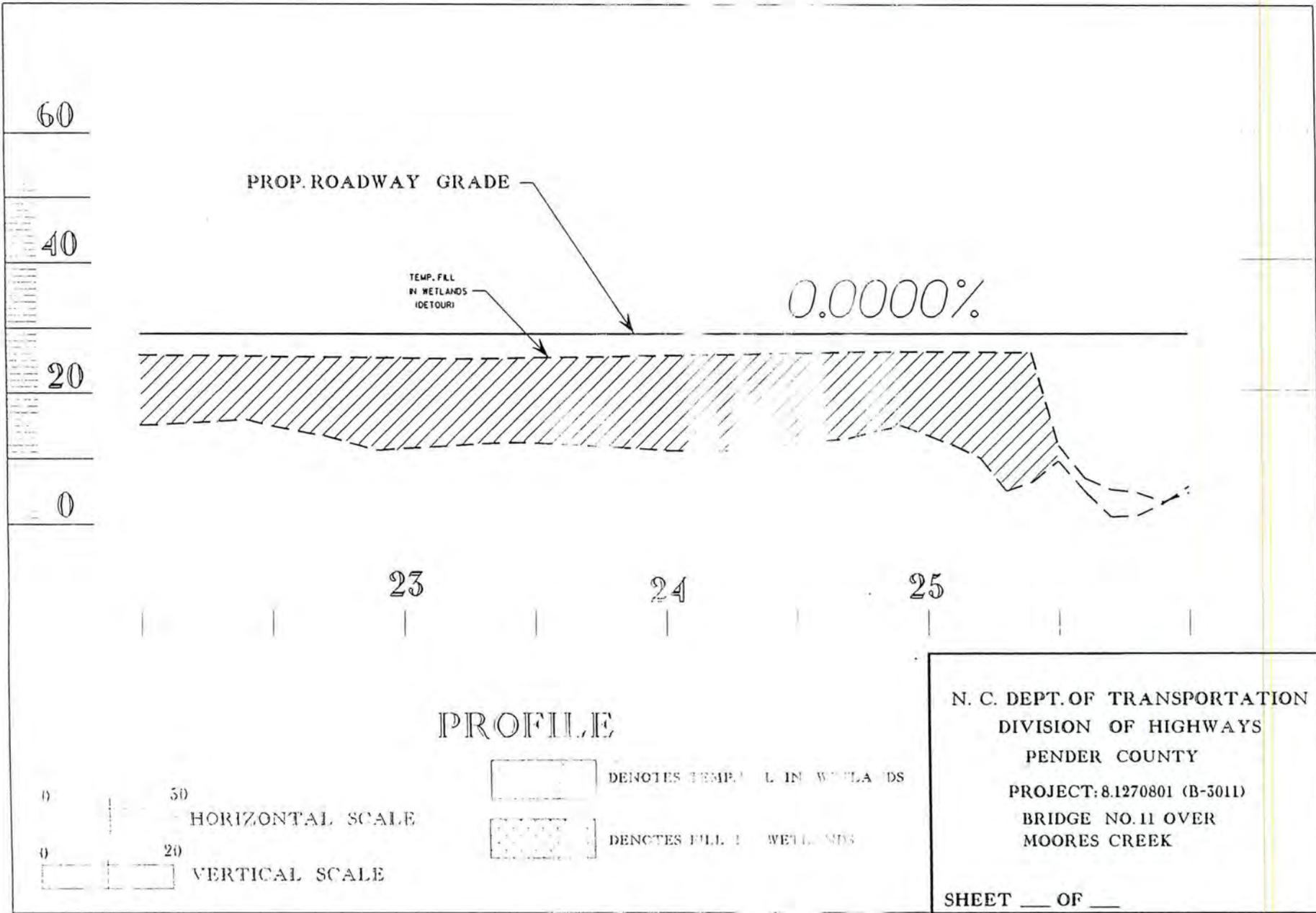
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
PENDER COUNTY
PROJECT: 8.1270801 (B-3011)
BRIDGE NO. 11 OVER
MOORES CREEK

SHEET ___ OF ___



L=398.15
 4407.24 6843 CY RT.
 4408.07 19446.28 CY RT.





PROP. ROADWAY GRADE

TEMP. FILL
IN WETLANDS
(DETOUR)

0.0000%

60

40

20

0

23

24

25

PROFILE

0 50
HORIZONTAL SCALE

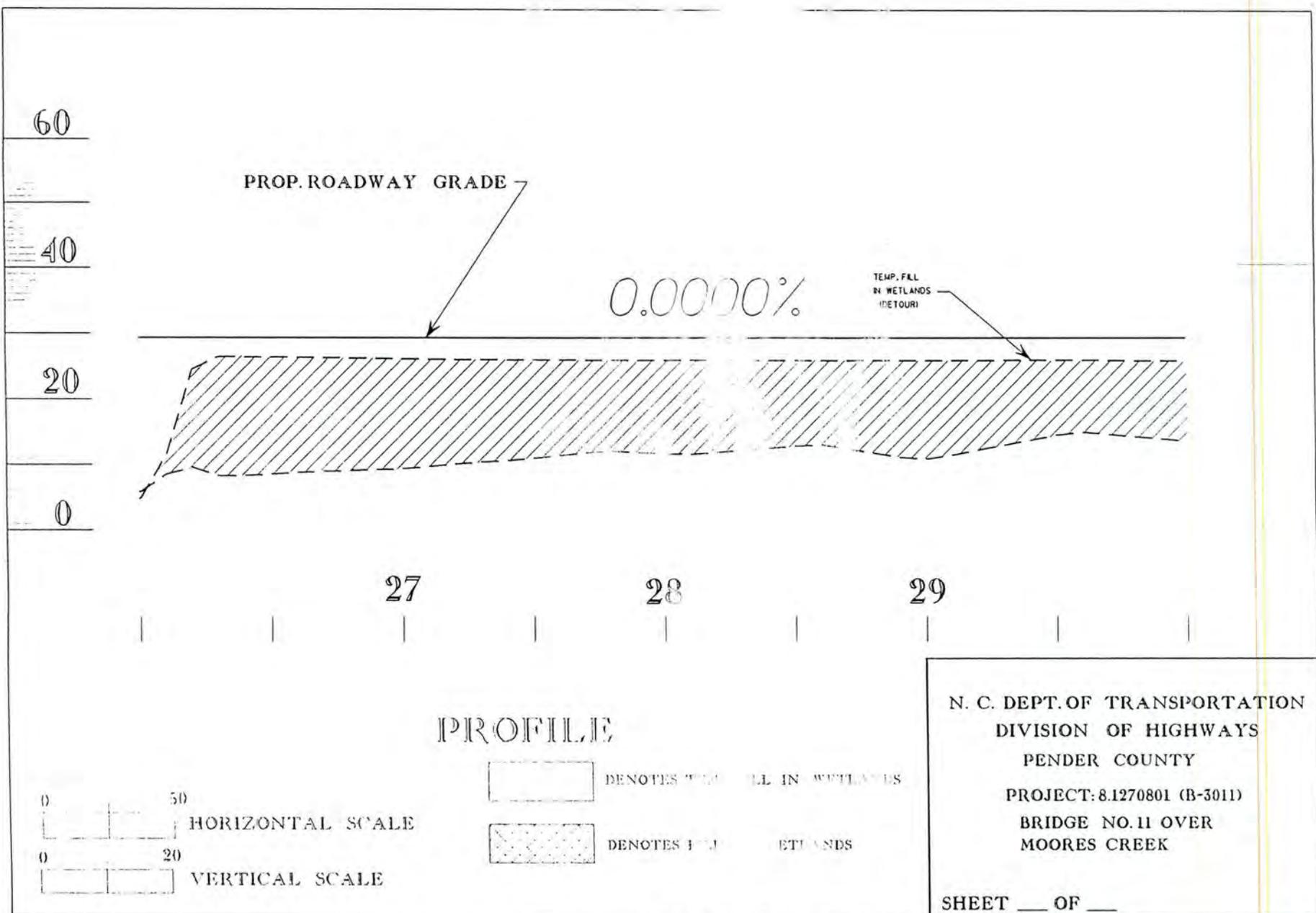
0 20
VERTICAL SCALE

[Solid Box] DENOTES TEMP. FILL IN WETLANDS

[Dotted Box] DENOTES FILL IN WETLANDS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
PENDER COUNTY
PROJECT: 8.1270801 (B-5011)
BRIDGE NO. 11 OVER
MOORES CREEK

SHEET ___ OF ___



PROP. ROADWAY GRADE

0.0000%

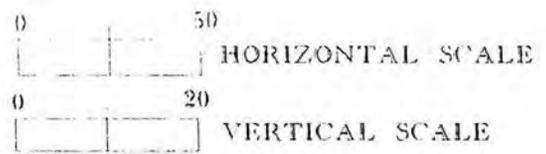
TEMP. FILL
IN WETLANDS
(DETOUR)

27

28

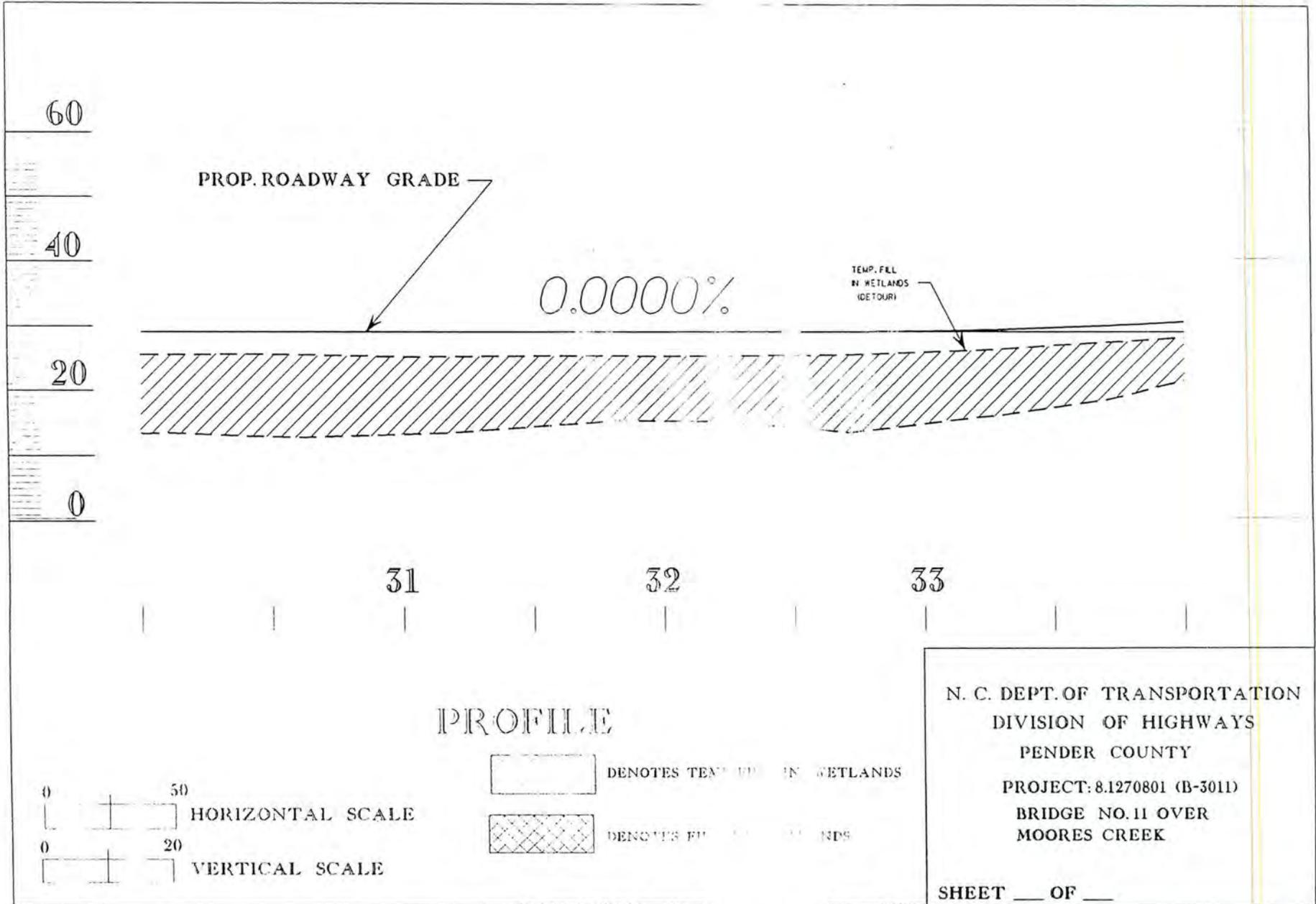
29

PROFILE



-  DENOTES TEMP. FILL IN WETLANDS
-  DENOTES TEMP. FILL IN WETLANDS

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BRIDGE NO. 11 OVER
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SHEET ___ OF ___



WETLAND SUMMARY SHEET

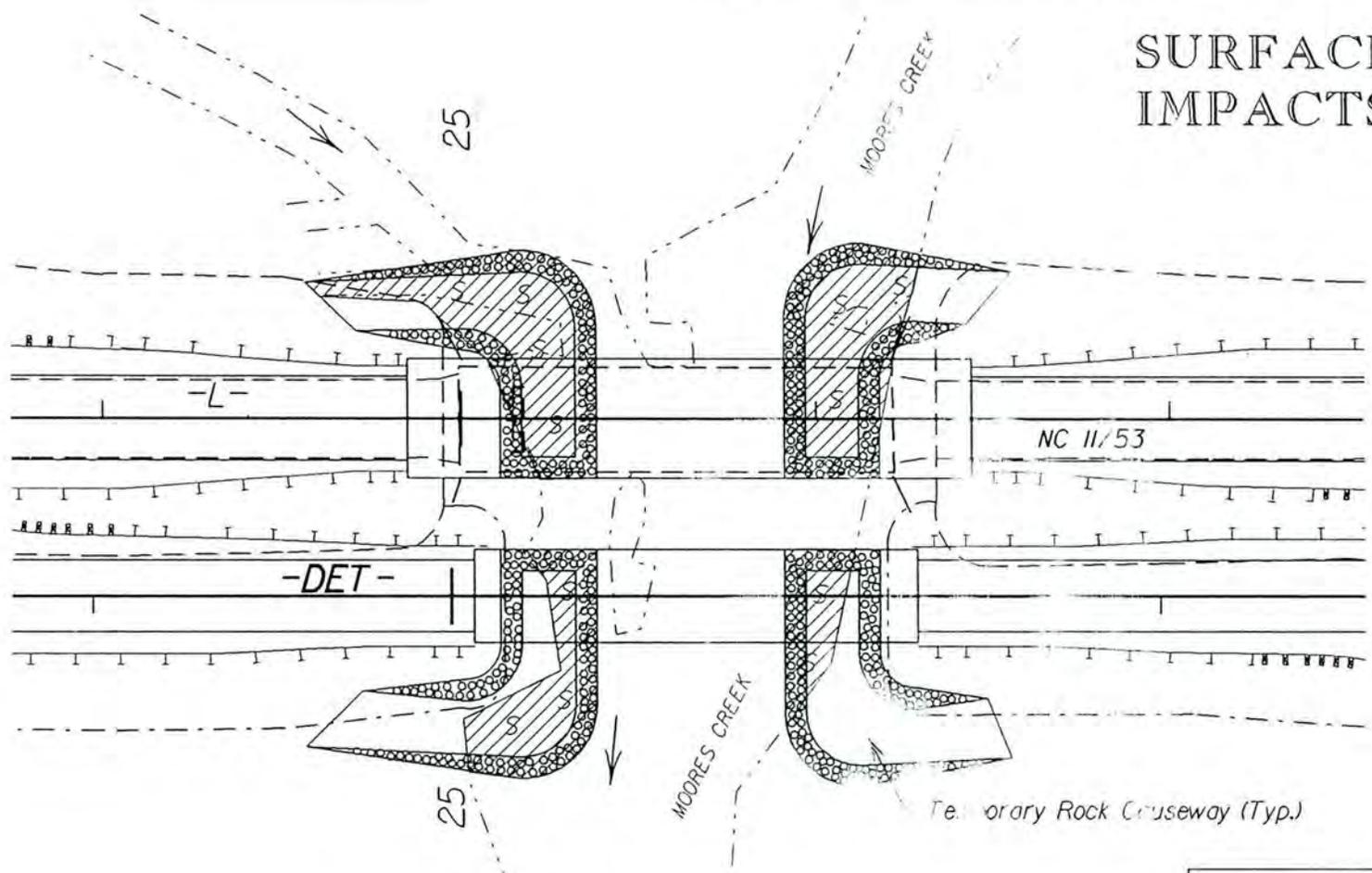
8.1270801 (B-3011)

STATION	FILL IN WETLANDS (ACRES)	TEMP. FILL IN WETLANDS (ACRES)	CLEARING IN WETLANDS (ACRES)	FILL IN WETLANDS (C.Y.)	TEMP. FILL IN WETLANDS (C.Y.)
18+40 TO 33+75	0.33	1.48	0.31	4200	28700

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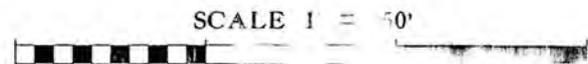
SHEET ___ OF ___

SURFACE WATER IMPACTS



PLAN VIEW PROPOSED AND TEMPORARY BRIDGES

 DENOTES FILL IN SURFACE WATER
(TEMPORARY ROCK FILL)



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MOORES CREEK

SHEET ___ OF ___

SURFACE WATER IMPACTS

40

30

20

10

28.50

0.0000%

28.50

23

25

26

27

Natural Ground

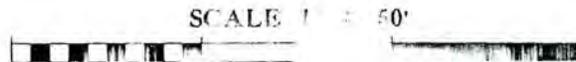
PROFILE SECTION PROPOSED BRIDGE



DENOTES UPLAND EXCAVATION
APPROX. 350 CU. YDS.



DENOTES TEMPORARY FILL BELOW
NORMAL WATER SURFACE



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PENDER COUNTY

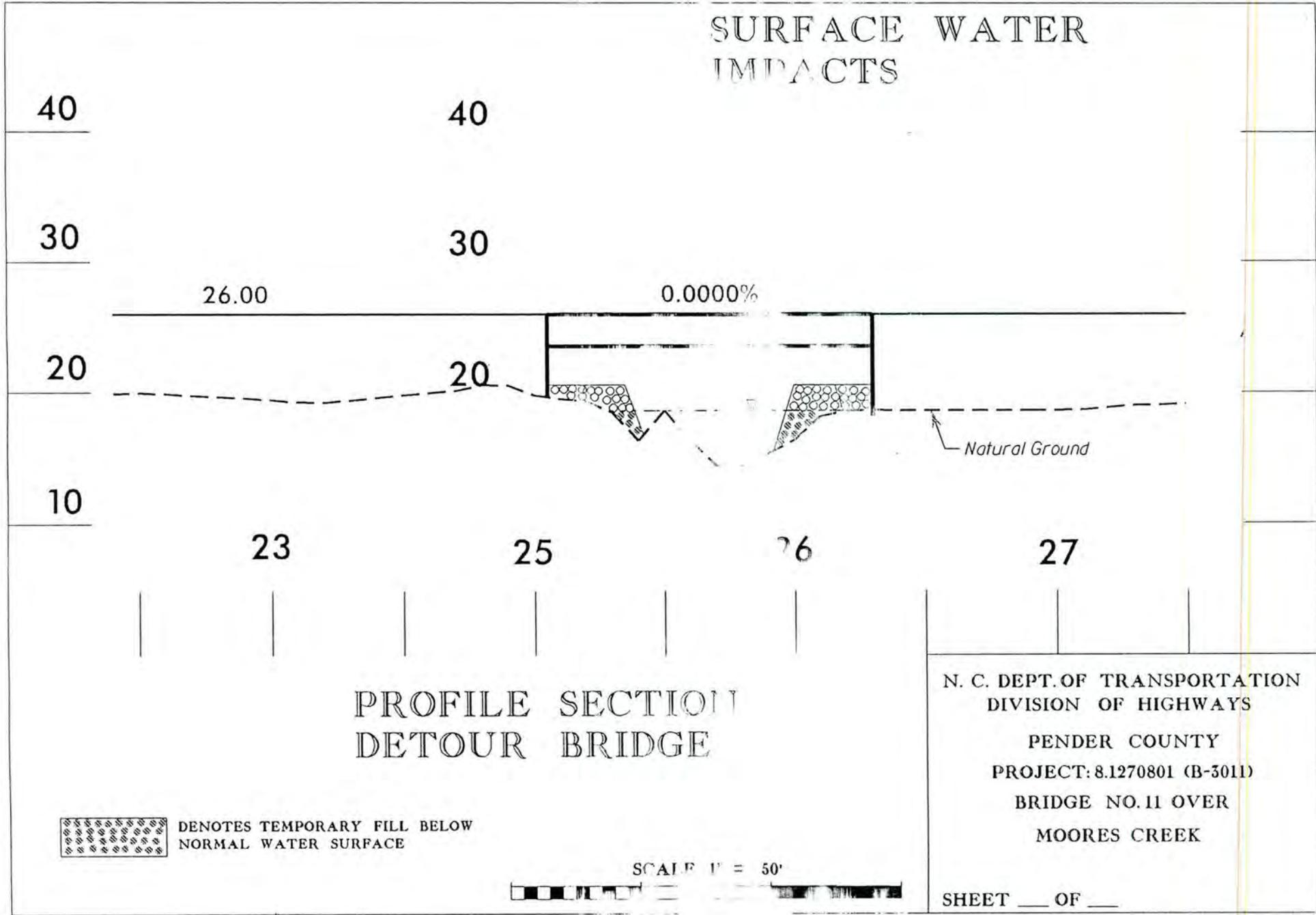
PROJECT: 8.1270801 (B-3011)

BRIDGE NO. 11 OVER

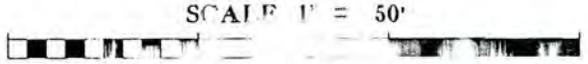
MOORES CREEK

SHEET ___ OF ___

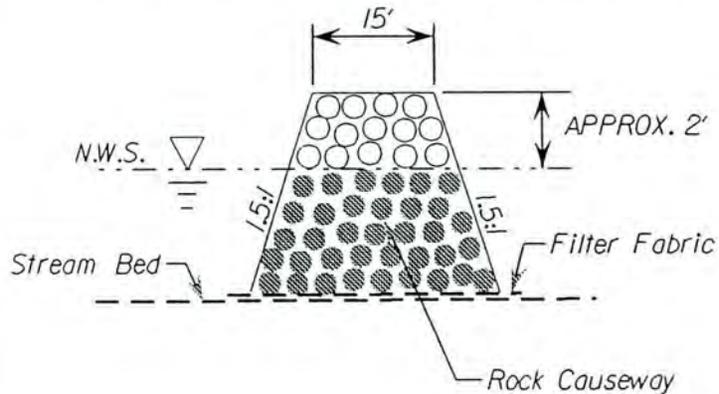
SURFACE WATER IMPAIRMENTS

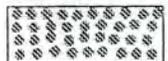


DENOTES TEMPORARY FILL BELOW
NORMAL WATER SURFACE



CAUSEWAY SECTION



 DENOTES TEMPORARY FILL BELOW NORMAL WATER SURFACE

SURFACE WATER IMPACTS

TEMPORARY ROCK FILL BELOW
NORMAL WATER SURFACE = 0.15_{ac}

VOLUME OF TEMPORARY ROCK FILL
BELOW NORMAL WATER SURFACE = 480_{yd}³

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

PENDER COUNTY
PROJECT: 8.1270801 (B-3011)
BRIDGE NO. 11 OVER
MOORES CREEK

NOT TO SCALE

SHEET ___ OF ___

PROPERTY OWNER

NAME AND ADDRESS

OWNER'S NAME

ADDRESS

A. WARD GRANT

11795 N. HWY 53 W.
ATKINSON, NC 28421

JOHN H. MURPHY, SR

PO. BOX 264
BURGAW, NC. 28425
910-259-4739

LANDMARK,

PO. BOX 4127
WILMINGTON, NC 28402

CHARLES MURPHY JR.

PO. BOX 2091
JAMESTOWN, NC. 27282

GEORGE MALCOLM KEL

RT. 2 BOX 2
BURGAW, NC. 28425
910-259-4739

THOMAS KEL

10545 N. HWY 53 W.
BURGAW, NC
910-283-7243

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT

SHEET

OF