

PROJECT SPECIAL PROVISIONS
PERMITS

The Contractor's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

PERMIT

AUTHORITY GRANTING THE PERMIT

Dredge and Fill and/or
Work in Navigable Waters (404)

U. S. Army Corps of Engineers

Water Quality (401)

Division of Environmental Management, DENR,
State of North Carolina

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by * are the responsibility of the department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-14 of the Standard Specifications and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.



REPLY TO
ATTENTION OF:

177
DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

October 1, 2004

Regulatory Division

SUBJECT: Action ID 200121280, TIP No. R-2568B

Dr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Dr. Thorpe:

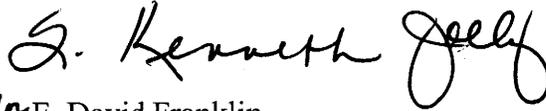
In accordance with your written request of July 22, 2004, and the resulting administrative record, enclosed are two copies of a Department of the Army permit to authorize the discharge of dredged and fill material into waters of the United States, for construction of Section B of improvements to NC 109 (T.I.P. No. R-2568B), crossing Rich Fork Creek and unnamed tributaries, from north of I-85 Business to north of SR 1756 (Lexington Avenue), northwest of Thomasville, in Davidson County, North Carolina.

You should acknowledge that you accept the terms and conditions of the enclosed permit by signing and dating each copy in the spaces provided ("Permittee" on page 3). Your signature, as permittee, shows that, as consideration for the issuance of this permit, you voluntarily accept and agree to comply with all of the terms and conditions of this permit. All pages of both copies of the signed permit with drawings should then be returned to this office for final authorization. A self-addressed envelope is enclosed for your convenience.

In addition, I have enclosed a copy of the Notification of Administrative Appeal Process and Options and Request for Appeal. Please carefully read Section "B" of this form for information regarding the appeal process for proffered permits.

After the permit is authorized in this office, the original copy will be returned to you; the duplicate copy will be permanently retained in this office. Should you have questions, contact Mr. Eric Alsmeyer of my Raleigh Field Office regulatory staff at telephone (919) 876-8441, extension 23.

Sincerely,

A handwritten signature in cursive script that reads "G. Kenneth Jolly". The signature is written in dark ink and is positioned above the typed name.

for E. David Franklin
Chief, NCDOT Team

Enclosures

DEPARTMENT OF THE ARMY PERMIT

NC Department of Transportation
Permittee _____
200121280
Permit No. _____
USAED, Wilmington
Issuing Office _____

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

Place fill material impacting a total of 2,987 linear feet of stream and 0.75 acre of wetlands, for construction of Section B of improvements to NC 109 (T.I.P. No. R-2568B), crossing Rich Fork Creek and unnamed tributaries.

Project Location:

From north of I-85 Business to north of SR 1756 (Lexington Avenue), northwest of Thomasville, in Davidson County, North Carolina.

Permit Conditions:

General Conditions:

- 1. The time limit for completing the work authorized ends on December 31, 2007. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
- 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

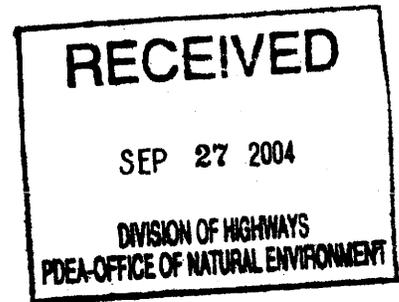
See enclosed sheet.

Further Information:

1. **Congressional Authorities:** You have been authorized to undertake the activity described above pursuant to:
 - () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. **Limits of this authorization.**
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.



September 24, 2004



Dr. Gregory J. Thorpe, PhD., Manager
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

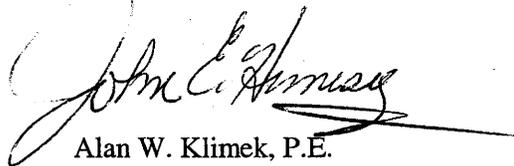
Dear Dr. Thorpe:

Re: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act,
Proposed Widening of NC 109, TIP No. R-2568B
Individual WQC No. 3478
Davidson County

Attached hereto is a copy of Certification No. 3478 issued to The North Carolina Department of Transportation dated September 24, 2004.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,



Alan W. Klimek, P.E.
Director

Attachments

cc: Eric Alsmeyer, Army Corps of Engineers Raleigh Regulatory Field Office
Sue Homewood, DWQ Winston-Salem Regional Office
Central Files
File Copy

APPROVAL OF 401 Water Quality Certification and ADDITIONAL CONDITIONS

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500, and 15 NCAC 2B .0259. This certification authorizes the NCDOT to place fill material in, drain, excavate, and mechanically clear 0.75 acres of jurisdictional wetlands and to place fill material, culverts, and piping in 2,987 linear feet of streams in Davidson County. The project shall be constructed pursuant to the application dated July 22, 2004, to relocate NC 109 from north of I-85 Business to north of SR 1798. The approved design is that submitted in your application dated July 22, 2004. The authorized impacts are as described below:

Wetland Impacts in the Yadkin-Pee Dee River Basin

Section	Non-Riverine (acres)	Total (acres)
Site 2 - Station No. -L- 33+55 to 33+80	0.02	0.02
Site 3 - Station No. -L- 40+40 to 40+60	0.05	0.05
Site 5 - Station Nos. -L- 50+60 to 51+00	0.15	0.15
Site 9 - Station No. -L- 64+00 to 66+00	0.53	0.53
Total	0.75	0.75

Surface Water Impacts for the Yadkin-Pee Dee River Basin

Section	Stream Impacts (linear feet)	Stream Type	On-Site Natural Channel Design (linear feet)	Mitigation Required (linear feet)
Site 1 - Station No. -L- 29+50 to 30+20	427	Intermittent	0	0
Site 2 - Station No. -L- 33+55 to 33+80	233	Intermittent	0	0
Site 3a - Station No. -L- 43+70 to 44+60	437	Perennial	0	437
Site 4 - Station No. -L- 46+60 to 47+80	617	Perennial	315	302
Site 6 - Station No. -Y10- 10+60 to 11+00*	121	Intermittent	0	0
Site 6 - Station No. -L- 55+60 to 56+00*	269	Intermittent	0	0
Site 7 - Station No. -L- 56+70	273	Intermittent	0	0

Site 8 - Station No. -L- 61+31.50	98	Perennial	0	0
Site 9 - Station No. -L- 64+00 to 66+00	141	Intermittent	0	0
Site 10 - Station No. -L- 75+50 to 76+50	351	Perennial	0	351
Total	2,987		315	1,090

*Separate segments of the same UT to Rich Fork Creek.

The application provides adequate assurance that the discharge of fill material into the waters of the Catawba River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Corps of Engineers Permit, whichever is sooner.

Condition(s) of Certification:

Project Specific Conditions of Certification:

1. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands and streams through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP), and that the NCEEP has agreed to implement the mitigation for the project. NCEEP has indicated in a letter dated August 26, 2004 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project as detailed in the table below.

Type of Impact	Amount of Impact
Non-Riverine Wetlands	0.75 ac
Streams	1,090 lf

General Conditions of Certification:

2. The dimension, pattern and profile of the stream above and below the crossing should not be modified by widening the stream channel or reducing the depth of the stream. Disturbed floodplains and streams should be restored to natural geomorphic conditions. All stream relocation and restoration activities shall comply with the final natural channel design plans approved by the NC Division of Water Quality.
3. Construction will be conducted in such a manner as to prevent a significant increase in turbidity outside the area of construction or construction-related discharge. 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 assure compliance with the appropriate turbidity water quality standard.
 - a. The erosion and sediment control measures for the project must equal or exceed the proper design, installation, operation and maintenance outlined in the most recent version of the North Carolina Sediment and Erosion Control Planning and Design Manual. These 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 equal or exceed the proper design, installation, operation and maintenance outlined in the most recent version of the North Carolina Surface Mining Manual. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
4. All sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored after the Division of Land Resources has released the project.
5. If an environmental document is required, this Certification is not valid until a FONSI or ROD is issued by the State Clearinghouse. All water quality-related conditions of the FONSI or ROD shall become conditions of this Certification.
6. No live or fresh concrete shall come into contact with waters of the state until the concrete has hardened.
7. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.
8. Excavation of the stream crossings should be conducted in the dry. Sandbags, cofferdams, flexible pipe, or other diversion structures should be used to minimize excavation in flowing water.
9. All channel relocations will be constructed in a dry work area, and stabilized before stream flows are diverted. Channel relocations will be completed and stabilized prior to diverting water into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. Vegetation used for 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 coir fiber and seedling establishment is allowable. Also, rip-rap 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 requested.

- ✱10. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.
11. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.
12. 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.
13. All temporary fills in wetlands and surface waters shall be removed upon completion of the project. In addition, the post-construction removal of any temporary bridge structures or fill will need to return the project site to its preconstruction contours and elevations. The revegetation of the impacted areas with appropriate native species will be required.
14. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
15. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
16. Heavy equipment should be operated from the bank rather than in the stream channel whenever possible in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream. 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.
17. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
- ✱18. Two copies of the final construction drawings shall be furnished to NCDWQ prior to the pre-construction meeting. Written verification shall be provided that the final construction drawings comply with the attached permit drawings contained in the application dated May 11, 2004.

19. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by orange fabric fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
20. NCDOT, 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 law and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the certification, DWQ shall notify NCDOT and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to NCDOT in writing, shall be provided to the United States Army Corps of Engineers for reference in any permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project.
21. A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification (and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
22. Culverts that are less than 48-inch in diameter should be buried to a depth equal to or greater than 20% of their size to allow for aquatic life passage. Culverts that are 48-inch in diameter or larger should be buried at least 12 inches below the stream bottom to allow natural stream bottom material to become established in the culvert following installation and to provide aquatic life passage during periods of low flow. These measurements must be based on natural thalweg depths.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 24th day of September 2004

DIVISION OF WATER QUALITY

A handwritten signature in cursive script, appearing to read "John E. Klimek", with a large, stylized flourish at the end.

Alan W. Klimek, P.E.
Director

WQC No. 3478

DWQ Project No.: 3478

County: Davidson

Applicant: NC Department of Transportation

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

*** Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

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

Signature: _____ Date: _____

Agent's Certification

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

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

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

Signature _____

Registration No. _____

Date _____

SPECIAL CONDITIONS (Action ID. 200121280; NCDOT/TIP R-2568B)**Work Limits**

a. All work authorized by this permit must be completed in strict compliance with the attached plans, which are a part of this permit. The permittee will ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any deviation in the construction design plans will be brought to the attention of the U.S. Army Corps of Engineers (USACE), Raleigh Regulatory Field Office, prior to any active construction in waters or wetlands, and any modification to the permit plans must be approved by the USACE prior to implementation.

b. 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.

c. Except as specified in the plans attached 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, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters or wetlands.

Related Laws

d. The North Carolina Division of Water Quality has issued a conditioned Water Quality Certification for your project; the conditions of that certification are hereby incorporated as special conditions of this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

e. All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-5083, Ext. 526 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

Project Maintenance

f. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used.

g. 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, and any authorized modifications. A copy of this permit, and any authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project

h. The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

i. The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Enforcement

j. Violations 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 permittee's discovery of the violation.

Mitigation

*k. Compensatory mitigation for the unavoidable impacts to 0.75 acre of non-riverine wetlands, and 1,090 linear feet of stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated August 26, 2004 from William D. Gilmore, EEP Transition Manager. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 1.50 acres of restoration equivalent non-riverine wetlands, and 2,180 linear feet of restoration equivalent warm water stream channel in the Yadkin River basin (Hydrologic Cataloging Unit 03040103) by one year from the date of this permit. 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.

Onsite Stream Relocation

l. IMPLEMENTATION: The permittee shall mitigate for 315 linear feet of unavoidable impact to streams with important aquatic function, associated with this project, by completing 315 linear feet of onsite perennial stream relocation, as described in the permit application. All stream relocations shall be constructed in accordance with the North Carolina Wildlife Resources Commission's (NCWRC) "Stream Relocation Guidelines." NCDOT shall consult with NCWRC on all stream relocations and implement all practicable recommendations in the design of specific site requirements for re-establishment of bank vegetation, and placement of meanders and habitat structures. Vegetation shall be used to the maximum extent practicable to stabilize banks, and riprap and other man-made structural measures shall be minimized. The permittee shall construct all channel relocations in a dry work area, and stabilize the new channel before stream flows are diverted. Whenever possible, the permittee shall allow new channels to stabilize for an entire growing season.

m. AS-BUILT SURVEY: The permittee shall complete an as-built channel survey within sixty days of completion of the stream relocation construction. The permittee shall document changes in the dimension, pattern, profile, vegetation plantings, and structures installed, of the relocated channel from the proposed design. The permittee shall also include in the as-built survey: photo documentation at representative segments and structures; and a plan view diagram.

n. MONITORING SCHEDULE: The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period: Reference photos; plant survival (i.e., identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. The permittee shall submit the monitoring reports to the Corps of Engineers, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the Corps of Engineers, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

o. MONITORING DATA/REPORT: The permittee shall include the following information in the Level I monitoring report for the site: reference photos; plant survival notes and recommendations, as appropriate; and a report on the visual inspection of channel stability.

Physical measurements of channel stability/morphology will not be required. The permittee shall complete the Monitoring Data Record, Sections 1, 2 and 3 (pages 1, 2 and 3, attached), for each representative segment of the channel, and for each year of monitoring (twice each year, summer and winter, for reference photos). The permittee shall include in the monitoring reports a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

p. STREAM MITIGATION SUCCESS CRITERIA: The mitigation success criteria, and required remediation actions, will be generally based on the attached Appendix II, and the Photo Documentation, Ecological Function, and Channel Stability criteria in the "Stream Mitigation Guidelines", dated April, 2003 (available on the internet at http://www.saw.usace.army.mil/wetlands/Mitigation/stream_mitigation.html), pages 24 and 25, under "Success Criteria: ".

q. Failure to institute and carry out the details of special conditions a. - p., above, may result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with TIP R-2568B, or such other remedy as the District Engineer or his authorized representatives may seek.

Pre-Construction

r. Prior to commencing construction within jurisdictional waters of the United States, the permittee shall forward the latest version of project construction drawings to the USACE, Raleigh Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings are acceptable.

s. The permittee shall schedule an environmental preconstruction meeting between its representatives, the contractor's representatives, and the USACE, Raleigh Regulatory Field Office NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall provide the USACE, Raleigh Regulatory Field Office NCDOT Regulatory Project Manager, with a copy of the final plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall schedule the environmental preconstruction meeting for a time when the USACE and North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall invite the USACE and NCDWQ Project Managers a minimum of four weeks in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting.

t. 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. The permittee shall ensure that all such areas comply with condition (b.) 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 (b.). 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 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.

Stream/riparian impact minimization

u. NCDOT shall minimize removal of vegetation in riparian areas, and plant native trees and shrubs, where feasible, on new or cleared stream banks.

v. NCDOT shall not discharge stormwater, including bridge deck drainage, directly to streams, but shall discharge the stormwater through buffer areas or retention basins.

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

Applicant: NCDOT/TIP R-2568B		File Number: 200121280	Date: October 1, 2004
Attached is:			See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
 Mr. Eric C. Alsmeyer, Regulatory Project Manager
 U.S. Army Corps of Engineers, Wilmington District
 Raleigh Regulatory Field Office
 6508 Falls of Neuse Road, Suite 120
 Raleigh, North Carolina 27615-6814

If you only have questions regarding the appeal process you may also contact:
 Mr. Arthur Middleton, Administrative Appeal Review Officer
 CESAD-ET-CO-R
 U.S. Army Corps of Engineers, South Atlantic Division
 60 Forsyth Street, Room 9M15
 Atlanta, Georgia 30303-8801

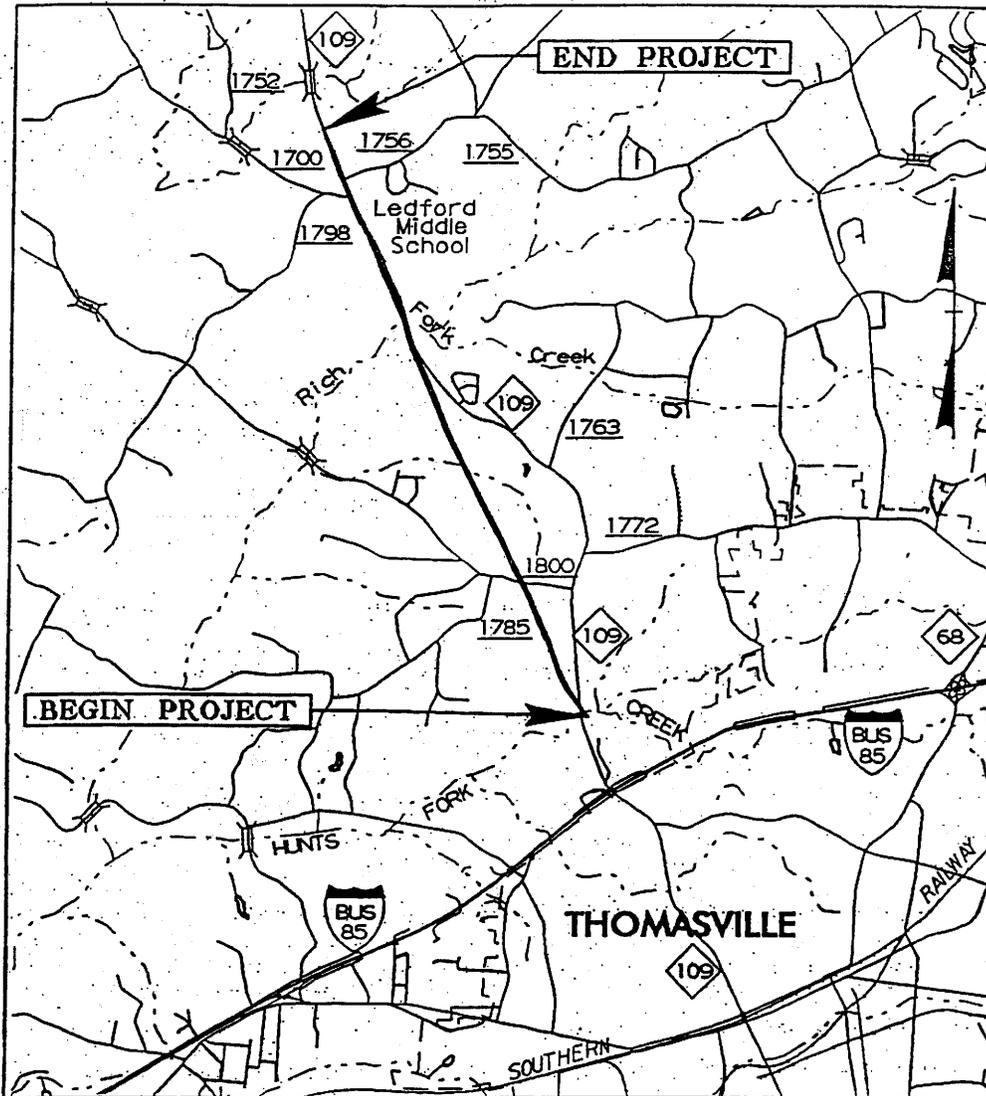
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:
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DIVISION ENGINEER:
Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490

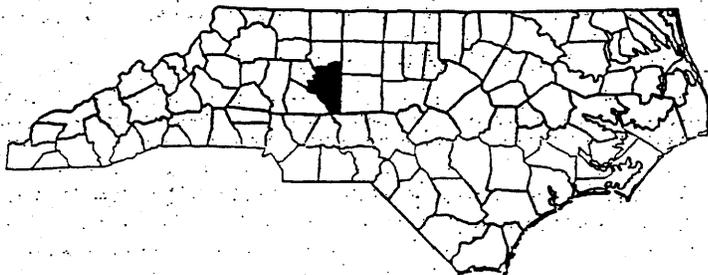
REV 7/29/04

197



VICINITY MAP

NORTH CAROLINA



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

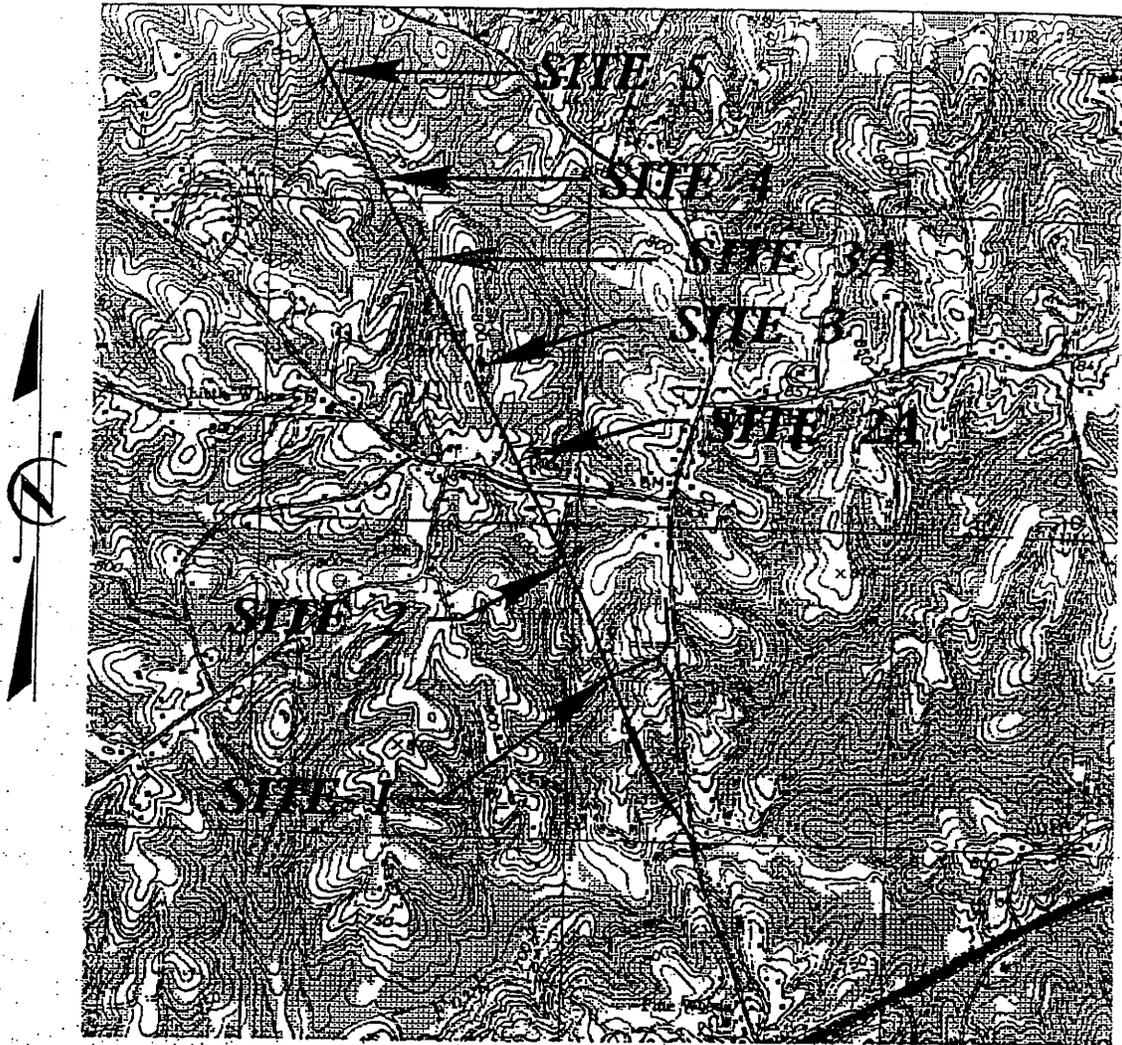
NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

STATE PROJECT #A1600901 R-2568B

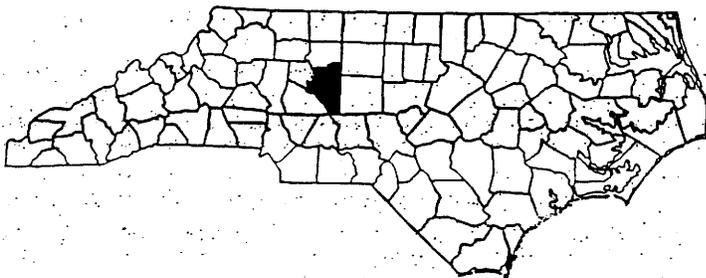
SHEET 1 OF 40

12/1202

MATCHLINE



VICINITY MAP
(HIGH POINT WEST QUADRANGLE)



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

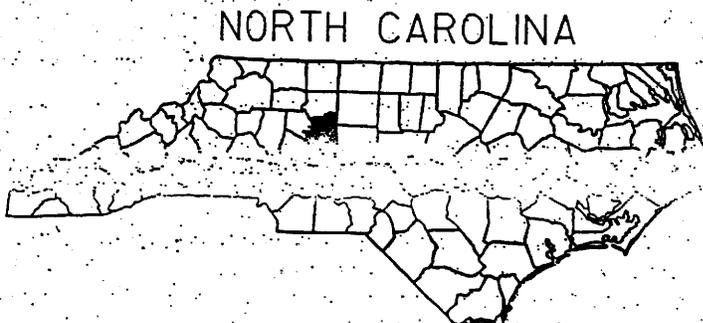
STATE PROJECT #8.1600901 R-2568B
SHEET 2 OF 40



MATCHLINE

VICINITY MAP

MIDWAY AND HIGH POINT WEST QUADRANGLE



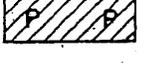
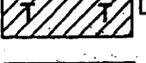
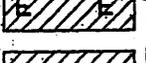
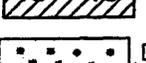
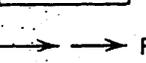
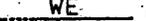
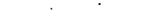
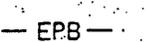
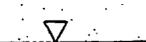
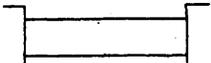
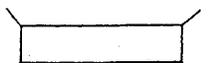
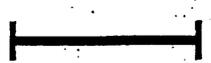
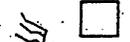
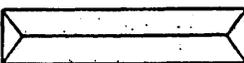
NORTH CAROLINA

N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

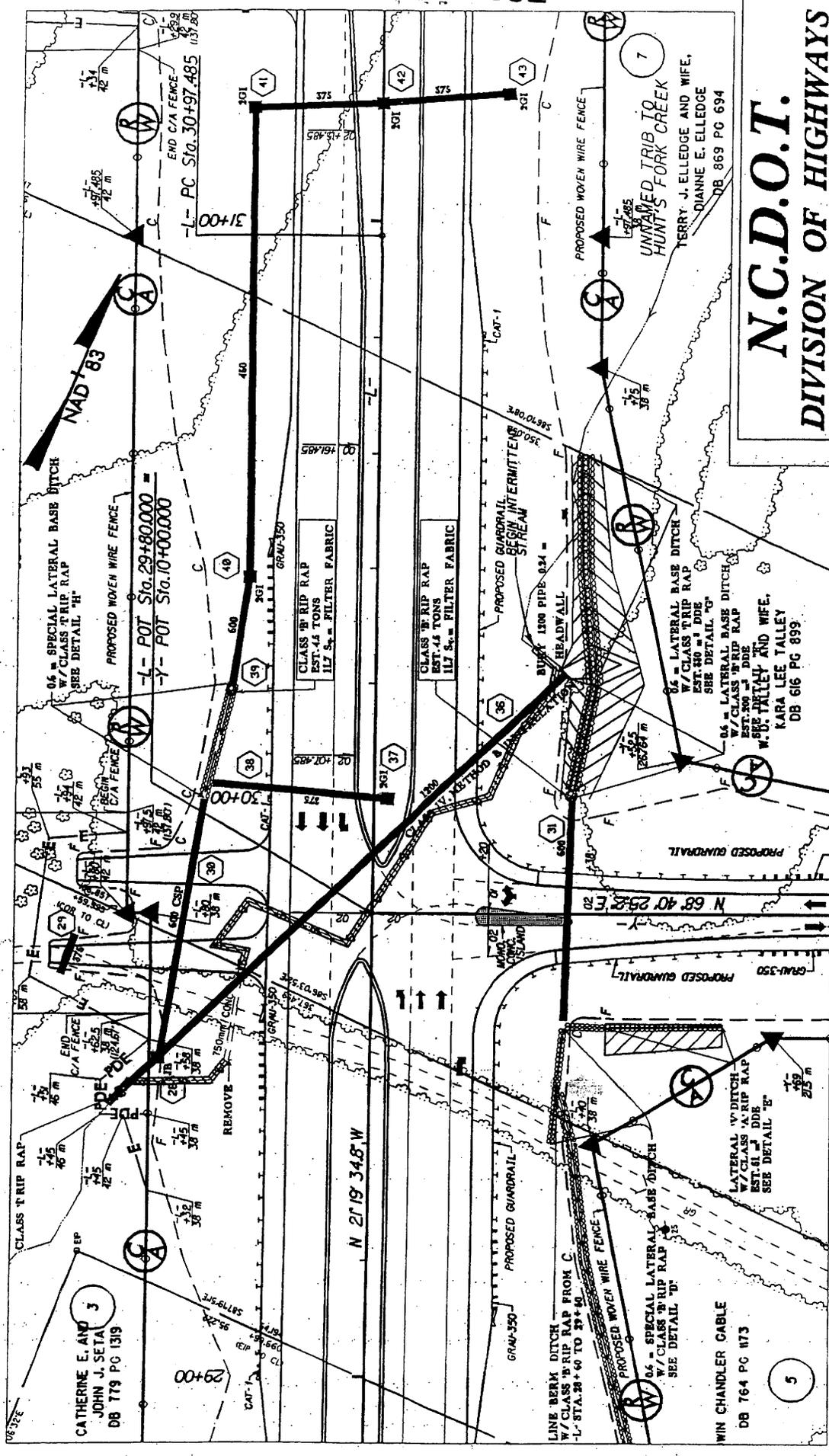
NORTH OF SR1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT #8.1600901 R-2568B
 SHEET 3 OF 40

WETLAND 200 LEGEND

-  WLB — WETLAND BOUNDARY
-  WLB
WLB — WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES FILL IN SURFACE WATER
-  DENOTES FILL IN SURFACE WATER (POND)
-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES TEMPORARY FILL IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING
-  —> —> FLOW DIRECTION
-  TB — TOP OF BANK
-  WE — EDGE OF WATER
-  - - - C - - - PROP. LIMIT OF CUT
-  - - - F - - - PROP. LIMIT OF FILL
-  ▲ PROP. RIGHT OF WAY
-  - - - NG - - - NATURAL GROUND
-  - - - PL - - - PROPERTY LINE
-  — TDE — TEMP. DRAINAGE EASEMENT
-  — PDE — PERMANENT DRAINAGE EASEMENT
-  — EAB — EXIST. ENDANGERED ANIMAL BOUNDARY
-  — EPB — EXIST. ENDANGERED PLANT BOUNDARY
-  ▽ — WATER SURFACE
-  x x x x x x x x x x LIVE STAKES
-  BOULDER
-  - - - CORE FIBER ROLLS
-  DENOTES TEMPORARY SURFACE WATER IMPACTS
-  PROPOSED BRIDGE
-  PROPOSED BOX CULVERT
-  PROPOSED PIPE CULVERT
12"-48" PIPES
54" PIPES & ABOVE
- (DASHED LINES DENOTE EXISTING STRUCTURES)
-  SINGLE TREE
-  WOODS LINE
-  DRAINAGE INLET
-  ROOTWAD
-  RIP RAP
-  5 ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE
-  PREFORMED SCOUR HOLE
-  LEVEL SPREADER (LS)
-  DITCH / GRASS SWALE

N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
NC 109 FROM NORTH OF
I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.
 STATE PROJECT #81600901 R2562B
 SHEET 4 OF 48 060404



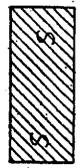
N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT #81600901 R-2568B
 SHEET 5 OF 40

SITE 1

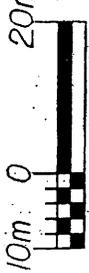
DENOTES FILL IN SURFACE WATERS



DENOTES TEMPORARY SURFACE WATER IMPACTS



SCALE

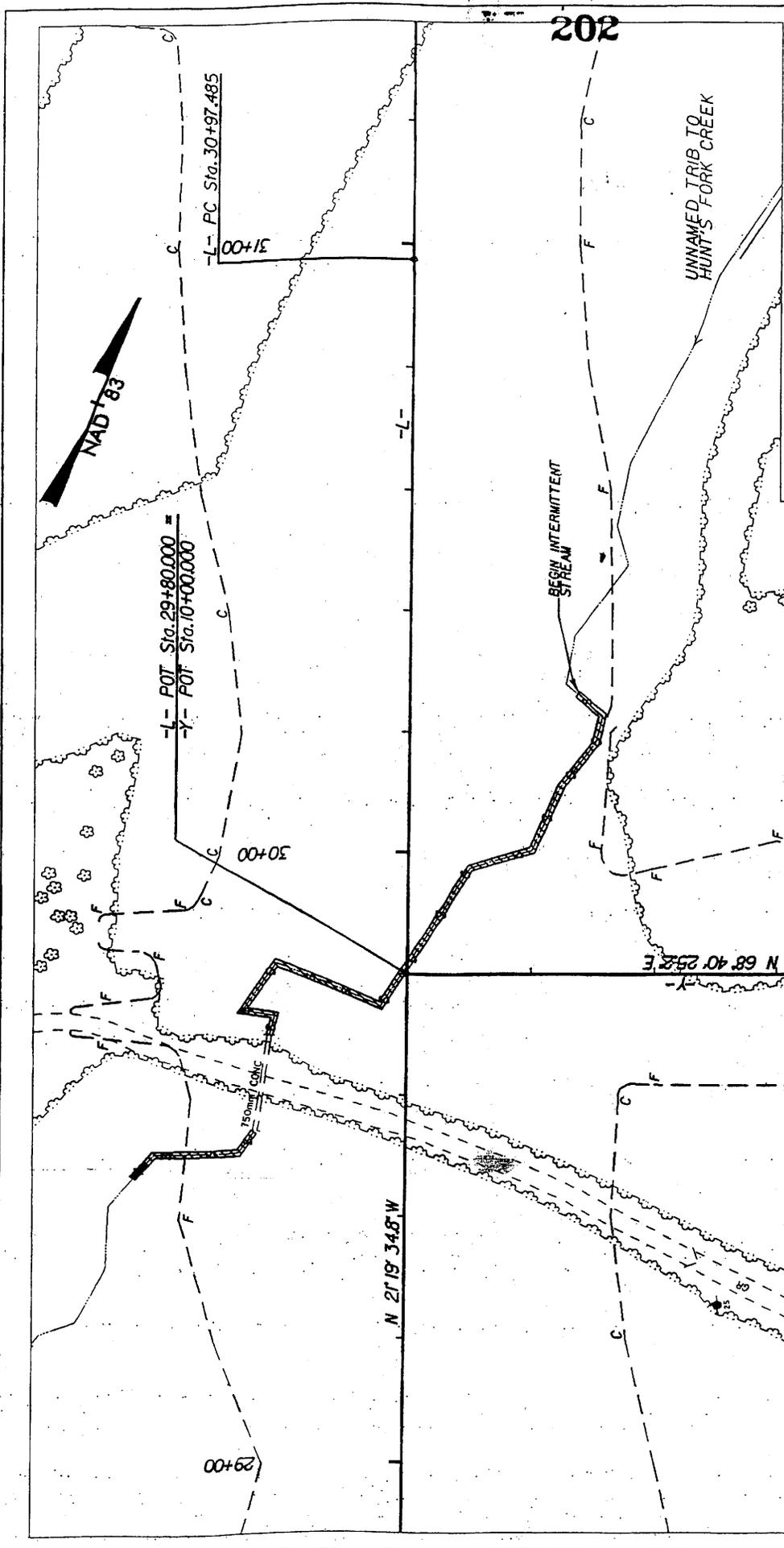


CATHERINE E. AND
 JOHN J. SETA
 DB 779 PG 1319

WIN CHANDLER CABLE
 DB 764 PG 173

UNNAMED TRIBUTARY TO
 HUNT'S FORK CREEK
 TERRY J. ELLEDGE AND WIFE,
 DIANNE E. ELLEDGE
 DB 869 PG 694

W. S. TALLEY AND WIFE,
 KARA LEE TALLEY
 DB 616 PG 899



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 NORTH OF LEDFORD M.S.

STATE PROJECT # R-1600901 R-2568B
 SHEET 6 OF 40

SITE 1 IMPACTS

DENOTES FILL IN
 SURFACE WATERS

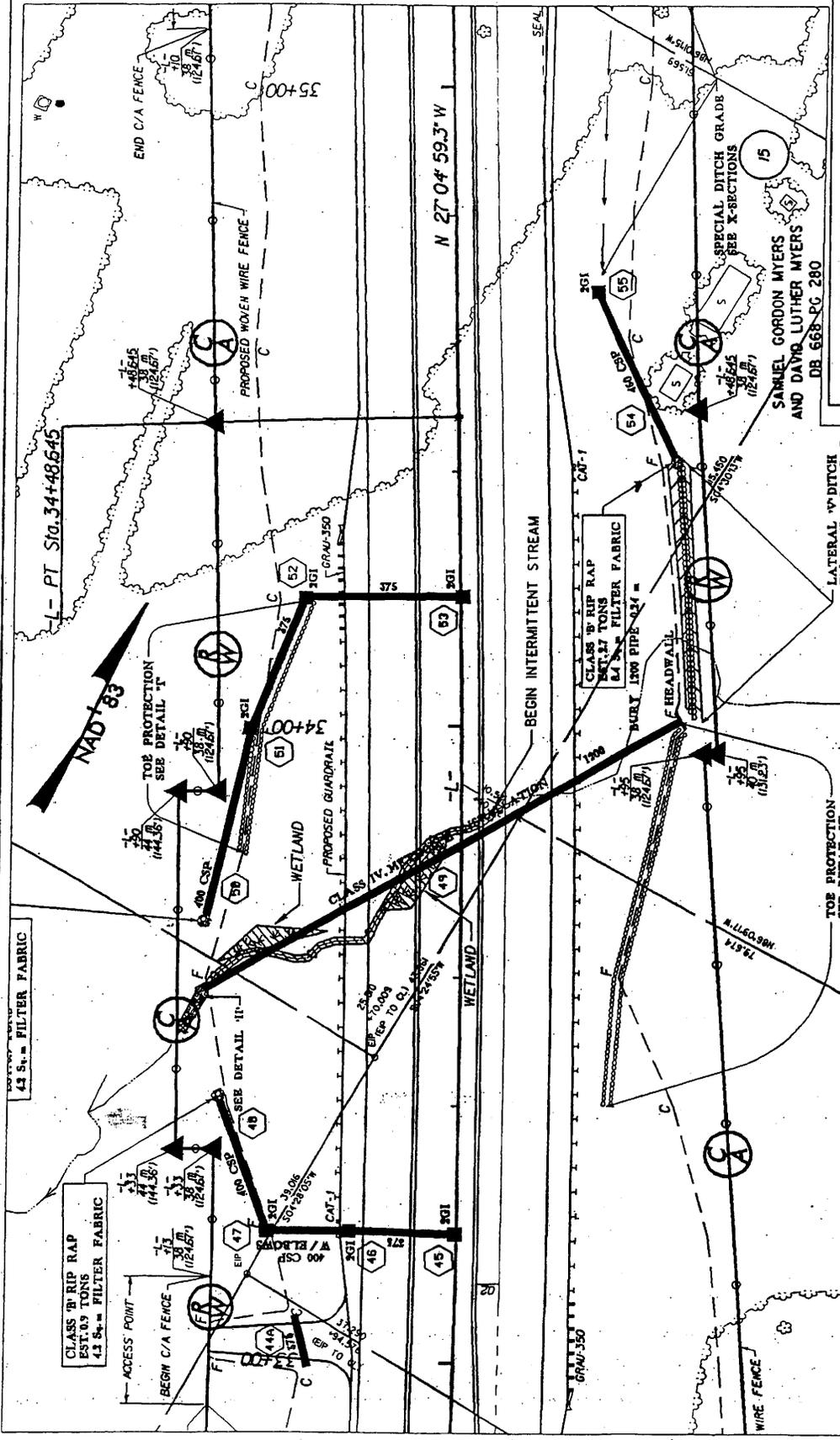


DENOTES TEMPORARY
 SURFACE WATER IMPACTS



SCALE





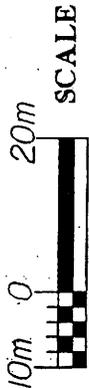
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DIVISION OF HIGHWAYS
DAVIDSON COUNTY

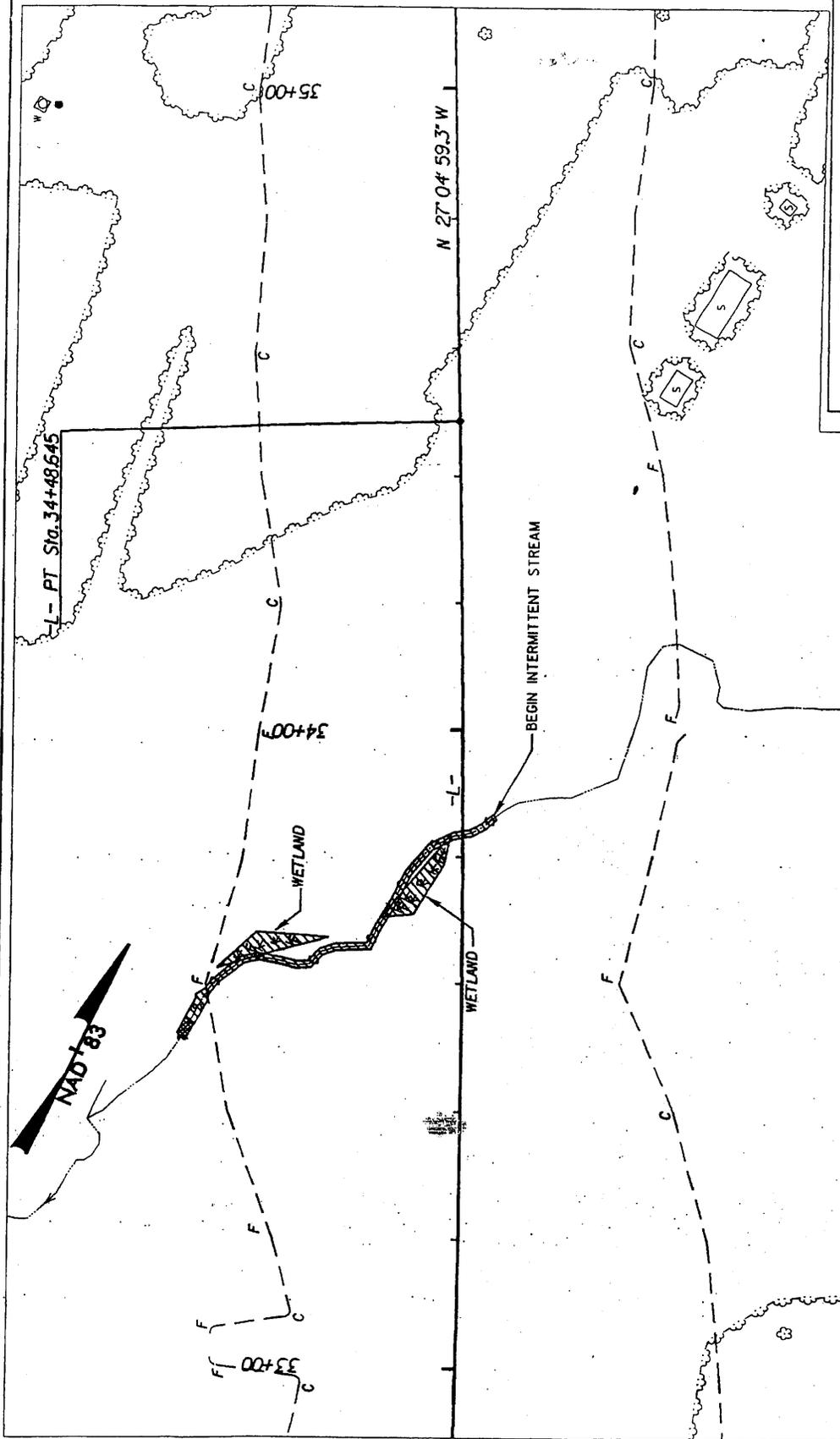
NC 109 FROM NORTH
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 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT #8.1600901 R-2568B
 SHEET 7 OF 40

SITE 2

-  DENOTES TEMPORARY SURFACE WATER IMPACTS
-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS





SITE 2 IMPACTS

-  DENOTES TEMPORARY SURFACE WATER IMPACTS
-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS

N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
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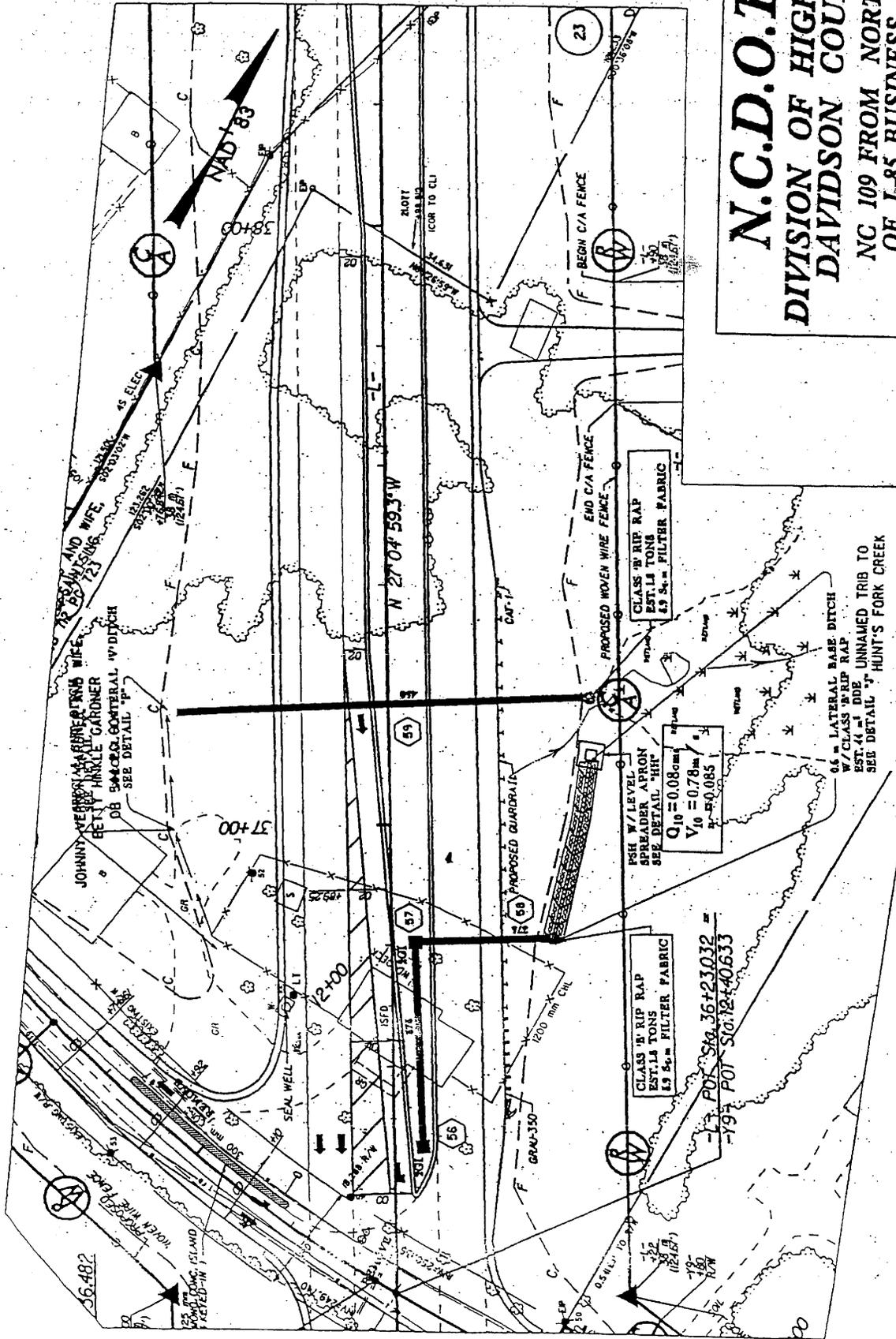
STATE PROJECT#8.1600901 R-2568B
 SHEET 8 OF 40

N.C.D.O.T. DIVISION OF HIGHWAYS DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

STATE PROJECT #8J600901 R-2564B
SHEET 9 OF 10

060404



SITE 2A

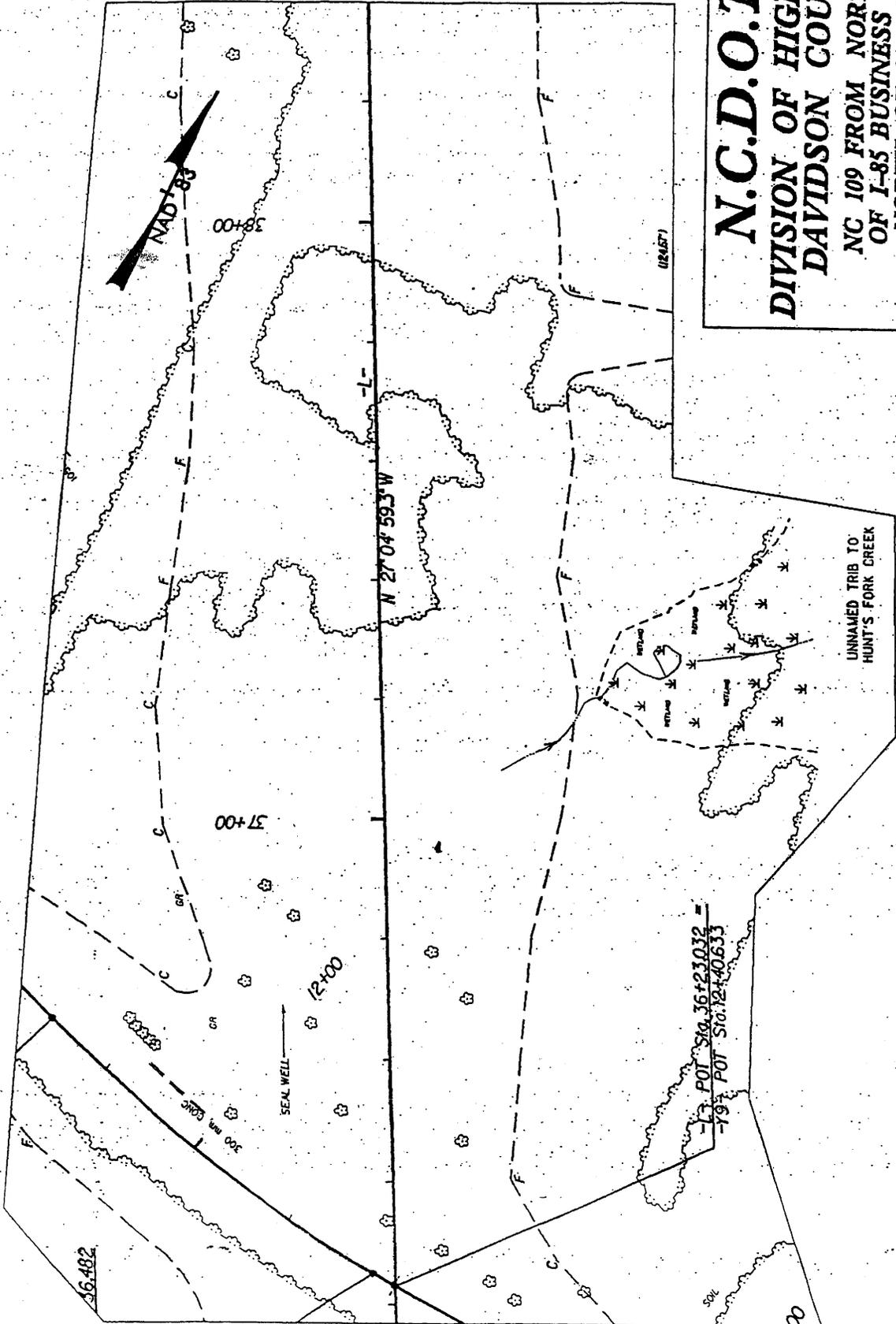


N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

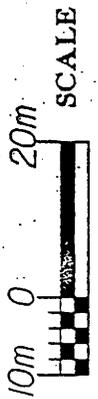
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SHEET 10 OF 40

060404

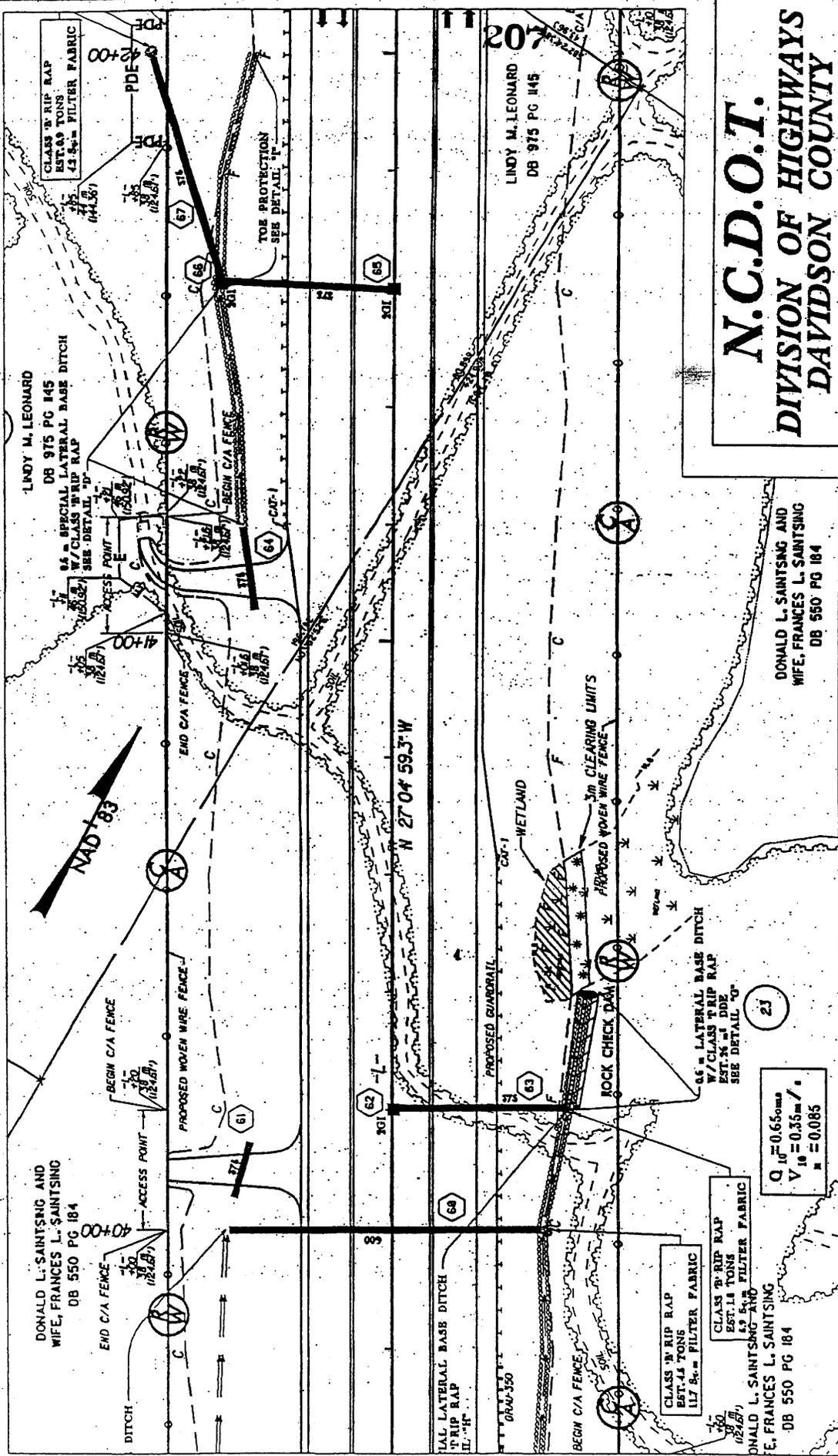


UNNAMED TRIB TO
HUNT'S FORK CREEK

SITE 2A IMPACTS



SCALE



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT # 81600901 R-2568B
 SHEET 11 OF 40

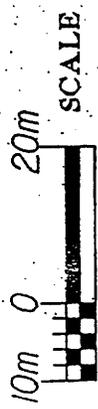
060404

 DENOTES MECHANIZED
 CLEARING IN WETLANDS

 DENOTES FILL IN
 WETLANDS



SITE 3



$$Q_{10} = 0.65 \text{ mm}$$

$$V_{10} = 0.35 \text{ mm} / \text{in.}$$

$$n = 0.085$$

CLASS 'B' RIP RAP
 EST. 44 TONS
 117 $\text{kg} =$ FILTER FABRIC

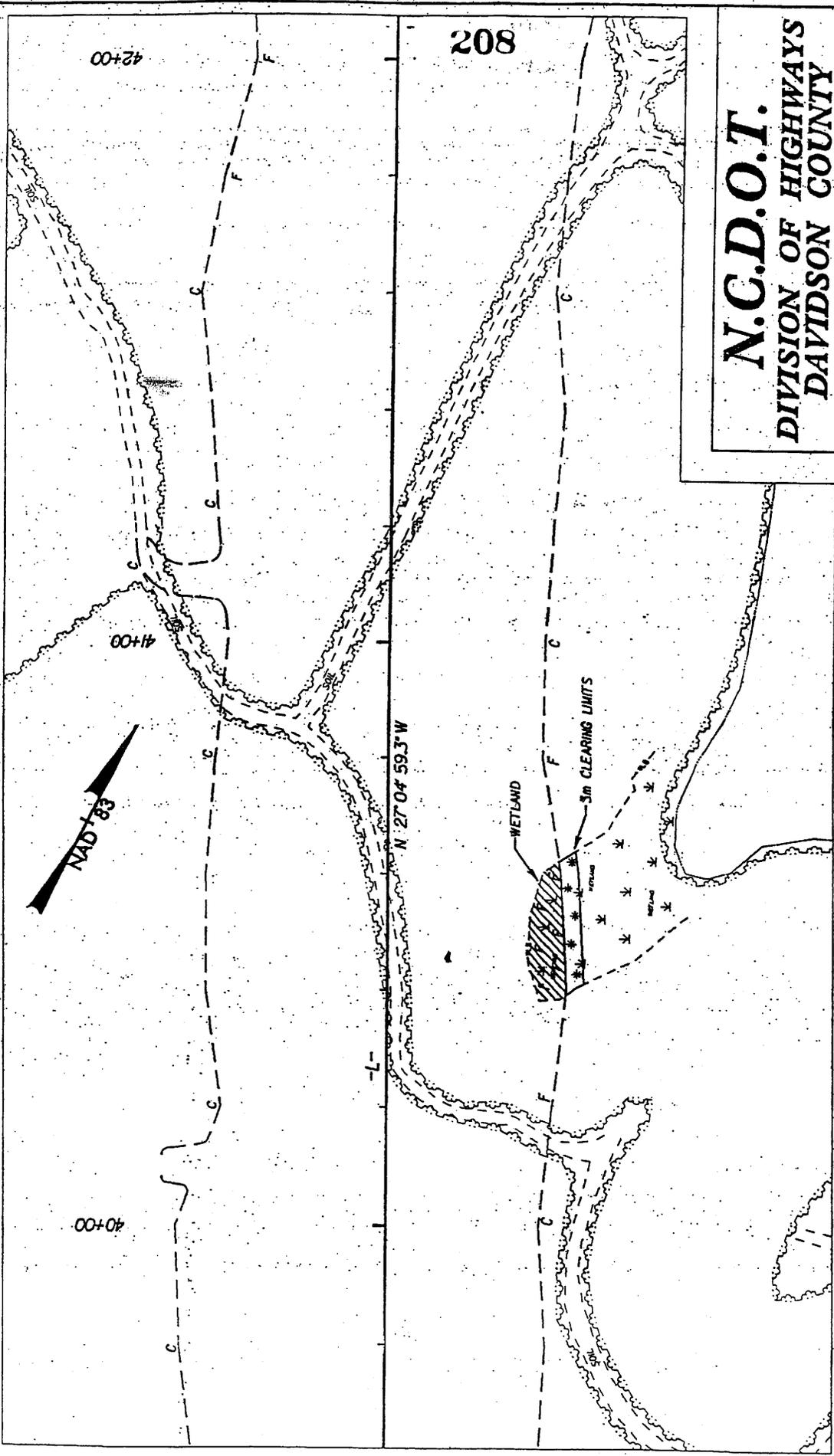
CLASS 'B' RIP RAP
 EST. 18 TONS
 62 $\text{kg} =$ FILTER FABRIC
 DONALD L. SAINTSING AND
 WIFE, FRANCES L. SAINTSING
 DB 550 PG 184

LINDY M. LEONARD
 DB 975 PG 145
 84 SPECIAL LATERAL BASE DITCH
 W/ CLASS 'B' RIP RAP
 SEE DETAIL "D"

LINDY M. LEONARD
 DB 975 PG 145

DONALD L. SAINTSING AND
 WIFE, FRANCES L. SAINTSING
 DB 550 PG 184





N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
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 NORTH OF LEDFORD M.S.

STATE PROJECT#J1600901 R-2568B
 SHEET 12 OF 40

060404

DENOTES FILL IN
 WETLANDS

DENOTES MECHANIZED
 CLEARING IN WETLANDS



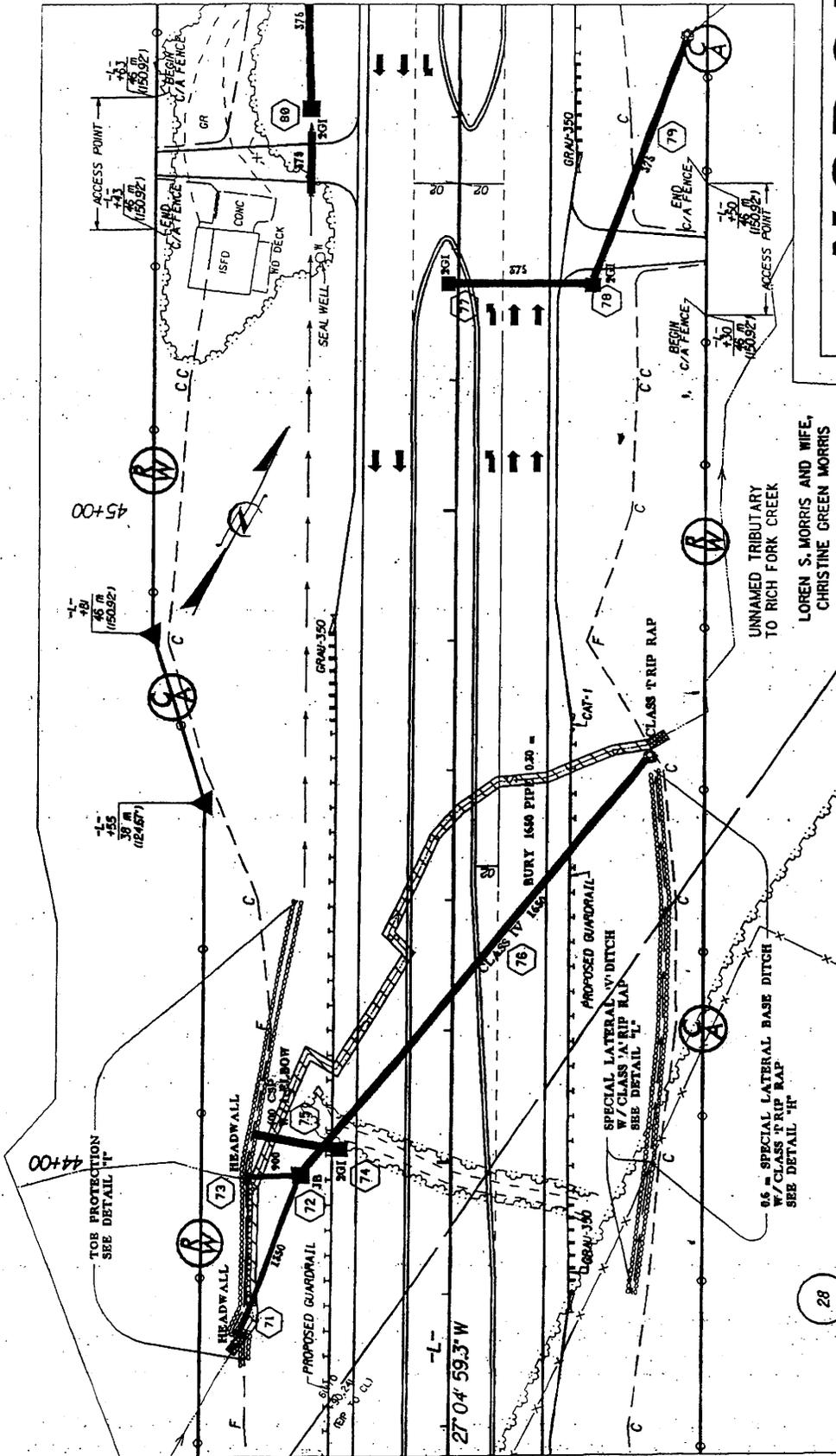
SCALE

SITE 3 IMPACTS

N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
 OF I-85 BUSINESS
 TO NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

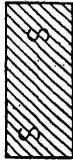
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 SHEET 13 OF 40

07/14/04

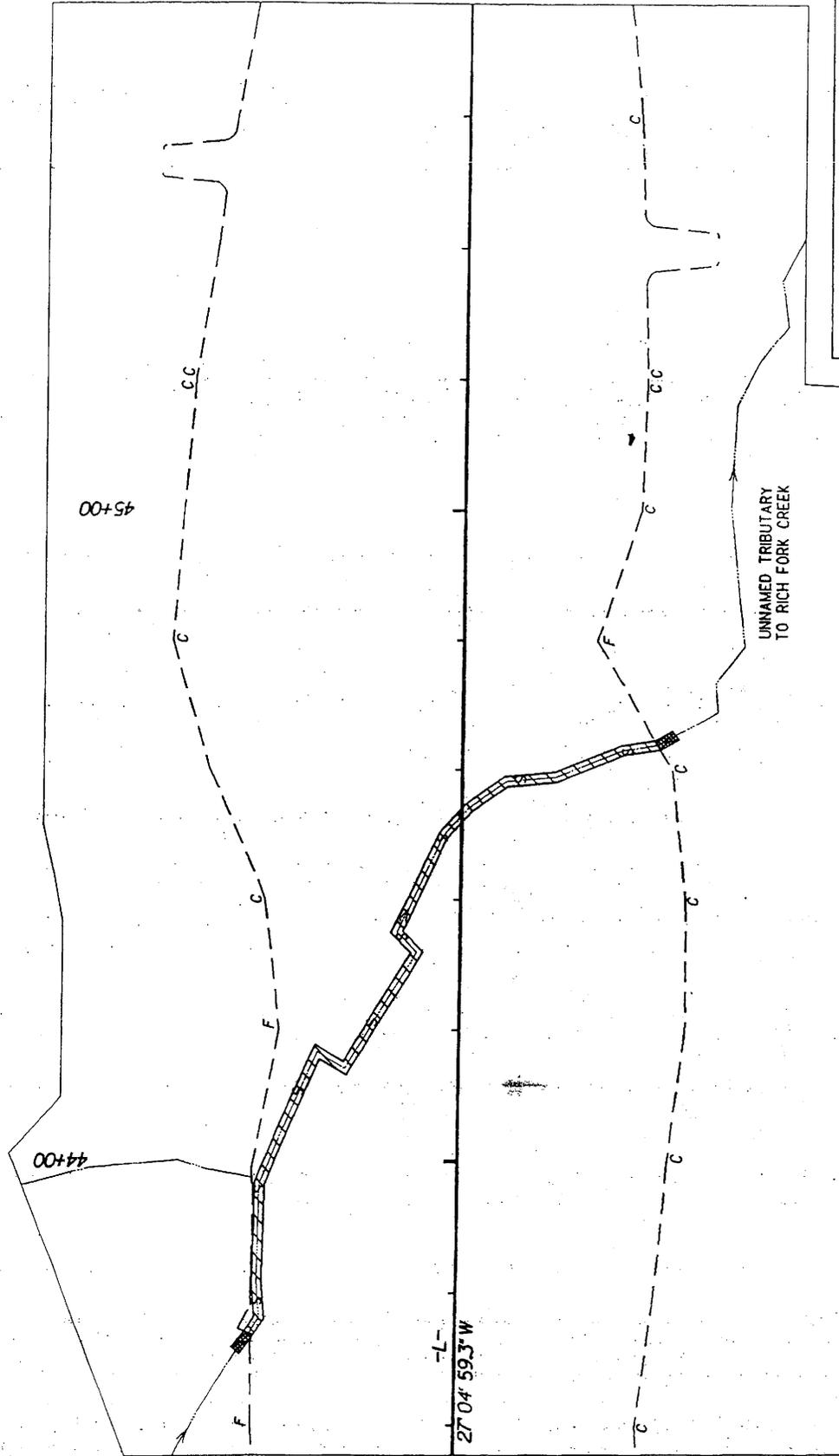


SITE 3A

10m 0 20m SCALE

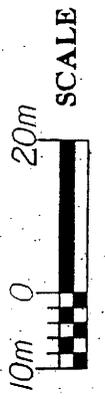
 DENOTES FILL IN SURFACE WATERS
 DENOTES FILL IN SURFACE WATERS

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N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
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 STATE PROJECT#8J600901 R-2568B
 SHEET 14 OF 40

SITE 3A IMPACTS



 DENOTES FILL IN SURFACE WATERS

 DENOTES FILL IN SURFACE WATERS

 DENOTES FILL IN SURFACE WATERS

N.C.D.O.T.

DIVISION OF HIGHWAYS

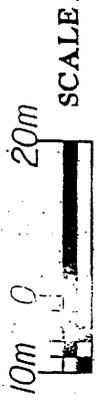
DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

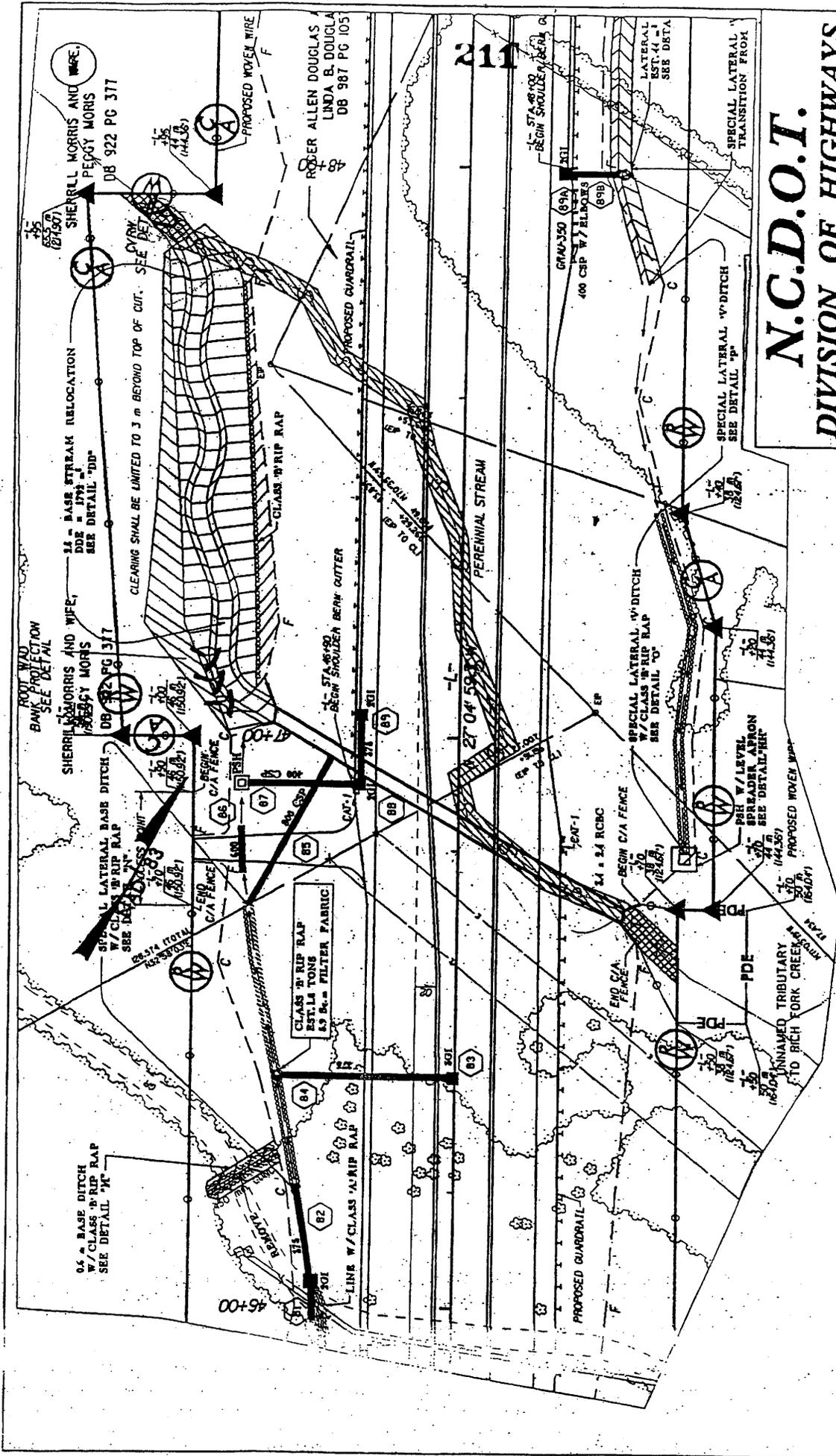
STATE PROJECT # R-160901 R-2565B
SHEET 15 OF 40

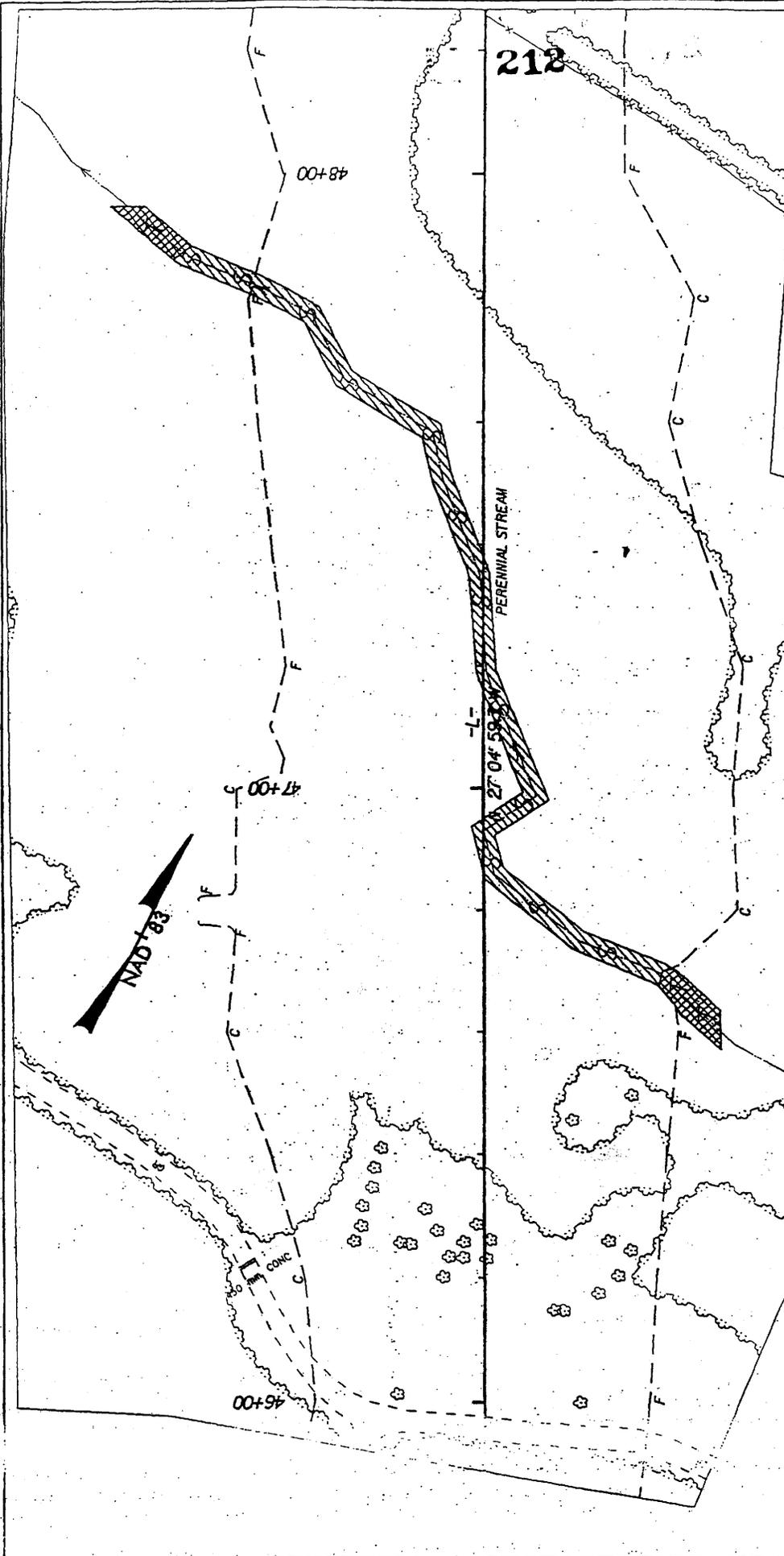
SITE 4

DENOTES TEMPORARY
SURFACE WATER IMPACTS



DENOTES FILL IN
SURFACE WATERS





N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.
 STATE PROJECT#81600901 R-2568B
 SHEET 16 OF 40

SITE 4 IMPACTS

 DENOTES TEMPORARY SURFACE WATER IMPACTS
 DENOTES FILL IN SURFACE WATERS

10m 0 20m
 SCALE

060404

Proposed Roadway Grade

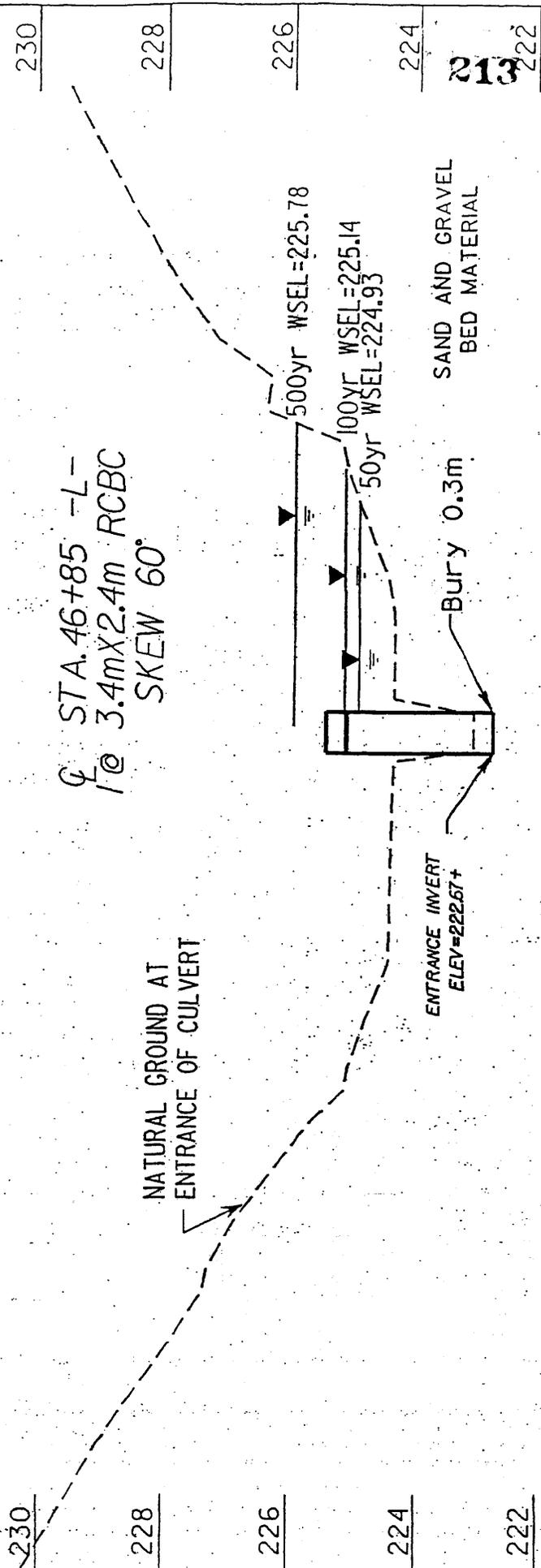
ST A. 46+85 -L-
1 @ 3.4m x 2.4m RCBC
SKEW 60°

NATURAL GROUND AT
ENTRANCE OF CULVERT

ENTRANCE INVERT
ELEV=222.67+

Bury 0.3m

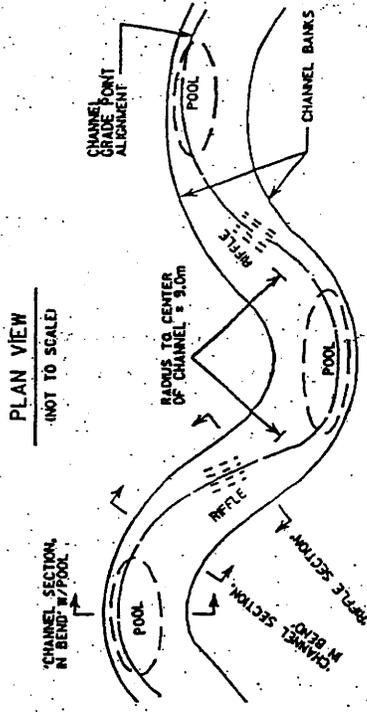
SAND AND GRAVEL
BED MATERIAL



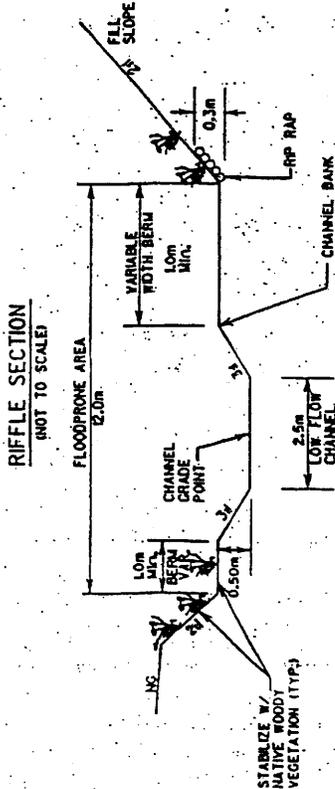
SITE 4 PROFILE



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH OF I-85
 BUSINESS TO NORTH OF SR
 1756 (LEXINGTON AVE.) NORTH
 OF LEDFORD MIDDLE SCHOOL
 STATE PROJECT#A1600901 R-2168B
 SHEET 17 OF 40
 12/12/02

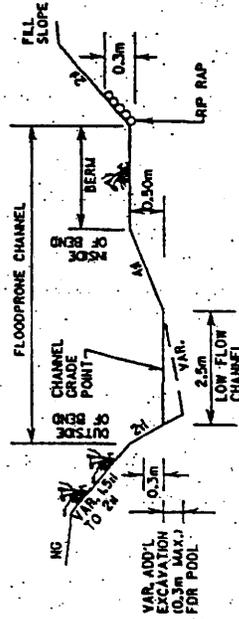


CHANNEL TO BE GRADED TO MATCH 'RIFFLE SECTION' AND 'CHANNEL SECTION, IN BEND' THROUGHOUT PROVIDING A SMOOTH TRANSITION BETWEEN EACH SECTION. EACH BEND SHOULD HAVE A POOL LOCATED ON THE OUTSIDE OF THE BEND.



LOW FLOW CHANNEL IS TO BE SHIFTED WITHIN FLOODPRONE CHANNEL BY VARYING BERM WIDTHS SO THAT LOW FLOW CHANNEL WILL SHIFT TOWARDS THE OUTSIDE OF THE MEANDER. ADDITIONALLY, LOW FLOW CHANNEL SIDE SLOPES ARE TO BE VARIED AS SHOWN BELOW.

CHANNEL SECTION, IN BEND (NOT TO SCALE)

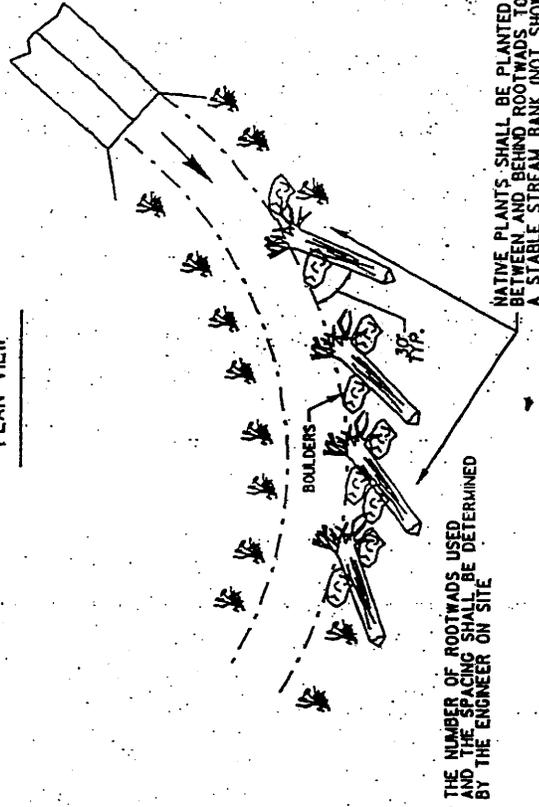


NATURAL CHANNEL DESIGN DETAILS
STA 47+20 TO STA 47+80 -L- LT.

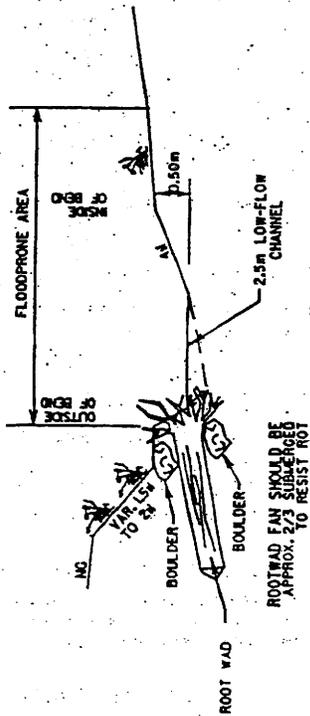
SITE 4

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
PROJECT: 8.1600901 (R-2568B)
NC 109 FROM NORTH OF I-85
BUSINESS TO NORTH OF SRI756
(LEXINGTON AVE.) NORTH OF
LEDFORD MIDDLE SCHOOL

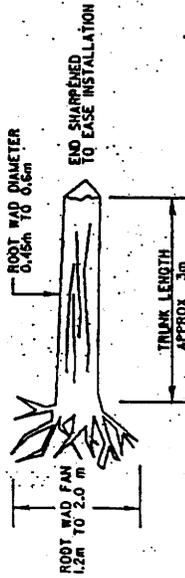
PLAN VIEW



CHANNEL SECTION, IN BEND
(NOT TO SCALE)



ROOT WAD DIMENSIONS



NATURAL CHANNEL DESIGN DETAILS
OUTLET OF CULVERT AT -L- 47+20 (LT)

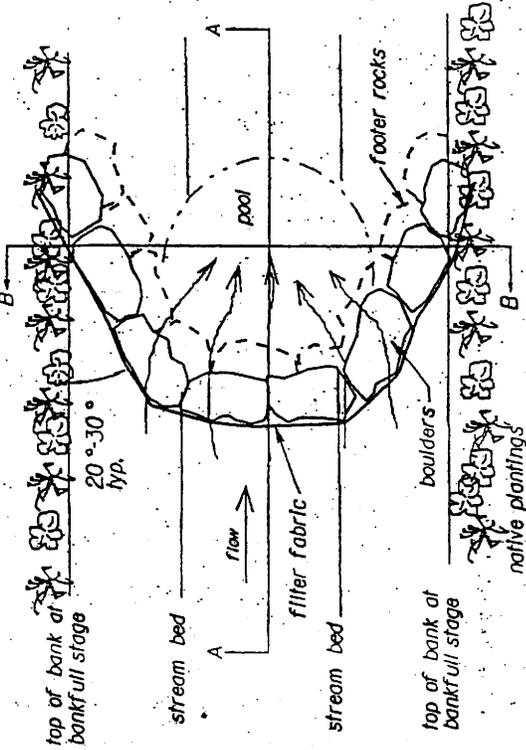
SITE 4

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
PROJECT: 8.1600901 (R-2568B)
NC 109 FROM NORTH OF
I-85 BUSINESS TO NORTH
OF SR 1756 (LEXINGTON
AVE.) NORTH OF LEDFORD
MIDDLE SCHOOL

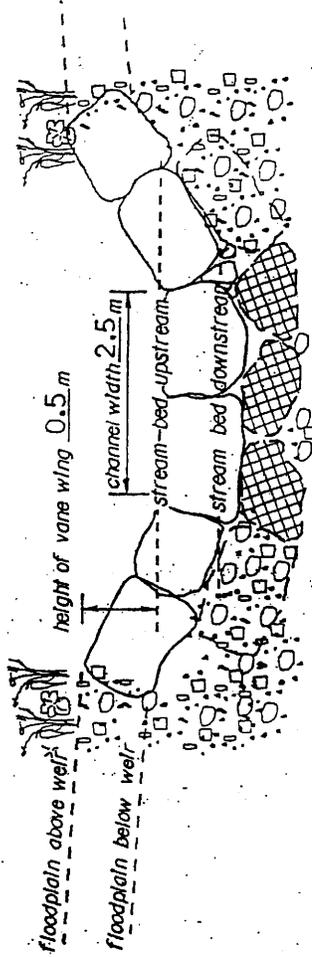
CROSS VANE ROCK WEIR DETAIL

SITE 4

PLAN VIEW



SECTION B-B

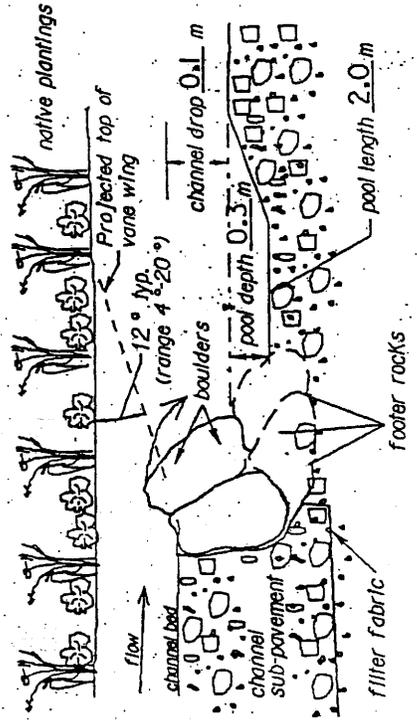


Note: Boulders should be native stone or shot rock, angular and oblong with axis approximately 1.2 m in length

216

Note: Rocks should fit tightly.
Trim filter fabric flush with top of rocks.

SECTION A-A



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

STATE PROJECT #BJ600901 R-2563B
SHEET 20 OF 40 12/12/02

SITE # 217

MORPHOLOGICAL MEASUREMENT TABLE

VARIABLES	EXISTING CHANNEL	PROPOSED REACH	USGS STATION	REFERENCE REACH
1) STREAM TYPE	G4c	C4		E4
2) DRAINAGE AREA	119ha	119ha		78ha
3) BANKFULL WIDTH	3.4m	5.5m		3.7m
4) BANKFULL MEAN DEPTH	0.5m	0.36m		0.45m
5) WIDTH/DEPTH RATIO	6.8	15.3		8.2
6) BANKFULL CROSS-SECTIONAL AREA	1.7m ²	2.12m ²		1.66m ²
7) BANKFULL MEAN VELOCITY	1.5m/s	0.95m/s		1.43m/s
8) BANKFULL DISCHARGE, Q_b	2.6m ³ /s	2.0m ³ /s		1.70m ³ /s
9) BANKFULL MAX DEPTH	0.57m	0.5m		0.52m
10) WIDTH OF FLOODPRONE AREA	4.0m	14m		8m
11) ENTRENCHMENT RATIO	1.2	2.5		2.2
12) MEANDER LENGTH	30m	27m		24m
13) RATIO OF MEANDER LENGTH TO BANKFULL WIDTH	8.8	4.9		6.5
14) RADIUS OF CURVATURE	11.6m	9m		6m
15) RATIO OF RADIUS OF CURVATURE TO BANKFULL WIDTH	3.4	1.6		1.62
16) BELT WIDTH	6.0m	12m		8m
17) MEANDER WIDTH RATIO	1.7	2.2		2.2
18) SINUOSITY (STREAM LENGTH/VALLEY LENGTH)	1.2	1.2		1.16
19) VALLEY SLOPE	0.0079	0.006		0.0129
20) AVERAGE SLOPE	0.0066	0.005		0.0111
21) POOL SLOPE	0.0022	0.002		0.004
22) RATIO OF POOL SLOPE TO AVERAGE SLOPE	0.33	0.40		0.36
23) MAXIMUM POOL DEPTH	0.15m	0.3m		0.24m
24) RATIO OF POOL DEPTH TO AVERAGE BANKFULL DEPTH	0.3	0.8		0.53
25) POOL WIDTH	2.0m	2.0m		1.8m
26) RATIO OF POOL WIDTH TO BANKFULL WIDTH	0.6	0.4		0.5
27) POOL TO POOL SPACING	17m	13m		15m
28) RATIO OF POOL TO POOL SPACING TO BANKFULL WIDTH	5.0	2.4		4.1
29) RATIO OF LOWEST BANK HEIGHT TO BANKFULL HEIGHT (OR MAX BANKFULL DEPTH)	2.3	1.0		1.8

NCDOT

DIVISION OF HIGHWAYS
DAVIDSON COUNTY

PROJECT: 8.1600901 (R-2568B)

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE)

NORTH OF LEDFORD M.S.

SHEET 21 OF 40

12/12/02

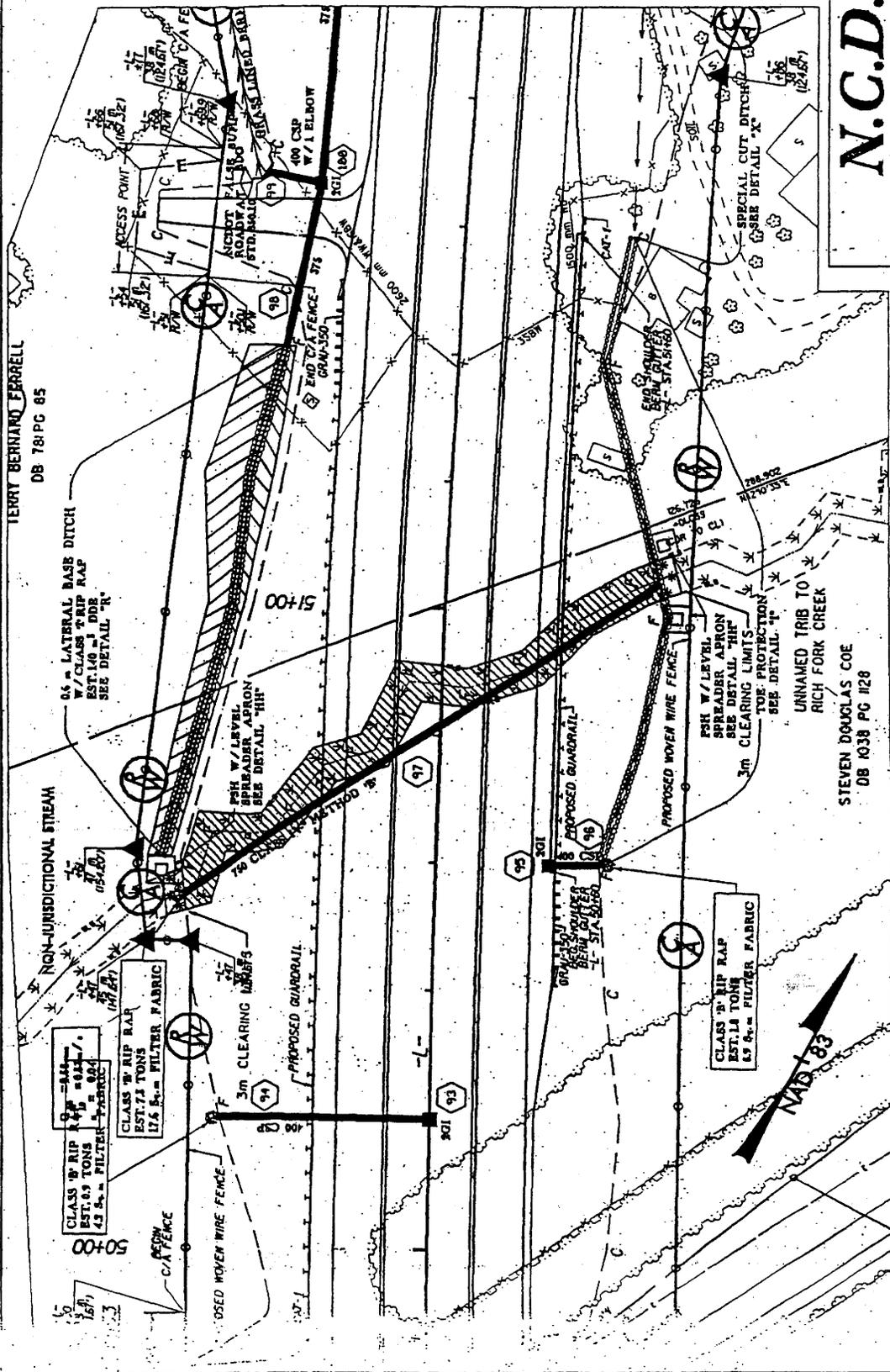
N.C.D.O.T. DIVISION OF HIGHWAYS DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

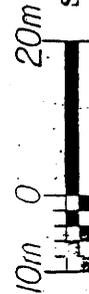
STATE PROJECT # 1600901 R-2568B

SHEET 22 OF 40

060404



SITE 5



SCALE



DENOTES FILL
IN WETLANDS



DENOTES MECHANIZED
CLEARING IN WETLANDS

TERRY BERNARD FERRELL
DB 78/PC 85

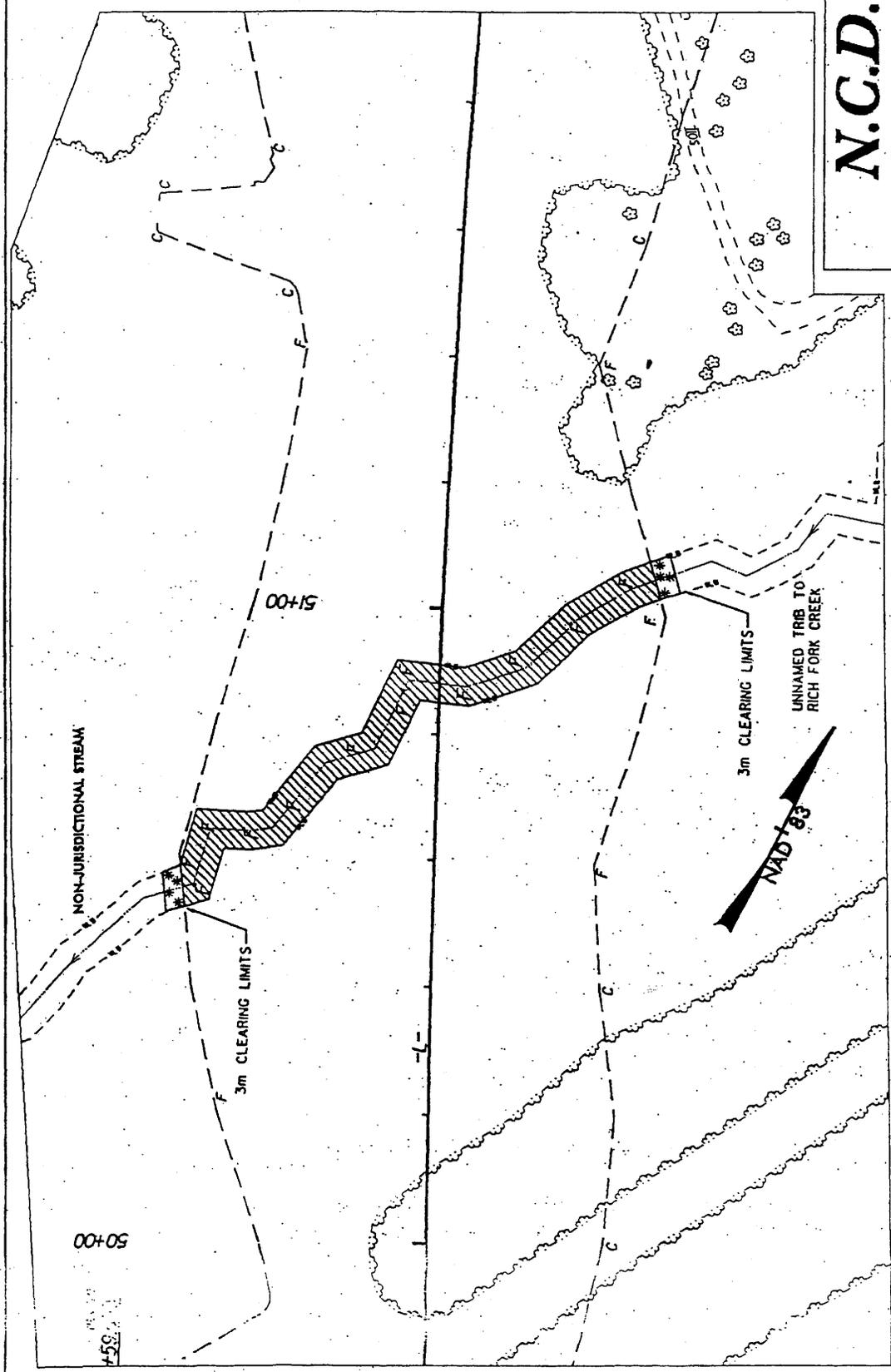
STEVEN DOUGLAS COE
DB 1038 PG 1128

N.C.D.O.T. DIVISION OF HIGHWAYS DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

STATE PROJECT #81600901 R-2562B
SHEET 23 OF 40

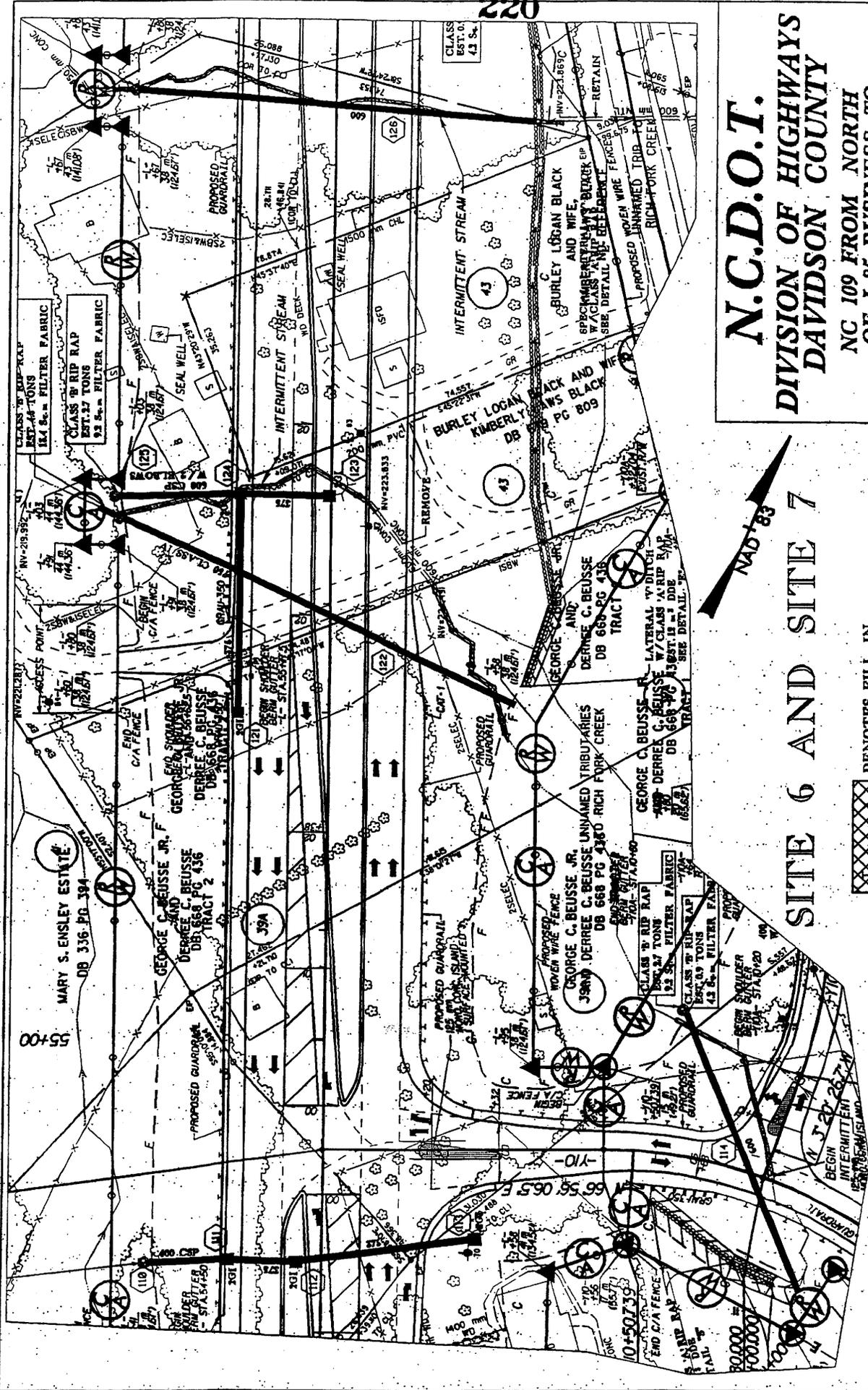
060404



SITE 5 IMPACTS

 DENOTES FILL IN WETLANDS
 DENOTES MECHANIZED CLEARING IN WETLANDS

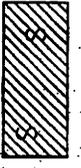


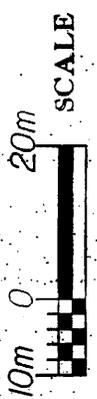


SITE 6 AND SITE 7

N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT # 21600901 R-2568B
 SHEET 24 OF 40
 07/4/04

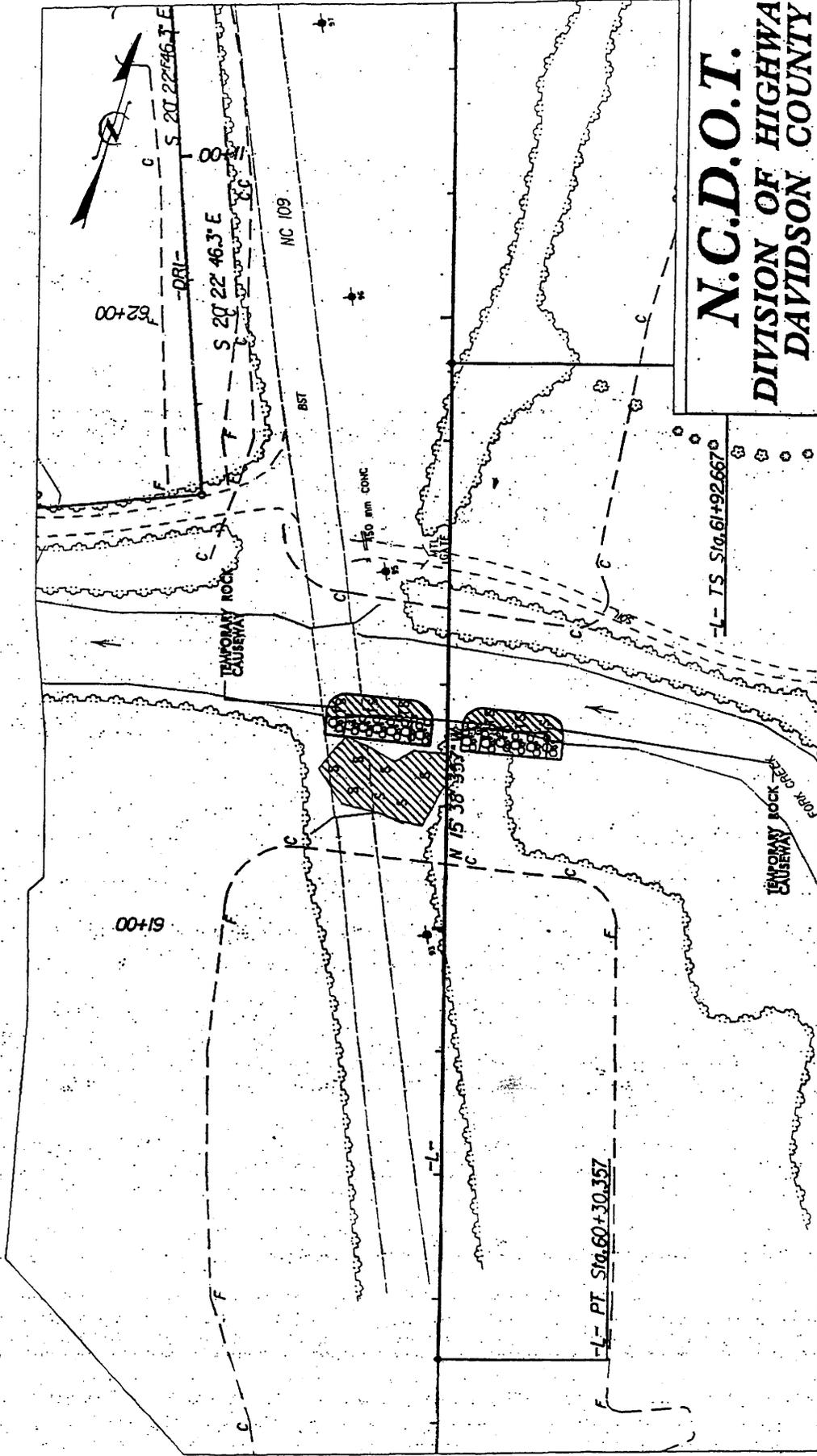
 DENOTES FILL IN SURFACE WATERS
 DENOTES FILL IN SURFACE WATERS



N.C.D.O.T. DIVISION OF HIGHWAYS DAVIDSON COUNTY

NC 109 FROM NORTH
OF I-85 BUSINESS TO
NORTH OF SR 1756
(LEXINGTON AVE.)
NORTH OF LEDFORD M.S.

STATE PROJECT#1600901 R-2568B
SHEET 27 OF 40



SITE 8 IMPACTS

DENOTES FILL IN SURFACE WATER



DENOTES TEMPORARY FILL IN SURFACE WATER



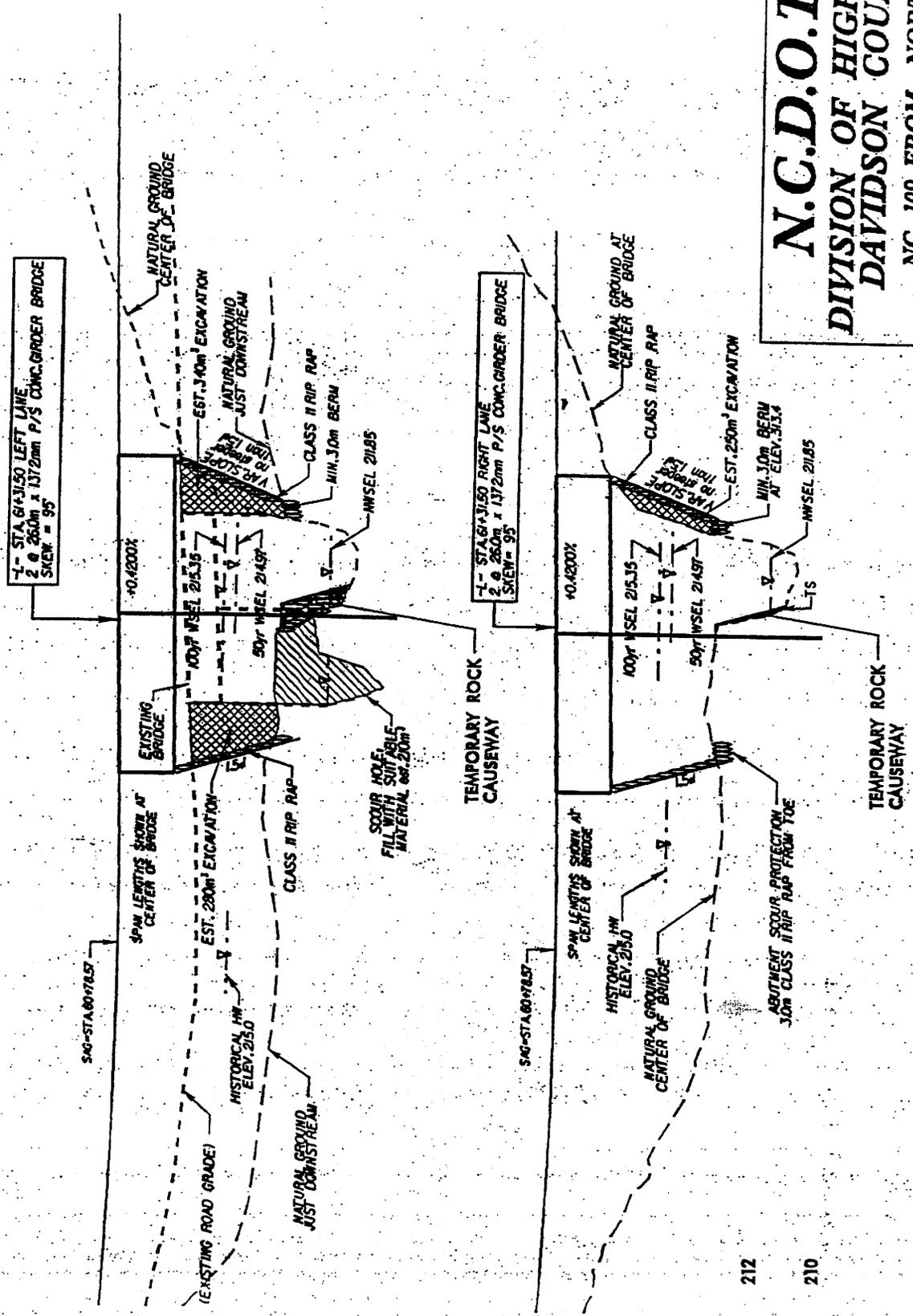
10m 0 20m

SCALE



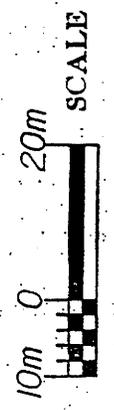
222
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214

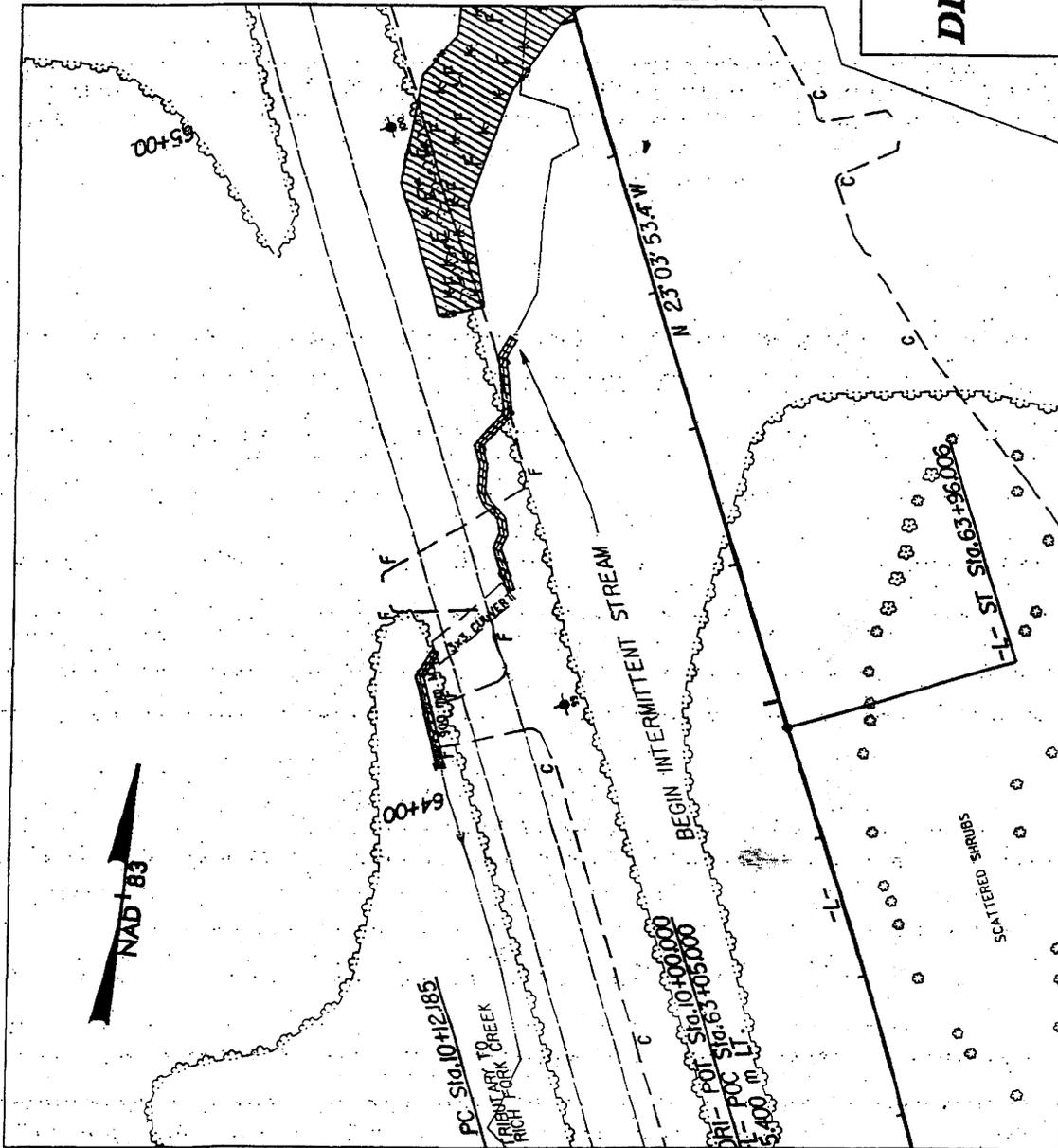
N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.
 STATE PROJECT #81600901 R-2568B
 SHEET 28 OF 40



SITE 8 PROFILE

DENOTES TEMPORARY FILL IN SURFACE WATER






 DENOTES TEMPORARY
 SURFACE WATER
 IMPACTS


 DENOTES EXCAVATION
 IN WETLAND

N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT#A1600901 R-2568B
 SHEET 30 OF 40

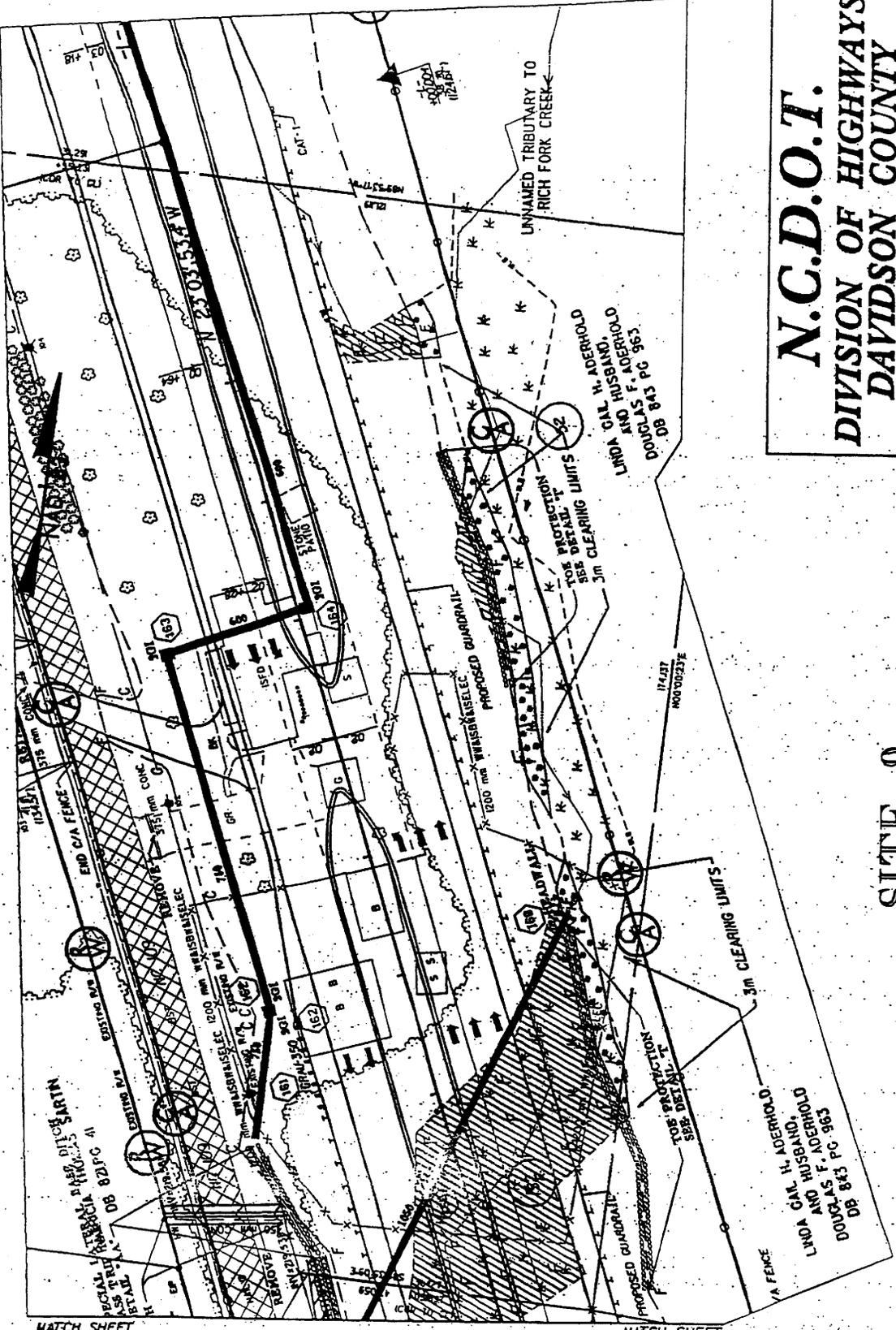
07/4/04

SITE 9 IMPACTS


 DENOTES FILL IN
 SURFACE WATERS

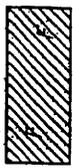

 DENOTES FILL
 IN WETLANDS

228



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NG 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD MS.
 STATE PROJECT #BJ600901 R-2568B
 SHEET 32 OF 40 060404

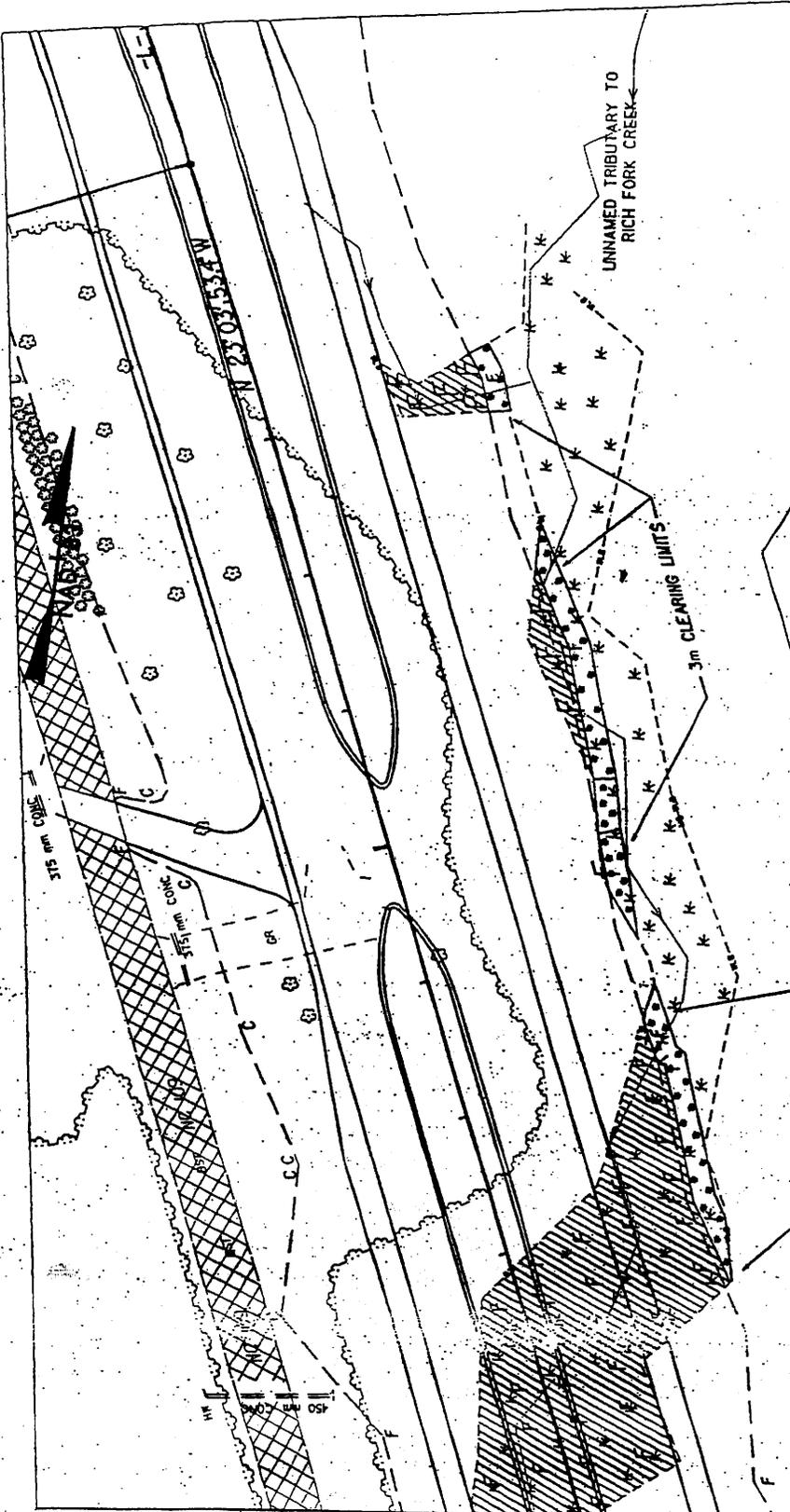
SITE 9

- * * * * *
- DENOTES CLEARING IN WETLANDS
- 
- DENOTES FILL IN WETLANDS



MATCH SHEET

MATCH SHEET



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC. 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT#8-1600901 R-2568B | 060404
 SHEET 33 OF 40

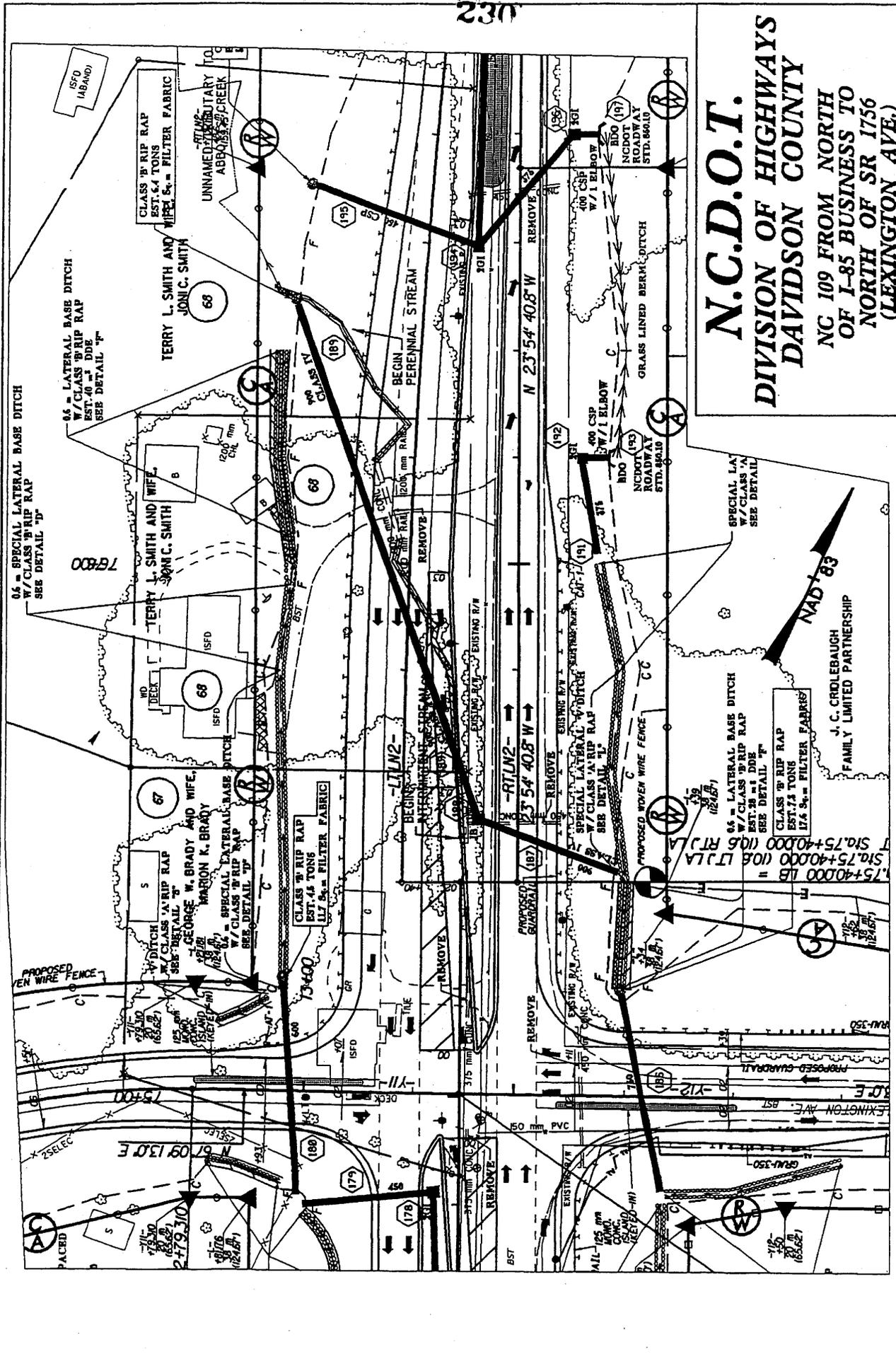
SITE 9 IMPACTS



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY

NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

STATE PROJECT #A160901 R-2568B
 SHEET 34 OF 40



10m 0 20m **SITE 10** SCALE

 DENOTES TEMPORARY SURFACE WATER IMPACTS
 DENOTES FILL IN SURFACE WATERS

06 - SPECIAL LATERAL BASE DITCH
 W/ CLASS 'B' RIP RAP
 SEE DETAIL 'D'

06 - LATERAL BASE DITCH
 W/ CLASS 'B' RIP RAP
 EST. 40 - 5 DDE
 SEE DETAIL 'F'

CLASS 'B' RIP RAP
 EST. 6.4 TONS
 W/ 1/2" S₁₀ - FILTER FABRIC

TERRY L. SMITH AND WIFE,
 IONIC C. SMITH

UNNAMED PERENNIAL CREEK
 APPROX. 25' WIDE

TERRY L. SMITH AND WIFE,
 IONIC C. SMITH

GEORGE W. BRADY AND WIFE,
 MARION K. BRADY

CLASS 'B' RIP RAP
 EST. 45 TONS
 W/ 1/2" S₁₀ - FILTER FABRIC

PERENNIAL STREAM
 BEGIN

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

GRASS LINED BERM DITCH

400 CSP
 W/I ELBOW

400 CSP
 W/I ELBOW

PROPOSED WOVEN WIRE FENCE

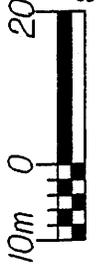
PROPOSED GUARDRAIL

PROPOSED GUARDRAIL

SPECIAL LATERAL BASE DITCH
 W/ CLASS 'A' RIP RAP
 SEE DETAIL 'F'

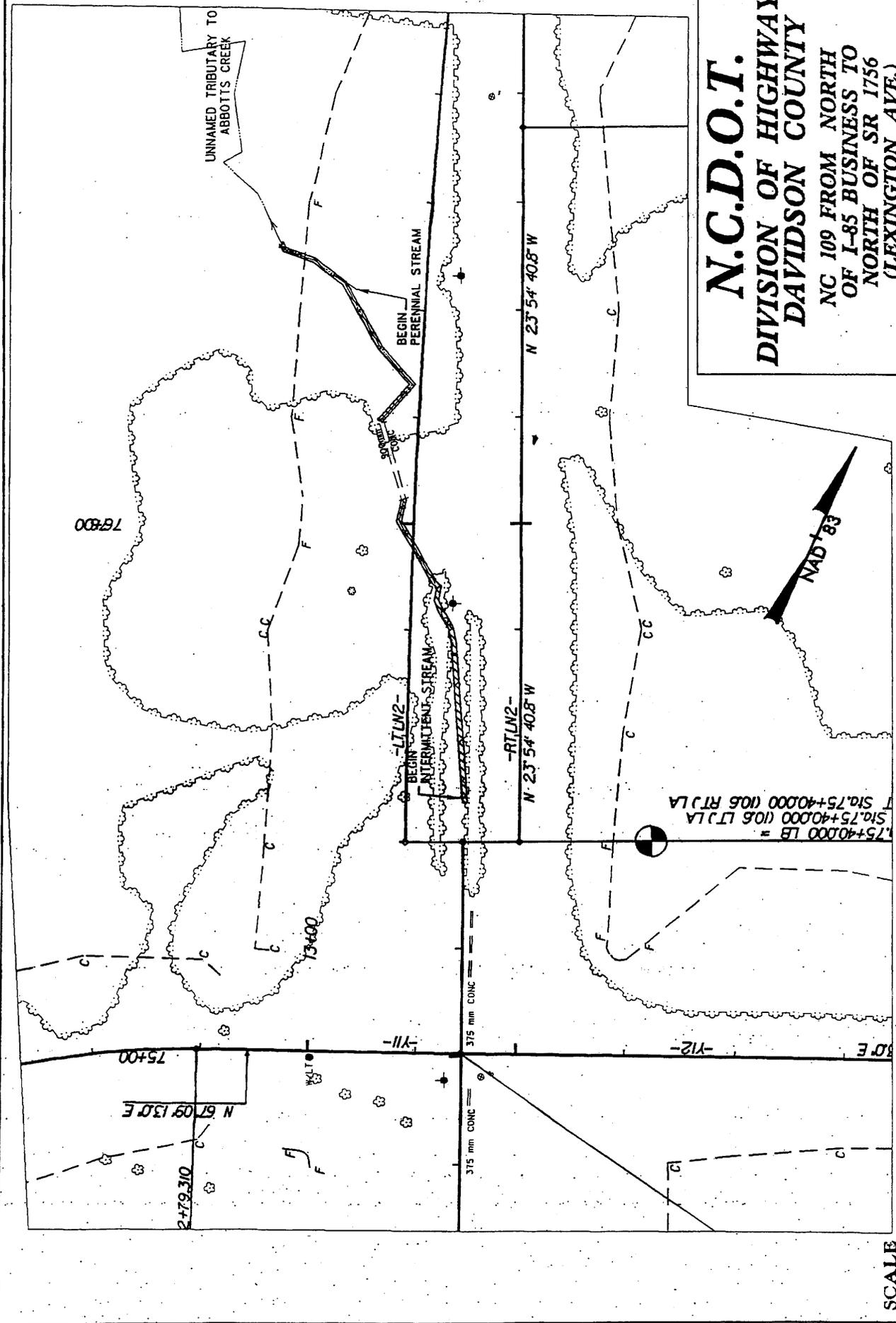
CLASS 'B' RIP RAP
 EST. 7.5 TONS
 W/ 1/2" S₁₀ - FILTER FABRIC

J. C. CRDEBAUGH
 FAMILY LIMITED PARTNERSHIP



N.C.D.O.T.
DIVISION OF HIGHWAYS
DAVIDSON COUNTY
 NC 109 FROM NORTH
 OF I-85 BUSINESS TO
 NORTH OF SR 1756
 (LEXINGTON AVE.)
 NORTH OF LEDFORD M.S.

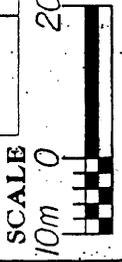
STATE PROJECT#8160091 R-2568B
 SHEET 35 OF 40 07/14/04



DENOTES FILL
 IN SURFACE
 WATERS

DENOTES
 TEMPORARY
 SURFACE WATER
 IMPACTS

**SITE 10
 IMPACTS**



75+40000 LB =
 STA. 75+40000 (105 LT) LA
 STA. 75+40000 (105 RT) LA

76+00

75+00

N 67° 09' 13.0" E

2+79.310

375 mm CONC

375 mm CONC

-RT LN2-
N 23° 54' 40.8" W

-RT LN2-
N 23° 54' 40.8" W

NAD 83

SCALE

10m 0

20m

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS				Natural Stream Design (m)	
			Fill In Wetlands (ha)	Temp. Fill In Wetlands (ha)	Excavation In Wetlands (ha)	Mechanized Clearing (Method III) (ha)	Fill In SW (Natural) (ha)	Fill In SW (Pond) (ha)	Temp. Fill In SW (ha)	Existing Channel Impacted (m)		
1	29+50-30+20 -L-	1200mm Pipe					0.0130				130	
2	33+55-33+80 -L-	1200mm Pipe	0.0071				0.0070				71	
2a***	37+20 -L-	no structure										
3	40+40-40+60 -L-	no structure	0.0110				0.0068					
3a	43+70-44+60 -L-	1650mm Pipe						0.0191			133	
4*	46+60-47+80 -L-	3.35 m X 2.44 m RCBC						0.0550			188	96
5	50+60-51+00 -L-	750mm Pipe	0.0585				0.0038					
6	10+60-11+00 -Y10-	600mm Pipe						0.0023			37	
6	55+60-56+00 -L-	750mm Pipe						0.0063			88	
7	56+70 -L-	600mm Pipe						0.0047			83	
8**	61+31.50 -L-	2@26mX1372mm P/S Conc. Girder Bridge						0.0198		0.0102	30	
9	64+00-66+60 -L-	1050mm Pipe	0.1754		0.0136	0.0276	0.0060				43	
10	75+50-76+50 -L-	900mm Pipe						0.0091			107	
TOTALS:			0.252	0	0.0136	0.038	0.142		0.010		910.5	96

NCDOT
 DIVISION OF HIGHWAYS
 DAVIDSON COUNTY
 PROJECT 8.1600901 (R-2568B)
 NC 109 FROM NORTH OF I-85
 BUSINESS TO NORTH OF SR1756
 (LEXINGTON AVE.) NORTH OF
 LEDFORD MIDDLE SCHOOL
 SHEET 36 OF 40

Sites 1, 2, 9, 10: Includes 3m of Temporary impacts for pipe installation for each site.
 Sites 3a, 6 & 7: Includes 6m of Temporary impacts for pipe installation for each site.
 * Site 4: Includes 25m of temporary impact for culvert/stream construction.
 ** Site 8: Channel impacts are temporary only. Permanent impacts at this site are associated with the fill of a natural scour hole adjacent to the stream channel.
 *** Site 2a: Although no impacts will occur at this site, it has been included in the permit drawings to demonstrate avoidance.

WETLAND PERMIT IMPACT SUMMARY											
WETLAND IMPACTS					SURFACE WATER IMPACTS						
Site No.	Station (From/To)	Structure Size / Type	Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	Temp. Fill In SW (ac)	Existing Channel Impacted (ft)	Natural Stream Design (ft)
1	29+50-30+20 -L-	48" Pipe					0.03			427	
2	33+55-33+80 -L-	48" Pipe	0.02				0.02			233	
2a***	37+20 -L-	no structure									
3	40+40-40+60 -L-	no structure	0.03			0.02					
3a	43+70-44+60 -L-	66" Pipe					0.05			437	
4*	46+60-47+80 -L-	11' X 8' m RCBC					0.14			617	315
5	50+60-51+00 -L-	30" Pipe	0.14			0.01					
6	10+60-11+00 -Y10-	24" Pipe					0.01			121	
6	55+60-56+00 -L-	30" Pipe					0.02			289	
7	56+70 -L-	24" Pipe					0.01			273	
8**	61+31.50 -L-	2@85' X 54" P/S Conc. Girder Bridge					0.05		0.030	98	
9	64+00-66+60 -L-	42" Pipe	0.43		0.03	0.07	0.01			141	
10	75+50-76+50 -L-	36" Pipe					0.02			351	
TOTALS:			0.62		0.03	0.100	0.36		0.03	2987	315

NCDOT

DIVISION OF HIGHWAYS
 DAVIDSON COUNTY
 PROJECT 8.1600901 (R-2568B)
 NC 109 FROM NORTH OF I-85
 BUSINESS TO NORTH OF SR1756
 (LEXINGTON AVE.) NORTH OF
 LEDFORD MIDDLE SCHOOL

Sites 1, 2, 9, 10: Includes 10ft of Temporary impacts for pipe installation for each site.
 Sites 3a, 6 & 7: Includes 20ft of Temporary impacts for pipe installation for each site.
 * Site 4: Includes 82 feet of Temporary impact for culvert/stream construction.
 ** Site 8: Channel impacts are temporary only. Permanent impacts at this site are associated with the fill of a natural scour hole adjacent to the stream channel.
 *** Site 2a: Although no impacts will occur at this site, it has been included in the permit drawings to demonstrate avoidance.

Site No.	Property Owner Name	234 Property Owner Address
1	John J. and Catherine E. Seta Edwin Chandler Gable W.D. Talley and wife Kara Lee Talley Terry J. Elledge and wife Dianne E. Elledge	3620 Dunhurst Dr., Pfafstown, NC 27040 PO Box 5393, High Point, NC 27262-5393 257 Reese Road, High Point, NC 27265-9262 PO Box 1535, Welcome, NC 27374
2	Juanita S. Thomas and Wilma S. Brown Terry L. LaBonte and wife Kimberly J. LaBonte Samuel Gordon Myers and David Luther Myers Eddie A. Harmon	1224 Sunset Dr., Asheboro, NC 27203-5126 6810 Colonial Club Dr., Thomasville, NC 27360 514 Garner Towers Lane, Garner, NC 27529 7266 Midway Sch. Rd., Thomasville, NC 27360
2A	Johnny Vernon Gardner and wife, Betty Hinkle Gardner	7157 Midway Sch. Rd., Thomasville, NC 27360
3	Donald L. Saintsing and wife Frances L. Saintsing Lindy M. Leonard	7026 Midway Sch. Rd., Thomasville, NC 27360 6919 Midway Sch. Rd., Thomasville, NC 27360
3A	Loren S. Morris and wife Christine Green Morris	795 Echo Trail, Thomasville, NC 27360
4	Loren S. Morris and wife Christine Green Morris Sherrill Morris and wife Peggy Morris Roger Allen Douglas and wife Linda B. Douglas	795 Echo Trail, Thomasville, NC 27360 123 Von Logan Dr., Thomasville, NC 27360 200 Echo Trail, Thomasville, NC 27360

List of Property Owners

NC Dept. of Transportation
 Division of Highways
 Davidson County
 Project: 8.1600901 (R-2568B)

NC 109 From North of I-85 Business to North of SR 1756 (Lexington Ave.) North of Ledford M.S

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Site No.	Property Owner Name	Property Owner Address
5	Steven Douglas Coe Terry Bernard Ferrell	273 Reese Road, High Point, NC 27265-9262 2651 N NC Hwy 109, Thomasville, NC 27360-9804
6 & 7	Troy Lee Curry George C. Beusse Jr. and Derree C. Beusse Burley Logan Black and wife Kimberly Laws Black Kenneth Michael Darr and wife Tamara Ingram Darr	168 Troy's Haven, Thomasville, NC 27360-9804 140 Troy's Haven, Thomasville, NC 27360-9804 2887 N NC Hwy 109, Thomasville, NC 27360-9804 PO Box 7163, High Point, NC 27264
8	Charles W. Hiatt and wife Doris S. Hiatt Marvin G. Woempner and wife Peggy S. Woempner W. C. Bodenheimer	3490 N NC Hwy 109, Thomasville, NC 27360-9255 345 Lloyd Murphy Rd., Thomasville, NC 27360-9243 528 Glenn Drive, Thomasville, NC 27360-9247
9	Marvin G. Woempner and wife Peggy S. Woempner Charles W. Hiatt and wife Doris S. Hiatt Patricia Thomas Sartin Linda Gail H. Aderhold and husband Douglas F. Aderhold E.S. Welborn and wife Frances M. Welborn	345 Lloyd Murphy Rd., Thomasville, NC 27360 3490 N Hwy 109, Thomasville, NC 27360-9255 3475 N Hwy 109, Thomasville, NC 27360 3490 N Hwy 109, Thomasville, NC 27360 4890 W. Lexington Ave., High Point, NC 27265-9238
10	Davidson Co. Board of Education E.S. Welborn and wife Frances M. Welborn	3954 N Hwy 109, Thomasville, NC 27360 4890 W. Lexington Ave., High Point, NC 27265-9238

List of Property Owners

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Davidson County
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NC 109 From North of I-85 Business to North of SR 1756 (Lexington Ave.) North of Ledford M.S

Site No.	Property Owner Name	Property Owner Address
10	Thomas Woodrow Branson George W. Brady and wife Marion K. Brady Terry L. Smith and wife Joni C. Smith J. C. Cridlebaugh Family Limited Partnership	7401 Old Greensboro Rd., Thomasville, NC 4043 N Hwy 109, Thomasville, NC 27360 4083 N Hwy 109, Thomasville, NC 27360 3632 W. Lexington Ave. Extension. High Point, NC 27265

List of Property Owners

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NC 109 From North of I-85 Business to North of SR 1756 (Lexington Ave.) North of Ledford M.S

Monitoring Data Record

Project Title: _____ COE Action ID: 200121280

Stream Name: _____ DWQ Number: _____

City, County and other Location Information: _____

Date Construction Completed: _____ Monitoring Year: () of 5

Ecoregion: _____ 8 digit HUC unit _____

USGS Quad Name and Coordinates: _____

Rosgen Classification: _____

Length of Project: _____ Urban or Rural: _____ Watershed Size: _____

Monitoring DATA collected by: _____ Date: _____

Applicant Information:

Name: _____

Address: _____

Telephone Number: _____ Email address: _____

Consultant Information:

Name: _____

Address: _____

Telephone Number: _____ Email address: _____

Project Status: _____**Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.):** Level 1 ~~2~~ ~~3~~Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3***Section 1. PHOTO REFERENCE SITES***(Monitoring at all levels must complete this section)*

Attach site map showing the location and angle of all reference photos with a site designation (name, number, letter, etc.) assigned to each reference photo location. Photos should be provided for all structures and cross section locations, should show both banks and include an upstream and downstream view. Photos taken to document physical stability should be taken in winter. Photos taken to document vegetation should be taken in summer (at representative locations). Attach photos and a description of each reference photo or location. We recommend the use of a photo identification board in each photo to identify location.

Total number of reference photo locations at this site: _____**Dates reference photos have been taken at this site:** _____**Individual from whom additional photos can be obtained (name, address, phone):** _____

Other Information relative to site photo reference: _____

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL

Attach plan sheet indicating reference photos.

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Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action: _____

ADDITIONAL COMMENTS: _____

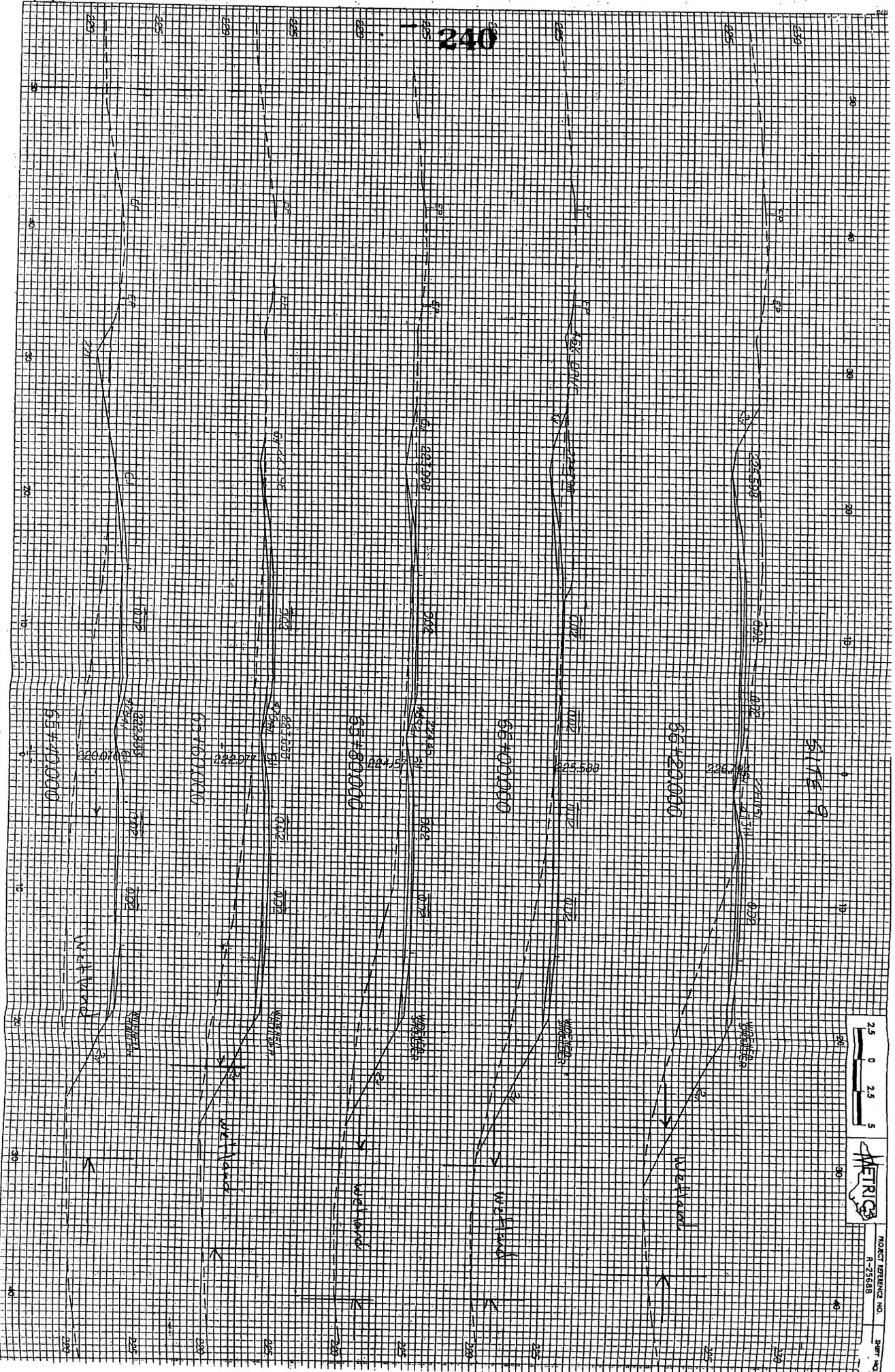
If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

Date Inspected	Station Number				
Structure Type					
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?					
Other problems noted?					

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.

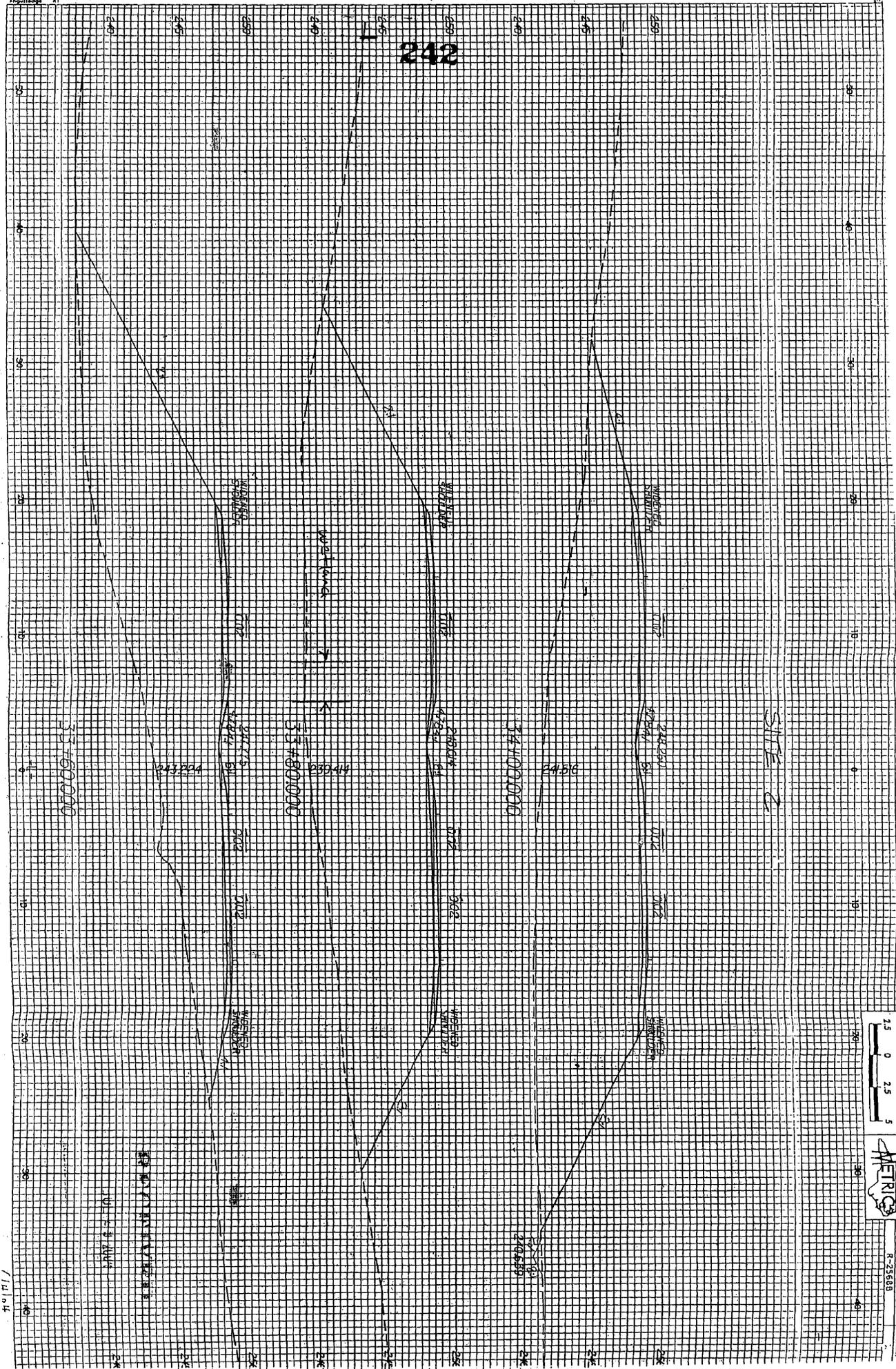


METERS

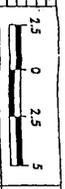
NO. OF SURVEY NO. 240
R-25508

11/11

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SITE 2



PROJECT REFERENCE NO.
R-25688
SHEET

11/11/04

