

PROJECT SPECIAL PROVISION

(10-18-95)

Z-1

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.

<u>PERMIT</u>	<u>AUTHORITY GRANTING THE PERMIT</u>
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:

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS 325
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890
November 4, 2008

Regulatory Division

Action ID SAW-200801413

Dr. Gregory J Thorpe, PhD, Manager
Project Development and Environmental Analysis Branch
N.C. Department of Transportation
Division of Highways
1589 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Dr. Thorpe:

Enclosed is a Department of the Army permit to directly discharge dredged and/or fill material into jurisdictional wetlands to facilitate the construction of Fayetteville Outer Loop, Transportation Improvements Project X-0002B & C and U-~~2159~~³²⁵, State Project Number 8.2441301 and 8.T441302, Cumberland, Hoke and Robeson Counties, North Carolina. The proposed 27.8 mile controlled-access freeway is located beginning at an interchange with I-95 just south of SR 1718 (Green Spring Road) in Robeson County, continues north through Cumberland County, turns eastward along the southern boundary of the Fort Bragg Military Reservation, and ends just west of US 401 (Ramsey Street).

Any deviation in the authorized work will likely require modification of this permit. If a change in the authorized work is necessary, you should promptly submit revised plans to the Corps showing the proposed changes. You may not undertake the proposed changes until the Corps notifies you that your permit has been modified.

Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant conditions require that:

- a. You must complete construction before December 31, 2011.
- b. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You must notify this office in advance as to when you intend to commence and complete work.

You should address all questions regarding this authorization to Richard K. Spencer, Wilmington Regulatory Field Office at (910) 251-4172.

Sincerely,


Jefferson M. Ryscavage
Colonel, U.S. Army
District Commander

Enclosures

Copy Furnished (with enclosures):

Chief, Source Data Unit
NOAA/National Ocean Service
ATTN: Sharon Tear N/CS261
1315 East-West Hwy., Rm 7316
Silver Spring, Maryland 20910-3282

Copies Furnished (with special conditions and plans):

Mr. Ronald J Mikulak, Chief
Wetlands Regulatory Section
61 Forsyth Street
Atlanta, Georgia 30303

Mr. Pete Benjamin
U.S. Fish and Wildlife Service
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Mr. Ron Sechler
National Marine Fisheries Service
Pivers Island
Beaufort, North Carolina 28516

Mr. Doug Huggett
Division of Coastal Management
N.C. Department of Environment
and Natural Resources
400 Commerce Avenue
Morehead City, North Carolina 28557

Mr. David Rackley
National Marine Fisheries Service
219 Fort Johnson Road
Charleston, South Carolina 29412-9110

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

Applicant: North Carolina Department of Transportation	File Number: 2008-01413	Date: October 23, 2008
Attached is:		See Section below
<input checked="" type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/>	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.

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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. Richard K. Spencer, Regulatory Project Manager
U.S. Army Corps of Engineers, Wilmington District
Wilmington Regulatory Field Office
69 Darlington Avenue
Wilmington, North Carolina 228402

If you only have questions regarding the appeal process you may also contact:

Mr. Michael Bell, 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:

DIVISION ENGINEER:
Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490

DEPARTMENT OF THE ARMY PERMIT

Permittee **NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**

Permit No. **2008-01413**

Issuing Office **USAED, Wilmington**

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: **Directly discharge dredged or fill material into waters of the United States associated with construction of the Fayetteville Outer Loop from I-95 South of Fayetteville to NC 24/87 in Cumberland and Robeson Counties, North Carolina.**

Project Location: **In the Lumber River, Hydrologic Cataloging Unit 03040203 and the Cape Fear River, Hydrologic Cataloging Unit 03030004. The project is more specifically located starting at Latitude 34.89727 N, Longitude 78.95899 W and ending at Latitude 35.11051, Longitude 78.97456.**

a. Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2011**. 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 ATTACHED SPECIAL CONDITIONS

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.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit, Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

E. P. Lusk for Dr. Gregory J. Thayer, PhD 10-29-08
 (PERMITTEE) NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below

G. Kenneth Kelly 11-4-08
 (DISTRICT ENGINEER) JEFFERSON M. RYSCAVAGE, COLONEL (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (TRANSFEE) (DATE)

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SPECIAL CONDITIONS
2008-01413

SPECIAL CONDITIONS (Action ID. 2008-01413, Fayetteville Outer Loop, Transportation Improvements Project . X-0002B & C and U-2519, State Project Number 8.2441301 and 8.T441302

1. Failure to institute and carry out the details of the following special conditions below will result in a directive to cease all ongoing and permitted work within waters of the United States, including wetlands, associated with the permitted project, or such other remedies and/or fines as the U.S. Army Corps of Engineers District Commander or his authorized representatives may seek.
2. All work authorized by this permit must be preformed in strict compliance with the attached plans, which are a part of this permit.
3. The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Mr. Richard Spencer, Wilmington Regulatory Field Office, 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 notify the Corps of Engineers Project Manager a minimum of thirty (30) days in advance of the scheduled meetings in order to provide that individual with ample opportunity to schedule and participate in the required meetings. One copy of the final half-size construction drawings shall be furnished to the Corps of Engineers, Mr. Richard Spencer, Wilmington Regulatory Field Office prior to the pre-construction meeting.
4. The permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Mr. Richard Spencer, Wilmington Regulatory Field Office prior to any active construction in waters or wetlands.
5. 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. Copies of this permit and any modifications authorized by the USACE shall be available for review at the construction site at all times. All violations, including non-compliance of these conditions, of the authorized permit shall be reported to the District Engineer within 24 hours of the violation.
- * 6. Compensatory mitigation for the unavoidable impacts to 34.84 acres of riparian wetlands and 13.59 acres of non-riparian wetlands associated with the proposed project shall be provided by

debiting 104.52 acres of riparian wetlands and 40.77 acres of non-riparian wetlands from the Privateer Farms Mitigation Site. Compensatory mitigation for the unavoidable impacts to 12,346 linear feet of important stream reach associated with the proposed project shall be provided by debiting 18,519 linear feet of stream reach from the Privateer Farms Mitigation Site. The permittee shall maintain the Privateer Farms Mitigation Site in its natural condition, as altered by the mitigation plan, in perpetuity. Except as authorized or required by the mitigation plan, prohibited activities on the mitigation property include, but are not limited to, filling; grading; excavating; earth moving of any kind; construction of roads, walkways, buildings signs, or any other structure; any activity that may alter the drainage patterns on the property; destruction, mowing, or other alteration of vegetation on the property; disposal or storage of any garbage trash, or other waste material. In addition, the permittee shall take no action, whether on or off the mitigation property, which will adversely impact the wetlands on the mitigation property. This condition above, runs with the land. The permittee shall not sell, lease, or otherwise convey any interest in the mitigation property without subjecting the property to legally enforceable restrictions on the use of the property, to ensure its preservation, approved in writing by the Wilmington District Corps of Engineers.

7. 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 shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters 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. In addition, 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, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

8. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area.

9. To ensure that all borrow and waste activities occur on high ground and do not result in loss or 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 ensure that all such areas comply with the preceding condition (#7) 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 (#7). All information will be available to the Corps of Engineers 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.

10. The permittee shall comply with the conditions specified in the water quality certification, No. 3758, issued by the North Carolina Division of Water Quality on 6 October 2008.
11. The permittee shall abide by the conservation measures identified in the Biological Assessment prepared for the Red-cockaded Woodpecker, *Picoides borealis*, dated 9 September 2004 and the conservation measures identified by the US Fish and Wildlife Service in the Biological Opinion dated 28 April 2005.
12. This Corps permit does not authorize you to take an endangered species, in particular the Red Cockaded Woodpecker. In order to legally take a listed species, you must have separate authorization under the ESA. (e.g., an ESA Section 10 permit, or a BO under the ESA Section 7, with “incidental take” provisions with which you must comply). The enclosed USFWS Biological Opinion, dated 28 April 2005, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with “incidental take” that is also specified in the BO. Your authorization under this Corps permit is conditional upon your compliance with all the mandatory terms and conditions associated with incidental take of the attached BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its BO, and the ESA.
13. The permittee shall continue coordination of design for U-2519 Sections AA, AB, BA, BB, CA and CB through the NEPA/Section 404 Merger 01 Process – Concurrence points 2A, 4B and 4C. The final design shall incorporate appropriate avoidance, minimization and mitigation of aquatic resource impacts to the fullest extent practicable. The applicant shall not commence any work within waters of the United States within U-2519 Sections AA, AB, BA, BB, CA and CB until after the submittal of a modified application with final design plans reflecting the appropriate avoidance, minimization and mitigation within these sections and has received final approval from Wilmington District Corps of Engineers
14. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to, upstream or downstream of the structures. Riprap armoring of streams at culvert outlets shall be minimized above the ordinary high water elevation in favor of bioengineering techniques such as bank sloping, erosion control matting and revegetation with deep-rooted, woody plants.
15. The permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the “North Carolina Sediment and Erosion Control Planning and Design Manual” to assure compliance with the appropriate turbidity water quality standard. 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 standards. 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). Adequate sedimentation and erosion control measures must be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures must be inspected and maintained regularly, especially following rainfall events. All fill material must be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands.

16. The permittee shall take appropriate measure to control any bottom sediment that may be sluiced by the draining of impacted ponds on the project site. Sediment sluicing from ponds is not authorized by this permit.

17. The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, at project completion.

18. The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.

19. The permittee shall install barrier fencing or other acceptable forms of barrier around all wetlands that are not to be disturbed to make them readily visible and prevent construction equipment from inadvertently entering and disturbing the wetland areas that are to remain undisturbed.

20. 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. No equipment staging or storage of construction material will occur in wetlands. Hydro-seeding equipment will not be discharged or washed out into any surface waters or wetlands. 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 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

21. The permittee shall abide by all project commitments identified in the FHWA/NCDOT EIS and ROD.

22. The permittee shall abide by all stipulations identified in the Memorandum of Agreement between the North Carolina Department of Transportation and the North Carolina State Historic Preservation Officer, executed 12 April 2005, and the stipulations identified in the Concurrence Form for Assessment of Effects, executed 11 January 2005.

23. If the permittee discovers any previously unknown historic or archeological sites while accomplishing the authorized work, he shall immediately stop work and notify the Wilmington District Engineer who will initiate the required State/Federal coordination.

24. The permittee shall maintain the authorized work in good condition and in conformance with the terms and conditions of this permit. The permittee is not relieved of this requirement if he abandons the permitted activity without transferring it to a third party.

25. 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.

26. This Department of the Army permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

27. In issuing this permit, the Federal Government does not assume any liability for:

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 Federal activities initiated on behalf of the general public.

c. Damages to other permitted or un-permitted activities or structures caused by the authorized activity.

d. Design and construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.



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October 6, 2008

RECEIVED

OCT - 8 2008

REGULATORY
WILM.FLD.OFC.

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

Subject 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water with ADDITIONAL CONDITIONS for Proposed Fayetteville Outer Loop in Cumberland, Hoke and Robeson Counties, Federal Aid Project No NHF-DPR-0100(001), State Project No 8 2441301, TIP Nos X-002 B&C and U-2519
DWQ Project No 20080737

Dear Dr Thorpe

Attached hereto is a copy of Certification No 3758 issued to The North Carolina Department of Transportation dated October 6, 2008

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

Sincerely,

Coleen Sullins,
Director

Attachments

cc Richard Spencer, US Army Corps of Engineers, Wilmington Field Office
Tyler Stanton, NCDOT NEU
Jim Rerko, DOT Division 6 Environmental Officer
Kathy Matthews, Environmental Protection Agency
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Ecosystem Enhancement Program
Ken Averitte, DWQ Fayetteville Regional Office
File Copy



401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with 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 0500. This certification authorizes the NCDOT to impact 57.08 acres of jurisdictional wetlands and 13,232 linear feet of jurisdictional streams in Cumberland, Hoke and Robeson Counties. The project shall be constructed pursuant to the application dated received April 25, 2008. The authorized impacts are as described below.

Section X-0002 B Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Impacts to Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Impacts to Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
2	0	0	213	0	213	213
Total	0	0	213	0	213	213

Total Stream Impact for Section X-0002 B : 213 linear feet

Section X-0002 C Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Impacts to Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Impacts to Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
1	0	0	279	0	279	279
3	0	0	775	0	775	775
5	0	0	361	0	361	361
6	0	0	479	0	479	479
7	0	0	213	0	213	213
8	0	0	509	0	509	509
9	0	0	98	0	98	98
Total	0	0	2714	0	2714	2714

Total Stream Impact for Section X-0002 C : 2,714 linear feet

Section U-2519 E Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Impacts to Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Impacts to Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
2	886	0	0	0	886	0
Total	886	0	0	0	886	0

Total Stream Impact for Section U-2519 E: 886 linear feet



This approval is only valid for the purpose and design that you submitted in your application dated received April 25, 2008. 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 on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Conditions of Certification

1 This Water Quality Certification authorizes impacts to wetlands, streams and open waters to sections X-0002 B and C, and U-2519 DA and E only. When final design plans are completed for U-2519 Sections AA, AB, BA, BB, CA, and CB, modifications to the 401 Water Quality Certification shall be submitted with four copies and fees to the NC Division of Water Quality. Final designs shall reflect all appropriate avoidance, minimization, and mitigation for impacts to wetlands, streams, and other surface waters, and buffers. No construction activities that impact any wetlands, streams, or surface waters, located in U-2519 Sections AA, AB, BA, BB, CA or CB shall begin until after the permittee applies for, and receives a written modification of the 401 Water Quality Certification from the NC Division of Water Quality.

2 Compensatory mitigation for 12,346 linear feet of impact to streams is required. We understand that you have chosen to debit mitigation from the Privateer Farm Mitigation Bank. This certification gives approval to the debiting of 12,346 linear feet of stream mitigation from the Privateer Farms Mitigation Site in order to satisfy the mitigation requirements of this project.

3 Compensatory mitigation for 48.4 acres of wetlands is required at a 2.5:1 ratio. We understand that you have chosen to debit mitigation from the Privateer Farm Mitigation Bank. This certification gives approval to the debiting of 121.0 acres of wetland mitigation from the Privateer Farms Mitigation Site in order to satisfy the mitigation requirements of this project.

4 At locations where ponds will be drained, proper measures will be taken to drain the pond with limited impact to upstream and downstream channel stability as well as to native aquatic species. Proper measures will be taken to avoid sediment release and/or sediment accumulation downstream as a result of pond draining. If typical pond draining techniques will create significant disturbance to native aquatic species, additional measures such as collection and relocation may be necessary to prevent a significant fish kill. NCDOT shall consult with NC Wildlife Resources staff to determine if there are any sensitive species, and the most appropriate measures to limit impacts to these species. The permittee shall observe any natural channel re-establishment, or utilize natural channel construction techniques, to ensure that the jurisdictional stream channel above and below the drained pond remain stable, and that no additional impacts occur within the natural stream channel as a result of draining the pond.

5 The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species.

6 Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.

7 Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.



8 For any streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species

9 Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. 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 is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

10 If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

11 Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

*

12 One copy of the final construction drawings shall be furnished to NCDWQ Central Office, and one copy to the NCDWQ Fayetteville Regional Office, prior to the pre-construction meeting. The permittee shall provide written verification that the final construction drawings comply with the permit drawings contained in the application dated received April 25, 2008. Any deviations from the approved drawings are not authorized unless approved by the NC Division of Water Quality.

13 If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

14 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.

15 The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.

16 The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.

17 The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.

18 All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

19 Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.

20 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.



- 21 No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification
- 22 Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited
- 23 The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification
- 24 All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification
- 25 A copy of this Water Quality Certification shall be maintained on site at 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
- 26 The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification
- 27 The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc
- 28 The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery
- * 29 Upon completion of the project (including any impacts at associated borrow or waste site), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed
- 30 Native woody riparian vegetation (i.e., trees and shrubs native to your geographic region) must be reestablished within the construction limits of the project by the end of the growing season following completion of construction
- 31 There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities
- 32 Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards
 - a The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*



- b The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- d The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

33 Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.

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 or CAMA permit.

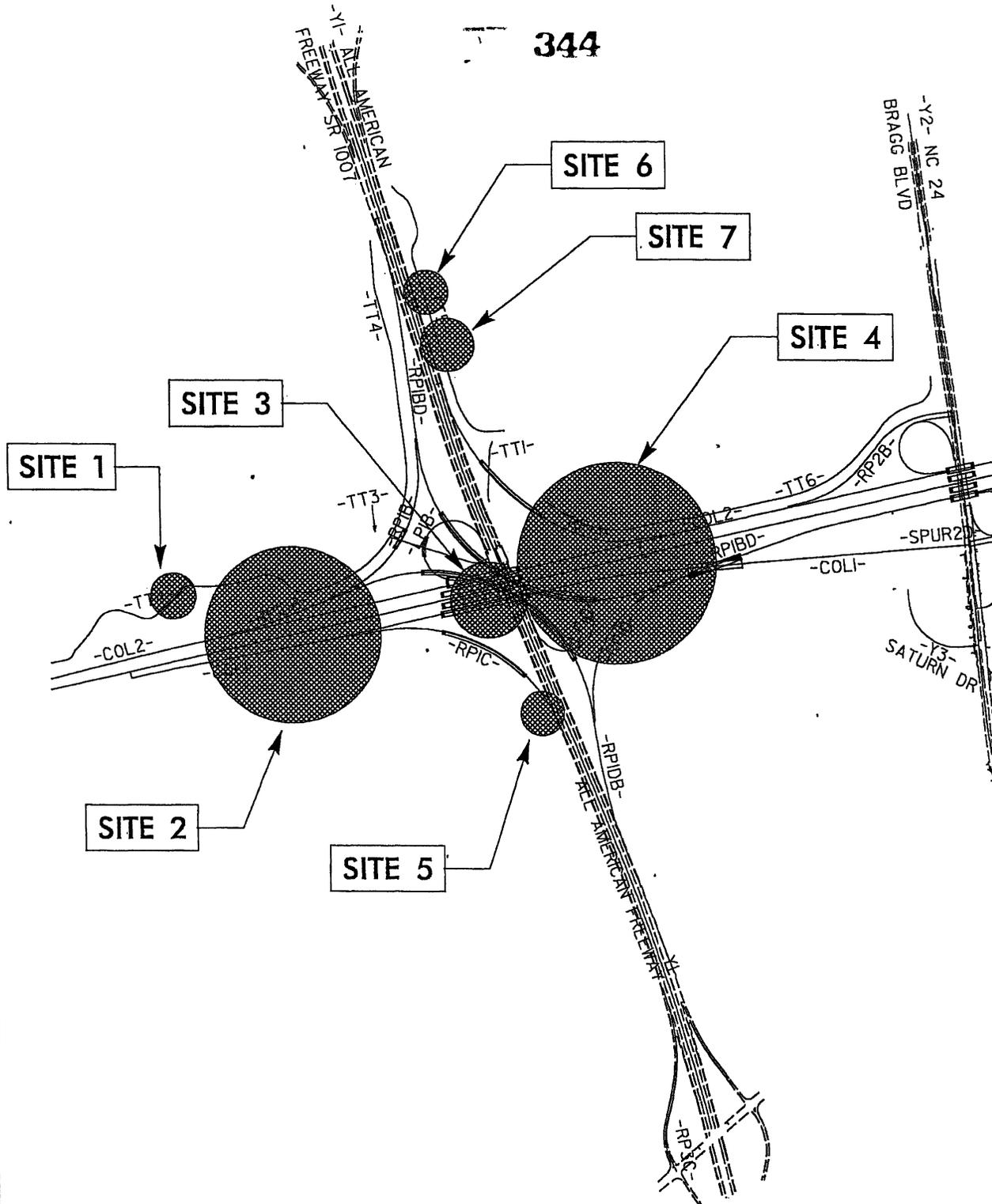
If this Certification is unacceptable to you, you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. 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 6th day of October 2008

DIVISION OF WATER QUALITY

Coleen Sullins
Director

WQC No 3758



PLAN VIEW

Permit Drawing
Sheet 2 of 30

NCDOT
 DIVISION OF HIGHWAYS
 CUMBERLAND COUNTY
 PROJECT: 34817.1.2 (U-2519DA)
 FAYETTEVILLE OUTER LOOP
 FROM EAST OF SR 1415
 TO WEST OF NC 24 (BRAGG BLVD)

345

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	FORT BRAGG MILITARY RESERVATION	
7	JOHN KOENIG	6432 YADKIN ROAD FAYETTEVILLE, NC 28303
9A	DON BROADWELL	P.O. BOX 53587 FAYETTEVILLE, NC 28305

NCDOT

DIVISION OF HIGHWAYS
CUMBERLAND COUNTY
PROJECT: 34817.12 (U-2519E)
FAYETTEVILLE OUTER LOOP
FROM WEST OF NC 24
TO EAST OF NC 24

Permit Drawing
Sheet 3 of 30

SHEET

OF

12 / 7 / 07

WETLAND PERMIT IMPACT SUMMARY															
Site No	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS							
			Permanent Fill In Wetlands (ac)	Temp Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Natural Stream Design (ft)				
1	20+80 - TT4-	NA	0.06				0.04								
2	20+60-25+00 -L-	2 @ 12' X 6' RCBC	5.52		0.28		1.06								
3 *	26+00-28+60 -L-	BRIDGES	0.44				0.20	3.94							
4	29+00-33+80 -L-	2 @ 48" RCP	5.45		0.10		0.26								
5	23+60 -Y1-	36" RCP	0.03				0.01								
6	13+40 -TT5-	EXISTING 18" RCP	0.02				0.04								
7	14+60 -TT5-	EXISTING 36" RCP	0.01				0.01								
TOTALS.			11.53		0.37		1.62	3.94							

* Impacts due to pier footing in wetland = 0.0007 ac

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CUMBERLAND COUNTY
 WBS - 34817 1 2 (U-2519DA)

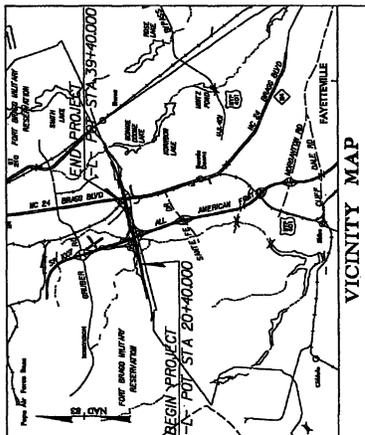
SHEET 12/7/2007

Permit Drawing Sheet 4 of 30

TIP PROJECT: U-2519DA

PROJECT: 34817.2.4

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



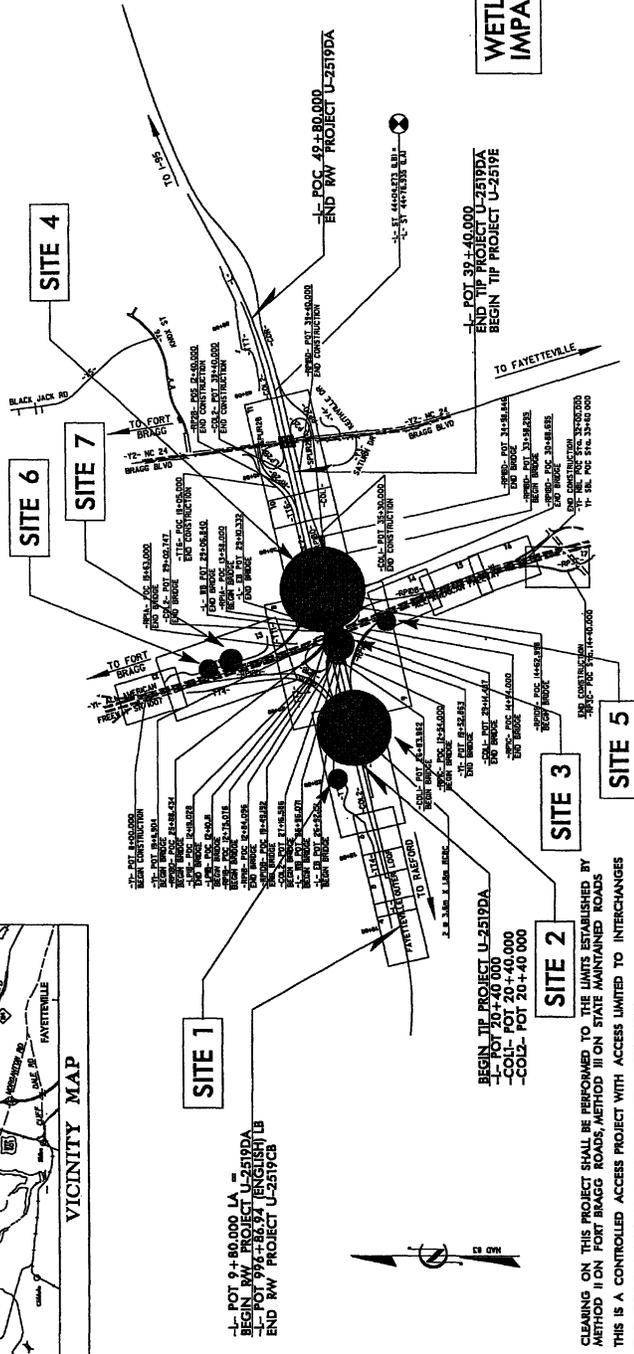
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CUMBERLAND COUNTY
LOCATION: FAYETTEVILLE OUTER LOOP
FROM EAST OF SR 1415 TO WEST OF
NC 24 (BRAGG BOULEVARD)
TYPE OF WORK: GRADING, DRAINAGE, PAVING,
STRUCTURES, CULVERTS, & SIGNING

STATE	N.C.	PROJECT NUMBER	U-2519DA
COUNTY	CUMBERLAND	SECTION	1
DISTRICT	1	DATE	1/11/09
DESIGNER	34817.2.4	BY	GW CHD/ULL/ML
CHECKER		DATE	

METRICS
ALL DIMENSIONS IN THESE PLANS ARE IN METERS AND/OR MILLIMETERS UNLESS OTHERWISE SHOWN

Permit Drawing
Sheet 0 of 30

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WETLAND/STREAM IMPACTS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD 11 ON FORT BRAGG ROADS, METHOD III ON STATE MAINTAINED ROADS
THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS LIMITED TO INTERCHANGES
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

GRAPHIC SCALE

PLANS: 1" = 100'

PROFILE (HORIZONTAL): 1" = 100'

PROFILE (VERTICAL): 1" = 10'

DESIGN DATA

ADT 2007 = 27300
ADT 2030 = 66200
D = 9 %
T = 12 %
V = 110 km/h

(DUALS 8 %, T1ST 4 %)

PROJECT LENGTH

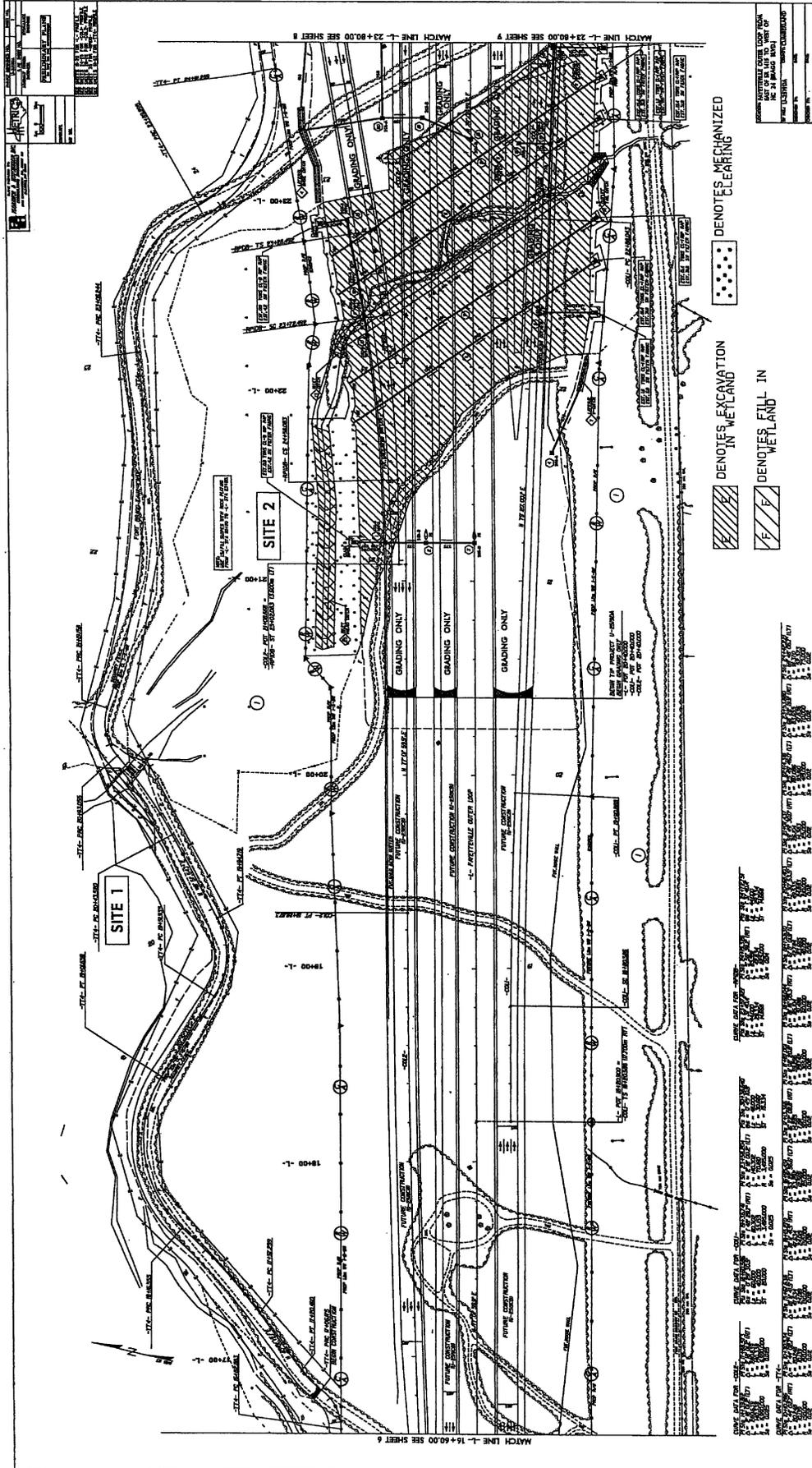
LENGTH ROADWAY TIP PROJECT U-2519DA: 1.667 KM
LENGTH STRUCTURES TIP PROJECT U-2519DA: 0.233 KM
TOTAL LENGTH TIP PROJECT U-2519DA: 1.900 KM

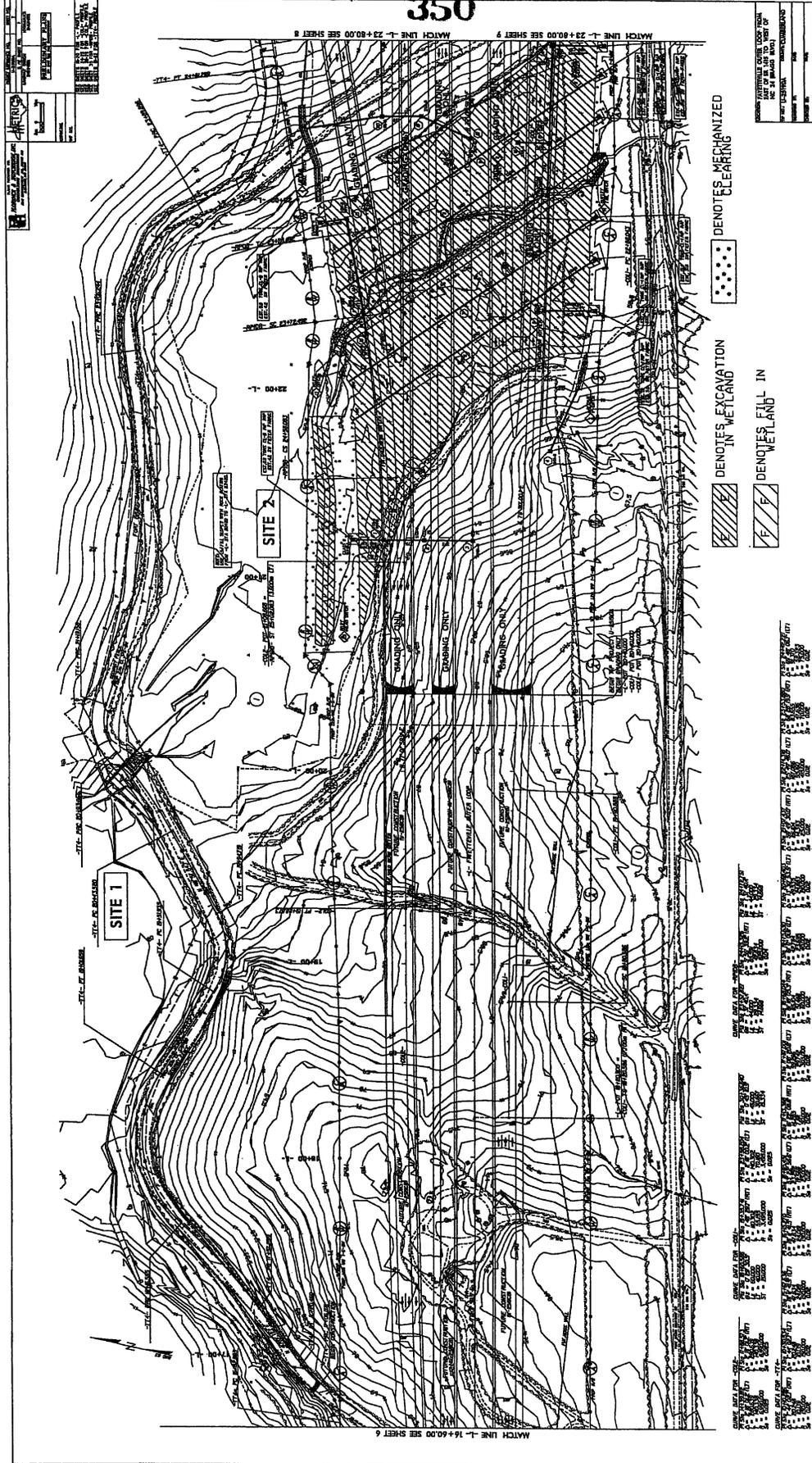
NOTE: EB LANE BRIDGE STATIONING USED TO DETERMINE LENGTH OF STRUCTURES

PLANS PREPARED BY:
FLORENCE & HUTCHINSON, INC.
CONSULTING ENGINEERS
PREPARED FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATES: MAY 19, 2006
LETTING DATE: MAY 19, 2009
NCDOT CONTACT: CATHY S. HOUSER, P.E.
ROADWAY DESIGN - PROJECT NUMBER

HYDRAULICS ENGINEER: [Blank] P.E.
ROADWAY DESIGN: [Blank] P.E.
STATE DESIGN ENGINEER: [Blank] P.E.
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: [Blank] DATE: [Blank]

Permit Drawing
Sheet 7 of 30



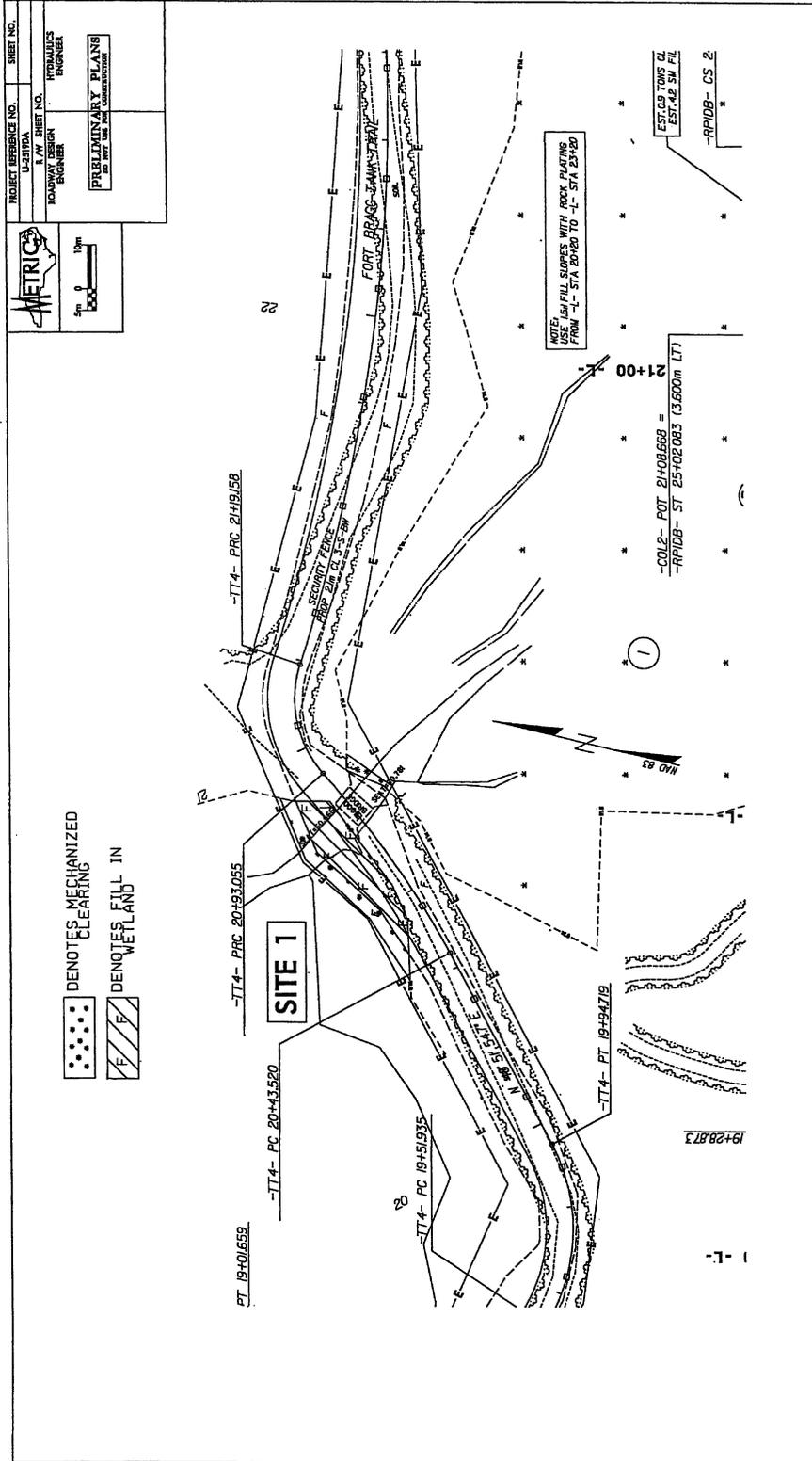


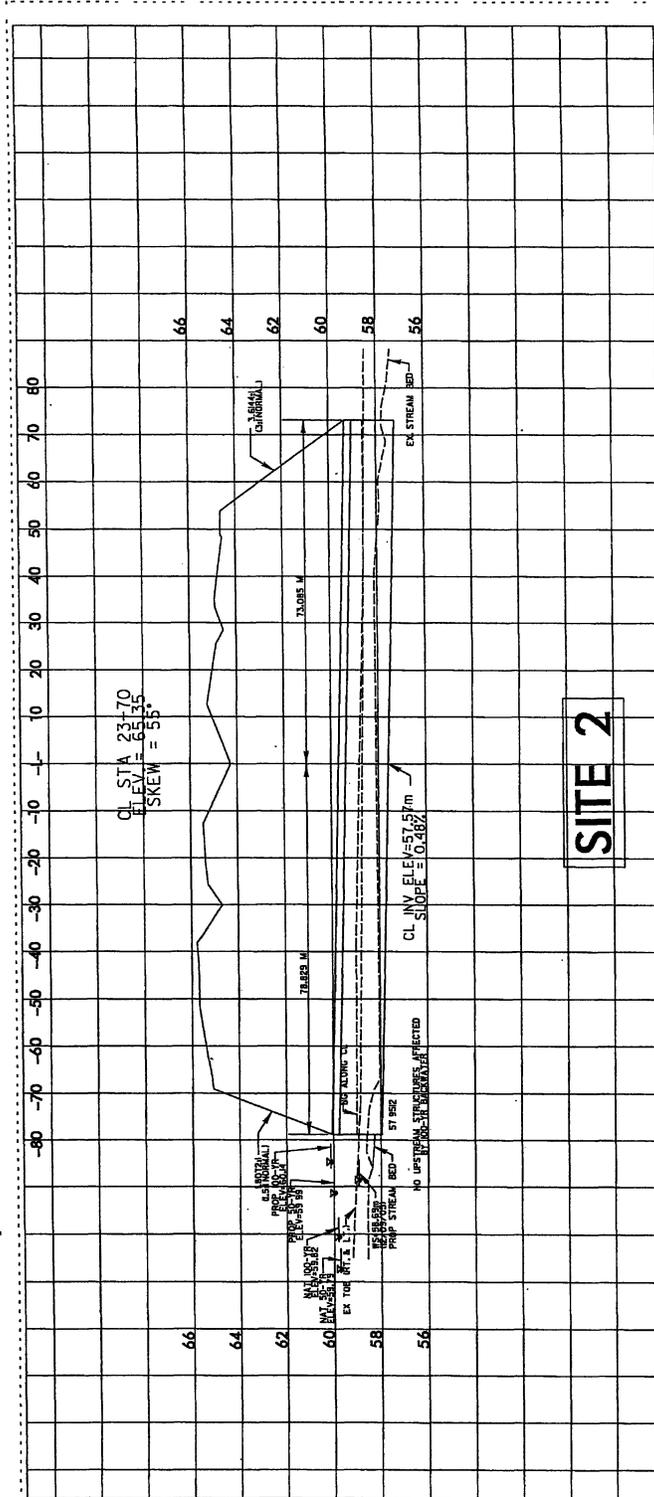
••••• DENOTES MECHANIZED CLEARING

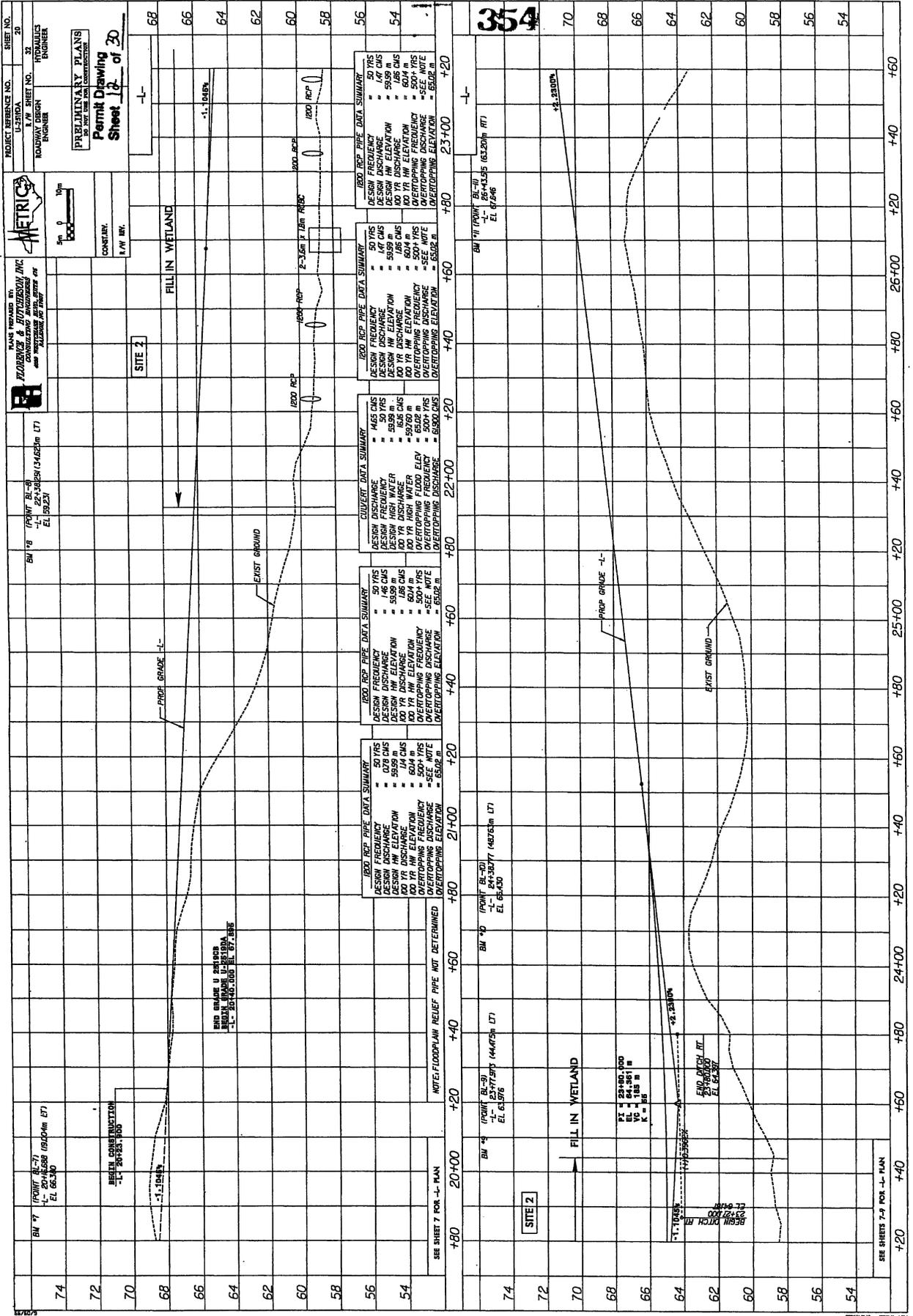
▨ DENOTES EXCAVATION IN WETLAND

▨ DENOTES FILL IN WETLAND









PROJECT REFERENCE NO. U-3100A
 SHEET NO. 20
 ROADWAY DESIGN
 CONTRACTOR
 1/4" = 10'

PLANS PREPARED BY: **BAZDRECH & BOUTERSON, INC.**
 CONSULTING ENGINEERS AND ARCHITECTS
 1000 W. 10th St., Suite 100, Lincoln, NE 68502
 PHONE: (402) 441-1111
 FAX: (402) 441-1112
 PROJECT NO. U-3100A
 SHEET NO. 20
 ROADWAY DESIGN
 CONTRACTOR
 1/4" = 10'

PRELIMINARY PLANS
 Permit Drawing
 Sheet 12 of 20

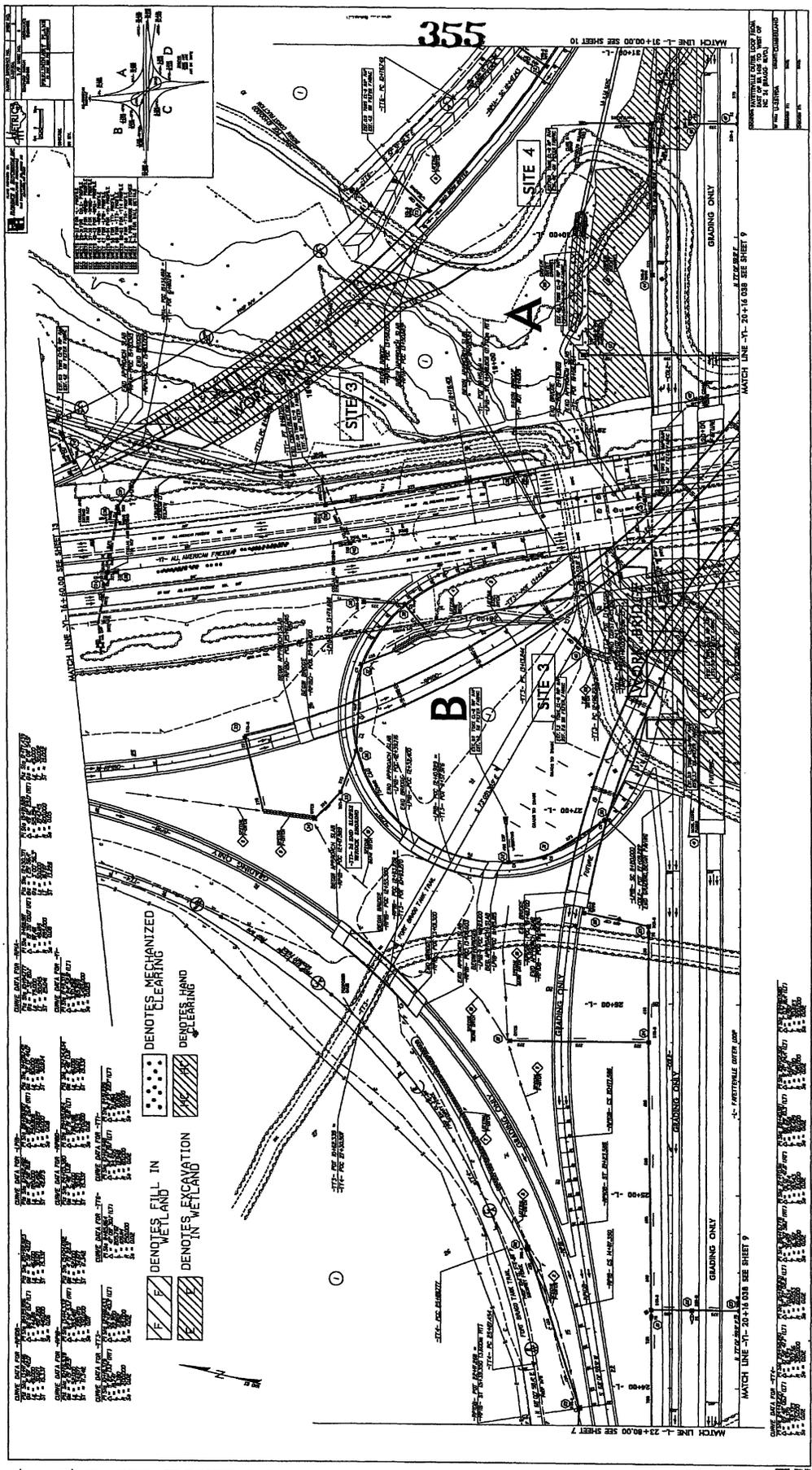
STATION	DESIGN FREQUENCY	DESIGN DISCHARGE	DESIGN HW ELEVATION	100 YR DISCHARGE	100 YR HW ELEVATION	OVERTOPPING FREQUENCY	OVERTOPPING DISCHARGE	OVERTOPPING ELEVATION
180	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
20+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
22+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
24+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
26+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
28+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
30+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
32+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
34+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
36+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
38+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
40+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
42+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
44+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
46+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
48+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
50+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
52+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
54+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m

NOTE: FLOODPLAIN RELIEF PIPE NOT DETERMINED
 SEE SHEET 7-P FOR -L- PLAN

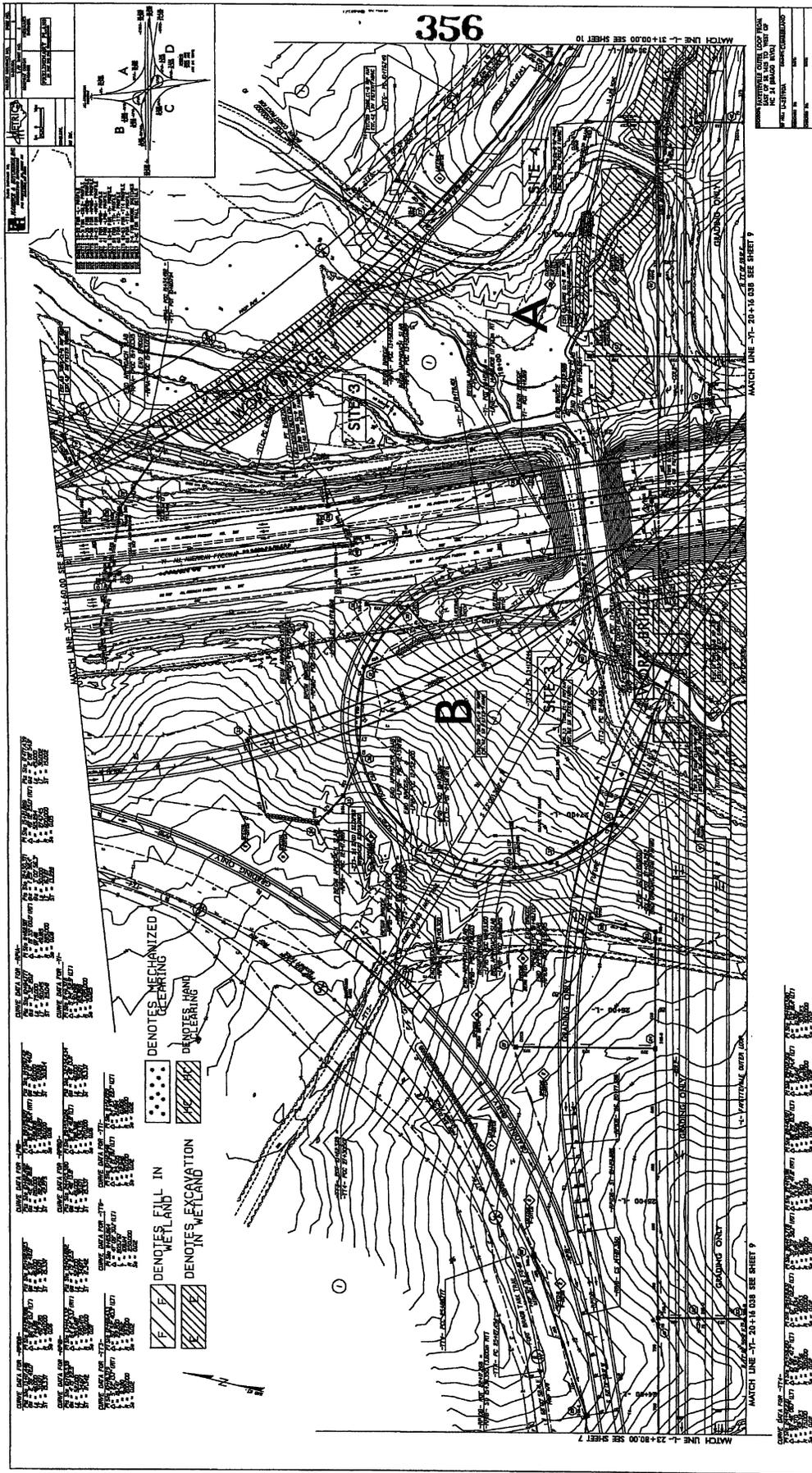
STATION	DESIGN FREQUENCY	DESIGN DISCHARGE	DESIGN HW ELEVATION	100 YR DISCHARGE	100 YR HW ELEVATION	OVERTOPPING FREQUENCY	OVERTOPPING DISCHARGE	OVERTOPPING ELEVATION
180	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
20+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
22+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
24+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
26+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
28+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
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32+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
34+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
36+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
38+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
40+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
42+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
44+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
46+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
48+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
50+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
52+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m
54+00	50 YRS	145 CFS	59.99 m	145 CFS	59.99 m	500+ YRS	500+ YRS	65.02 m

SEE SHEETS 7-P FOR -L- PLAN
 END OF DITCH RT. 23+20.00
 EL. 64.387
 END OF DITCH LT. 23+20.00
 EL. 64.387
 P1 = 23+46.100
 P2 = 23+46.100
 V = 18.5 m
 K = 85
 354
 70
 68
 66
 64
 62
 60
 58
 56
 54

DATE: 10/15/03
 DRAWN: JMM
 CHECKED: JMM
 IN CHARGE: JMM



PROJECT NO.	220607
DATE	11/11/2011
SCALE	AS SHOWN
DRAWN BY	...
CHECKED BY	...
APPROVED BY	...

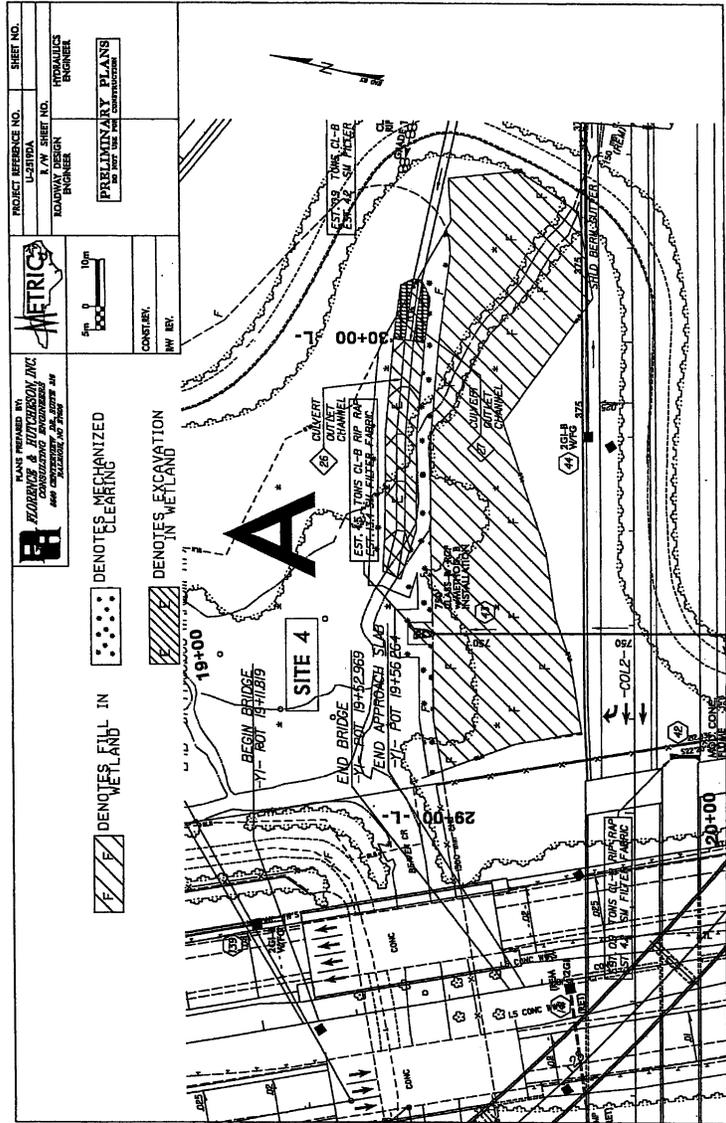


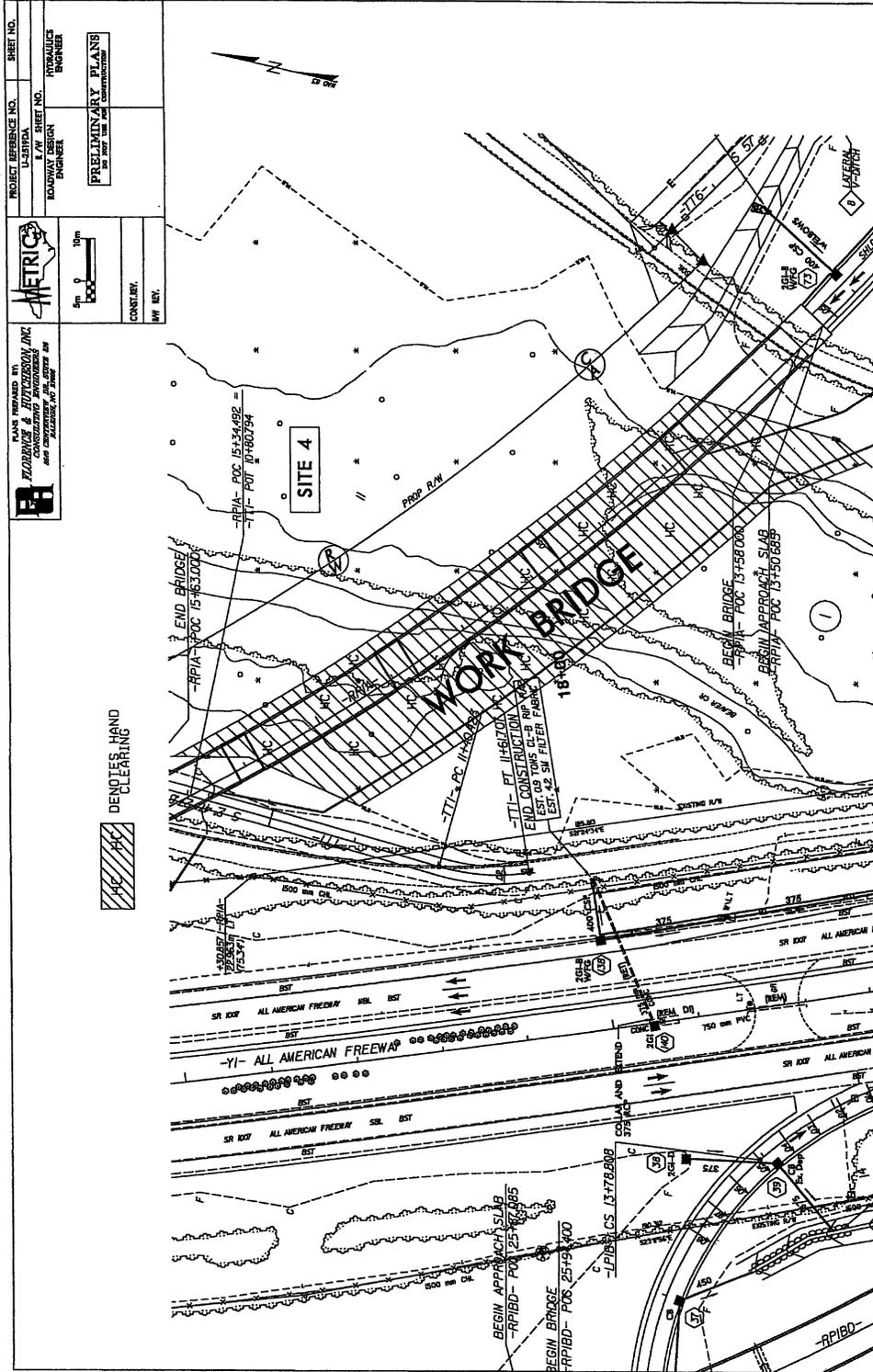
026607 - PARCEL #1 REISED PROPOSED FENCING (CAD/DRAWN A)

- DENOTES MECHANIZED BEARING
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES SAND

DATE	DESCRIPTION

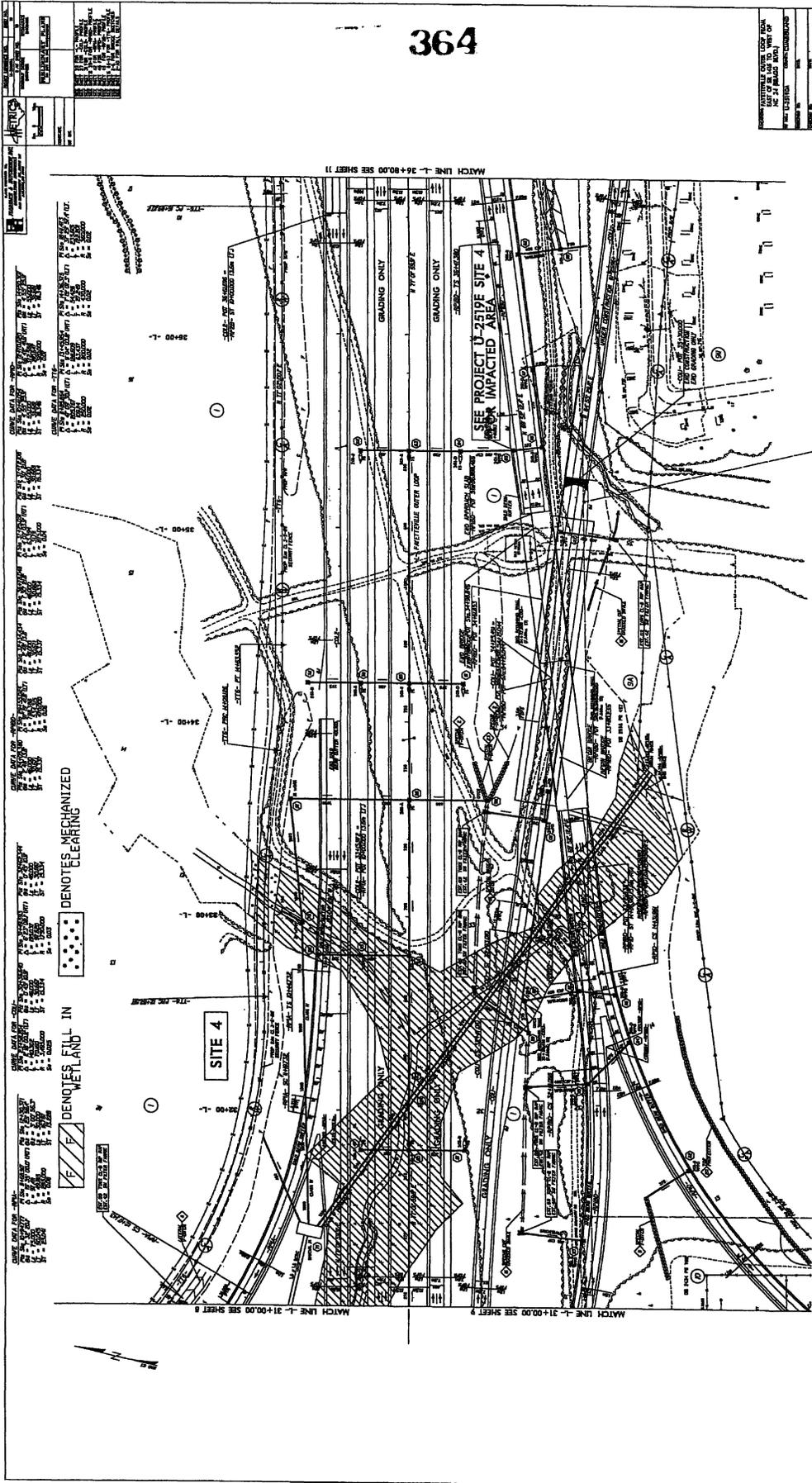
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 SHEET NO. 14 OF 30
 DATE: 08/14/2014
 DRAWN BY: [Name]
 CHECKED BY: [Name]





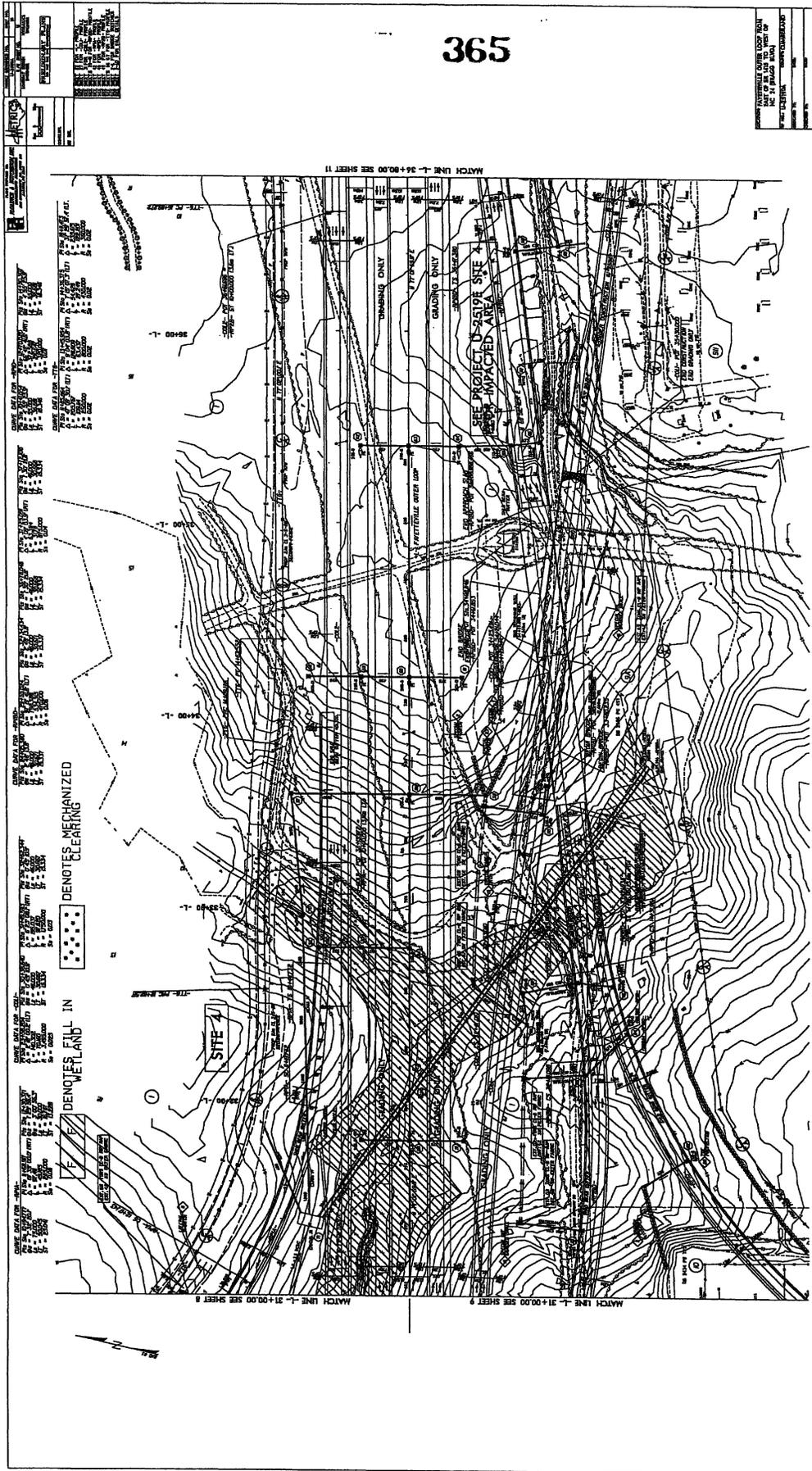
	PROJECT REFERENCE NO.	SHEET NO.
	U-131214	8 OF 8
	DESIGNED BY	ENGINEER
	PREPARED BY	CONSULTANT
	5' = 0' 10' = 0'	1" = 0' 2" = 0'
PLANS PREPARED BY ROADWAY & UTILIZATION INC. 1000 W. 10TH ST. SUITE 200 WASHINGTON, DC 20004	PROJECT NO. 15-134482	SHEET NO. 8 OF 8

PROJECT REFERENCE NO. U-131214	SHEET NO. 8 OF 8
DESIGNED BY ROADWAY & UTILIZATION INC.	ENGINEER
PREPARED BY ROADWAY & UTILIZATION INC.	CONSULTANT

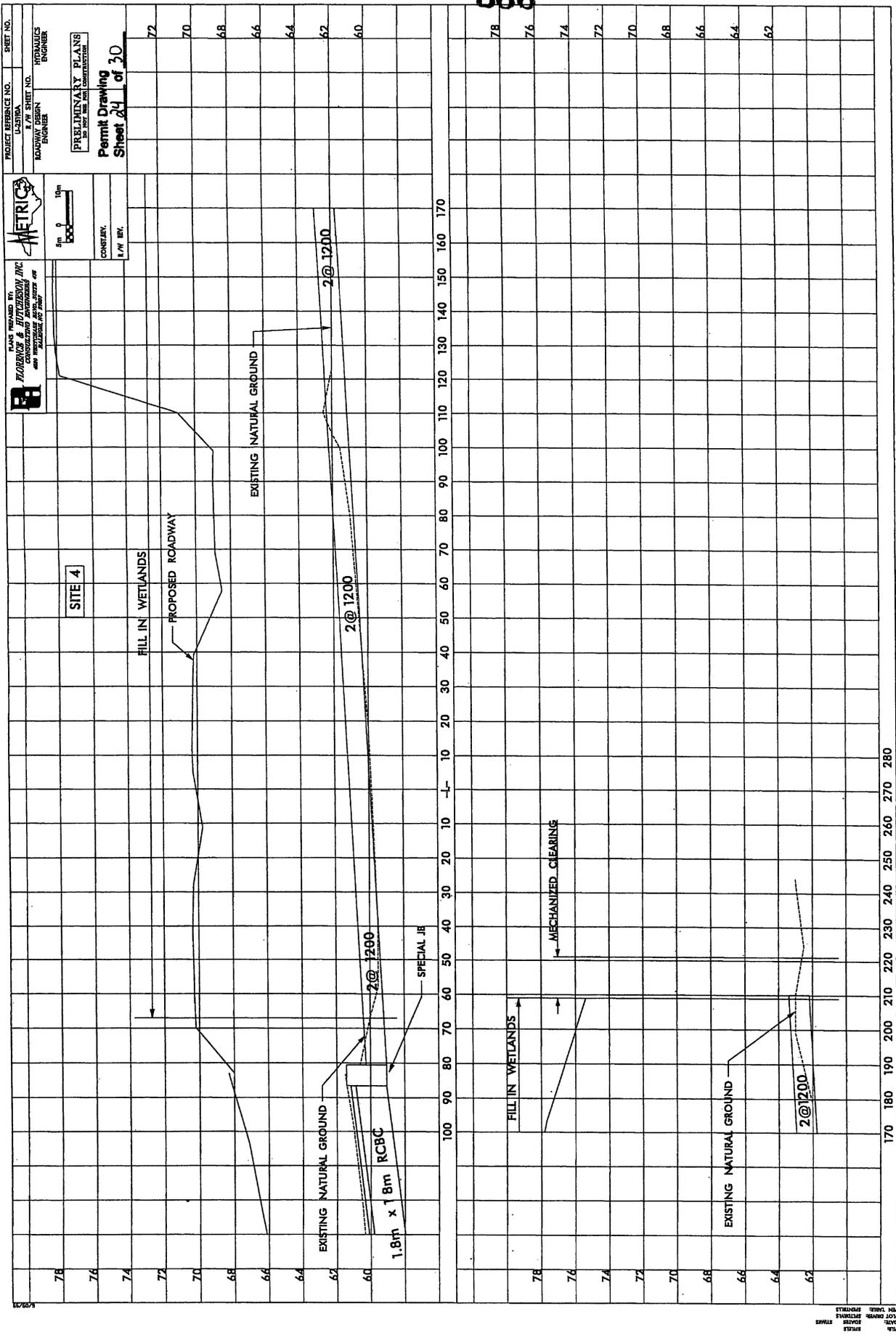


NO. 1	AREA TO BE FILLED	AREA TO BE FILLED
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NO. 3	AREA TO BE MECHANIZED CLEARING	AREA TO BE MECHANIZED CLEARING
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NO. 29	AREA TO BE MECHANIZED CLEARING	AREA TO BE MECHANIZED CLEARING
NO. 30	AREA TO BE MECHANIZED CLEARING	AREA TO BE MECHANIZED CLEARING

NO. 1	AREA TO BE FILLED	AREA TO BE FILLED
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NO. 29	AREA TO BE MECHANIZED CLEARING	AREA TO BE MECHANIZED CLEARING
NO. 30	AREA TO BE MECHANIZED CLEARING	AREA TO BE MECHANIZED CLEARING



PROJECT NO.	365
DATE	10/1/00
SCALE	AS SHOWN
DRAWN BY	J. J. JONES
CHECKED BY	J. J. JONES
APPROVED BY	J. J. JONES
DATE	10/1/00



PROJECT REFERENCE NO. U-2319A
 ROADWAY DESIGN ENGINEER

PRELIMINARY PLANS
 FOR ROADWAY DESIGN AND CONSTRUCTION

PERMIT DRAWING
 SHEET 24 OF 30

CONSULTING ENGINEER
 I./W. INC.

SCALE
 1" = 100'

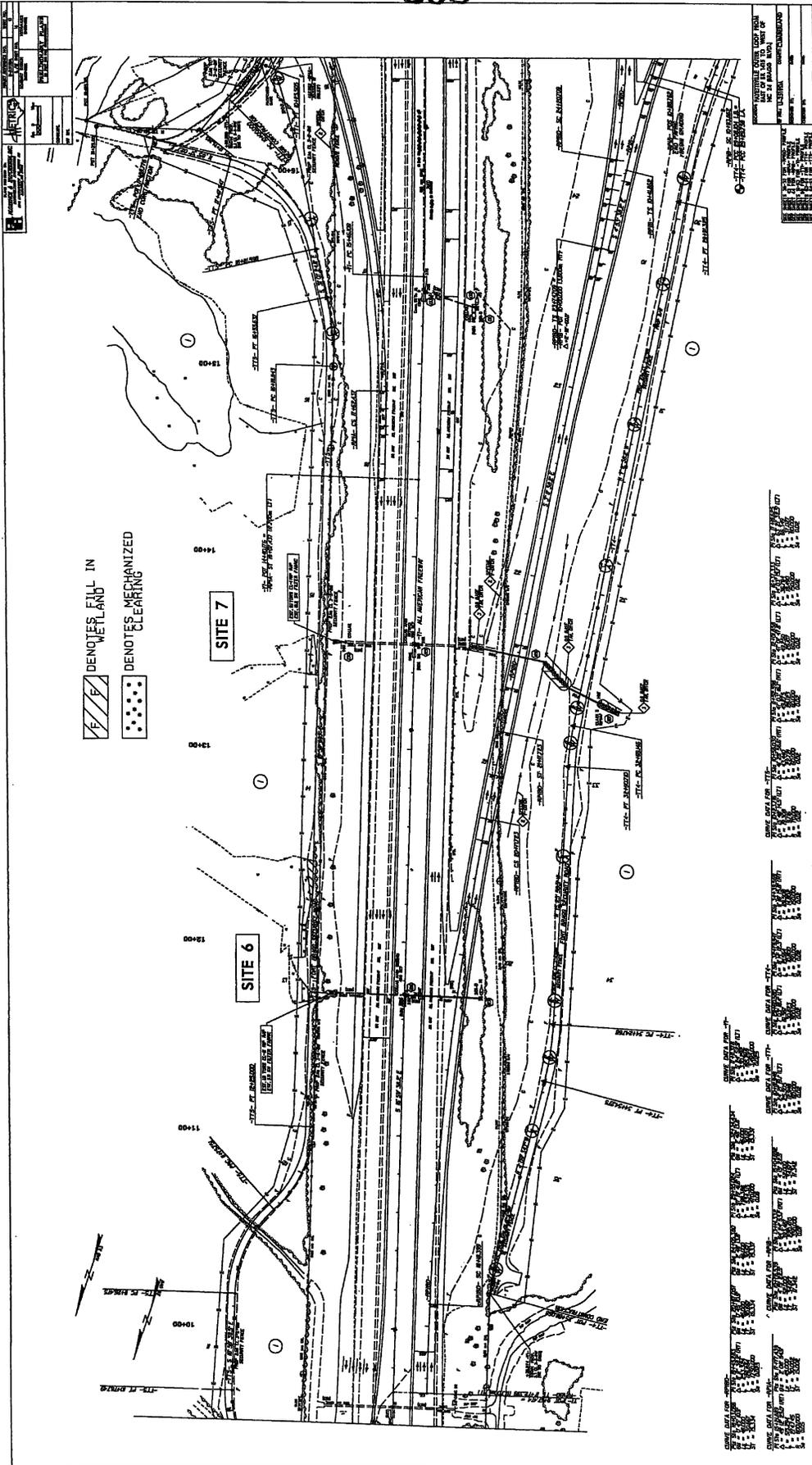
DATE

BY

CHECKED

APPROVED

FILED
 FOR DEPOSIT
 IN THE
 OFFICE OF THE
 ENGINEER
 STATE OF
 CALIFORNIA

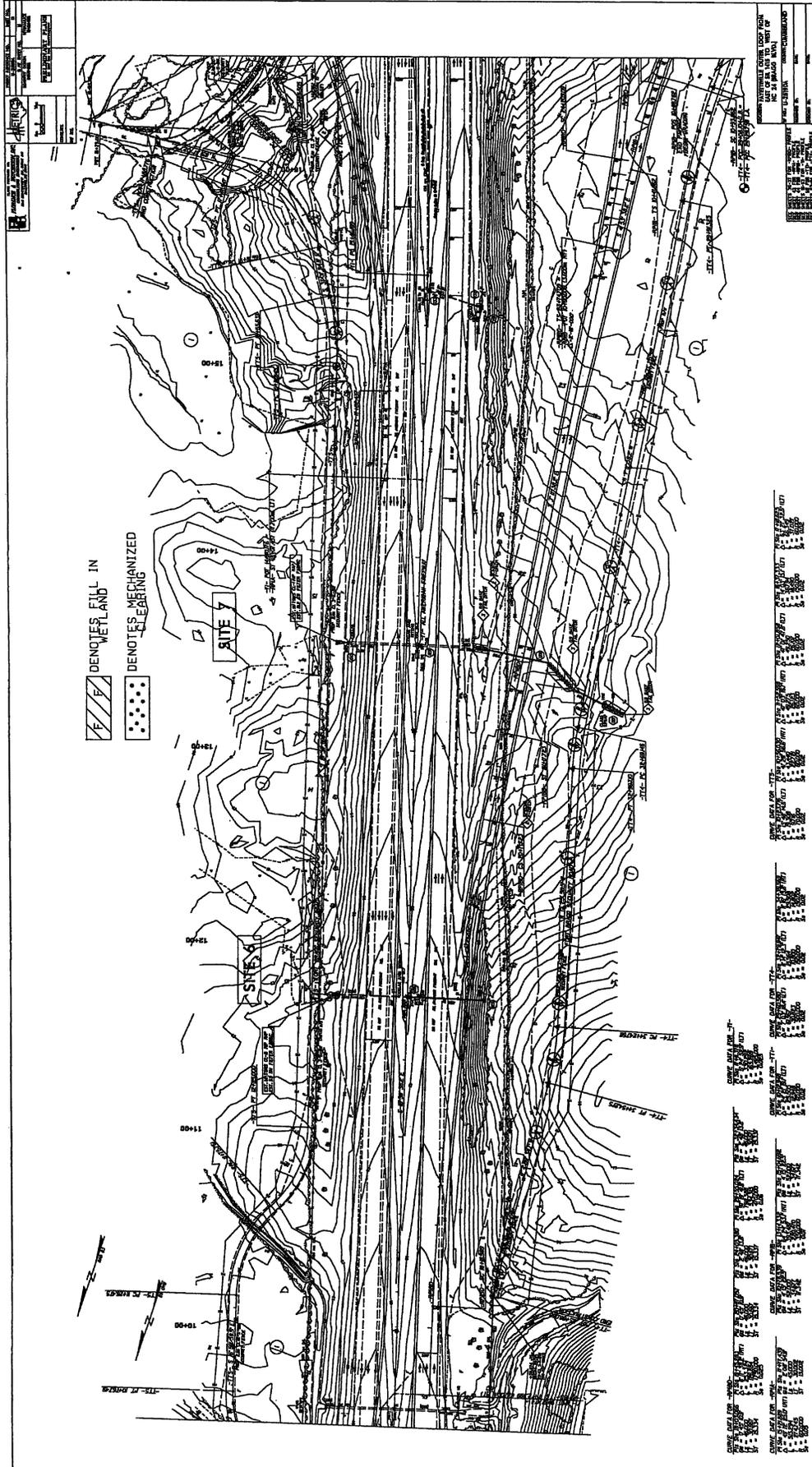


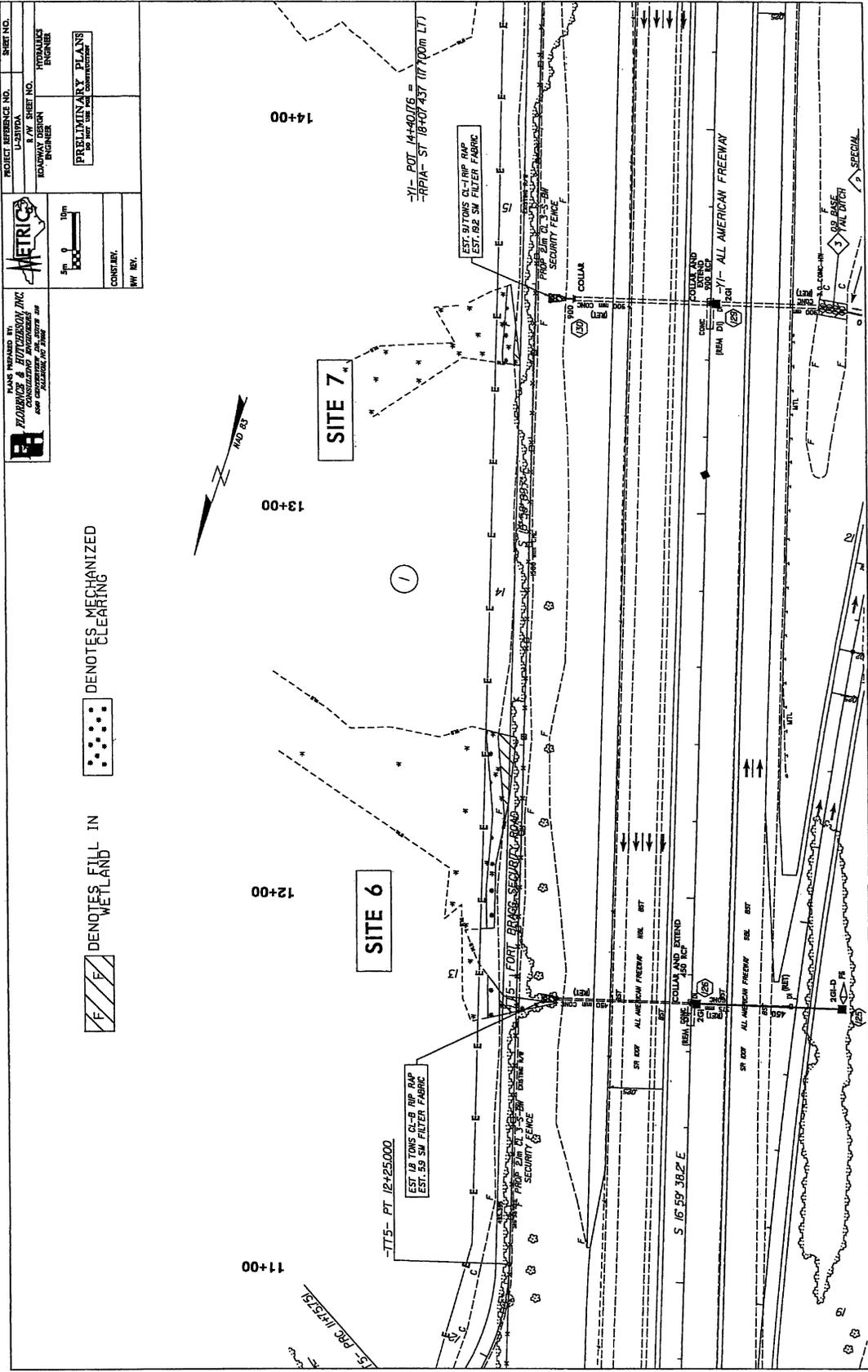
 DENOTES FILL IN
 DENOTES MECHANIZED
 CLEARING

SITE 7

SITE 6

NO.	DESCRIPTION	DATE	BY	CHECKED
1
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PLANS PROVIDED BY
PROVENCE & HUTCHINSON, INC.
 CONSULTING ENGINEERS
 1000 W. 10TH STREET, SUITE 200
 FORT WORTH, TEXAS 76102

PROJECT REFERENCE NO. U-2510A
 S.W. SHEET NO. HYDRAULIC ENGINEER

METRIC

1" = 100'

CONSTR. BY: _____
 HW. REV. _____

PRELIMINARY PLANS
 OF THE PROJECT

PROJECT REFERENCE NO. SHEET NO. 11
 CONTRACT NO. 17
 ROADWAY DESIGNER: METRIC ENGINEERS
 PRELIMINARY PLANS
 Permit Drawing
 Sheet 21 of 30
 SEE SHEET 33 FOR -R20B- PROFILE
 SEE SHEET 34 FOR -R20C- PROFILE
 SEE SHEET 45 FOR -R20D- PROFILE
 SEE SHEET 46 FOR -R20E- PROFILE
 SEE SHEETS 35-36 FOR "1" PROFILE

PLANS PREPARED BY: METRIC ENGINEERS INC.
 1000 WEST 10TH AVENUE
 DENVER, COLORADO 80202
 DATE: 08/11/03
 SCALE: AS SHOWN
 CURVE DATA FOR -Y1-
 P1 STA: 26+31.16
 P2 STA: 26+75.00
 Δ = 43.84
 L = 446.495
 R = 6395.000
 S_e = 0.025

CURVE DATA FOR -RP1D-
 P1 STA: 18+93.988
 P2 STA: 19+15.116
 Δ = 21.127
 L = 497.220
 R = 302.000
 S_e = 0.06

CURVE DATA FOR -RP1C-
 P1 STA: 10+10.54
 P2 STA: 11+10.54
 Δ = 10.00
 L = 30.667
 R = 183.46
 S_e = 0.07

CURVE DATA FOR -RP1B-
 P1 STA: 15+74.20
 P2 STA: 16+10.00
 Δ = 35.80
 L = 30.667
 R = 153.34
 S_e = 0.00

CURVE DATA FOR -RP1A-
 P1 STA: 12+10.00
 P2 STA: 12+10.00
 Δ = 0.00
 L = 0.00
 R = 0.00
 S_e = 0.00

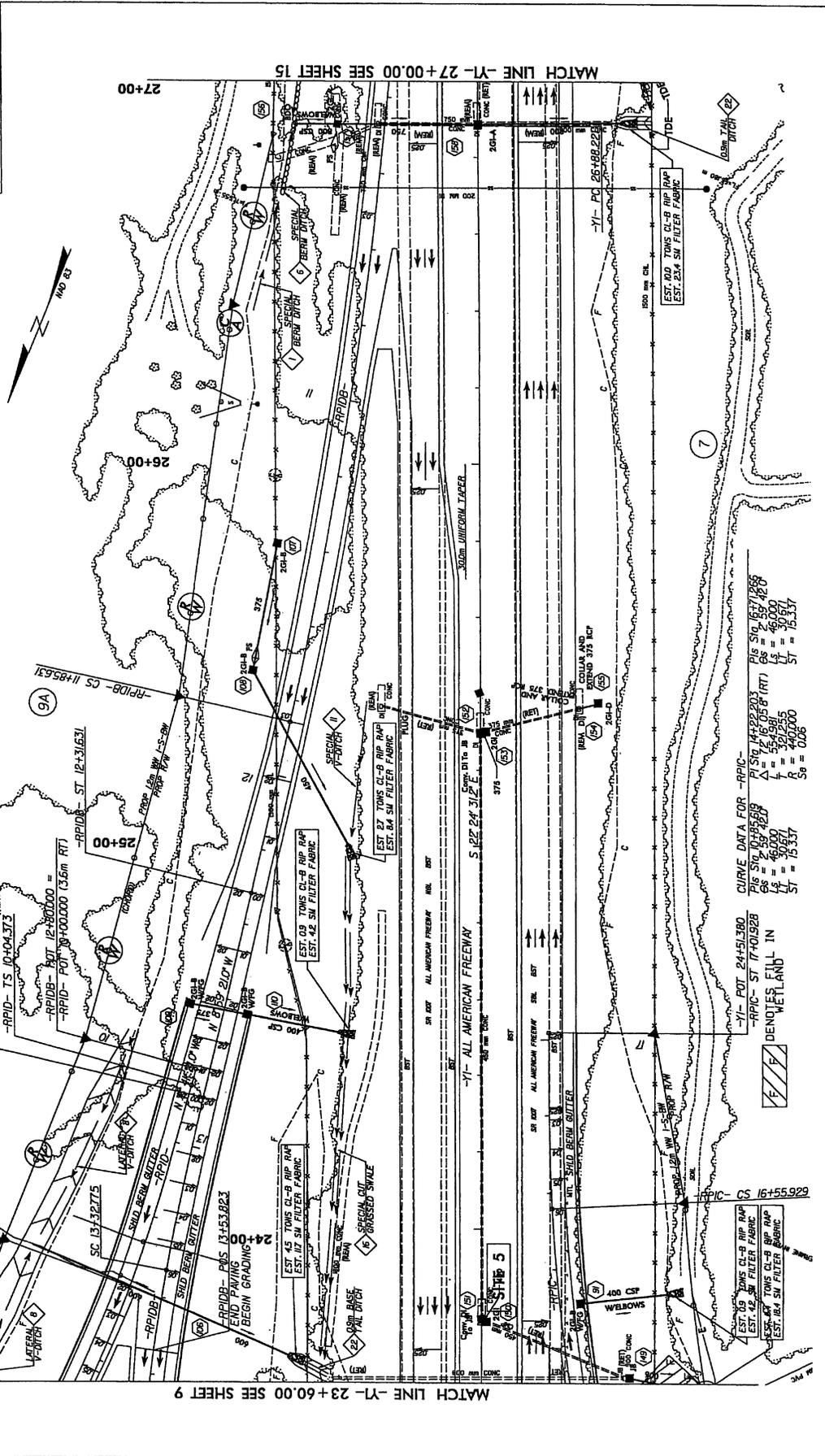
CURVE DATA FOR -RP1E-
 P1 STA: 10+59.373
 P2 STA: 11+04.373
 Δ = 45.00
 L = 30.667
 R = 153.34
 S_e = 0.00

CURVE DATA FOR -RP1F-
 P1 STA: 12+86.325
 P2 STA: 13+10.000
 Δ = 23.675
 L = 30.667
 R = 153.34
 S_e = 0.00

CURVE DATA FOR -RP1G-
 P1 STA: 17+01.928
 P2 STA: 17+41.928
 Δ = 40.00
 L = 30.667
 R = 153.34
 S_e = 0.00

CURVE DATA FOR -RP1H-
 P1 STA: 14+22.203
 P2 STA: 14+62.203
 Δ = 40.00
 L = 30.667
 R = 153.34
 S_e = 0.06

CURVE DATA FOR -RP1I-
 P1 STA: 16+55.929
 P2 STA: 17+01.928
 Δ = 46.00
 L = 30.667
 R = 153.34
 S_e = 0.00



MATCH LINE -Y1- 23+60.00 SEE SHEET 9

MATCH LINE -Y1- 27+00.00 SEE SHEET 15

PROJECT REFERENCE NO. SHEET NO. 14
 CONTRACT NO. 17
 ROADWAY DESIGN ENGINEER
 HYDRAULICS ENGINEER

PRELIMINARY PLANS
 BY THE USE OF THIS DRAWING

Permit Drawing
Sheet 30 of 30

SEE SHEET 33 FOR -RPID- PROFILE
 SEE SHEET 45 FOR -RHC- PROFILE
 SEE SHEET 46 FOR -RHC- PROFILE
 SEE SHEETS 33-38 FOR -Y1- PROFILE

PLANS PREPARED BY
ROBINSON & ROBINSON, INC.
 100 WEST 10TH AVENUE
 DENVER, CO 80202

CONTRACT NO. 17
 R/W DIV.

SCALE
 1" = 40.00'

DATE
 11/15/00

CURVE DATA FOR -Y1-
 P1 Stg 317.3176
 Δ = 487.735
 L = 446.485
 R = 6,550.000
 S_c = 0.025

CURVE DATA FOR -RPID-
 P1 Stg 127.0020
 Δ = 66.416 (RT)
 L = 210.240
 R = 320.000
 S_c = 0.07

CURVE DATA FOR -RPID-
 P1 Stg 107.4054
 Δ = 4.55255
 L = 52.000
 R = 18.346
 S_c = 0.07

CURVE DATA FOR -RPID-
 P1 Stg 127.0020
 Δ = 66.416 (RT)
 L = 210.240
 R = 320.000
 S_c = 0.07

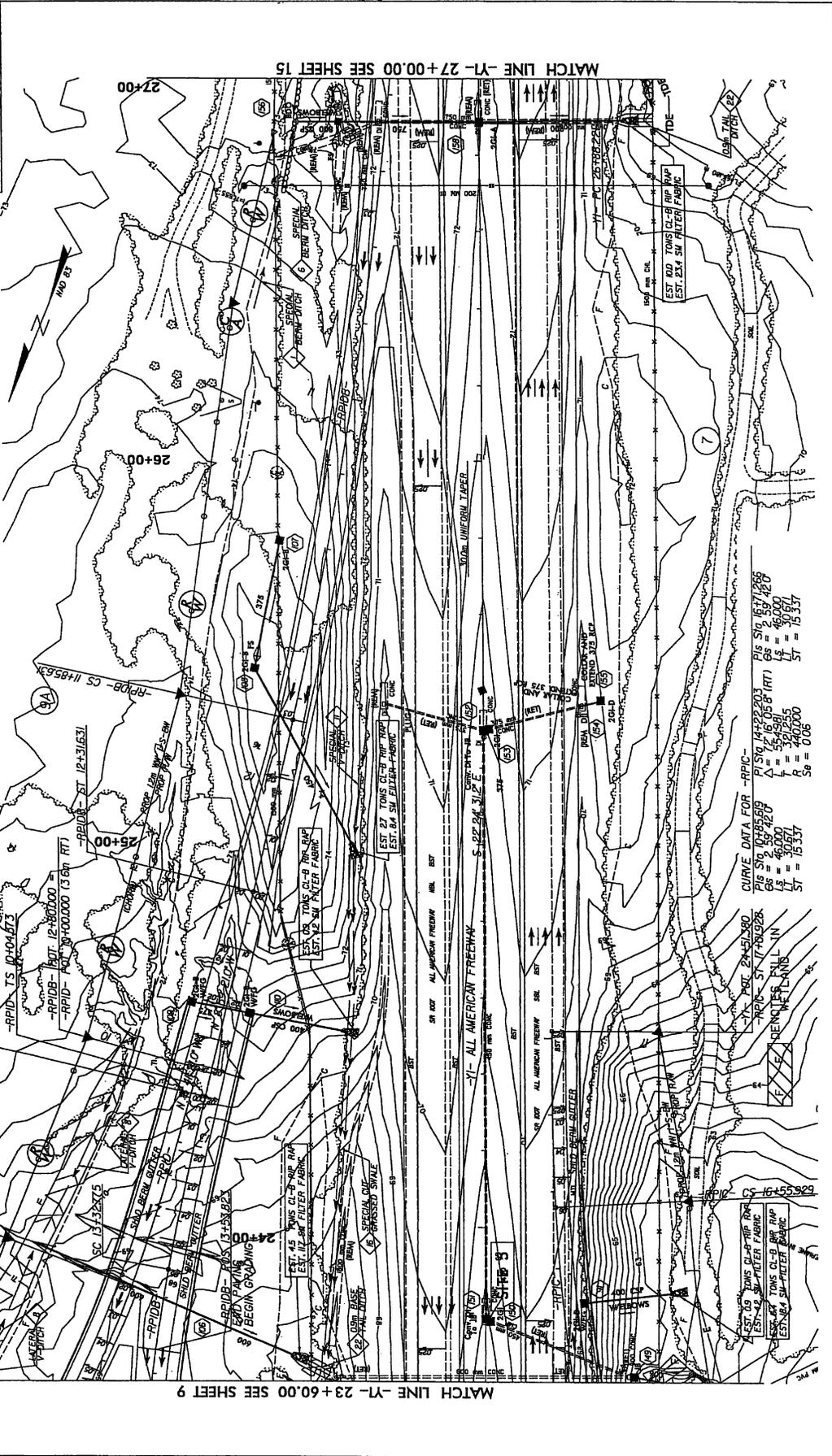
CURVE DATA FOR -RPID-
 P1 Stg 107.4054
 Δ = 4.55255
 L = 52.000
 R = 18.346
 S_c = 0.07

CURVE DATA FOR -RPID-
 P1 Stg 94.16704
 Δ = 0.58286
 L = 30.667
 R = 15.334
 S_c = 0.03

CURVE DATA FOR -RPID-
 P1 Stg 127.0020
 Δ = 66.416 (RT)
 L = 210.240
 R = 320.000
 S_c = 0.07

CURVE DATA FOR -RPID-
 P1 Stg 107.4054
 Δ = 4.55255
 L = 52.000
 R = 18.346
 S_c = 0.07

CURVE DATA FOR -RPID-
 P1 Stg 127.0020
 Δ = 66.416 (RT)
 L = 210.240
 R = 320.000
 S_c = 0.07



MATCH LINE -Y1- 27+00.00 SEE SHEET 15

MATCH LINE -Y1- 23+60.00 SEE SHEET 9