

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
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

February 7, 2011

RECEIVED

FEB 14 2011

Regulatory Division

Action ID: SAW-2004-20400⁵

RALEIGH REGULATORY FIELD OFFICE

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

Dear Mr. Thorpe:

In accordance with your written request of August 14, 2010, including the revisions submitted on December 9, 2010, and the ensuing administrative record, enclosed is a copy of a permit to authorize the proposed permanent placement of fill material into 2,610 linear feet of jurisdictional stream channels and 0.001 acre of adjacent riparian Wetlands. Also included within the permit is the temporary placement of fill material within 493 linear feet of jurisdictional stream channels and 0.006 acre of adjacent riparian wetlands. These impacts are associated with the proposed widening and improvement of 6.7 miles of US 29 Business (Freeway Drive) from SR 2670 (south Scales Street) to NC 14 in Reidsville, Rockingham County, North Carolina. This project is referred to as Transportation Improvement Project (TIP) U-3326AB. Section A of this project begins at South Scales Street and Terminates at US 158 (Richardson Drive) and Section B begins at Richardson Drive and ends at NC 14.

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.

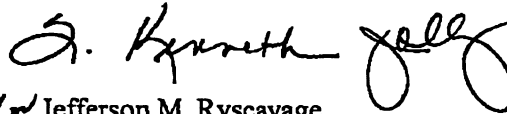
Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant general conditions require that:

- a. You must complete construction before December 31, 201⁵~~1~~.
- b. You must notify this office in advance as to when you intend to commence and complete work.

c. 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 should address all questions regarding this authorization to Mr. Andrew Williams at the Raleigh Regulatory Field Office, telephone (919) 554-4884 extension 26.

Sincerely,


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

Enclosures

Copies Furnished (with enclosures):

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

Mr. Ronald J. Mikulak, Chief
Wetlands Protection Section – Region IV
Water Management Division
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, Georgia 30303

Copies Furnished with special conditions
and plans:

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

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

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

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

DEPARTMENT OF THE ARMY PERMIT

Permittee: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

RECEIVED

Permit No: SAW-2004-20400

FEB 02 2011

Issuing Office: USAED, WILMINGTON

REG. WILM. FLD. OFC.

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 the office acting under the authority of the commanding officer.

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

Project Description: The project, identified as U-3326AB, consists of widening U.S. Business 29 (Freeway Drive) from SR 2670 (South Scales Street) northward to NC 14 in Reidsville, Rockingham County, North Carolina. The total length of the project is 6.7 miles. Section U-3326A is 2.0 miles in length and begins at SR 2670 (South Scales Street) and ends at US 158 (Richardson Drive). Section U-3326B is 4.7 miles in length and begins at US 158 and ends at NC 14. The roadway cross-section consists of two 12-foot travel lanes in each direction, and a raised 17.5-foot wide curb and guttered median. Section A will have 8 foot shoulders, four feet of which is paved. Section B will have an outside curb and gutter. Total permanent impacts for the construction of this project are 2,610 linear feet of stream channel and 0.001 acre of riparian wetlands. Total temporary impacts are 493 linear feet of stream channel and 0.006 acre of riparian wetlands. 854 linear feet of permanent stream channel impacts, 188 linear feet of temporary stream channel impacts, 0.001 acre of permanent adjacent wetlands impacts, and 0.002 acre of temporary adjacent wetlands impacts are within the Cape Fear River basin (Hydrologic Categorical Unit 03030002). 1,756 linear feet of permanent stream channel impacts, 305 linear feet of temporary stream channel impacts and 0.004 acre of temporary adjacent wetlands impacts are within the Roanoke River Basin (Hydrologic Categorical Unit 03010103). The applicant will mitigate for unavoidable impacts to streams by providing payment into the North Carolina Ecosystem Enhancement Program (NCEEP) for 3,946 Warm Stream Mitigation Units. 1,070 mitigation units will be purchased within the Cape Fear River Basin (Cataloging Unit 03030002) and 2,876 mitigation units will be purchased within the Roanoke River Basin (Cataloging Unit 03010103).

Project Location: The project, identified as U-3326AB, begins at the existing SR 2670 (South Scales Street) and extends approximately 6.7 miles northward to NC 14 in Reidsville, Rockingham County, North Carolina. Coordinates (in decimal degrees) for the site are 36.3579° N, -79.6894° W (NAD83/WGS84). The site contains a portion of Little Troublesome Creek, one (1) unnamed tributary to Little Troublesome Creek, three (3) unnamed tributaries to Troublesome Creek-Lake Reidsville and two (2) adjacent wetland areas, in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002). Additionally, the site contains thirteen (13) unnamed tributaries to Wolf Island Creek, and one (1) adjacent wetland in the Roanoke River Basin (8-Digit Cataloging Unit 03010103). Little Troublesome Creek and Troublesome Creek flow to the Haw River which flows to the Cape Fear River, a navigable water of the United States. Wolf Island Creek flows to the Dan River which flows to the Roanoke River, a navigable water of the United States.

Permit Conditions:

General Conditions:

1. **The time Limit for completing the work authorized ends on December 31, 2015. 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 Conditions 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 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).**
- 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 33CFR 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 measure 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.L. Lusk for Gregory J. Thayer, PhD 1.27.11
(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.

J. Kenneth Jell 2-1-11
(DISTRICT ENGINEER) JEFFERSON M. RYSCAVAGE, COLONEL (DATE)

I 404

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.

(TRANSFEEE)

(Date)

SPECIAL CONDITIONS
Action ID. SAW-2004-20400
North Carolina Department of Transportation - TIP U-3326AB

Work Limits

- a) All work authorized by this permit must be performed in strict compliance with the attached plans, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (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. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. 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.
- d) Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

Related Laws

- 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) 807-6300, or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

Project Maintenance

- * f) The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.
- g) 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.

SPECIAL CONDITIONS**Action ID. SAW-2004-20400****North Carolina Department of Transportation - TIP U-3326AB**

- h) The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, shall be available at the project site during construction and maintenance of this project
- i) 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).
- j) 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

- k) 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.

Culverts

- l) All authorized culverts will be installed to allow the passage of low stream flows and the continued movement of fish and other aquatic life as well as to prevent headcutting of the streambed. For all box culverts and for pipes greater than 48 inches in diameter, the bottom of the pipe will be buried at least one foot below the bed of the stream unless burial would be impractical and the Corps of Engineers has waived this requirement. For culverts 48 inches in diameter or smaller, the bottom of the pipe must be buried below the

SPECIAL CONDITIONS
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North Carolina Department of Transportation - TIP U-3326AB

bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. 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. In order to allow for the continued movement of bed load and aquatic organisms, existing stream channel widths and depths will be maintained at the inlet and outlet ends of culverts. Riprap armoring of streams at culvert inlets and 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.

Preconstruction Meeting

- m) The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Raleigh Regulatory Field Office, 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, 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 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 Corps and NCDWQ Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting.

Borrow And Waste

- n) 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

SPECIAL CONDITIONS
Action ID. SAW-2004-20400
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400 feet of any streams or wetlands. All jurisdictional wetland lines on borrow and waste sites shall be verified by the Corps of Engineers and shown on the approved reclamation plans. 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 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.

EEP Mitigation

- * o) Compensatory mitigation for impacts to 854 linear feet of stream associated with the proposed project shall be provided by the North Carolina Ecosystem Enhancement Program (NCEEP), sufficient to perform the restoration of 1,070 linear feet of warm water stream in the Cape Fear River Basin, Cataloging Unit 03030002. Additionally, compensatory mitigation for impacts to 1,756 linear feet of stream associated with the proposed project shall be provided by the NCEEP, sufficient to perform the restoration of 2,876 linear feet of warm water stream in the Roanoke River Basin, Cataloging Unit 03010103. NCEEP shall become responsible for providing the required mitigation only after the Corps has received written confirmation from NCEEP stating that they agree to accept responsibility for the mitigation work required, in compliance with the NCEEP In-Lieu Fee Instrument, approved by the United States Army Corps of Engineers, Wilmington District on July, 28, 2010. Until the Corps receives this confirmation letter from NCEEP, NCDOT remains responsible for this mitigation requirement. If the Corps has not received a confirmation from NCEEP within 150 days of the date of this verification, NCDOT shall provide plans to accomplish the required mitigation to the Corps of Engineers within 210 days of the date of this verification.



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North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

December 9, 2010

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

DEC 13 2010

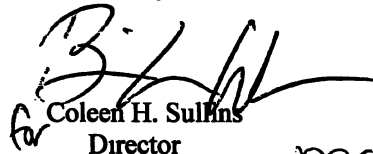
Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for Proposed widening of US 29 Business (Freeway Drive) form SR 2670 (South Scales Street) to NC 14 in Reidsville, Rockingham County, Division 7 Federal Aid Project No. STP-29B (1), State Project No. 8.1511901, WBS Element No. 34924.1.1, TIP U-3326 A and B. DWQ project no. 20100747.

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 003843 issued to The North Carolina Department of Transportation (NCDOT) dated December 9, 2010.

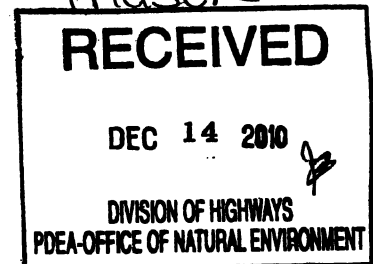
If we can be of further assistance, do not hesitate to contact us.

Sincerely,


Coleen H. Sullins
Director

Attachments

- cc: Andy Williams, US Army Corps of Engineers, Raleigh Field Office
- Mike Mills, PE, Division 7 Engineer
- Jerry Parker, Division 7 Environmental Officer
- Chris Militscher, Environmental Protection Agency
- Travis Wilson, NC Wildlife Resources Commission
- Beth Harmon, Ecosystem Enhancement Program
- Wetlands/401 Transportation Permitting Unit
- File Copy



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

One
North Carolina
Naturally

**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 (NCDWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact less than 0.01 acres of jurisdictional wetlands and 3103 linear feet of jurisdictional streams in Rockingham County. The project shall be constructed pursuant to the application dated received September 9, 2010, with additional information dated received December 2, 2010. The authorized impacts are as described below:

Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
1			97	67	164	0
1a	43				43	0
2	71	12			83	0
3	51				51	0
4	114	18			132	0
5			406	64	470	406
6			72	27	99	0
Total	279	30	575	158	1,042	406

Total Stream Impact for Project in the Cape Fear River Basin: 1,042 linear feet

Stream Impacts in the Roanoke River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
7			212	7	219	212
8	56	31			87	0
9			117	20	137	0
10			161	56	217	161
11			75	11	86	0
12			175	33	208	175
13	194	21			215	0
14	165	12			177	0
15a	66	7			73	0
15b			207	17	224	207
15c	90				90	0
16	4	10			14	0
17			95	38	133	0
18			139	42	181	0
Total	575	81	1,181	224	2,061	755

Total Stream Impact for Project in the Roanoke River Basin: 2,061 linear feet

Wetland Impacts in the Cape Fear and Roanoke River Basins

Site	Fill (ac)	Mechanized Clearing (ac)	Total Wetland Impact (ac)	River Basin
6	0.001	0.002	0.003	Cape Fear
9	0	0.004	0.004	Roanoke
Total	0.001	0.006	0.007	

Total Wetland Impact for Project: 0.007 acres.

The application provides adequate assurance that the discharge of fill material into the waters of the **Cape Fear and Roanoke River Basins** 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 dated received September 9, 2010, with additional information dated received December 2, 2010. Should your project change, you are required to notify the NCDWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If 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.

Condition(s) of Certification:

Project Specific Conditions

1. Culvert extensions are not required to be buried unless existing culverts are embedded or the entire culvert is replaced. For all other culverts, placement of culverts and other structures in open waters and streams 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 downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
2. The NCDOT Division Environmental Officer will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the potential issues with stream and pipe alignment at the permitted site. NCDWQ staff shall be invited to the pre-construction meeting.
3. NCDOT shall design, construct, and operate and maintain hazardous spill catch basins (HSCBs) at the sole stream crossing within the WS CA watershed. The HSCBs shall be located at Station numbers -L- Station 33+60 to 34+50 Lt.
4. Modifications to this permit will be subject to Jordan Lake Buffer Rules as described in 15A NCAC 02B .0268 and DWQ's Intermittent Stream Policy effective October 16, 2009

- * 5 Compensatory mitigation for 406 linear feet of impact to streams in the Cape Fear River Basin and 755 linear feet of impact to streams in the Roanoke River Basin are required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated May 11, 2010 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.
- 6. 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.
- 7 Channel relocations shall be completed and stabilized, and approved on site by DWQ staff, prior to diverting water into the new channel. Stream banks shall be matted with coir-fiber matting. Vegetation used for bank stabilization shall be limited to native riparian vegetation, and should include establishment of a vegetated buffer on both sides of the relocated channel to the maximum extent practical. Also, any rip-rap that is shown in the permit is considered allowable. If additional rip-rap is necessary to maintain the physical integrity of the stream, the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested.
- 8. 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.
- 9 For the 493 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.
- 10. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining the stream bank stability Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species.
- 11. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery
- 12. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due to biological criteria exceedances shall not discharge stormwater directly to surface waters. Stormwater shall be treated using appropriate best management practices (e.g., vegetated conveyances, constructed wetlands, detention ponds, etc.) prior to discharging to surface waters.

General Project Conditions

- 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 NCDWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, NCDWQ may reevaluate and modify this certification.
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 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. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the 401 Certification has been completed.
- 29 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.
30. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.
31. 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.

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 you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919)-733-2698, Facsimile: (919)-733-3478

A copy of the petition must also be served on DENR as follows:

Ms. Mary Penny Thompson, General Counsel
Department of Environment and Natural Resources
1601 Mail Service Center
Raleigh, NC 27699-1601

This the 9th day of December 2010

DIVISION OF WATER QUALITY



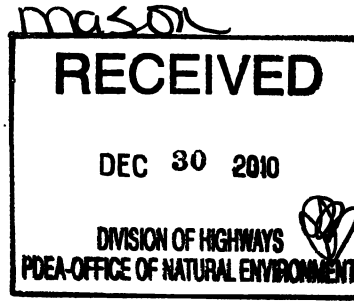
For Coleen H. Sullins
Director



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor



Dee Freeman
Secretary

December 22, 2010

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

Subject: Correction to 401 Water Quality Certification No. 3843, NCDWQ Project No. 20100747. TIP U-3326 A and B

Dear Dr. Thorpe:

This letter is in regards to the Individual Water Quality Certification No. 3843 issued December 9, 2010. Please note the changes to site 14 in the stream impact table for the Roanoke River Basin and to condition 5

Stream Impacts in the Roanoke River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
7			212	7	219	212
8	56	31			87	0
9			117	20	137	0
10			161	56	217	161
11			75	11	86	0
12			175	33	208	175
13	194	21			215	0
14			165	12	177	165
15a	66	7			73	0
15b			207	17	224	207
15c	90				90	0
16	4	10			14	0
17			95	38	133	0
18			139	42	181	0
Total	575	81	1181	224	2061	920

* 5 Compensatory mitigation for 406 linear feet of impact to streams in the Cape Fear River Basin and 920 linear feet of impact to streams in the Roanoke River Basin are required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated May 11, 2010 that they will assume responsibility for

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

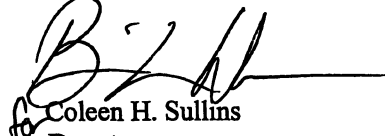


416

satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.

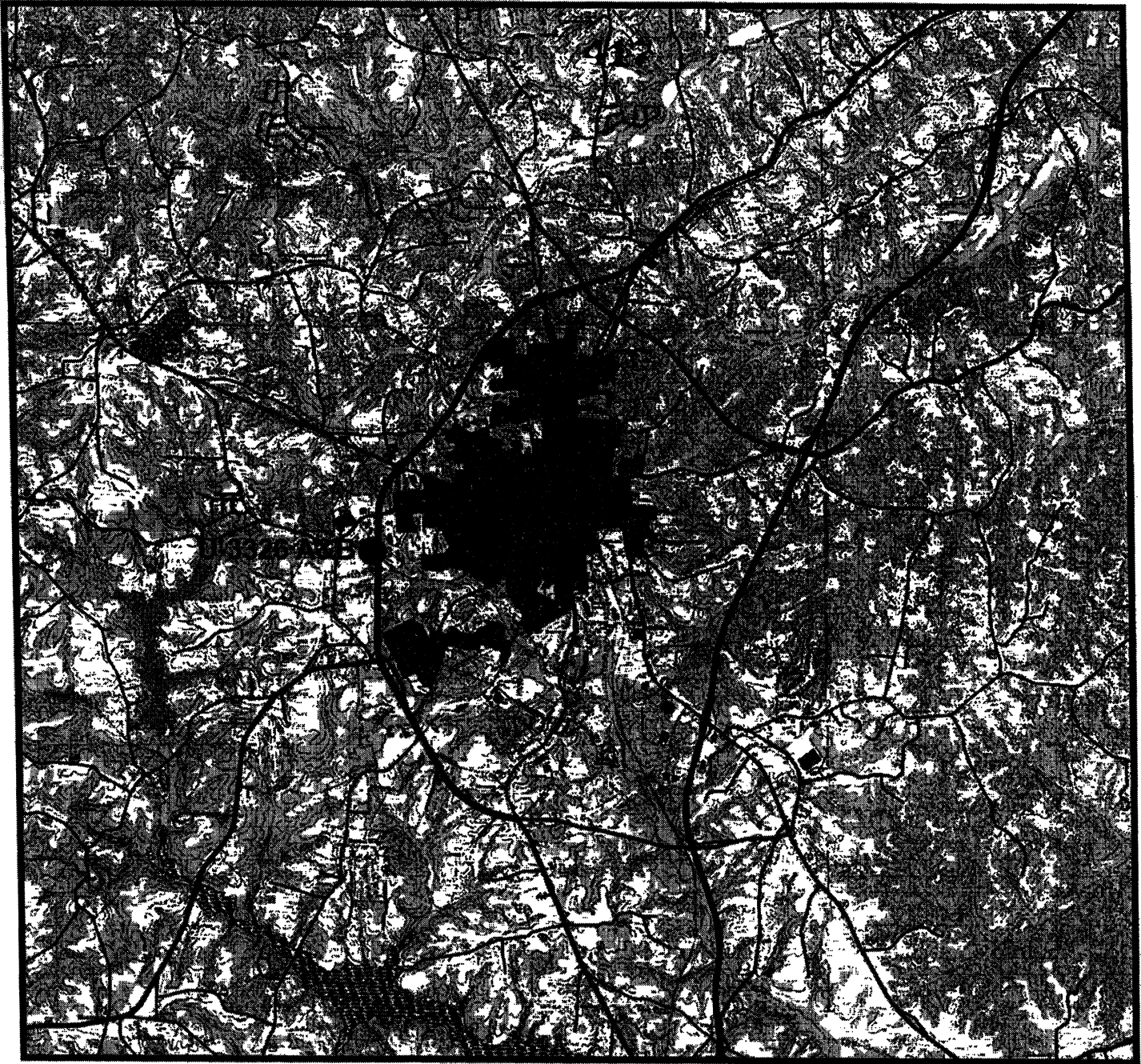
Please keep a copy of this letter with the original certification. If we can be of further assistance, do not hesitate to contact us:

Sincerely,



Coleen H. Sullins
Director

cc: Andy Williams, US Army Corps of Engineers, Raleigh Field Office
Mike Mills, PE, Division 7 Engineer
Jerry Parker, Division 7 Environmental Officer
Chris Militscher, Environmental Protection Agency
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Ecosystem Enhancement Program
Wetlands/401 Transportation Permitting Unit
File Copy



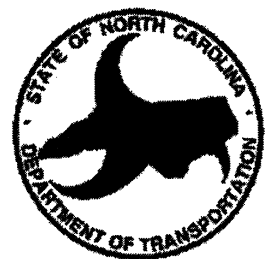
0 0.5 1 Miles

N



TIP U-3326 A&B

**Road Widening of US 29 Business to a Multi-Lane Facility from SR 2670 (South Scales Street) to NC 14
Rockingham County**



Site No.	Parcel No.	Property Owner Name	Property Owner Address
1	3	Richard W. Wikle & wife Claudine P Wikle	911 Oakcrest Drve, Reidsville, NC 27320
	5	Claudine P Wikle	911 Oakcrest Drve, Reidsville, NC 27320
	6	Holy Infant Catholic Church	P.O. Box 1197, Reidsville, NC 27323
1A	5	Claudine P Wikle	911 Oakcrest Drve, Reidsville, NC 27320
2	36	B & S Services, Inc. of NC	P.O. Box 567, Reidsville, NC 27323
3	43	Hugh W. Cobb & wife Judith T Cobb	1309 Ridgewood Ave., Reidsville, NC 27320
	44	North Carolina Farm Credit, ACA	P.O. Box 1827, Statesville, NC 28687
4	46	Elizabeth Hobbs Hux & husband Kenneth Jefferson Hux	1422 Freeway Drve, Reidsville, NC 27320
	47	Rendal Clayton Putnam & wife Cynthia Gentry Putnam	2403 Pine Lane, Reidsville, NC 27320
5	71	Danny W. Trent	1561 Freeway Drve, Reidsville, NC 27320
	72	Charles W. Trent, Jr., & wife Betty P Trent	2623 Reid School Rd., Reidsville, NC 27320
	73	Stephen E. Smith	580 Boyd Rd., Reidsville, NC 27320
6	73	Stephen E. Smith	580 Boyd Rd., Reidsville, NC 27320
	75	State Employees' Credit Union	P.O. Box 26807, Raleigh, NC 27611
	76	Reidsville Centre, LLC	364 Lowes Drve, Suite Q, Danville, VA 24540
7	88	Nellie K. Loftis Crouch	
8	101	Cardinal Holdings, LLC	P.O. Box 2883, Reidsville, NC 27323
	170	James K. Festerman & Pnscilla Festerman	1201 Benton Lane, Reidsville, NC 27320
	105	Adola Investments, LLC	1828 Trentwood Circle, Reidsville, NC 27320
	104	William Harmon, Judy Harmon, et al	1267 Towncreek Rd., Eden, NC 27288
9	106	Jared Russell Cox	1509 Independence Rd., Greensboro, NC 27408
	103	Smothers Warehouse, Inc.	1007 Oakcrest Drve, Reidsville, NC 27320

List of Property Owners

NC Dept. of Transportation
Division of Highways
Rockingham County
WBS - 34924.1.1 (U-3326A/B)

Revised January 25, 2010; Added Site 1A

Sheet 1 of 58

07/01/09

Site No.	Parcel No.	Property Owner Name	Property Owner Address
10	114	Irving K. Bass & wife Mae P Bass	817 Hilltop Blvd., Reidsville, NC 27320
	113	Carol Ann Adams	1502 Rosedale Blvd., Reidsville, NC 27320
	115	Scott Cook, LLC	2019 Freeway Drive, Reidsville, NC 27320
11	114	Irving K. Bass & wife Mae P Bass	817 Hilltop Blvd., Reidsville, NC 27320
12	122	Reidsville Insurance Company	1206 Cypress Drive, Reidsville, NC 27320
	123	Veita J. Bland	1317 N. Elm Street, Ste 7, Greensboro, NC 27401
13	123	Veita J. Bland	1317 N. Elm Street, Ste 7, Greensboro, NC 27401 P.O. Box 98, Eden, NC 27289
		Robert G. Simyon	
14	141	Pauline R. Tillotson	230 West Morehead Street, Reidsville, NC 27320 P.O. Box 1106, Reidsville, NC 27323 P.O. Box 2363, Reidsville, NC 27323
	140	City of Reidsville, A Municipal Corp.	
	142	Ronald E. Harris & wife Barbara W. Harris	
	139	Barbara C. Loy	
15	139	Barbara C. Loy	P.O. Box 2363, Reidsville, NC 27323
	141	Pauline R. Tillotson	P.O. Box 1106, Reidsville, NC 27323
	142	Ronald E. Harris & wife Barbara W. Harris	
16	144	Tank Land, A North Carolina General Partnership	P.O. Box 660, Reidsville, NC 27323
17	160	Lowe's Home Centers, Inc.	P.O. Box 1000-2ETA, Mooresville, NC 28115
	161	Lima Holdings, LLC	P.O. Box 843, Wilkesboro, NC 28697
18	163	Michael W. Apple	P.O. Box 629, Reidsville, NC 28323

List of Property Owners

NC Dept. of Transportation
 Division of Highways
 Rockingham County
 WBS - 34924.1.1 (U-3326A/B)

WETLAND PERMIT IMPACT SUMMARY

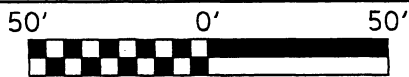
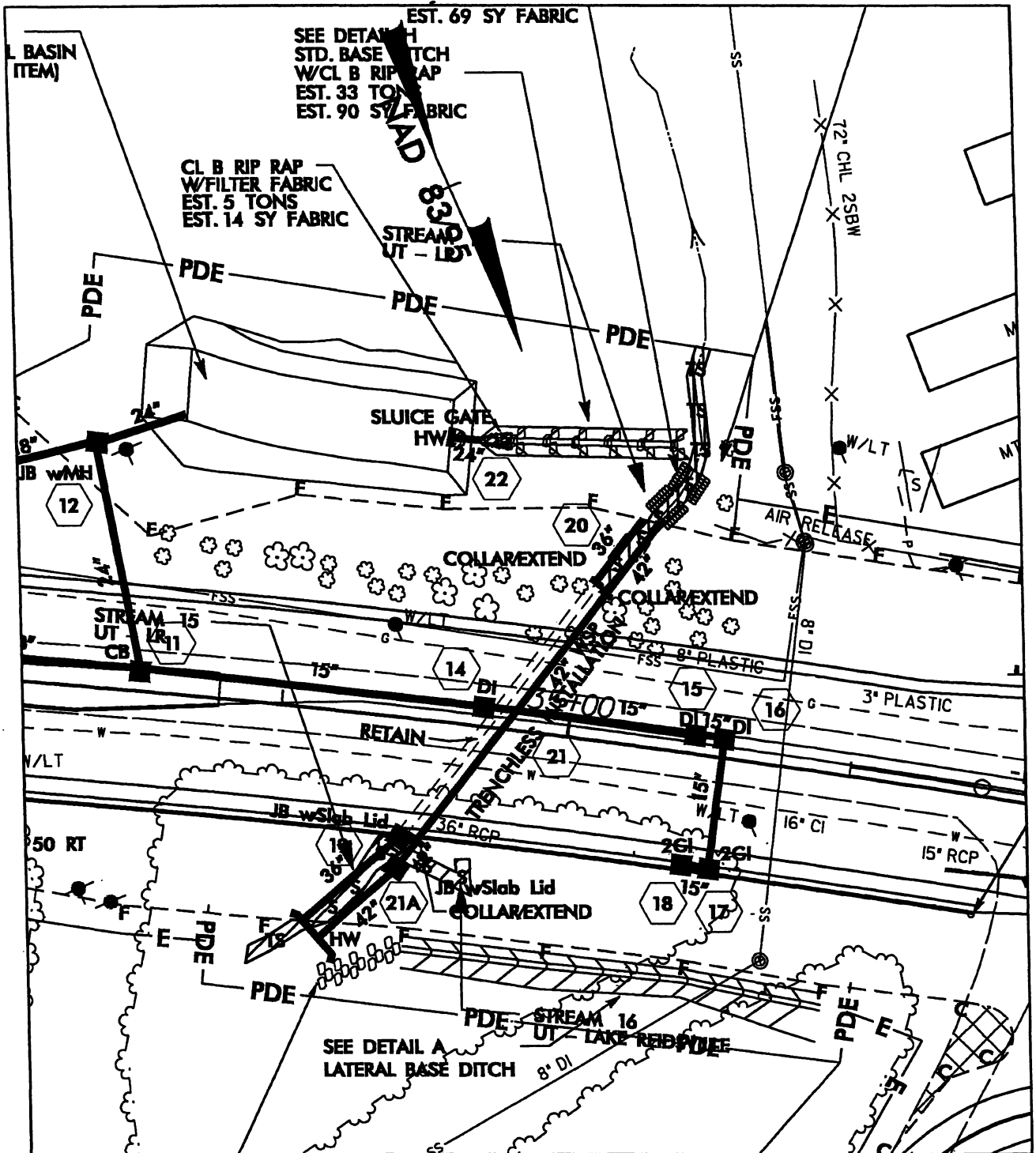
Site No	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS							
			Permanent Fill In Wetlands (ac)	Temp Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW Impacts (ac)	Temp SW Impacts (ac)	Existing Channel Impacts (ft)	Existing Channel Temp Impacts (ft)	Natural Stream Design (ft)		
1	-L- 32+83 - 35+32 Bank Stabilization	36" rcp/42" wsp								0.01	0.01	74	67	
1A	-L- 32+83 - 35+32	36" rcp/42" wsp							0.005			23		
2	-Y8A- 12+16 - 12+44	42" rcp								0.01	0.01	71	12	
3	-L- 98+70 - 99+07	30" rcp							0.004			51		
4	-Y10RpC- 10+71 - 12+12	N/A								0.01	0.003	114	18	
5	-L- 147+82 - 152+15	66" rcp								0.05	0.01	406	64	
6	-L- 158+75 - 159+12 Bank Stabilization	54" rcp/48" ws/rcp	0.001			0.002				0.004	0.001	55	27	
7	-L- 184+35 - 186+37 Bank Stabilization	30" csp							0.03		0.003	202	7	
8	-Y13- 31+38 - 31+60 Bank Stabilization	42" & 54" rcp							0.004		0.003	45	31	
9	-L- 209+00 - 210+08	54" rcp				0.004				0.01	0.003	117	20	
10	-L- 224+86 - 227+09 Bank Stabilization	7"x7' rcbc								0.03	0.01	117	56	
11	-L- 225+50 - 226+20	18" rcp								0.004	0.001	75	11	
12	-L- 249+14 - 251+50	2 @ 8"x8' rcbc								0.05	0.01	90	33	
TOTALS.			0.00			0.01				0.22	0.06	1565	346	

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

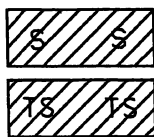
ROCKINGHAM COUNTY
WBS - 34924 1.1 (U-3326A/B)

SHEET **30 of 58** 8/6/2010

Revised January 25, 2010 Added Site 1A
Revised August 4, 2010 Sites 8 (Bank Stabilization)



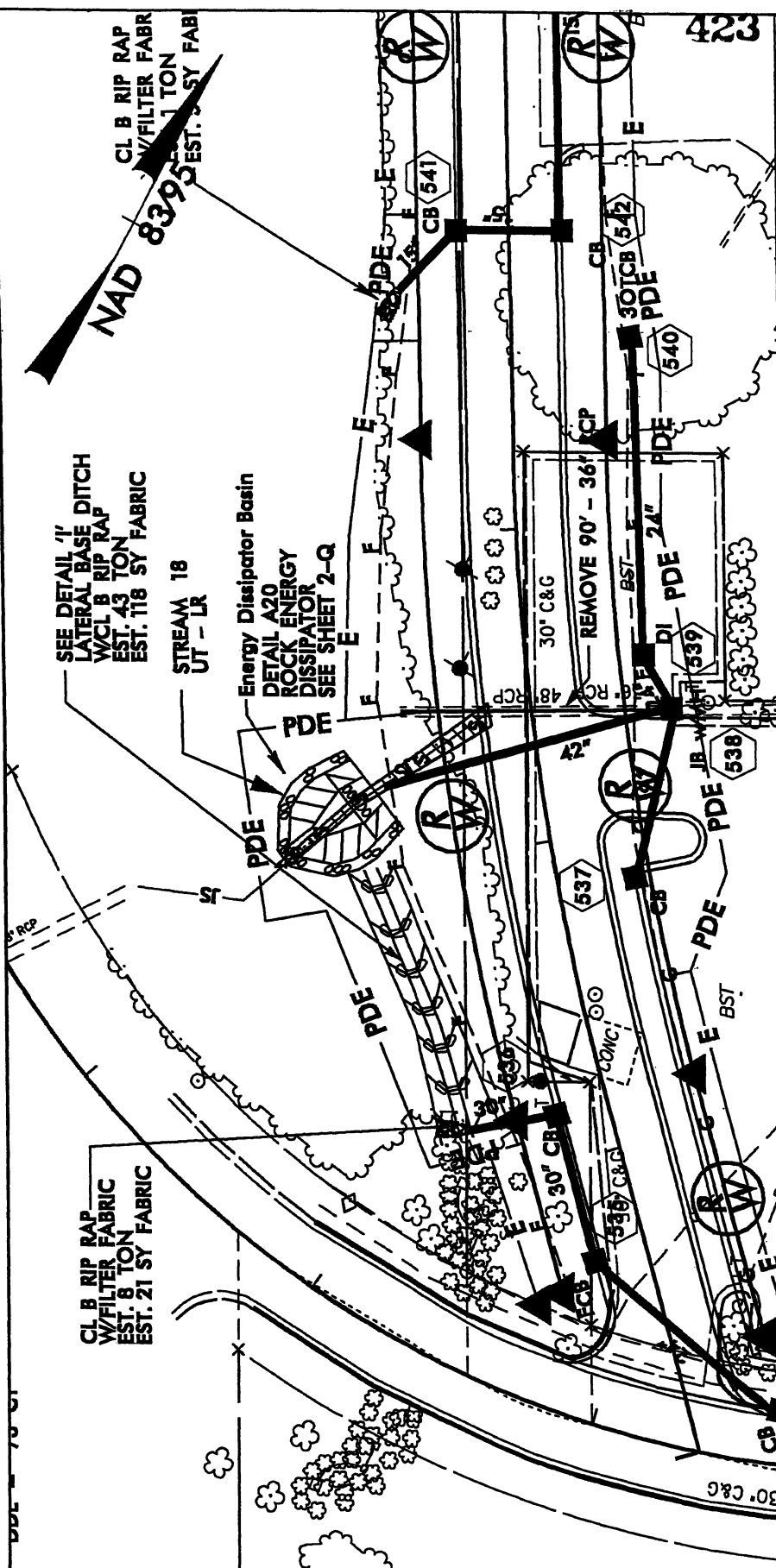
**SITE 1 & 1A
SURFACE WATER IMPACTS**



DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT

DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE



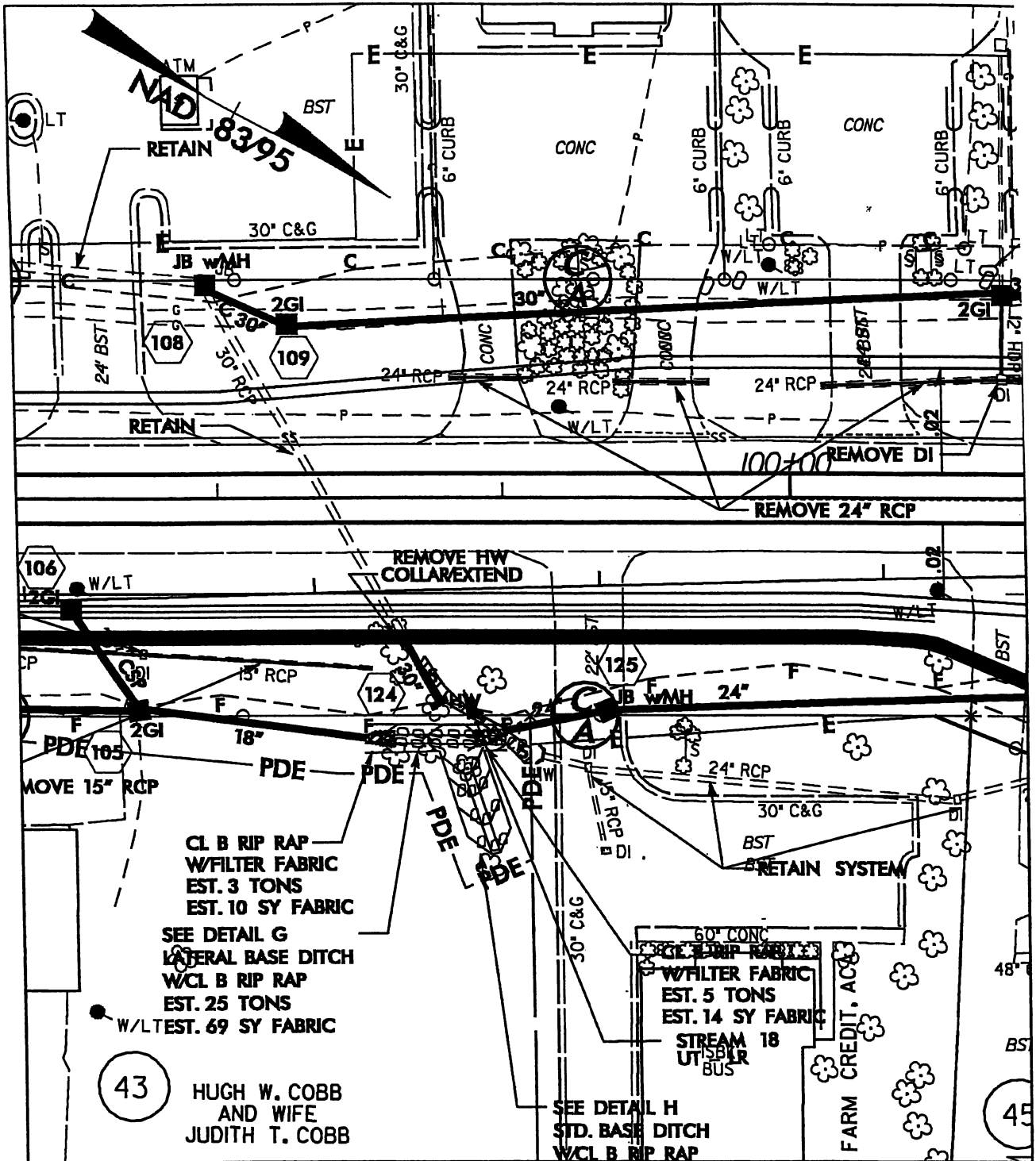
NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

SITE 2
SURFACE WATER IMPACTS

50' 0' 50'

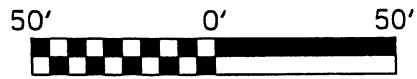
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SHEET 6 OF 58 07/02/09





43 HUGH W. COBB AND WIFE JUDITH T. COBB

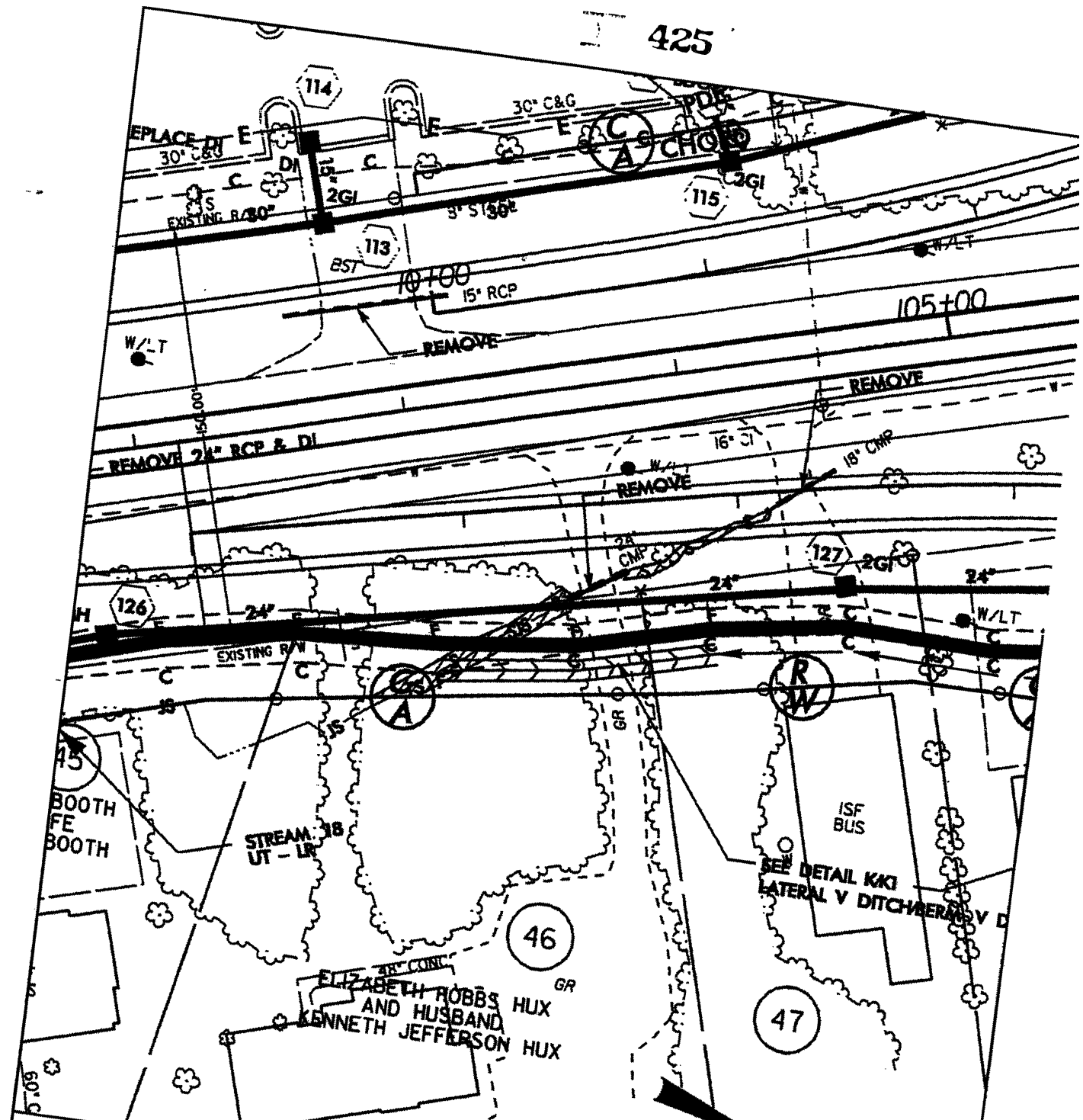
60" CONC
 W/FILTER FABRIC
 EST. 5 TONS
 EST. 14 SY FABRIC
 STREAM 18
 UT/SBLR
 BUS
 SEE DETAIL H
 STD. BASE DITCH
 WCL B RIP RAP



**SITE 3
 SURFACE WATER IMPACTS**

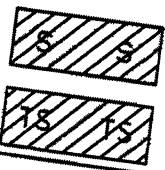
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST)
 TO NC 14 IN REIDSVILLE



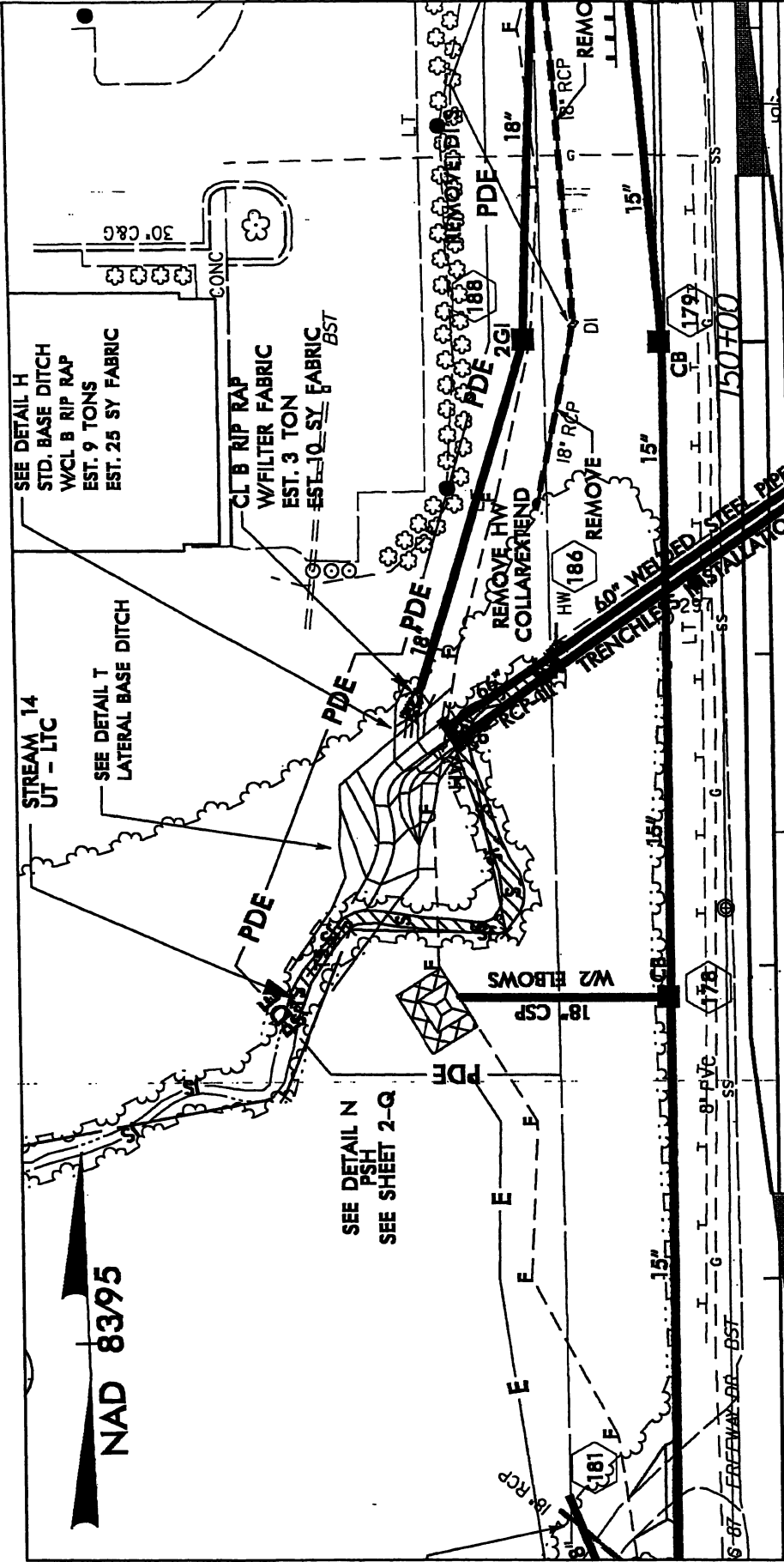
NAD 8395

SITE 4
SURFACE WATER IMPACTS



DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER


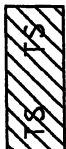
NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.L1 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

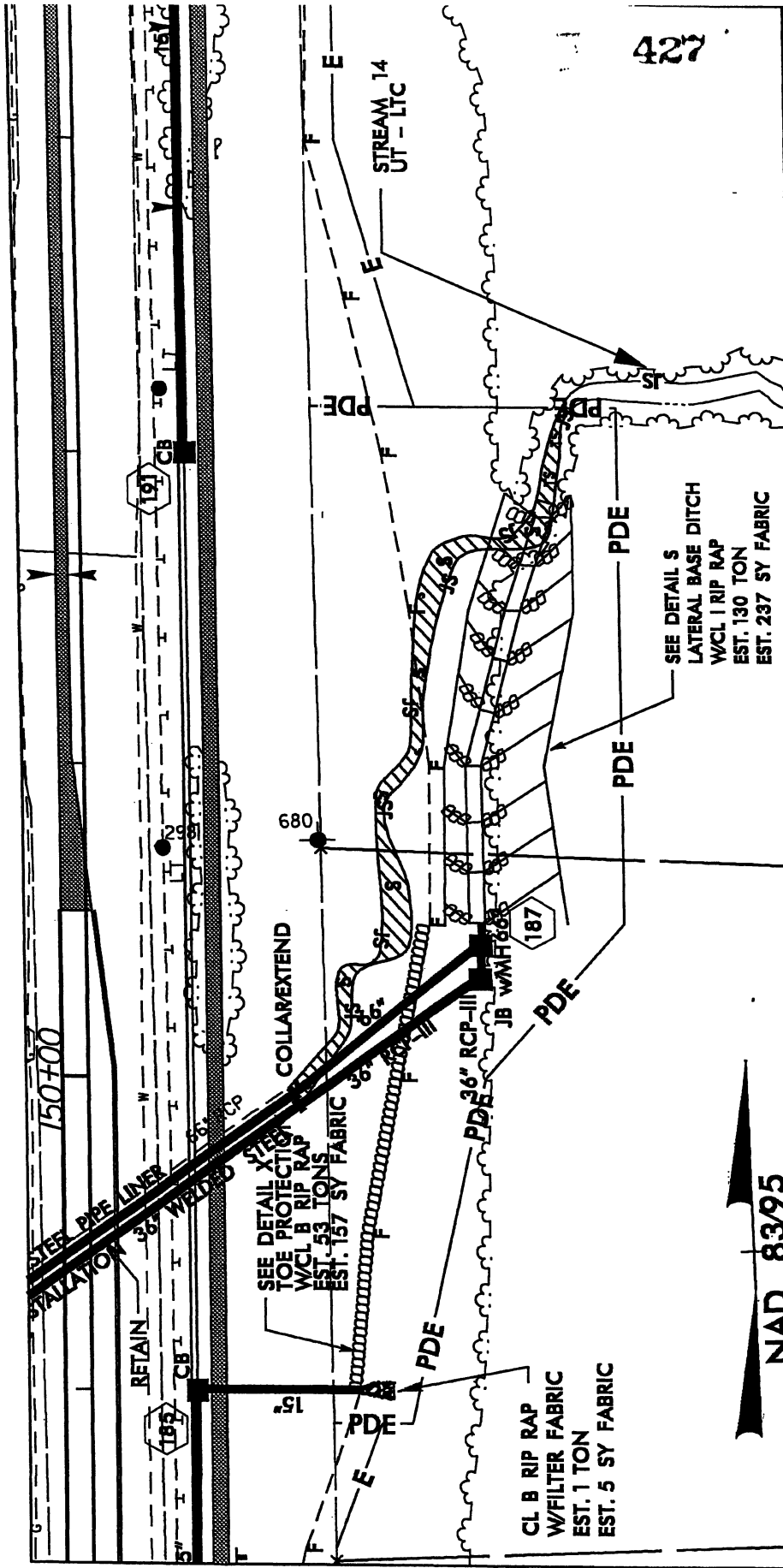


NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 349241.1 (U-3336A-B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

SHEET 9 OF 58 REVISED 08/04/2010 07/02/09

SITE 5
 SURFACE WATER IMPACTS

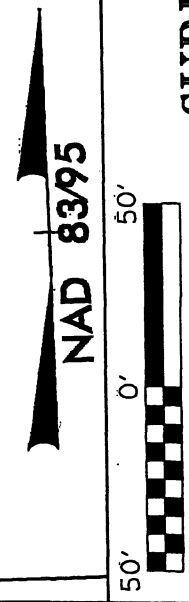
 DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

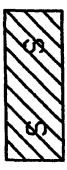



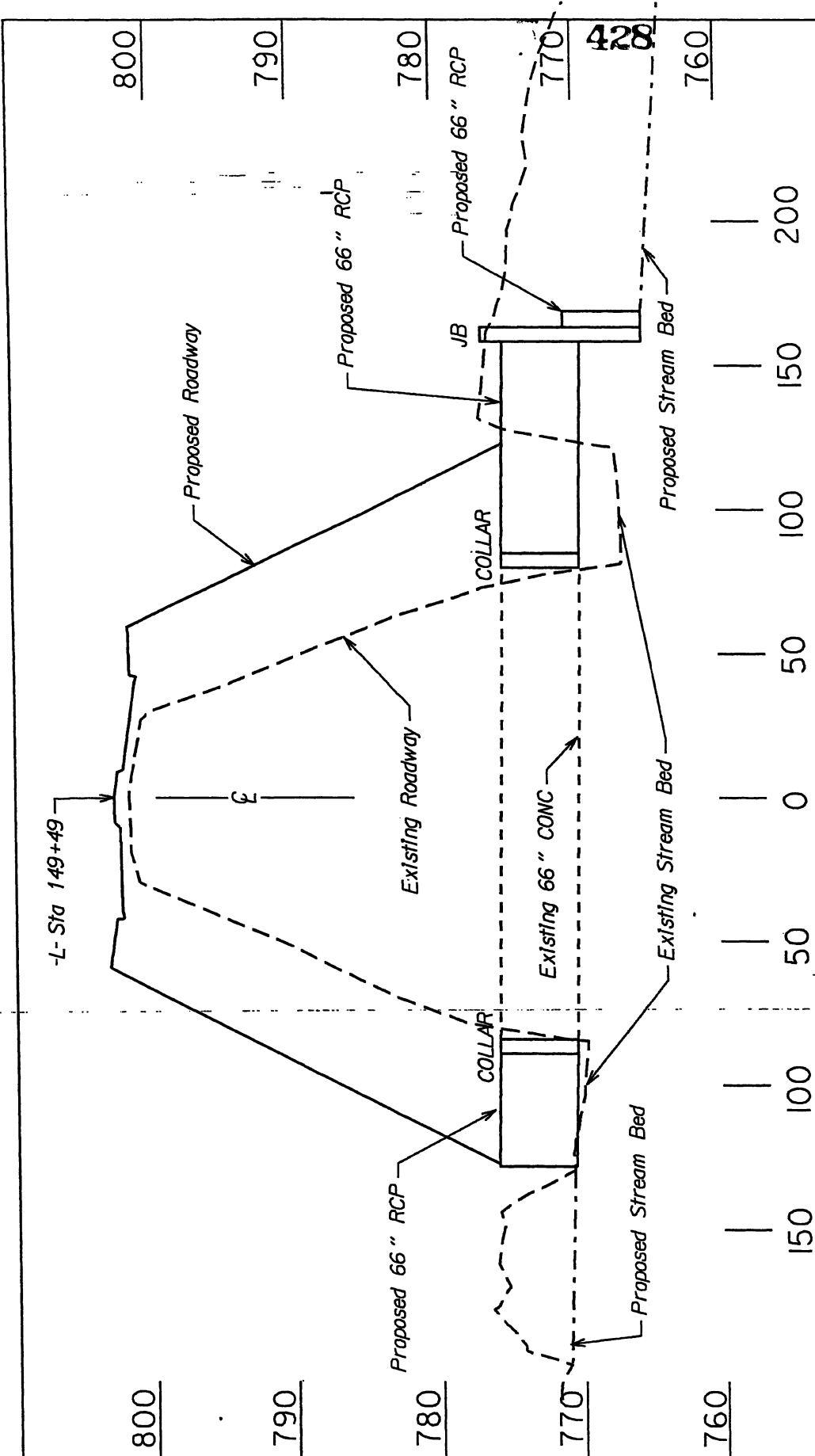
NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.1.1 (U-5326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

REVISED 08/04/2010
 SHEET 10 OF 58 07/02/09

SITE 5
SURFACE WATER IMPACTS



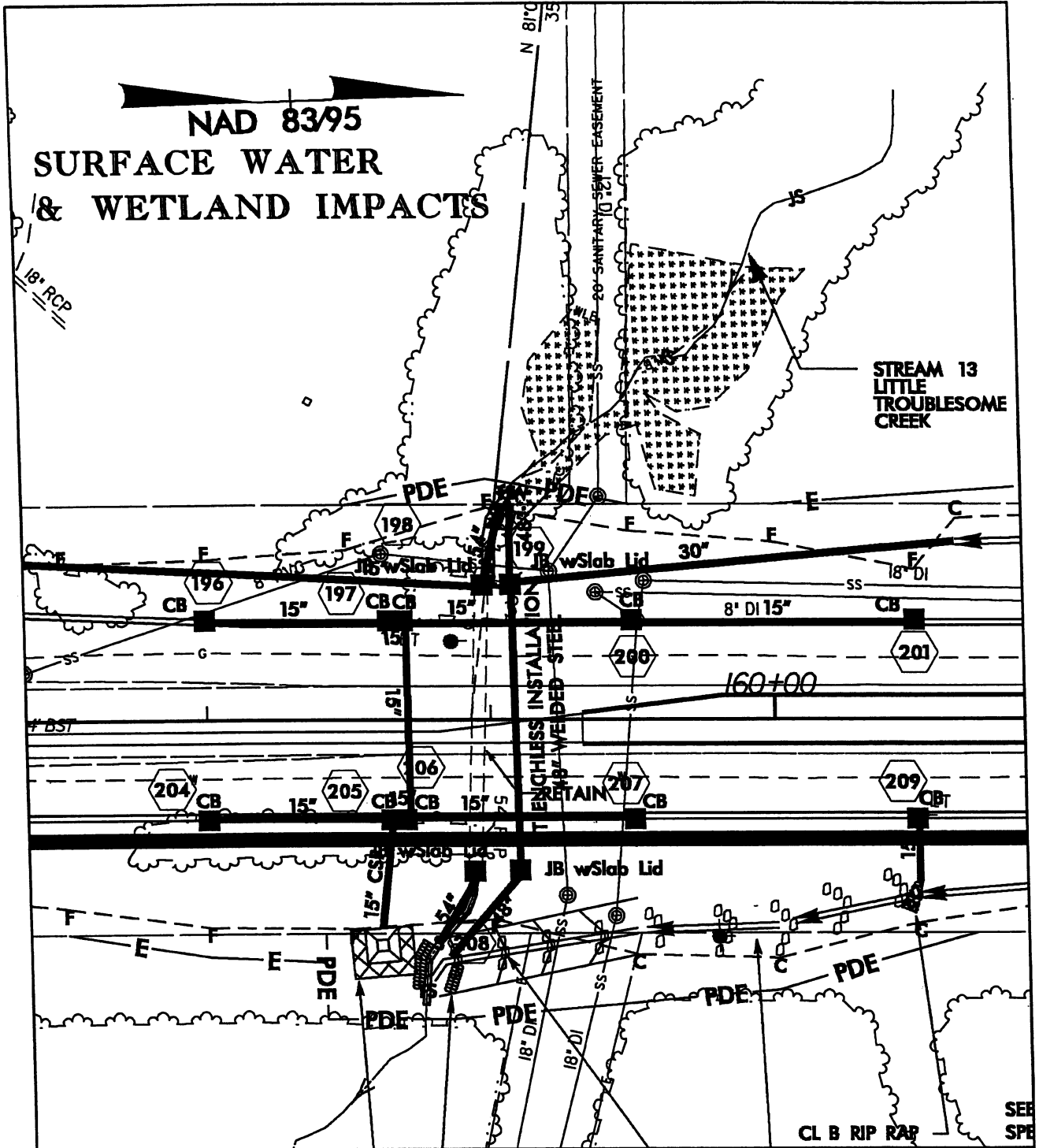
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER



NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326)
 US 29 IN REIDSVILLE
 SHEET 11 OF S8 07/02/09

PROFILE SITE 5

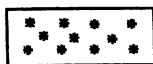


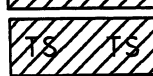
NAD 83/95 SURFACE WATER & WETLAND IMPACTS



50' 0' 50'



SITE 6

-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLAND
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT

DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

NAD 83/95

88

K. LOFTIS CROUCH

SEE DETAIL X
TOE PROTECTION
W/CL B RIP RAP
EST. 61 TONS
EST. 184 SY FABRIC

STREAM 12
UT - WOLF ISLAND CREEK

CL B RIP RAP

30' CSP

18' CSP

15' CSP

REMOVE FES
COLLAREXTEND

430

50' 0' 50'



SITE 7

SURFACE WATER IMPACTS

Denotes Impacts in Surface Water



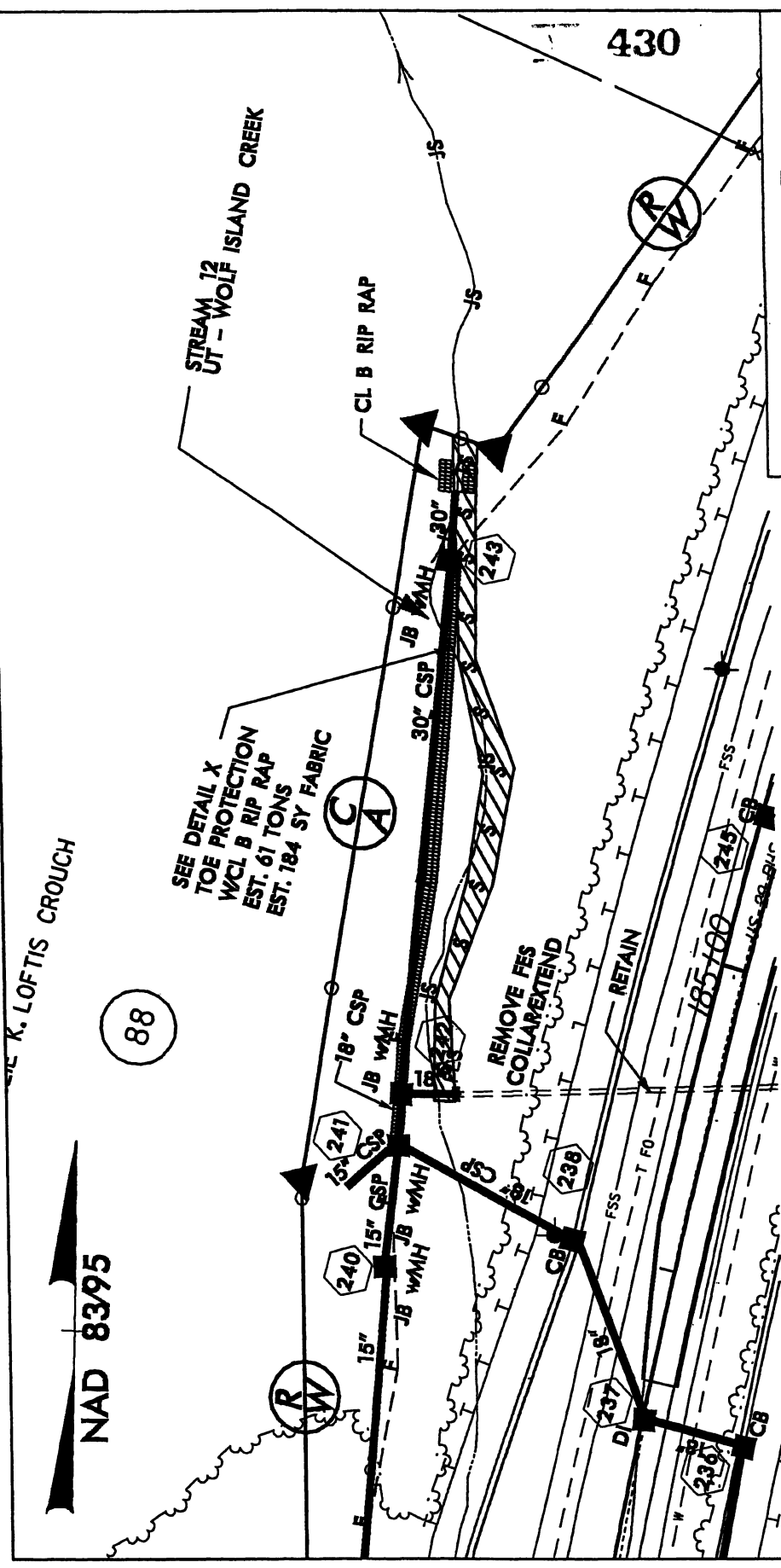
Denotes Temporary Impacts in Surface Water

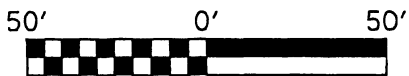
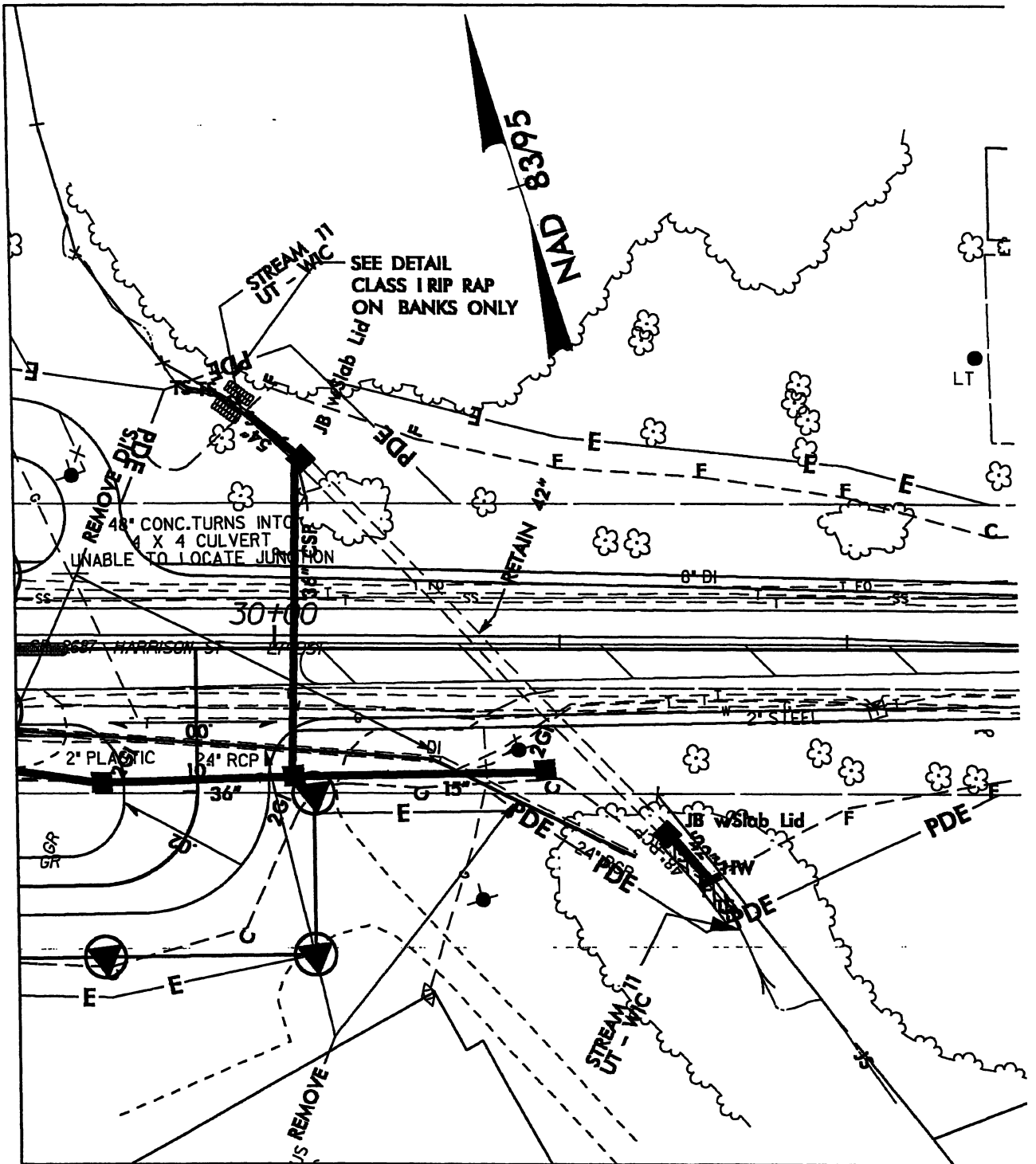


NCDOT

DIVISION OF HIGHWAYS
ROCKINGHAM COUNTY
PROJECT: 349241.1 (U-3326A/B)
US 29 BUSINESS FROM
SR 2670 (SOUTH SCALES ST.)
STO NC 14 IN REIDSVILLE

SHEET 13 OF 58 07/02/09





SITE 8

SURFACE WATER IMPACTS



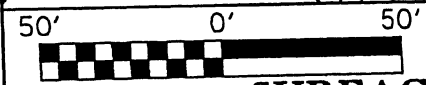
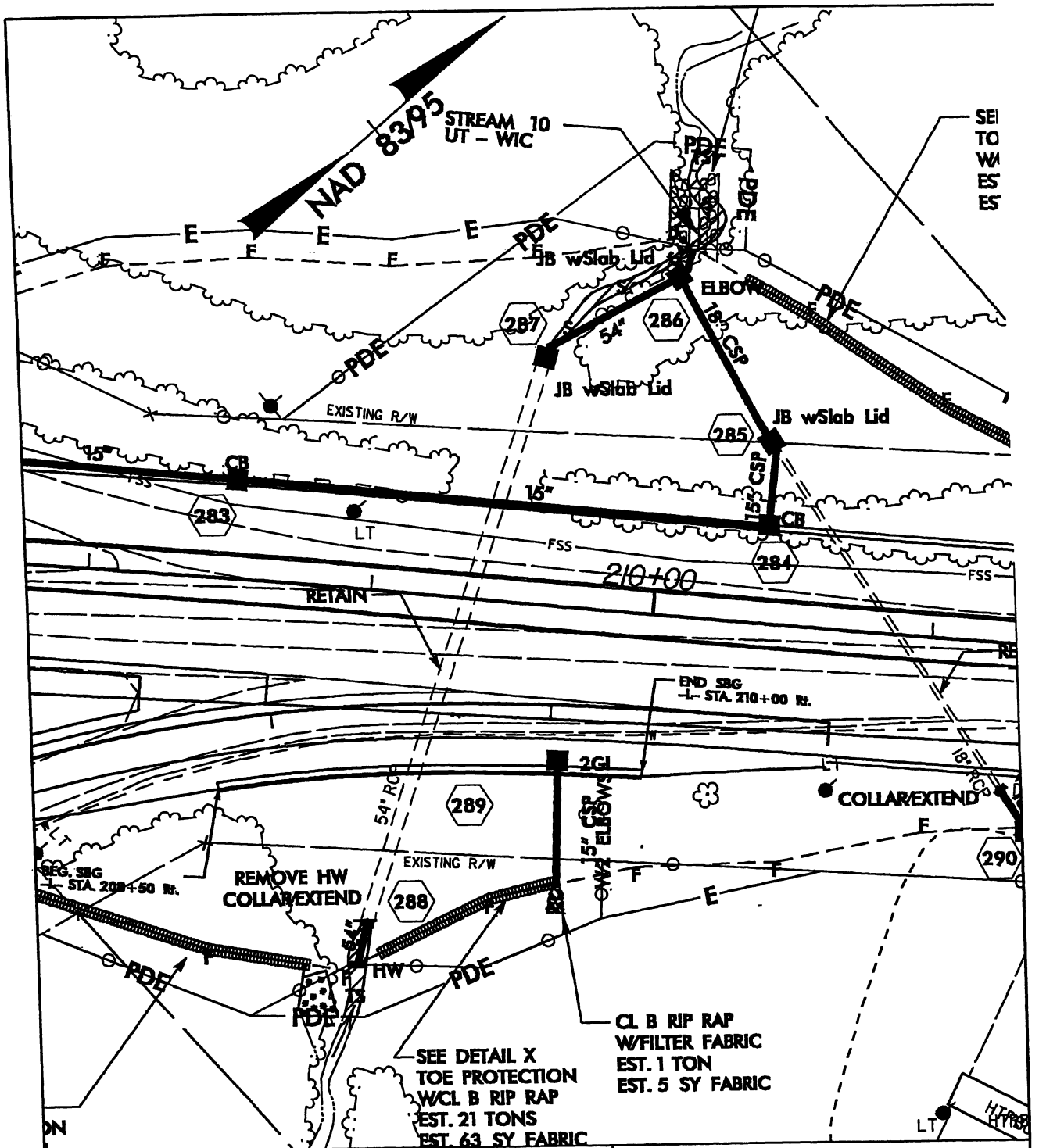
DENOTES IMPACTS IN SURFACE WATER



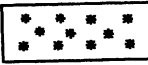
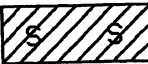

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT

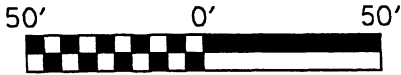
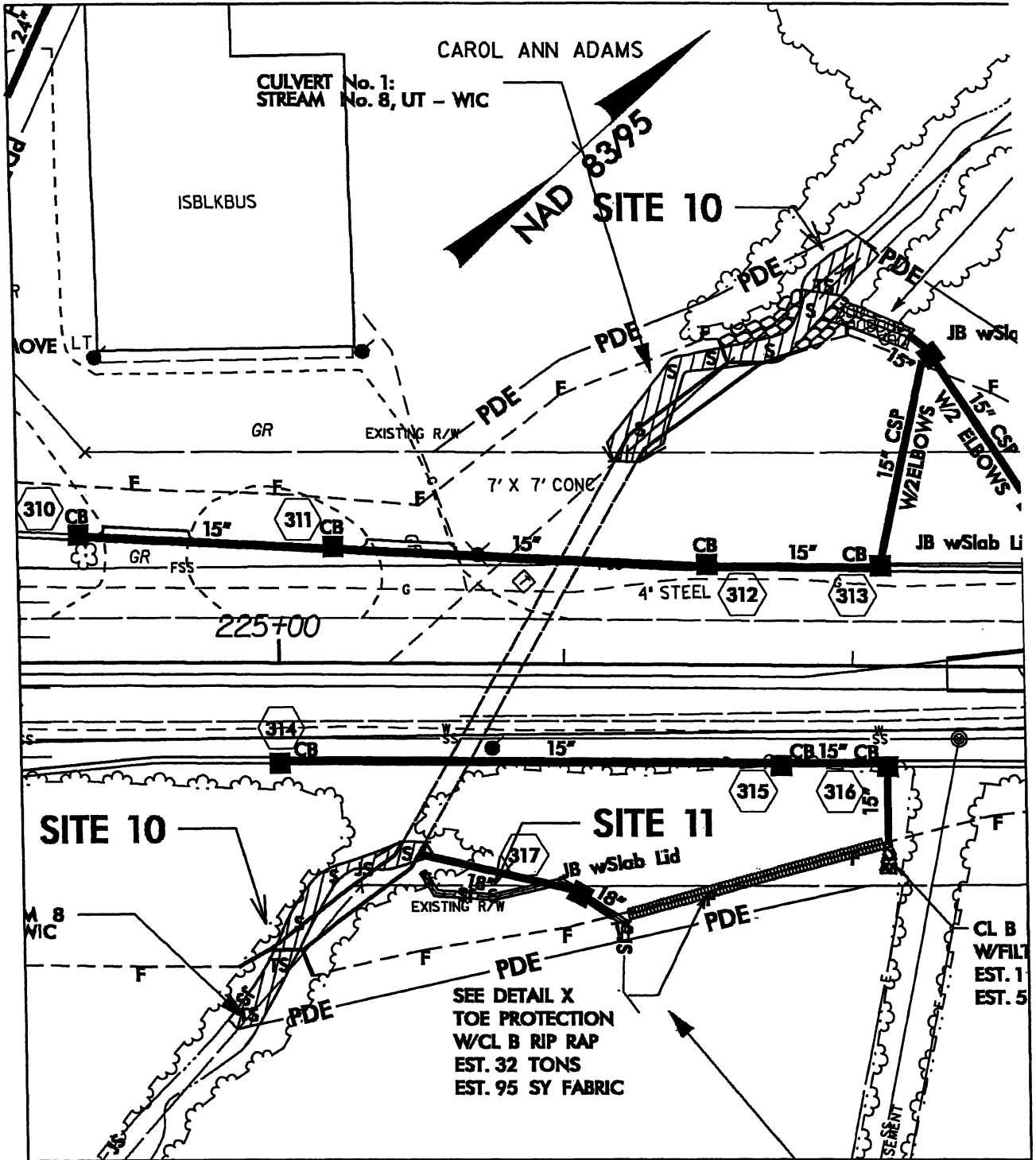
DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924LL1 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE



SITE 9
SURFACE WATER &
WETLAND IMPACTS


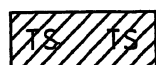
-  DENOTES MECHANIZED CLEARING
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

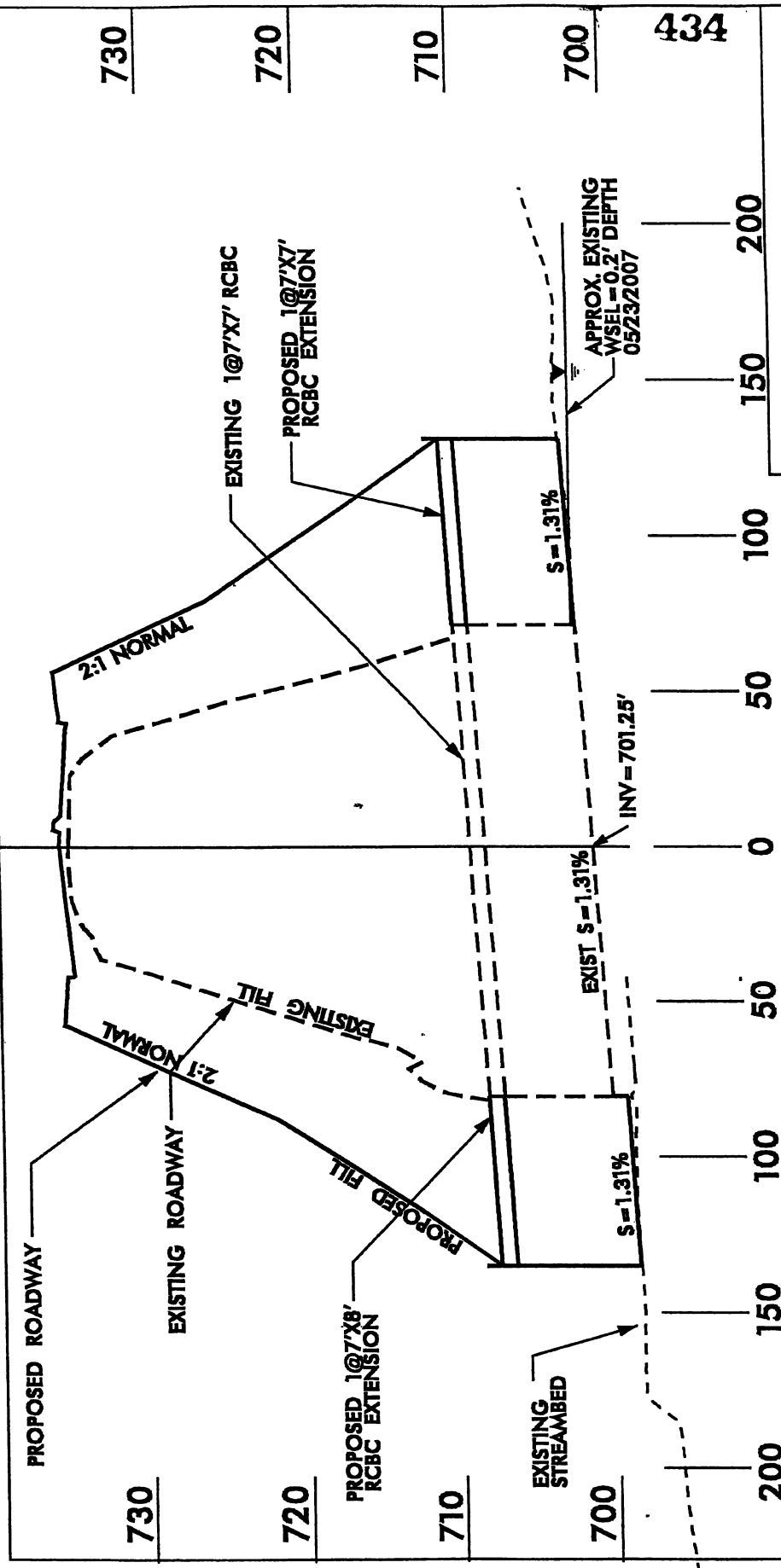


SITES 10 & 11

SURFACE WATER IMPACTS

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

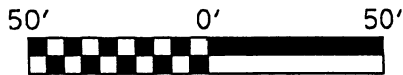
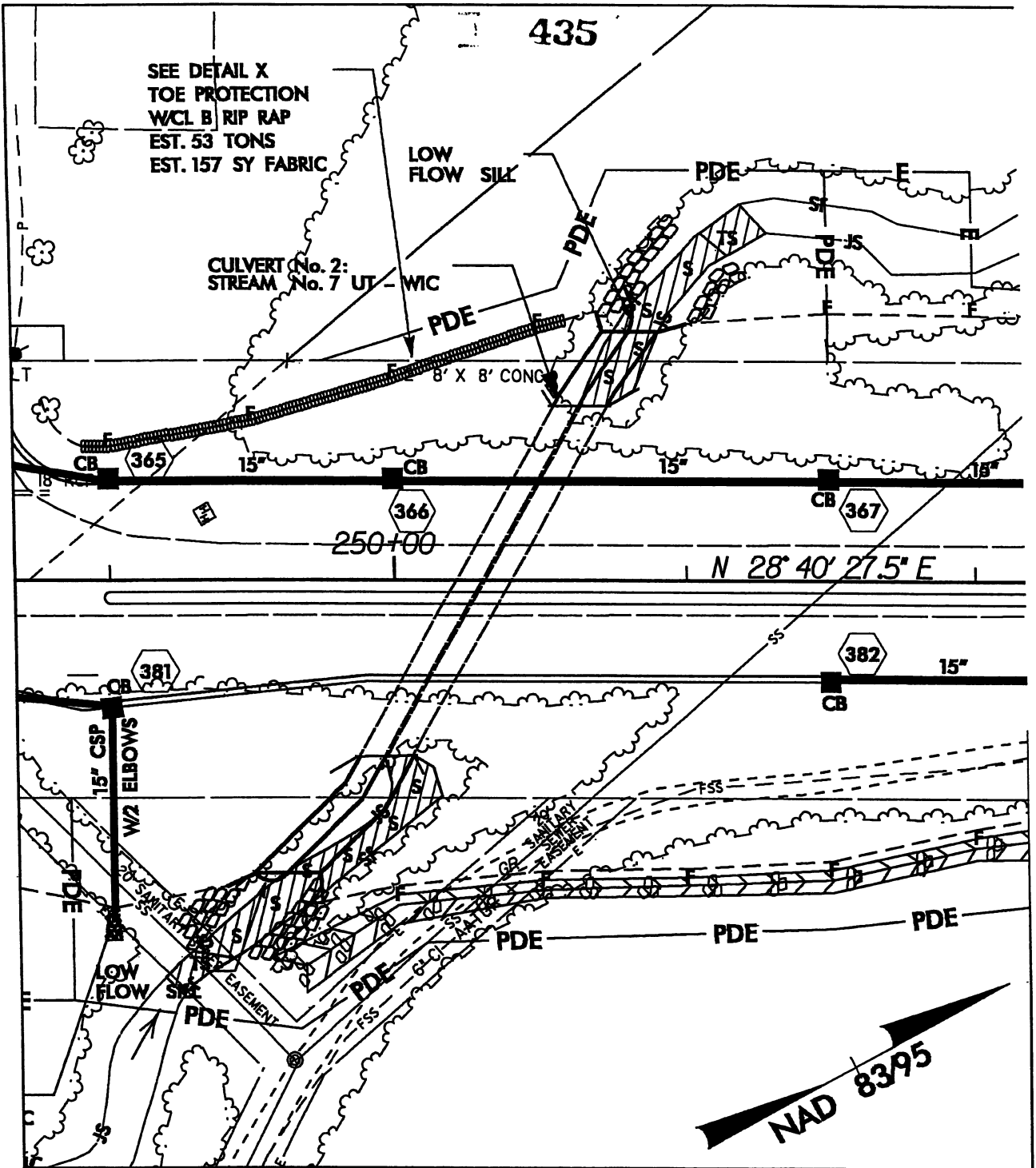


+ STA 225+82.25
 1@7'X7' RCBC
 G.P. ELEV 735.74'
 SKEW = 120°

NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.1.1 (U-3326.A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

PROFILE
SITE 10

SHEET 17 OF 58 07/01/09

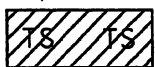


SITE 12

SURFACE WATER IMPACTS



DENOTES IMPACTS IN SURFACE WATER



DENOTES TEMPORARY IMPACTS IN SURFACE WATER

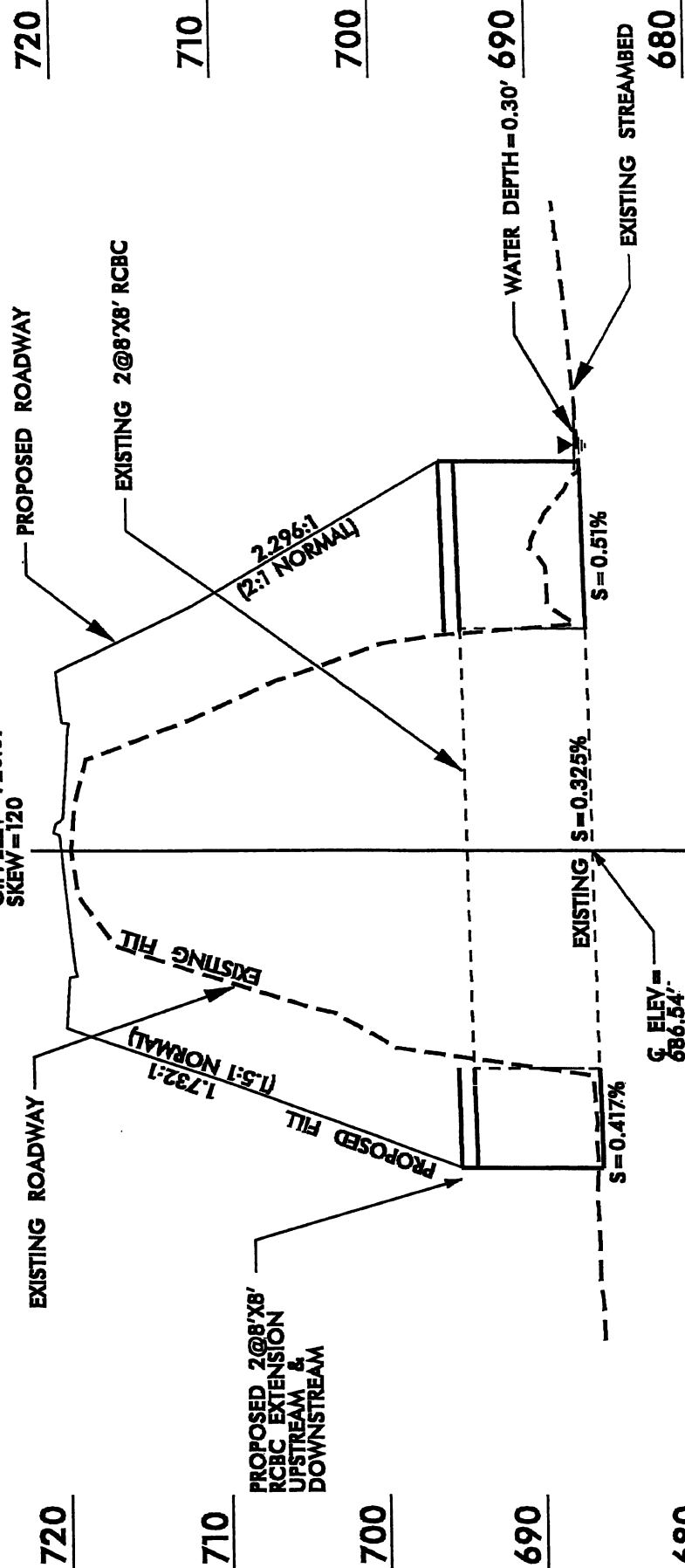
NCDOT

DIVISION OF HIGHWAYS
ROCKINGHAM COUNTY

PROJECT: 34924.11 (U-3326A / B)

US 29 BUSINESS FROM
SR 2670 (SOUTH SCALES ST)
TO NC 14 IN REIDSVILLE

L- STA. 250+30.41
 2 @ 8'X8' RCBC
 G.P. ELEV = 720.09'
 SKEW = 120



436

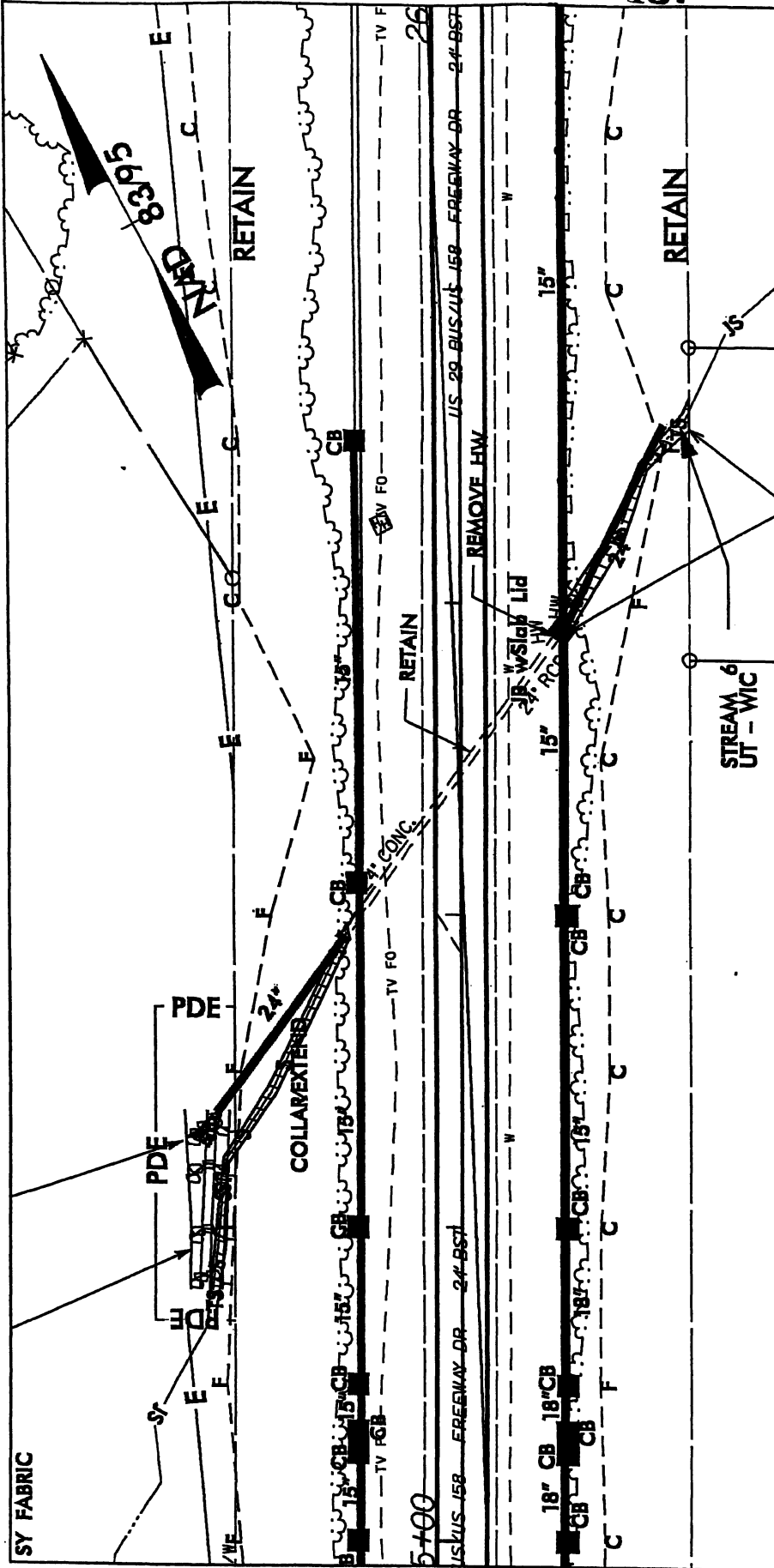
NCDOT

DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 349241.1 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

SHEET 19 OF 58

07/01/09



**PROFILE
 SITE 12**



NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.1.1 (U-3336A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 STO NC 14 IN REIDSVILLE

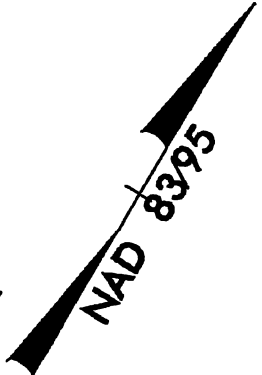
SITE 13
SURFACE WATER IMPACTS

50' 0' 50'

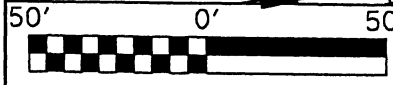
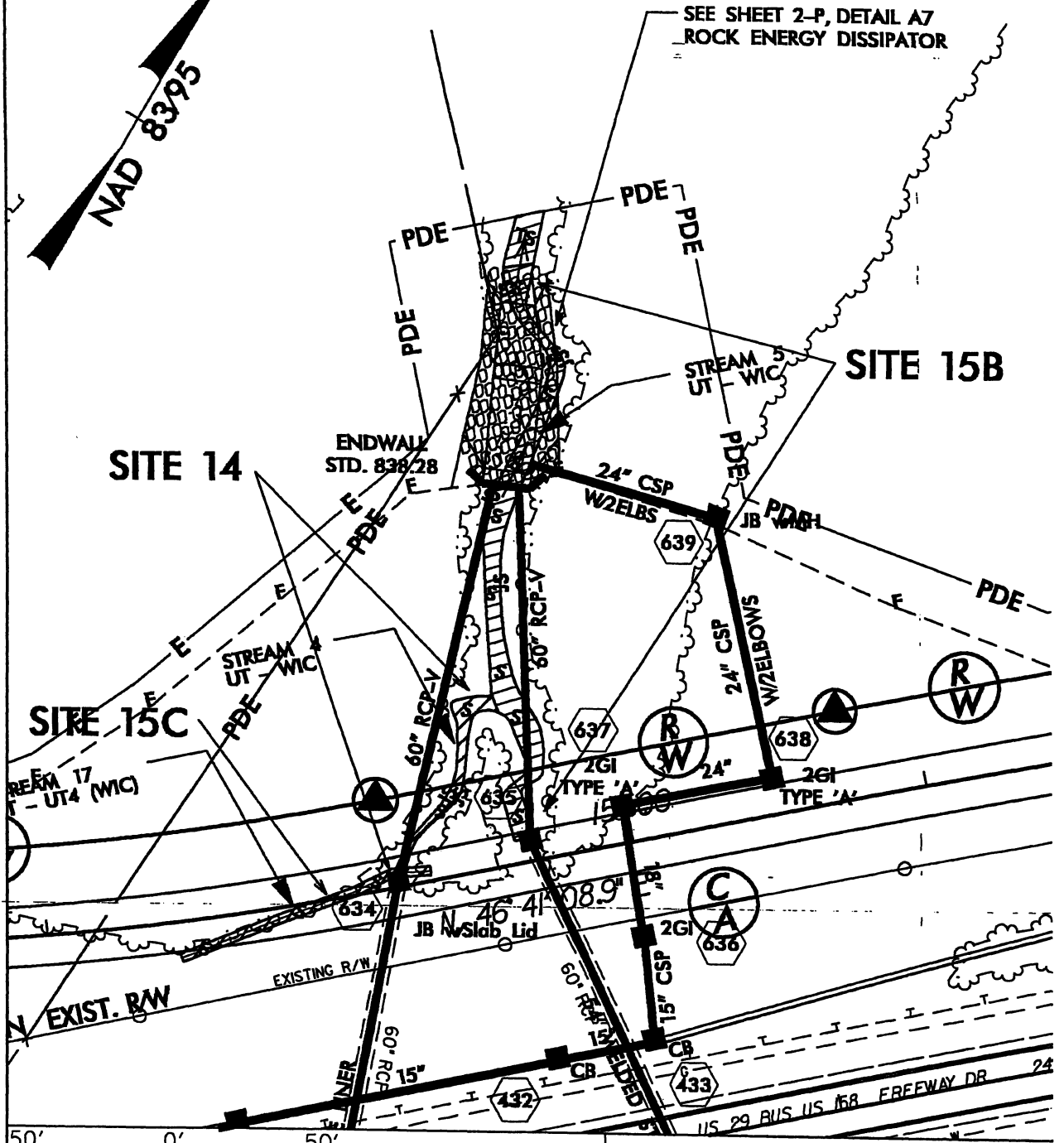
 DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SHEET 20 OF 58 07/02/09

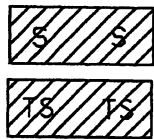
438



SEE SHEET 2-P, DETAIL A7
ROCK ENERGY DISSIPATOR



**SITES 14, 15A, 15B, & 15C
SURFACE WATER IMPACTS**

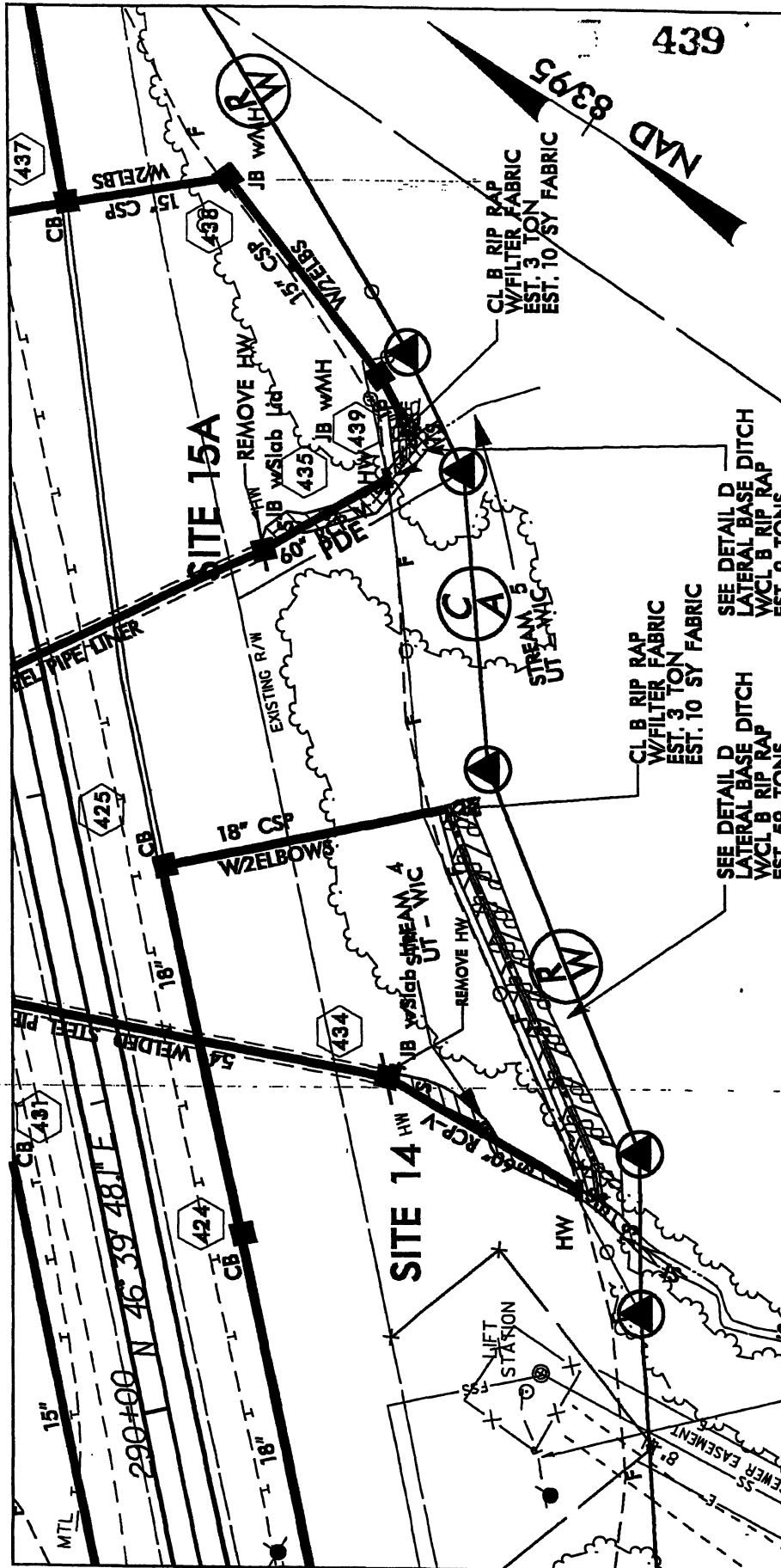


DENOTES IMPACTS IN
SURFACE WATER

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

NCDOT

DIVISION OF HIGHWAYS
ROCKINGHAM COUNTY
PROJECT: 34924.1.1 (U-3326A/B)
US 29 BUSINESS FROM
SR 2670 (SOUTH SCALES ST.)
TO NC 14 IN REIDSVILLE





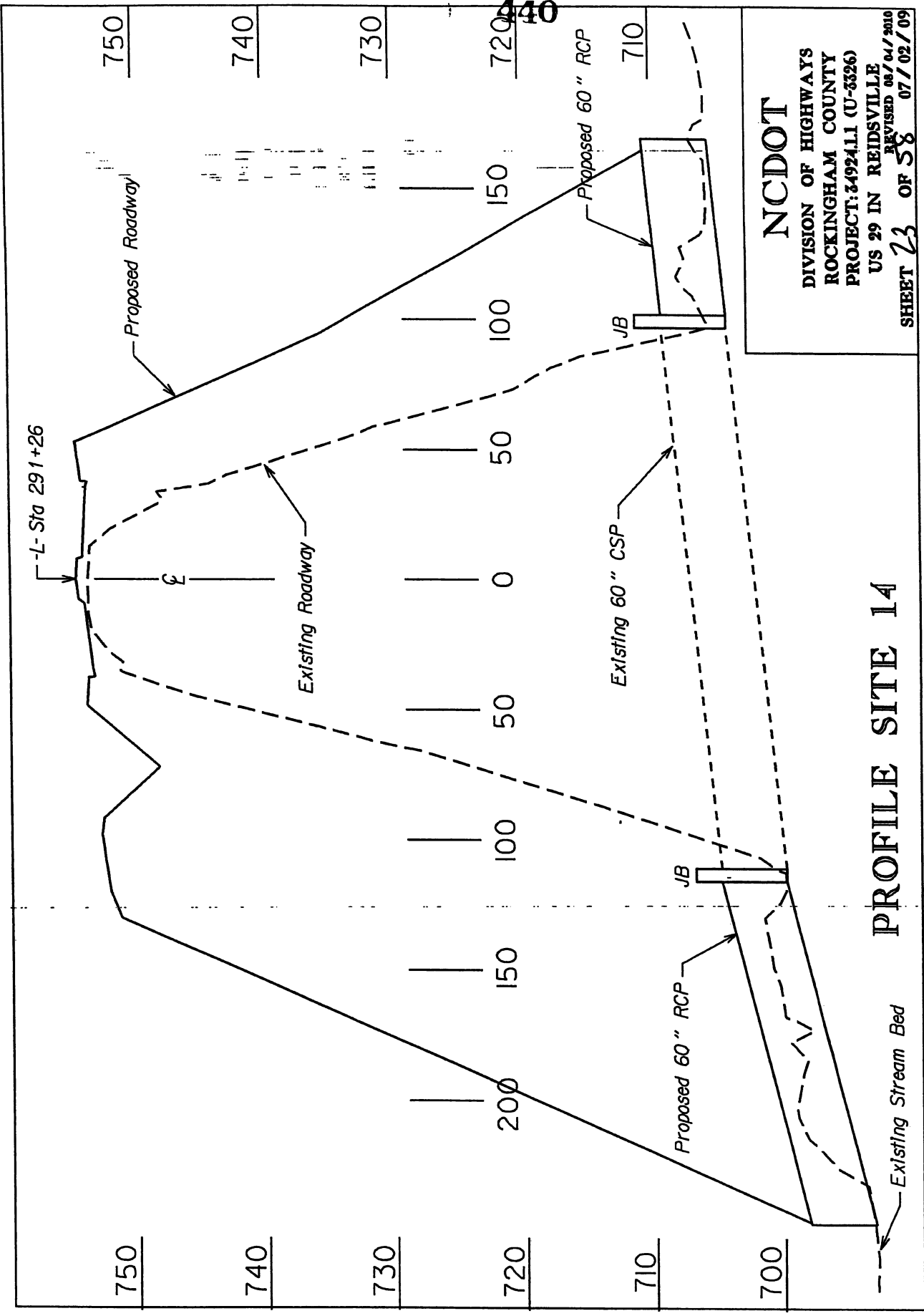
NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.1.1 (U-3326A / B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC14 IN REIDSVILLE

REVISED 06/04/2010
 07/02/09

SITES 14, 15A, 15B, & 15C
SURFACE WATER IMPACTS

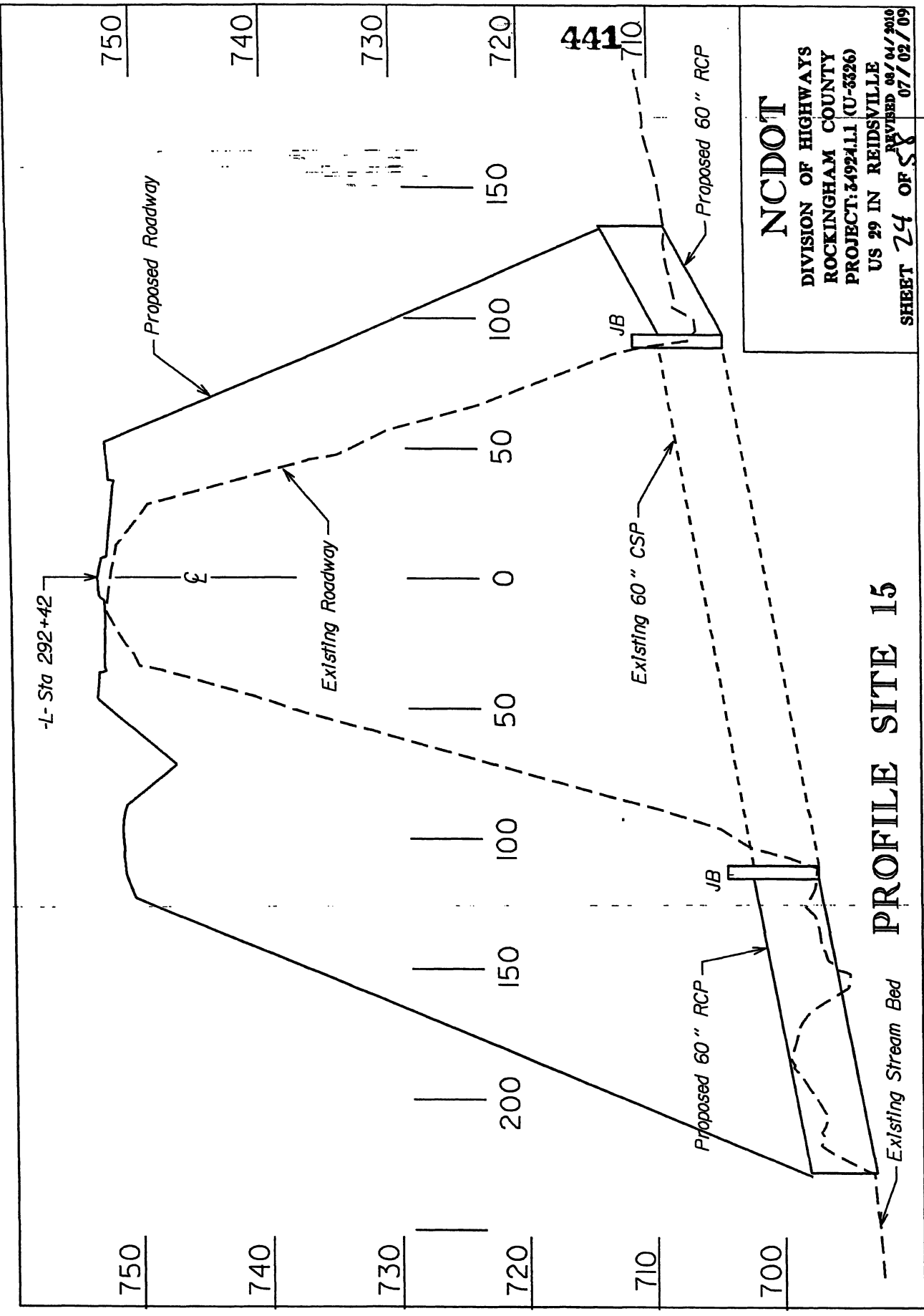
50' 0' 50'

 DENOTES IMPACTS IN SURFACE WATER	 DENOTES TEMPORARY IMPACTS IN SURFACE WATER
--	--



NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326)
 US 29 IN REIDSVILLE
 REVISED 08/04/2010
 SHEET **23** OF **58** 07/02/09

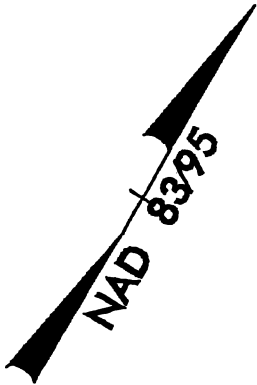
PROFILE SITE 14



NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-5526)
 US 29 IN REIDSVILLE
 REVISED 09/04/2010
 SHEET 24 OF 28 07/02/09

PROFILE SITE 15

442

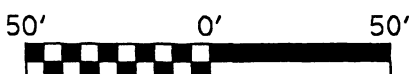
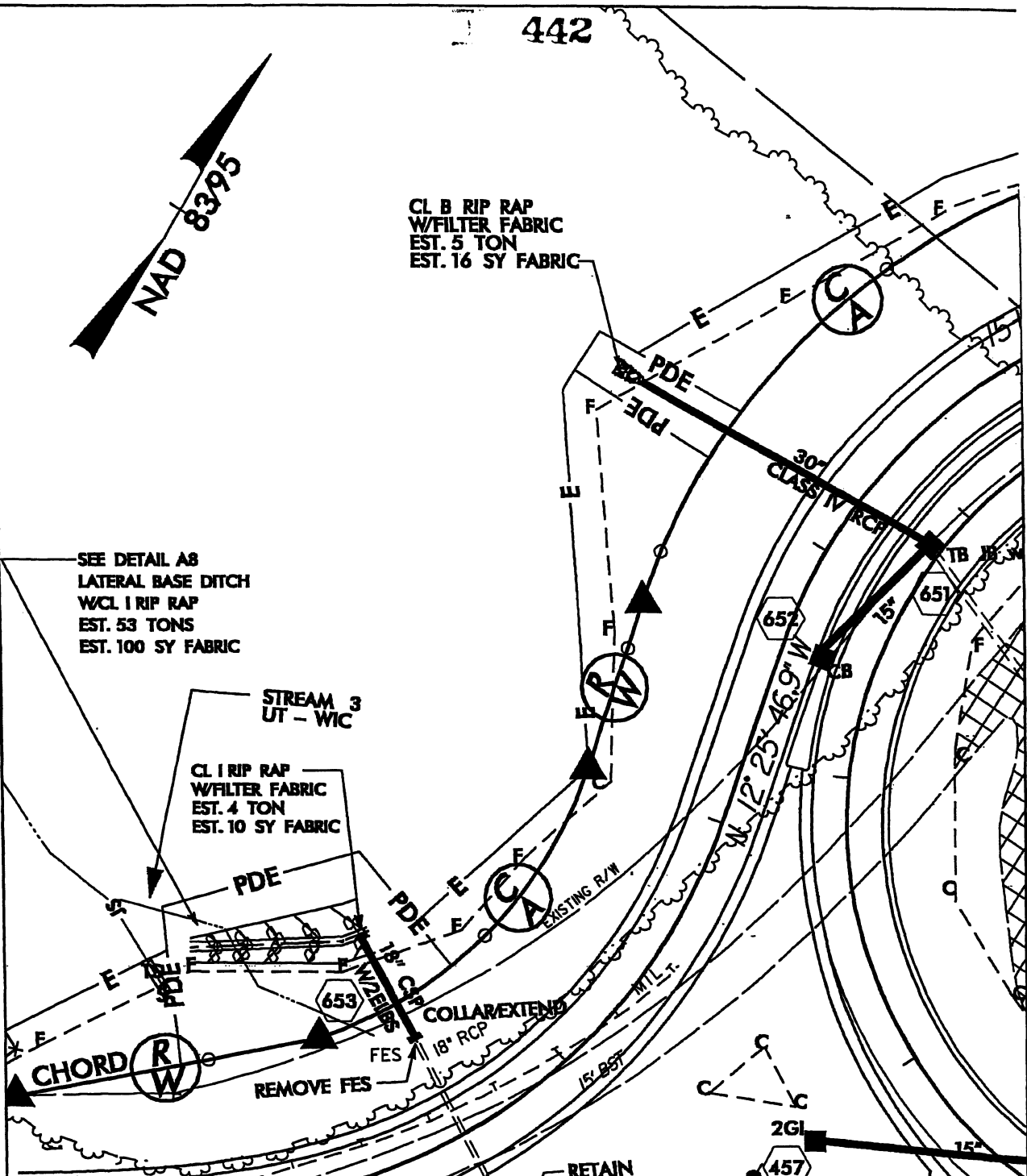


CL B RIP RAP
W/FILTER FABRIC
EST. 5 TON
EST. 16 SY FABRIC

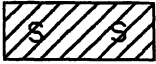

SEE DETAIL A8
LATERAL BASE DITCH
W/CL I RIP RAP
EST. 53 TONS
EST. 100 SY FABRIC

STREAM 3
UT - WIC

CL I RIP RAP
W/FILTER FABRIC
EST. 4 TON
EST. 10 SY FABRIC

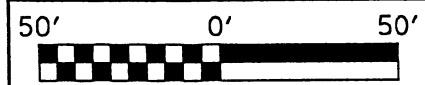
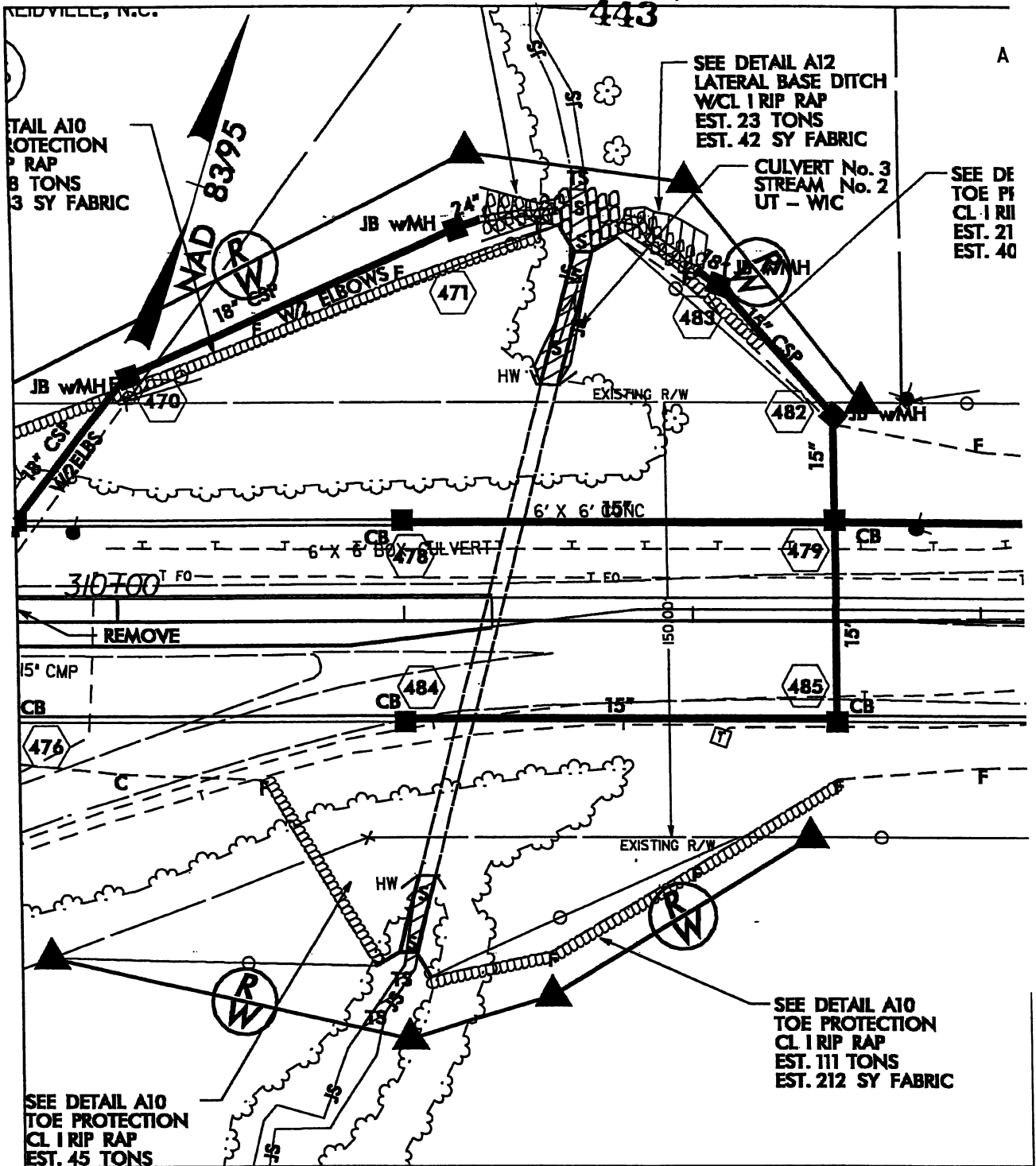


SITE 16 SURFACE WATER IMPACTS

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT

DIVISION OF HIGHWAYS
ROCKINGHAM COUNTY
PROJECT: 34924.L1 (U-3326A/B)
US 29 BUSINESS FROM
SR 2670 (SOUTH SCALES ST)
TO NC 14 IN REIDSVILLE



SITE 17

SURFACE WATER IMPACTS

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT
 DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.11 (U-3326A/B)
 US 29 BUSINESS FROM
 WSR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

PROFILE SITE 17

STA 311+30.62
 1 @ 6' X 6' RCBC
 G.P. ELEV = 741.84'
 SKEW = 105°

PROPOSED ROADWAY

EXISTING ROADWAY

2.06:1
(2:1 NORMAL)

EXISTING FILL

PROPOSED FILL

1 @ 6' X 7'

0.003%

EXIST S = 2.73%

CL ELEV = 698.3'

EXISTING 1 @ 6' X 6'

APPROX. EXISTING
WSEL = 0.2' DEPTH
05/23/2007

EXISTING STREAMBED

1.0.0%

740

730

720

710

444
700

740

730

720

710

700

690

150

100

50

0

50

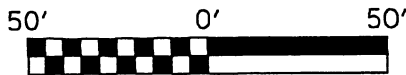
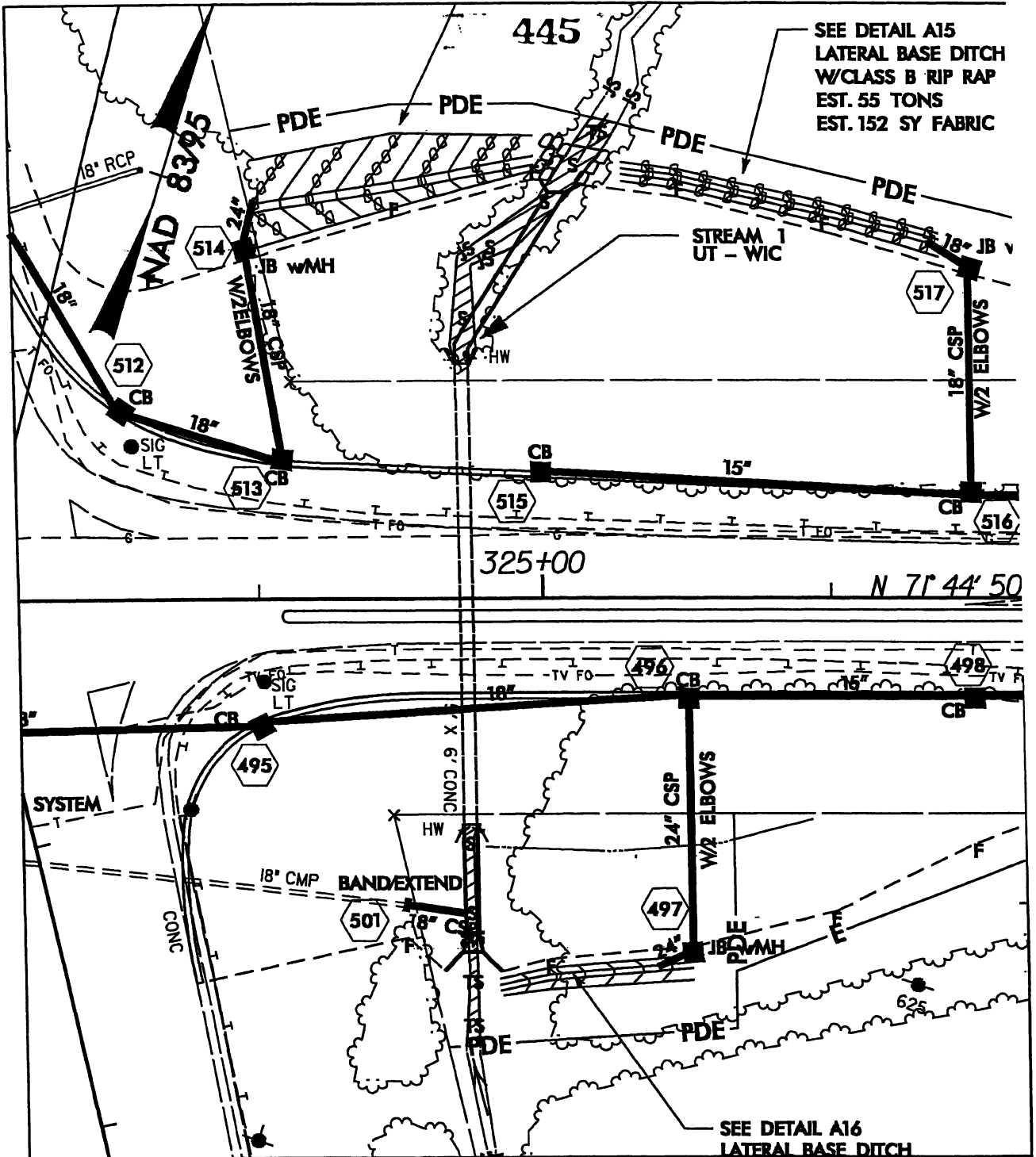
100

150

NCDOT

DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.1.1 (U-3526A./B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

SHEET 27 OF 58
 07/01/09

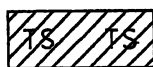


SITE 18

SURFACE WATER IMPACTS



DENOTES IMPACTS IN SURFACE WATER

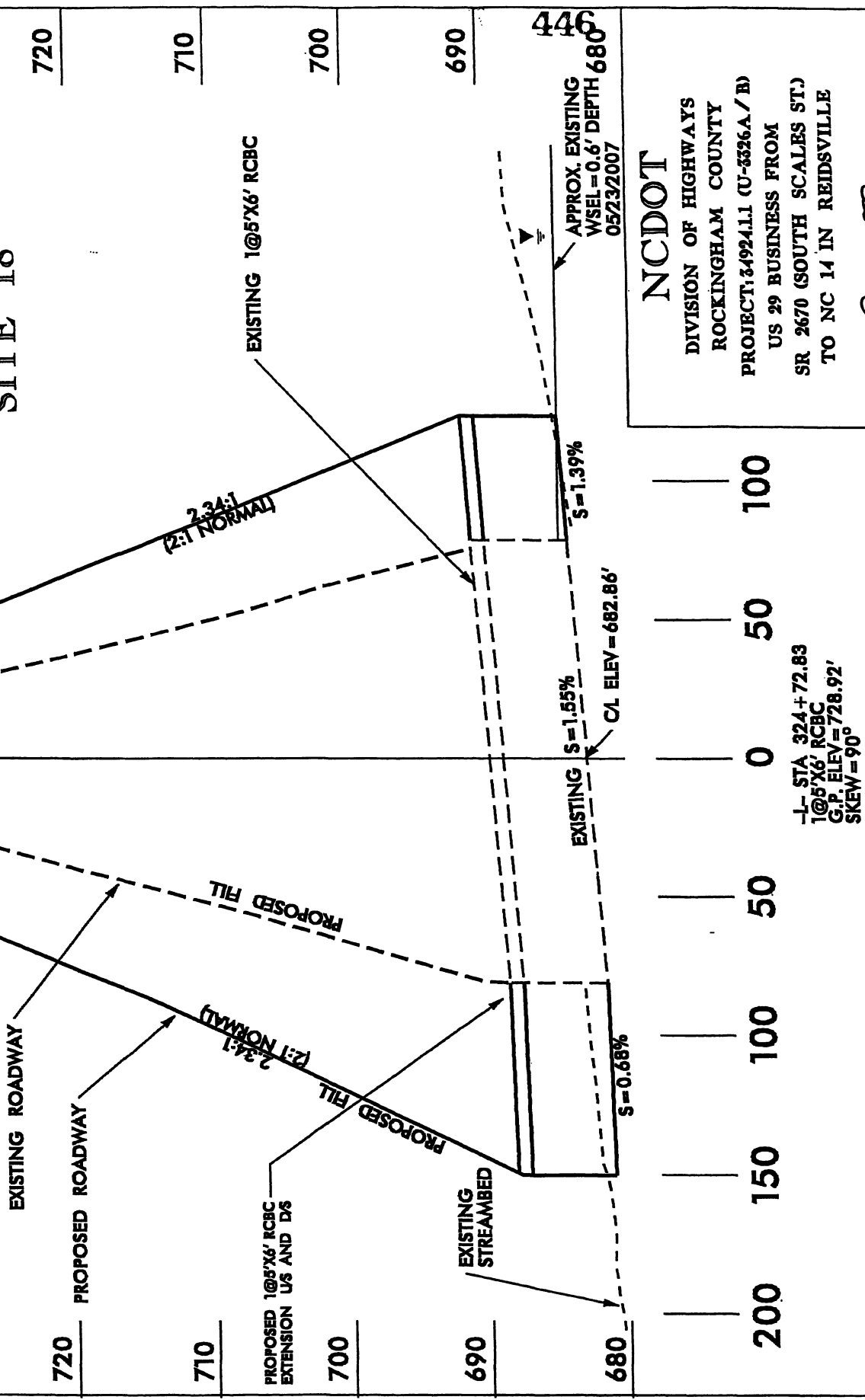


DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NCDOT

DIVISION OF HIGHWAYS
 ROCKINGHAM COUNTY
 PROJECT: 34924.L1 (U-3326A/B)
 US 29 BUSINESS FROM
 SR 2670 (SOUTH SCALES ST.)
 TO NC 14 IN REIDSVILLE

PROFILE SITE 18



L- STA 324+72.83
1@5'X6' RCBC
G.P. ELEV = 728.92'
SKEW = 90°

NCDOT

DIVISION OF HIGHWAYS
ROCKINGHAM COUNTY
PROJECT: 34924.11 (U-3326A/B)
US 29 BUSINESS FROM
SR 2670 (SOUTH SCALES ST.)
TO NC 14 IN REIDSVILLE

SHEET 29 OF 58

07/01/09

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

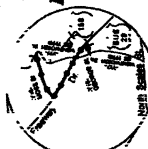
ROCKINGHAM COUNTY

LOCATION: US 29 BUSINESS (FREEWAY DRIVE) FROM SR 2670
(SOUTH SCALES STREET) TO NC 14 IN REIDSVILLE

PERMIT DRAWINGS SURFACE WATER & WETLAND IMPACTS

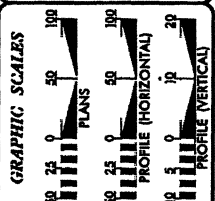


VICINITY MAP



NO. 1	DATE	BY	CHKD.
U-3326AB			
REVISED			
DATE	BY	CHKD.	

Permit Drawing
Sheet 30 of 38



DESIGN DATA

ADT 2010	= 20250
ADT 2035	= 41000
DIV	= 12 %
D	= 55 %
T	= 11 %
V	= 52 MPH
* T1ST 5% DUAL 6%	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U 3326AB	= 5.914 MI
LENGTH STRUCTURE TIP PROJECT U 3326AB	= 0.138 MI
TOTAL LENGTH OF TIP PROJECT U 3326AB	= 6.052 MI

Prepared in the Office of
DIVISION OF HIGHWAYS
1600 Birch Ridge Dr., Raleigh, NC, 27610

RIGHT OF WAY DATE:
OCTOBER 17, 2008

LETTING DATE:
OCTOBER 19, 2010

JAMES A. SPEER, PE
PROJECT ENGINEER

DANIEL W. GARDNER, JR., PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER



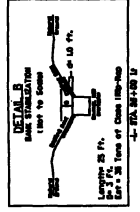
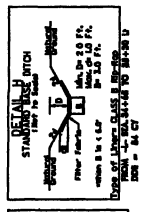
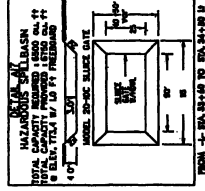
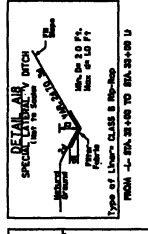
TIP PROJECT: U-3326AB

CONTRACT:

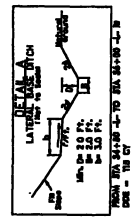
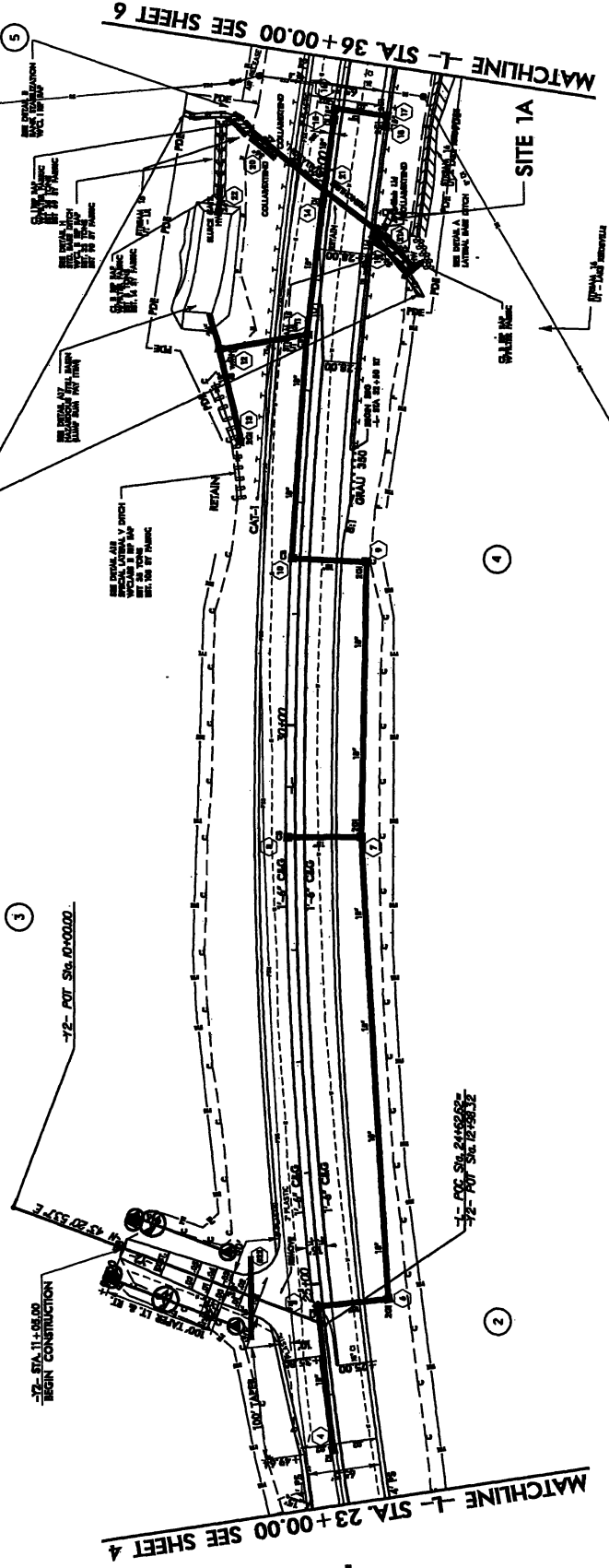
REVISED JAN 25, 2010

PROJECT NUMBER	12-3328A/B
SHEET NO.	5
DATE	12/15/13
DESIGNER	HYDRA-TECH ENGINEERS
CHECKER	
APPROVER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Submit Drawing 58
set of 31 of



448



860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

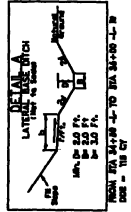
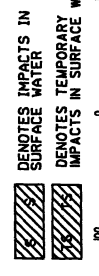
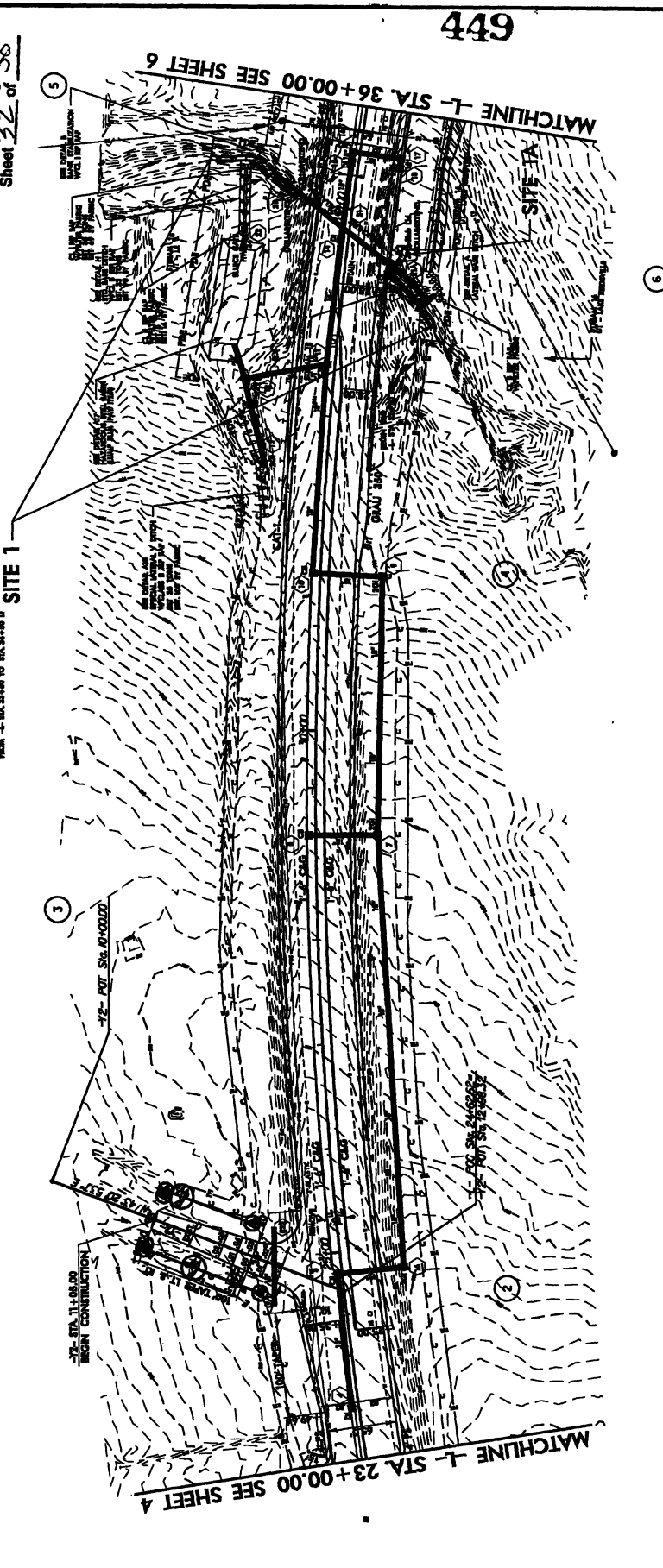
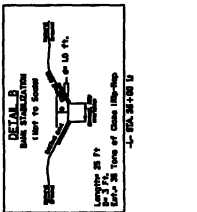
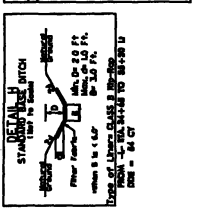
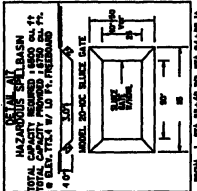
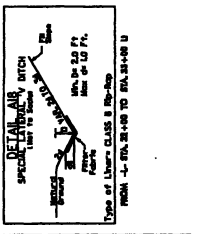
860/809 R/W REVISION (P&S) - PERMANENT DRAINAGE EASEMENT WAS EXTENDED ON PARCEL & HOV IN ANT. CATHOLIC CHURCH'S FEET BACK TO START AT STA 23+50.00. R/W TO ACCOMMODATE THE REPAIRS OF THE 36' AND 42' PIPES TO THE EXISTING STREAM.

PROJECT REFERENCE NO.	UT-3327-2
SHEET NO.	5
DRAWN BY	THOMAS J. GIBSON
CHECKED BY	ROBERT J. GIBSON

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing **SS**
Sheet **22** of **28**

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SHOULDER REIN. GUTTER
SEE SHEET 23 FOR L PROFILE
SEE SHEET 23 FOR L- PROFILE

REVISIONS
08/09/08 R/W REVISION (R/S1) - PERMANENT DRAINAGE ESCAPEMENT WAS EXTENDED ON PARCEL 6 (ADJ. WEST) CENTRAL FEET BACK TO START AT STA 31 - 33, 35 TO 37 TO ACCOMMODATE THE REPAIRS OF THE 36 AND 32 PIPS TO THE EXISTING STREET

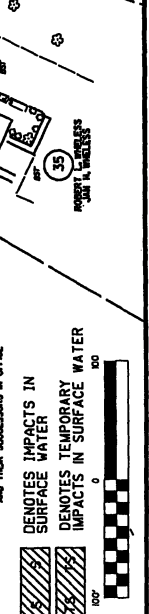
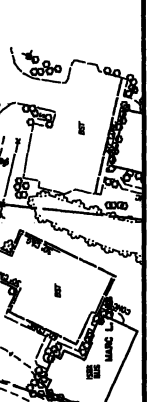
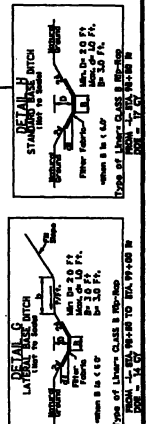
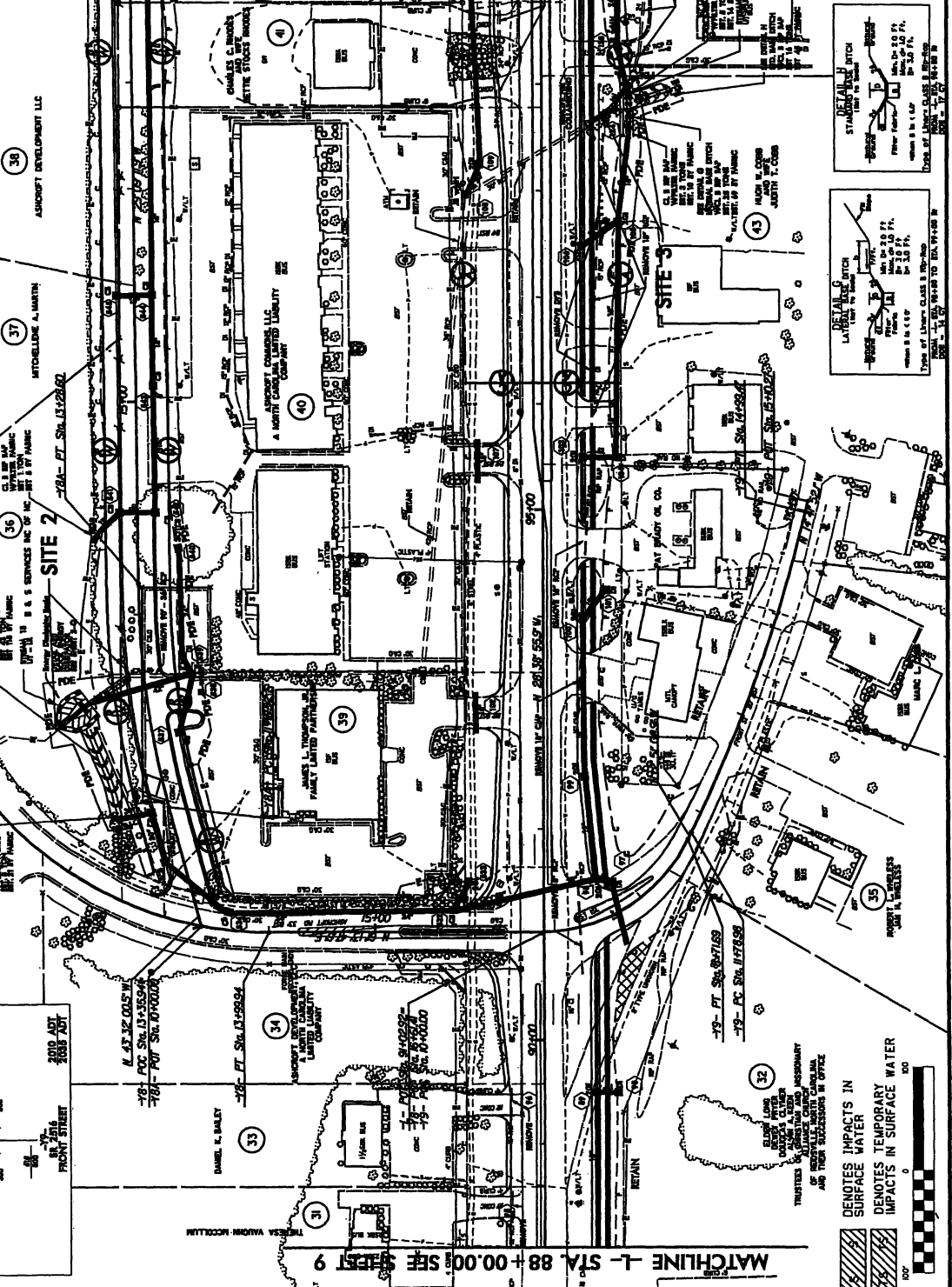
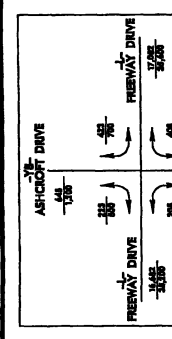
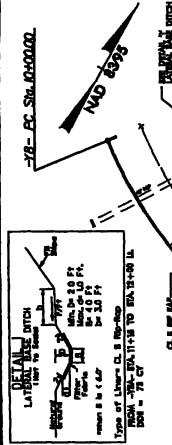
PROJECT NUMBER	U-3382/B
SHEET NO.	10
DATE	10/1/00
BY	W. J. B. / J. B. B.
CHECKED BY	W. J. B. / J. B. B.
APPROVED BY	W. J. B. / J. B. B.
PRELIMINARY PLANS	NO
CONSTRUCTION	NO

Permit Drawing
Sheet 23 of 24

MATCHLINE - STA. 101 + 00.00 SEE SHEET 11

MATCHLINE - STA. 20 + 00.00 SEE SHEET 11

Station	PI	PC	PT	PE	SE	Notes
-16-	12+27.30	67+59.00	12+27.30	67+59.00	33.00'	EXIST.
-18A-	12+312	14+22	12+312	14+22	20.00'	EXIST.
-19-	0+56.85	53+97	0+56.85	53+97	50.00'	EXIST.



FOR 1\"/>

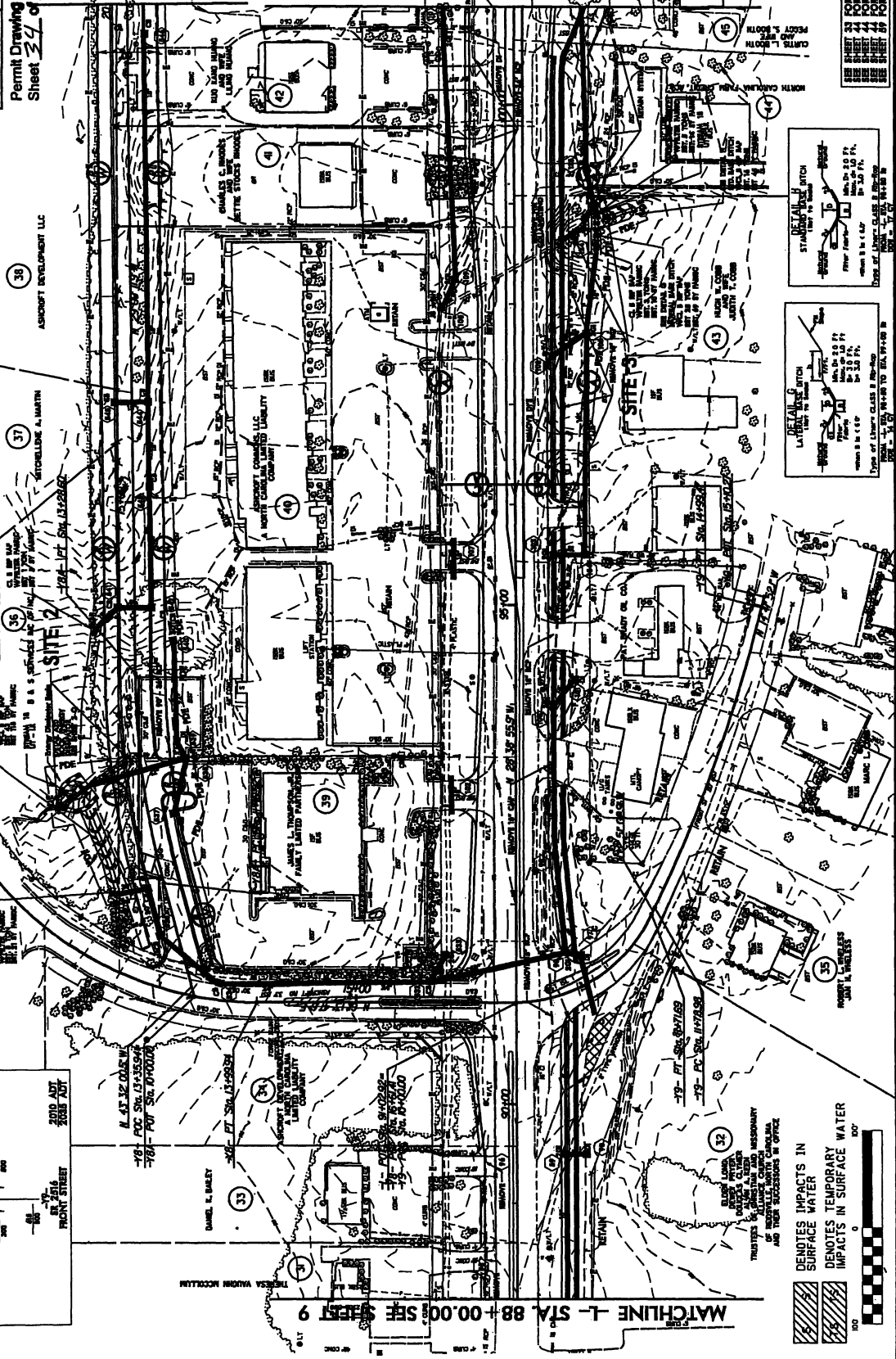
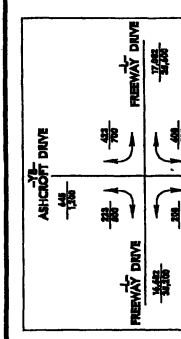
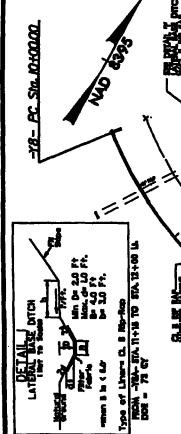
PROJECT NUMBER	1-32562B
DATE	0
DESIGNER	PROFESSIONAL ENGINEER
CHECKER	PROFESSIONAL ENGINEER
DATE	

PRELIMINARY PLANS
NO DATE FOR USE IN PERMITTING

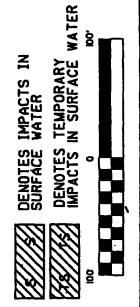
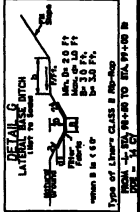
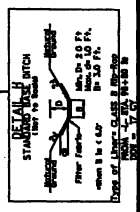
Permit Drawing
Sheet 24 of 28

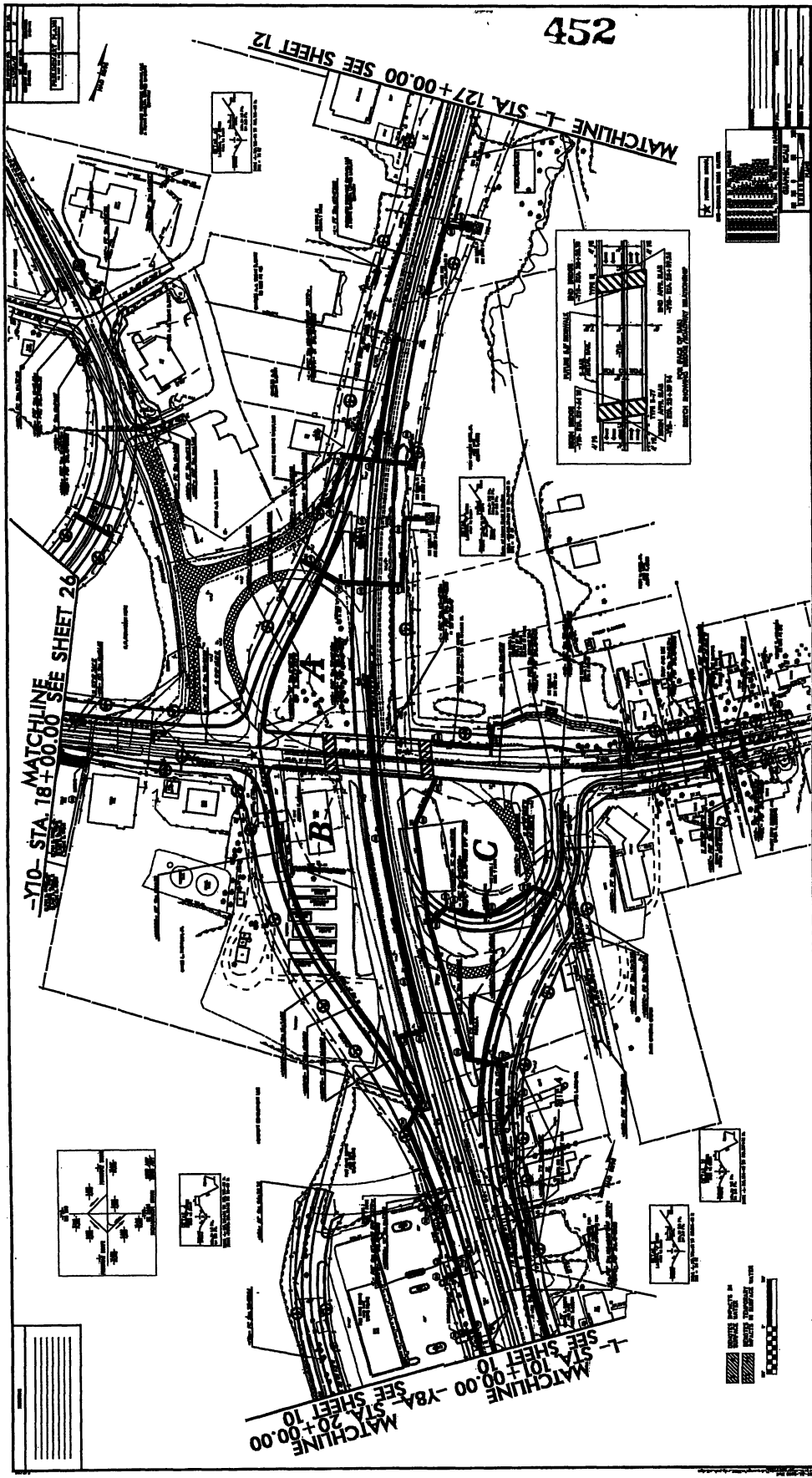
MATCHLINE - STA 101 + 00.00 SEE SHEET 11
-Y8A SEE SHEET 11

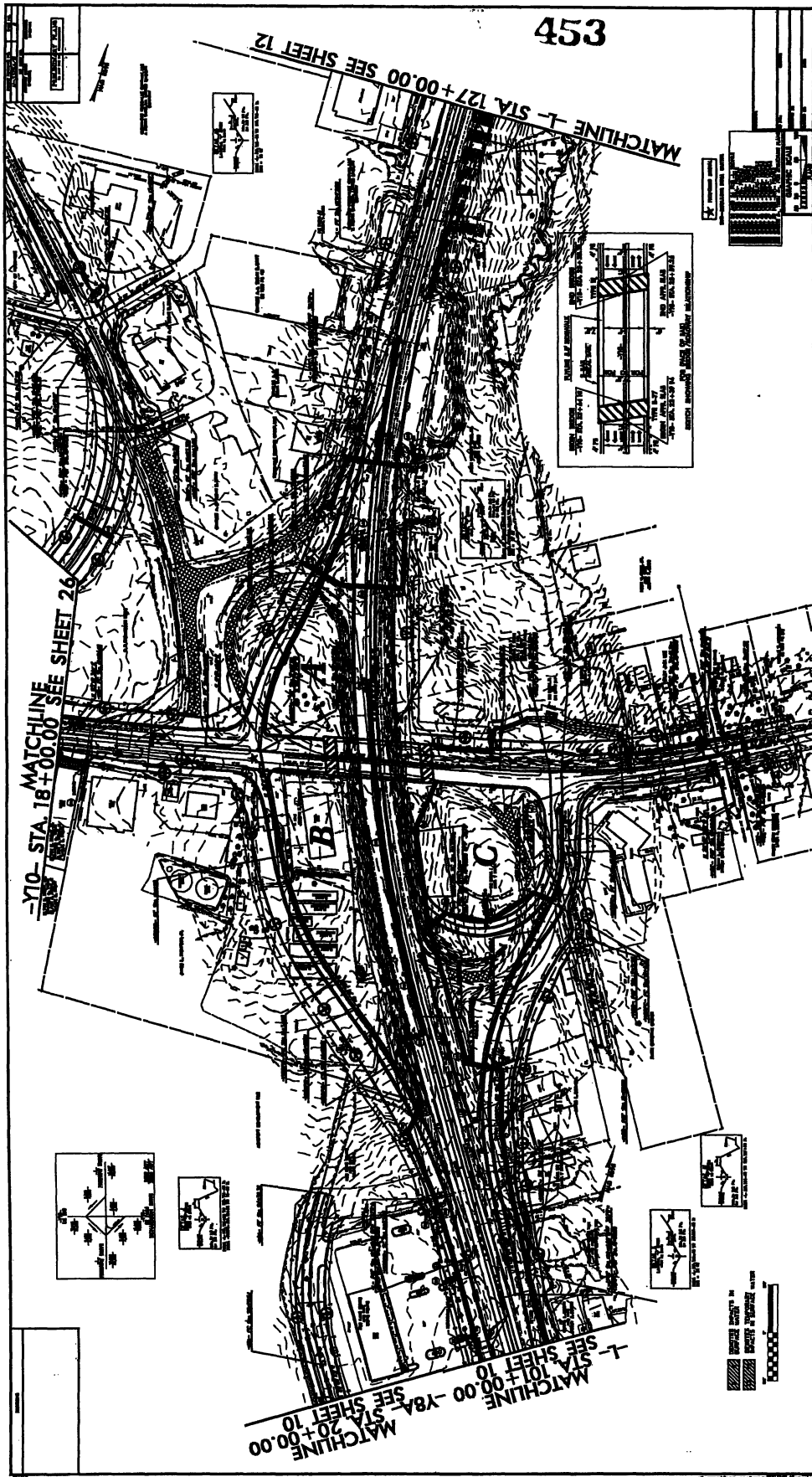
-78-	-79-	-78A-
PI SW 13-39-80 (UT) $\Delta = 17' 57" 42.2'$ $D = 3' 4" 44.4'$ $L = 161.85'$ $R = 1550.00'$ $SE = 0.02'$ $RO = SEE PLANS$	PI SW 13-39-85 $\Delta = 63' 27" 54.4'$ $D = 3' 4" 44.4'$ $L = 161.85'$ $R = 1550.00'$ $SE = 0.02'$ $RO = SEE PLANS$	PI SW 12-23-82 (RT) $\Delta = 6' 48" 50.0'$ $D = 6' 48" 50.0'$ $L = 945.00'$ $R = 945.00'$ $SE = 0.03'$ $RO = 69'$



1" = 100'	1" = 200'	1" = 400'	1" = 800'	1" = 1600'
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PROJECT APPROVAL NO. U-336278
 ROADWAY DESIGN ENGINEER
 PRELIMINARY PLANS
 SHEET NO. 13
 HYDRAULIC ENGINEER

Permit Drawing
 Sheet 13 of 18

NAD 83 93

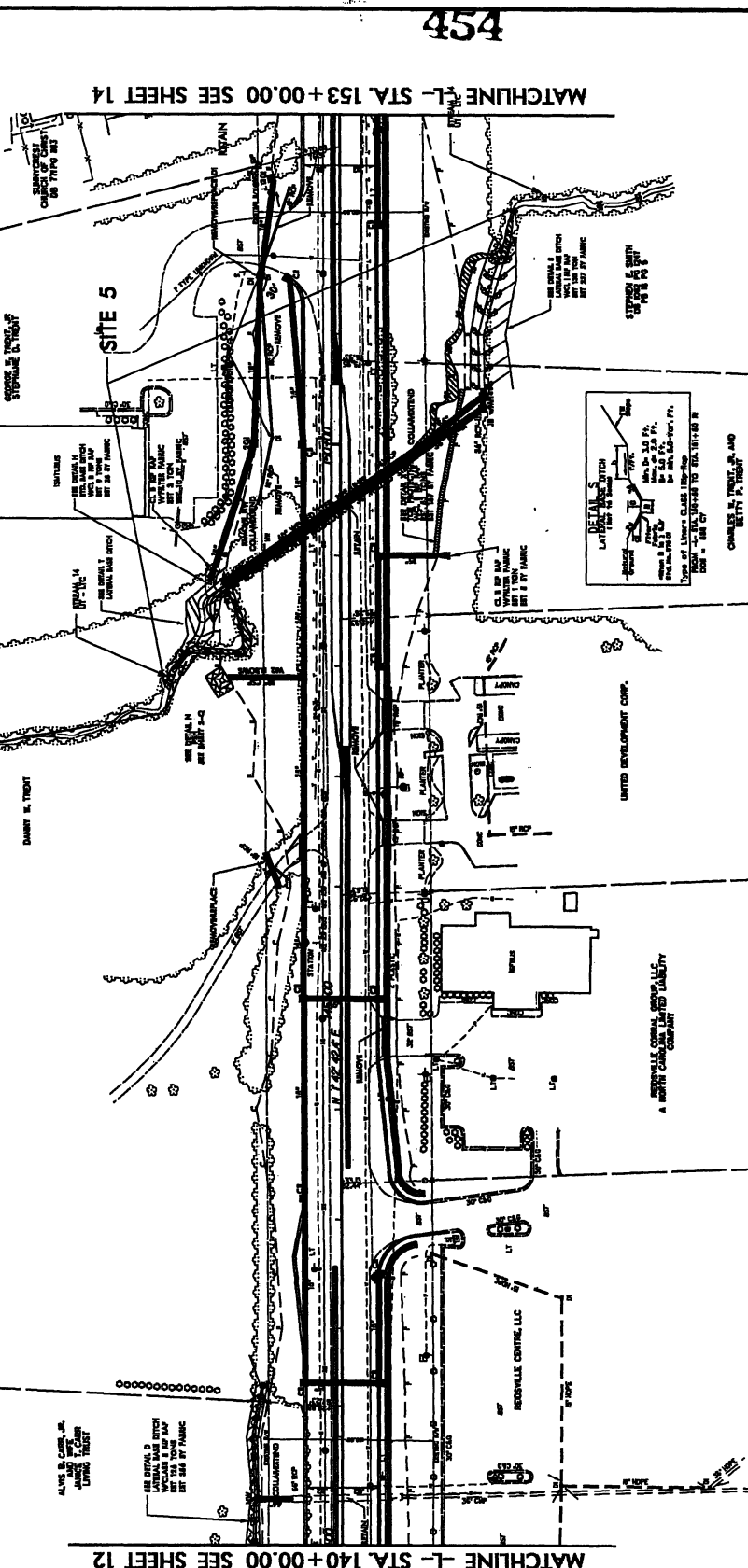
DETAIL X
 TYPE OF LIVER CLASS II
 FROM STA. 139+00 TO STA. 139+30.00
 DEEP = 10' CT

DETAIL U
 TYPE OF LIVER CLASS II
 FROM STA. 139+30 TO STA. 140+00
 DEEP = 10' CT

DETAIL V
 TYPE OF LIVER CLASS II
 FROM STA. 140+00 TO STA. 140+30
 DEEP = 10' CT

DETAIL W
 TYPE OF LIVER CLASS II
 FROM STA. 140+30 TO STA. 140+60
 DEEP = 10' CT

DETAIL Y
 TYPE OF LIVER CLASS II
 FROM STA. 140+60 TO STA. 140+90
 DEEP = 10' CT



MATCHLINE L- STA. 140+00.00 SEE SHEET 12

MATCHLINE L- STA. 153+00.00 SEE SHEET 14

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

0 100 200

454

SEE SHEET 35 FOR -L- PROFILE

8/17/99

REVISIONS

PROJECT NUMBER	11-18273
DATE	1/13
DESIGNER	HYDRAULIC ENGINEER
PRELIMINARY PLANS	BY PERMIT FOR THE DISTRICT OF COLUMBIA

Permit Drawing
Sheet 38 of 58

455

MATCHLINE L- STA. 153+00.00 SEE SHEET 14

MATCHLINE L- STA. 140+00.00 SEE SHEET 12

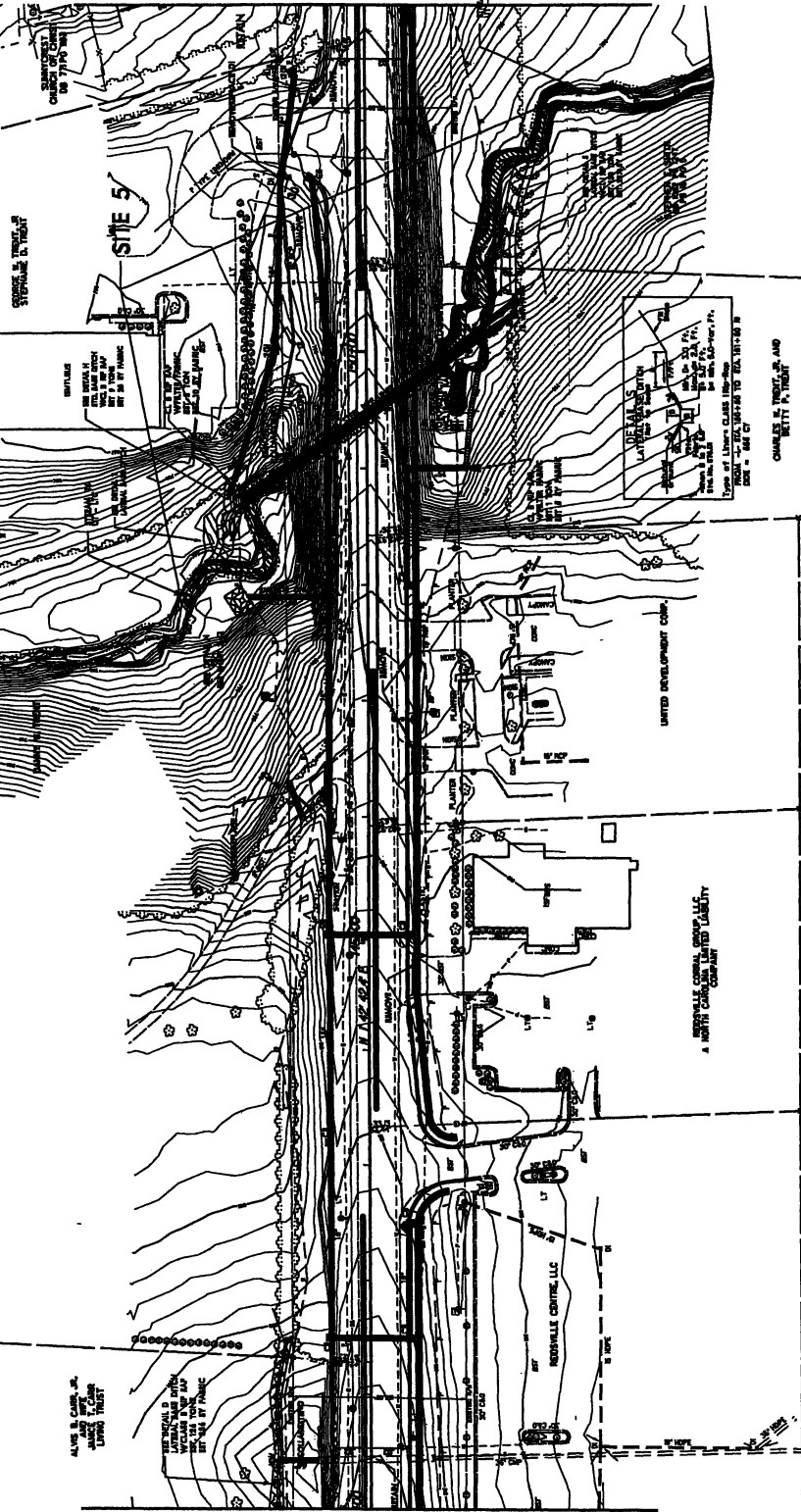
NAD 83/93

DETAIL X
LAWRENCE DITCH
Type of Linear Class 8 Slope
FROM STA. 140+00 TO STA. 140+20.00

DETAIL Y
LAWRENCE DITCH
Type of Linear Class 8 Slope
FROM STA. 140+00 TO STA. 140+20.00

DETAIL Z
LAWRENCE DITCH
Type of Linear Class 8 Slope
FROM STA. 140+00 TO STA. 140+20.00

DETAIL W
LAWRENCE DITCH
Type of Linear Class 8 Slope
FROM STA. 140+00 TO STA. 140+20.00



DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 0 100'

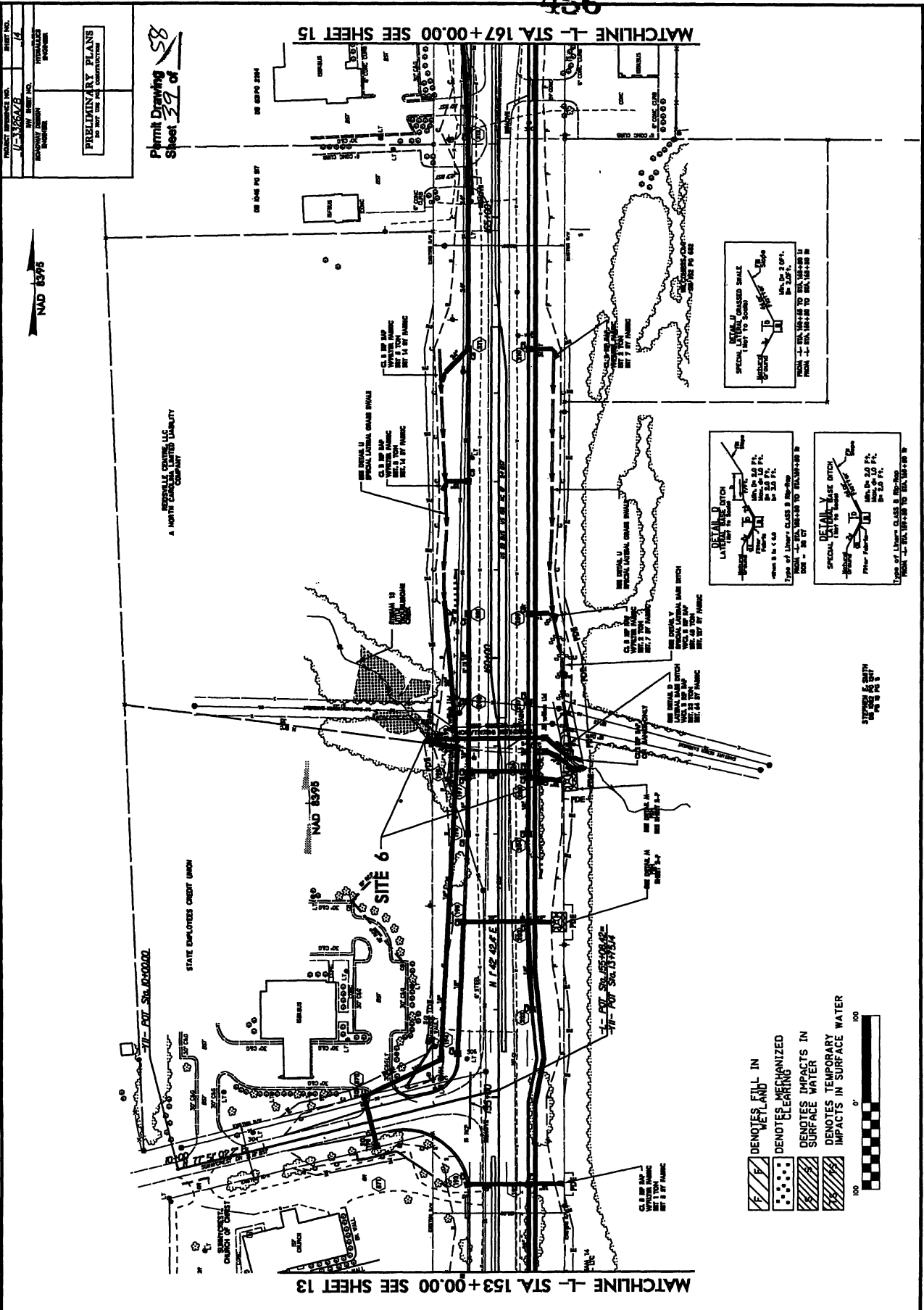
SEE SHEET 33 FOR L- PROFILE

8/17/99

NO.	DATE	REVISIONS

MATCHLINE L- STA 167+00.00 SEE SHEET 15

MATCHLINE L- STA 153+00.00 SEE SHEET 13



PROJECT REFERENCE NO. **17-356478**
 SHEET NO. **14**
 ROADWAY NUMBER
 PROJECT NAME

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

Permit Drawing
 Sheet **27** of **58**

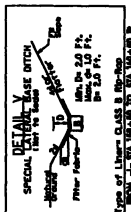
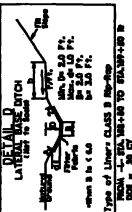
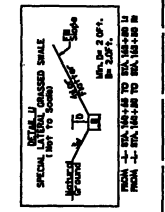
NAD 8395

STATE EMPLOYEES CREDIT UNION

NAD 8395

SITE 6

STATE EMPLOYEES CREDIT UNION



DENOTES LAND IN
 DENOTES MERRINIZED
 DENOTES IMPACTS IN
 SURFACE WATER
 DENOTES TEMPORARY
 IMPACTS IN SURFACE WATER

100 0 100

STATIONED & BENT
 100 0 100

PROJECT NUMBER: 17-3252/2
 SHEET NO. 14
 PRELIMINARY PLANS
 FOR THE
 CONSTRUCTION

Permit Drawing
 Sheet 42 of 58

MATCHLINE L- STA. 167+00.00 SEE SHEET 15

457

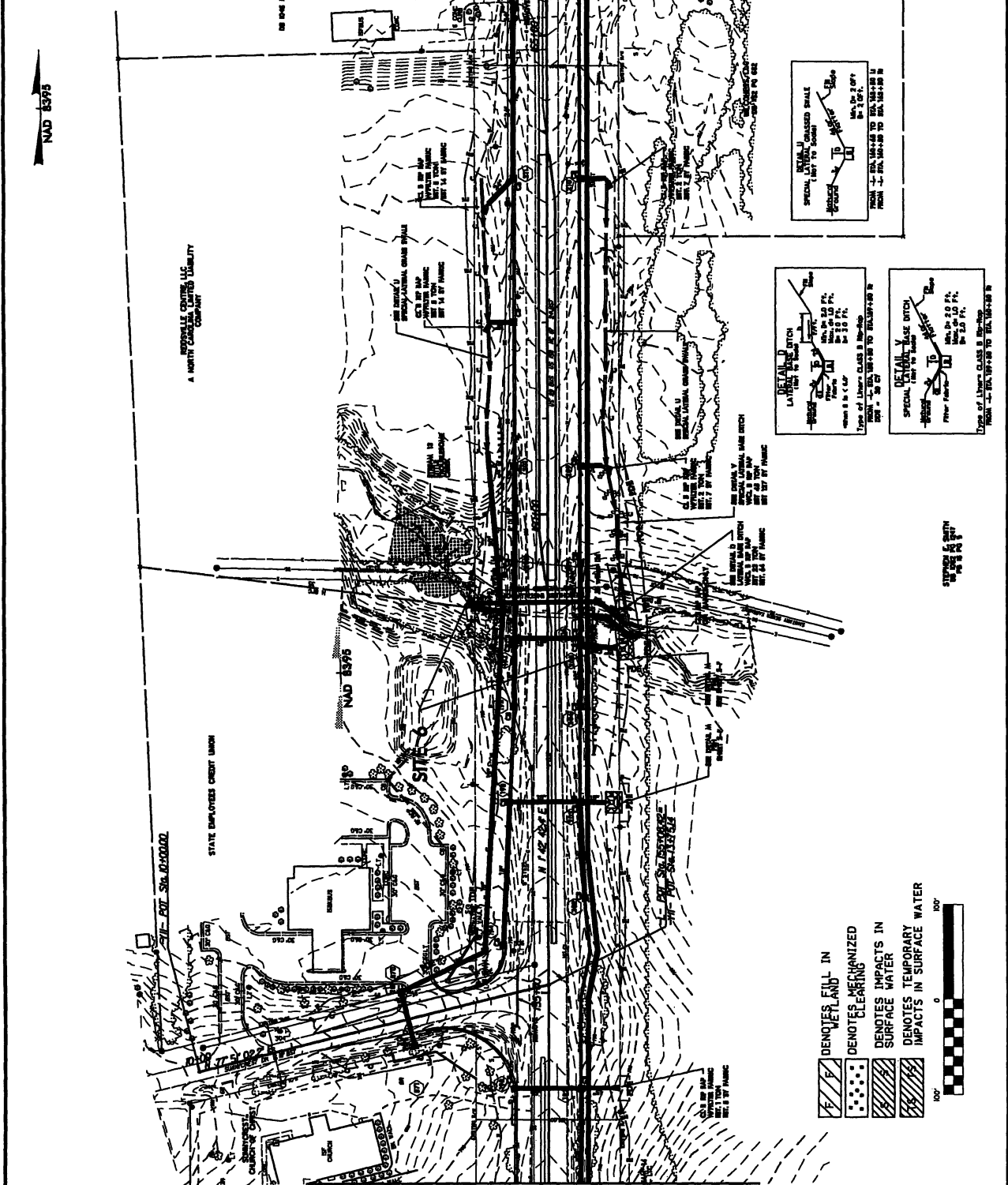
NAD 83/95

REDEVELOPMENT OF
 A NORTH CAROLINA LIMITED LIABILITY
 COMPANY

STATE EMPLOYEES CREDIT UNION

PT. SW. 10/30/00

MATCHLINE L- STA. 153+00.00 SEE SHEET 13



DETAIL V BASE DITCH
 SPECIAL LITERARY CLASS B SHALE
 FROM STA. 164+00 TO STA. 165+00
 FROM STA. 165+00 TO STA. 166+00
 FROM STA. 166+00 TO STA. 167+00

DETAIL V BASE DITCH
 SPECIAL LITERARY CLASS B SHALE
 FROM STA. 164+00 TO STA. 165+00
 FROM STA. 165+00 TO STA. 166+00
 FROM STA. 166+00 TO STA. 167+00

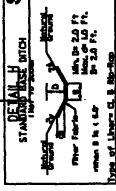
DETAIL V BASE DITCH
 SPECIAL LITERARY CLASS B SHALE
 FROM STA. 164+00 TO STA. 165+00
 FROM STA. 165+00 TO STA. 166+00
 FROM STA. 166+00 TO STA. 167+00

DENOTES FILL IN WETLAND CLEARING
 DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

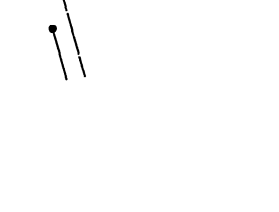
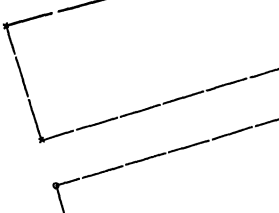
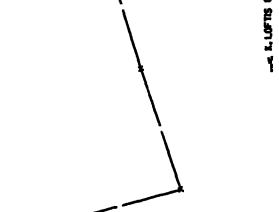
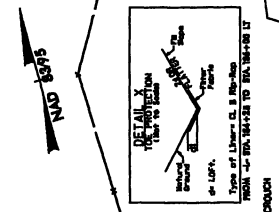
0 100'

PROJECT NUMBER NO.	58
DATE	12
PROJECT NAME	HYDRAULIC IMPROVEMENTS
PRELIMINARY PLANS	FOR THE PROJECT

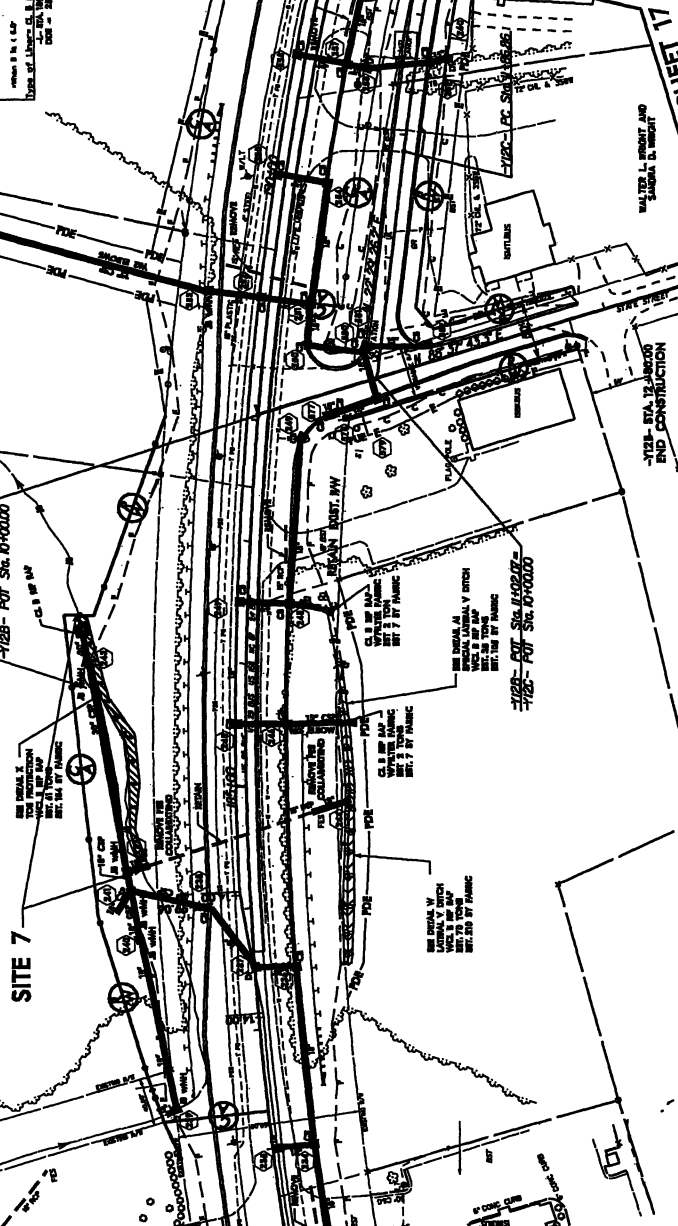
Permit Drawing Sheet 7 of 8



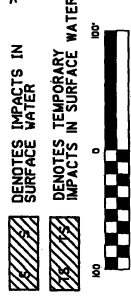
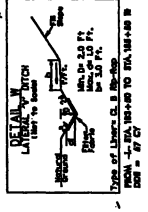
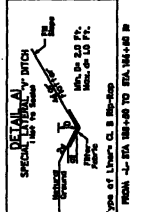
<p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p>	<p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p> <p>PI STA 112+00.00 (RT)</p>
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MATCHLINE - STA 192+00.00 SEE SHEET 17



MATCHLINE - STA 181+00.00 SEE SHEET 15



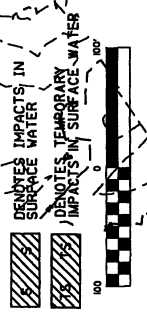
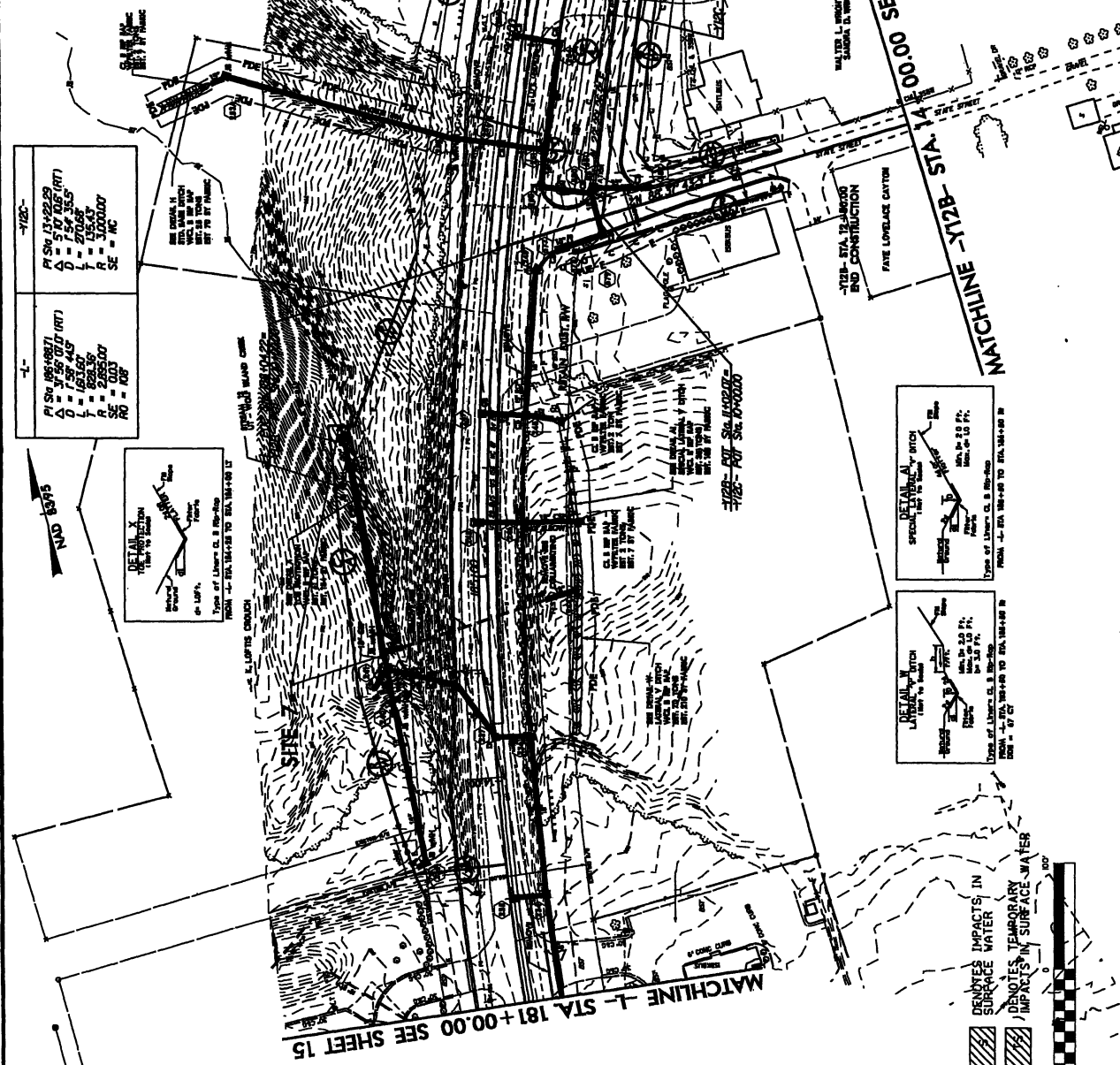
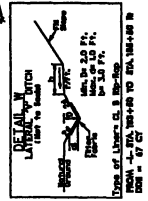
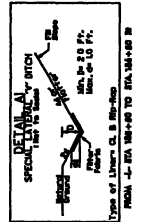
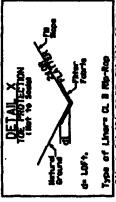
SEE SHEET FOR PROFILE SEE SHEET FOR PROFILE SEE SHEET FOR PROFILE

PROJECT REFERENCE NO.	U-3126A/B
DISTRICT NO.	16
PROJECT NAME	WATER TREATMENT PLANT
DATE	
PRELIMINARY PLANS	FOR THE USE OF THE CONSTRUCTION

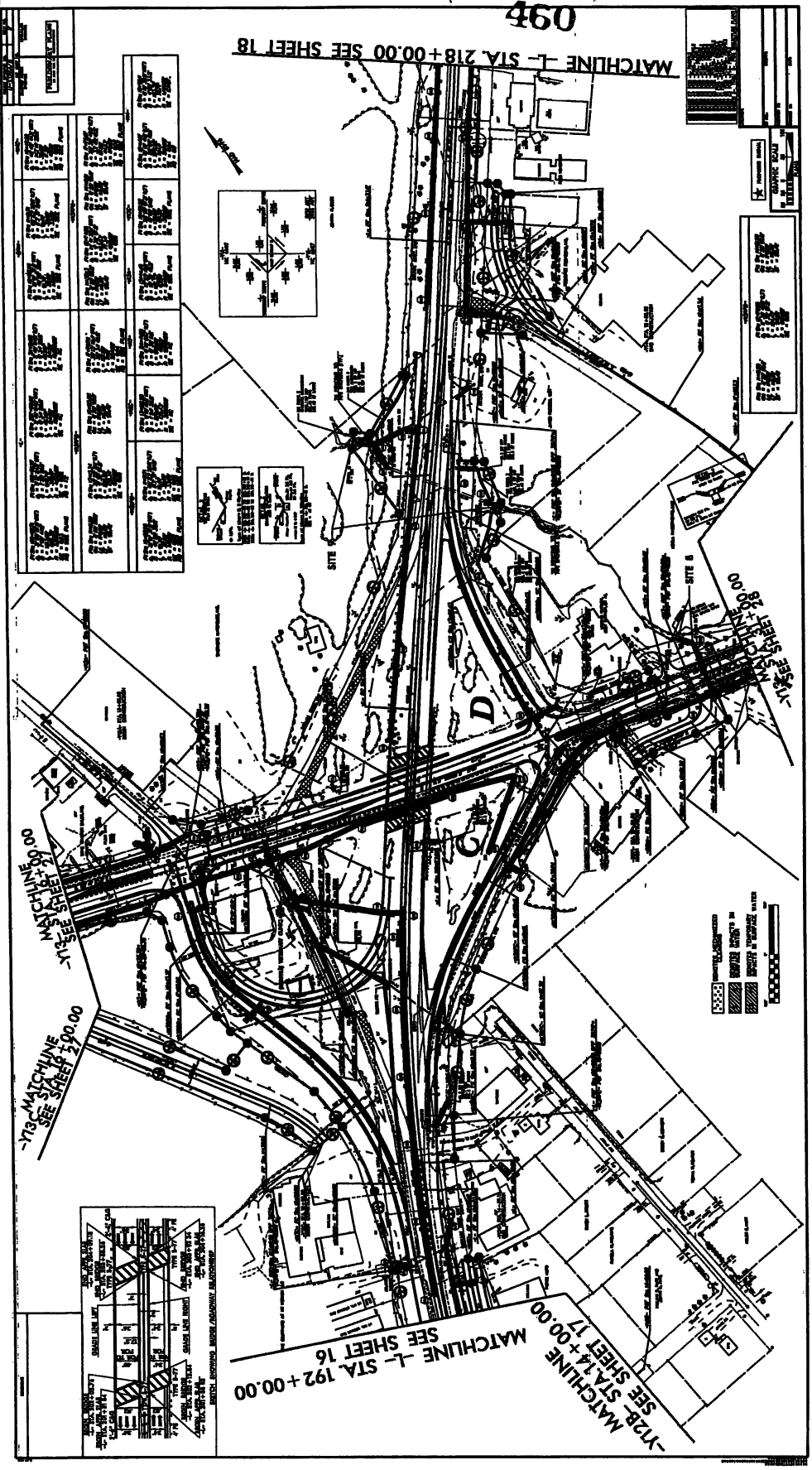
88
 Permit Drawing Sheet 2 of 2

-1-
 P/S No. 85-0887 (RT)
 Δ = 37.50 (10.7)
 L = 163.45
 T = 88.36
 R = 2.65507
 PG = 100

-102-
 P/S No. 13-2829
 Δ = 5.00 (1.0)
 L = 270.65
 T = 155.43
 R = 3.00007
 SE = MC



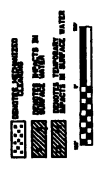
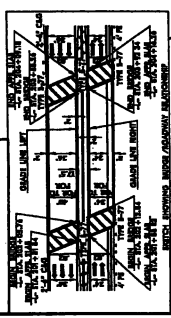
03/27/08 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND REVISED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL 90 (ROCKINGHAM COUNTY)
 REVISIONS
 03/27/08 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND REVISED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL 90 (ROCKINGHAM COUNTY)



MATCHLINE - STA. 218+00.00
 SEE SHEET 18

MATCHLINE - STA. 192+00.00
 SEE SHEET 16

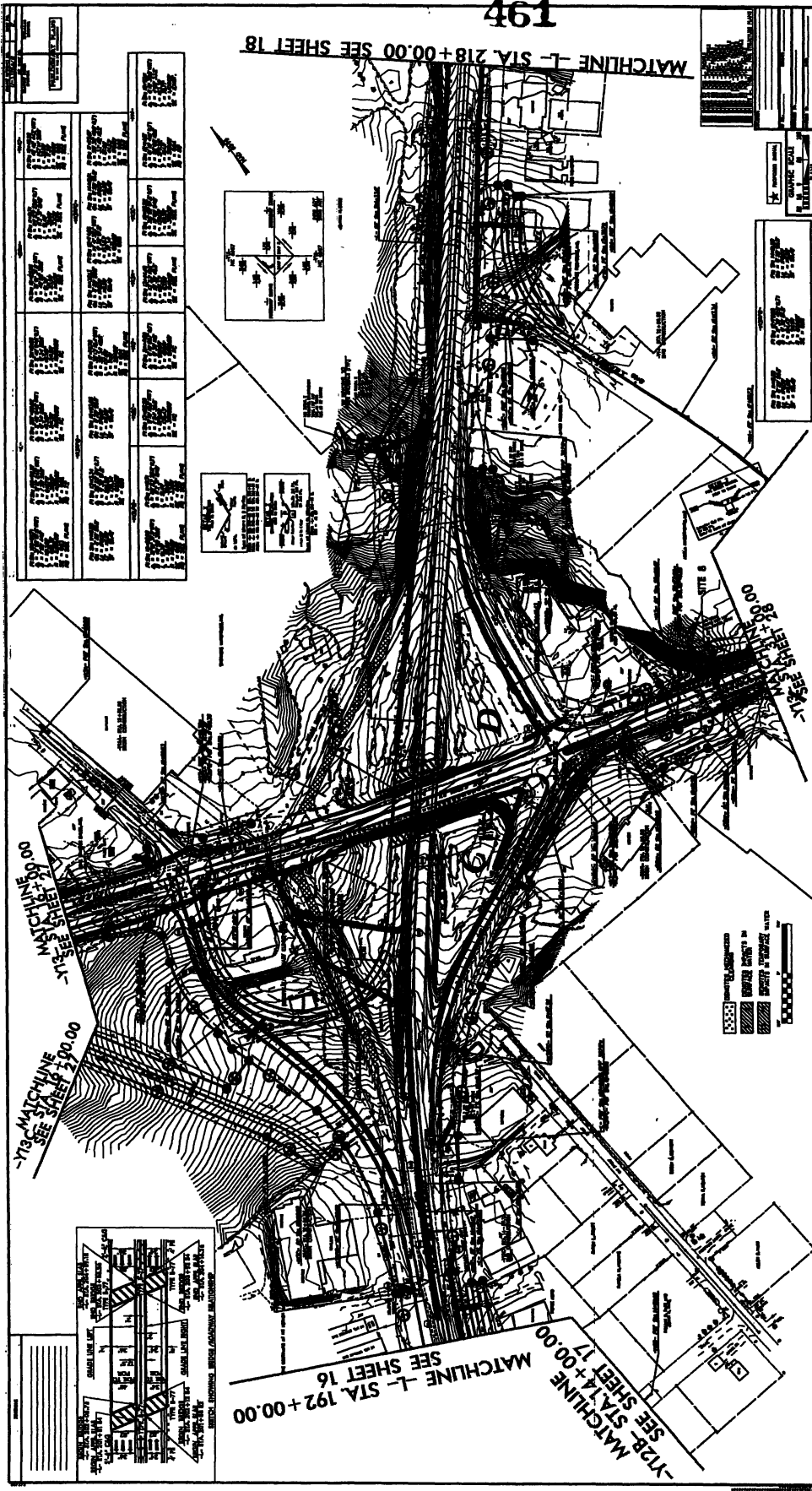
MATCHLINE - STA. 174+00.00
 SEE SHEET 17



MATCHLINE - STA. 174+00.00
 SEE SHEET 17

MATCHLINE - STA. 192+00.00
 SEE SHEET 16

MATCHLINE - STA. 218+00.00 SEE SHEET 18



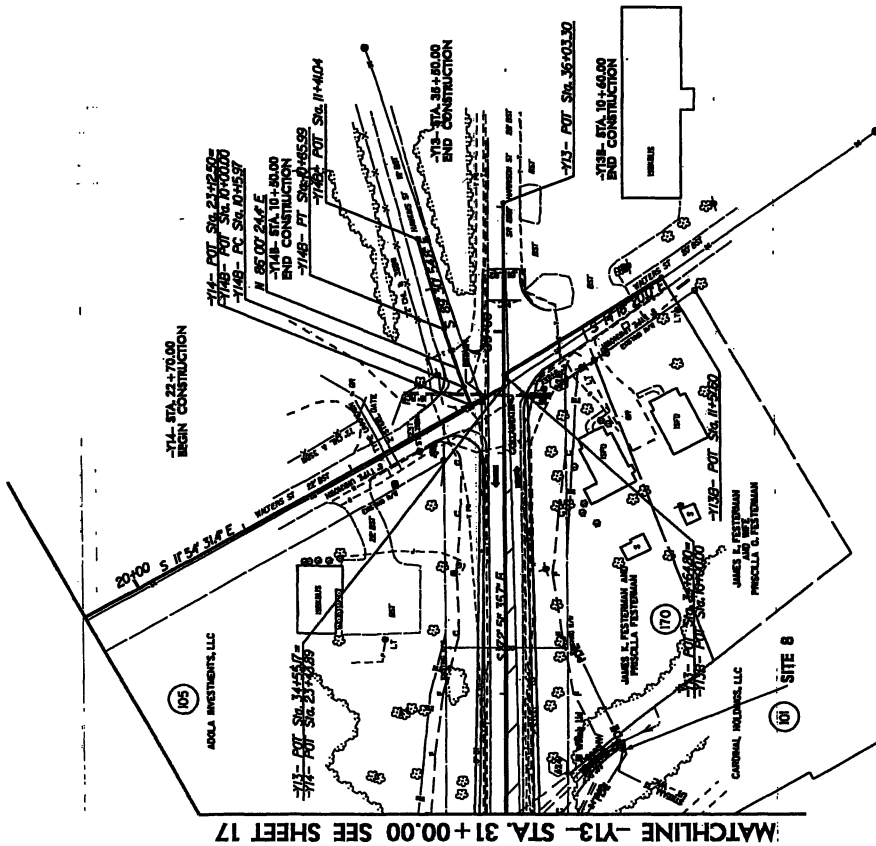
PROJECT NUMBER	1-126078
REV. SHEET NO.	28
DESIGN NUMBER	
DATE	
PRELIMINARY PLANS NO NOT FOR CONSTRUCTION	

Permit Drawing
Sheet 28 of 28

462

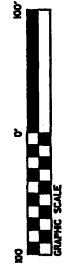
SEE SHEET 20 FOR -Y13- PROFILE

-Y14B-	
P	24.00
A	24.00
U	24.00
T	24.00
R	24.00
SE	EXIST.



DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER



MATCHLINE -Y13- STA. 31+00.00 SEE SHEET 17

REVISIONS	

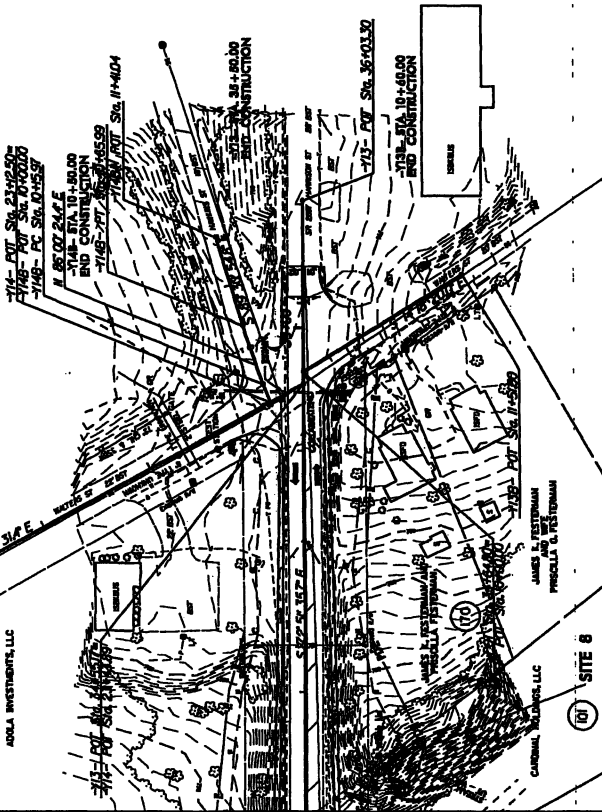
PROJECT NUMBER	U-33667B
DATE	2/28
DESIGNER	HYDRAULIC ENGINEER
CHECKER	
PRELIMINARY PLANS NOT FOR CONSTRUCTION	

Permit Drawing
Sheet 46 of 58

463

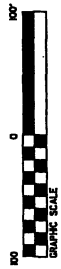
SEE SHEET 50 FOR -Y15- PROFILE

-Y14-	
PI	0+40.59
Δ	8.25' 4.05' (RT)
∅	8.57' 0.63'
L	50.00'
R	64.00'
SE	= EXIST.



DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER



MATCHLINE L- STA. 231+00.00 SEE SHEET 19

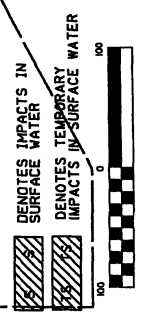
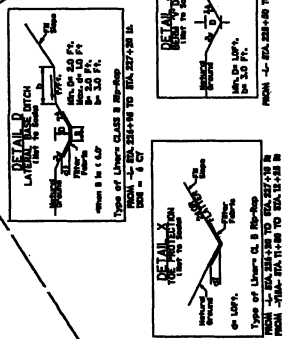
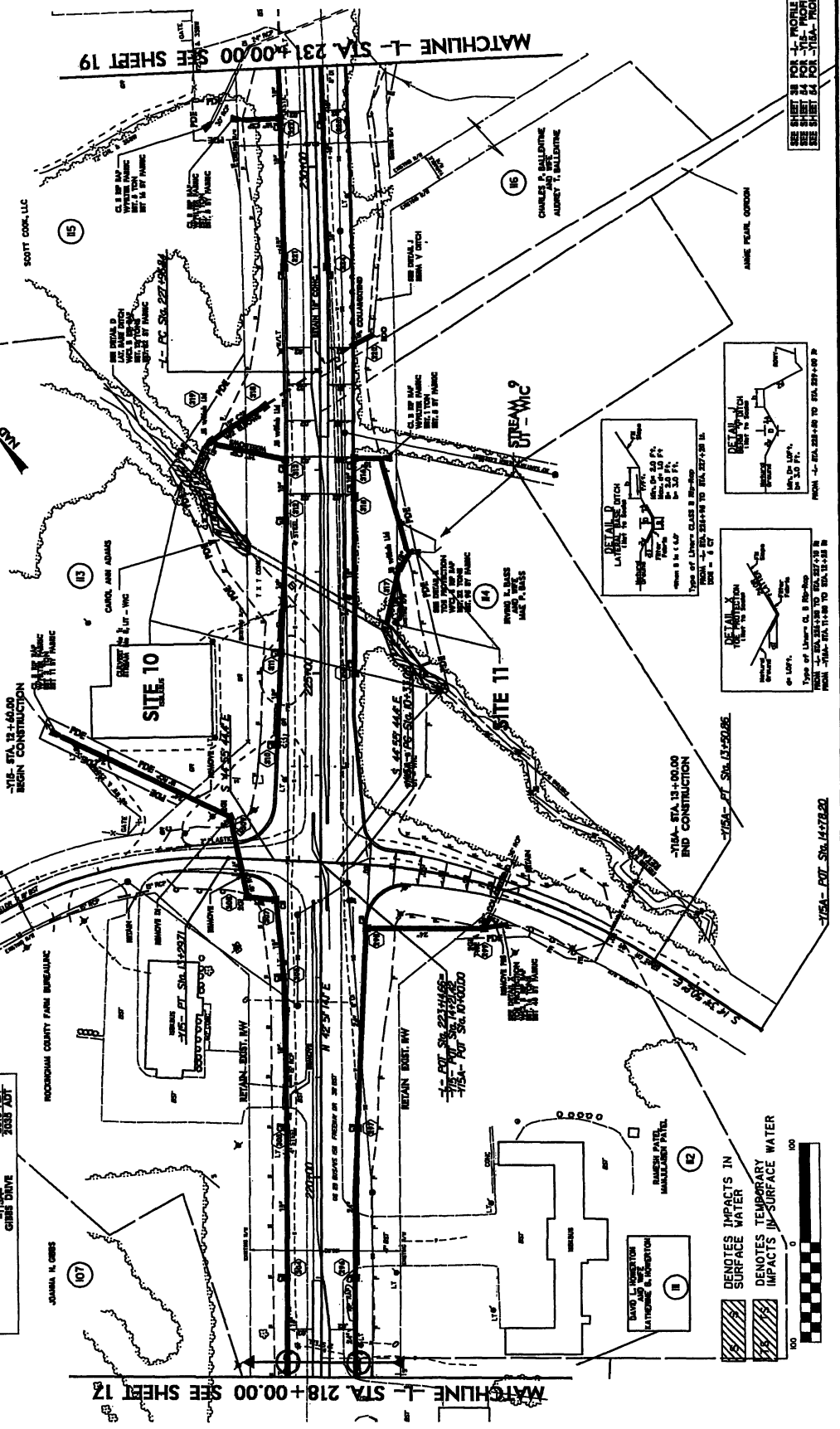
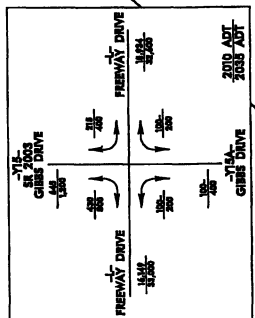
MATCHLINE L- STA. 218+00.00 SEE SHEET 17

PROJECT REFERENCE NO. U-3326A/B	SHEET NO. B
ROADWAY DESIGN STRUCTURE	BY SHEET NO.
TOTAL SHEET ENGINEER	
PRELIMINARY PLANS CONSTRUCTION	

Permit Drawing
Sheet 17 of 58

-15A- PI STA. 218+00.00 D = 57.20 L = 57.20 R = 57.20 SE = SEE PLANS	-15- PI STA. 218+00.00 D = 57.20 L = 57.20 R = 57.20 SE = EXIST.	-15A- PI STA. 218+00.00 D = 57.20 L = 57.20 R = 57.20 SE = SEE PLANS
---	---	---

-15- PVI STA. 218+00.00
-15- PC STA. 218+28.15

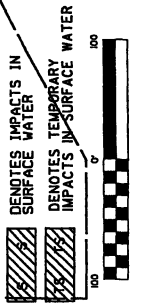
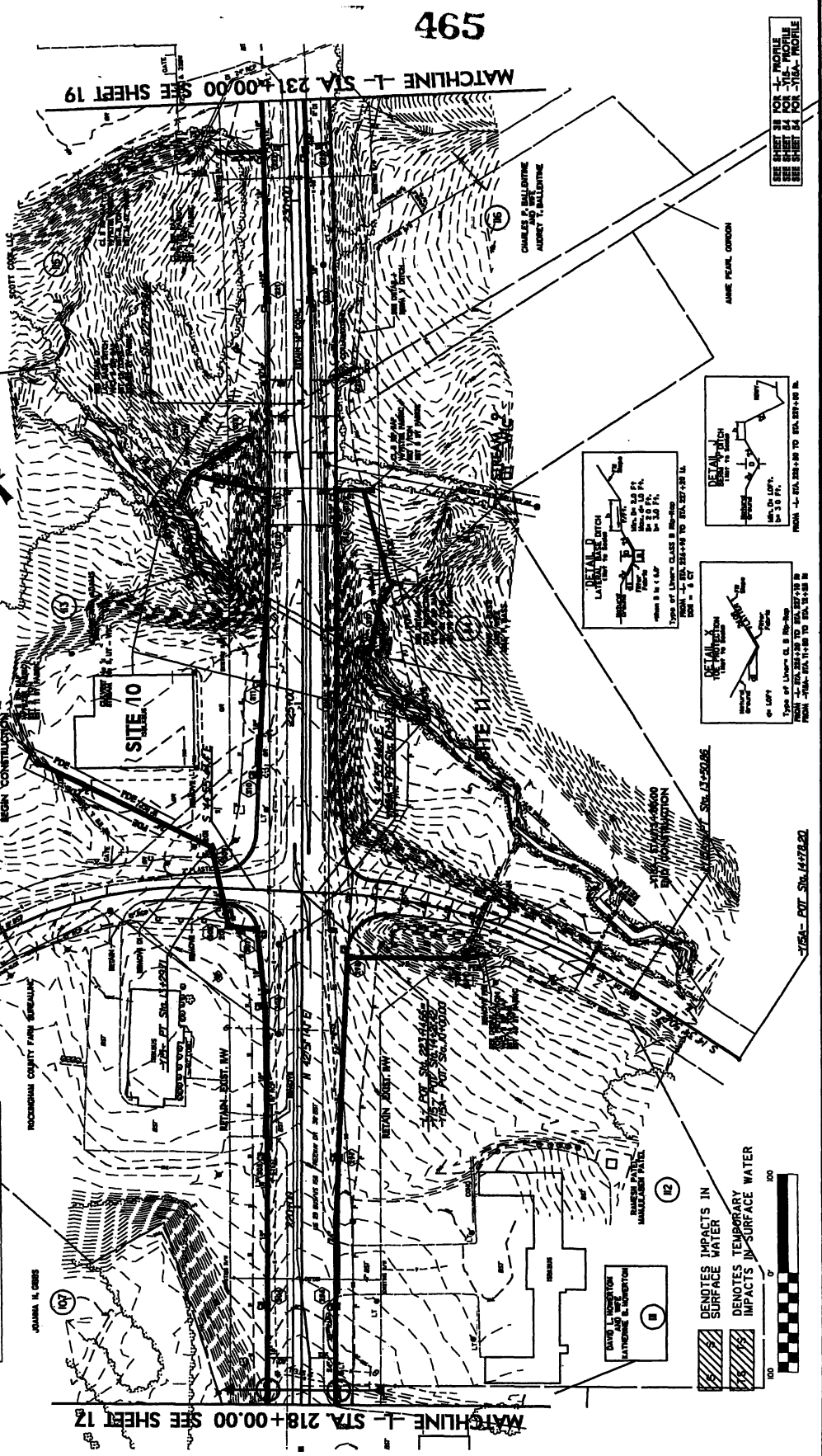
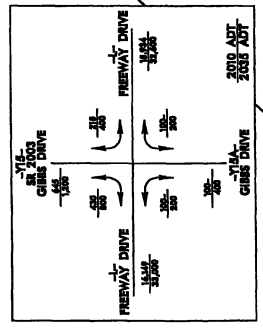


SEE SHEET 18 FOR L-PROFILE
SEE SHEET 18 FOR R-PROFILE
SEE SHEET 18 FOR T-PROFILE

PROJECT REFERENCE NO. 07-1325278
 SHEET NO. 18
 PRELIMINARY PLANS
 NOT FOR THE PROPOSED CONSTRUCTION

Permit Drawing
 Sheet 18 of 18

-L-	-15-	-15A-
PI STA 234+82.87 Δ = 47° 00' 00" (RT) D = 0' 59' 28.5" L = 1514.38' R = 6270.00' SE = 0.02' RD = 72'	PI STA 418+27.6 Δ = 47° 00' 00" (RT) D = 0' 59' 28.5" L = 1514.38' R = 6270.00' SE = 0.02' RD = 72'	PI STA 418+27.6 Δ = 47° 00' 00" (RT) D = 0' 59' 28.5" L = 1514.38' R = 6270.00' SE = 0.02' RD = 72'



SEE SHEET 18 FOR PROFILE
 SEE SHEET 17 FOR PROFILE
 SEE SHEET 14 FOR PROFILE

465

MATCHLINE 1- STA 231+00.00 SEE SHEET 19

MATCHLINE 1- STA 218+00.00 SEE SHEET 12

PROJECT REFERENCE NO. 17-12242-B	SHEET NO. 20
BY HYDRAULIC ENGINEER	DATE 1/12/12
<p align="center">PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION</p>	

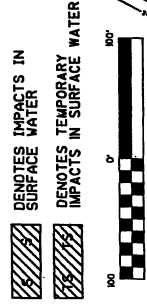
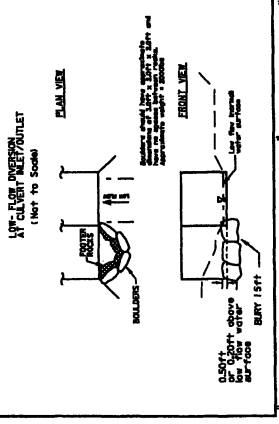
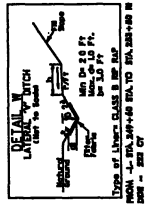
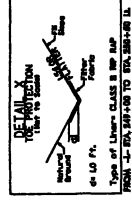
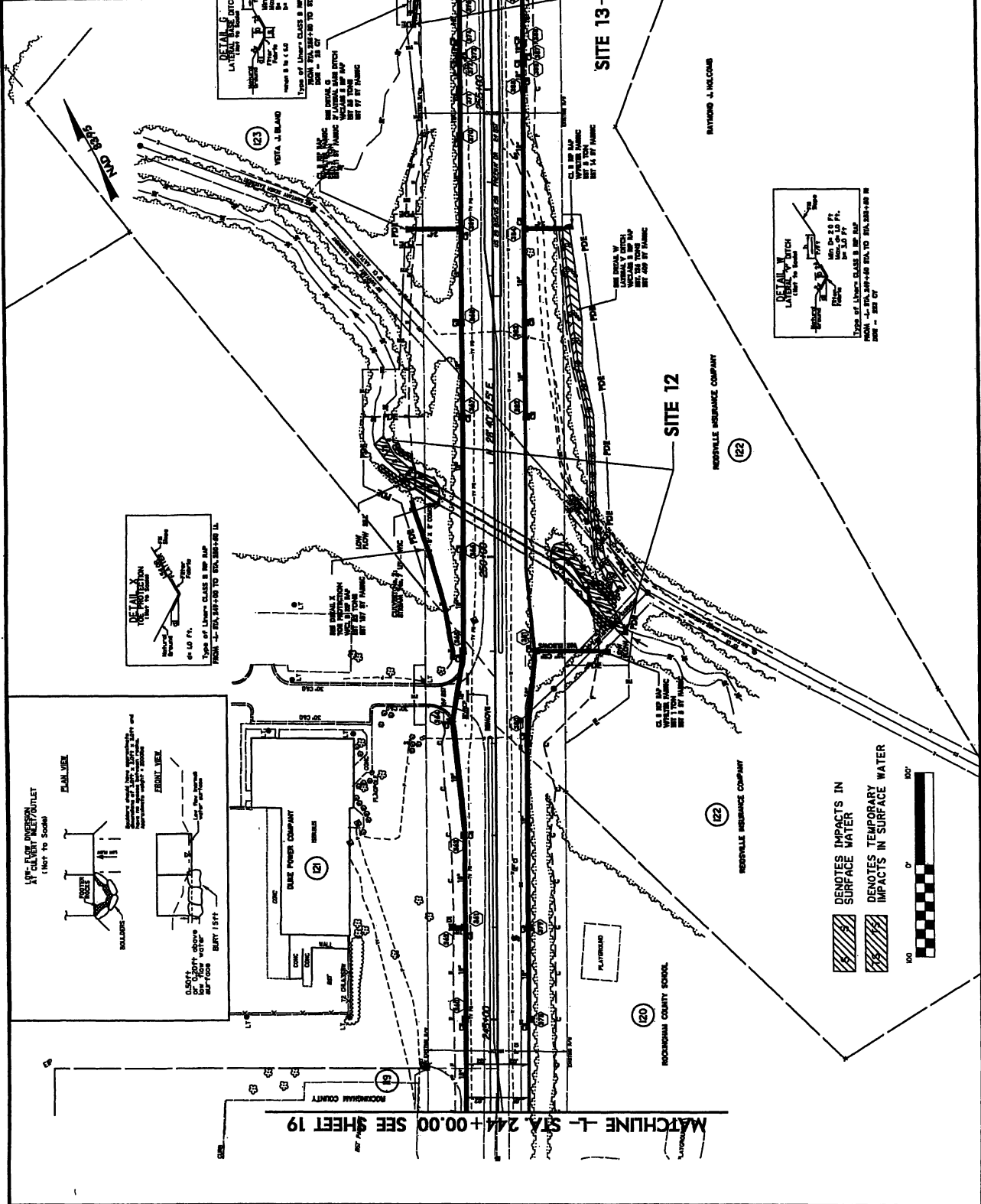
Permit Drawing
Sheet 19 of 58

466

MATCHLINE - STA. 257+00.00 SEE SHEET 21

MATCHLINE - STA. 244+00.00 SEE SHEET 19

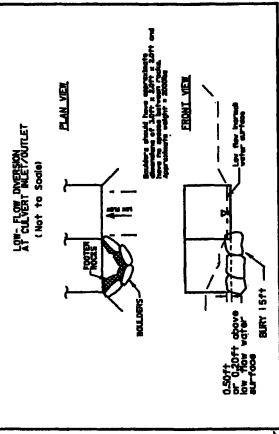
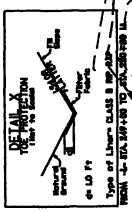
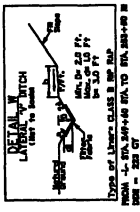
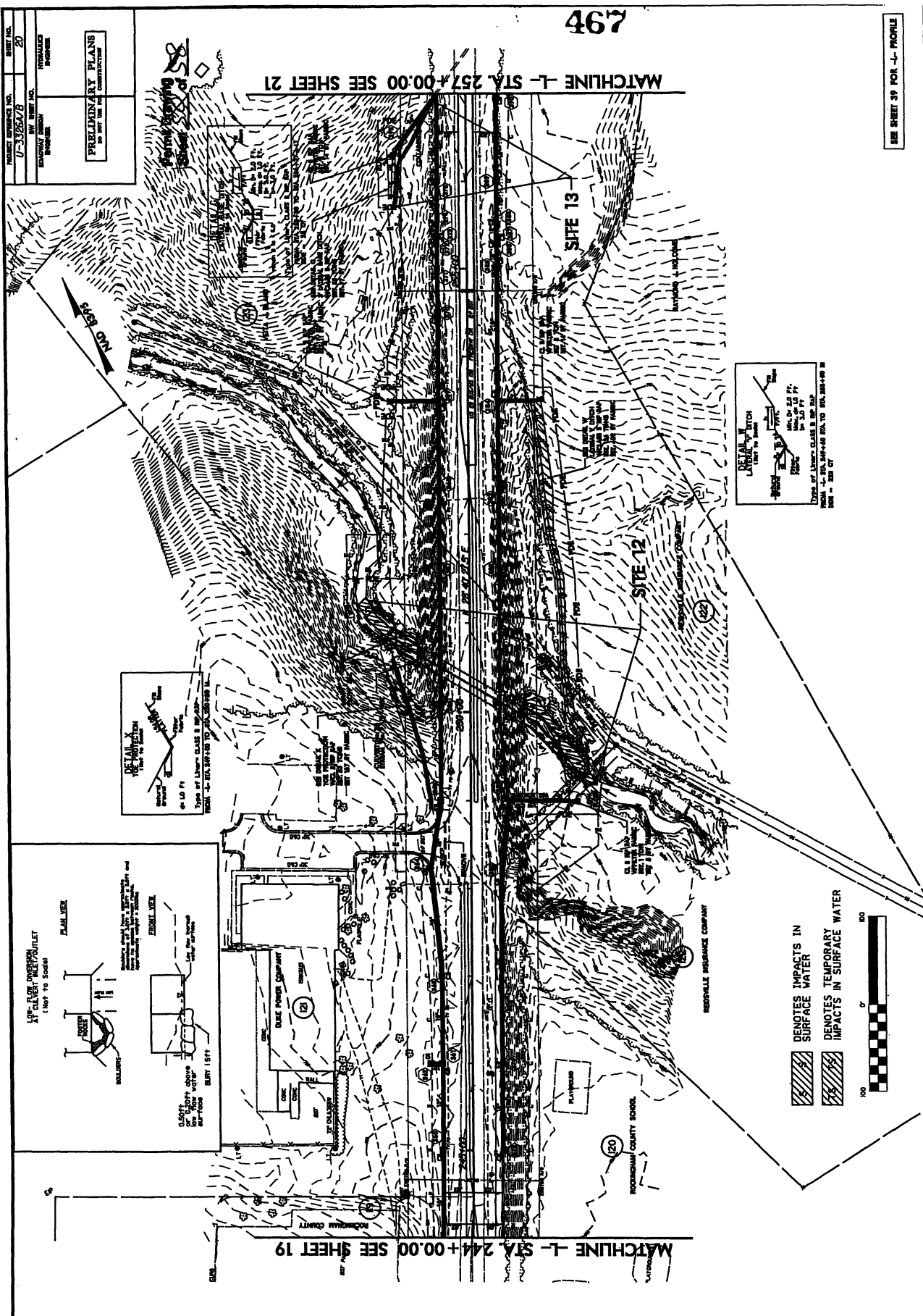
SEE SHEET 39 FOR -L- PROFILE



06/25/09 P/W REVISION - REVISED THE PCE AT 1-1 STA. 253+00.00 TO 100' OFFSET DUE TO THE 24' H/P ADJUSTMENT BACK TO THE TOE OF THE SLOPE ON PARCEL 25 VISTA ISLAND.
 04-1115-2009 0844
 8/17/79

MATCHLINE L- STA. 257+00.00 SEE SHEET 21

MATCHLINE L- STA. 244+00.00 SEE SHEET 19



PROJECT NUMBER	U-3264/B
DATE	20
DESIGNED BY	PREPARED BY
CHECKED BY	APPROVED BY
PRELIMINARY PLANS FOR THE CONSTRUCTION OF THE PROJECT	

06/25/09 R/W REVISION - REVISED THE P&E AT L- STA. 253+50.00 L.F. FROM W8 TO W9 OFFSET DUE TO THE R/W ADJUSTMENT BACK TO THE TOE OF THE
 SLOPE ON PANEL R23 WITH A BLIND
 04-AUG-2009 08:44
 2256-r-dp-pd-a28d97
 8/17/09

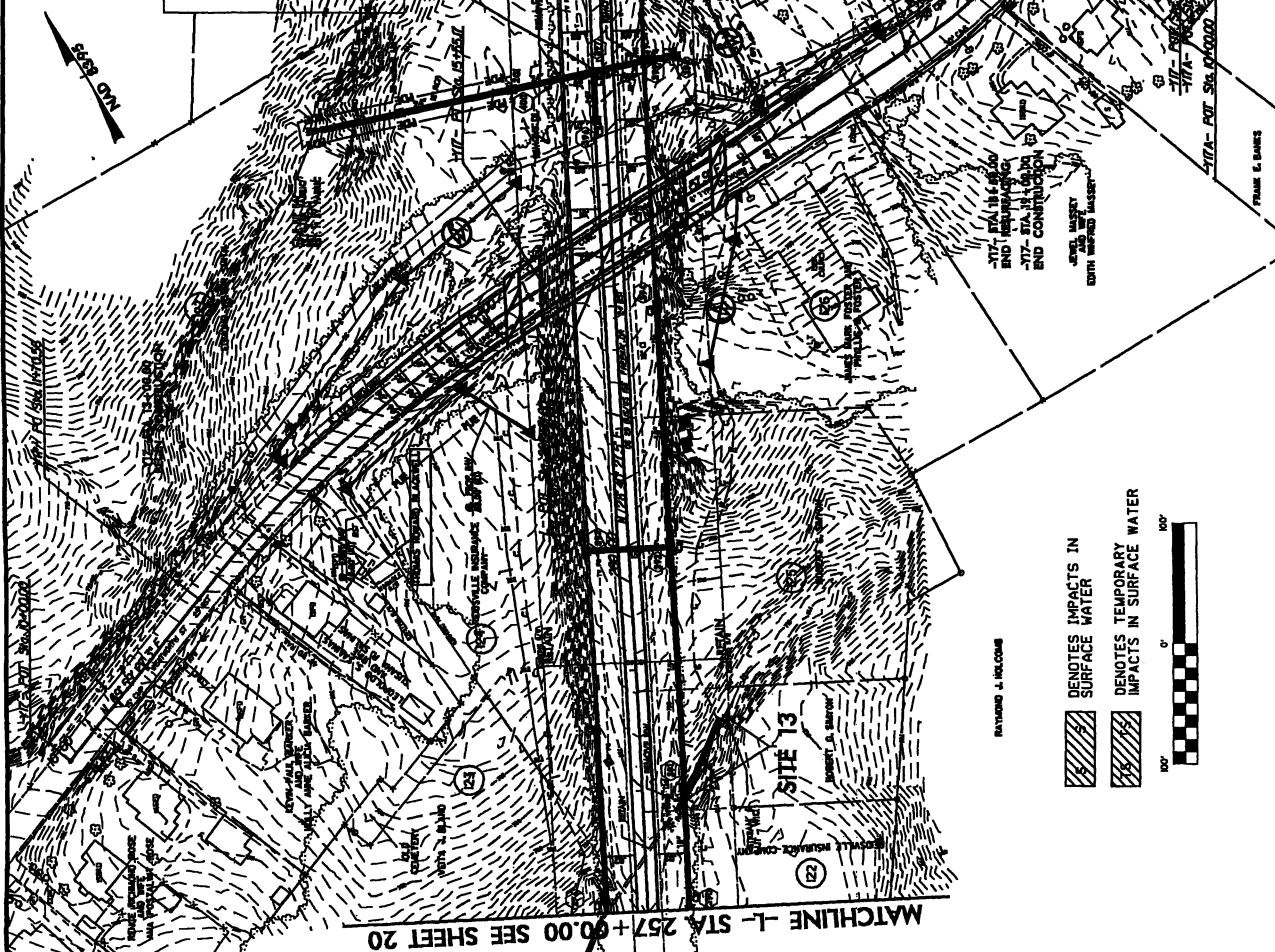
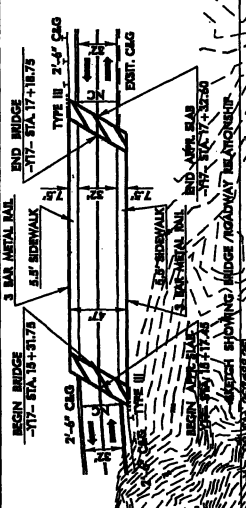
PROJECT REFERENCE NO. U-3326A/B
 SHEET NO. 21

DESIGNER: HYDRA-TECH ENGINEERS
 CHECKED BY: [Signature]

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

Permit Drawing
 Sheet 22 of 28

-1-		-10-	
PI STA 289+30.37	PI STA 13+45.58	PI STA 8+69.93	PI STA 5+69.93
Δ = 17.55	Δ = 17.55	Δ = 17.03	Δ = 17.03
D = 65.00	D = 65.00	D = 65.00	D = 65.00
T = 69.00	T = 69.00	T = 65.50	T = 65.50
R = 180.00	R = 180.00	R = 360.00	R = 360.00
SE = 0.03	SE = 0.03	SE = 0.02	SE = 0.02
NO = 105	NO = 105	NO = 102	NO = 102
NO = SEE PLANS		NO = SEE PLANS	



03/23/09 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND REVISED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL 164 REDVILLE INSURANCE COMPANY
 REVISIONS
 07-11-2009 10:59
 6504
 07-11-2009 10:59
 6504
 07-11-2009 10:59
 6504

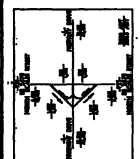
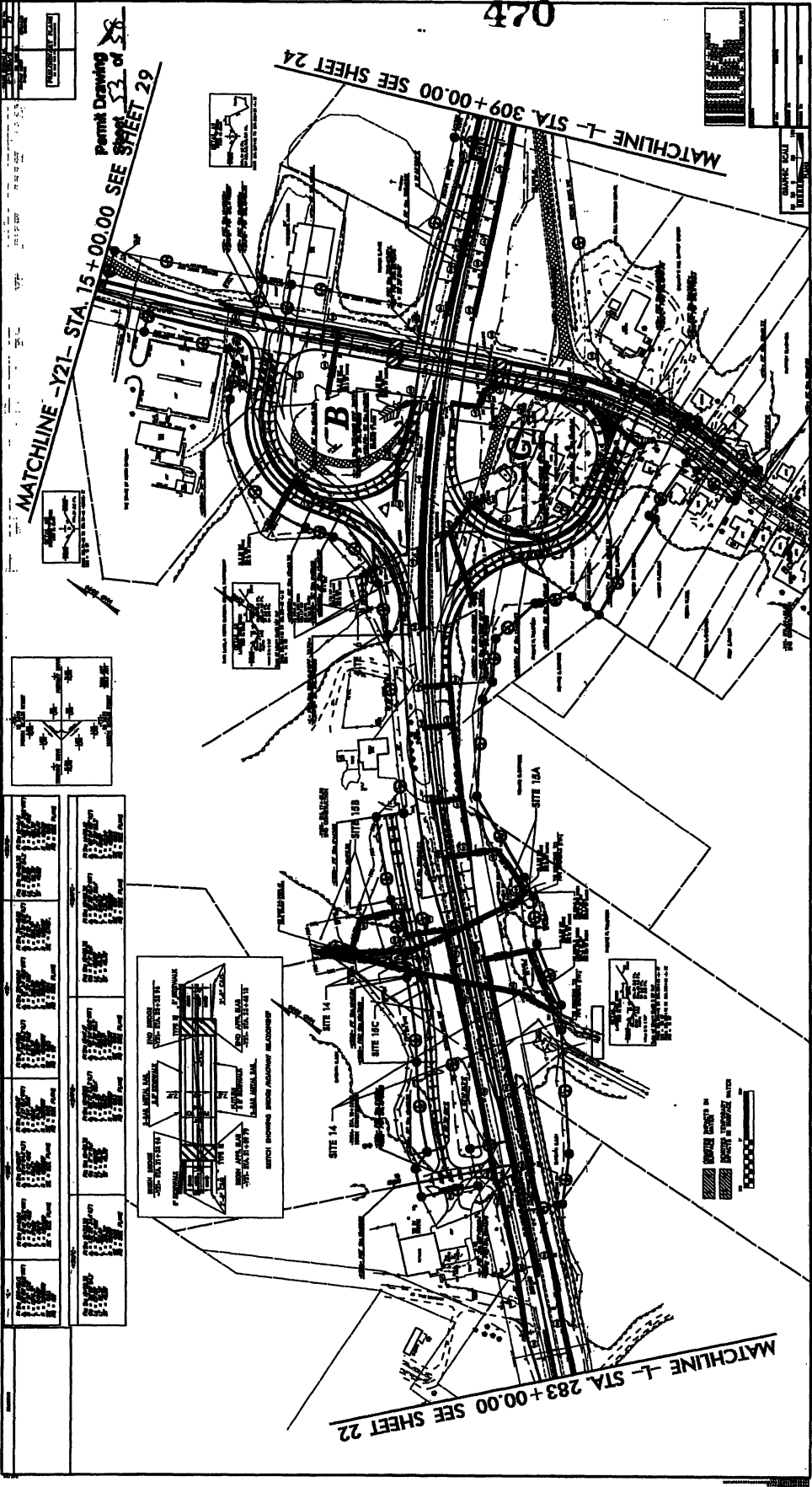
469

SEE SHEET 21 FOR PROPOSED
 SEE SHEETS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 FOR STRUCTURE PLANS

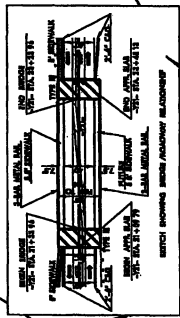
MATCHLINE -Y21- STA. 15+00.00 SEE SHEET 29

MATCHLINE -L- STA. 309+00.00 SEE SHEET 24

MATCHLINE -L- STA. 283+00.00 SEE SHEET 22



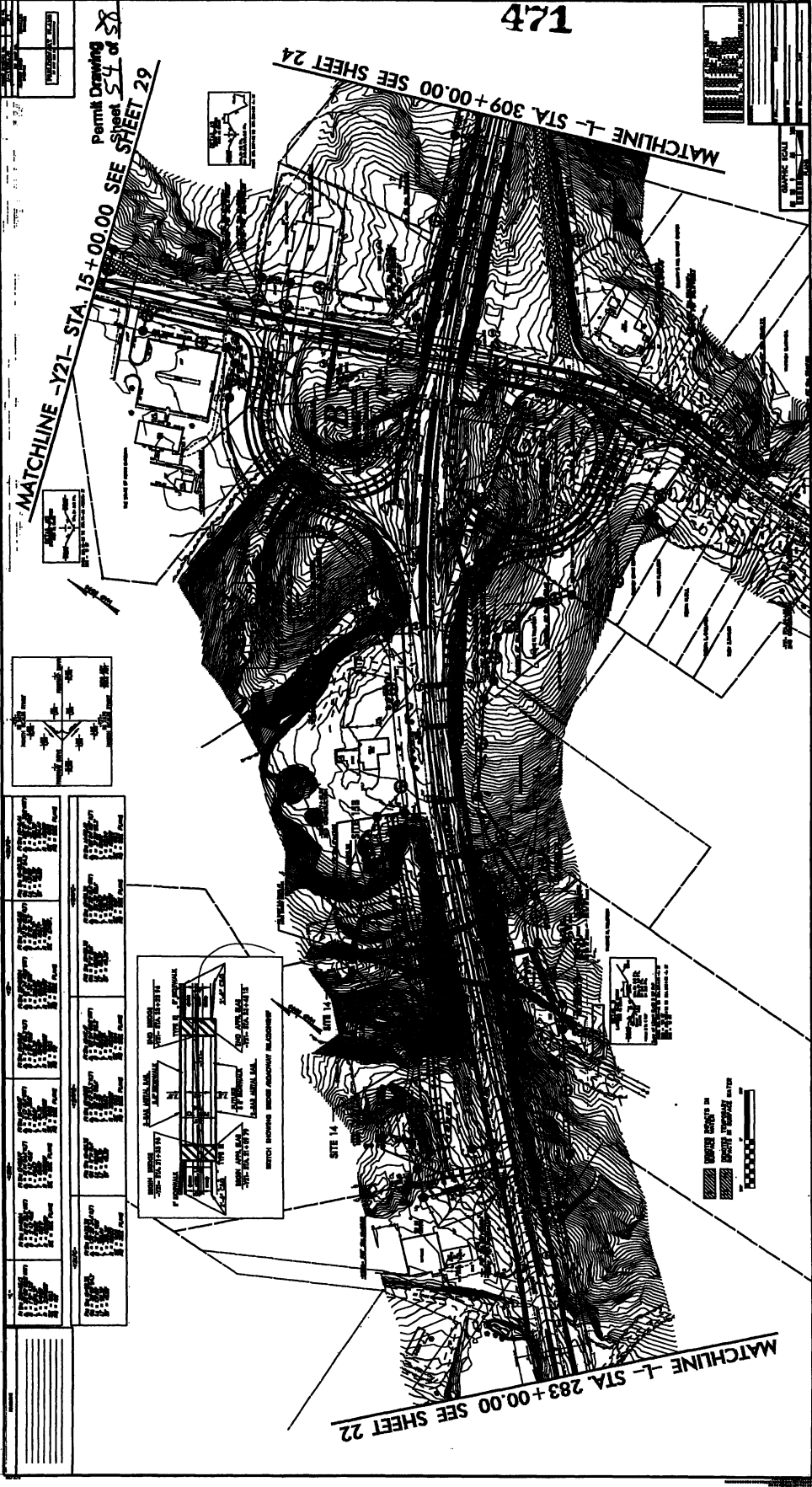
	CONCRETE BRIDGE DECK
	CONCRETE BRIDGE PIER
	CONCRETE BRIDGE ABUTMENT
	STEEL BRIDGE DECK
	STEEL BRIDGE PIER
	STEEL BRIDGE ABUTMENT
	EARTH EMBANKMENT
	EARTH CUT
	DRAINAGE DITCH
	UTILITY LINE
	EXISTING ROAD CENTERLINE
	PROPOSED ROAD CENTERLINE



	CONCRETE BRIDGE DECK
	CONCRETE BRIDGE PIER
	CONCRETE BRIDGE ABUTMENT
	STEEL BRIDGE DECK
	STEEL BRIDGE PIER
	STEEL BRIDGE ABUTMENT
	EARTH EMBANKMENT
	EARTH CUT
	DRAINAGE DITCH
	UTILITY LINE
	EXISTING ROAD CENTERLINE
	PROPOSED ROAD CENTERLINE

Permit Drawing
Sheet 33 of 38

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PROJECT PERMIT NO. 0-33267B
 SHEET NO. 24
 PRELIMINARY PLANS
 NO PERMITS TO BE CONSIDERED

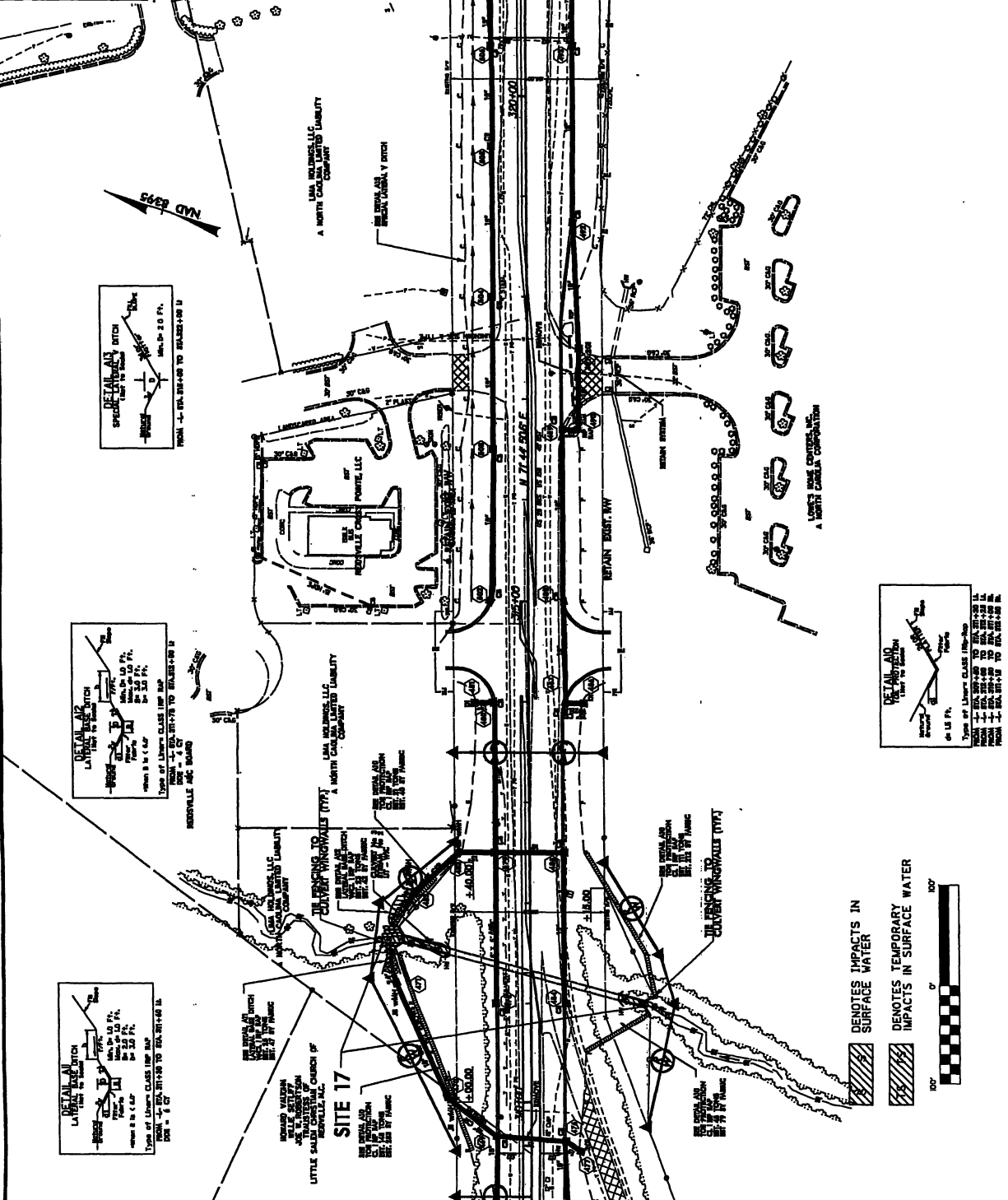
472

SEE SHEET 41 FOR -I- PROFILE

Permit Drawing
 Sheet 24 of 58

MATCHLINE -I- STA. 321+00.00 SEE SHEET 25

MATCHLINE -I- STA. 309+00.00 SEE SHEET 23



07-11-2009 1:00 PM
 C:\Users\jgibson\Documents\Projects\07-11-2009\07-11-2009.dwg
 1/17/09

PROJECT REFERENCE NO.	473
SHEET NO.	24
DATE	11/18/2018
DESIGNER	HYDRA-TECH ENGINEERING
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	

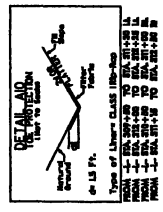
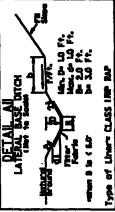
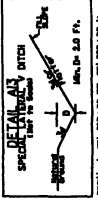
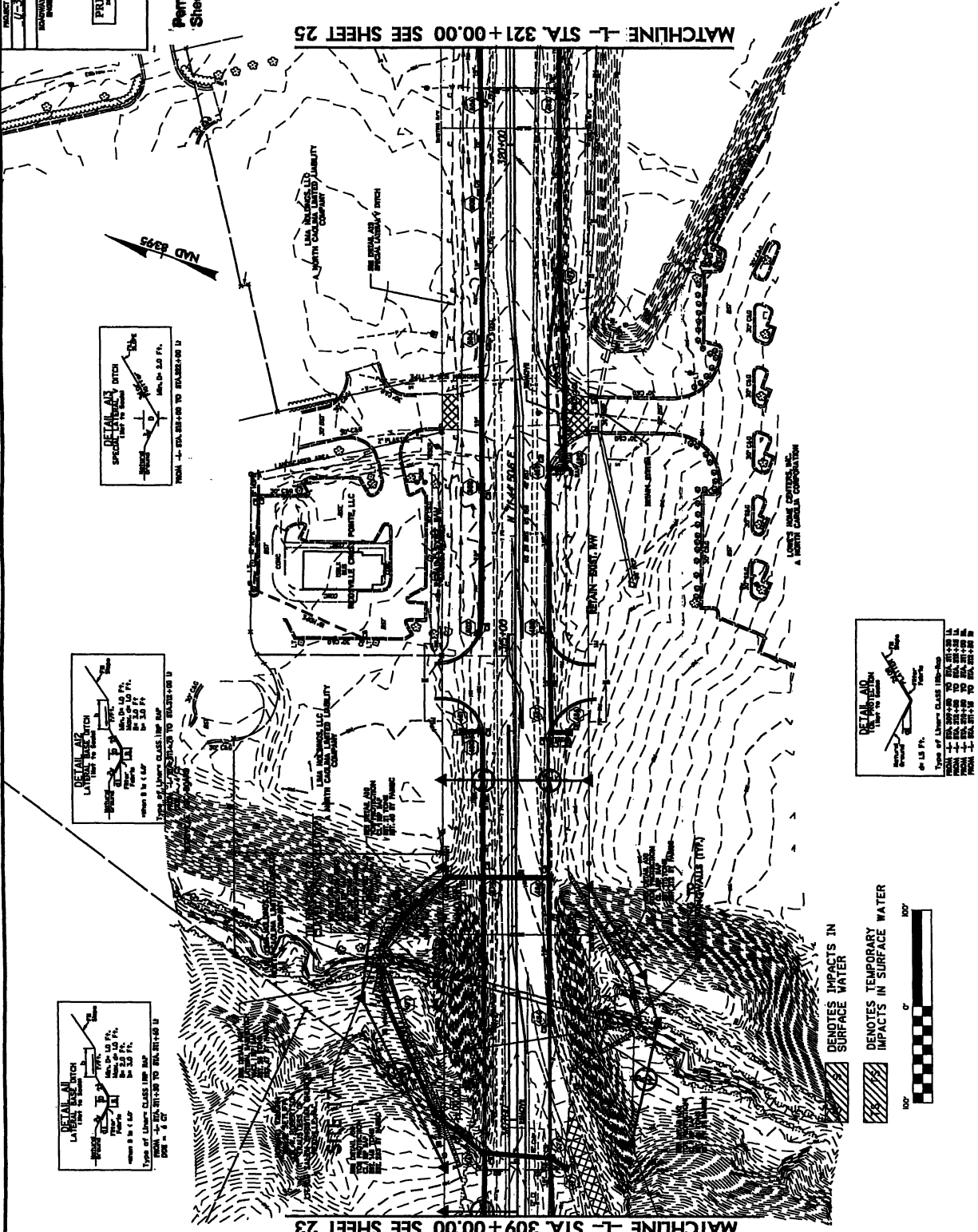
Permit Drawing
Sheet 24 of 28

473

SEE SHEET AT JOINT - PROFILE

MATCHLINE L- STA. 321+00.00 SEE SHEET 25

MATCHLINE L- STA. 309+00.00 SEE SHEET 23

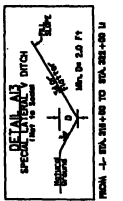
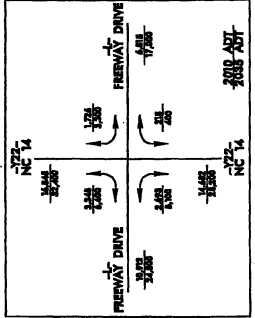
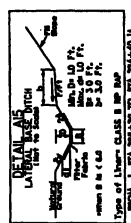
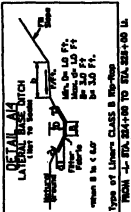
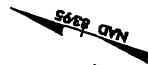


PROJECT REFERENCE NO.	U-3326AB
DATE	25
BY	W. J. HARRIS
CHECKED BY	W. J. HARRIS
DESIGNED BY	W. J. HARRIS
APPROVED BY	W. J. HARRIS

PRELIMINARY PLANS
NO DATE FOR THE PROJECT

Permit Drawing
Sheet 51 of 58

-122-
P/Sig 2109344
A = 254.437' (17)
D = 50.00'
T = 25.42°
R = 1000.00'
SE = EXIST.



RETAIN WALL CONSTRUCTION
FROM STA. 17+00 TO STA. 17+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 14+00 TO STA. 14+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 11+00 TO STA. 11+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 8+00 TO STA. 8+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 5+00 TO STA. 5+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 2+00 TO STA. 2+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 0+00 TO STA. 0+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 17+00 TO STA. 17+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 14+00 TO STA. 14+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 11+00 TO STA. 11+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 8+00 TO STA. 8+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 5+00 TO STA. 5+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 2+00 TO STA. 2+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 0+00 TO STA. 0+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 17+00 TO STA. 17+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 14+00 TO STA. 14+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 11+00 TO STA. 11+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 8+00 TO STA. 8+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 5+00 TO STA. 5+00 U.

RETAIN WALL CONSTRUCTION
FROM STA. 2+00 TO STA. 2+00 U.

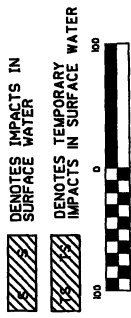
RETAIN WALL CONSTRUCTION
FROM STA. 0+00 TO STA. 0+00 U.

MATCHLINE 1- STA. 321+00.00 SEE SHEET 24

474

REVISION SIGNAL

SEE SHEET 58 FOR 3-D PROFILE
SEE SHEET 59 FOR 3-D PROFILE

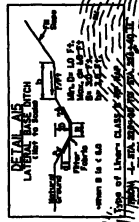
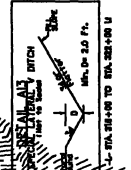
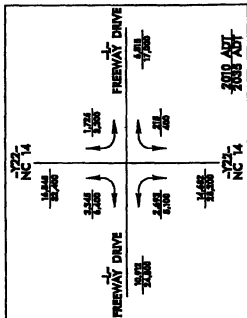
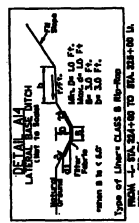


REVISIONS
02/27/20 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND ELIMINATED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL R5 (MICHAEL W. APPLE)
01/27/20 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND ELIMINATED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL R5 (MICHAEL W. APPLE)
01/27/20 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND ELIMINATED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL R5 (MICHAEL W. APPLE)

PROJECT REFERENCE NO.	SHEET NO.
07-1325079	25
DATE	DATE
08/20/09	08/20/09
DESIGNER	PREPARED BY
W. J. ...	W. J. ...
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Permit Drawing
Sheet 58 of 58

-122-
P/S = 2400.44
Δ = 254.43 (17)
D = 50.83 46.5
T = 25.42
R = 1000.07
SE = EXIST.



MATCHLINE I- STA. 321+00.00 SEE SHEET 24

475

END PROJECT 71+322.64

DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVIEWED BY

SEE SHEET 57 FOR "TOP PROFILE"
SEE SHEET 59 FOR "SIDE PROFILE"

03/23/09 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND REVERSED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL R5 (MICHAEL W. APPEL)
R/D OF I- STA. 329+40
12/26/08
03/26/09 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND REVERSED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL R5 (MICHAEL W. APPEL)
12/26/08
03/26/09 R/W REVISION (P/S) - ADDED PERMANENT UTILITY EASEMENT AND REVERSED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL R5 (MICHAEL W. APPEL)
12/26/08