



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

May 27, 2022

Regulatory Division

Action ID. SAW-2020-00846

Mr. Gregory Price
North Carolina Department of Transportation
Division 6, DEO
PO Box 1150
Fayetteville, North Carolina 28302

Dear Mr. Price,

In accordance with the written request of July 29, 2021 and the ensuing administrative record, enclosed is an electronic copy of a permit to discharge dredged or fill material into waters of the U.S. in association with construction activities related to the proposed conversion of the intersection of US 74/76 and Old Lake Road (SR 1740) to a grade separation, the conversion of the intersection of US 74/76 and Chauncey Town Road (SR 1735) to an interchange, construction of a roundabout at the intersection of Sam Potts Highway (NC 214)/ Chauncey Town Road, and construction of a service road from Chauncey Town Road to Old Lake Road north of US 74/76 in Columbus County, near Lake Waccamaw North Carolina. **STIP: R-5819 and R-5820.**

Any deviation in the authorized work will likely require modification of this permit. If any 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, 2027.
- 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 Ms. Liz Hair at the Wilmington Regulatory Field Office, telephone 910-251-4049.

FOR THE CHIEF, REGULATORY DIVISION

 Date: 2022.05.27
12:10:16 -04'00'

Monte Matthews
Lead Project Manager
Wilmington Regulatory Division

District Enclosures:

Electronic Copies Furnished (with enclosures):

Chief, Source Data Unit
NOAA/National Ocean Service
1315 East-west Highway, Room 7316
Silver Spring, Maryland 20910-3282

Copies Furnished with Special Conditions and Plans:

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

Dr. Pace Wilber
National Marine Fisheries Service
101 Pivers Island Road
Beaufort, North Carolina 28516

Mr. Todd Bowers
Wetlands and Marine Regulatory Section
Water Protection Division – Region IV
U. S. Environmental Protection Agency
61 Forsyth St. SW
Atlanta, Georgia 30303-8931

Mr. Jonathan Howell
Division of Coastal Management
North Carolina Department of
Environmental Quality
400 Commerce Avenue
Morehead City, North Carolina 28557
Ms. Amy Chapman

Transportation Permitting Unit
Division of Water Resources
Department of Environmental Quality
1617 Mail Service Center
Raleigh, North Carolina 27

DEPARTMENT OF THE ARMY PERMIT

Permittee: North Carolina Department of Transportation
Attn: Mr. Greg Price

Permit No.: SAW-2020-00846, STIP: R-5819 AND R-5820.

Issuing Office: CESAW-RG-L

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

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

Project Description: The North Carolina Department of Transportation (NCDOT) proposes to convert the intersection of US 74/76 and Old Lake Road (SR 1740) to a grade separation, convert the intersection of US 74/76 and Chauncey Town Road (SR 1735) to an interchange, construct a roundabout at the intersection of Sam Potts Highway (NC 214)/ Chauncey Town Road, and construct a service road from Chauncey Town Road to Old Lake Road north of US 74/76 in Columbus County, North Carolina.

Proposed total impacts: Associated with the overall R-5819 and R-5820 project include permanent impacts (fill, excavation, mechanized land clearing, and bank stabilization) to aquatic resources total 12.885 acres wetland and 94 linear feet of stream channel. Proposed hand clearing in wetlands totals 0.273-acres

Project Location: The proposed project is located along the intersection of US 74/76 and Old Lake Road (SR 1740), the intersection of US 74/76 and Chauncey Town Road (SR 1735), the intersection of Sam Potts Highway (NC 214)/ Chauncey Town Road, and along Georgia Road between Chauncey Town Road and Old Lake Road, north of US 74/76 in Columbus County, North Carolina.

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2027**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit,

Special Conditions:

SEE ATTACHED SPECIAL CONDITIONS

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

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

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

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

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

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

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

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

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

Gregory W. Price
(PERMITEE) NC DEPARTMENT OF TRANSPORTATION
ATTN: MR. GREG PRICE

5/27/2022

(DATE)

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

FOR
(DISTRICT ENGINEER) **BENJAMIN A. BENNETT, COLONEL**

(DATE)

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

(TRANSFEEE)

(DATE)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: North Carolina Department of Transportation	File Number: Saw-2020-00846	Date: May 27, 2022
Attached is:		See Section below
<input type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
<input checked="" type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
<input type="checkbox"/> PERMIT DENIAL	C	
<input type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION	D	
<input type="checkbox"/> PRELIMINARY JURISDICTIONAL DETERMINATION	E	

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

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

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

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

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

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

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

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

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

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

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

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

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

**District Engineer, Wilmington Regulatory Division,
Attn: Ms. Liz Hair
Wilmington Regulatory Field Office
69 Darlington Avenue
Wilmington, NC 28403**

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

**Mr. Philip Shannin, Administrative Appeal Review Officer
CESAD-PDO
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

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

Signature of appellant or agent.

Date:

Telephone number:

For appeals on Initial Proffered Permits send this form to:

District Engineer, Wilmington Regulatory Division, Attn: Ms. Liz Hair, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and approved Jurisdictional Determinations send this form to:

**Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Philip Shannin,
Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

SPECIAL CONDITIONS

SAW-2020-00846

R-5819 and R-5820

1. **Work Limits:** All work authorized by this permit shall be performed in strict compliance with the attached permit plans entitled Wetland and Surface Water Impacts-R-5819 and R-5820 and the Wetland and Surface Water Impacts Summary Tables dated February 14, 2022. The Permittees shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any modification to the attached permit plans must be approved by the U.S. Army Corps of Engineers (Corps) prior to any active construction in waters or wetlands.
2. **Unauthorized Dredge and/or Fill:** Except as authorized by this permit or any Corps approved modification to this permit, no excavation, fill, or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands, or shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and waste activities connected with this project. In addition, except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.
3. **Permit Distribution:** The Permittees shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions and drawings shall be available at the project site during construction and maintenance of this project.
4. **Preconstruction Meeting:** The Permittee shall schedule and attend a preconstruction meeting between its representatives, the contractor's representatives, and the Corps, Wilmington Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all the terms and conditions contained with this Department of Army Permit. The Permittee shall provide the Corps, Wilmington Field Office, NCDOT Project Manager, with a copy of the final permit 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 frame when the Corps and North Carolina Division of Water Resources

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R-5819 and R-5820**

(NCDWR) Project Managers can attend. The Permittee shall invite the Corps and NCDWR 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. The thirty (30) day requirement can be waived with the concurrence of the Corps.

5. **Notification of Construction Commencement and Completion:** The Permittees shall notify the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.
6. **Reporting Address:** All reports, documentation, and correspondence required by the conditions of this permit shall be submitted to the following: U.S. Army Corps of Engineers, Wilmington District Wilmington Field Office, Attn: Liz Hair at 910-251-4049 / sarah.e.hair@usace.army.mil. The Permittees shall reference the following permit number, SAW-2020-00846, on all submittals.
7. **Permit Revocation:** The Permittees, 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.
8. **Reporting Violations:** Violation of these permit conditions or violation of Section 404 of the Clean Water Act shall be reported to the Corps in writing and by telephone at: 910-251-4049 / sarah.e.hair@usace.army.mil within 24 hours of the Permittee's discovery of the violation.
9. **Endangered Species Act:** The Permittees shall implement all necessary measures to ensure the authorized activity does not kill, injure, capture, harass, or otherwise harm any federally-listed threatened or endangered species. While accomplishing the authorized work, if the Permittees discover or observe an injured or dead threatened or endangered species, the U.S. Army Corps of Engineers, Wilmington District Wilmington Field Office, Attn: Liz Hair at 910-251-4049/ sarah.e.hair@usace.army.mil will be immediately notified to initiate the required Federal coordination.
 - a. In June 2022, NCDOT will conduct the appropriate surveys for the wood stork (*Mycteria americana*), the red-cockaded woodpecker (*Picoides borealis*), and Cooley's meadowrue (*Thalictrum cooleyi*). Results of these surveys will be provided to the Corps and the U.S. Fish and Wildlife Service.

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- b. The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (PBO) titled, "NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8", dated November 6, 2020, contains agreed upon conservation measures for the NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. Your authorization under this Department of the Army permit is conditional upon your compliance with all applicable agreed upon conservation measures in the PBO, which are incorporated by reference in this permit. Failure to comply with the applicable these conservation measures would constitute non-compliance with your Department of the Army permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.
10. **National Historic Preservation Act:** While accomplishing the authorized work, if the Permittees discover any previously unknown cultural resources, the District Engineer will be immediately notified so that required coordination can be initiated with the North Carolina Division of Natural and Cultural Resources.
11. **Culverts:**
 - a. Unless otherwise requested in the application and depicted on the approved permit plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom of the culvert shall be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Culverts shall be designed and constructed in a manner that minimizes destabilization and head cutting.
 - b. Measures shall be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

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- c. The Permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operations associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, flooding, and/or stream bank erosion. The Permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately. Permanent corrective measures may require additional authorization by the Corps.
 - d. Culverts placed within wetlands must be installed in a manner that does not restrict the flows and circulation patterns of waters of the United States. Culverts placed across wetland fills purely for the purposes of equalizing surface water shall not be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.
- 12. **Maintain Flows and Circulation Patterns of Waters:** 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 and/or wetlands.
- 13. **Sediment and Erosion Control:**
 - a. During the clearing phase of the project, heavy equipment shall not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.
 - b. No fill or excavation impacts for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless the impacts are included on the plan drawings and specifically authorized by this permit. This includes, but is not limited to, sediment control fences and other barriers intended to catch sediment losses.
 - c. The Permittees shall remove all sediment and erosion control measures placed in waters and/or wetlands, and shall restore natural grades on those areas, prior to project completion.

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- d. The Permittees shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" to ensure compliance with the appropriate turbidity water quality standard. Erosion and sediment control practices shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to ensure compliance with the appropriate turbidity water quality standards. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project shall remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4). Adequate sedimentation and erosion control measures shall be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures shall be inspected and maintained regularly, especially following rainfall events. All fill material shall be adequately stabilized at the earliest practicable date to prevent sediment from entering adjacent waters or wetlands.
14. **Clean Fill:** The Permittees shall use only clean fill material for this project. The fill material shall be free of items such as trash, construction debris, metal and plastic products, and concrete block with exposed metal reinforcement bars. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source.
15. **Temporary Fills:** Within thirty (30) days of the date of completing the authorized work, the Permittee shall remove all temporary fills in waters of the United States and restore the affected areas to pre-construction contours and elevations. The affected areas shall be re-vegetated with native, non-invasive vegetation as necessary to minimize erosion and ensure site stability.
16. **Borrow and Waste:** To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent waters and wetlands, except as authorized by this permit, the Permittee shall require its contractors and/or agents to identify all areas to be used as borrow and/or waste sites associated with this project. The Permittee shall provide the Corps with appropriate maps indicating the locations of proposed borrow and/or waste sites as soon as such information is

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available. The Permittee shall submit to the Corps site-specific information needed to ensure that borrow and/or waste sites comply with all applicable Federal requirements, to include compliance with the Endangered Species Act and the National Historic Preservation Act, such as surveys or correspondence with agencies (e.g., the USFWS, the NC-HPO, etc.). The required information shall also include the location of all aquatic features, if any, out to a distance of 400 feet beyond the nearest boundary of the site. The Permittee shall not approve any borrow and/or waste sites before receiving written confirmation from the Corps that the proposed site meets all Federal requirements, whether or not waters of the U.S., including wetlands, are located in the proposed borrow and/or waste site. All delineations of aquatic sites on borrow and/or waste sites shall be verified by the Corps and shown on the approved reclamation plans. The Permittee shall ensure that all borrow and/or waste sites comply with Special Condition 2 of this permit. Additionally, the Permittee shall produce and maintain documentation of all borrow and waste sites associated with this project. This documentation will include data regarding soils, vegetation, hydrology, any delineation(s) of aquatic sites, and any jurisdictional determinations made by the Corps to clearly demonstrate compliance with Special Condition 2. All information will be available to the Corps upon request. The Permittee shall require its contractors to complete and execute reclamation plans for each borrow and/or waste 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 within 30 days of the completion of the reclamation work.

17. **Water Contamination:** All mechanized equipment shall 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 Permittees shall immediately report it to the N.C. Division of Water Resources at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act shall be followed.
18. **Aquatic Life Movement:** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. All discharges of dredged or fill material within waters of the United States shall be designed and constructed, except as authorized as indirect impacts, to maintain low flows to sustain the movement of aquatic species.
19. **Prohibitions on Concrete:** The Permittees shall take measures necessary to prevent live or fresh concrete, including bags of uncured concrete, from coming into

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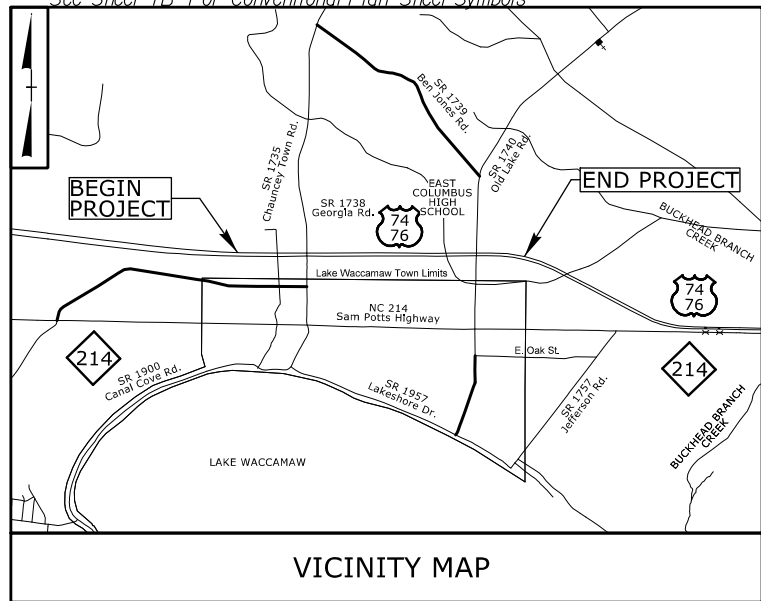
contact with any water in or entering waters of the United States. Water inside coffer dams or casings that has been in contact with concrete shall only be returned to waters of the United States when it no longer poses a threat to aquatic organisms (concrete is set and cured).

20. **Compensatory Mitigation:** In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Forms. The requirements of these forms, including any special conditions listed on these forms, are hereby incorporated as special conditions of this permit.

TIP PROJECT: R-5819/R-5820

CONTRACT:

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



BEGIN TIP PROJECT R-5819/R-5820

-LWB- POC STA. 18+50.00

-LEB- POC STA. 18+50.00

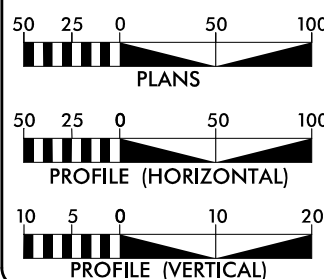
PERMIT DRAWING
SHEET 1 OF 47

02/14/2022

NOTES:

1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
2. A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF LAKE WACCAMAW.
3. THERE ARE NO DESIGN EXCEPTIONS ANTICIPATED ON THIS PROJECT.
4. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

GRAPHIC SCALES



DESIGN DATA

ADT 2022 = 14,400
ADT 2042 = 18,000
K = 8 %
D = 55 %
T = 20 % *
V = 75 MPH
* 16% TTST + 4% DUAL
FUNC CLASS = INTERSTATE
STATEWIDE TIER

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
=====

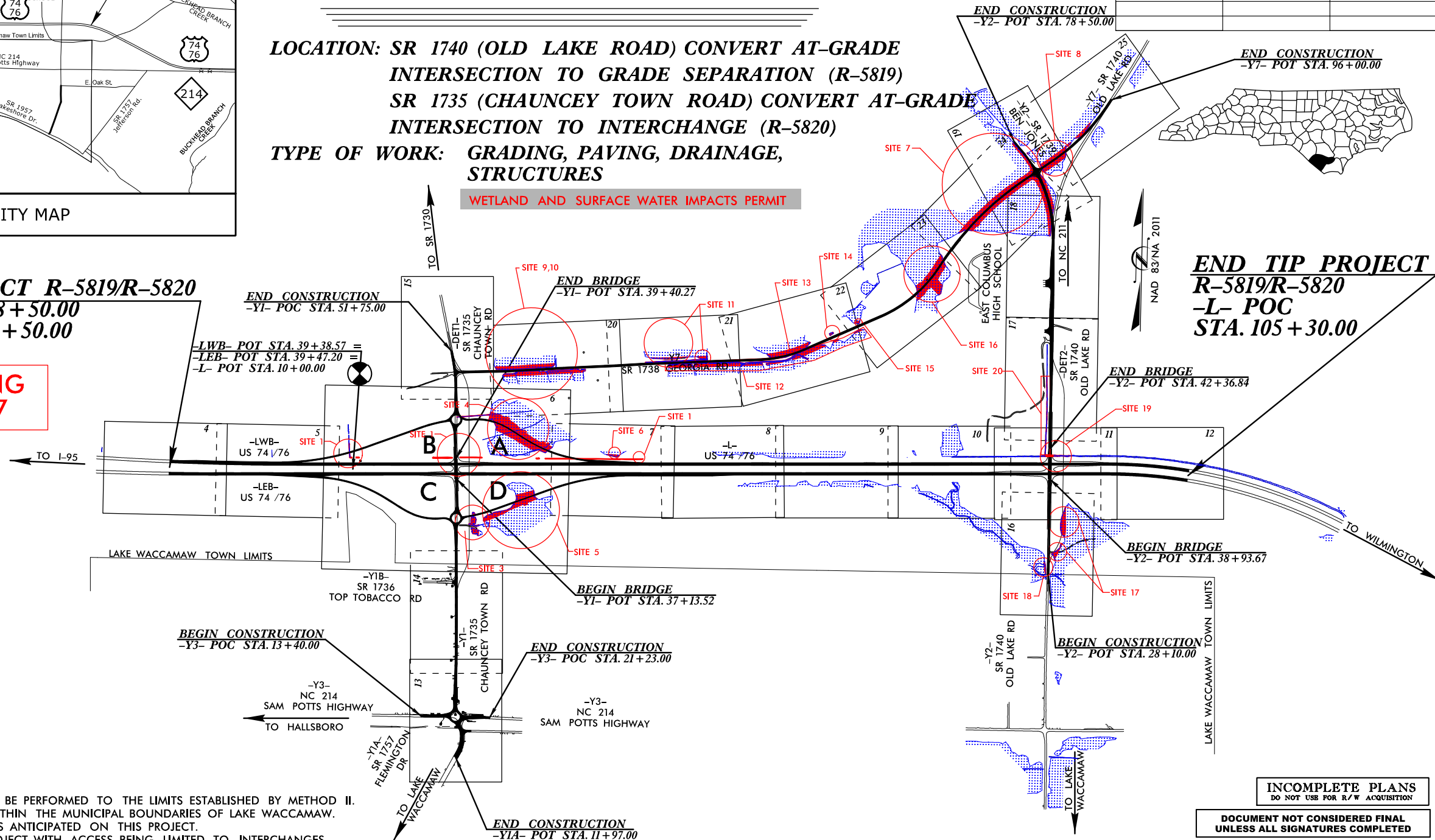
COLUMBUS COUNTY

NOT FOR CONSTRUCTION,
FOR FEMA PERMITTING

**LOCATION: SR 1740 (OLD LAKE ROAD) CONVERT AT-GRADE
INTERSECTION TO GRADE SEPARATION (R-5819)
SR 1735 (CHAUNCEY TOWN ROAD) CONVERT AT-GRADE
INTERSECTION TO INTERCHANGE (R-5820)**

TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT



END TIP PROJECT
R-5819/R-5820
-L- POC
STA. 105 + 30.00

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

Prepared in the Office of:

prepared in the Office
N | V | 5

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 22, 2021

LETTING DATE:

JUNE 21, 2022

NCDOT CONTACT:

JOHNNY BANKS
PROJECT MANAGER

STEVE A. DRUM, PE
PROJECT DESIGN ENGINEER

JOHN GAUTHIER
PROJECT MANAGER

HYDRAULICS ENGINEER

NOT FOR CONSTRUCTION,
FOR FEMA PERMITTING

P.E.

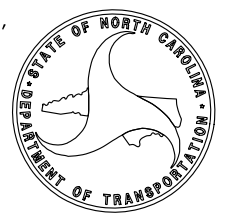
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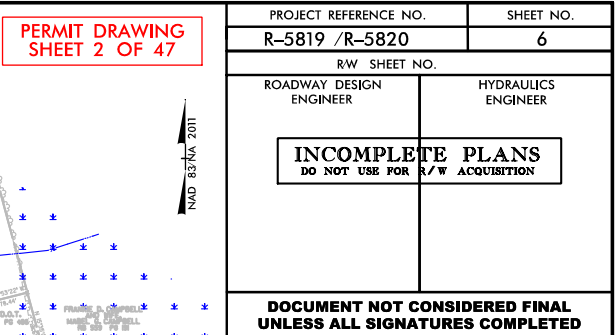
**ROADWAY DESIGN
ENGINEER**

NOT FOR CONSTRUCTION,
FOR FEMA PERMITTING

P.E.

SIGNATURE: _____



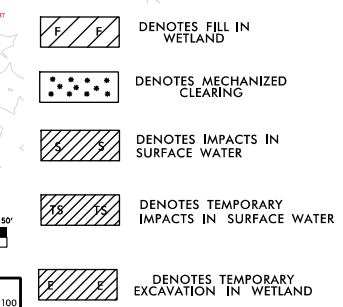
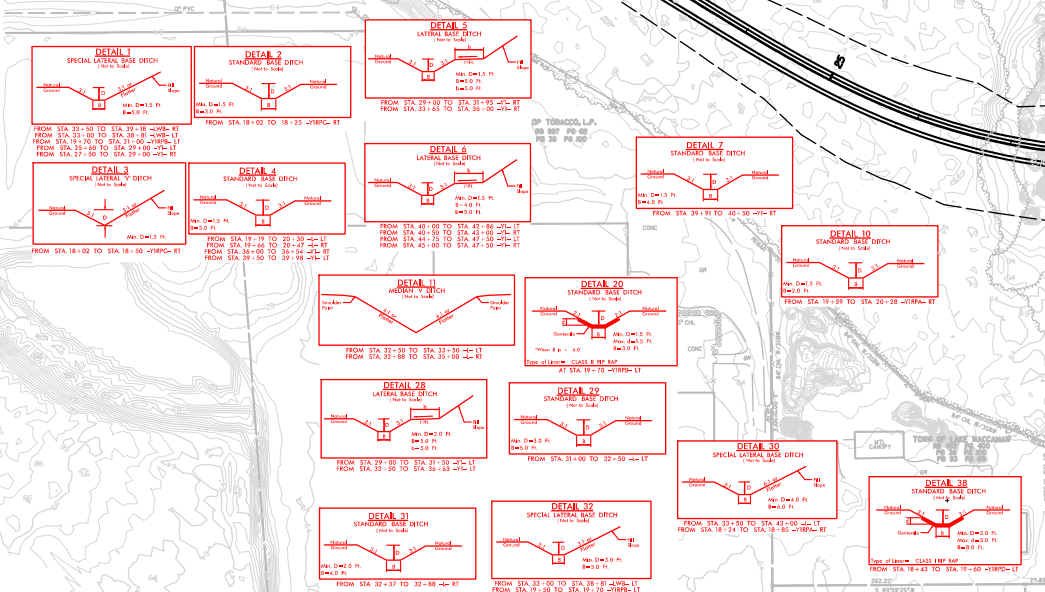
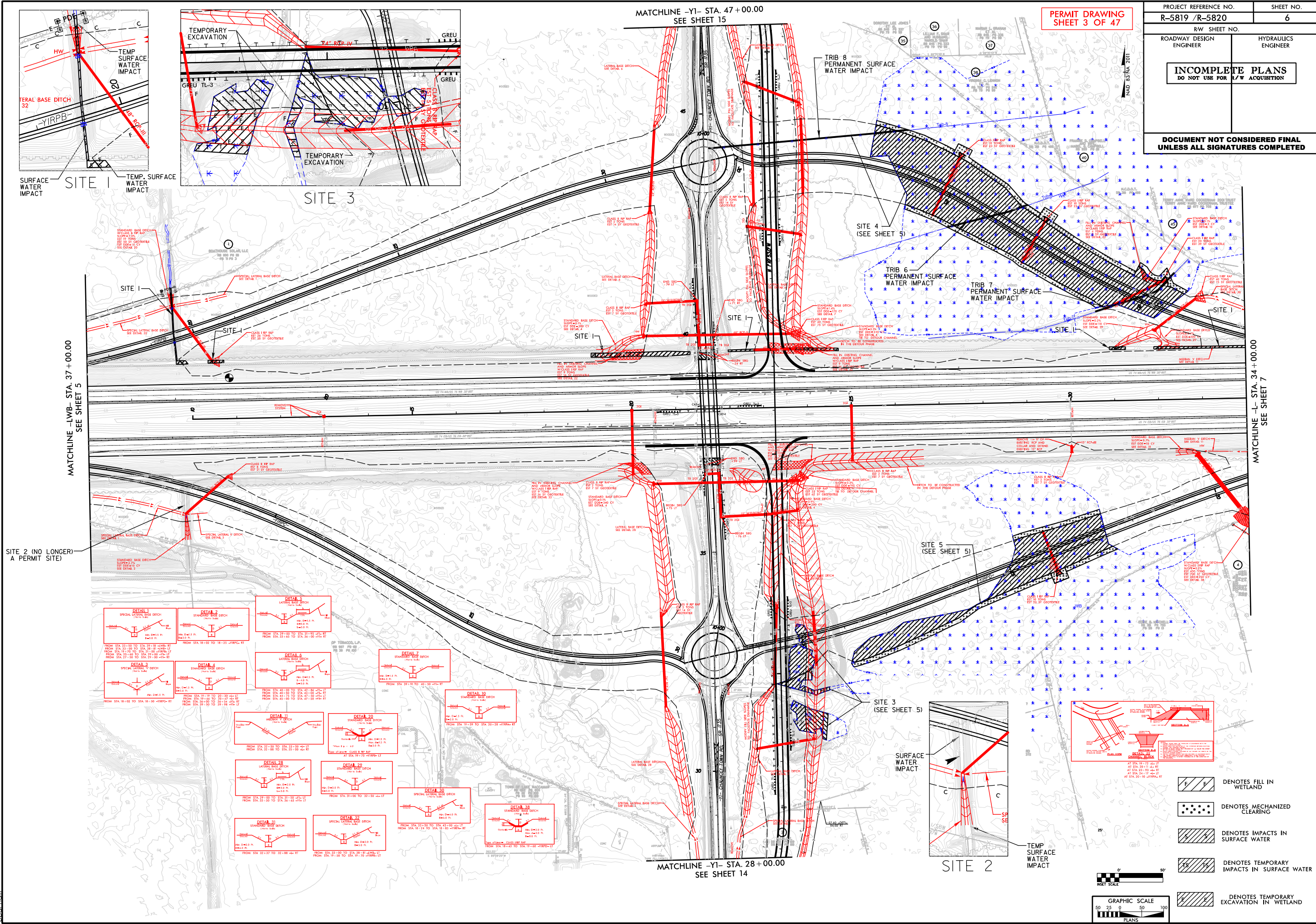


<div style="border: 2px solid red; padding: 5px; color: red; font-weight: bold; font-size: 1.2em;"> PERMIT DRAWING SHEET 2 OF 47 </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">PROJECT REFERENCE NO.</td> <td style="width: 50%; text-align: center;">SHEET NO.</td> </tr> <tr> <td style="text-align: center; font-size: 1.5em;">R-5819 /R-5820</td> <td style="text-align: center; font-size: 1.5em;">6</td> </tr> <tr> <td colspan="2" style="text-align: center;">RW SHEET NO.</td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">ROADWAY DESIGN ENGINEER</td> <td style="text-align: center; vertical-align: middle;">HYDRAULICS ENGINEER</td> </tr> <tr> <td colspan="2" style="text-align: center;"> <div style="border: 2px solid black; padding: 10px; font-weight: bold; font-size: 1.2em;"> INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION </div> </td> </tr> <tr> <td colspan="2" style="text-align: center; font-weight: bold; font-size: 1.2em;"> DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED </td> </tr> </table>	PROJECT REFERENCE NO.	SHEET NO.	R-5819 /R-5820	6	RW SHEET NO.		ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	<div style="border: 2px solid black; padding: 10px; font-weight: bold; font-size: 1.2em;"> INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION </div>		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PROJECT REFERENCE NO.	SHEET NO.												
R-5819 /R-5820	6												
RW SHEET NO.													
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER												
<div style="border: 2px solid black; padding: 10px; font-weight: bold; font-size: 1.2em;"> INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION </div>													
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED													

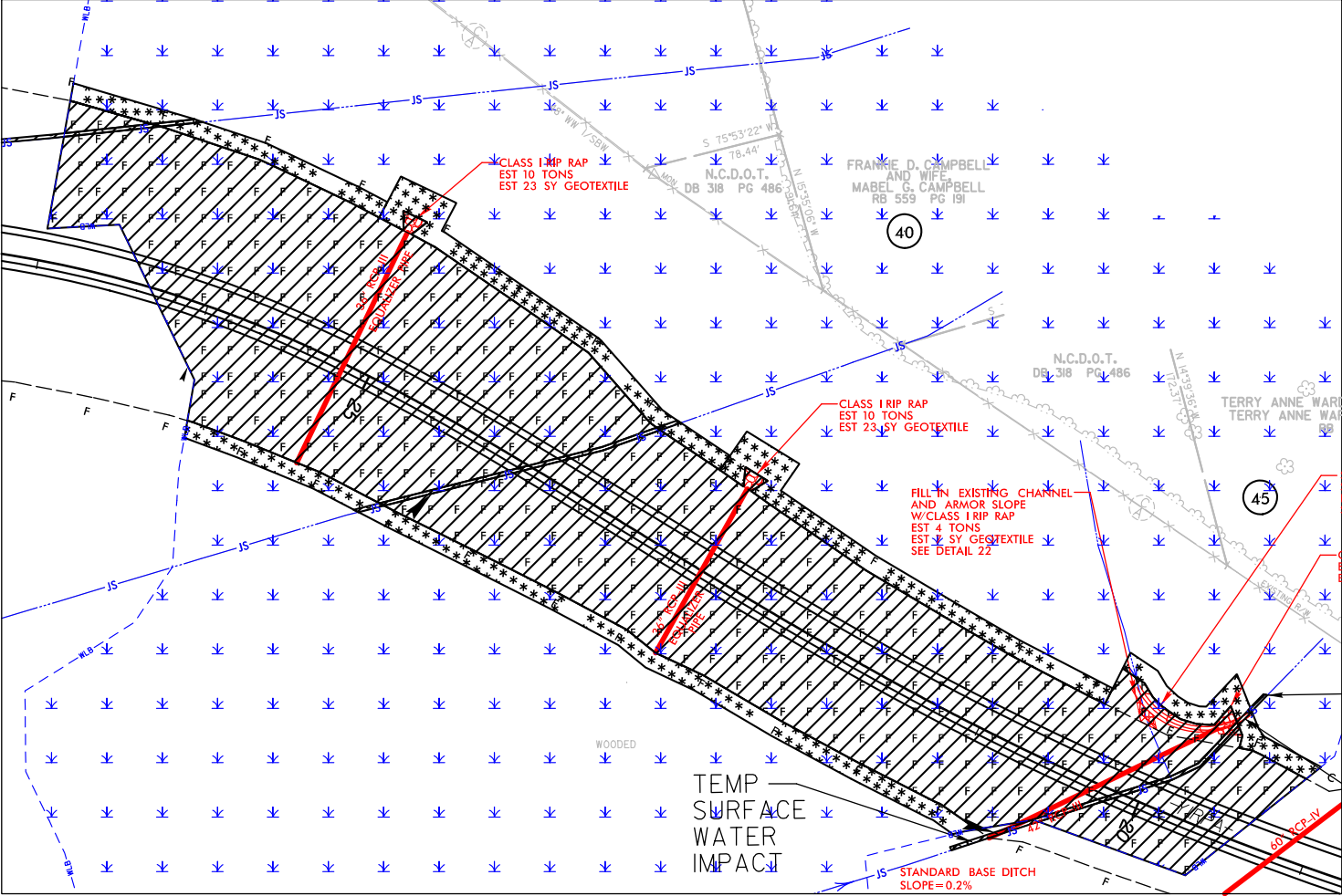
8/17/99

PERMIT DRAWING
SHEET 3 OF 47

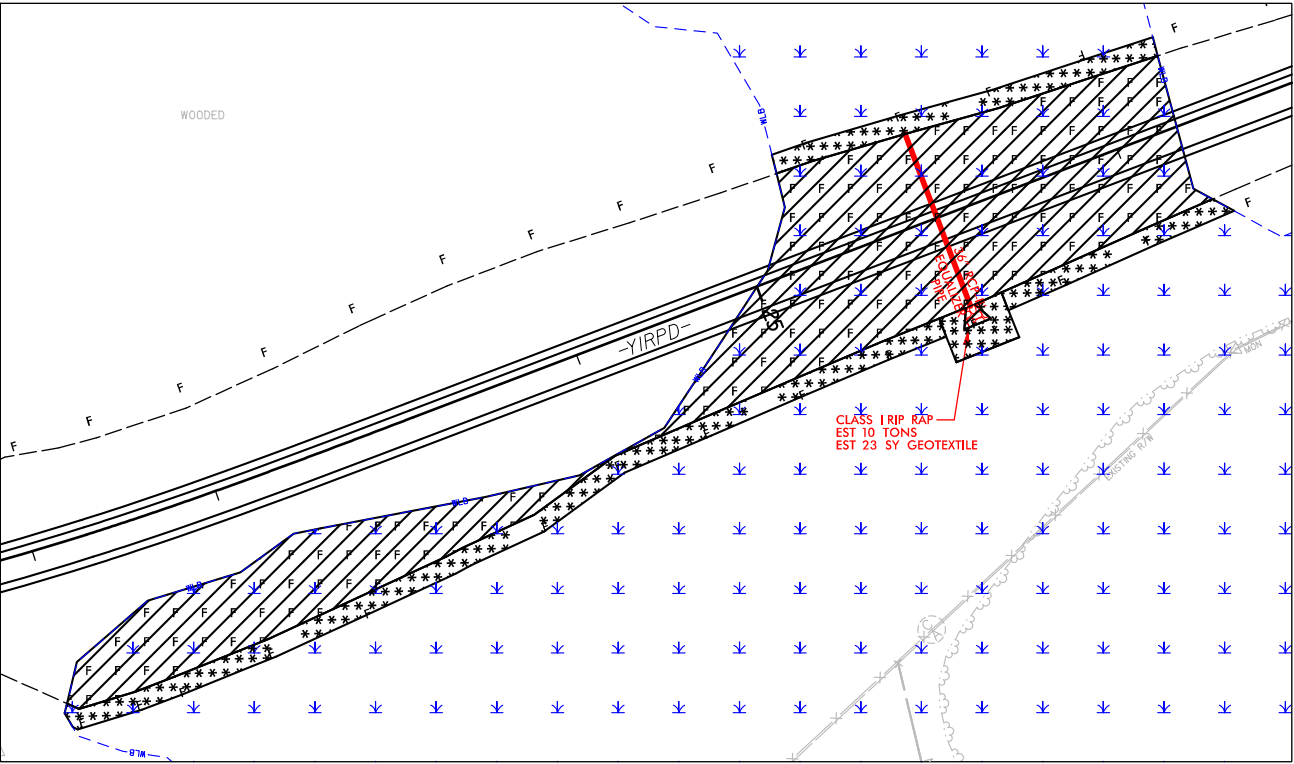
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R-5819 /R-5820		6	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



1258:55 PM
R:\Hydraulics\PERMITS\Environmental\Drawings\R5819_R5820_Hyd_prm_wet_CON_PSH6.dgn
barham



SITE 4




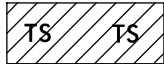

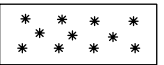
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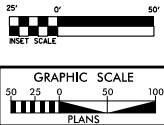
PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

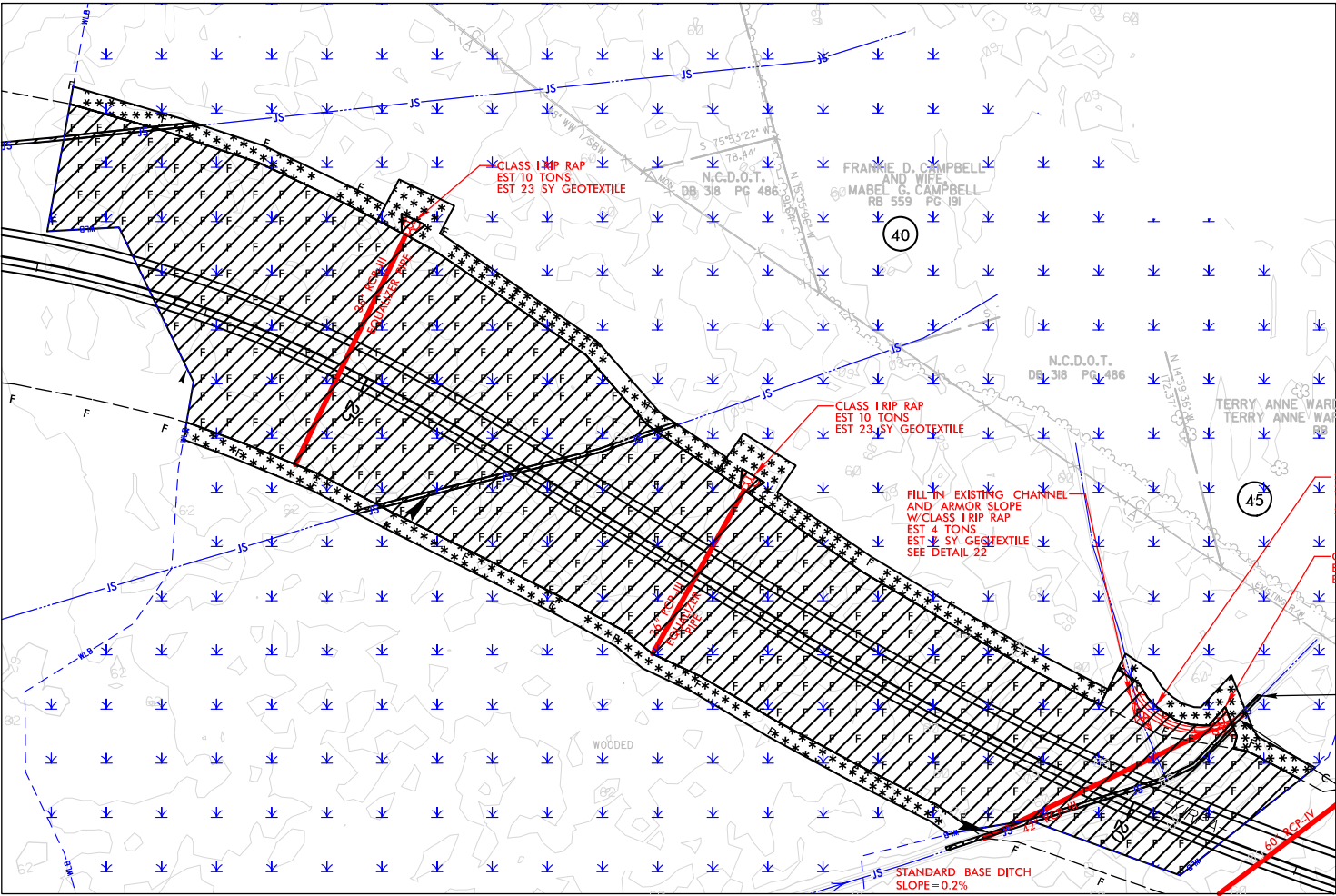
PERMIT DRAWING
SHEET 4 OF 47

TEMP
SURFACE
WATER
IMPACT

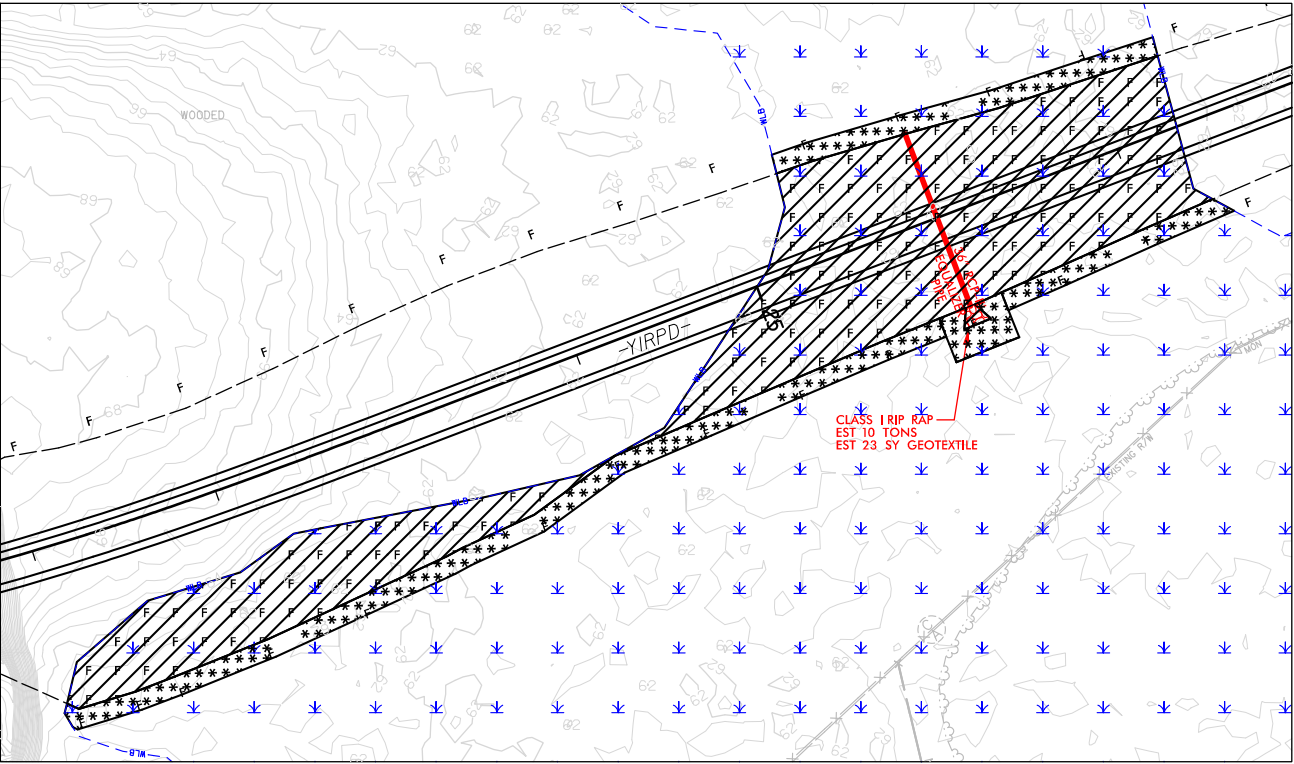
SURFACE
WATER
IMPACT

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





SITE 4





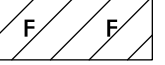

SITE 5

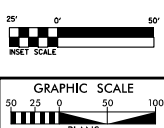
PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 5 OF 47

TEMP
SURFACE
WATER
IMPACT

SURFACE
WATER
IMPACT

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

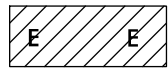




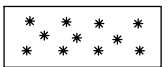
DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



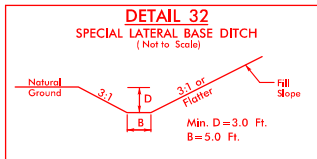
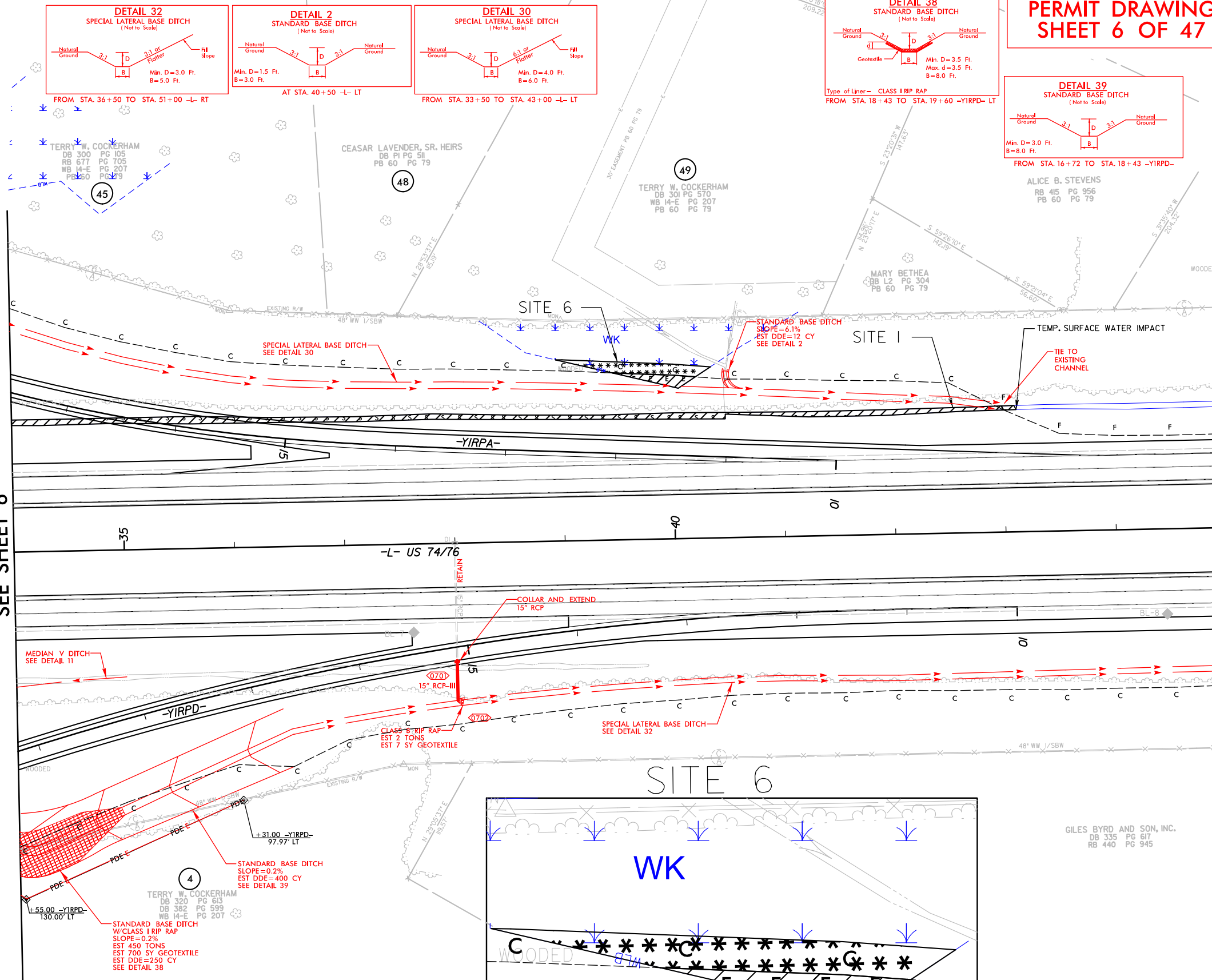
DENOTES EXCAVATION
IN WETLAND



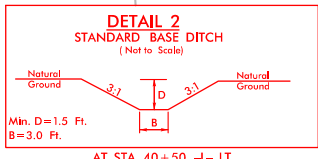
DENOTES MECHANIZED
CLEARING

MATCHLINE -L- STA. 34 + 00.00
SEE SHEET 6

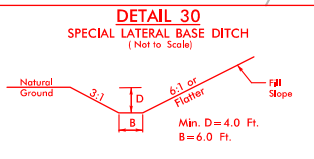
MATCHLINE -L- STA. 45 + 00.00
SEE SHEET 8



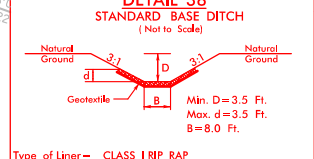
FROM STA. 36+50 TO STA. 51+00 -L- RT



AT STA. 40+50 -L- LT

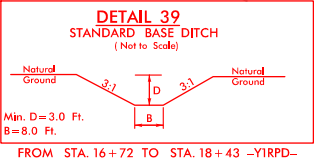


FROM STA. 33+50 TO STA. 43+00 -L- LT



FROM STA. 18+43 TO STA. 19+60 -YIRPD- LT

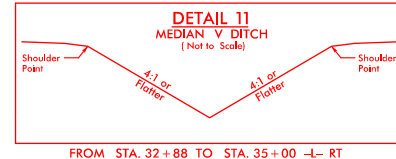
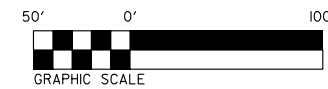
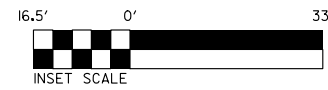
**PERMIT DRAWING
SHEET 6 OF 47**



FROM STA. 16+72 TO STA. 18+43 -YIRPD-

PROJECT REFERENCE NO. <i>R-5819/R-5820</i>		SHEET NO. <i>7</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div style="border: 1px solid black; padding: 10px; text-align: center;">INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

NAD 83/NA 2011



FROM STA. 32+88 TO STA. 35+00 -L- RT



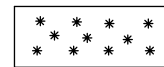
DENOTES IMPACTS IN
SURFACE WATER



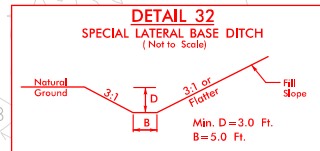
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



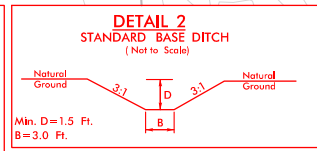
DENOTES EXCAVATION
IN WETLAND



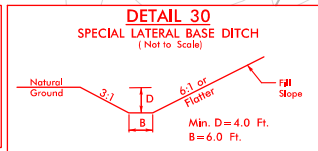
DENOTES MECHANIZED
CLEARING



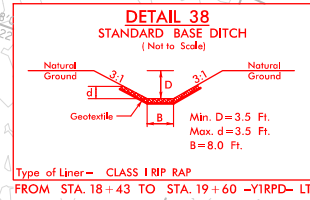
FROM STA. 36+50 TO STA. 51+00 -L- RT



AT STA. 40+50 -L- LT

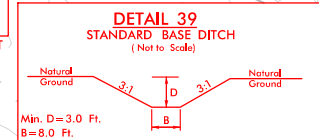


FROM STA. 33+50 TO STA. 43+00 -L- LT



Type of Liner = CLASS I RIP RAP
FROM STA. 18+43 TO STA. 19+60 -YIRPD- LT

**PERMIT DRAWING
SHEET 7 OF 47**

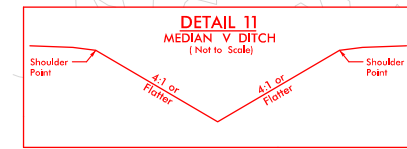
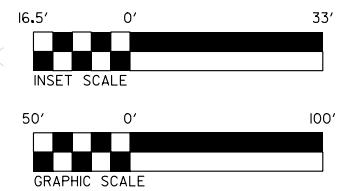


FROM STA. 16+72 TO STA. 18+43 -YIRPD-

MATCHLINE -L- STA. 34+00.00
SEE SHEET 6

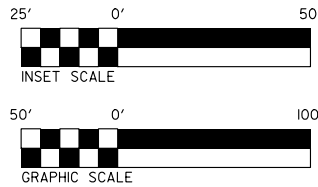
MATCHLINE -L- STA. 45+00.00
SEE SHEET 8

NAD 83/NA 2011



FROM STA. 32+88 TO STA. 35+00 -L- RT

8/17/99



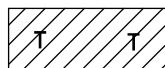
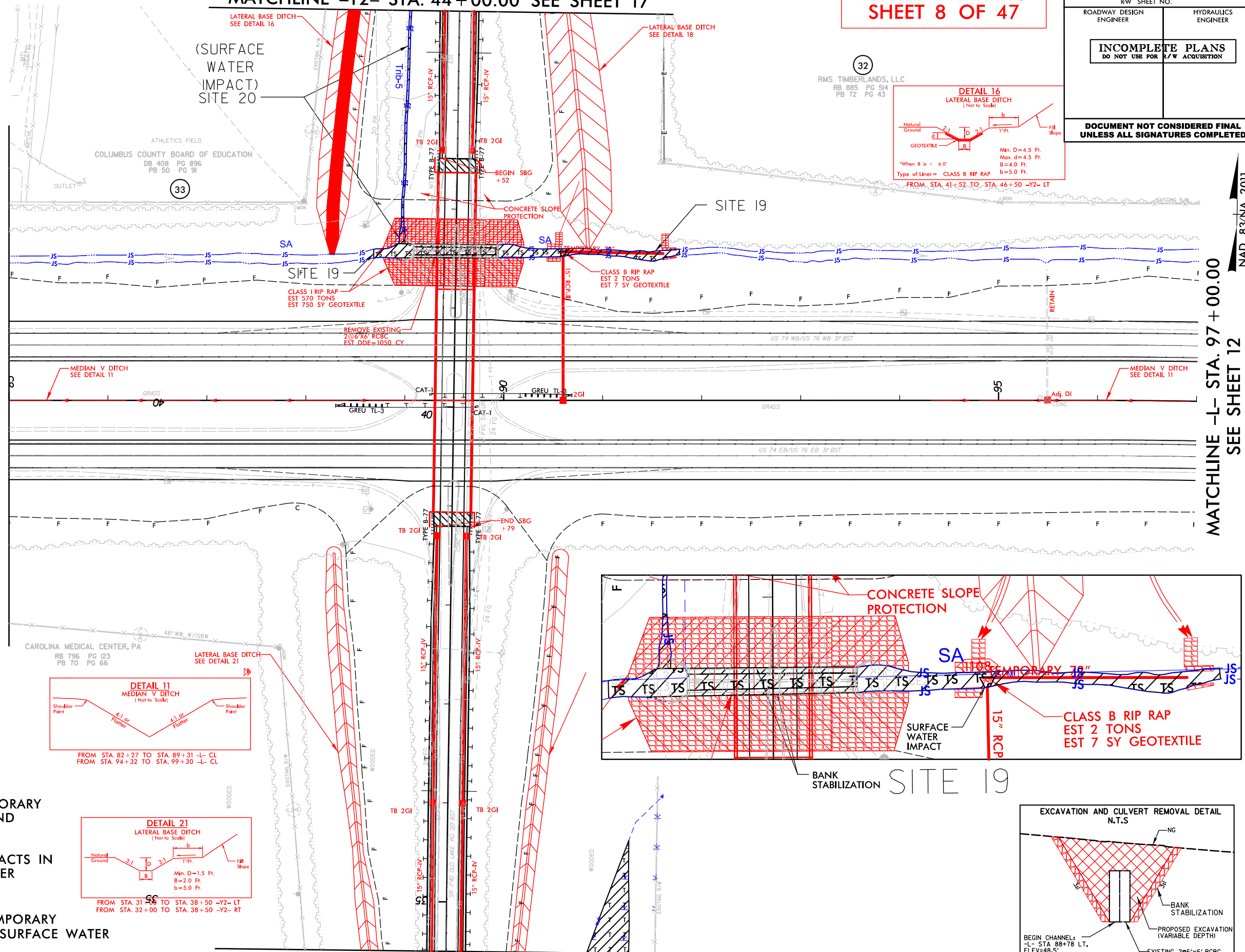
MATCHLINE -Y2- STA. 44 + 00.00 SEE SHEET 17

PERMIT DRAWING
SHEET 8 OF 47

PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		11	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

MATCHLINE -L- STA. 85 + 00.00
SEE SHEET 10

MATCHLINE -L- STA. 97 + 00.00
SEE SHEET 12



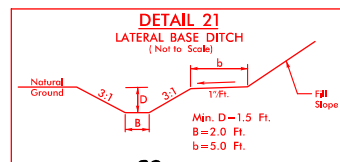
DENOTES TEMPORARY
FILL IN WETLAND



DENOTES IMPACTS IN
SURFACE WATER

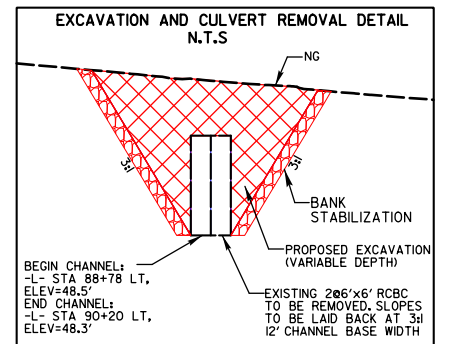


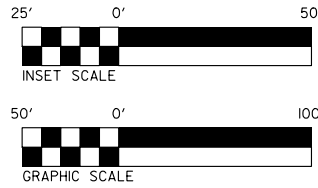
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



MATCHLINE -Y2- STA. 34 + 50.00
SEE SHEET 16

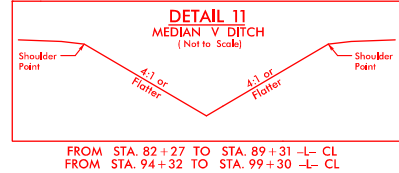
SITE 17 (SEE SHEET 38)



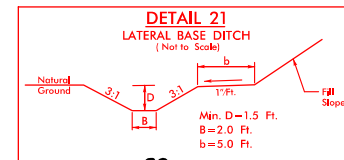


MATCHLINE -L- STA. 85 + 00.00
SEE SHEET 10

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

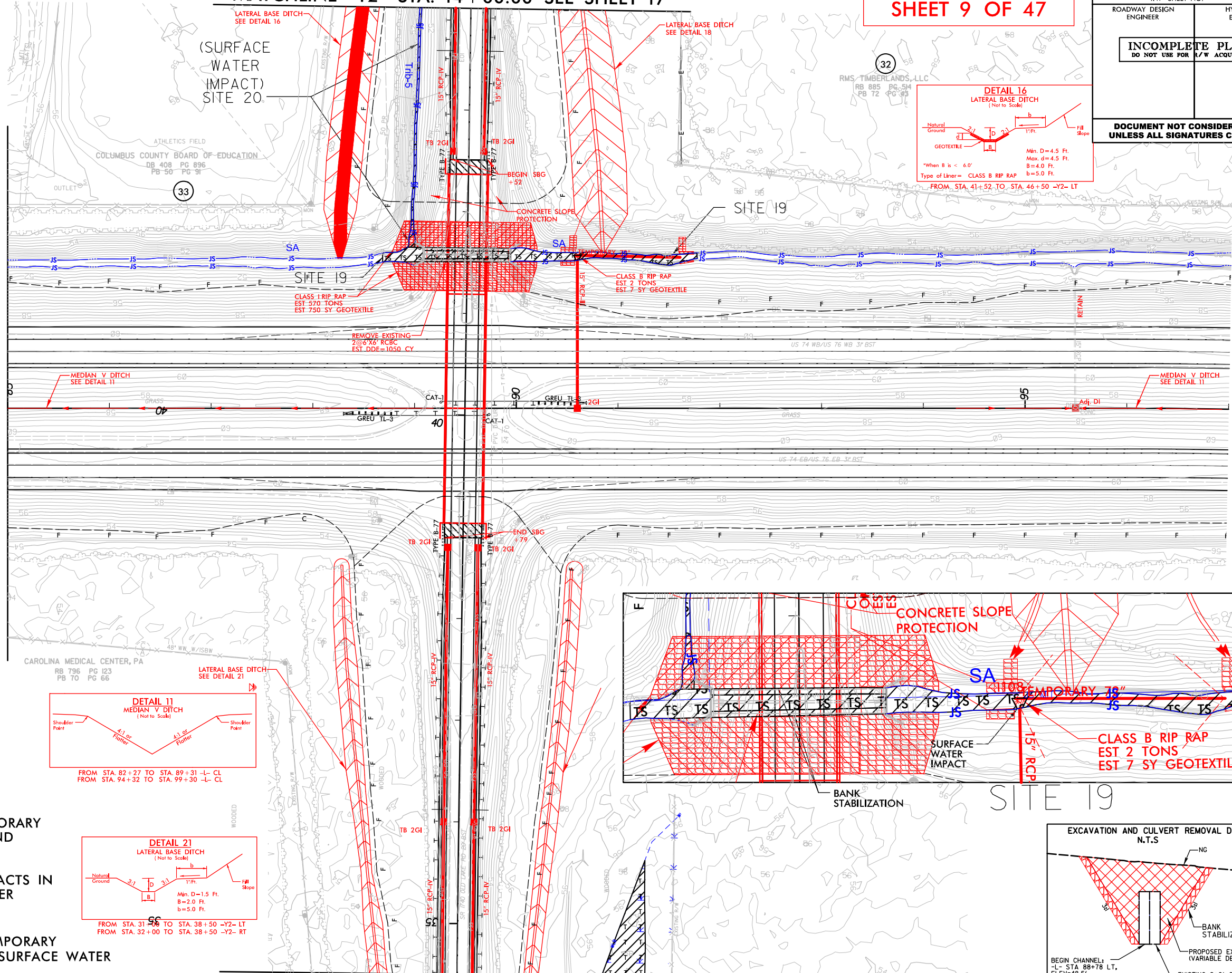


FROM STA. 82+27 TO STA. 89+31 -L- CL
FROM STA. 94+32 TO STA. 99+30 -L- CL



FROM STA. 31+56 TO STA. 38+50 -Y2- LT
FROM STA. 32+00 TO STA. 38+50 -Y2- RT

MATCHLINE -Y2- STA. 44 + 00.00 SEE SHEET 17



PERMIT DRAWING
SHEET 9 OF 47

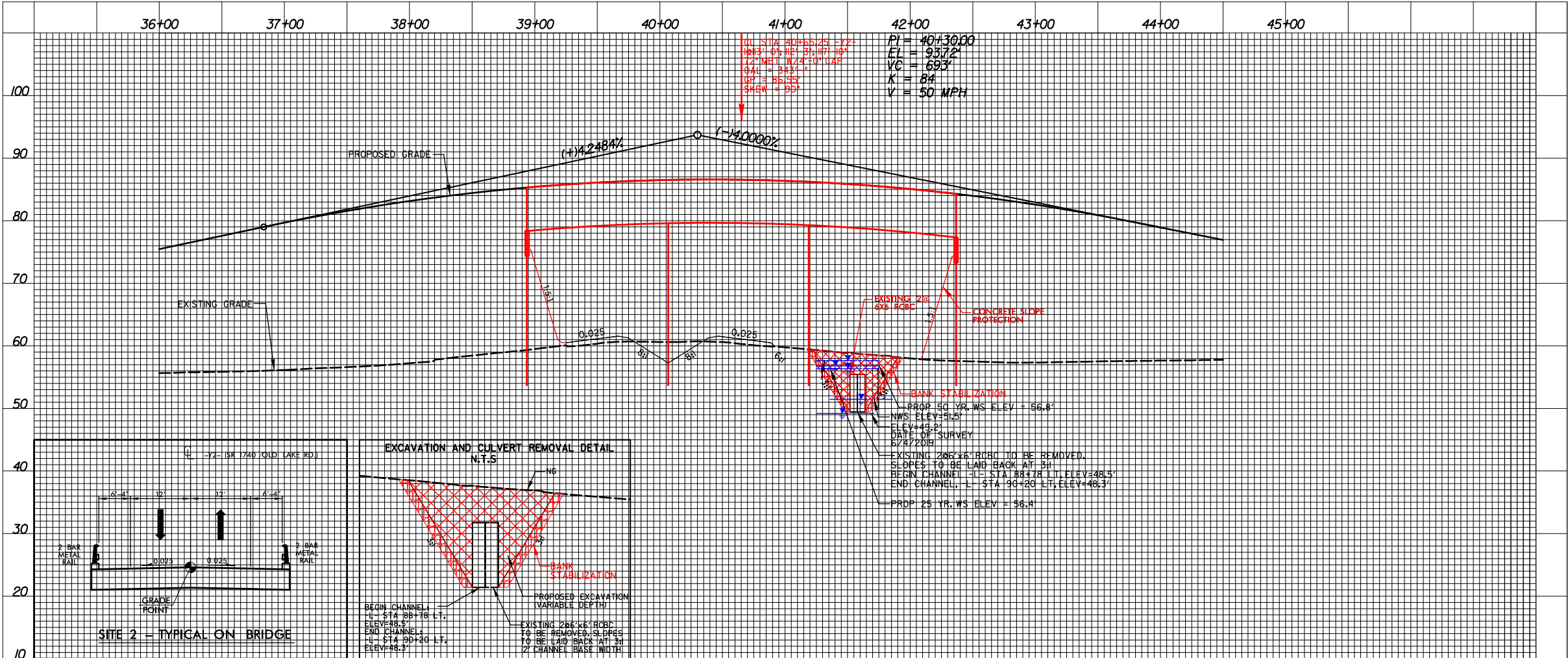
PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		11	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

MATCHLINE -L- STA. 97 + 00.00
SEE SHEET 12

NAD 83/NA 2011

PERMIT DRAWING
SHEET 9A OF 47

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	11A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



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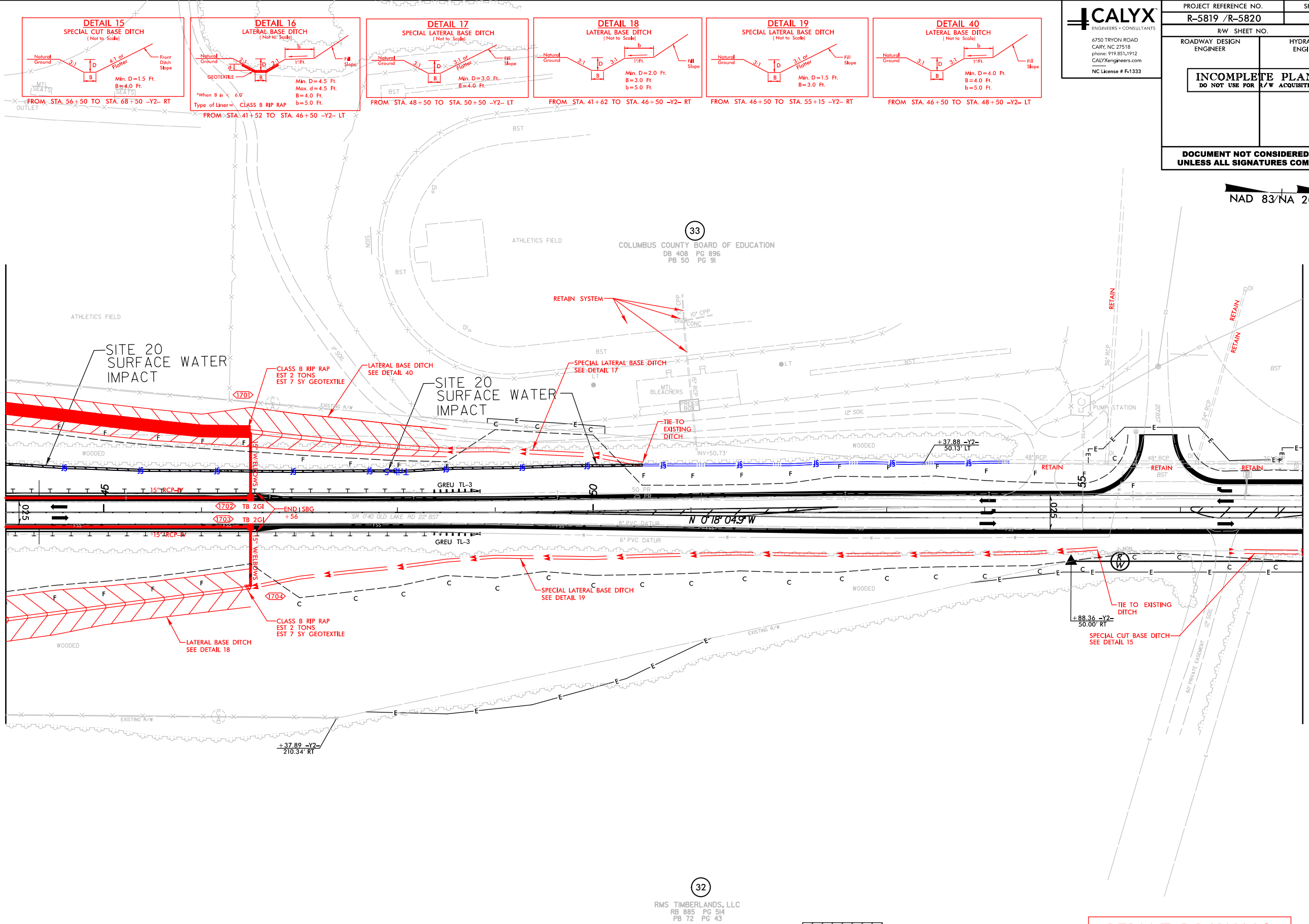
CALYX
ENGINEERS & CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333

PROJECT REFERENCE NO. R-5819 /R-5820		SHEET NO. 17
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

NAD 83/NA 2011

MATCHLINE -Y2- STA. 44+00.00
SEE SHEET 11

MATCHLINE -Y2- STA. 57+25.00
SEE SHEET 18



PERMIT DRAWING
SHEET 10 OF 47

NOTES:
■ PROP PAVED SHOULDER
FOR -Y2- PROFILE, SEE SHEET 33 & 34

8/17/99

CALYX
ENGINEERS & CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.9112
CALYXengineers.com
NC License # F-1333

PROJECT REFERENCE NO. R-5819 /R-5820		SHEET NO. 17	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
<div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>			

NAD 83/NA 2011

MATCHLINE -Y2- STA. 44+00.00
SEE SHEET 11

MATCHLINE -Y2- STA. 57+25.00
SEE SHEET 18

DETAIL 15
SPECIAL CUT BASE DITCH
(Not to Scale)

FROM STA. 56+50 TO STA. 68+50 -Y2- RT

DETAIL 16
LATERAL BASE DITCH
(Not to Scale)

FROM STA. 41+52 TO STA. 46+50 -Y2- LT

DETAIL 17
SPECIAL LATERAL BASE DITCH
(Not to Scale)

FROM STA. 48+50 TO STA. 50+50 -Y2- LT

DETAIL 18
LATERAL BASE DITCH
(Not to Scale)

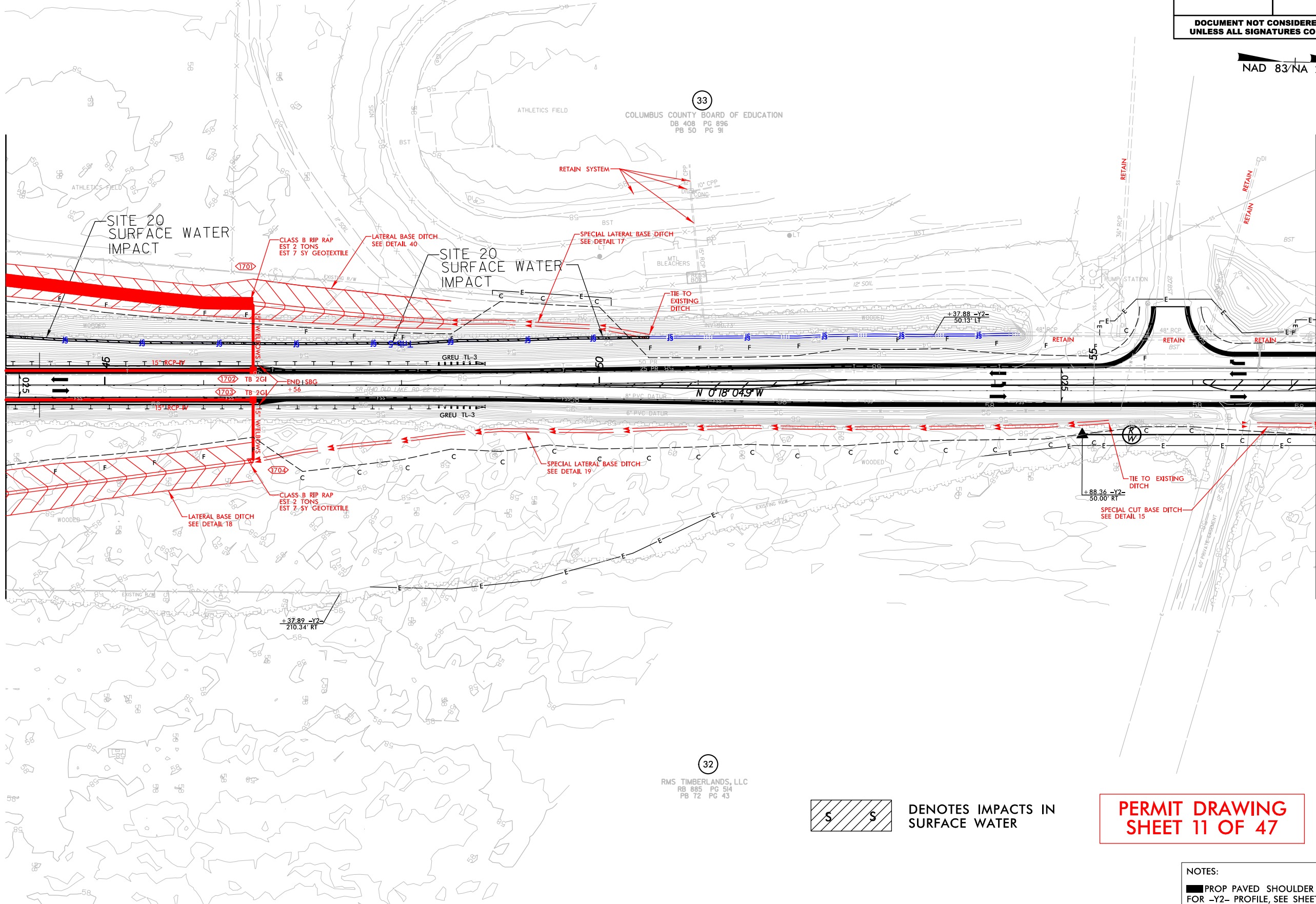
FROM STA. 41+62 TO STA. 46+50 -Y2- RT

DETAIL 19
SPECIAL LATERAL BASE DITCH
(Not to Scale)

FROM STA. 46+50 TO STA. 55+15 -Y2- RT

DETAIL 40
LATERAL BASE DITCH
(Not to Scale)

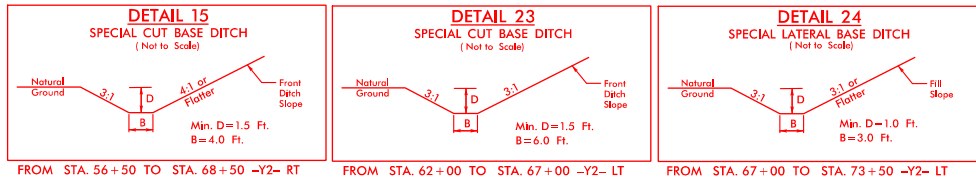
FROM STA. 46+50 TO STA. 48+50 -Y2- LT



PERMIT DRAWING
SHEET 11 OF 47

NOTES:
■ PROP PAVED SHOULDER
FOR -Y2- PROFILE, SEE SHEET 33 & 34

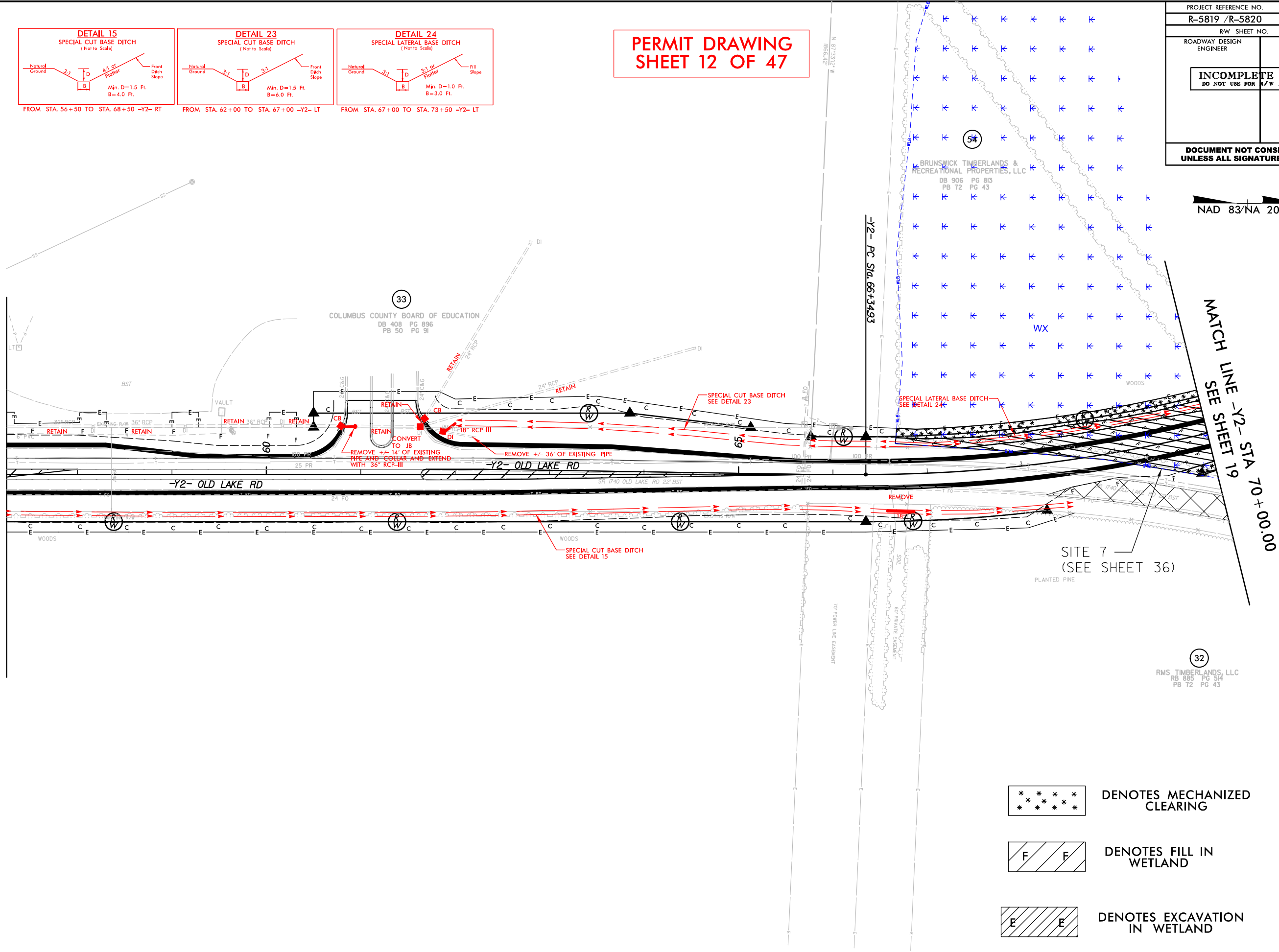
MATCH LINE -Y2- STA 57+25.00
SEE SHEET 17



PERMIT DRAWING
SHEET 12 OF 47

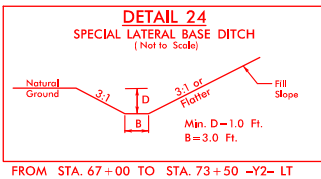
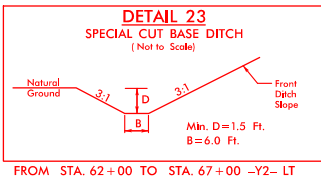
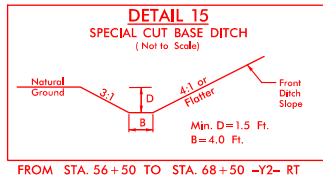
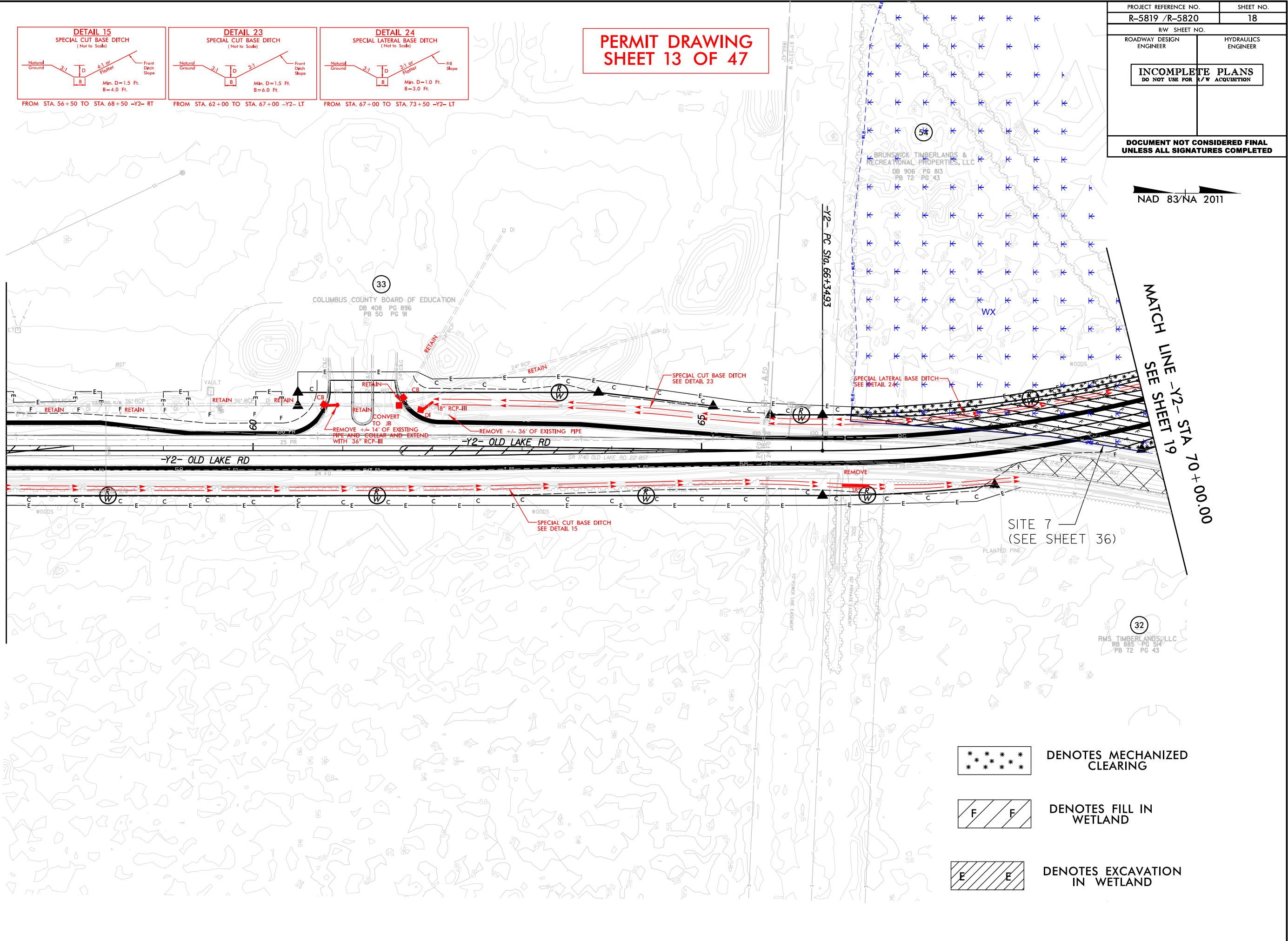
PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		18	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

NAD 83/NA 2011



- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND


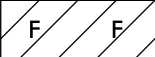

MATCH LINE -Y2- STA 57+25.00
SEE SHEET 17



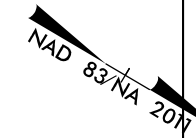
PERMIT DRAWING
SHEET 13 OF 47

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

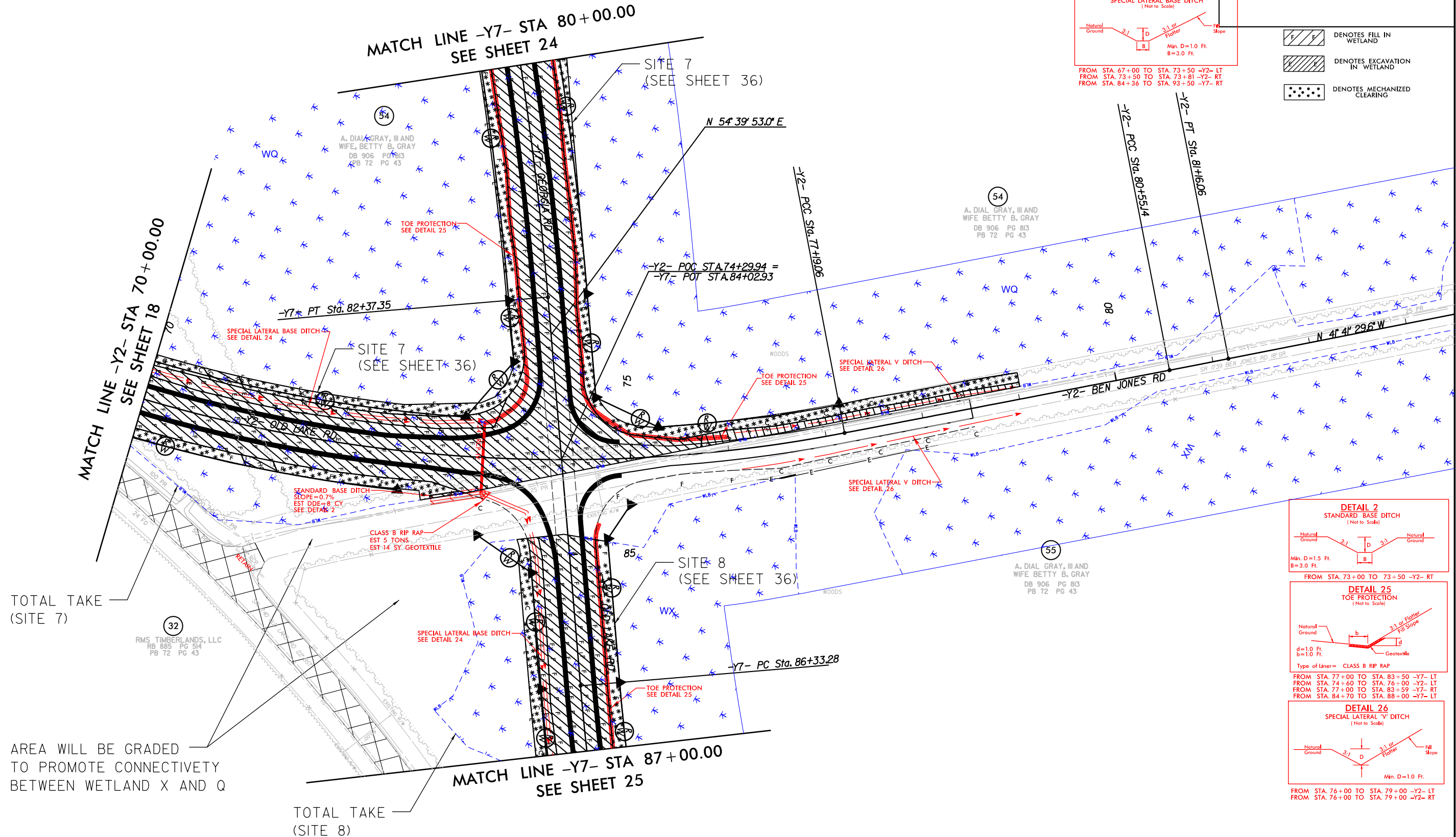
NAD 83/NA 2011

-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND

PERMIT DRAWING
SHEET 14 OF 47



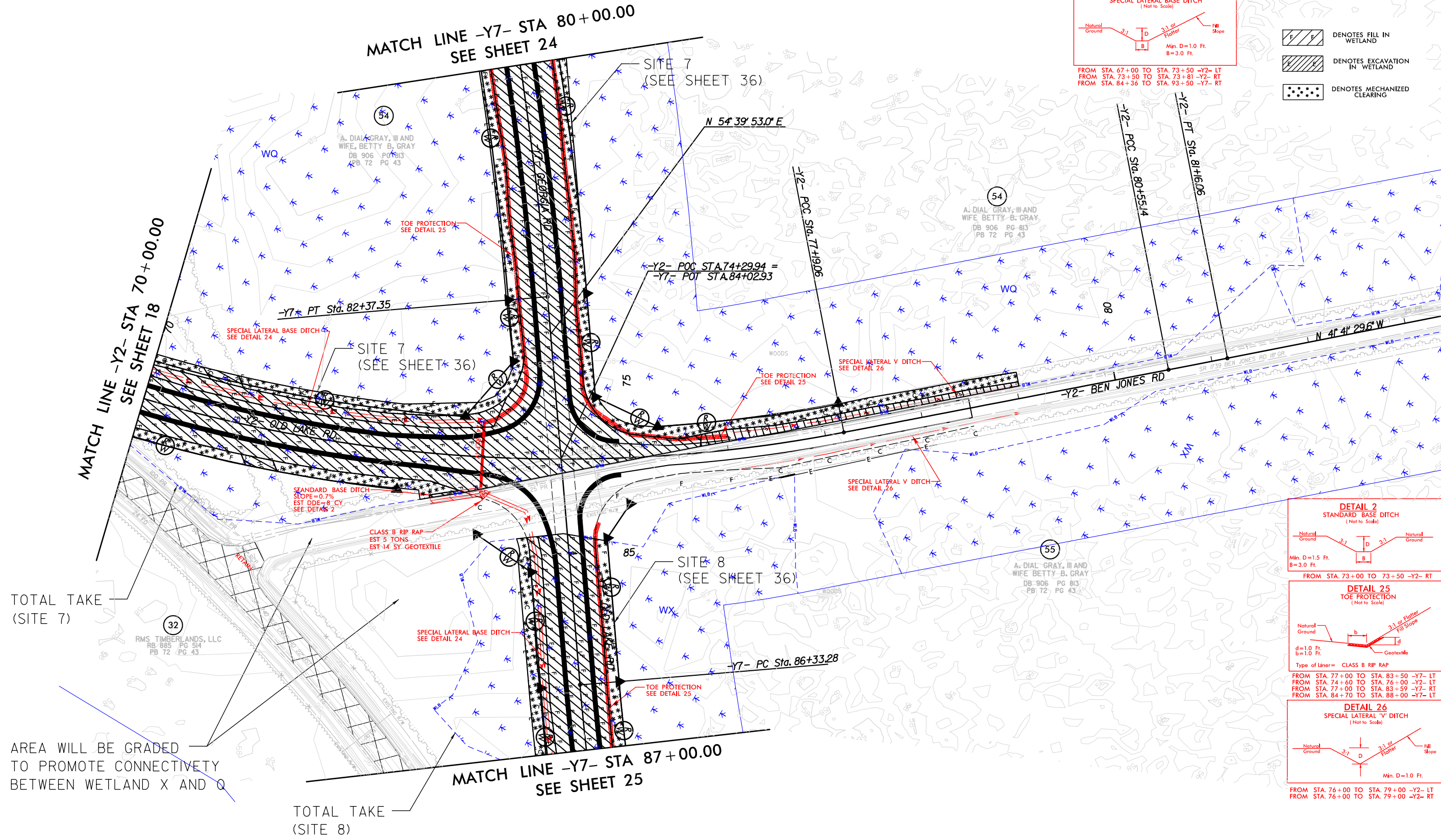
PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		19	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



PERMIT DRAWING
SHEET 15 OF 47

NAD 83/NA 2011

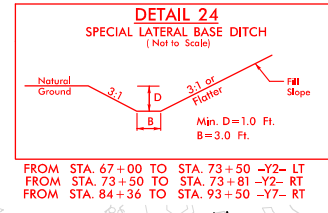
PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



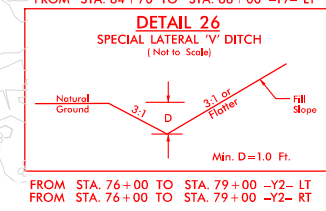
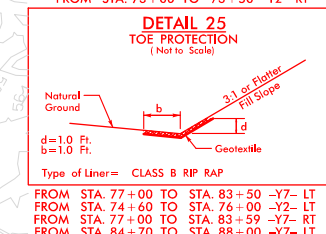
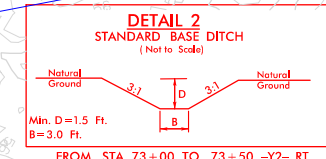
TOTAL TAKE
(SITE 7)

AREA WILL BE GRADED
TO PROMOTE CONNECTIVITY
BETWEEN WETLAND X AND Q

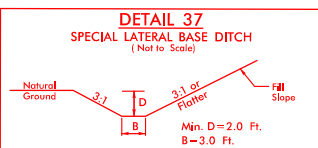
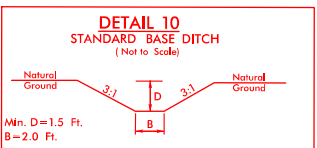
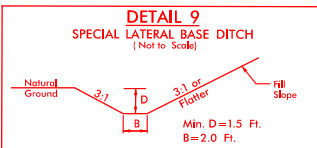
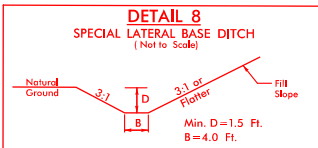
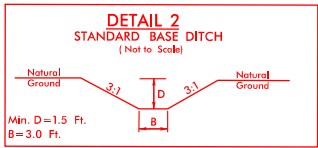
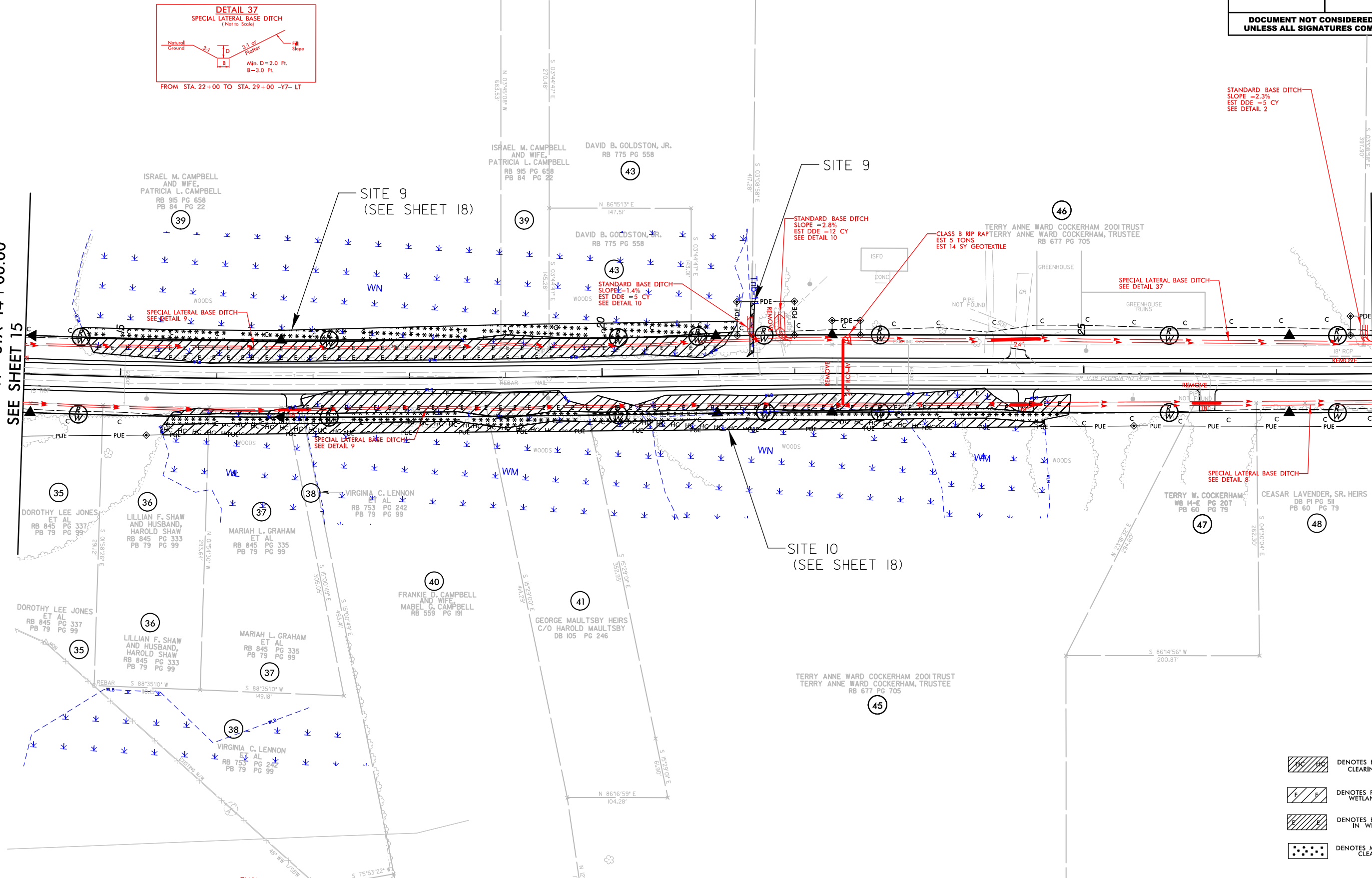
TOTAL TAKE
(SITE 8)



- Denotes FILL IN WETLAND
- Denotes EXCAVATION IN WETLAND
- Denotes MECHANIZED CLEARING



MATCH LINE -Y7- STA 14+00.00
SEE SHEET 15



**PERMIT DRAWING
SHEET 16 OF 47**

NAD 83/NA 2011

PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		20	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
<div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>			

STANDARD BASE DITCH
SLOPE = 2.3%
EST DDE = 5 CY
SEE DETAIL 2

MATCH LINE -Y7- STA 28+00.00
SEE SHEET 21

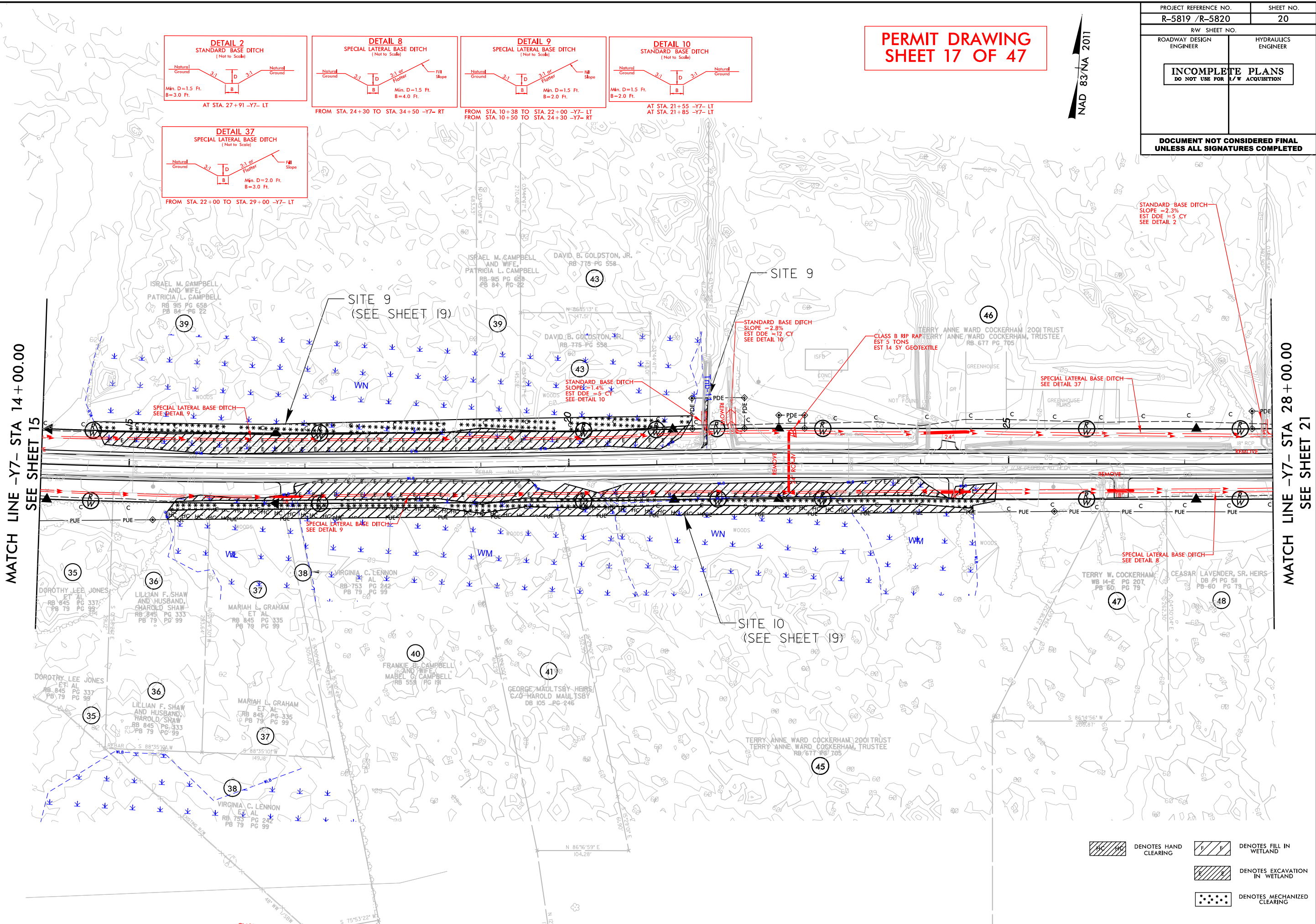
- DENOTES HAND CLEARING
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING

8/17/99

11:37:45 AM
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shabnam

MATCH LINE -Y7- STA 14+00.00
SEE SHEET 15

MATCH LINE -Y7- STA 28+00.00
SEE SHEET 21



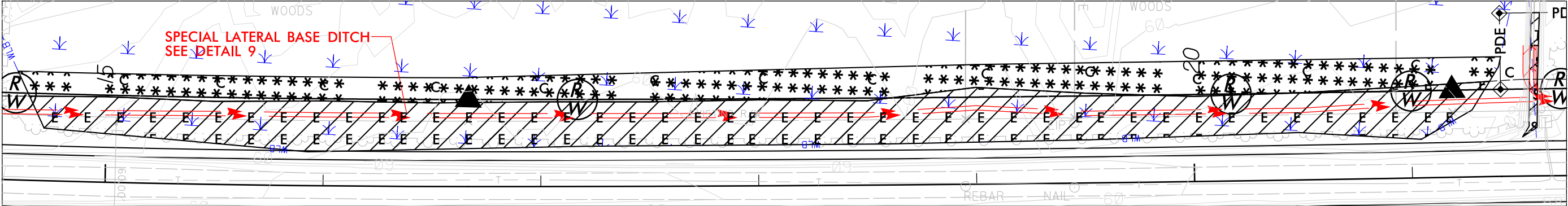
NAD 83/NA 2011

PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
<div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>			

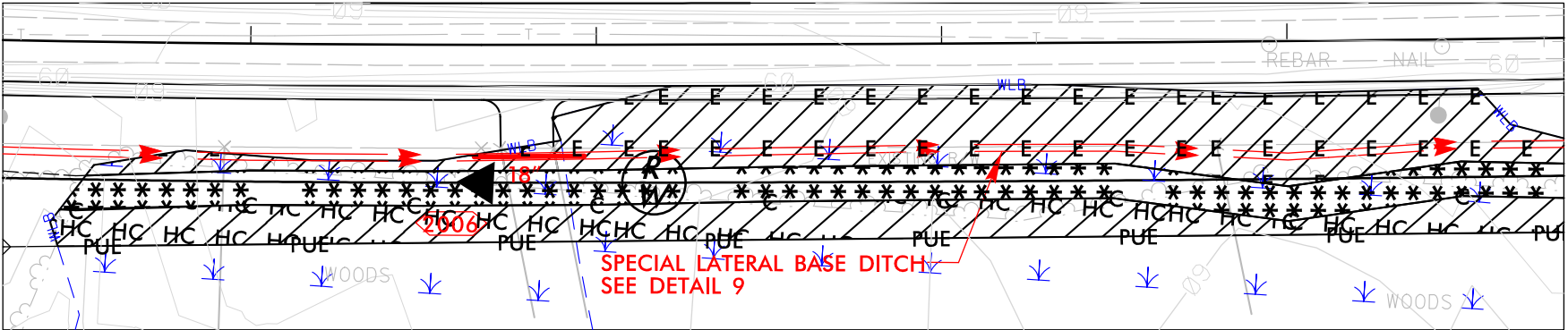
PERMIT DRAWING
SHEET 19 OF 47

NAD 83/NA 2011

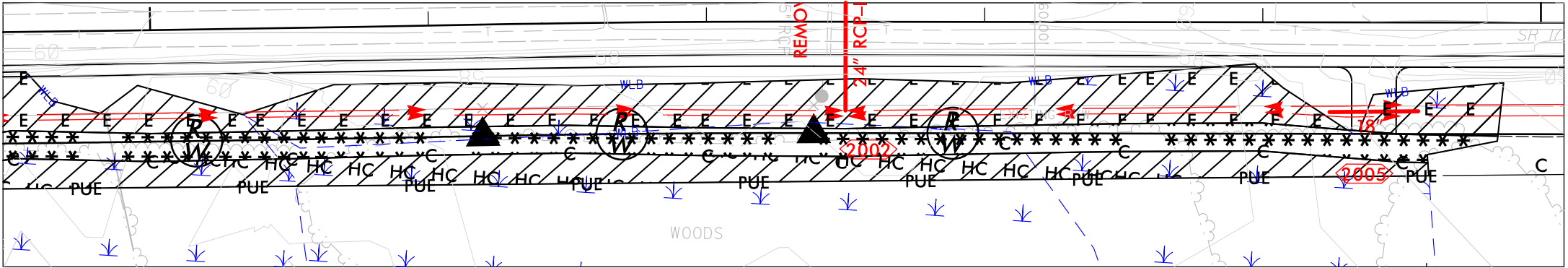
PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820			
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



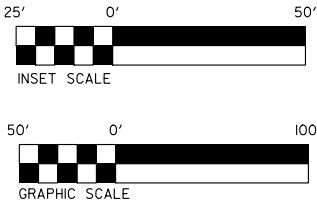
SITE 9



SITE 10



SITE 10 CONT.

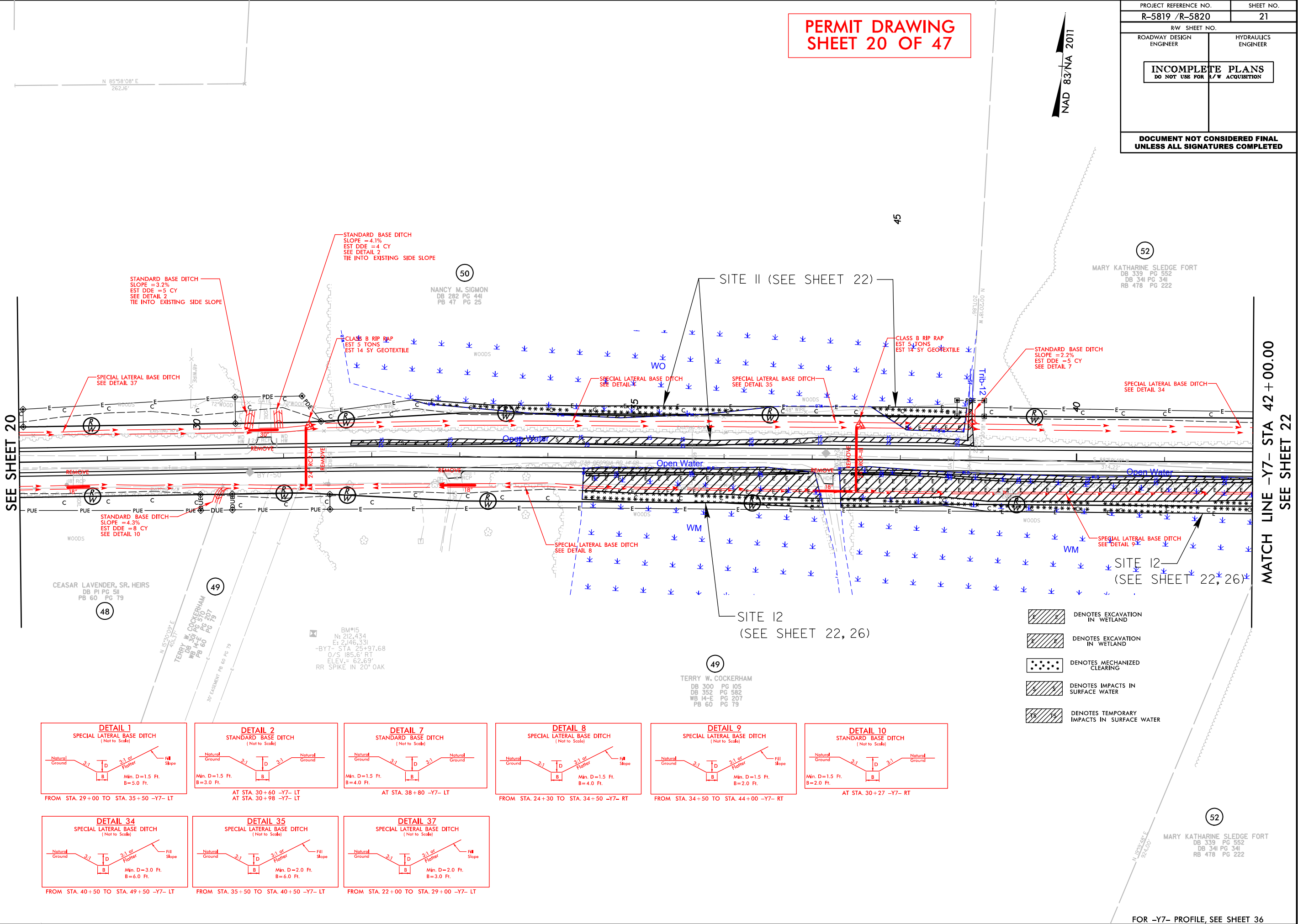


- DENOTES HAND CLEARING
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING

8/17/99

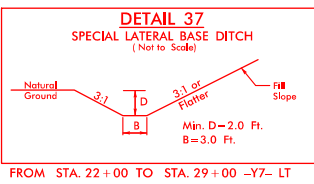
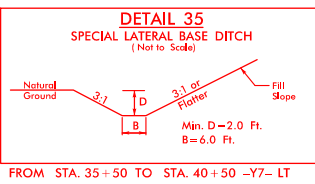
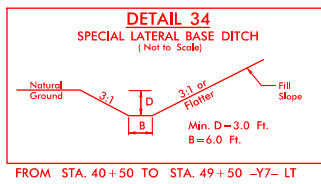
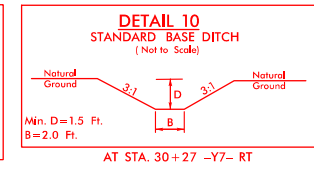
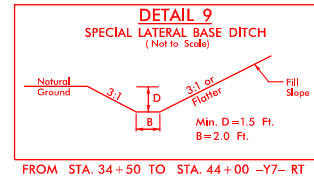
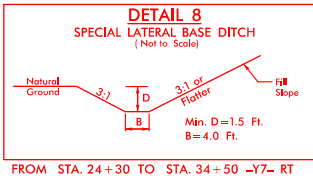
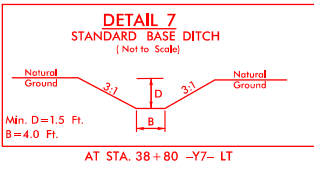
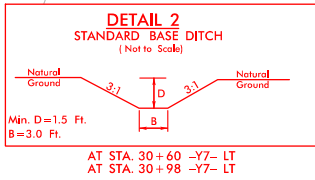
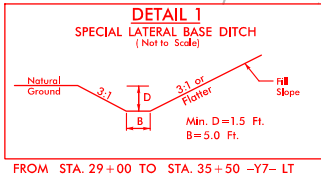
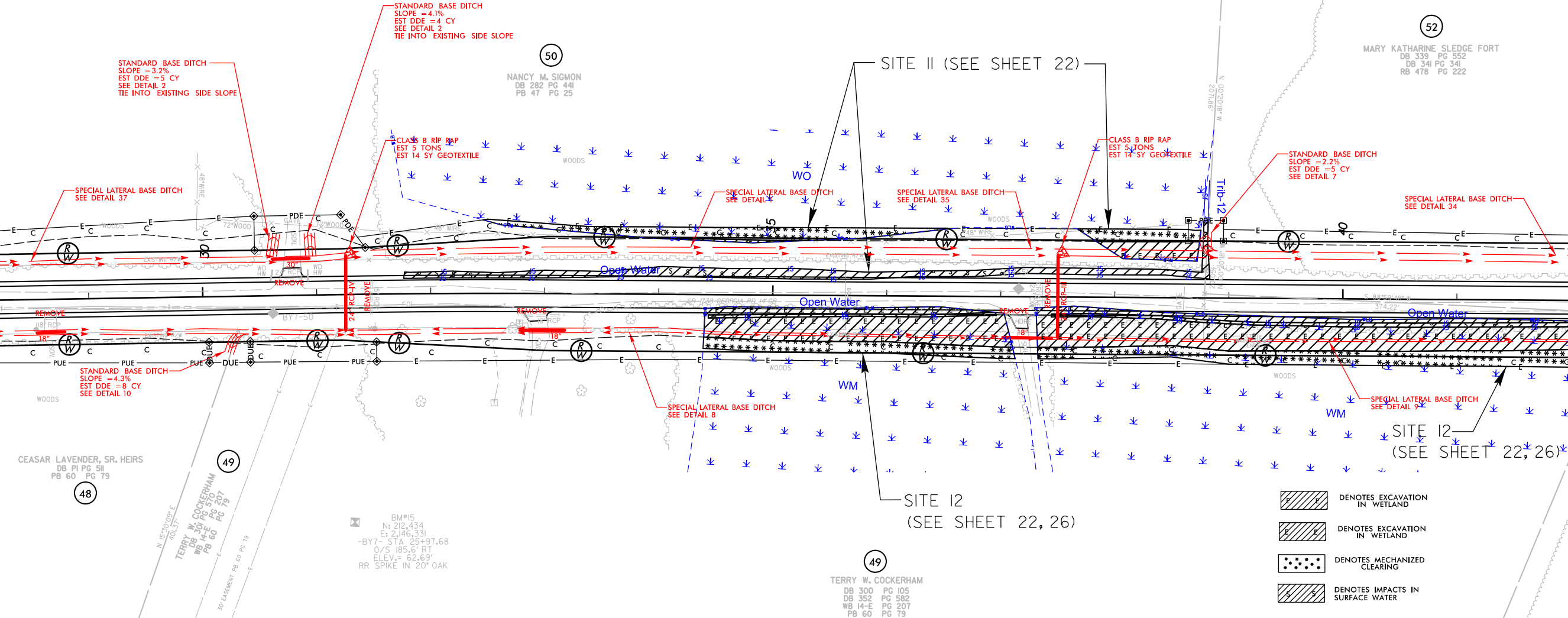
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MATCH LINE -Y7- STA 28+00.00
SEE SHEET 20

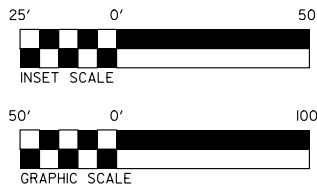


PERMIT DRAWING
SHEET 20 OF 47

PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820		21	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			





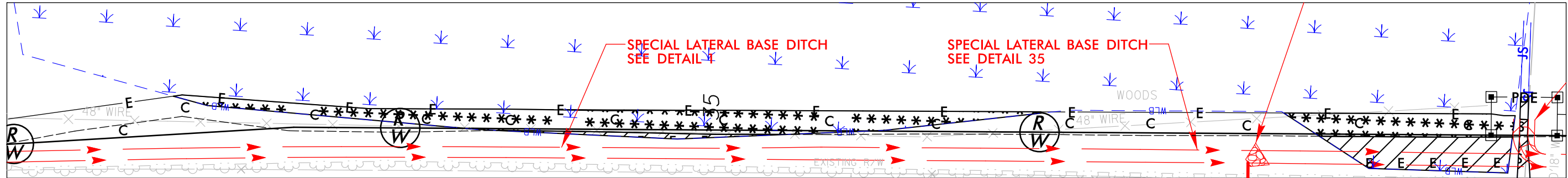


- DENOTES EXCAVATION IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

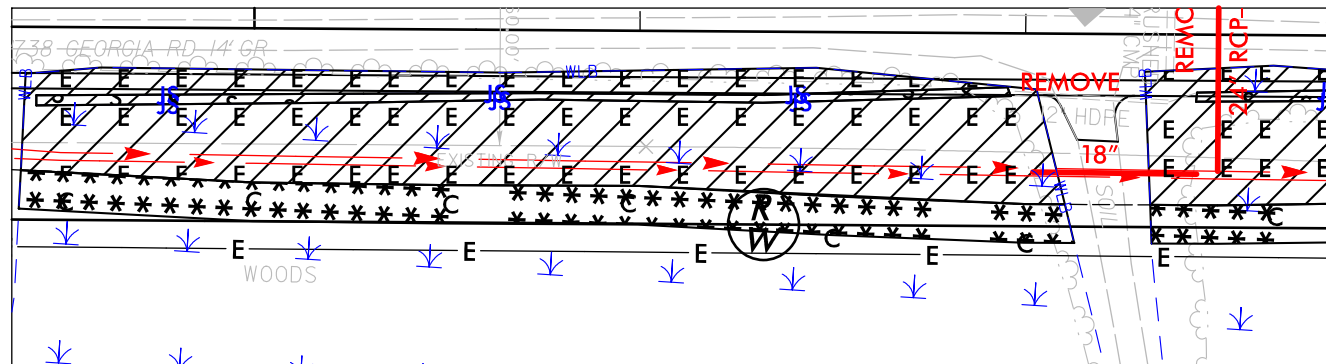
PERMIT DRAWING
SHEET 22 OF 47

NAD 83/NA 2011

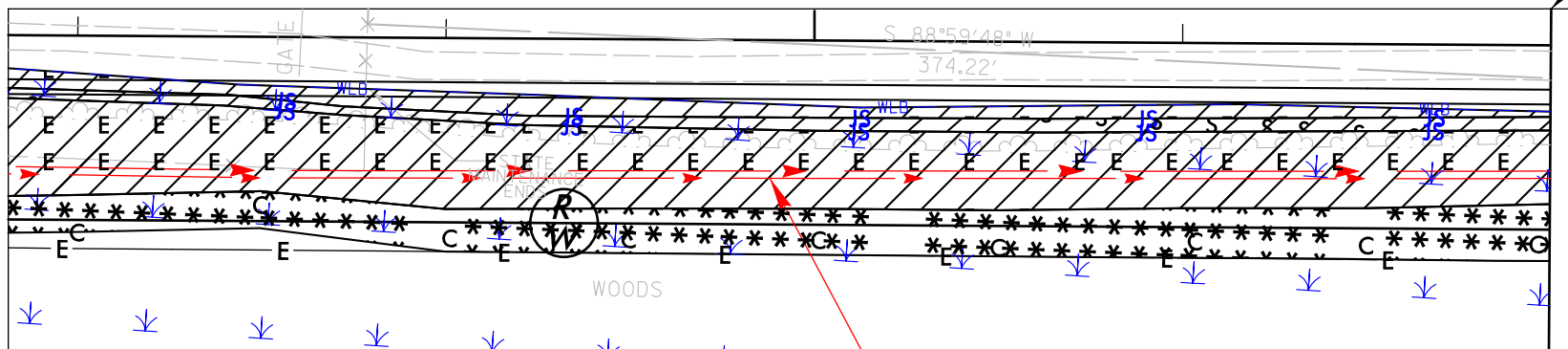
PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SITE II

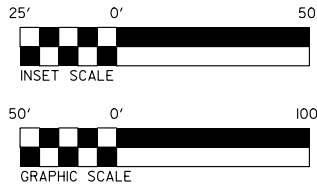


SITE 12



SITE 12 CONT.

SHEET 22 MATCHLINE
SITE 12 BLOW UP CONTINUES
ON SHEET 26

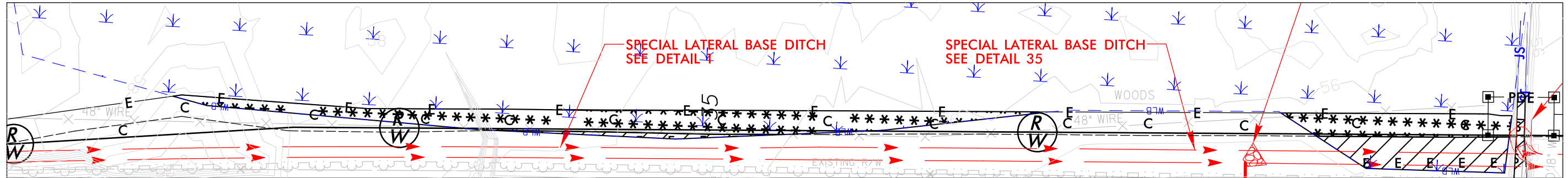


- DENOTES EXCAVATION IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

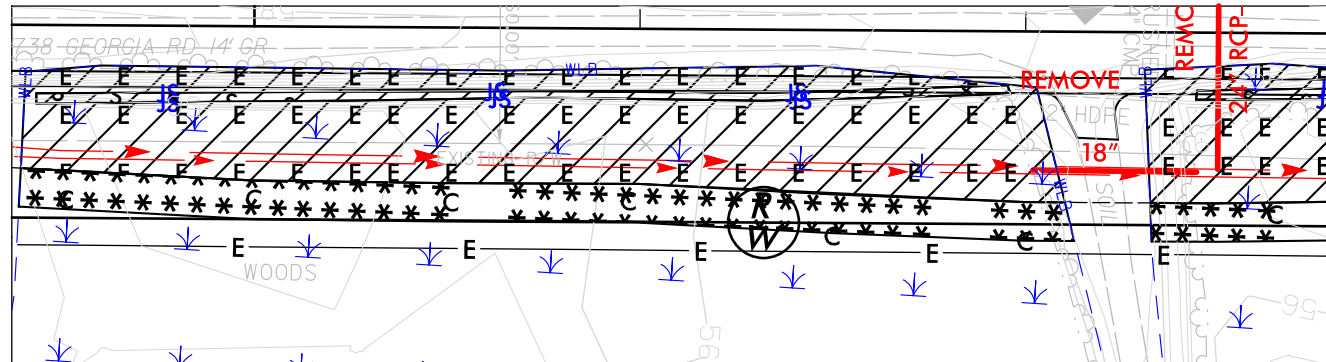
PERMIT DRAWING
SHEET 23 OF 47

NAD 83/NA 2011

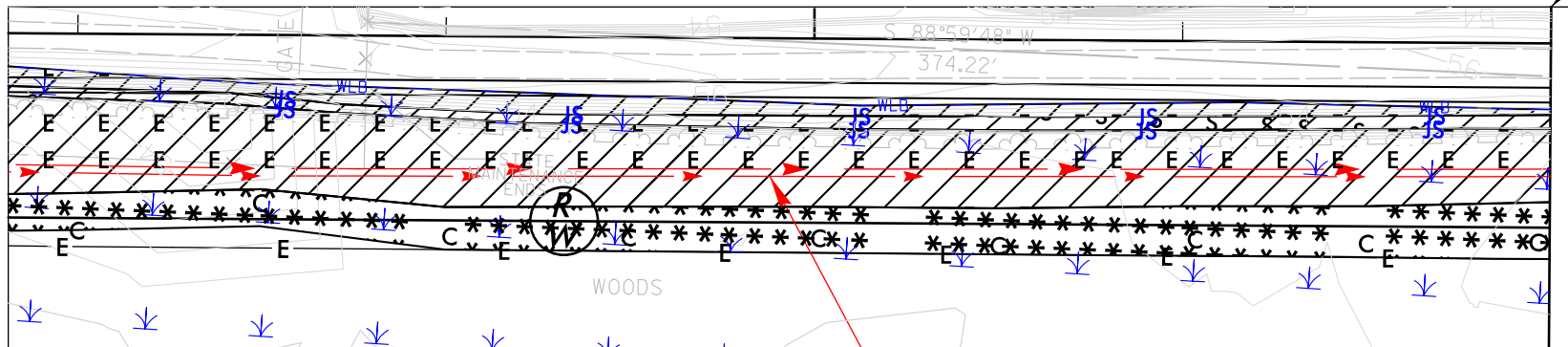
PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820			
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



SITE II



SITE 12



SITE 12 CONT.

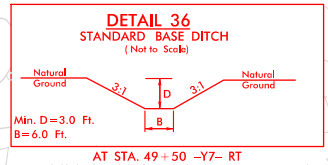
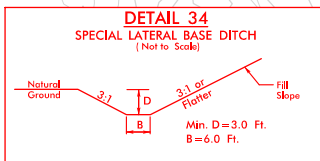
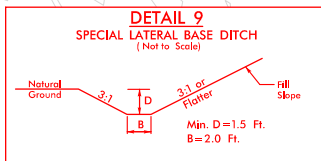
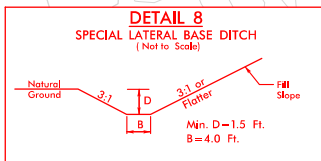
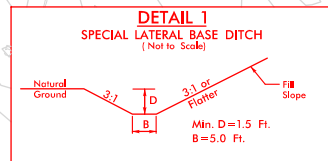
SHEET 23 MATCHLINE
SITE 12 BLOW UP CONTINUES
ON SHEET 27

8/17/99

PERMIT DRAWING
SHEET 25 OF 47

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NAD 83 NA 2011



FROM STA. 44+00 TO STA. 49+50 -Y7- RT

FROM STA. 49+50 TO STA. 60+00 -Y7- RT
FROM STA. 49+50 TO STA. 52+00 -Y7- LT

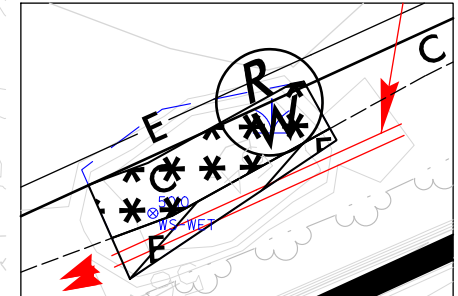
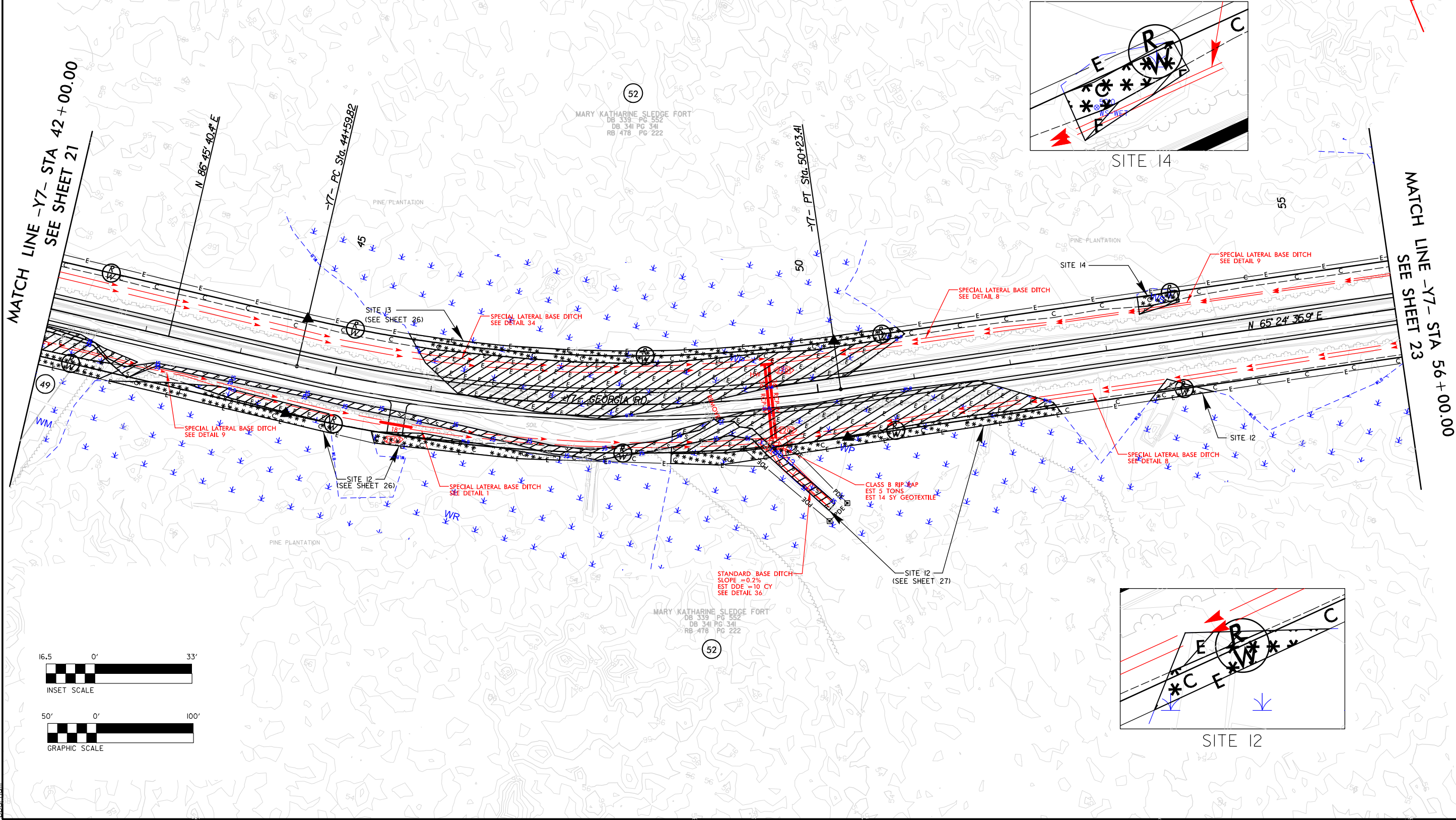
FROM STA. 34+50 TO STA. 44+00 -Y7- RT
FROM STA. 52+00 TO STA. 58+00 -Y7- LT

FROM STA. 40+50 TO STA. 49+50 -Y7- LT

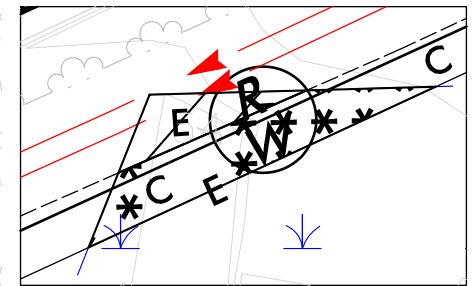
AT STA. 49+50 -Y7- RT

MATCH LINE -Y7- STA 42+00.00
SEE SHEET 21

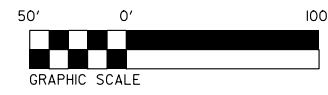
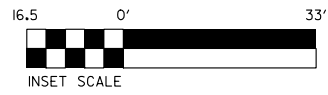
MATCH LINE -Y7- STA 56+00.00
SEE SHEET 23



SITE 14



SITE 12

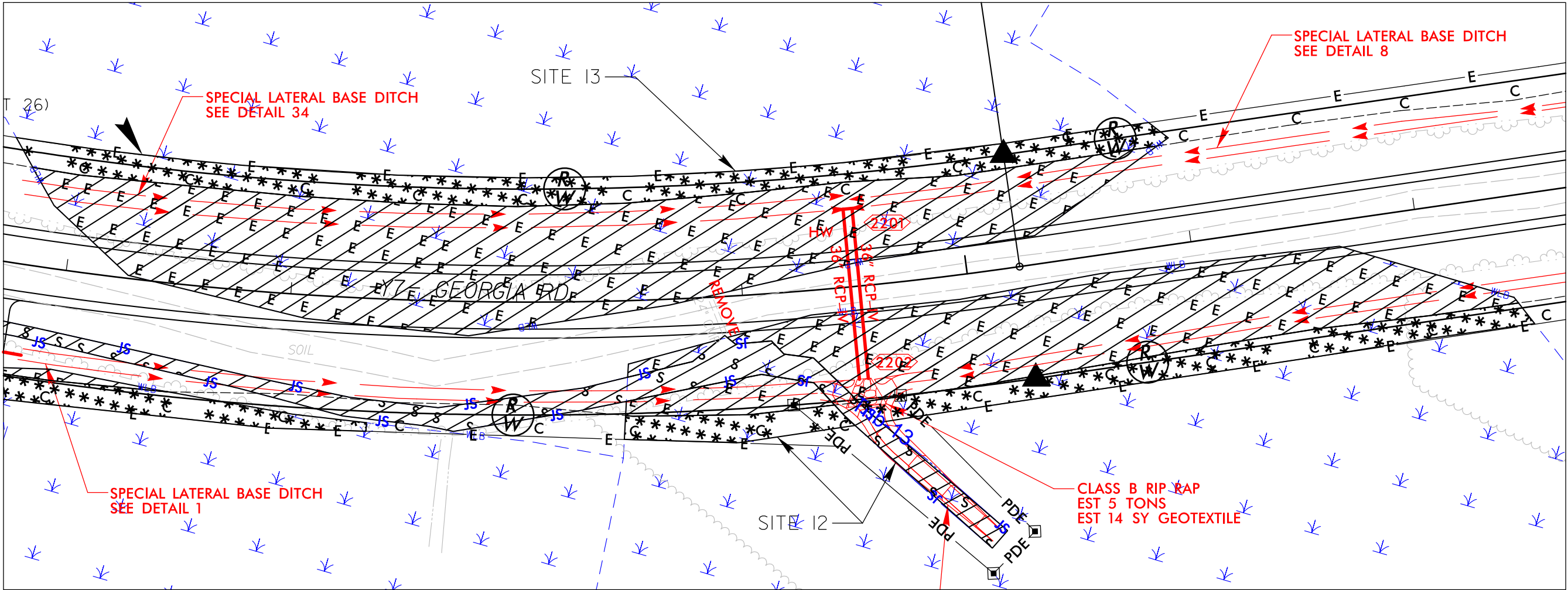
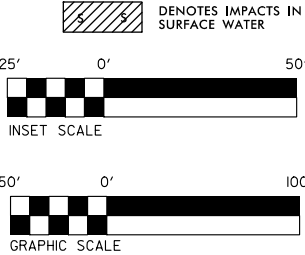
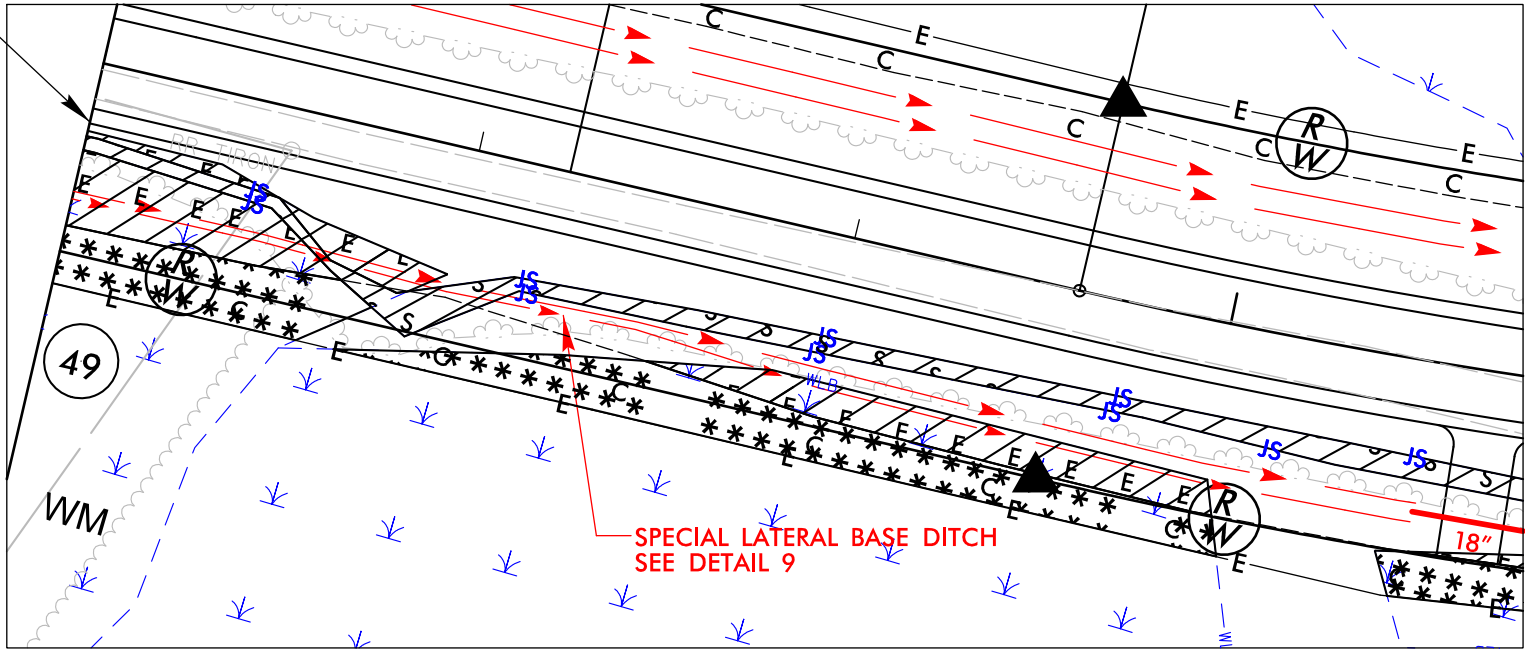


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shaban

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PSH 21MATCH LINE

SITE 12 CONT.



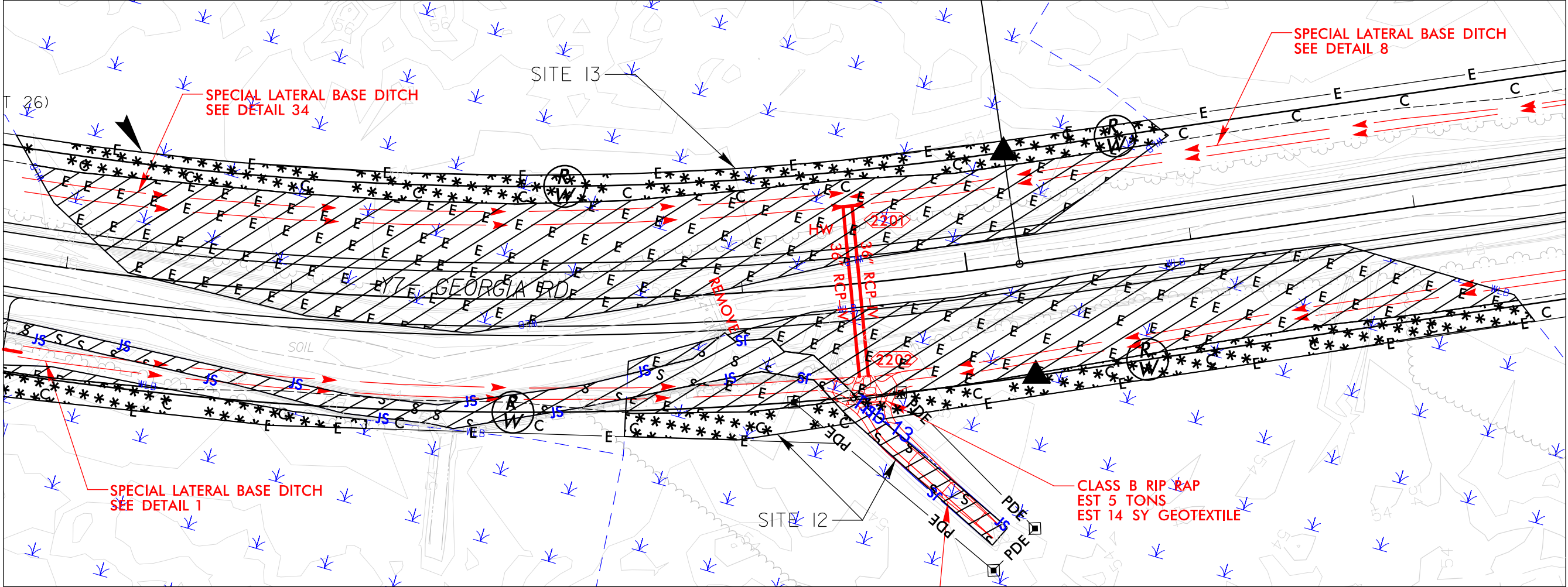
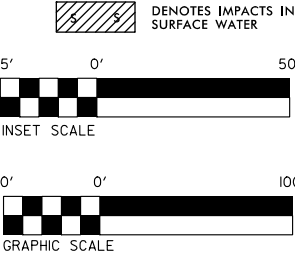
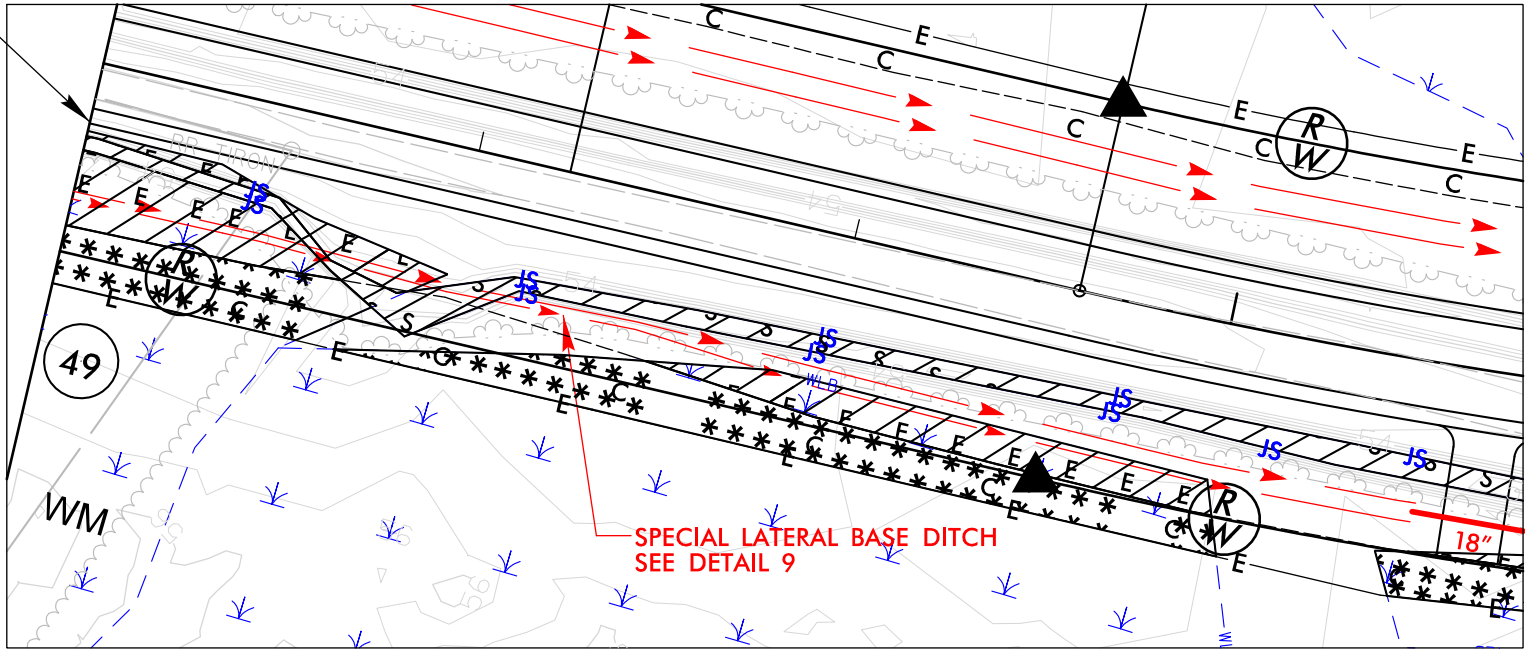
SITE 12 CONT. AND SITE 13

PERMIT DRAWING
SHEET 27 OF 47

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

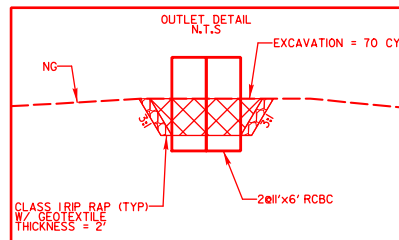
PSH 22 MATCH LINE

SITE 12 CONT.

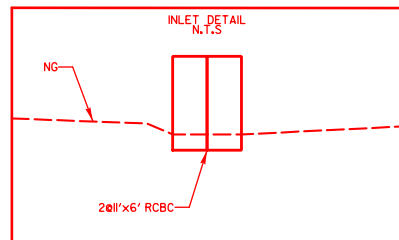


SITE 12 CONT. AND SITE 13

PERMIT DRAWING
SHEET 28 OF 47



AT STA. 65+52 -Y7- RT



AT STA. 65+85 -Y7- LT

SITE 15

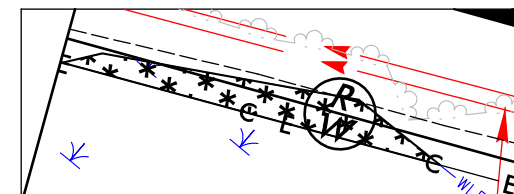
MARY KATHARINE SLEDGE FORT
DB 339 PG 552
DB 341 PG 341
R 478 PG 222

COLUMBUS COUNTY BOARD OF EDUCATION
DB 408 PG 896
PB 50 PG 91

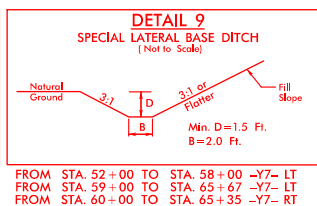
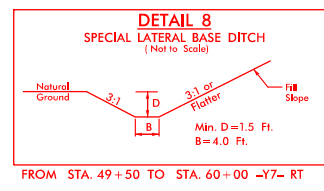
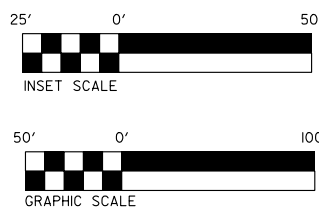
NAD 83/NA 2011

MATCH LINE -Y7- STA 56+00.00
SEE SHEET 22

70+00.00
STA -Y7-
LINE
MATCH SEE SHEET 24



SITE 12



CLASS 1 RIP RAP —
ON BANKS ONLY
EST 70 TONS
EST 130 SY GEOTEXTILE

JOHN FRANKLIN SMITH HEIRS
AND
DAVID B. GOLDSTON, JR. HEIRS
DB 354 PG 168
PB 50 PG 91

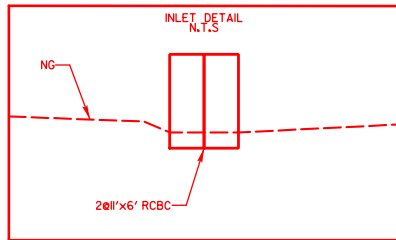
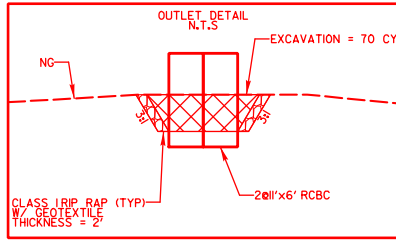
CLASS I RIP RAP—
EST 10 TONS
EST 23 SY
GEOTECHNICAL

EXCAVATE THE EXISTING
UNPAVED ROADWAY
EMBANKMENT
TO NATURAL GROUND

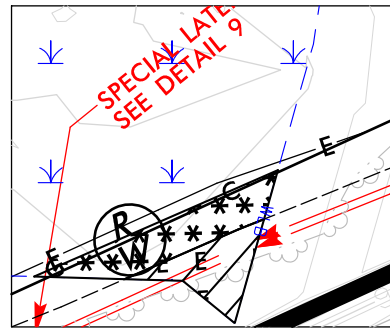
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

- HC HC DENOTES HAND CLEARING
- E E DENOTES FILL IN WETLAND
- E E DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING



PERMIT DRAWING
SHEET 29 OF 47



SITE 15

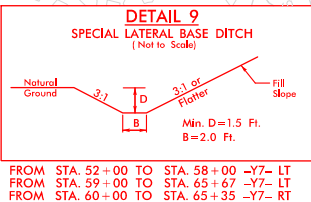
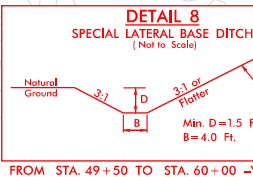
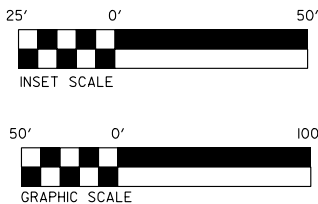
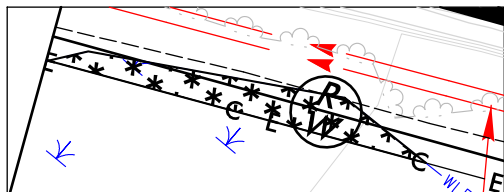
MARY KATHARINE SLEDGE FORT
DB 339 PG 552
DB 341 PG 341
RB 478 PG 222

COLUMBUS COUNTY BOARD OF EDUCATION
DB 408 PG 896
PB 50 PG 91

NAD 83/NA 2011

MATCH LINE -Y7- STA 56+00.00
SEE SHEET 22

MATCH LINE -Y7- STA 70+00.00
SEE SHEET 24



CLASS 1 RIP RAP
ON BANKS ONLY
EST 70 TONS
EST 130 SY GEOTEXTILE

CLASS 1 RIP RAP
EST 10 TONS
EST 24 SY GEOTEXTILE

EXCAVATE THE EXISTING
UNPAVED ROADWAY
EMBANKMENT
TO NATURAL GROUND
DDE=70 CY

SITE 16
(SEE SHEET 31)

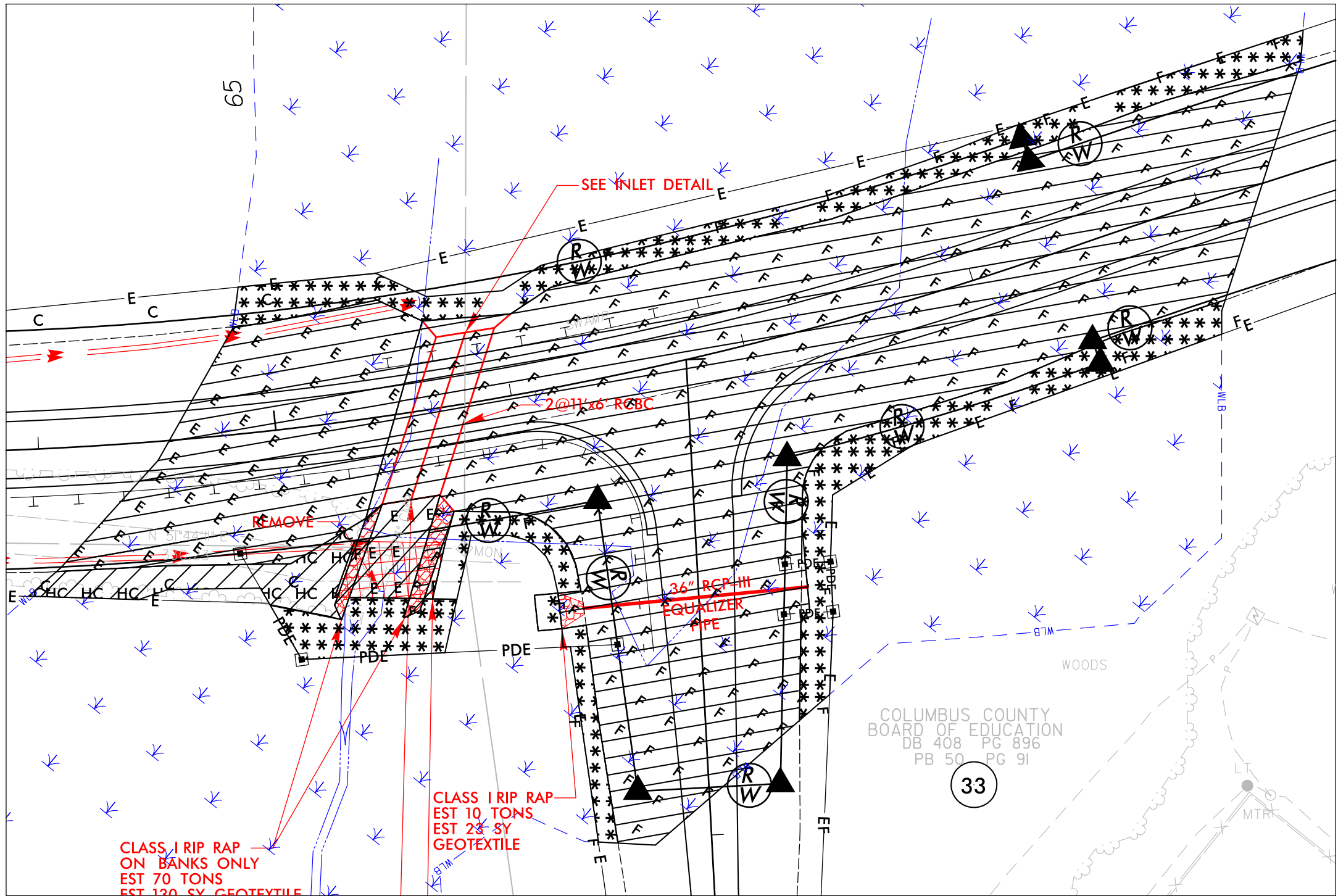
COLUMBUS COUNTY BOARD OF EDUCATION
DB 408 PG 896
PB 50 PG 91

BST TENNIS COURTS

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shaban

PERMIT DRAWING
SHEET 30 OF 47

PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820			
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



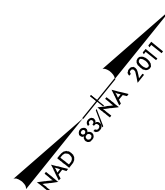
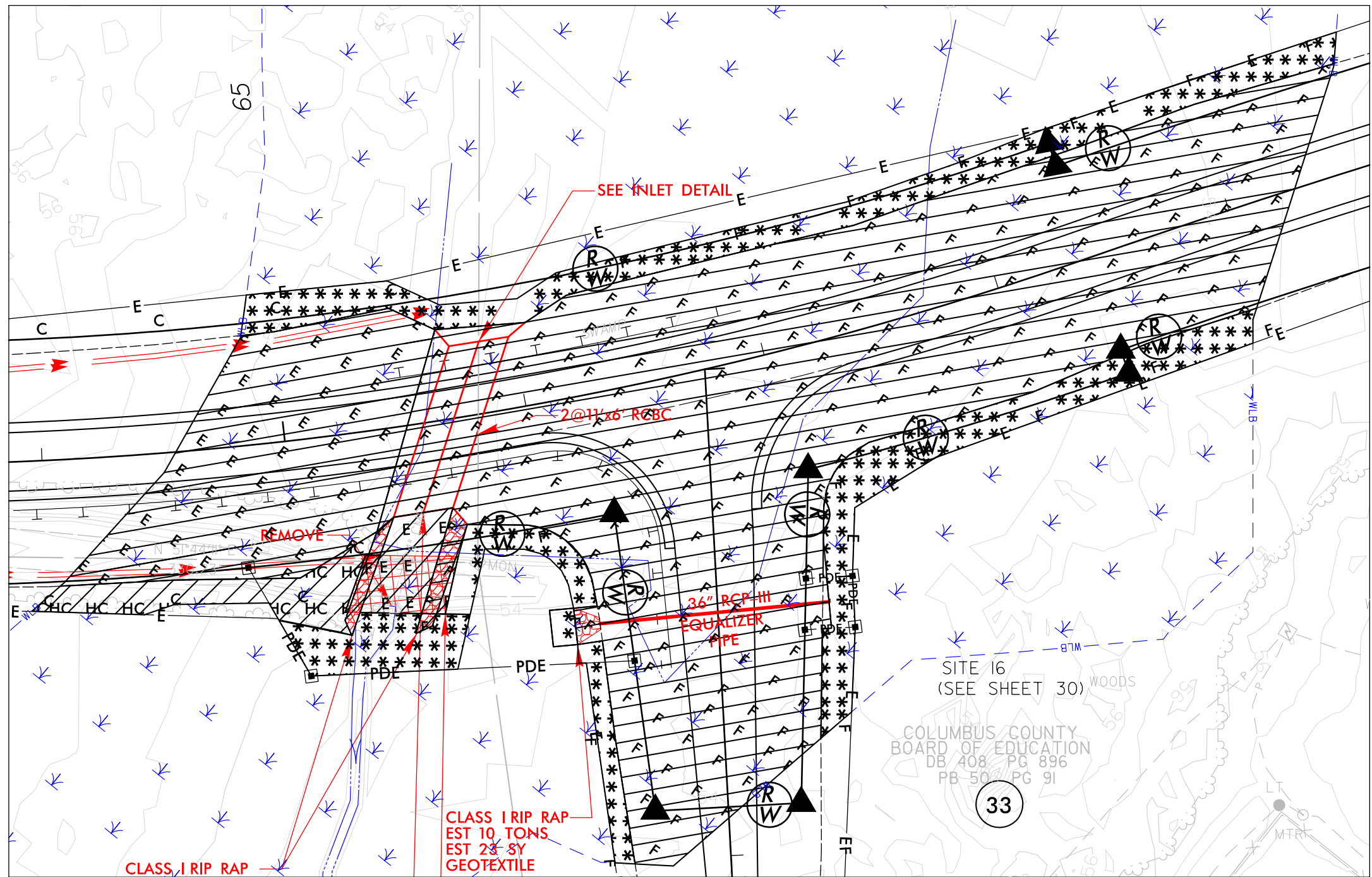
SITE 16

COLUMBUS COUNTY
BOARD OF EDUCATION
DB 408 PG 896
PB 50 PG 91

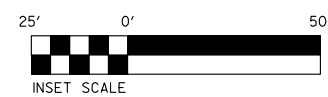
33

PERMIT DRAWING
SHEET 31 OF 47

PROJECT REFERENCE NO.		SHEET NO.	
R-5819 /R-5820			
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



- DENOTES HAND CLEARING
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING



8/17/99

REVISIONS

I:\24\34 PM
R:\Hydraulics\PERMITS\Environmental\Drawings\R5819_R5820_Hyd_prm_wet_y7_culvert.pfl.dgn
abachan

150' 100' 50' 0 50' 100' 150' 200'

CL STA 65+70.00 -Y7-
2@11'x6' RCBC (BURIED 1.0')
W/ 6" BEVELED HW
CP = 61.33
SKEW = 117°

PERMIT DRAWING
SHEET 31A OF 47

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	23A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

70

60

50

PROPOSED 100 YR
WSEL=58.1'
PROPOSED 25 YR
WSEL=57.0'

3.37:1 (3:1 NORMAL)

3.37:1 (3:1 NORMAL)

SLOPE = 0.02%
ELEV. = 51.73'

NOTE: NO FLOW OR WATER IN
CHANNEL AT DATE OF SURVEY
6/5/2019

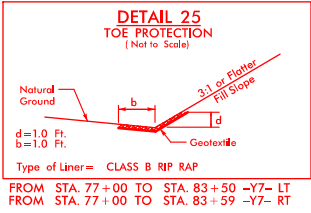
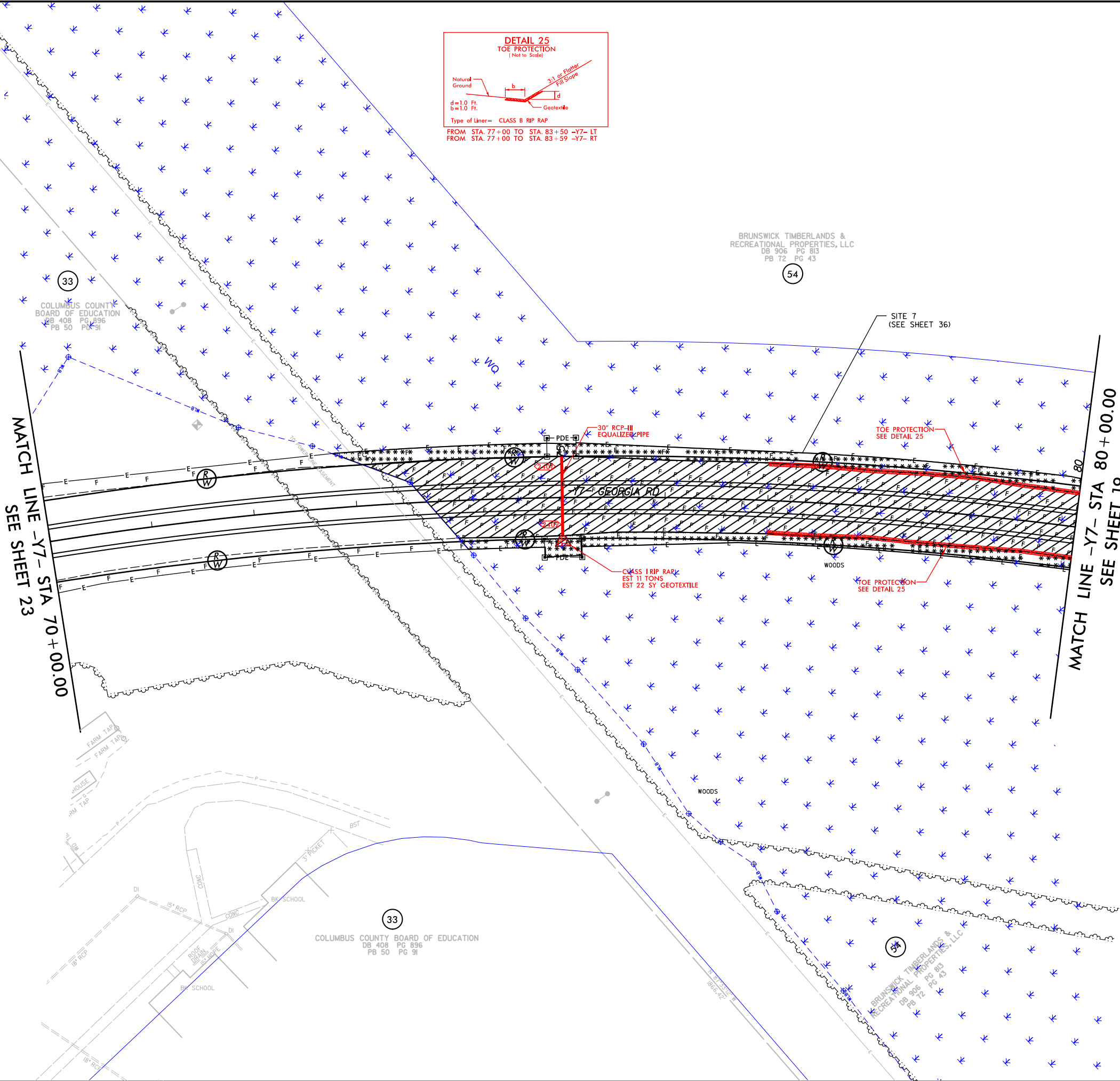
TOP OF EXISTING UNPAVED
ROADWAY EMBANKMENT

TB LI

TB RT

EXISTING BED

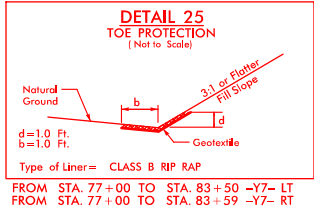
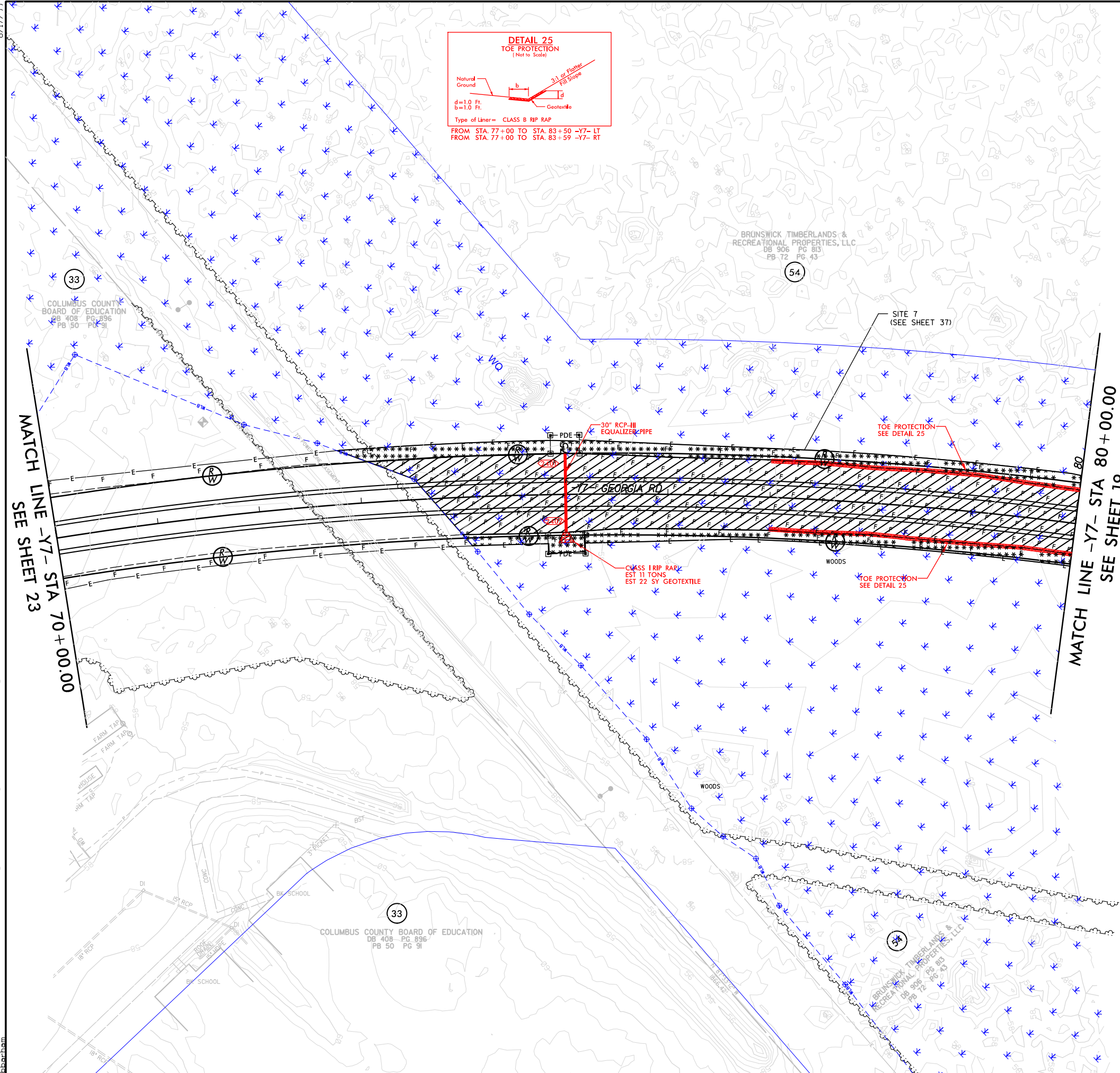
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shaban



PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 32 OF 47

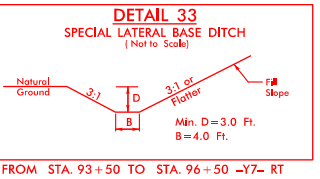
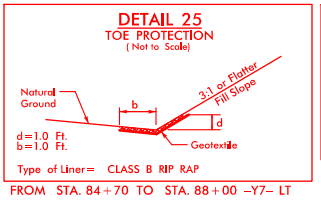
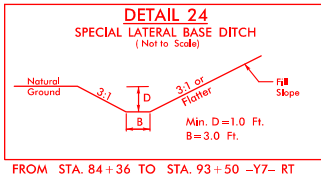
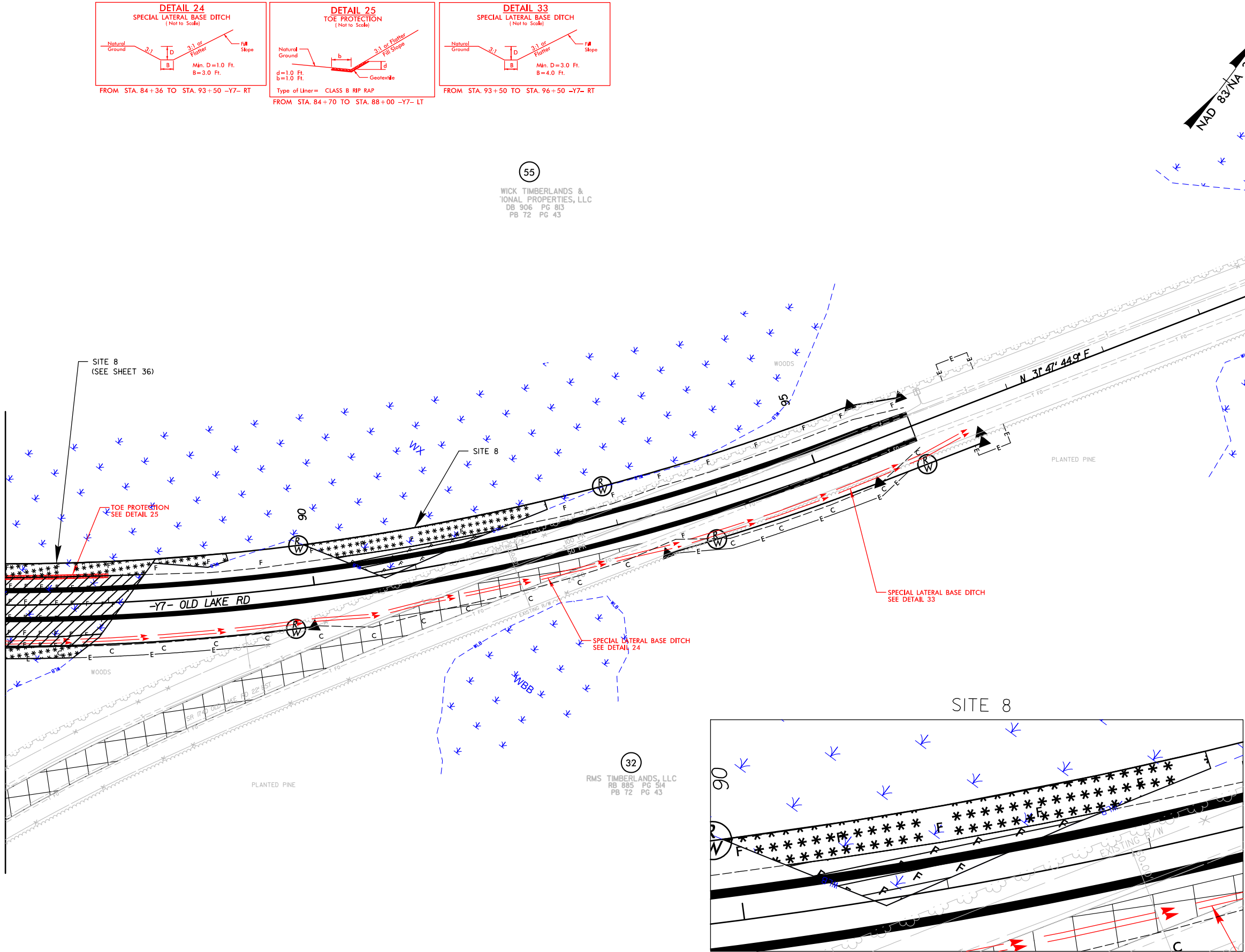
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shaban



PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 33 OF 47

MATCH LINE -Y7- STA 87+00.00
SEE SHEET 19



55
WICK TIMBERLANDS &
TIONAL PROPERTIES, LLC
DB 906 PG 813
PB 72 PG 43

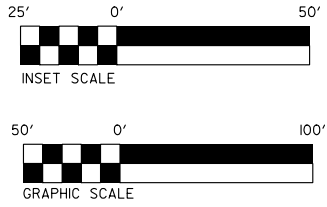
32
RMS TIMBERLANDS, LLC
RB 885 PG 514
PB 72 PG 43

PERMIT DRAWING
SHEET 34 OF 47

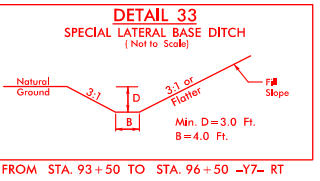
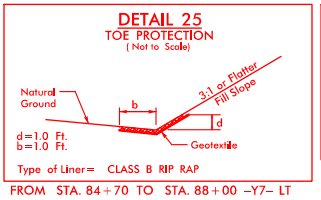
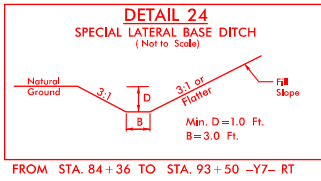
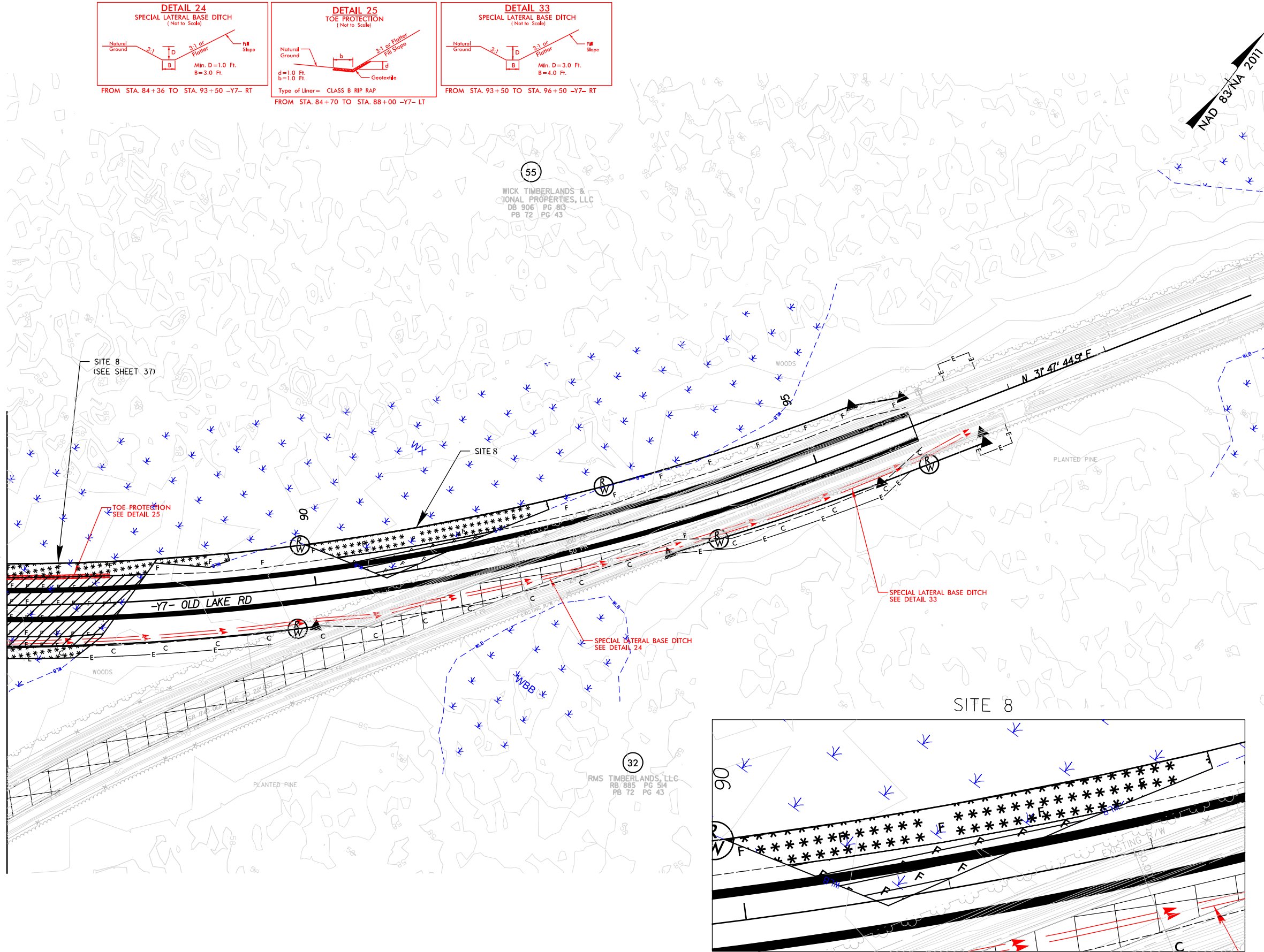
NAD 83/NA 2011

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

Denotes Fill in Wetland
Denotes Mechanized Clearing



MATCH LINE -Y7- STA 87+00.00
SEE SHEET 19



PERMIT DRAWING
SHEET 35 OF 47

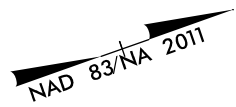
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R-5819 /R-5820	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

8/17/99

8:00:27 AM
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shaban

PERMIT DRAWING
SHEET 36 OF 47

PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



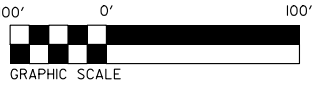
DENOTES MECHANIZED
CLEARING



DENOTES FILL IN
WETLAND



DENOTES EXCAVATION
IN WETLAND



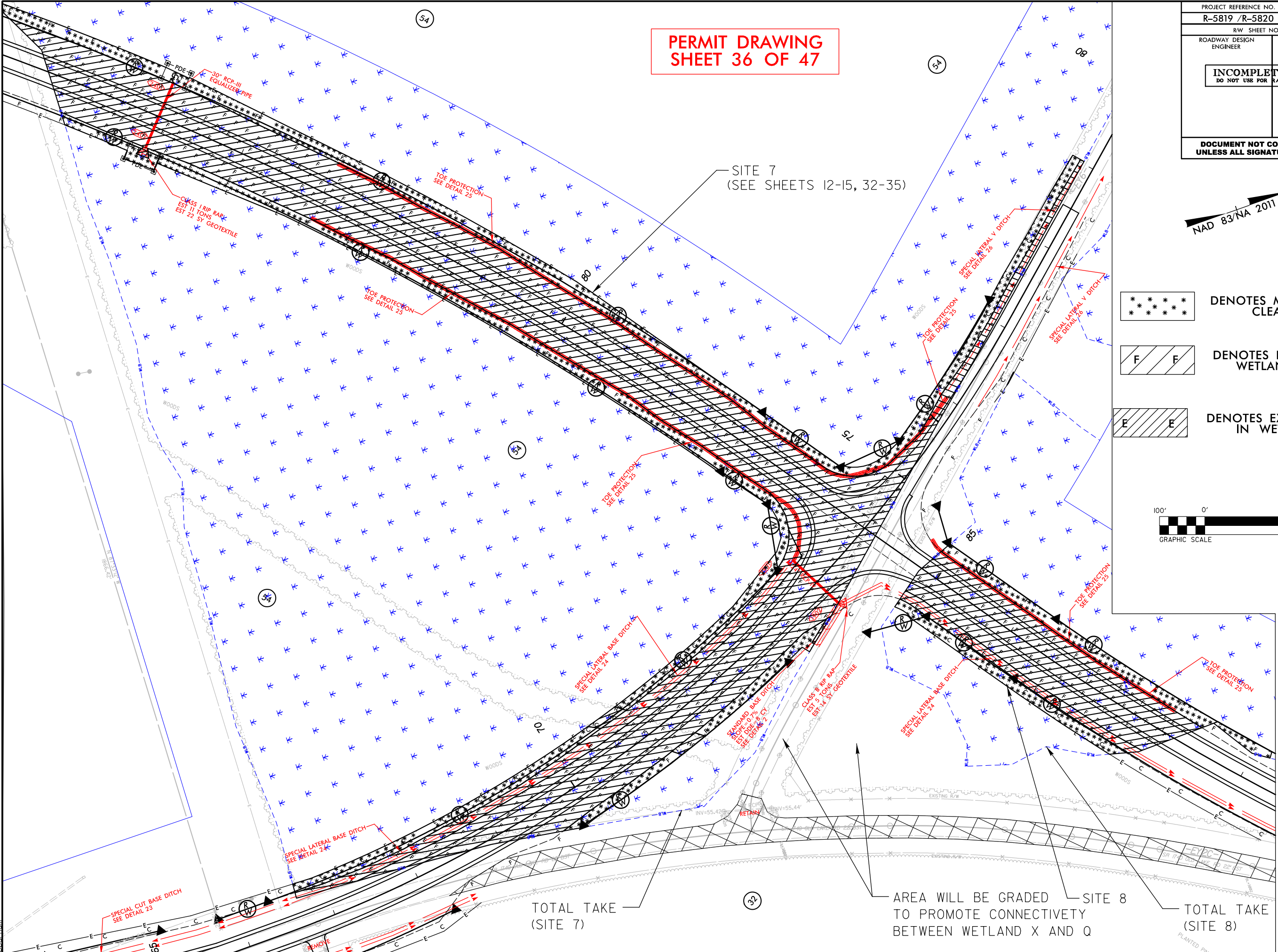
GRAPHIC SCALE

SITE 7
(SEE SHEETS 12-15, 32-35)

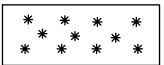
AREA WILL BE GRADED
TO PROMOTE CONNECTIVITY
BETWEEN WETLAND X AND Q

TOTAL TAKE
(SITE 7)

TOTAL TAKE
(SITE 8)



PROJECT REFERENCE NO.	SHEET NO.
R-5819 /R-5820	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



DENOTES MECHANIZED
CLEARING



DENOTES FILL IN
WETLAND



DENOTES EXCAVATION
IN WETLAND



GRAPHIC SCALE

PERMIT DRAWING
SHEET 37 OF 47

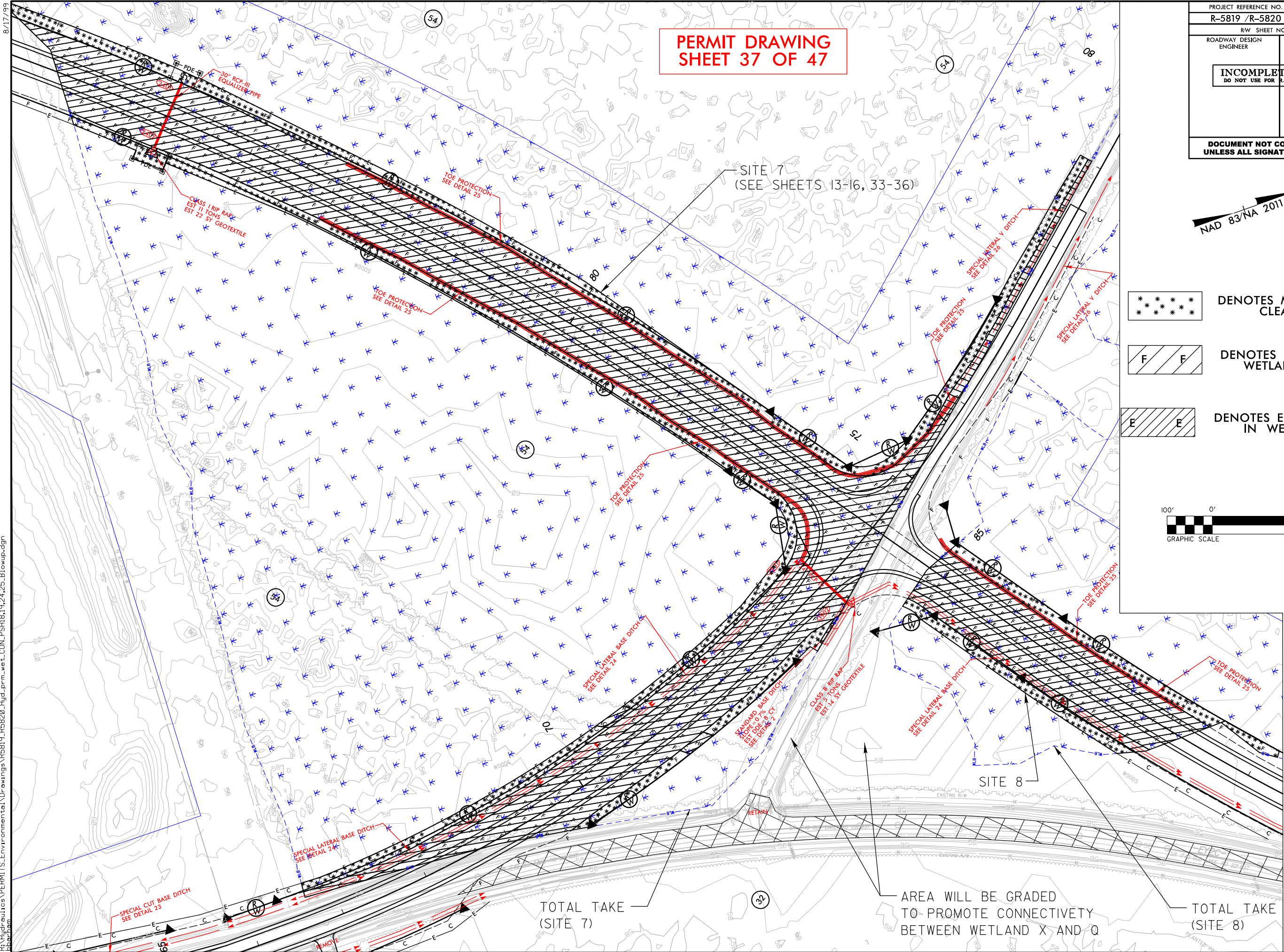
SITE 7
(SEE SHEETS 13-16, 33-36)

SITE 8

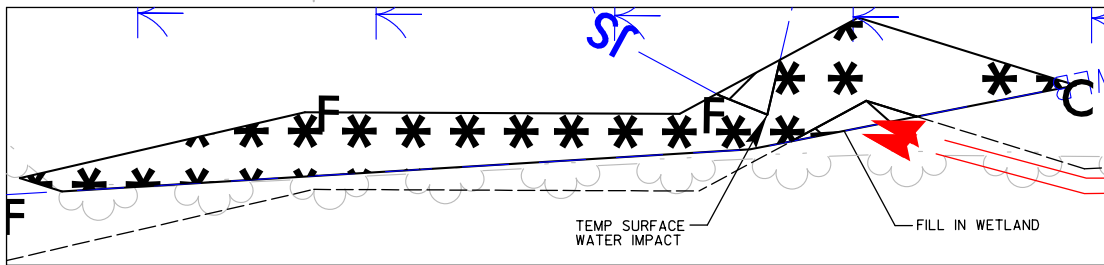
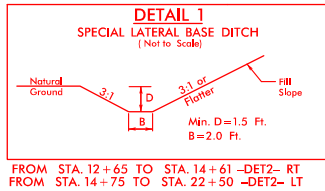
TOTAL TAKE
(SITE 7)

AREA WILL BE GRADED
TO PROMOTE CONNECTIVITY
BETWEEN WETLAND X AND Q

TOTAL TAKE
(SITE 8)



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shaban



-Y2- DETOUR

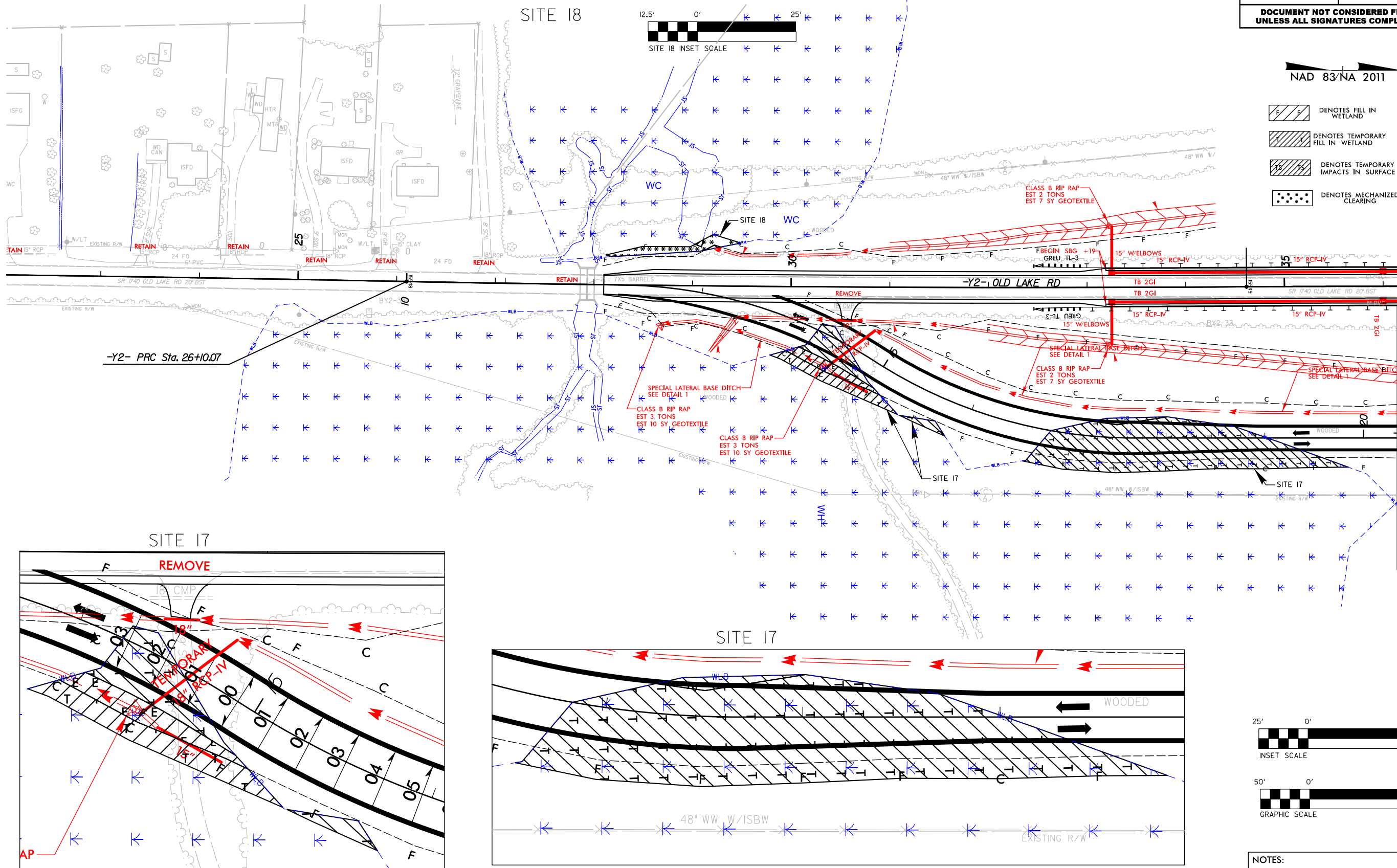
CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333

PROJECT REFERENCE NO. <i>R-5819/R-5820</i>		SHEET NO. <i>2B-4</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			
<div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>			

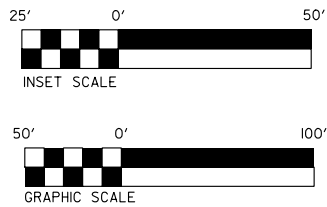
PERMIT DRAWING
SHEET 38 OF 47

NAD 83/NA 2011

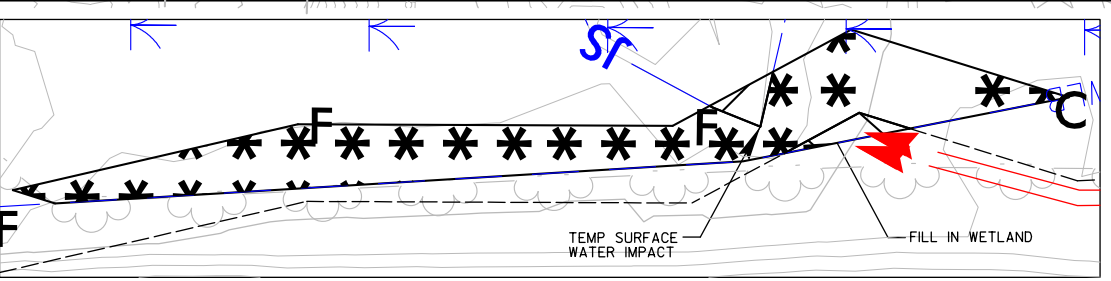
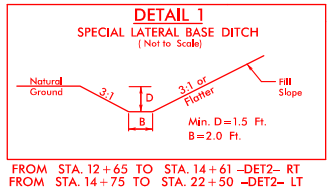
- DENOTES FILL IN WETLAND
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING



MATCHLINE -DET2- STA. 20 + 34.50
SEE SHEET 2B-5



NOTES:
■ PROP PAVED SHOULDER
FOR -DET2- PROFILE, SEE SHEET 45



-Y2- DETOUR

CALYX
ENGINEERS + CONSULTANTS

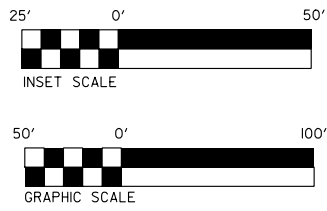
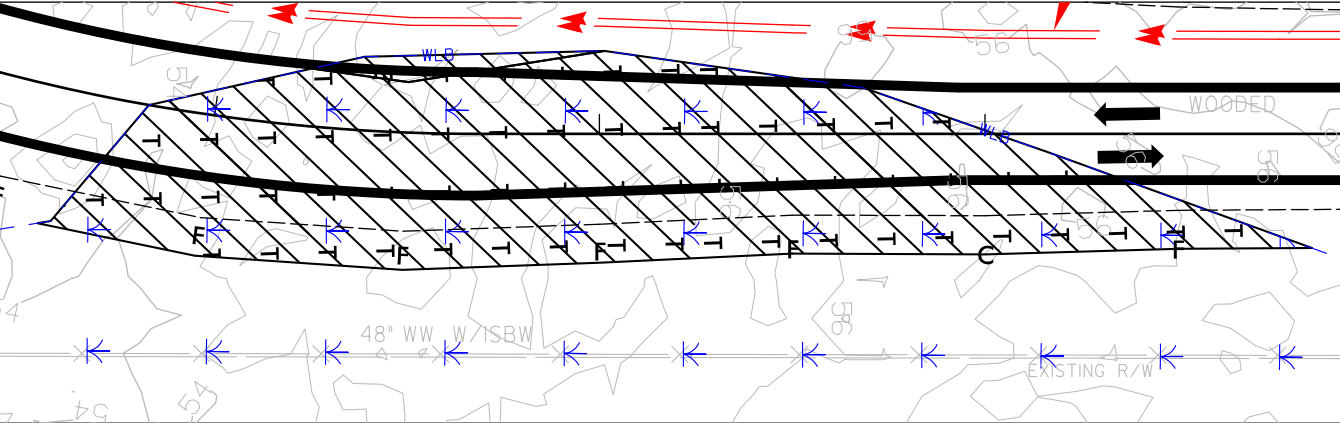
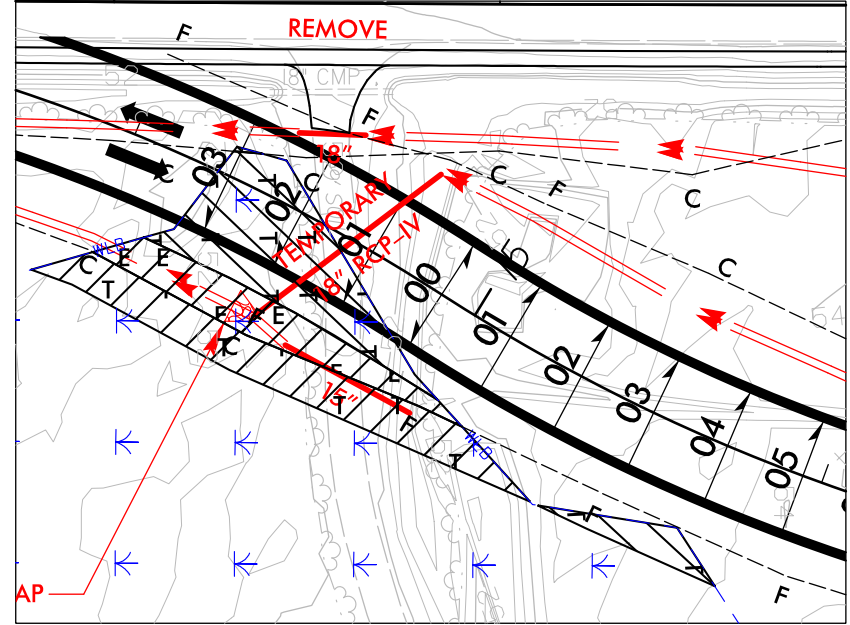
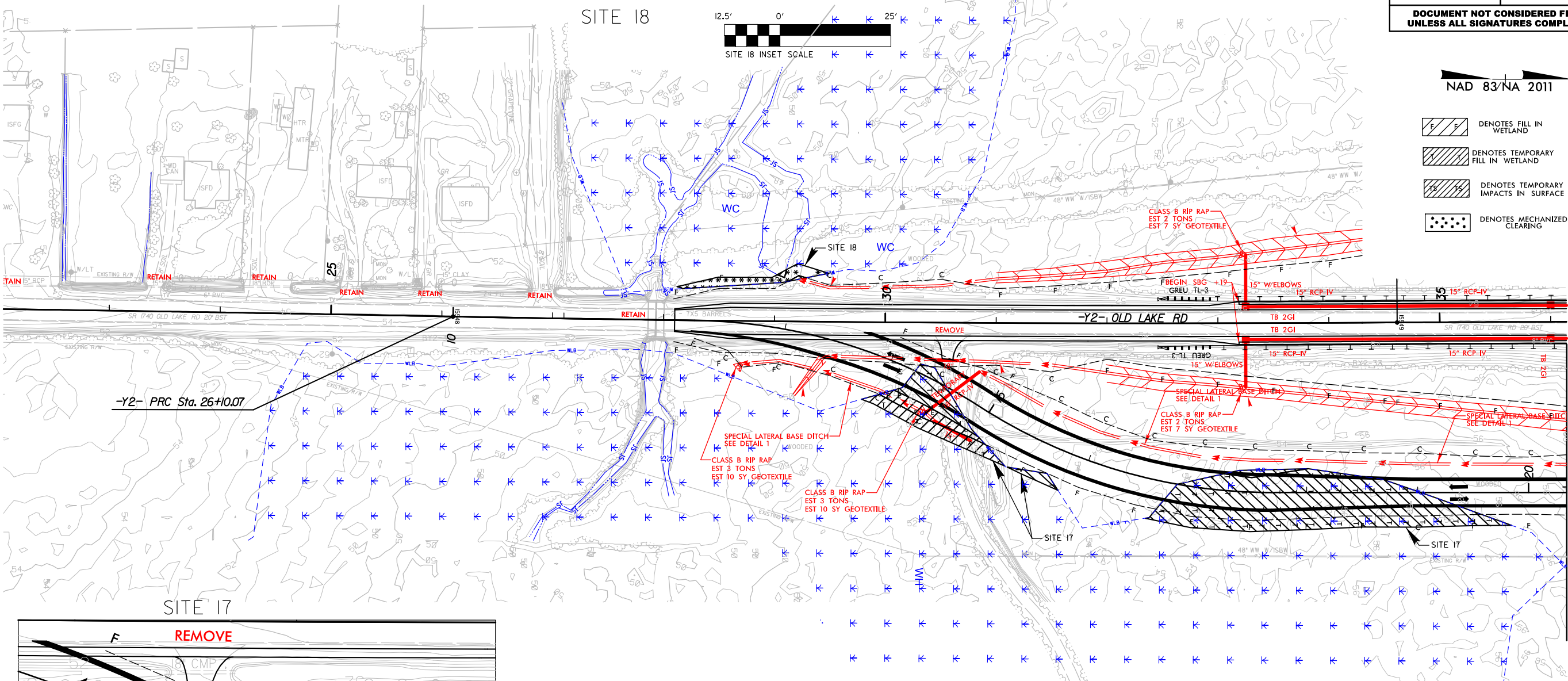
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXEngineers.com
NC License # F-1333

PROJECT REFERENCE NO. <i>R-5819/R-5820</i>		SHEET NO. <i>2B-4</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
<div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>			

PERMIT DRAWING
SHEET 39 OF 47

NAD 83/NA 2011

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

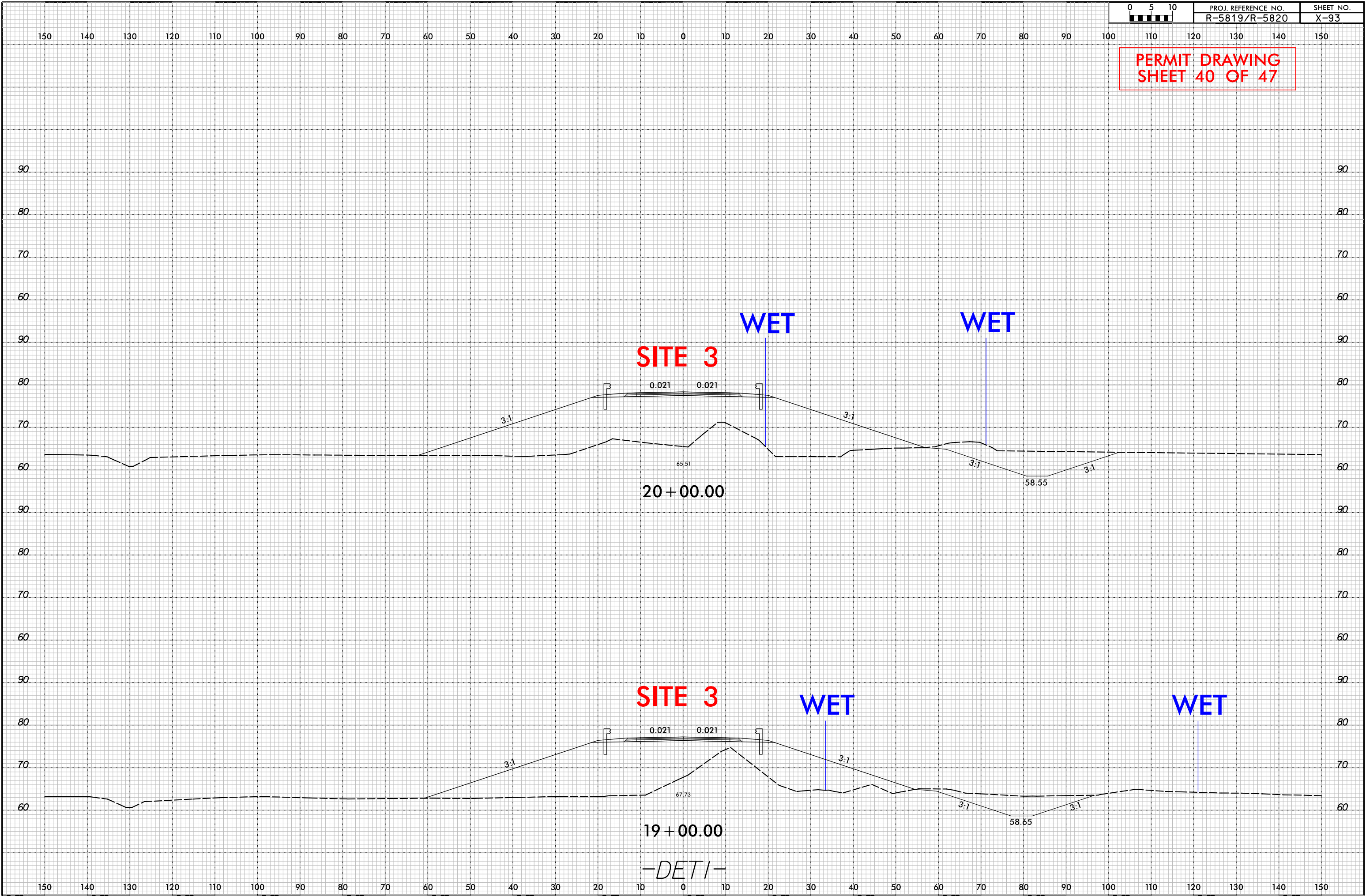


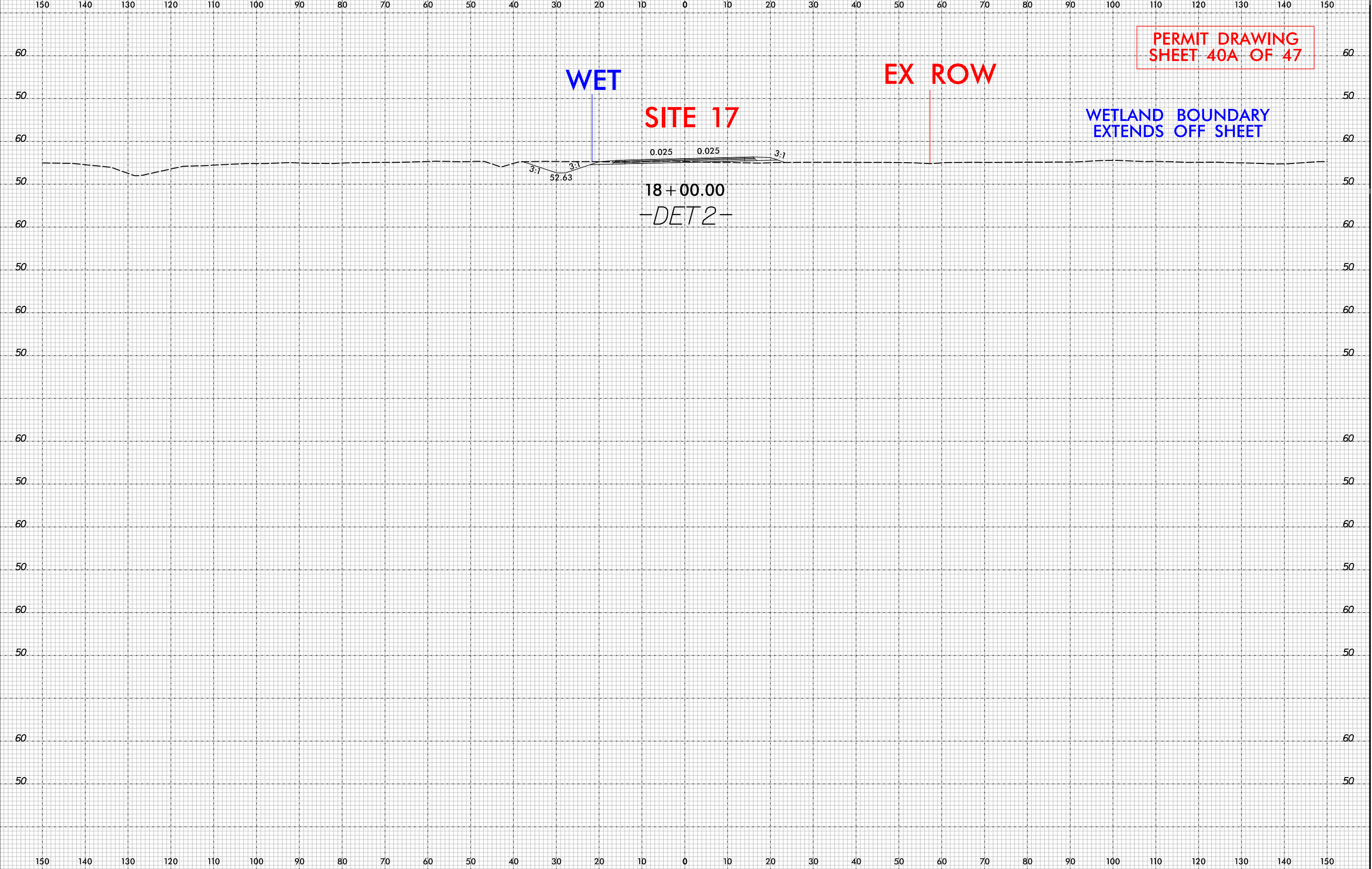
NOTES:
■ PROP PAVED SHOULDER
FOR -DET2- PROFILE, SEE SHEET 45

MATCHLINE -DET2- STA. 20 + 34.50
SEE SHEET 2B-5

6/23/16

PERMIT DRAWING
SHEET 40 OF 47





3:30:31 PM
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PERMIT DRAWING
SHEET 41 OF 47

SITE 4
ENTIRE AREA IS
A WETLAND
BOUNDARY SHOWN OFF
CROSS SECTION

25 + 00.00

24 + 50.00

24 + 00.00

23 + 50.00

-YIRPA-

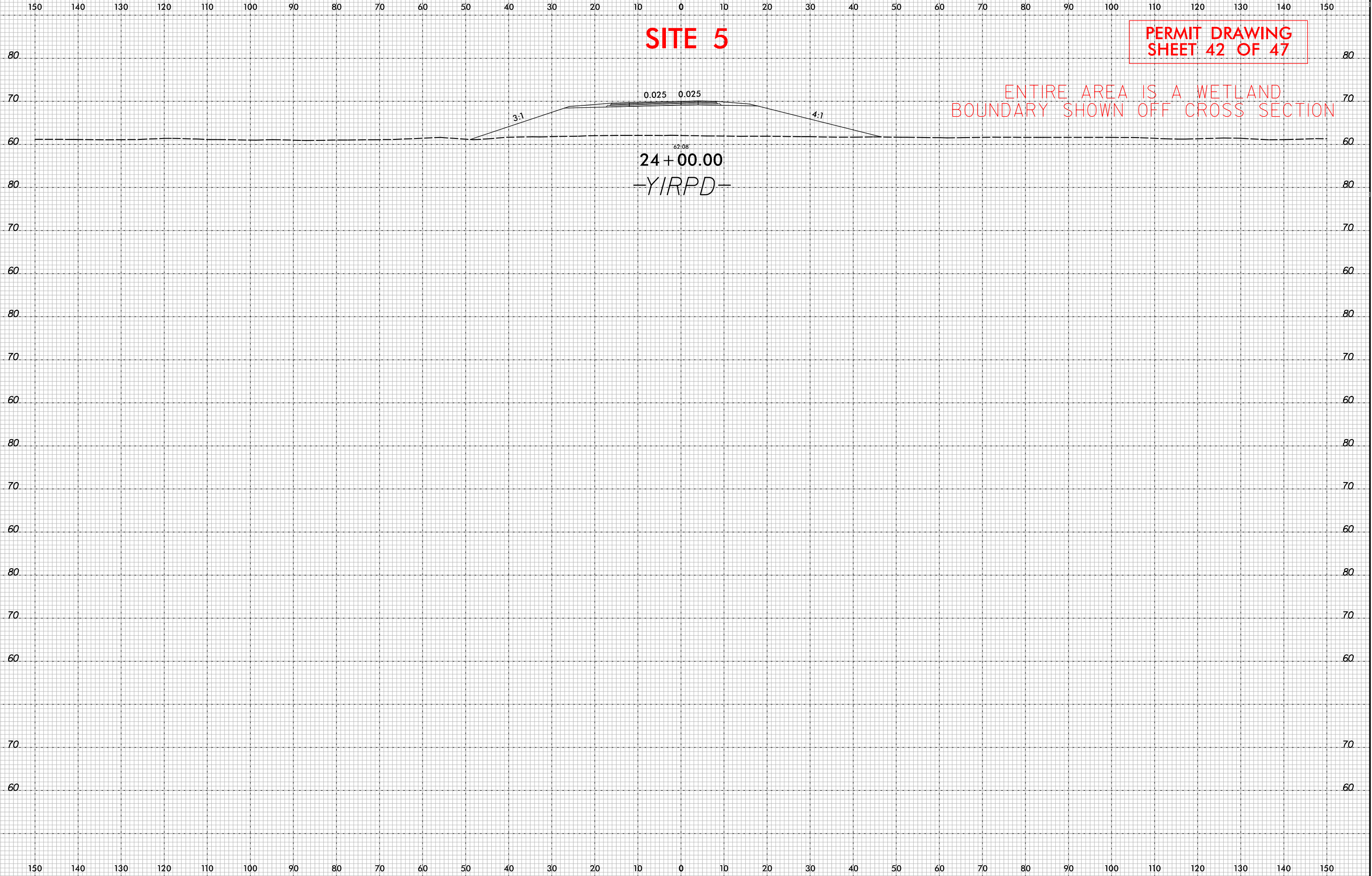
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5819 / R-5820	X-65

SITE 5

PERMIT DRAWING
SHEET 42 OF 47

ENTIRE AREA IS A WETLAND
BOUNDARY SHOWN OFF CROSS SECTION



6/23/16

PERMIT DRAWING
SHEET 43 OF 47

EX ROW

WET

WET

SITE 6

-Y1RPA- STA. 11 + 47.49

-Y1RPD- STA. 13 + 08.80

40 + 00.00



6/23/16

WETLAND BOUNDARY
EXTENDS OFF SHEET

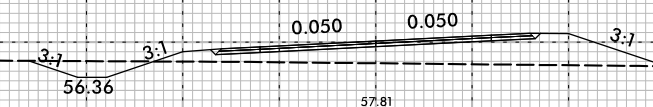
ROW

SITE 7

ROW

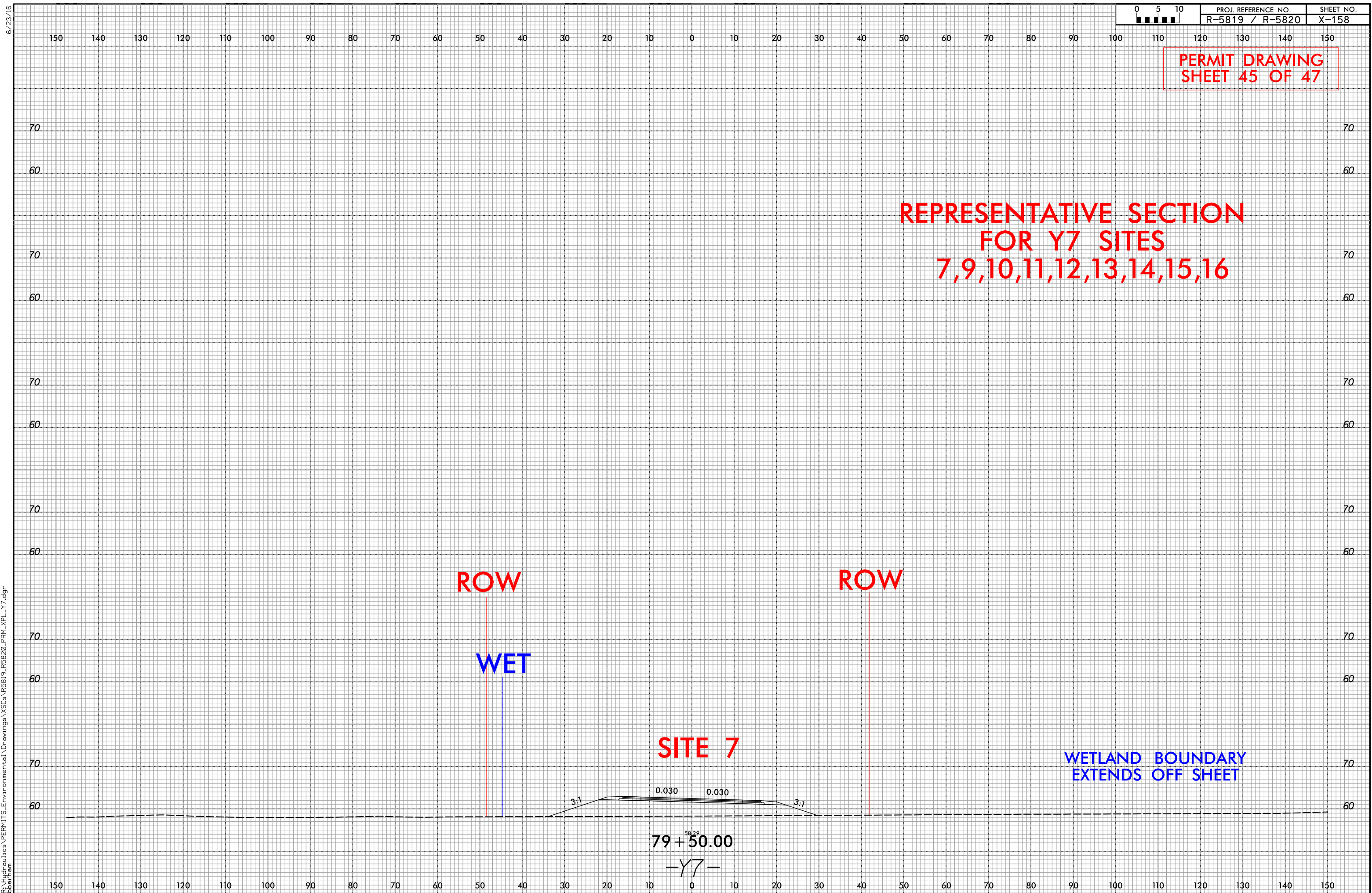
WET

PERMIT DRAWING
SHEET 44 OF 47



71+50.00

-Y2-



6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5819 / R-5820	X-160

REPRESENTATIVE SECTION
FOR Y7 SITES
7,9,10,11,12,13,14,15,16

PERMIT DRAWING
SHEET 45A OF 47

WETLAND BOUNDARY
EXTENDS OFF SHEET

ROW

ROW EASEMENT

WET

86 + 00.00

-Y7-

6/23/16

PERMIT DRAWING
SHEET 46 OF 47

WETLAND BOUNDARY
EXTENDS OFF SHEET

EX ROW

WET

SITE 18

29 + 00.00

-Y2-

3:1

0.025

0.025

3:1

WETLAND AND SURFACE WATER IMPACTS 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)	Temp. Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	19+45 to 19+82 Y1RPB	Fill/Excavation							0.202	0.015			
3	18+46 to 21+12 DET1	Fill/Excavation	0.098	0.094		0.062							
4	19+09 to 26+99 Y1RPA	Fill	1.889				0.329						
4	26+33 to 26+99 Y1RPA	Fill (Trib 8)							0.020	0.001			
4	23+34 to 24+72 Y1RPA	Fill (Trib 6)							0.010	0.001			
4	19+54 to 20+83 Y1RPA	Fill (Trib 7)							0.008	0.001			
5	22+54 to 29+07 Y1RPD	Fill	0.721				0.208						
6	38+94 to 40+35 L LT	Excavation			0.010		0.025						
7	72+83 to 84+31 Y7	Fill/Excavation	2.643		0.230		0.888	0.020					
8	84+78 to 91+82 Y7	Fill/Excavation	0.823		0.075		0.278						
9	14+58 to 21+60 Y7 LT	Excavation			0.310		0.200		0.003	0.001			
10	15+45 to 24+86 Y7 RT	Excavation			0.338		0.211						
10	15+42 to 24+59 Y7 RT	Utility Access						0.210					
11	32+44 to 38+81 Y7 LT	Fill/Excavation			0.032		0.097		0.100	0.100			
12	34+40 to 54+02 Y7 RT	Fill/Excavation			0.805		0.437		0.190				
13	45+69 to 50+97 Y7 LT	Excavation			0.460		0.130						
14	53+38 to 53+81 Y7 LT	Fill	0.004				0.010						
15	56+47 to 57+16 Y7 LT	Fill			0.008		0.013						
16	63+93 to 69+64 Y7	Fill/Excavation	1.058		0.251		0.282	0.043					
17	13+87 to 19+84 Det-2 RT	Fill/Excavation		0.351		0.019							
18	12+01 to 13+87 Det-2 LT	Fill	0.001				0.021			0.001		6	
19	88+68 L to 91+66 L LT	Culvert to Bridge							0.001	0.058	8	310	
19	89+08 to 89+94 L LT	Bank Stabilization							0.012		86		
20	41+64 to 50+50 Y2 LT	Fill							0.042				
TOTALS*:			7.237	0.445	2.519	0.081	3.129	0.273	0.588	0.178	94	316	

*Rounded totals are sum of actual impacts

NOTES:

Site 1 also runs along LWB from Sta 39+03 to 39+47 LT and along L from Sta 10+00 to 43+11 LT.

Site 2 is no longer a permitted site and has been removed from the table.

Site 7 Fill: 0.255 of the 2.643 Acres are due to a total take on a portion of Wetland Q.

Site 8 Fill: 0.340 of the 0.823 Acres are due to a total take on a portion of Wetland X.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
02/14/2022
Columbus County
R-5819/R-5820
47091.1.1/47092.1.1

ROY COOPER

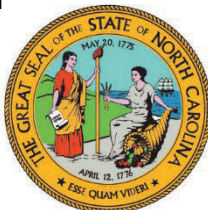
Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director



NORTH CAROLINA
Environmental Quality

March 23, 2022

Gregory W. Price, PWS
Division Environmental Officer
North Carolina Department of Transportation
431 Transportation Drive
Fayetteville, NC 28302

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with
ADDITIONAL CONDITIONS for Proposed improvements to convert at-grade intersection of US 74/76
and SR 1735 (Chauncey Town Road) to interchange; Convert at grade intersection of US 74/76 and SR
1740 (Old Lake Road) to grade separation; Construct roundabout at the intersection of NC 214/SR 1735
(Chauncey Town Road); Construct service road between SR 1735 and SR 1740 north of US 74/76 in
Columbus County, STIP No. R-5819 & R-5820.
NCDWR Project No. 20211693.

Dear Mr. Price:

Attached hereto is a copy of Certification No. 004664 issued to The North Carolina Department of Transportation (NCDOT) dated received November 22, 2021 and revised February 22, 2022.

This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

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

Sincerely,

DocuSigned by:

Amy Chapman

9C9886312DCD474...

Richard E. Rogers, Jr., Director
Division of Water Resources



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

Attachments

Electronic copy only distribution:

Liz Hair, US Army Corps of Engineers, Wilmington Field Office
Chris Rivenbark, NC Department of Transportation
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
Hannah Sprinkle, NC Division of Water Resources Wilmington Regional Office
File Copy

401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water 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 Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact a total of 13.684 acres of jurisdictional wetlands, and 410 linear feet of jurisdictional streams in Columbus County. The project shall be constructed pursuant to the application dated received November 22, 2021 and revised February 22, 2022. The authorized impacts are as described below:

R-5819:

Stream Impact in the Lumber River Basin

Permit Drawing Site Number	Type	Permanent Impacts (lf)	Temporary Impacts (lf)	Total Impact (lf)
18	Perennial	---	6	6
19	Perennial	94	310	404
Total Impacts		94	316	410

includes bank stabilization

Wetland Impacts in the Lumber River Basin

Permit Drawing Site Number	Type	Permanent Fill (ac)	Temporary Fill (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
7	Riparian	2.643	---	0.230	0.888	0.020	3.781
8	Non-Riparian	0.823	---	0.075	0.278	---	1.176
12	Riparian	---	---	0.28	0.122	---	0.402
13	Riparian	---	---	0.46	0.13	---	0.59
14	Non-Riparian	0.004	---	---	0.01	---	0.014
15	Non-Riparian	---	---	0.008	0.013	---	0.021
16	Riparian	1.058	---	0.251	0.282	0.043	1.634
17	Riparian	---	0.37	---	---	---	0.37
18	Riparian	0.001	---	---	0.021	---	0.022
Total Impacts		4.529	0.37	1.304	1.744	0.06	8.01

Open Water Impacts in the Lumber River Basin

Permit Drawing Site Number	Type	Permanent Fill (ac)	Temporary Fill (ac)	Total Wetland Impact (ac)
20	Tributary	0.042	---	0.042
Total Impacts	0.042			

R-5820:**Wetland Impacts in the Lumber River Basin**

Permit Drawing Site Number	Type	Permanent Fill (ac)	Temporary Fill (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
3	Non-Riparian	0.098	0.156	---	---	---	0.254
4	Non-Riparian	1.889	---	---	0.329	---	2.218
5	Non-Riparian	0.721	---	---	0.208	---	0.929
6	Non-Riparian	---	---	0.01	0.025	---	0.035
9	Non-Riparian	---	---	0.31	0.2	---	0.51
10*	Non-Riparian	---	---	0.338	0.211	0.21	0.759
11	Non-Riparian	---	---	0.032	0.097	---	0.129
12	Non-Riparian	---	---	0.525	0.315	---	0.84
Total Impacts		2.708	0.156	1.215	1.385	0.21	5.674

utilities included

Open Water Impacts in the Lumber River Basin

Permit Drawing Site Number	Type	Permanent Fill (ac)	Temporary Fill (ac)	Total Wetland Impact (ac)
1	Tributary	0.202	0.015	0.217
4	Tributary	0.038	0.003	0.041
9	Tributary	0.003	0.001	0.004
11	Tributary	0.1	0.1	0.2
12	Tributary	0.19	---	0.19
Total Impacts		0.533	0.119	0.652

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

This approval is only valid for the purpose and design that you submitted in your application dated received November 22, 2021 and revised February 22, 2022. Should your project change, you are required to notify the NCDWR 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 300 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.

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded. Upon the presentation of proper credentials, the Division may inspect the property.

Condition(s) of Certification:

Project Specific Conditions

1. The NCDOT Division Environmental Officer or Environmental Assistant 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. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
2. Compensatory mitigation for impacts to 12.79 acres wetlands is required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands through the North Carolina Division of Mitigation Services (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. DMS has indicated in a letter dated March 23, 2022 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with DMS's Mitigation Banking Instrument signed July 28, 2010.

General Conditions

3. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-I, WS-II, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watershed*. [15A NCAC 02H.0506(b)(3) and (c)(3); GC 4135]
4. For projects impacting waters classified by the NC Environmental Management Commission as Outstanding Resource Waters (ORW), Trout (Tr), High Quality Waters (HQW), or Water Supply I or II

(WSI, WSII) stormwater shall be directed to vegetated buffer areas, grass-lined ditches or other means appropriate to the site for the purpose of pre-treating storm water runoff prior to discharging directly into streams. Mowing of existing vegetated buffers is strongly discouraged.

5. The permittee shall use /Design Standards in Sensitive Watersheds/(15A NCAC 4B.0124[a]-[e]) in areas draining to (WS-I,WS-II, ORW, HQW, ORW, Tr. However, due to the size of the project, the NCDOT shall not be required to meet 15A NCAC 4B .0124(a) regarding the maximum amount of uncovered acres.
6. 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.
7. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
8. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
9. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization, including all non-commercial borrow and waste sites associated with the project, 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. [15A NCAC 02H.0501 and .0502]
10. 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. [15A NCAC 02B.0200]
11. 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. [15A NCAC 02H.0506(b)(2)]
12. 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. [15A NCAC 02H.0506(b)(2)]
13. 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. [15A NCAC 02H.0506(b)(2)]
14. 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. [15A NCAC 02H.0506(b)(3) and (c)(3)]
15. 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. [15A NCAC 02H.0506(b)(3)]
16. 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. [15A NCAC 02H.0506(b)(3)]

17. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
18. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B.0200]
19. All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
20. 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 the NCDWR 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, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
21. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
22. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000. Please note the extra protections for the sensitive watersheds.
23. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. [15A NCAC 02H .0506(b)(2)]
24. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS000250, please refer to the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
25. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first. [15A NCAC 02H.0506(b)(2)]
26. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H .0506(b)(3)]
27. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank, or during the removal of bents from an old bridge. This condition can be waived with prior approval from the NCDWR. [15A NCAC 02H .0506(b)(3)]
28. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no

circumstances should barges be dragged along the bottom of the surface water. [15A NCAC 02H.0506(b)(3)]

29. Unless otherwise approved in this certification, 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 down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]
30. 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. [15A NCAC 02H.0506(b)(2)]
31. 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. [15A NCAC 02H.0506(b)(2)]
32. 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. [15A NCAC 02H.0506(b)(2)]
33. Pipes and culverts used exclusively to maintain equilibrium in wetlands, where aquatic life passage is not a concern, shall not be buried. These pipes shall be installed at natural ground elevation.
34. Tall fescue shall not be used in the establishment of temporary or permanent groundcover within riparian areas. For the establishment of permanent herbaceous cover, erosion control matting shall be used in conjunction with an appropriate native seed mix on disturbed soils within the riparian area and on disturbed steep slopes with the following exception. Erosion control matting is not necessary if the area is contained by perimeter erosion control devices such as silt fence, temporary sediment ditches, basins, etc. Matting should be secured in place with staples, stakes, or wherever possible, live stakes of native trees. Erosion control matting placed in riparian areas shall not contain a nylon mesh grid, which can impinge and entrap small animals. For the establishment of temporary groundcover within riparian areas, hydroseeding along with wood or cellulose based hydro mulch applied from a fertilizer- and limestone-free tank is allowable at the appropriate rate in conjunction with the erosion control measures. Discharging hydroseed mixtures and wood or cellulose mulch into surface waters is prohibited. Riparian areas are defined as a distance 25 feet landward from top of stream bank.
35. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
36. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02B.0XXX(10)]

37. 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 [15A NCAC 02H.0506(b)(3) and (c)(3):
 - 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.
38. Sediment and erosion control measures shall not be placed in wetlands or surface waters, or within 5 feet of the top of bank, without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]
39. 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. [15A NCAC 02H.0506(b)(3) and (c)(3)]
40. 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. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
41. 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 the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]

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. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will

result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.


A party filing a Petition must serve a copy of the Petition on:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This the 23rd day of March 2022

DIVISION OF WATER RESOURCES

DocuSigned by:

9C9886312DCD474...

Richard E. Rogers, Jr., Director

WQC No. 004664

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: NC DOT, Division 6
Project Name: R-5819/R-5820

Action ID: SAW-2020-00846
County: Columbus

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03040206, Lumber River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
			6.37			

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03040206, Lumber River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
			12.74			

Mitigation Site Debited: NC DMS

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

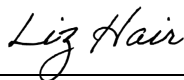
Comments/Additional Conditions:

This is form 1 of 2. Riparian impacts mitigated in 03040206, Lumber River Basin.

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Liz Hair
USACE Field Office: Wilmington Regulatory Field Office
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403
Email: sarah.e.hair@usace.army.mil



Wilmington District Project Manager Signature

May 23, 2022

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: NC DOT, Division 6
Project Name: R-5819/R-5820

Action ID: SAW-2020-00846
County: Columbus

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03040206, Lumber River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
					4.92	

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03040207, Lumber River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
					14.76	

Mitigation Site Debited: NC DMS-Plum Creek site

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

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- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

Comments/Additional Conditions:

This is form 2 of 3. The majority of Non- Riparian impacts to mitigated in 03040207, Lumber River Basin; out of HUC from impact site in the 03040206 Lumber River Basin, and therefore will be mitigated at a 3:1 ratio.

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Liz Hair
USACE Field Office: Wilmington Regulatory Field Office
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403

Email: sarah.e.hair@usace.army.mil



Wilmington District Project Manager Signature

May 24, 2022

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: NC DOT, Division 6
Project Name: R-5819/R-5820

Action ID: SAW-2020-00846
County: Columbus

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

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Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03040206, Lumber River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
					1.5	

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03040206, Lumber River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
					3.0	

Mitigation Site Debited: NC DMS-Cow Branch

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

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Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

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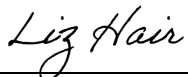
Comments/Additional Conditions:

This is form 3 of 3. Remaining credits to be debited from Cow Branch. Impacts and mitigation will occur within the same 03040206 Lumber River Basin HUC and will be mitigated at a 2:1 ratio

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

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Wilmington District Project Manager Signature

May 24, 2022

Date of Signature

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