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

October 28, 2025

Regulatory Division

Action ID: SAW-1995-02242

Mr. Patrick A. Norman
North Carolina Department of Transportation
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

Dear Mr. Norman:

In accordance with your written request of September 18, 2024, and the ensuing administrative record, enclosed is a copy of a permit to construct the R-2576, Mid-Currituck Bridge as a controlled-access toll road on new location extending form US 158 near Coinjock/Aydlett to NC 12 near Corolla, North Carolina. The project will extend approximately 7 miles and includes a 1.5 long bridge over Maple Swamp on the Currituck County mainland and a 4.66-mile-long bridge over the Currituck Sound to the Currituck County Outer Banks. The project includes improvements to US 158 and NC 12 in Currituck and Dare Counties.

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

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

a. You must complete construction before December 31, 2030.

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

c. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You should address all questions regarding this authorization to Mr. Kyle Barnes of the WRDA/Transportation Branch at kyle.w.barnes@usace.army.mil or (910) 251-4584.

Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our website at https://regulatory.ops.usace.army.mil/customer-service-survey/ and completing the survey on-line. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office.

FOR THE COMMANDER

Tommy E. Fennel
Regulatory Division Chief
Wilmington District

Enclosures

Copies Furnished electronically (with enclosures):

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

Copies Furnished electronically (with special conditions):

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

Mr. Todd Bowers
Oceans, Wetlands and Streams Protection Branch
Wetlands and Streams Regulatory Section
U.S. Environmental Protection Agency – Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8931

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

Dr. Pace Wilber
Habitat Conservation Division – Atlantic Branch
NOAA Fisheries Service
219 Fort Johnston Road
Charleston, South Carolina 29412

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DEPARTMENT OF THE ARMY PERMIT

Permittee **North Carolina Department of Transportation, Attn: Mr. Patrick A. Norman**

Permit No. **AID: SAW-1995-02242**
Issuing Office **CESAW-RG-D**

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 project is the construction of a controlled-access toll road on new location extending form US 158 near Coinjock/Aydlett to NC 12 near Corolla, North Carolina. The project will extend approximately 7 miles and includes a 1.5 long bridge over Maple Swamp on the Currituck County mainland and a 4.66-mile-long bridge over the Currituck Sound to the Currituck County Outer Banks. The project includes improvements to US 158 and NC 12 in Currituck and Dare Counties.**

Project Location: **The project is located on US 158 near Coinjock/Aydlett to NC 12 in Corolla, North Carolina**.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **December 31,2030.** 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.

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Special Conditions:

SEE ATTACHED SPECIAL CONDITIONS

Further Information:

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

(X) 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.

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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.

DocuSigned by:
Alan Shapiro
B14912468BBD45D...

10/22/2025

(PERMITTEE) *(DATE)*

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

, FOR

28 OCT 2025

(DISTRICT COMMANDER) *(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.

(TRANSFEREE) *(DATE)*

*U.S. GOVERNMENT PRINTING OFFICE: 1986 - 717-425

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

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Mr. Patrick A. Norman, NCDOT	File Number: SAW-1995-02242	Date: October 28, 2025

Attached is: B	See Section below
☐ INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
☒ PROFFERED PERMIT (Standard Permit or Letter of permission)	B
☐ PERMIT DENIAL	C
☐ APPROVED JURISDICTIONAL DETERMINATION	D
☐ PRELIMINARY JURISDICTIONAL DETERMINATION	E

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

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

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

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

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

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

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

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the district 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: Mr. Kyle Barnes** **2407 West 5th Street** **Washington, North Carolina 27889** **910-251-4584**	If you only have questions regarding the appeal process you may also contact: Ms. Krista Sabin, Administrative Appeal Review Officer U.S. Army Corps of Engineers, South Atlantic Division 60 Forsyth Street, Room 10M15 Atlanta, Georgia 30303-8801 krista.d.sabin@usace.army.mil Phone: (904) 314-9631

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: Mr. Kyle Barnes, 2407 West 5th Street, Washington, North Carolina 27889

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. Jason Steele, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801
Phone: (404) 562-5137

“SPECIAL CONDITIONS”

R-2576 MID-CURRITUCK BRIDGE

Work Limits

1. **CONSTRUCTION PLANS:** All work authorized by this permit must be performed in strict compliance with the attached plans dated Wetland and Surface Water Impact Drawings (96 sheets): 50 dated 4/23/24; 2 dated 4/24/24; 7 dated 6/13/24; 4 dated 11/4/24; 2 dated 11/1/24; 2 dated 6/24/24; 24 dated as received 9/18/24; and 4 dated 4/30/24; and Impacts Summary Table dated as received 7/31/25., Utility Drawings (7 sheets): 7 dated 2/5/24. Right-of-Way Plans (77 sheets): 1 dated as received 9/18/24; and 76 dated 6/17/24. which is a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (Corps) prior to implementation.

2. **UNAUTHORIZED DREDGE OR FILL:** Except as authorized by this permit or any U.S. Army Corps of Engineers 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, fill placement 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, but is not necessarily limited 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. **MAINTAIN CIRCULATION AND FLOW 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 or wetlands.

4. **DEVIATION FROM PERMITTED PLANS:** The permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Mr. Kyle Barnes

of the WRDA/Transportation Branch at kyle.w.barnes@usace.army.mil or 910-251-4584, prior to any active construction in waters or wetlands.

5. **PRECONSTRUCTION MEETING:** The Permittee shall schedule an onsite preconstruction meeting between its representatives, the contractor's representatives, and the appropriate Corps of Engineers Project Manager prior to undertaking any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all terms and conditions contained within the Department of the Army permit. The Permittee shall notify the Corps of Engineers Project Manager a minimum of thirty (30) days in advance of the scheduled meeting in order to provide that individual with ample opportunity to schedule and participate in the required meeting.

6. **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 U.S. Army Corps of Engineers with appropriate maps indicating the locations of proposed borrow and/or waste sites as soon as such information is 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 U.S. Army Corps of Engineers 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 U.S. Army Corps of Engineers 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 U.S. Army Corps of Engineers within 30 days of the completion of the reclamation work.

Related Laws

7. **WATER CONTAMINATION:** All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Resources at (919) 707-8787 or (919) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

8. **Permittee** shall fully abide by all conditions of the CAMA Major Development Permit No. 105-25, dated September 19, 2025, issued by the North Carolina Division of Coastal Management, which are incorporated herein by reference.

9. **Permittee** shall fully abide by all conditions of the NCDEQ-DWR Individual 401 Water Quality Certification dated September 18, 2025, which are incorporated herein by reference.

Project Maintenance

10. **NOTIFICATION OF CONSTRUCTION COMMENCEMENT AND COMPLETION:** The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

11. **PERMIT DISTRIBUTION:** The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, shall be available at the project site during construction and maintenance of this project. Prior to construction within any jurisdictional areas, the permittee must correctly install silt fencing (with or without safety fencing) parallel with the construction corridor, on both sides of the jurisdictional crossing. This barrier is to serve both as an erosion control measure and a visual identifier of the limits of construction within any jurisdictional area. The permittee must maintain the fencing, at minimum, until the wetlands have re-vegetated and stabilized.

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

13. **CLEAN FILL:** Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source

and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act.

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

15. **EROSION CONTROL MEASURES IN JURISDICTIONAL WATERS:**

    A. During the clearing phase of the project, heavy equipment must 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.

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

16. **PROHIBITION ON CONCRETE:** The permittee shall take measures to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with any water in or entering into 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 (i.e., concrete is set and cured).

17. **INSTALLATION OF CULVERTS:** Unless otherwise requested in the applicant’s application and depicted on the approved work plans, culverts greater than 48 inches in diameter will 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 must be placed at a

depth below the natural stream bottom to provide for passage during drought or low flow conditions. Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert.

18. **AQUATIC PASSAGE:** Measures will 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 should 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 should 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, bank full flow can be used as a comparable level.

ESA

19. **THREATENED AND ENDANGERED SPECIES:** This Department of the Army permit does not authorize you to take an endangered species. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a BO under ESA Section 7, with “incidental take” provisions with which you must comply).

20. **NORTHERN LONG-EARED BAT:** The Wilmington District, Federal Highway Administration, U.S. Fish and Wildlife Service (USFWS), and the North Carolina Department of Transportation (NCDOT) have conducted programmatic Section 7(a)(2) consultation for the Northern long-eared bat (NLEB) for NCDOT projects located in Divisions 1-8. The result of this programmatic consultation is a Programmatic Biological Opinion (PBO) issued by the USFWS titled, “Programmatic Biological Opinion – Revised, NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8”, dated December 15, 2022. This PBO contains agreed upon conservation measures which would minimize take of NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. The USFWS has documented that no reasonable and prudent measures, nor terms and conditions, are necessary or appropriate to minimize the amount or extent of incidental take of NLEB caused by the Action; therefore, the incidental take statement does not provide reasonable and prudent measures for this species. Department of the Army (DA) authorization under general permit or standard permit (Individual Permit) is conditional upon the permittee’s compliance with applicable, agreed upon conservations measures of the PBO, which is incorporated by reference in this verification letter. Failure to comply with the applicable conservation measures, where a take of the NLEB occurs, would constitute an unauthorized take by the permittee, and would also constitute permittee non-compliance with this verification letter. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO and the ESA. All PBOs can be found on

our website at: https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/.

21. **Tricolored Bat:** The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Conference Opinion (PCO) titled "NCDOT Program Effects on the Tricolored Bat in Divisions 1-8", dated November 20, 2023, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that are specified in the PCO. Your authorization under this Corps permit is conditional upon your compliance with all the mandatory terms and conditions associated with incidental take of the PCO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the PCO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PCO, and with the ESA

22. **West Indian Manatee:** The NCDOT shall implement the "Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters" as identified by the USFW Service.

23. **IN-WATER WORK MORATORIUM:** No in-water work within SAV habitat (including existing beds) shall be conducted during a moratorium period from February15 to September 30. In-water work consists of bottom disturbing activities like temporary trestle pile placement and removal and driving of permanent piles.

Section 106

24. **UNKNOWN CULTURAL RESOURCES:** While accomplishing the authorized work, if the permittee discovers 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 Cultural Resources.

Enforcement

25. **REPORTING ADDRESS:** All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address: U.S. Army Corps of Engineers, Regulatory Division, Washington Regulatory Field Office, c/o Mr. Kyle Barnes, 2407 West 5th Street, Washington, North Carolina 27889, and by telephone at: 910-251-4584. The Permittee shall reference the following permit number, SAW-1995-02242, on all submittals.

26. **REPORTING VIOLATIONS OF THE CLEAN WATER ACT AND RIVERS AND HARBORS ACT:** Violation of these conditions or violation of Section

404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.

27. **COMPLIANCE INSPECTION:** A representative of the Corps of Engineers will periodically and randomly inspect the work for compliance with these conditions. Deviations from these procedures may result in an administrative financial penalty and/or directive to cease work until the problem is resolved to the satisfaction of the Corps.

Compensatory Mitigation

28. **Mitigation:** To compensate for impacts associated with this permit, mitigation shall be provided in the form of purchased credits from the NCDEQ-DMS. credits shall be purchased at a ratio of 2:1 within the 8-digit HUC-03010205 in accordance with the most recent Mitigation Transfer Form.

R-2576 Mid-Currituck Bridge

Wetland and Surface Water Impacts Permit Drawings

09/08/99

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CURRITUCK & DARE COUNTIES

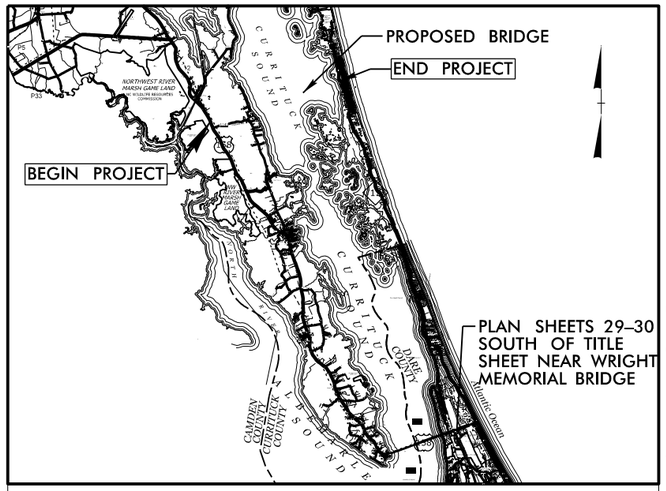
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R–2576	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
34470.1.TA1	BRSTP–000(494)	P.E.	

PERMIT DRAWING
SHEET 1 OF 89

LOCATION: MID–CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK TO NC 12 SOUTH OF COROLLA

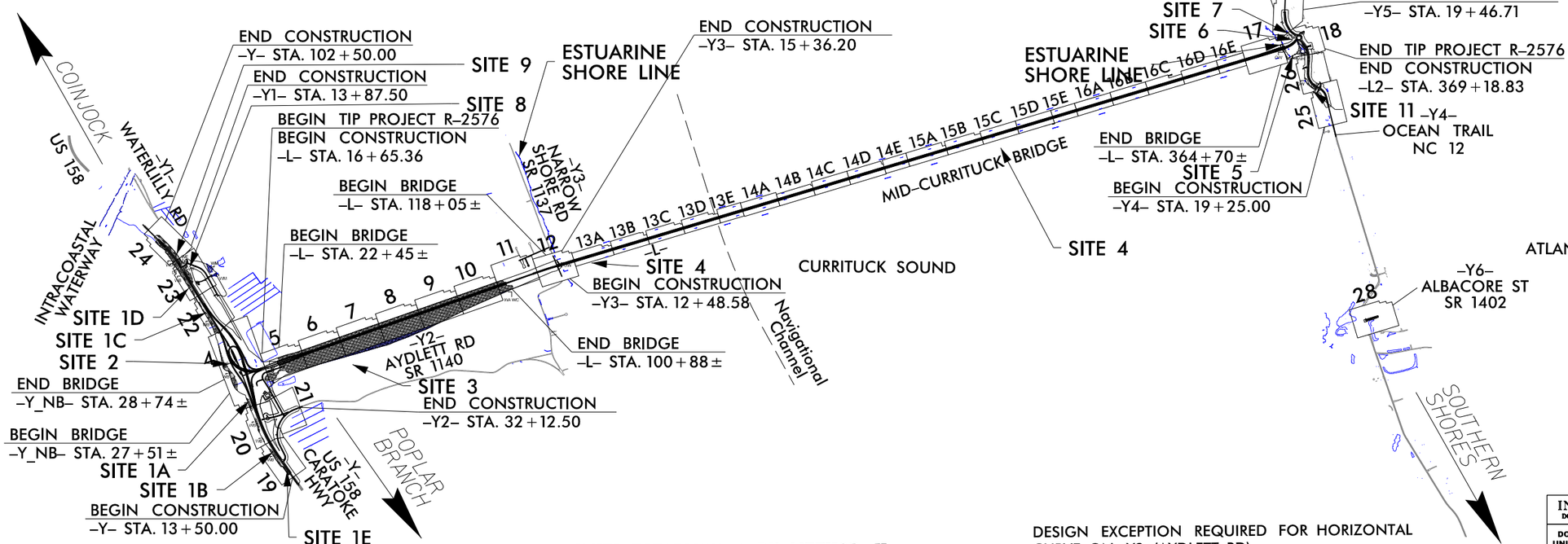
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT



VICINITY MAP

75% PLANS



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE ON Y2 (AYDLETT RD)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TIP PROJECT: R–2576

CONTRACT:

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2020 = 11,800
ADT 2040 = 18,000
K = 9 %
D = 60 %
T = 7 % *
V = 60 MPH
* (TTST=2)+(DUAL=1)+(RV=4)
FUNC CLASS = ARTERIAL STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R–2576 = *0.520 Miles*
LENGTH STRUCTURES = *6.157 Miles*
TOTAL LENGTH TIP PROJECT R–2576 = *6.677 Miles*

PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared In the Office of:

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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • SURVEY • CONSTRUCTION OBSERVATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FY 2024

LETTING DATE:
FY 2026

BRIAN K. EASON, PE
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE
PROJECT DESIGN ENGINEER

DENNIS JERNIGAN, PE
NCDOT /NCTA

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

4/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_HYD_TSH.dgn
USER: MHarvey

12/06/07

PROJECT REFERENCE NO.	SHEET NO.

PERMIT DRAWING
SHEET 1A OF 89

PLAN SHEET / PERMIT SHEET

PLAN SHEET	PERMIT SHEET NUMBER	IMPACT NUMBER
TSH	1	–
SITES	1A	–
01B	1B	–
Details	2	–
2D–2	3	–
2D–3	4	–
2D–4	5	–
PSH04	6	1A, 2
PSH04 con	7	1A, 2
X–21 Y	8	1A
PSH04 Enlarg.	9	1A
PSH04 Enlarg.	10	2
PSH05	11	3
PSH05 con	12	3
PSH06	13	3
PSH06 con	14	3
PSH07	15	3
PSH07 con	16	3
PSH08	17	3
PSH08 con	18	3
PSH09	19	3
PSH09 con	20	3
PSH10	21	3
PSH10 con	22	3
PSH11	23	3
PSH11 con	24	3
PSH12	25	4
PSH12 con	26	4
PSH12 Enlarg.	27	4
PFL 52	28	4
PFL 53	29	4
13A	30	4
13B	31	4
13C	32	4
13D	33	4
13E	34	4
14A	35	4
14B	36	4
14C	37	4
14D	38	4
14E	39	4
15A	40	4
15B	41	4
15C	42	4
15D	43	4
15E	44	4

PLAN SHEET	PERMIT SHEET NUMBER	IMPACT NUMBER
16A	45	4
16B	46	4
16C	47	4
16D	48	4
16E	49	4
PFL 54	50	4
PSH17	51	4
PSH17A	52	4
PFL 55	53	4
PSH18	54	5, 6, 7
PSH18 con	55	5, 6, 7
PSH18 Enlarg.	56	5
PSH18 Enlarg.	57	6, 7
X–11 L2	58	5, 6
X–83 Y4	59	5
X–90 Y5	60	7
PSH19	61	1B, 1E
PSH19 con	62	1B, 1E
PSH19 Enlarg.	63	1B
PSH19 Enlarg.	64	1E
X–14 Y	65	1B
PSH22	66	1C
PSH22 con	67	1C
PSH22 Enlarg.	68	1C
X–22 Y	69	1C
X–23 Y	70	1C
PSH23	71	1D, 8, 9
PSH23 con	72	1D, 8, 9
PSH23 Enlarg.	73	1D, 8
X–27 Y	74	1D, 8
PSH24	75	9, 10
PSH24 con	76	9, 10
PSH24 Enlarg.	77	9, 10
X–29 Y	78	9, 10
X–30 Y	79	9, 10
X–31 Y	80	9, 10
PSH25	81	11
PSH25 con	82	11
X–79 Y4	83	11
PSH26	84	11
PSH26 con	85	11
PSH26 Enlarg.	86	11
PSH29	87	AEC
PSH29 con	87A	AEC
PSH30	88	AEC
PSH30 con	88A	AEC
IMPACT TABLE	89	–

4/24/2024
08:52:25
I:\SF2576\Hyd\sf2576_hyd_psh01A.dgn

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
R-2576	1-B

PERMIT DRAWING
SHEET 1B OF 89

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:
- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:
- Head and End Wall
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB
- Paved Ditch Gutter
- Storm Sewer Manhole
- Storm Sewer

UTILITIES:

** SUE – Subsurface Utility Engineering*
LOS – Level of Service – A,B,C or D (Accuracy)

POWER:
- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line Test Hole (SUE – LOS A)*
- U/G Power Line (SUE – LOS B)*
- U/G Power Line (SUE – LOS C)*
- U/G Power Line (SUE – LOS D)*

TELEPHONE:
- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE – LOS A)*
- U/G Telephone Cable (SUE – LOS B)*
- U/G Telephone Cable (SUE – LOS C)*
- U/G Telephone Cable (SUE – LOS D)*
- U/G Telephone Conduit (SUE – LOS B)*
- U/G Telephone Conduit (SUE – LOS C)*
- U/G Telephone Conduit (SUE – LOS D)*
- U/G Fiber Optics Cable (SUE – LOS B)*
- U/G Fiber Optics Cable (SUE – LOS C)*
- U/G Fiber Optics Cable (SUE – LOS D)*

WATER:
- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line Test Hole (SUE – LOS A)*
- U/G Water Line (SUE – LOS B)*
- U/G Water Line (SUE – LOS C)*
- U/G Water Line (SUE – LOS D)*
- Above Ground Water Line

TV:
- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE – LOS A)*
- U/G TV Cable (SUE – LOS B)*
- U/G TV Cable (SUE – LOS C)*
- U/G TV Cable (SUE – LOS D)*
- U/G Fiber Optic Cable (SUE – LOS B)*
- U/G Fiber Optic Cable (SUE – LOS C)*
- U/G Fiber Optic Cable (SUE – LOS D)*

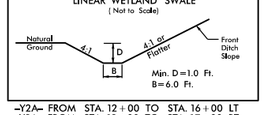
GAS:
- Gas Valve
- Gas Meter
- U/G Gas Line Test Hole (SUE – LOS A)*
- U/G Gas Line (SUE – LOS B)*
- U/G Gas Line (SUE – LOS C)*
- U/G Gas Line (SUE – LOS D)*
- Above Ground Gas Line

SANITARY SEWER:
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE – LOS A)*
- SS Force Main Line (SUE – LOS B)*
- SS Force Main Line (SUE – LOS C)*
- SS Force Main Line (SUE – LOS D)*

MISCELLANEOUS:
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line (SUE – LOS B)*
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

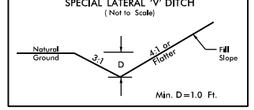
6/2/99

DETAIL A
LINEAR WETLAND SWALE
(Not to Scale)



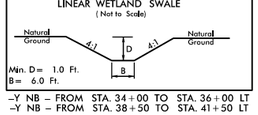
–Y2A– FROM STA. 12+00 TO STA. 16+00 LT
–Y2A– FROM STA. 12+00 TO STA. 17+00 RT
–Y2A– FROM STA. 24+00 TO STA. 25+00 LT
–Y– FROM STA. 22+85 TO STA. 32+50 RT
–Y– FROM STA. 36+00 TO STA. 41+50 RT
–RPD– FROM STA. 12+47 TO STA. 13+75 LT
–RPBD– FROM STA. 10+00 TO STA. 12+00 LT
–RPBD– FROM STA. 11+50 TO STA. 13+50 RT
–RPA– FROM STA. 14+50 TO STA. 15+00 RT
–Y NB– FROM STA. 29+75 TO STA. 35+00 RT
–Y NB– FROM STA. 30+66 TO STA. 34+00 LT
–Y NB– FROM STA. 24+50 TO STA. 25+00 RT
–Y2– FROM STA. 16+50 TO STA. 26+00 RT
–Y2– FROM STA. 18+00 TO STA. 25+50 LT
–Y4– FROM STA. 36+00 TO STA. 39+50 LT

DETAIL B
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



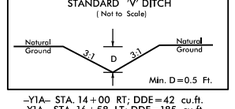
–Y2A– FROM STA. 17+00 TO STA. 17+50 LT
–Y2A– FROM STA. 25+00 TO STA. 27+00 LT
–Y– FROM STA. 33+00 TO STA. 36+00 RT
–Y– FROM STA. 41+50 TO STA. 43+00 RT
–Y2B– FROM STA. 9+58 RT TO STA. 11+34 LT
–Y NB– FROM STA. 20+00 TO STA. 24+50 RT
–Y NB– FROM STA. 35+00 TO STA. 39+00 RT
–RPBD– FROM STA. 10+00 TO STA. 11+50 RT
–Y2– FROM STA. 10+65 TO STA. 15+50 RT
–Y2– FROM STA. 10+85 TO STA. 15+50 LT
–Y2– FROM STA. 25+50 TO STA. 26+10 LT
–Y2– FROM STA. 28+50 TO STA. 31+75 LT
–Y2B– FROM STA. 12+00 TO STA. 16+44 RT
–Y2B– FROM STA. 12+00 TO STA. 16+00 LT
–Y1A– FROM STA. 10+50 TO STA. 13+85 LT
–Y1A– FROM STA. 10+50 TO STA. 14+00 RT
–Y1A– FROM STA. 18+00 TO STA. 19+00 LT

DETAIL C
LINEAR WETLAND SWALE
(Not to Scale)



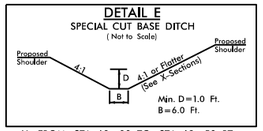
–Y NB – FROM STA. 34+00 TO STA. 36+00 LT
–Y NB – FROM STA. 38+50 TO STA. 41+50 LT

DETAIL D
STANDARD 'V' DITCH
(Not to Scale)



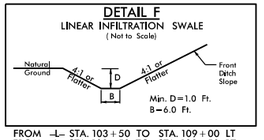
–Y1A– STA. 14+00 RT; DDE=42 cu.ft.
–Y1A– STA. 16+58 LT; DDE=185 cu.ft.
–Y1A– STA. 16+66 RT; DDE=60 cu.ft.
–Y1A– STA. 19+00 RT; DDE=94 cu.ft.

DETAIL E
SPECIAL CUT BASE DITCH
(Not to Scale)



–Y– FROM STA. 68+80 TO STA. 69+50 RT

DETAIL F
LINEAR INFILTRATION SWALE
(Not to Scale)



FROM –L– STA. 103+50 TO STA. 109+00 LT
FROM –L– STA. 103+50 TO STA. 109+50 RT

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R–2576	2D–1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

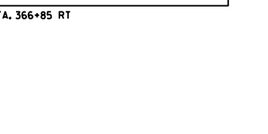
PERMIT DRAWING SHEET 2 OF 89

DETAIL G
LATERAL LINEAR INFILTRATION SWALE
(Not to Scale)



FROM –L– STA. 109+00 TO STA. 110+50 LT
FROM –L– STA. 109+50 TO STA. 110+50 RT

DETAIL H
LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 112+00 TO STA. 116+00 LT

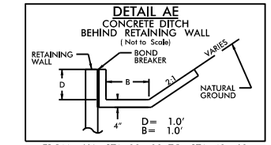
DETAIL I
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

–Y– FROM STA. 70+50 TO STA. 72+50 RT

DETAIL J
SPECIAL CUT BASE DITCH
(Not to Scale)

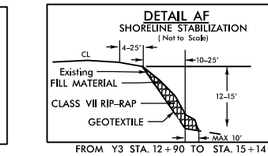
–Y– FROM STA. 72+50 TO STA. 84+50 RT

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)



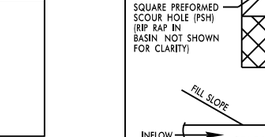
–Y4C– FROM STA. 10+50 TO STA. 11+50 RT
–Y4C– FROM STA. 10+50 TO STA. 11+50 LT
–Y– FROM STA. 15+00 TO STA. 16+00 RT
–Y2B– FROM STA. 10+75 LT TO STA. 11+50 RT
–Y7– FROM STA. 51+30 TO STA. 52+30 LT
–Y7– FROM STA. 58+27 TO STA. 59+50 LT

DETAIL L
LINEAR INFILTRATION SWALE
(Not to Scale)



FROM –Y4– STA. 21+00 TO STA. 26+00 LT
FROM –Y4– STA. 20+50 TO STA. 22+50 RT
–Y5– FROM STA. 10+28 TO STA. 19+00 RT
–Y5R– FROM STA. 11+60 TO STA. 13+10 RT

DETAIL M
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM –Y4– STA. 24+70 TO STA. 25+50 RT
FROM –Y4– STA. 30+50 TO STA. 32+50 RT
FROM –Y4– STA. 37+00 TO STA. 37+50 RT
FROM –Y4– STA. 39+50 TO STA. 42+50 RT

DETAIL N
SPECIAL CUT BASE DITCH
(Not to Scale)

–Y– FROM STA. 32+50 TO STA. 33+00 RT

DETAIL O
LATERAL BASE DITCH
(Not to Scale)

FROM –L– STA. 113+00 TO STA. 114+50 RT

DETAIL P
WETLAND SWALE CHECK DAM
(Not to Scale)

PROFILE VIEW

–Y2A– STA. 12+50 LT
–Y2A– STA. 13+00 RT
–Y2A– STA. 15+00 LT
–Y2A– STA. 15+00 RT
–Y2A– STA. 16+00 LT
–Y2A– STA. 16+50 RT
–Y2– STA. 18+50 LT
–Y2– STA. 18+50 RT
–Y2– STA. 22+00 LT
–Y2– STA. 22+50 RT
–Y2– STA. 23+00 LT
–Y2– STA. 24+50 RT
–Y2– STA. 25+50 LT
–Y2– STA. 25+50 RT
–Y– STA. 23+40 RT
–Y– STA. 28+75 RT
–Y– STA. 32+50 RT
–Y– STA. 34+00 RT
–Y– STA. 41+00 RT
–Y NB– STA. 31+50 LT
–Y NB– STA. 32+00 RT
–Y NB– STA. 32+50 LT
–Y NB– STA. 33+00 RT
–Y NB– STA. 40+00 LT
–Y NB– STA. 40+50 LT
–Y4– STA. 21+00 RT
–Y4– STA. 37+45 LT
–Y4– STA. 38+00 LT
–Y5– STA. 10+70 RT
–Y5– STA. 11+50 RT
–Y5– STA. 12+50 RT
–Y5– STA. 13+50 RT
–Y5– STA. 14+50 RT
–Y5R– STA. 12+70 RT

DETAIL Q
TOE PROTECTION
(Not to Scale)

Type of Liner= Class B Rip–Rap

–Y– FROM STA. 21+77 TO STA. 23+70 LT
–Y– FROM STA. 40+83 TO STA. 42+54 LT
–Y– FROM STA 84+63 TO STA. 90+06 RT
–Y– FROM STA 91+24 TO STA. 99+89 RT
–Y– FROM STA. 94+20 TO STA. 98+11 LT
–Y1A– FROM STA. 24+37 TO STA. 24+57 LT
–Y1A– FROM STA. 24+59 TO STA. 24+92 RT

DETAIL R
BANK STABILIZATION
(Not to Scale)

–Y SB– STA. 22+75 LT

DETAIL S
SPECIAL CUT DITCH wHINGE
(Not to Scale)

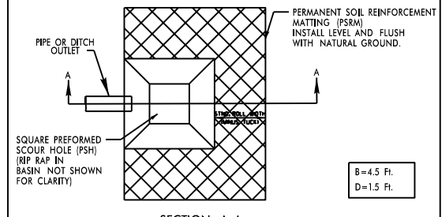
–Y– FROM STA. 18+00 TO STA. 19+00 RT
–Y– FROM STA. 20+00 TO STA. 22+85 RT

DETAIL T
SPECIAL CUT BASE DITCH
(Not to Scale)

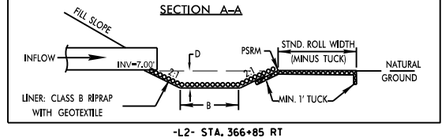
–Y2A– FROM STA. 17+00 TO STA. 18+50 RT

DETAIL U
PREFORMED SCOUR HOLE

PLAN VIEW

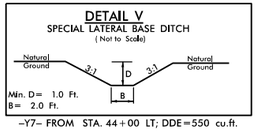


SECTION A–A



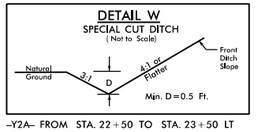
-L2- STA. 366+85 RT

DETAIL V
SPECIAL LATERAL BASE DITCH
(Not to Scale)



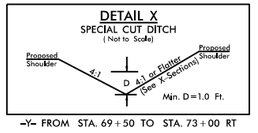
–Y7– FROM STA. 44+00 LT; DDE=550 cu.ft.

DETAIL W
SPECIAL CUT DITCH
(Not to Scale)



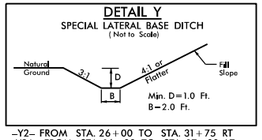
–Y2A– FROM STA. 22+50 TO STA. 23+50 LT

DETAIL X
SPECIAL CUT DITCH
(Not to Scale)



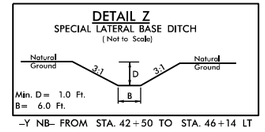
–Y– FROM STA. 69+50 TO STA. 73+00 RT

DETAIL Y
SPECIAL LATERAL BASE DITCH
(Not to Scale)



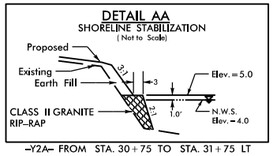
–Y2– FROM STA. 26+00 TO STA. 31+75 RT
–Y2A– FROM STA. 16+00 TO STA. 17+00 LT

DETAIL Z
SPECIAL LATERAL BASE DITCH
(Not to Scale)



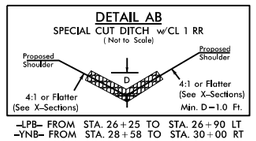
–Y NB– FROM STA. 42+50 TO STA. 46+14 LT

DETAIL AA
SHORELINE STABILIZATION
(Not to Scale)



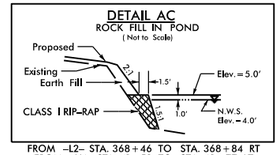
–Y2A– FROM STA. 30+75 TO STA. 31+75 LT

DETAIL AB
SPECIAL CUT DITCH w/CL 1 RR
(Not to Scale)



–LPB– FROM STA. 26+25 TO STA. 26+90 LT
–YNB– FROM STA. 28+58 TO STA. 30+00 RT

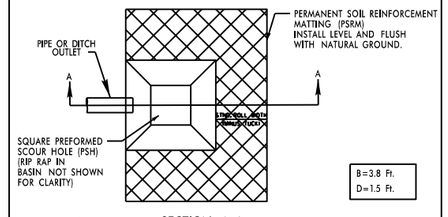
DETAIL AC
ROCK FILL IN POND
(Not to Scale)



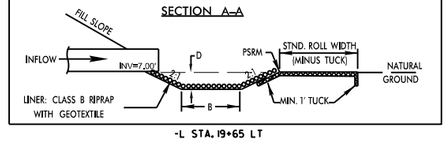
FROM –L2– STA. 368+46 TO STA. 368+84 RT
FROM –Y4– STA. 41+52 TO STA. 42+77 LT

DETAIL AD
PREFORMED SCOUR HOLE

PLAN VIEW



SECTION A–A



-L STA. 19+65 LT

DETAIL AE
CONCRETE DITCH BEHIND RETAINING WALL
(Not to Scale)

FROM –Y4– STA. 39+80 TO STA. 40+60

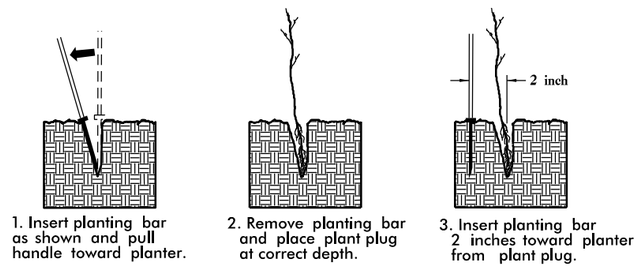
DETAIL AF
SHORELINE STABILIZATION
(Not to Scale)

FROM Y3 STA. 12+90 TO STA. 15+14 RT

6/13/2024
C:\DGN\R2576_HYD_prm_details.dgn
USERNAME=wei

PLANTING DETAILS

DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



1. Insert planting bar as shown and pull handle toward planter.

2. Remove planting bar and place plant plug at correct depth.

3. Insert planting bar 2 inches toward planter from plant plug.



4. Pull handle of bar toward planter, firming soil at bottom.

5. Push handle forward firming soil at top.

6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, plant plugs shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



WET SWALE GRASS PLANTING

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 3 OF 89

☐ WETLAND GRASS SPECIES SHALL BE PLANTED 18" ON CENTER, APPROXIMATELY 19,360 PLANTS PER ACRE.

NOTE: SEE WET SWALE GRASS PLANTING DETAIL

WET SWALE GRASS PLANTING

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

ZONE 1

50% SAGITTARIA LANCIFOLIA	BULL TONGUE	1.5" X 5" DEEP PLUG
50% SCHOENOPLECTUS TABERNAEMONTANI	SOFTSTEM BULLRUSH	1.5" X 5" DEEP PLUG

ZONE 2

50% CAREX VULPINOIDA	FOX SEDGE	1.5" X 5" DEEP PLUG
50% JUNCUS EFFUSUS	SOFT RUSH	1.5" X 5" DEEP PLUG

ZONE 3

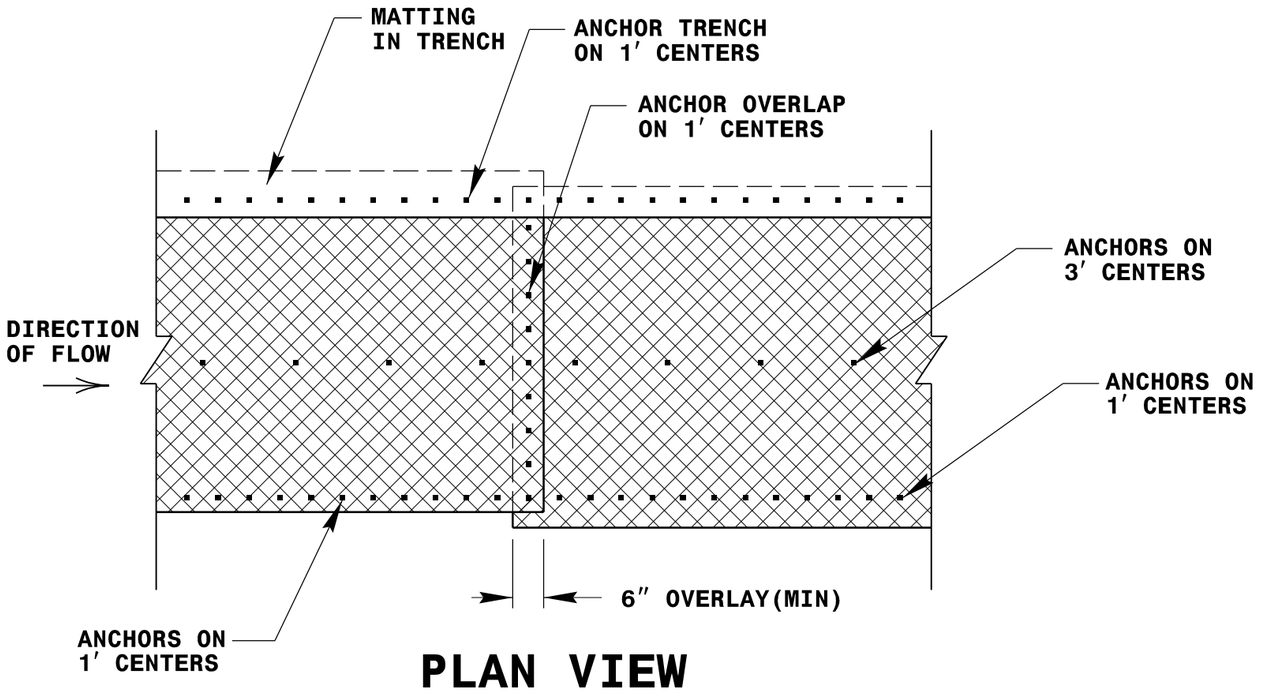
SEE PROJECT SPECIAL PROVISION FOR SEED MIX

WETLAND GRASS PLANTING DETAIL SHEET 1 OF 3

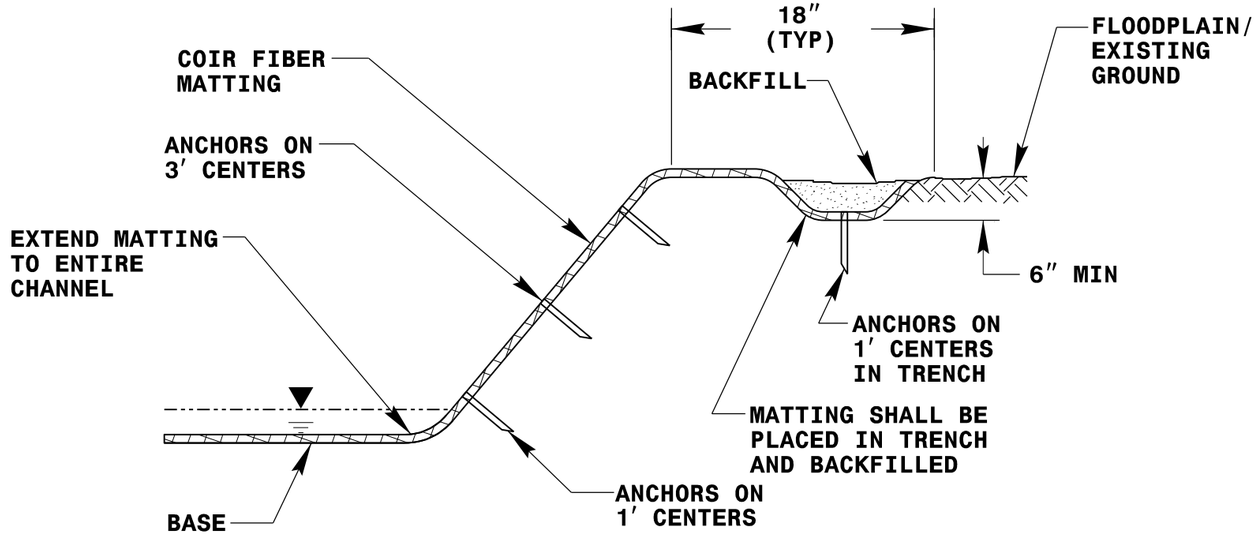
N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

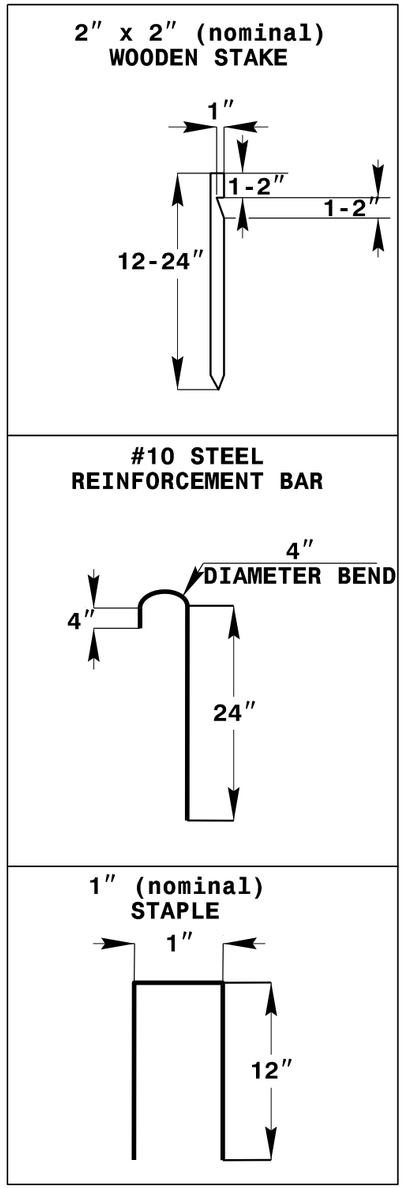
PERMIT DRAWING
SHEET 4 OF 89



PLAN VIEW



TYPICAL CROSS SECTION



ANCHOR OPTIONS

COIR FIBER MATTING DETAIL

NOT TO SCALE

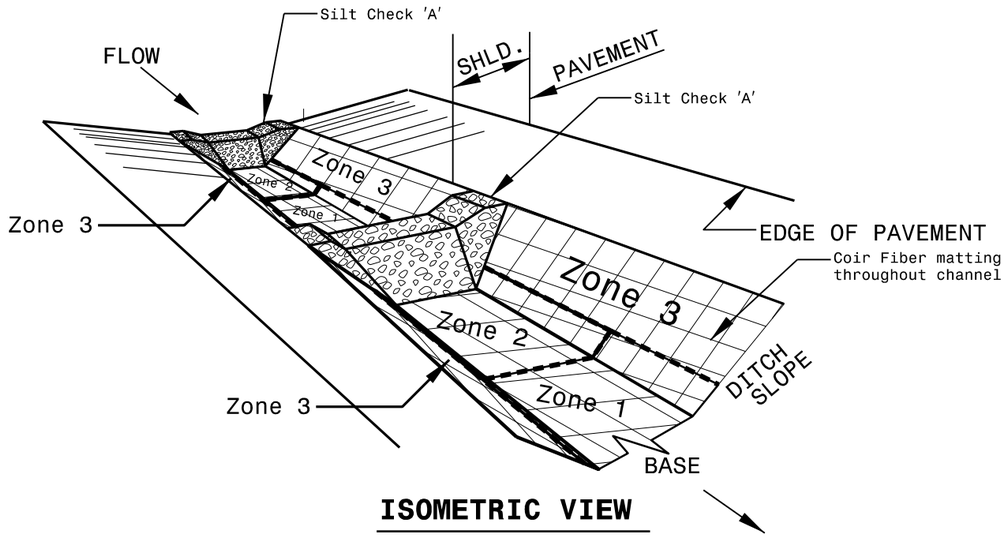
WET SWALE
DETAIL SHEET 2 OF 3

N.C.D.O.T.- ROADSIDE ENVIRONMENTAL UNIT

WET SWALE GRASS PLANTING DETAIL

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 5 OF 89

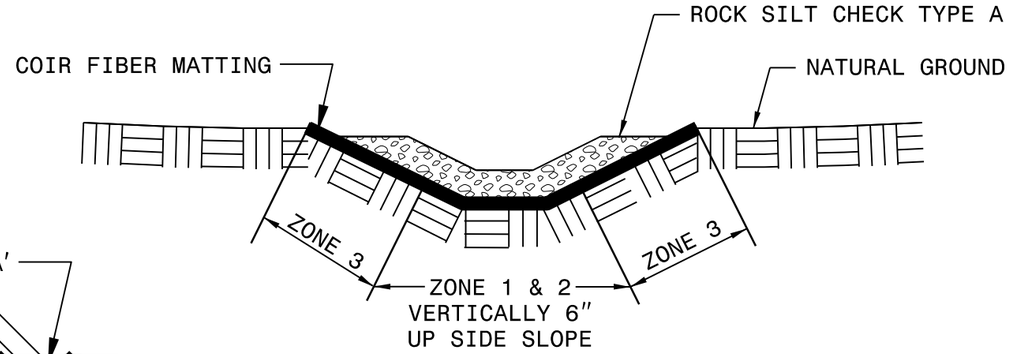


ISOMETRIC VIEW

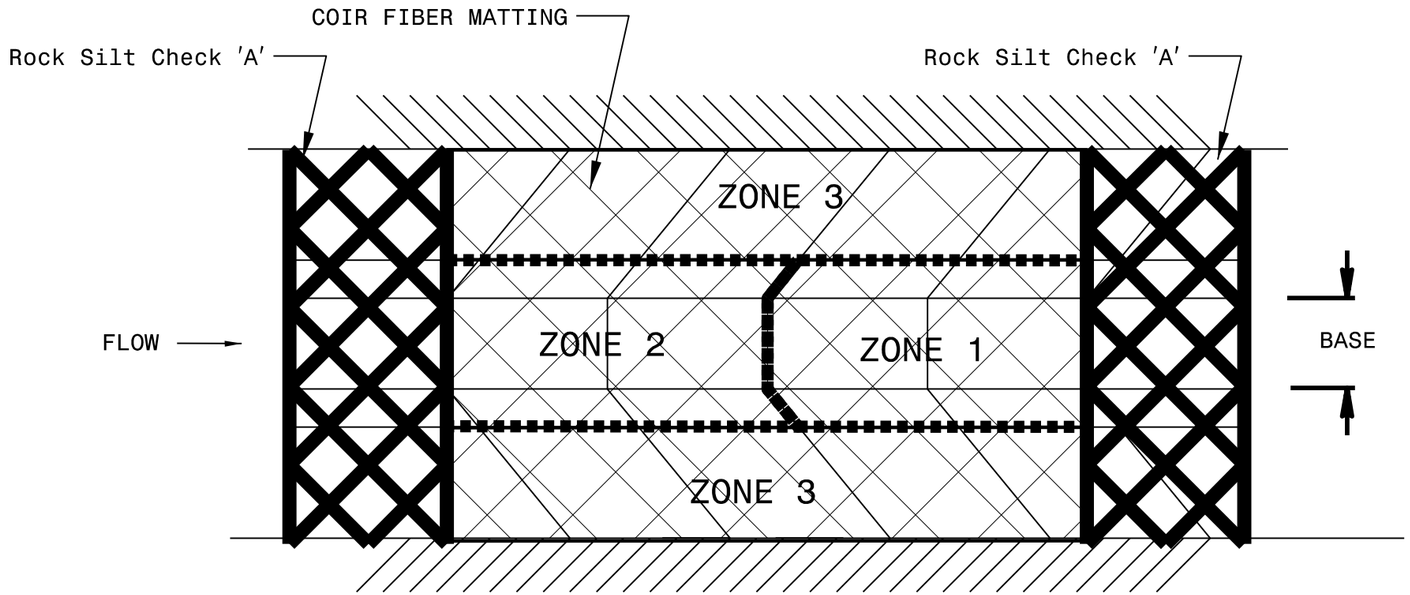
NOTES:

SEE DETAIL "XX" FOR SWALE DIMENSIONS.

INSTALL COIR MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS AND DETAIL 2 OF 3.



CROSS SECTION
TRAPEZOIDAL DITCH



TOP VIEW

LOCHNER
H. W. LOCHNER, INC.
1840 MACKAY PLACE, SUITE 202
RALEIGH, NC 27612
(919) 277-7171

NC License Number P-0707

STRUCTURAL ENGINEERS

1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. P-0277
Bus: 919 851 8897
Fax: 919 851 8897

TRANSPORTATION PLANNING/DESIGN - REDESIGN/TRAFFIC DESIGN
DYNAMIC DESIGN - ENGINEERING - CONSTRUCTION OBSERVATION

R-2576 | 4

INCOMPLETE PLANS
DO NOT USE FOR BID & / OR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

PERMIT DRAWING
SHEET 6 OF 89

NAD 83/2011

SITE 1A

SITE 2

TEMPORARY IMPACTS

PERMANENT IMPACTS

MATCHLINE SHEET 20 -Y NB- STA. 40+00

MATCHLINE SHEET 20 -Y NB- STA. 16+50

MATCHLINE SHEET 22 -Y SB- STA. 33+50

MATCHLINE SHEET 22 -Y NB- STA. 44+00

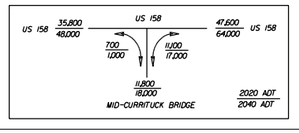
MATCHLINE SHEET 21 -Y2A- STA. 11+00

MATCHLINE SHEET 5 -Y2A- STA. 26+50

MATCHLINE SHEET 5 -L- STA. 18+00

HC	HC	DENOTES HAND CLEARING
F	F	DENOTES FILL IN WETLAND
S	S	DENOTES IMPACTS IN SURFACE WATER
TS	TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

GRAPHIC SCALE 200' 0' 200'



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 39-40 FOR -Y_NB- PROFILE
SEE SHEET 41-42 FOR -LPB- PROFILE
SEE SHEET 42 FOR -RPBD- PROFILE
SEE SHEET 43 FOR -RPA- PROFILE
SEE SHEET 44 FOR -RPD- PROFILE
SEE SHEET 46-47 FOR -Y2A- PROFILE
SEE SHEET 46 FOR -DRN1- PROFILE

MID CURRITUCK BRIDGE AT US 158

\\Raleigh1\projects\2017\2017-0124_currencalt\work\R2576_HYD_plan01.dgn
12/7/2021
10:29:28 AM

LOCHNER
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1840 MACKS FLOOD, SUITE 202
EASTON, MD 21601
(919) 577-7131

NC License Number P-0702

STRUCTURAL ENGINEERING

1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. P-0577
Bus: 919 851 8697
Fax: 919 851 8597

TRANSPORTATION PLANNING/DESIGN - REDESIGN/TOTAL/CAT DESIGN
CIVIL/SITE DESIGN - DESIGN - CONSTRUCTION OBSERVATION

R-2576 | 4

INCOMPLETE PLANS
DO NOT USE FOR BID & / OR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

PERMIT DRAWING
SHEET 7 OF 89

NAD 83(2011)

SITE 1A

SITE 2

TEMPORARY IMPACTS

PERMANENT IMPACTS

MATCHLINE SHEET 20 -Y_NB- STA. 40+00

MATCHLINE SHEET 20 -Y_SB- STA. 16+50

MATCHLINE SHEET 22 -Y_SB- STA. 33+50

MATCHLINE SHEET 22 -Y_NB- STA. 44+00

MATCHLINE SHEET 21 -Y2A- STA. 17+00

MATCHLINE SHEET 5 -Y2A- STA. 26+50

MATCHLINE SHEET 5 -L- STA. 18+00

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

GRAPHIC SCALE 200' 0' 200'

US 158 35,800 48,000 — 700 1,000 — 11,800 18,000 MID-CURRITUCK BRIDGE — 11,100 17,000 — 47,600 64,000 US 158

2020 ADT
2040 ADT

SEE SHEET 20-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -L- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 39-40 FOR -Y_NB- PROFILE
SEE SHEET 41-42 FOR -L2B- PROFILE
SEE SHEET 42 FOR -RPBD- PROFILE
SEE SHEET 43 FOR -RPA- PROFILE
SEE SHEET 44 FOR -RPD- PROFILE
SEE SHEET 46-47 FOR -Y2A- PROFILE
SEE SHEET 46 FOR -DRAI- PROFILE

MID CURRITUCK (464) AT US 158 (NB-1)

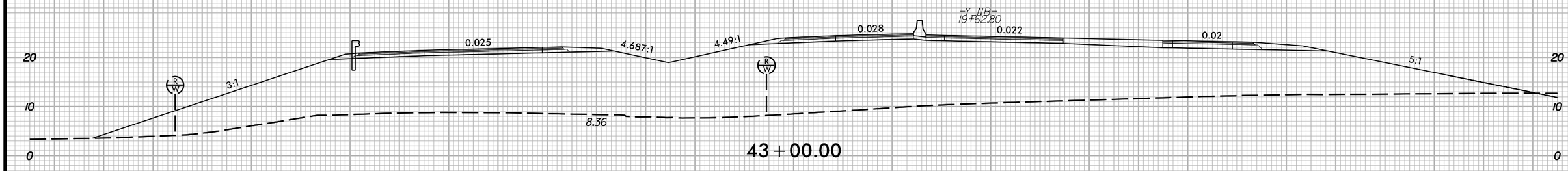
C:\Users\TPope\Documents\Work\R2576_MID_ps24.ctb - User:dgr
4/17/2024
4/17/2024

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-21

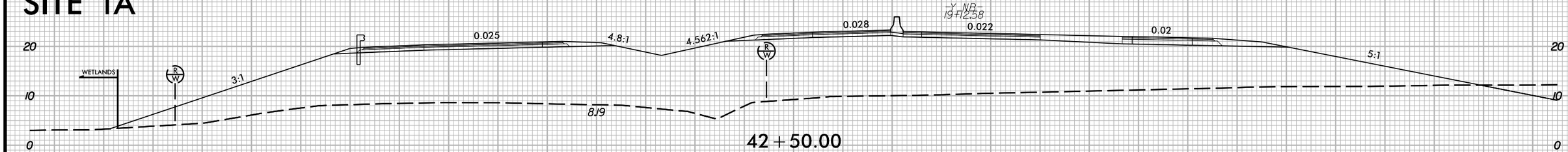
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PERMIT DRAWING
SHEET 8 OF 89

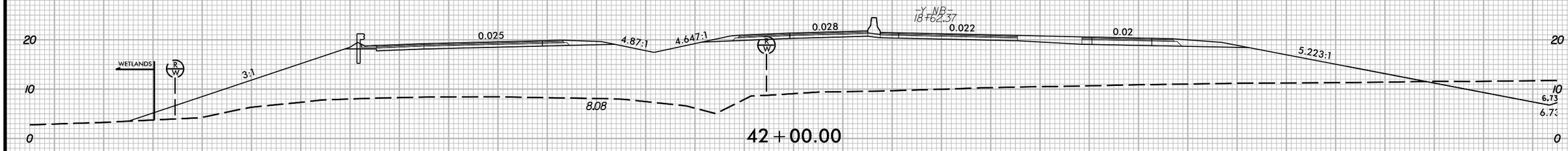


43+00.00

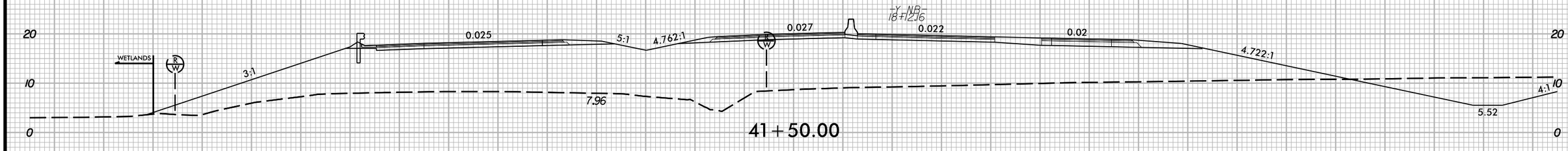
SITE 1A



42+50.00



42+00.00



41+50.00

-Y-

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

$DATES
$USERNAME$
$FILE$

NAD 83

20' 0' 20'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 9 OF 89

SITE 1A

CL. B RIP RAP
EST. 8 TON
EST 21 SY GF

WLB

WB

TOE PROTECTION
SEE DETAIL Q

R

Q10 = 21 cfs
V10 = 1.2 fps

END SBG
+50

RCP-III

REMOVE

HC HC — DENOTES HAND CLEARING

F F — DENOTES FILL IN WETLAND

MATCHLINE -Y- STA. 40+00 SHEET

PERMIT DRAWING
SHEET 10 OF 89

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 83

SITE 2

MILDRED T. QUIDLEY

C A

R W

R W

30' 0' 30'

GRAPHIC SCALE

S1B

TEMPORARY IMPACTS

BANK STABILIZATION
SEE DETAIL R
CL. B RIP RAP
EST. 15 TON
EST 32 SY GF

REMOVE

PERMANENT IMPACTS

42" RCP-IV

0444

STA

25+00

20+00

20+00

LINEAR WETLAND SWALE
SEE DETAIL A

LINEAR WETLAND SWALE
SEE DETAIL A

2GI 0436

12"

36" WW W/3SBW

EXIST RW MON

INV=3.88'

S73°37'58"W 72.00'

.08 .07 .06

6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING)

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 11 OF 89

6" SCUPPER ON 12' CENTERS	
88' & 89' SPANS =	7 SCUPPERS LT. & RT.
100' SPAN =	8 SCUPPERS LT. & RT.
73' SPAN =	6 SCUPPERS LT. & RT.
70' SPAN =	5 SCUPPERS LT. & RT

LOCHNER
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RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83/2011

EDWARD MIDGETT MARKERT

SITE 3
BRIDGE AND TEMPORARY BRIDGE FOOTPRINT AND BENTS

MARCELLA R. WALKER

END BENT 1 -L- 22+45 +/-
BENT 1 -L- 23+33
BENT 2 -L- 24+22
BENT 3 -L- 25+11
BENT 4 -L- 26+00
BENT 5 -L- 27+00
BENT 6 -L- 28+00
BENT 7 -L- 29+00
BENT 8 -L- 30+00
BENT 9 -L- 31+00

MAPLE SWAMP

MATCHLINE SHEET 4 -L- STA. 18+00

MATCHLINE SHEET 4 -Y2A- STA. 26+50

MATCHLINE SHEET 6 -L- STA. 31+00

PROP 47" WW FENCE

+90.00 -L- 135.00' LT

PSH SEE DETAIL AD

BEGIN SBG +50

END SBG +20

CLASS II RIP RAP

15" RCP-IV 2GI

ATTENUATOR

20+00

25+00

30+00

+10.00 -L- 80.00' RT

+45.00 -L- 115.00' RT

FOREBAY

TOP OF BERM 14.5

CL B RIP RAP EST. 3 TON EST. 10 SY GF

INFILTRATION BASIN

PERMEABLE PAVEMENT

SPECIAL LATERAL V DITCH SEE DETAIL B

-Y2A- PT Sta. 26+50.20

END FENCE +56.29 -L- 80.00' RT

+20.00 -L- 80.00' RT

BEG FENCE +82.43 -L- 80.00' RT

END SBG +20

TOLL BUILDING

+90.00 -L- 80.00' RT

-Y2A- POT Sta. 33+18.62

WA_WC

MARCELLA R. WALKER

RICHARD S. PERKINS, ET UX

-L- POT Sta. 13+51.75

VIRGINIA POWER & ELECTRIC CO. 120' EASEMENT

VIRGINIA POWER & ELECTRIC CO. 120' EASEMENT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 47 FOR -Y2A- PROFILE

4/23/2024
4:47:26 PM
C:\Projects\PERMITS-Environmental\psh\R2576_HYD_psh05.dgn
USER: Mharvey

6/2/99

F F — DENOTES FILL IN WETLAND

T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING)

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 12 OF 89

6" SCUPPER ON 12' CENTERS	
88' & 89' SPANS =	7 SCUPPERS LT. & RT.
100' SPAN =	8 SCUPPERS LT. & RT.
73' SPAN =	6 SCUPPERS LT. & RT.
70' SPAN =	5 SCUPPERS LT. & RT.

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83/2011

EDWARD MIDGETT MARKERT

SITE 3
BRIDGE AND TEMPORARY BRIDGE FOOTPRINT AND BENTS

MARCELLA R. WALKER

END BENT 1 -L- 22+45 +/-
BENT 1 -L- 23+33
BENT 2 -L- 24+22
BENT 3 -L- 25+11
BENT 4 -L- 26+00
BENT 5 -L- 27+00
BENT 6 -L- 28+00
BENT 7 -L- 29+00
BENT 8 -L- 30+00
BENT 9 -L- 31+00

MAPLE SWAMP

PROP 47" WW FENCE
12 PSH SEE DETAIL AD
+90.00 -L- 135.00' LT
END SBG +20
CLASS II RIP RAP
TYPE B-77
ATTENUATOR
20+00
25+00
30+00
BEGIN SBG +50
15" RCP-IV
2GI
0505
0504
0503
0501
0502
0506
15" DI
18" RCP-III
+10.00 -L- 80.00' RT
+45.00 -L- 115.00' RT
+10.00 -L- 115.00' RT
+90.00 -L- 80.00' RT
FOREBAY
TOP OF BERM 14.5
CL B RIP RAP EST. 3 TON EST. 10 SY GF
INFILTRATION BASIN
CL B RIP RAP EST. 3 TON EST. 10 SY GF
SPECIAL LATERAL V DITCH SEE DETAIL B
PERMEABLE PAVEMENT
END FENCE +56.29 -L- 80.00' RT
+20.00 -L- 80.00' RT
BEG FENCE +82.43 -L- 80.00' RT
END SBG +20
TOLL BUILDING
WA WC
MARGELLA R. WALKER
RICHARD S. PERKINS, ET UX
VIRGINIA POWER & ELECTRIC CO. 120' EASEMENT
VIRGINIA POWER & ELECTRIC CO. 120' EASEMENT

MATCHLINE SHEET 4 -Y2A- STA. 26+50

MATCHLINE SHEET 4 -L- STA. 18+00

MATCHLINE SHEET 6 -L- STA. 31+00

SEE SHEET 20-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 47 FOR -Y2A- PROFILE

4/23/2024
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6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

HC HC DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

NAD 83/2011

PERMIT DRAWING
SHEET 13 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

6" SCUPPER ON 12' CENTERS
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100' SPAN= 8 SCUPPERS LT. & RT.
73' SPAN= 6 SCUPPERS LT. & RT.
70' SPAN= 5 SCUPPERS LT. & RT

PAVED SHOULDER

EDWARD MIDGETT MARKERT

BENT 9 -L- 31+00
BENT 10 -L- 32+00
BENT 11 -L- 33+00
BENT 12 -L- 34+00
BENT 13 -L- 35+00
BENT 14 -L- 36+00
BENT 15 -L- 37+00
BENT 16 -L- 38+00
BENT 17 -L- 39+00
BENT 18 -L- 40+00
BENT 19 -L- 41+00
BENT 20 -L- 42+00
BENT 21 -L- 43+00
BENT 22 -L- 44+00

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

700' TAPER

60.00

8'

MATCHLINE SHEET 5 -L- STA. 31+00

MATCHLINE SHEET 7 -L- STA. 44+00

TYPICAL OF PERMANENT BENT IMPACTS

3.0'

5.0'

MARCELLA R. WALKER

RICHARD S. PERKINS, ET UX

EDWARD MIDGETT MARKERT

MILDRED M. MARKERT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

4/23/2024
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USER:Mharvey

6/2/99

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T T DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

HC HC DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

NAD 83(2011)

PERMIT DRAWING
SHEET 14 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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PAVED SHOULDER

BENT 9 -L- 31+00
BENT 10 -L- 32+00
BENT 11 -L- 33+00
BENT 12 -L- 34+00
BENT 13 -L- 35+00
BENT 14 -L- 36+00
BENT 15 -L- 37+00
BENT 16 -L- 38+00
BENT 17 -L- 39+00
BENT 18 -L- 40+00
BENT 19 -L- 41+00
BENT 20 -L- 42+00
BENT 21 -L- 43+00
BENT 22 -L- 44+00

EDWARD MIDGETT MARKERT

MATCHLINE SHEET 5 -L- STA. 31+00

MATCHLINE SHEET 7 -L- STA. 44+00

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

TYPICAL OF PERMANENT BENT IMPACTS

3.0'

5.0'

MARCELLA R. WALKER

RICHARD S. PERKINS, ET UX

EDWARD MIDGETT MARKERT

MILDRED M. MARKERT

SEE SHEET 2D-1 FOR DITCH DETAILS
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4/23/2024
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6/2/99

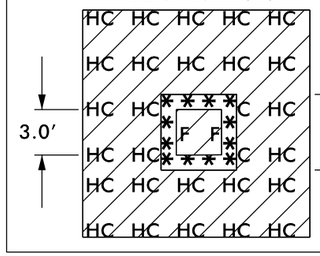
F F — DENOTES FILL IN WETLAND (AT BENTS)

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HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 15 OF 89

100' 0' 100'
GRAPHIC SCALE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83/2011

8
MILDRED M. MARKERT

BENT 22 -L- 44+00
BENT 23 -L- 45+00
BENT 24 -L- 46+00
BENT 25 -L- 47+00
BENT 26 -L- 48+00
BENT 27 -L- 49+00
BENT 28 -L- 50+00
BENT 29 -L- 51+00
BENT 30 -L- 52+00
BENT 31 -L- 53+00
BENT 32 -L- 54+00
BENT 33 -L- 55+00
BENT 34 -L- 56+00
BENT 35 -L- 57+00

MATCHLINE SHEET 6 -L- STA. 44+00

MATCHLINE SHEET 8 -L- STA. 57+50

WLS — RW — CA — RW

N 10°36'30" E

8%

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

4/23/2024
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6/2/99

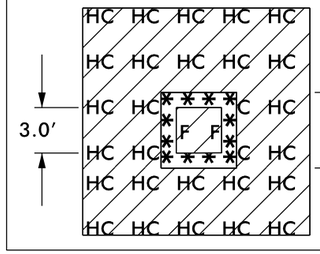
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HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 16 OF 89

100' 0' 100'
GRAPHIC SCALE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83/2011

MILDRED M. MARKERT

BENT 22 -L- 44+00
BENT 23 -L- 45+00
BENT 24 -L- 46+00
BENT 25 -L- 47+00
BENT 26 -L- 48+00
BENT 27 -L- 49+00
BENT 28 -L- 50+00
BENT 29 -L- 51+00
BENT 30 -L- 52+00
BENT 31 -L- 53+00
BENT 32 -L- 54+00
BENT 33 -L- 55+00
BENT 34 -L- 56+00
BENT 35 -L- 57+00

MATCHLINE SHEET 6 -L- STA. 44+00

MATCHLINE SHEET 8 -L- STA. 57+50

WLS

RW CA RW

N 10°36'30" E

8'

MILDRED M. MARKERT

MILDRED M. MARKERT

MILDRED M. MARKERT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

4/23/2024
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USER:Mharvey

6/2/99

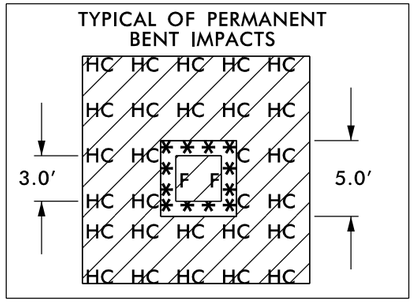
T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

F F — DENOTES FILL IN WETLAND (AT BENTS)

HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



MILDRED M. MARKERT

NAD 83/2011

PERMIT DRAWING SHEET 17 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

6" SCUPPER ON 12' CENTERS
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73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT

N 1,270,140.00
W 811,267.00

BENT 36 -L- 58+00
BENT 37 -L- 59+00
BENT 38 -L- 60+00
BENT 39 -L- 61+00
BENT 40 -L- 62+00
BENT 41 -L- 63+00
BENT 42 -L- 64+00
BENT 43 -L- 65+00
BENT 44 -L- 66+00
BENT 45 -L- 67+00
BENT 46 -L- 68+00
BENT 47 -L- 69+00
BENT 48 -L- 70+00
BENT 49 -L- 71+00

MATCHLINE SHEET 7 -L- STA. 57+50

MATCHLINE SHEET 9 -L- STA. 71+00

WLB

C A

R W

60.00'

N 67° 38' 30" E

8'

J. W. JONES LUMBER CO., INC.

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

4/23/2024
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T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

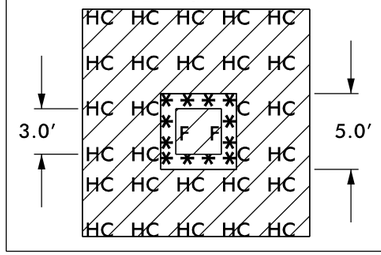
F F — DENOTES FILL IN WETLAND (AT BENTS)

HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

8
MILDRED M. MARKERT

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 18 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
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73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT.

BENT 36 -L- 58+00
BENT 37 -L- 59+00
BENT 38 -L- 60+00
BENT 39 -L- 61+00
BENT 40 -L- 62+00
BENT 41 -L- 63+00
BENT 42 -L- 64+00
BENT 43 -L- 65+00
BENT 44 -L- 66+00
BENT 45 -L- 67+00
BENT 46 -L- 68+00
BENT 47 -L- 69+00
BENT 48 -L- 70+00
BENT 49 -L- 71+00

WLB

60+00
65+00
70+00
N 70° 38' 30.1" E

MATCHLINE SHEET 7 -L- STA. 57+50

MATCHLINE SHEET 9 -L- STA. 71+00

9
J. W. JONES LUMBER CO., INC.

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

4/23/2024
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6/2/99

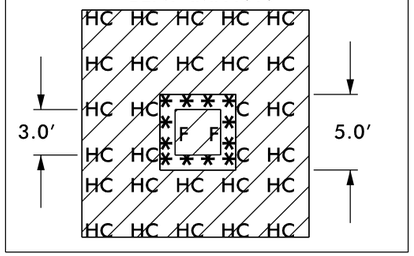
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HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



9

J. W. JONES LUMBER CO., INC

NAD 83-2011

PERMIT DRAWING SHEET 19 OF 89

100' 0' 100'

GRAPHIC SCALE

LOCHNER

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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70' SPAN =	5 SCUPPERS LT. & RT.

PAVED SHOULDER

BENT 49 -L- 71+00
BENT 50 -L- 72+00
BENT 51 -L- 73+00
BENT 52 -L- 74+00
BENT 53 -L- 75+00
BENT 54 -L- 76+00
BENT 55 -L- 77+00
BENT 56 -L- 78+00
BENT 57 -L- 79+00
BENT 58 -L- 80+00
BENT 59 -L- 81+00
BENT 60 -L- 82+00
BENT 61 -L- 83+00
BENT 62 -L- 84+00

MATCHLINE SHEET 8 -L- STA. 71+00

MATCHLINE SHEET 10 -L- STA. 84+50

WLB

CA RW CA RW

8'

N 70°38'30" E
250.00'

S 67°27'40" W
250.00'

S 59°19'45" E
259.15'

N 65°34'41" E
831.12'

10
PATRICIA A. PARKER

MILDRED M. MARKERT

CHARLES G. ANGUS, ET UX

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

4/23/2024
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USER: mharvey

6/2/99

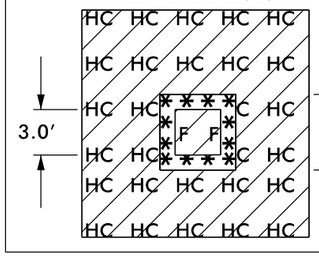
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HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 20 OF 89

100' 0' 100'
GRAPHIC SCALE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	9
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70' SPAN = 5 SCUPPERS LT. & RT

PAVED SHOULDER

NAD 83/2011

9 J. W. JONES LUMBER CO., INC

BENT 49 -L- 71+00
BENT 50 -L- 72+00
BENT 51 -L- 73+00
BENT 52 -L- 74+00
BENT 53 -L- 75+00
BENT 54 -L- 76+00
BENT 55 -L- 77+00
BENT 56 -L- 78+00
BENT 57 -L- 79+00
BENT 58 -L- 80+00
BENT 59 -L- 81+00
BENT 60 -L- 82+00
BENT 61 -L- 83+00
BENT 62 -L- 84+00

WLB

C/A — R/W — C/A — R/W

N 70° 38' 30" E

8'

MATCHLINE SHEET 8 -L- STA. 71+00

MATCHLINE SHEET 10 -L- STA. 84+50

10 PATRICIA A. PARKER

MILDRED M. MARKERT

CHARLES G. ANGUS, ET UX

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

4/23/2024
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USER: mharvey

6/2/99

F F — DENOTES FILL IN WETLAND (AT BENTS)

T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

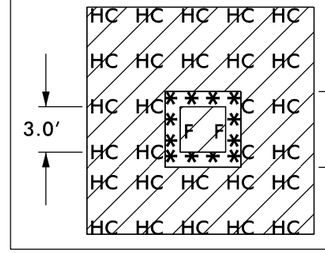
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

NAD 83/2011

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING
SHEET 21 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
100' SPAN = 8 SCUPPERS LT. & RT.
73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT

PAVED SHOULDER

BENT 63 -L- 85+00
BENT 64 -L- 86+00
BENT 65 -L- 87+00
BENT 66 -L- 88+00
BENT 67 -L- 89+00
BENT 68 -L- 90+00
BENT 69 -L- 91+00
BENT 70 -L- 92+00
BENT 71 -L- 93+00
BENT 72 -L- 94+00
BENT 73 -L- 95+00
BENT 74 -L- 96+00
BENT 75 -L- 97+00
BENT 76 -L- 98+00

S 66°2
108

9
J. W. JONES LUMBER CO., INC

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

MATCHLINE SHEET 9 -L- STA. 84+50

MATCHLINE SHEET 11 -L- STA. 98+00

10
PATRICIA A. PARKER

WLB

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 34 FOR -L- PROFILE

4/23/2024
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USER: mharvey

6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

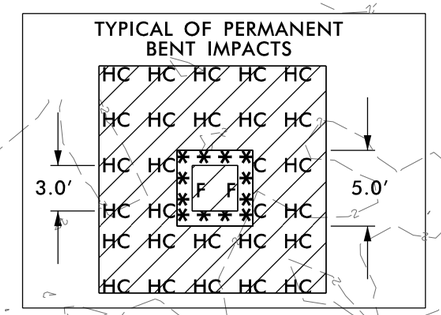
HC HC DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

NAD 83/2011

TYPICAL OF PERMANENT BENT IMPACTS



6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
100' SPAN = 8 SCUPPERS LT. & RT.
73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT

PAVED SHOULDER

PERMIT DRAWING
SHEET 22 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	10

ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BENT 63 -L- 85+00
BENT 64 -L- 86+00
BENT 65 -L- 87+00
BENT 66 -L- 88+00
BENT 67 -L- 89+00
BENT 68 -L- 90+00
BENT 69 -L- 91+00
BENT 70 -L- 92+00
BENT 71 -L- 93+00
BENT 72 -L- 94+00
BENT 73 -L- 95+00
BENT 74 -L- 96+00
BENT 75 -L- 97+00
BENT 76 -L- 98+00

WA WC

J. W. JONES LUMBER CO., INC

WLB

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

MATCHLINE SHEET 9 -L- STA. 84+50

MATCHLINE SHEET 11 -L- STA. 98+00

PATRICIA A. PARKER

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 34 FOR -L- PROFILE

4/23/2024
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USER:Mdarvey

6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING)

PERMIT DRAWING
SHEET 23 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	11
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS	
88° & 89° SPANS=	7 SCUPPERS LT. & RT.
100' SPAN=	8 SCUPPERS LT. & RT.
73' SPAN=	6 SCUPPERS LT. & RT.
70' SPAN=	5 SCUPPERS LT. & RT.

NAD 83/2011

PAVED SHOULDER

SR 1419 LIGHTHOUSE VIEW 22' BST

J. W. JONES LUMBER CO., INC

GERALD ROBACK, ET UX

THOMAS FRANCIS McPAUL, ET UX

ROBERT W. & ASHLEY M. LARKIN

AYAD ALEC JACOB

TIMBER, INC.

BENT 77 -L- 98+73 | BENT 78 -L- 99+46 | BENT 79 -L- 100+19 | END BENT 2 -L- 100+88 +/-

BENT 76 -L- 98+00

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

PATRICIA A. PARKER

CLASS II RIP RAP

+80.00 -L- 135.00' LT

+80.00 -L- 80.00' RT

LINEAR INFILTRATION SWALE SEE DETAIL F

LINEAR INFILTRATION SWALE SEE DETAIL G

CL B RIP RAP EST. 2 TONS EST. 7 SY GF

BEGIN SBG +00

15" w/ELBOWS

15" RCP-IV

2GI

N 70° 38' 30.1" E

N 23° 49' 17.4" W

MATCHLINE SHEET 10 -L- STA. 98+00

MATCHLINE SHEET 12 -L- STA. 111+50

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 47 FOR -Y3B- PROFILE
SEE SHEET 34 FOR -L- PROFILE

6/13/2024
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USER: Mdarvell

6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING)

PERMIT DRAWING SHEET 24 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	11
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS= 7 SCUPPERS LT. & RT.
100' SPAN= 8 SCUPPERS LT. & RT.
73' SPAN= 6 SCUPPERS LT. & RT.
70' SPAN= 5 SCUPPERS LT. & RT.

NAD 83(2011)

END CONSTRUCTION -Y3B- STA. 12+81.24

BEGIN CONSTRUCTION -Y3B- STA. 9+97.55

BENT 77 -L- 98+73
BENT 78 -L- 99+46
BENT 79 -L- 100+19
END BENT 2 -L- 100+88 +/-
BENT 76 -L- 98+00

SITE 3 CONT. (EACH BENT)

MATCHLINE SHEET 10 -L- STA. 98+00

MATCHLINE SHEET 12 -L- STA. 111+50

MAPLE SWAMP

END BRIDGE -L- STA. 100+88 +/-

CLASS II RIP RAP

± 80.00 -L- 135.00' LT

± 80.00 -L- 80.00' RT

LINEAR INFILTRATION SWALE SEE DETAIL F

LINEAR INFILTRATION SWALE SEE DETAIL G

CL B RIP RAP EST. 2 TONS EST. 7 SY GF

BEGIN SBG +00

15" w/ELBOWS

15" RCP-IV

2GI

SR 1419 LIGHTHOUSE VIEW

J. W. JONES LUMBER CO., INC

GERALD ROBACK, ET UX

THOMAS FRANCIS McPAUL, ET UX

ROBERT W. & ASHLEY M. LARKIN

AYAD ALEC JACOB

TIMBER, INC.

PATRICIA A. PARKER

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 47 FOR -Y3B- PROFILE
SEE SHEET 34 FOR -L- PROFILE

6/13/2024
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USER:Mharvey

6/2/99

PERMIT DRAWING
SHEET 25 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	12
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORMAL HIGH WATER 0.3'

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

NAD 83/2011

PAVED SHOULDER
EPB
SAV HABITAT

PATRICIA A. PARKER
ROBERT F. JORDAN, ET UX
CHARLES G. ANGUS, ET UX
RADLEY M. PIERCE
WHITEHURST LINE
JN. KENT ROGER, ET UX
SAUNDERS CEMETERY (2 GRAVES)
CURRITUCK SOUND
ESTUARINE SHORELINE

MATCHLINE SHEET 11 -L- STA. 111+50
MATCHLINE SHEET 13A -L- STA. 124+00

LATERAL V DITCH SEE DETAIL H
18" RCP-IV
END SBG +78
END SBG +82
END FENCE +07.09 -L- 20.00' RT
SHORELINE STABILIZATION SEE DETAIL AE
CL B RIP RAP EST. 2 TON EST. 7 SY GF
LATERAL BASE DITCH SEE DETAIL O

SAV HABITAT SURVEY BOUNDARY
SITE 4 TEMPORARY BRIDGE BENTS
SITE 4 PERMANENT BRIDGE BENTS
TRESTLE 2
TRESTLE 1
ESTUARINE SHORELINE AEC
30' CAMA BUFFER
SEAWALL

BENT 1 -L- 119+00
BENT 2 -L- 120+00
BENT 3 -L- 121+00
BENT 4 -L- 122+00
BENT 5 -L- 123+00
BENT 6 -L- 124+00
END BENT 1 -L- 118+05 +/-

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (AT BENTS)

S S — DENOTES IMPACTS IN SURFACE WATER (AT BENTS AND SHORELINE STABILIZATION)

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 47 FOR -Y3- PROFILE

6/13/2024
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User: jlucas

6/2/99

PERMIT DRAWING
SHEET 26 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	12
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORMAL HIGH WATER 0.3'

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

PAVED SHOULDER
EPB
SAV HABITAT

NAD 83/2011

MATCHLINE SHEET 11 -L- STA. 111+50

MATCHLINE SHEET 13A -L- STA. 124+00

PATRICIA A. PARKER

ROBERT F. JORDAN, ET UX

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 TEMPORARY BRIDGE BENTS

SITE 4 PERMANENT BRIDGE BENTS

TRESTLE 2

TRESTLE 1

LATERAL V DITCH SEE DETAIL H

SAUNDERS CEMETERY (2 GRAVES)

18" RCP-IV

END SBG +78

END SBG +82

END FENCE +07.09 -L- 20.00' RT

SHORELINE STABILIZATION SEE DETAIL AE

ESTUARINE SHORELINE AEC

30' CAMA BUFFER

ESTUARINE SHORELINE

CE II RIP RAP EST. 2 TON EST. 7 SY GF

LATERAL BASE DITCH SEE DETAIL O

CHARLES G. ANGUS, ET UX

GRAPE VINES

END BENT 1 -L- 118+05 +/-

BENT 1 -L- 119+00

BENT 2 -L- 120+00

BENT 3 -L- 121+00

BENT 4 -L- 122+00

BENT 5 -L- 123+00

BENT 6 -L- 124+00

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (AT BENTS)

S S — DENOTES IMPACTS IN SURFACE WATER (AT BENTS AND SHORELINE STABILIZATION)

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 47 FOR -Y3- PROFILE

6/13/2024
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PERMIT DRAWING
SHEET 27 OF 89

ROBERT F. JORDAN, ET UX

CURRITUCK SOUND

SAV HABI

NAD 83

C A

C A

SAUNDERS CEMETERY
(2 GRAVES)

F

EIP

EIP

EIP

5/28/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

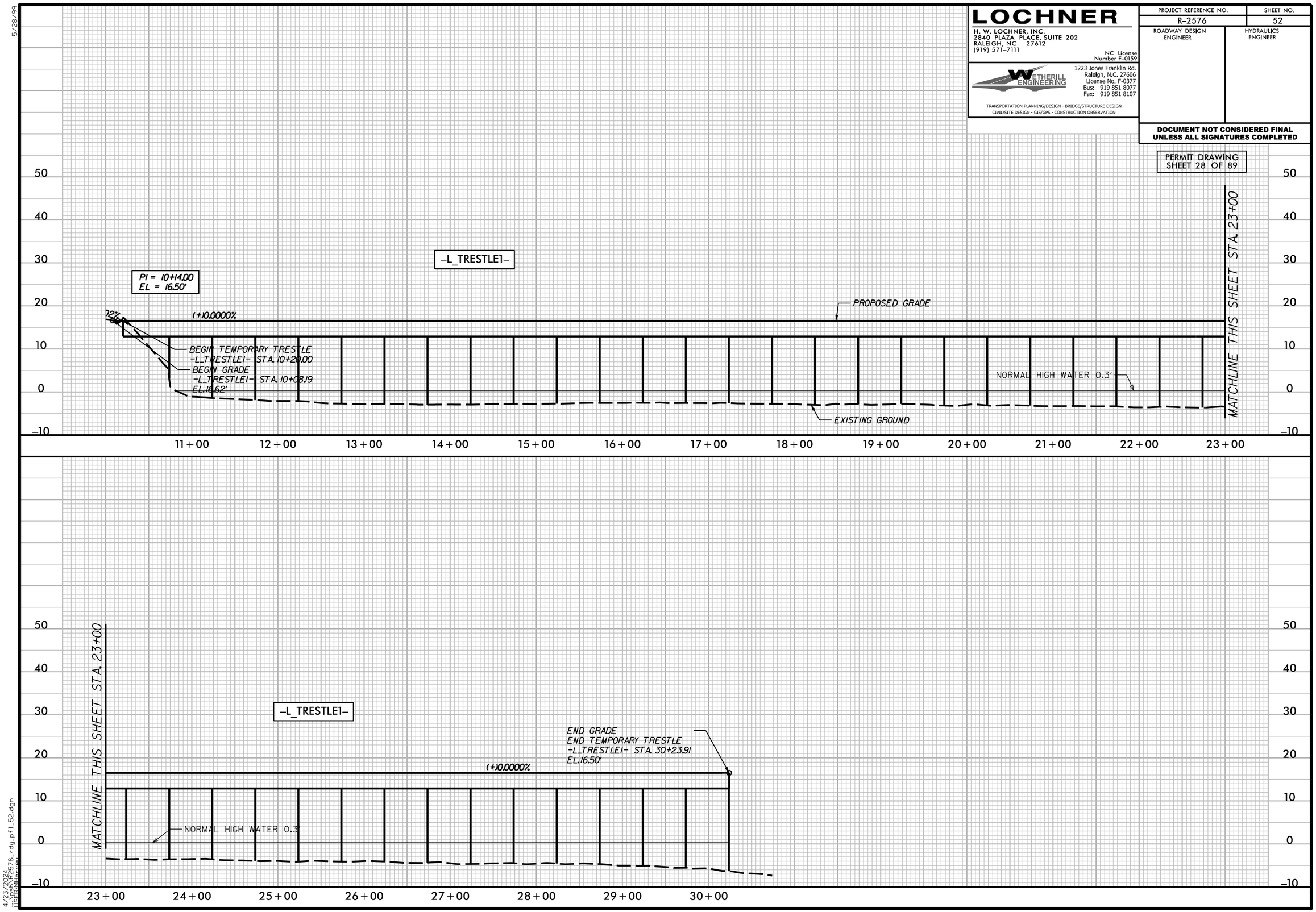
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	52
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 28 OF 89



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5/28/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

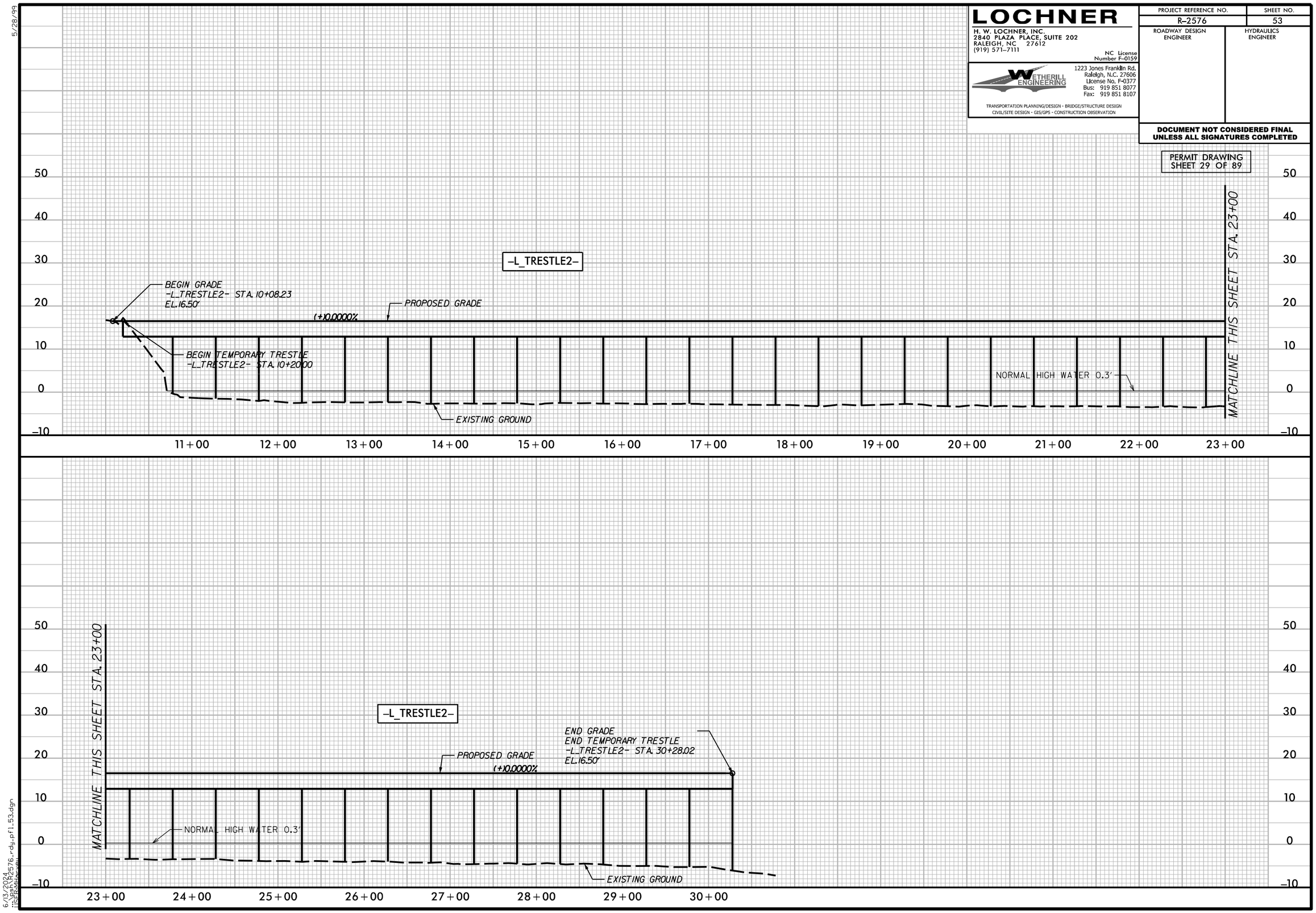
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	53
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 29 OF 89



6/13/2024
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PERMIT DRAWING
SHEET 30 OF 89

EPB — SAV HABITAT — EPB

NAD 83/2011

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13A
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

BENT 6 -L- 124+00
BENT 7 -L- 125+00
BENT 8 -L- 126+00
BENT 9 -L- 127+00
BENT 10 -L- 128+00
BENT 11 -L- 129+00
BENT 12 -L- 130+00
BENT 13 -L- 131+00
BENT 14 -L- 132+00
BENT 15 -L- 133+00
BENT 16 -L- 134+00
BENT 17 -L- 135+00
BENT 18 -L- 136+00
BENT 19 -L- 137+00

SAV HABITAT SURVEY BOUNDARY

SITE 4 TEMPORARY BRIDGE BENTS

SITE 4 PERMANENT BRIDGE BENTS

-L- TRESTLE 2 -L- TRESTLE 1

N 13°19'17"E

N 13°19'17"E

CURRITUCK SOUND

MATCHLINE SHEET 12 -L- STA. 124+00

MATCHLINE SHEET 13B -L- STA. 137+00

125+00 130+00 135+00

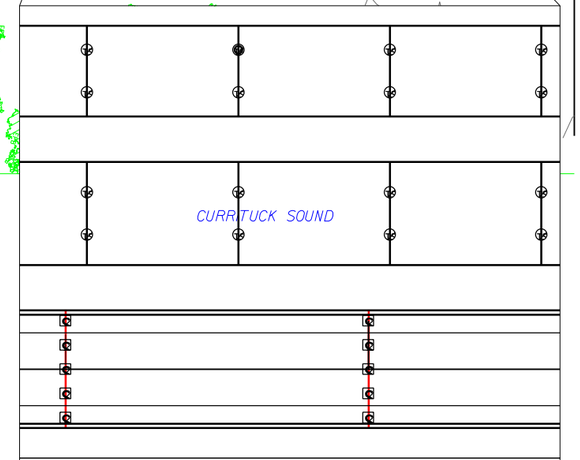
SAV HABITAT SURVEY BOUNDARY

S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

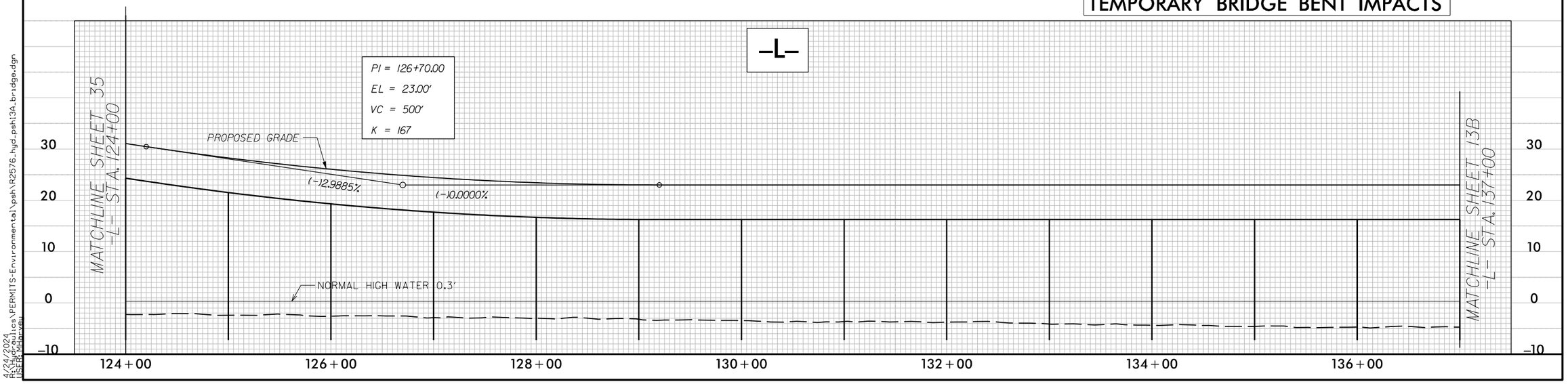
TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



4/24/2024
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USER:Mharvey

S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB SAV HABITAT EPB

GRAPHIC SCALE 100' 0' 100'

NAD 83/2011

PERMIT DRAWING SHEET 31 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

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License No. F-0377
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13B
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

CURRITUCK SOUND

SITE 4 CONT AT EACH BENT

SAV HABITAT SURVEY BOUNDARY

-L_TRESTLE2- POT Sta. 30+77.63
-L- Sta. 139+00.00
76.29' LT

-L_TRESTLE1- POT Sta. 30+73.55
-L- Sta. 139+00.00
40.29' LT

BENT 20 -L- 138+00
BENT 21 -L- 139+00
BENT 22 -L- 140+00
BENT 23 -L- 141+00
BENT 24 -L- 142+00
BENT 25 -L- 143+00
BENT 26 -L- 144+00
BENT 27 -L- 145+00
BENT 28 -L- 146+00
BENT 29 -L- 147+00
BENT 30 -L- 148+00
BENT 31 -L- 149+00
BENT 19 -L- 137+00

MATCHLINE SHEET 13A -L- STA. 137+00

MATCHLINE SHEET 13C -L- STA. 149+00

140+00

145+00

8'
24'
8'

N 73° 19' 17.1" E

SITE 4 PERMANENT BRIDGE BENTS

CURRITUCK SOUND

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

SAV HABITAT SURVEY BOUNDARY

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

-L-

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

30 20 10 0 -10

138+00 140+00 142+00 144+00 146+00 148+00

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DENOTES IMPACTS IN
SURFACE WATER (PERMANENT BENTS)

EPB
SAV HABITAT
EPB

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT. AND RT.

CURRITUCK SOUND

PERMIT DRAWING
SHEET 32 OF 89

NAD 83/2011

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1223 Jones Franklin Rd.
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License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13C
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

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

MATCHLINE SHEET 13B -L- STA. 149+00

MATCHLINE SHEET 13D -L- STA. 161+00

BENT 31 -L- 149+00
BENT 32 -L- 150+00
BENT 33 -L- 151+00
BENT 34 -L- 152+00
BENT 35 -L- 153+00
BENT 36 -L- 154+00
BENT 37 -L- 155+00
BENT 38 -L- 156+00
BENT 39 -L- 157+00
BENT 40 -L- 158+00
BENT 41 -L- 159+00
BENT 42 -L- 160+00
BENT 43 -L- 161+00

150+00 155+00 160+00

8' .025 24' .025 8'

N 73°19'17.1" E

SITE 4
PERMANENT
BRIDGE BENTS

SEE PERMIT APPLICATION FOR
INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS

-L-

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

30 20 10 0 -10

150+00 152+00 154+00 156+00 158+00 160+00

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USER:Mdarveau

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 33 OF 89

NAD 83/2011

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	13D
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

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

BENT 43 -L- 161+00
BENT 44 -L- 162+00
BENT 45 -L- 163+00
BENT 46 -L- 164+00
BENT 47 -L- 165+00
BENT 48 -L- 166+00
BENT 49 -L- 167+00
BENT 50 -L- 168+00
BENT 51 -L- 169+00
BENT 52 -L- 170+00
BENT 53 -L- 171+00
BENT 54 -L- 172+00
BENT 55 -L- 173+00

MATCHLINE SHEET 13C -L- STA. 161+00

MATCHLINE SHEET 13E -L- STA. 173+00

165+00

170+00

8'
24'
8'
.025
.025

N 73° 19' 17.1" E

SITE 4
PERMANENT
BRIDGE BENTS

NAVIGATIONAL CHANNEL

CURRITUCK SOUND

SEE PERMIT APPLICATION FOR
INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

SAV HABITAT SURVEY BOUNDARY

TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS

-L-

PI = 162+15.00
EL = 23.00'
VC = 150'
K = 200

PI = 171+50.00
EL = 30.00'
VC = 250'
K = 167

PROPOSED GRADE

(+)0.0000%
(+)0.7487%
(+)0.7487%
(-)0.7487%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 13C -L- STA. 161+00

MATCHLINE SHEET 13E -L- STA. 173+00

30 20 10 0 -10

162+00 164+00 166+00 168+00 170+00 172+00

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8/17/09

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

EPB SAV HABITAT EPB

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS= 8 SCUPPERS LT AND RT.

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

CURRITUCK SOUND

NAD 83-2011

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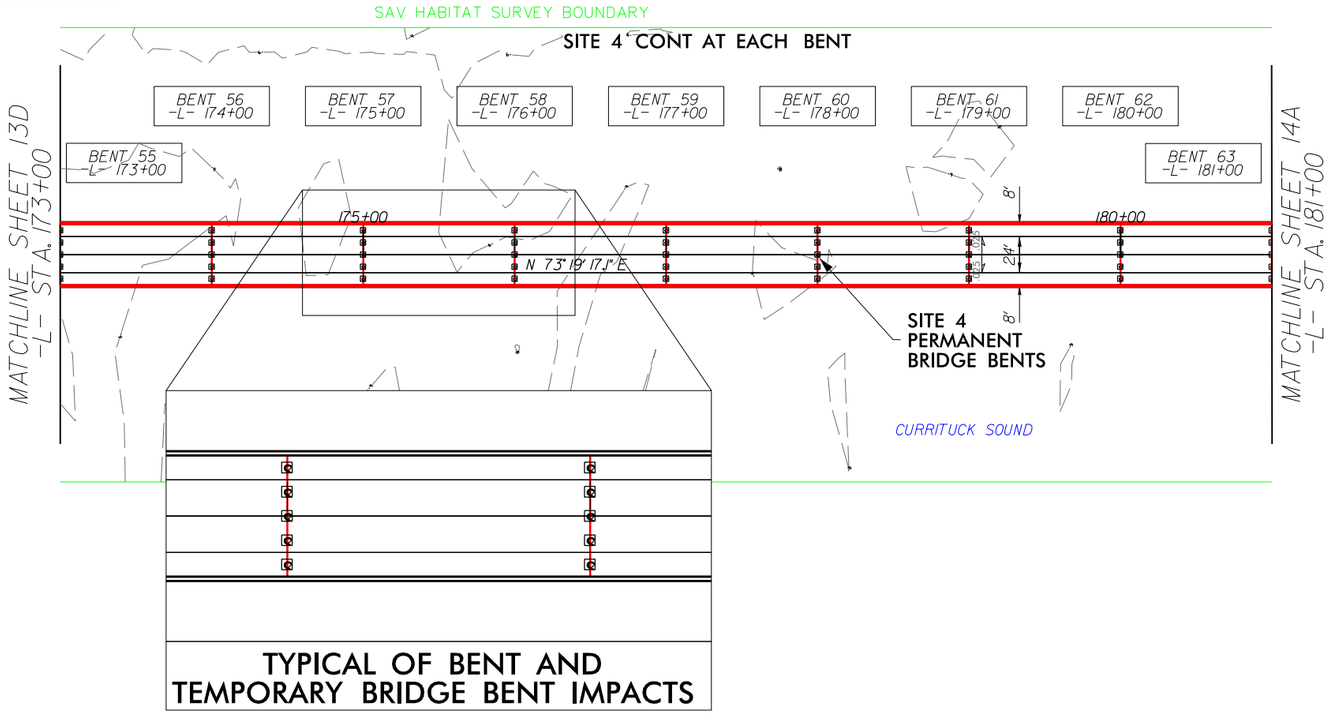
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Fax: 919 851 8107
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

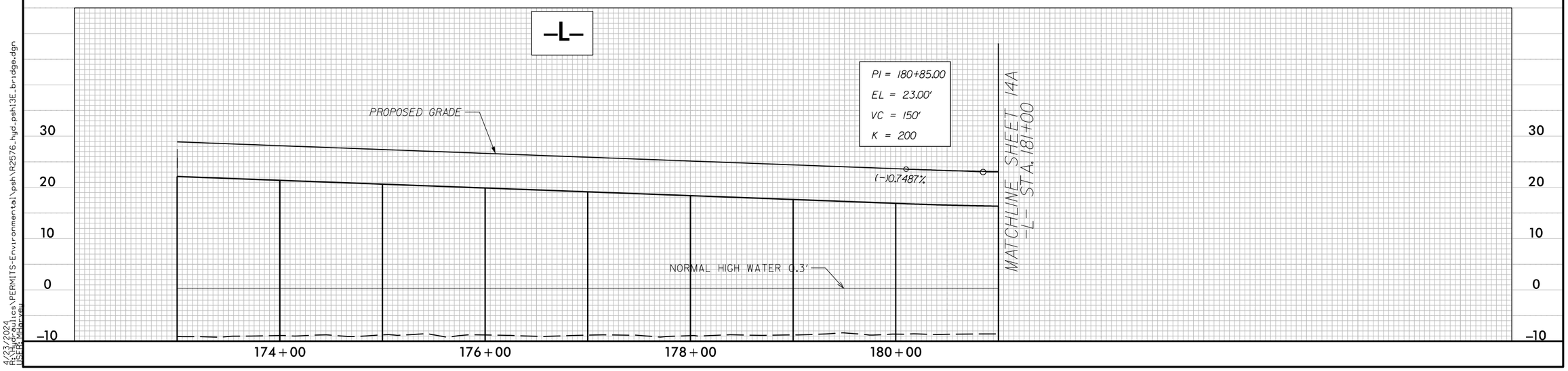
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PERMIT DRAWING
SHEET 34 OF 89

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TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

PERMIT DRAWING SHEET 35 OF 89

EPB SAV HABITAT EPB

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	14A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

BENT 63 -L- 181+00
BENT 64 -L- 182+00
BENT 65 -L- 183+00
BENT 66 -L- 184+00
BENT 67 -L- 185+00
BENT 68 -L- 186+00
BENT 69 -L- 187+00
BENT 70 -L- 188+00
BENT 71 -L- 189+00
BENT 72 -L- 190+00
BENT 73 -L- 191+00
BENT 74 -L- 192+00
BENT 75 -L- 193+00

MATCHLINE SHEET 13E -L- STA. 181+00

MATCHLINE SHEET 14B -L- STA. 193+00

8'
24'
8'
185+00
190+00
N 73°19'17.1" E

SITE 4 PERMANENT BRIDGE BENTS

SITE 4 PERMANENT BRIDGE BENTS

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

CURRITUCK SOUND

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

-L-

PI = 180+85.00
EL = 23.00'
VC = 150'
K = 200

(-)0.0000%

PROPOSED GRADE

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 13E -L- STA. 181+00

MATCHLINE SHEET 14B -L- STA. 193+00

30 20 10 0 -10

182+00 184+00 186+00 188+00 190+00 192+00

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S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 36 OF 89

NAD 83/2011

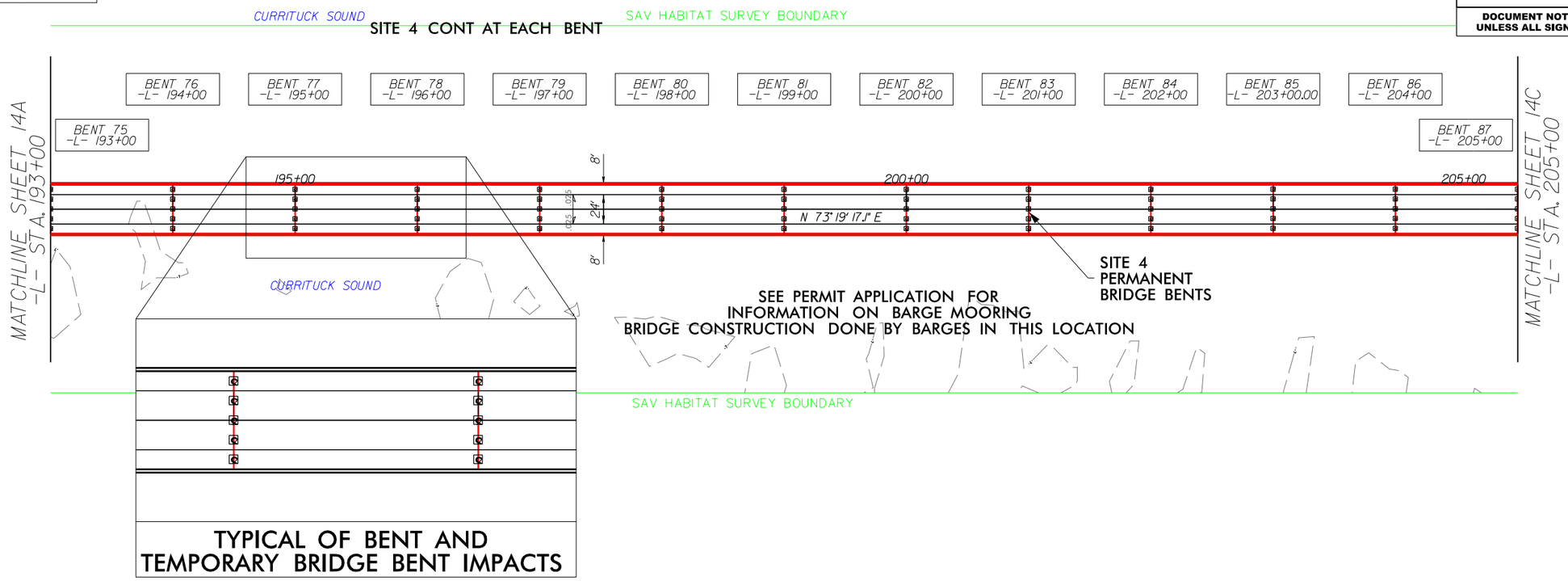
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

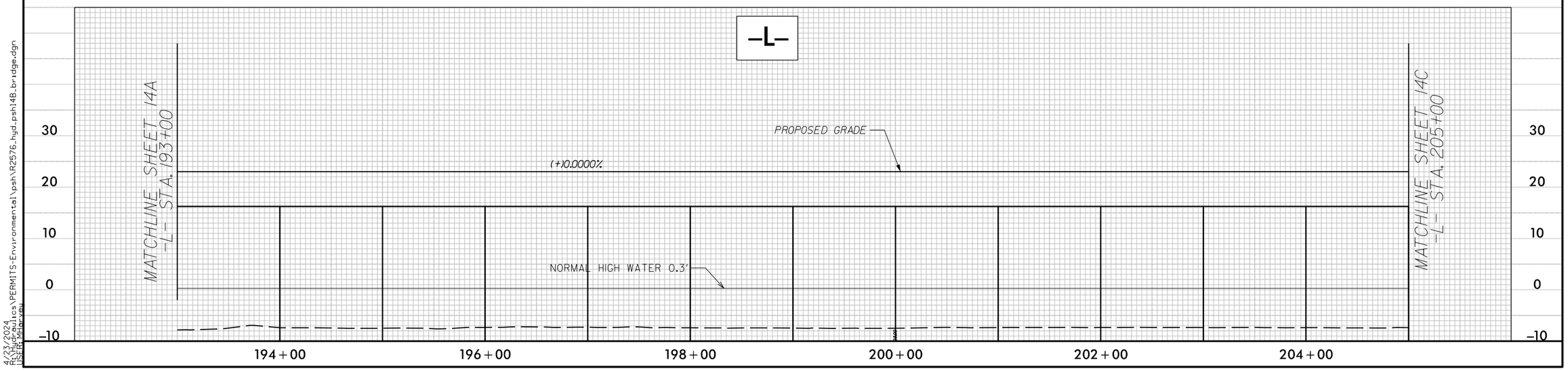
PROJECT REFERENCE NO.	SHEET NO.
R-2576	14B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

EPB SAV HABITAT EPB

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

PERMIT DRAWING SHEET 37 OF 89

NAD 83/2011

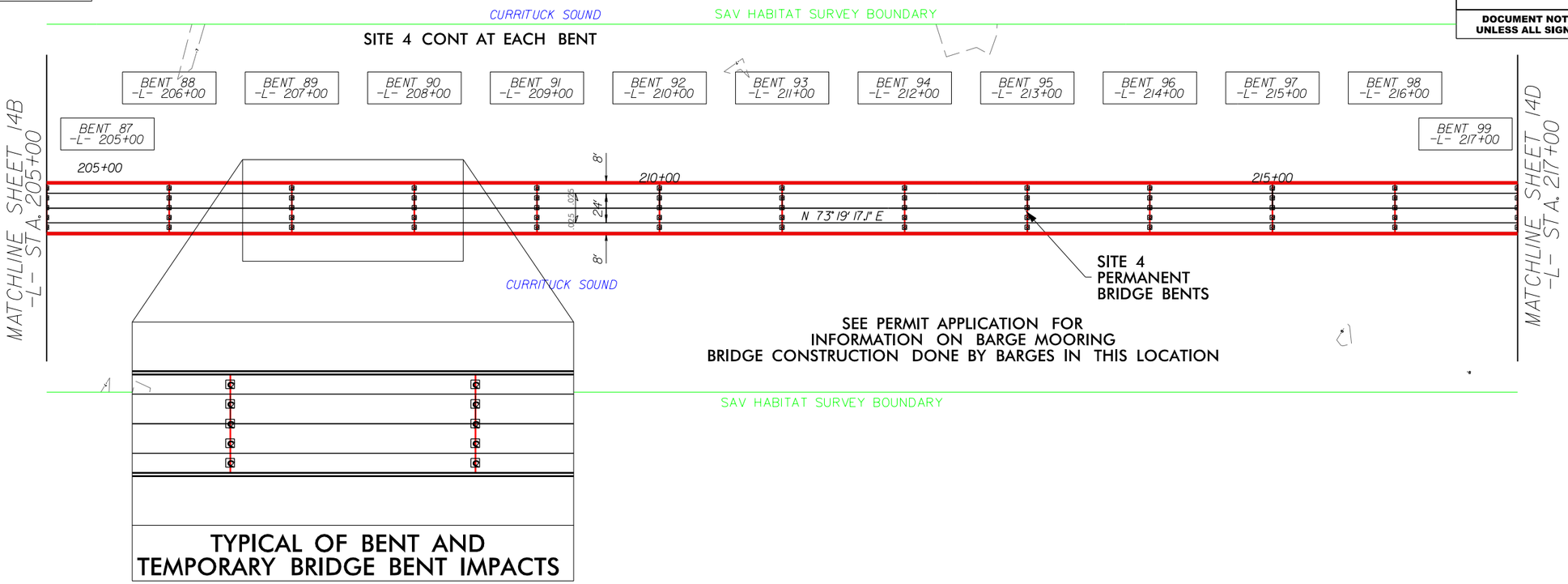
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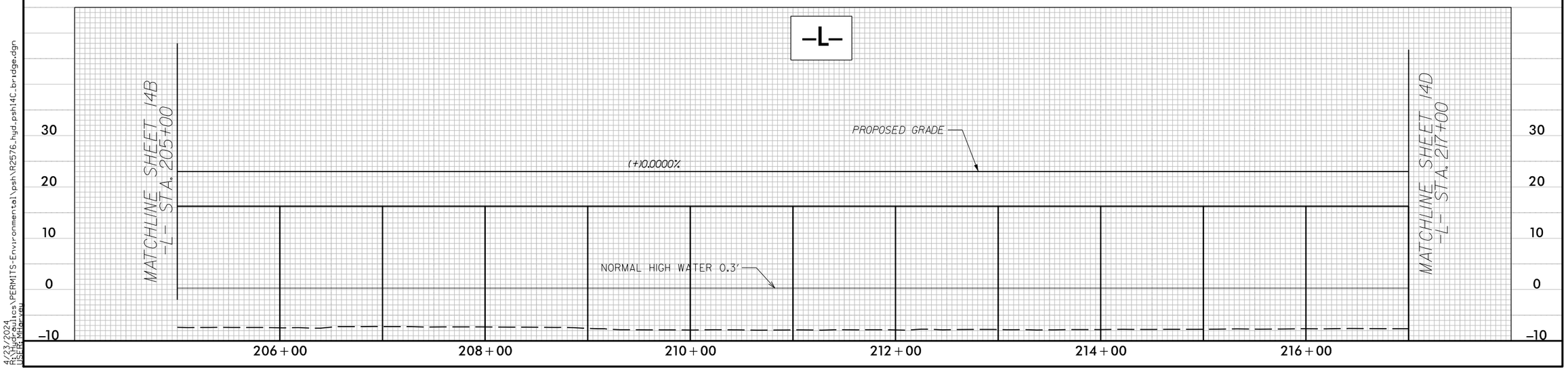
PROJECT REFERENCE NO.	SHEET NO.
R-2576	14C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 38 OF 89

NAD 83/2011

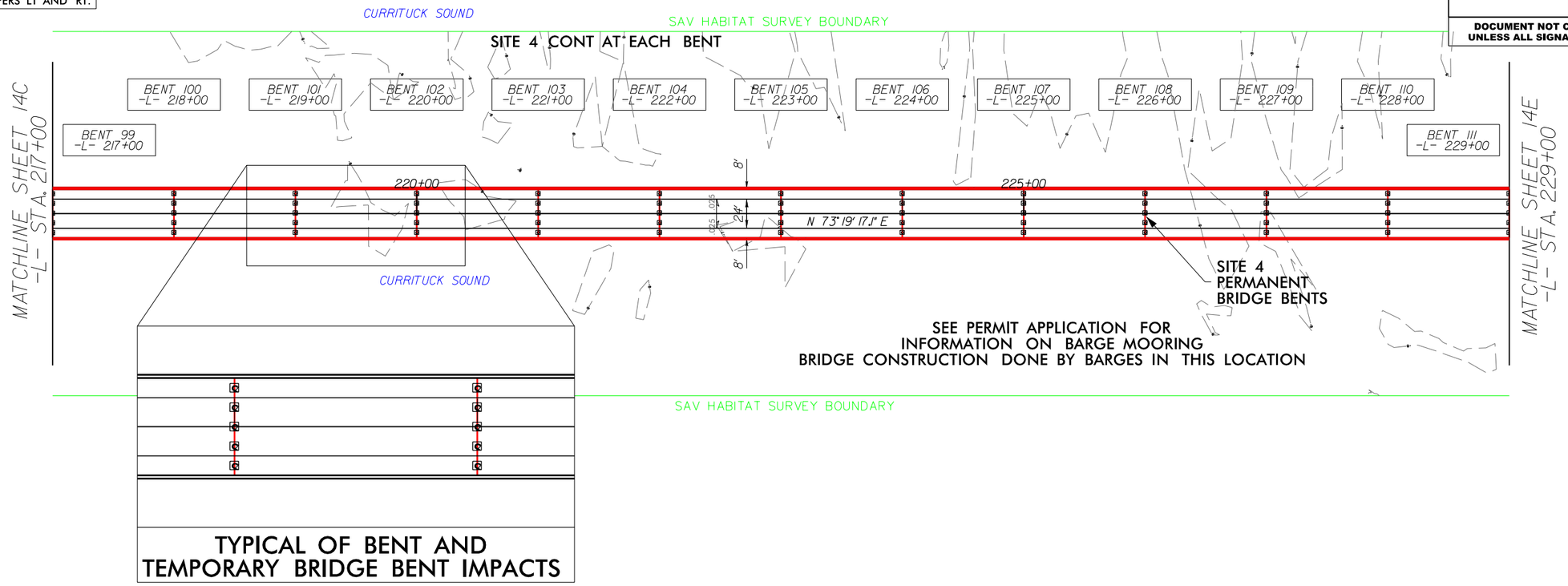
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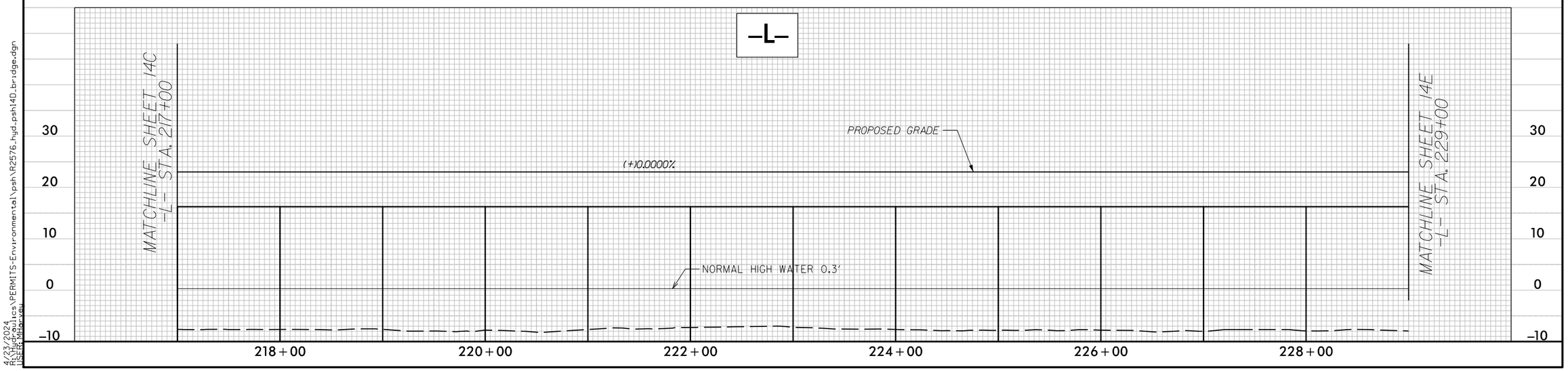
PROJECT REFERENCE NO.	SHEET NO.
R-2576	14D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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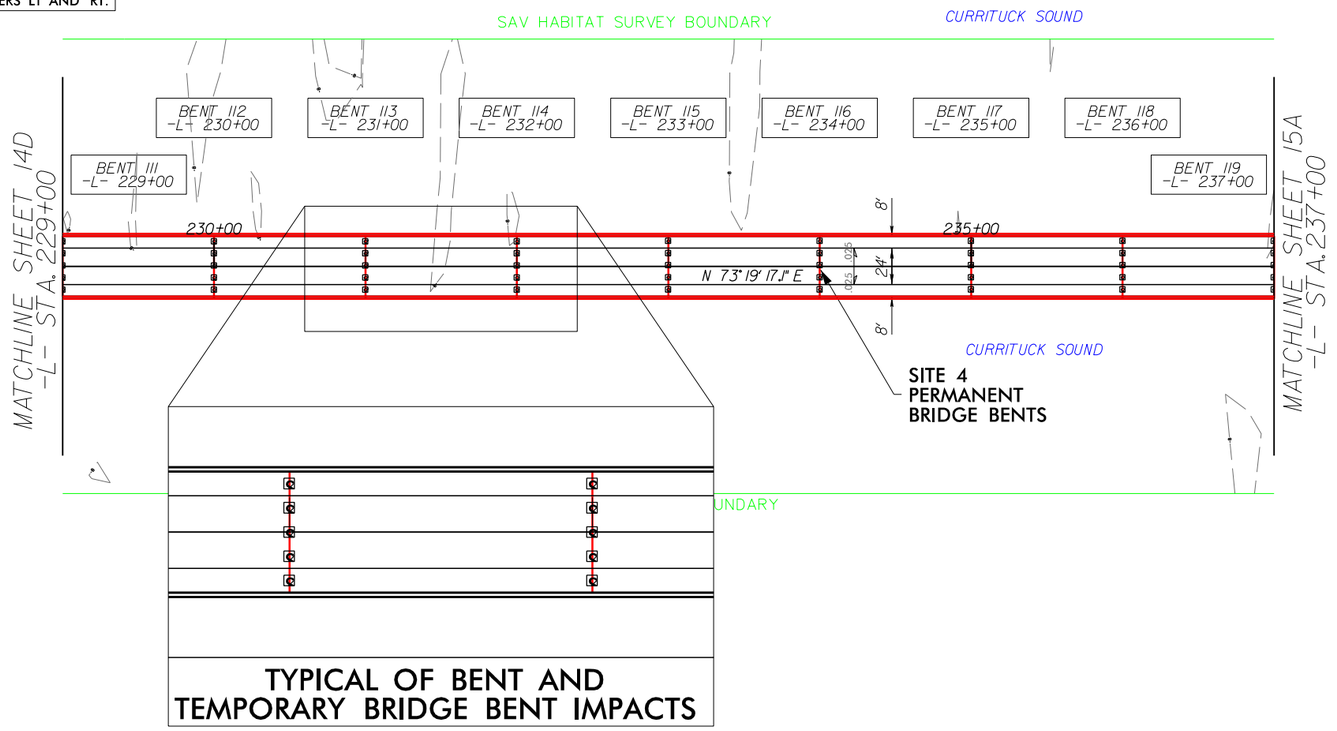
S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

EPB SAV HABITAT EPB

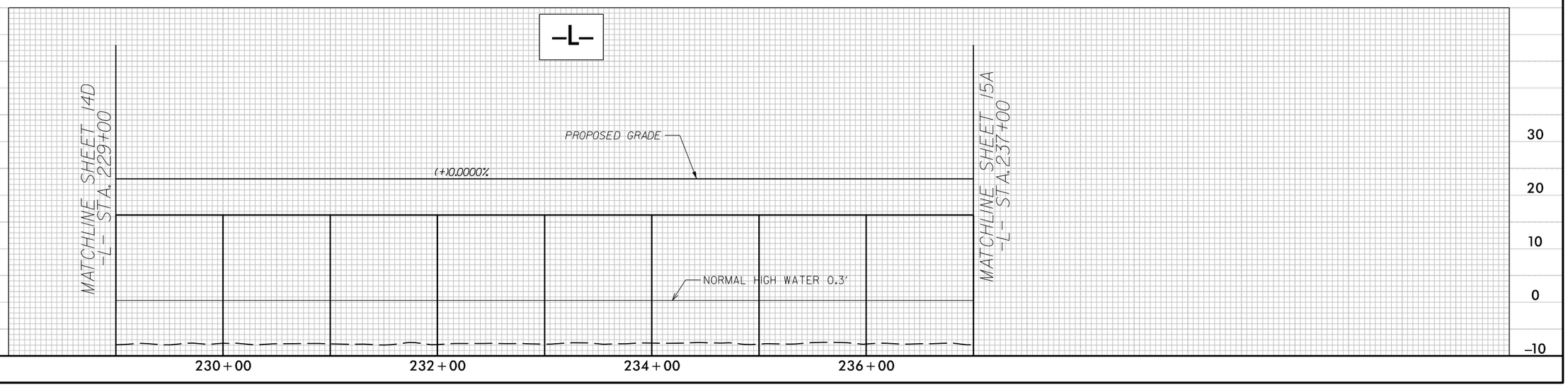
100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING SITE 4 CONT AT EACH BENT



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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NAD 83(2011)

PROJECT REFERENCE NO.	SHEET NO.
R-2576	14E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PERMIT DRAWING
SHEET 39 OF 89

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8/17/23

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

EPB SAV HABITAT EPB

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

PERMIT DRAWING
SHEET 40 OF 89

NAD 83/2011

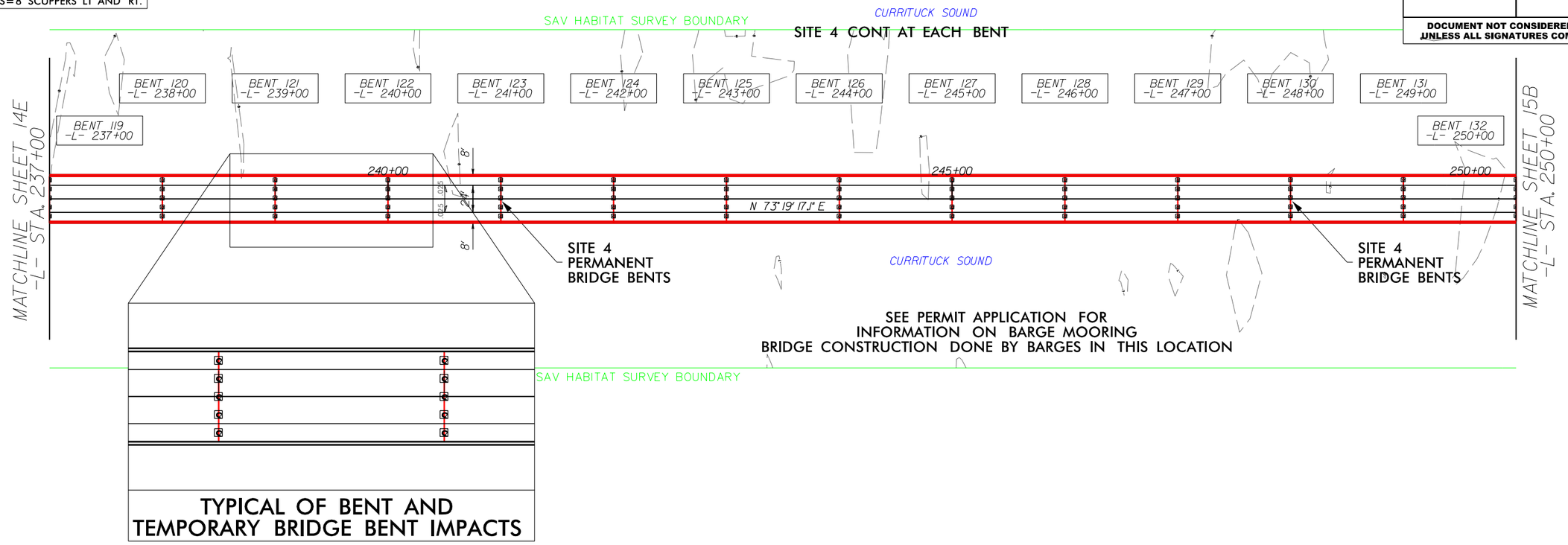
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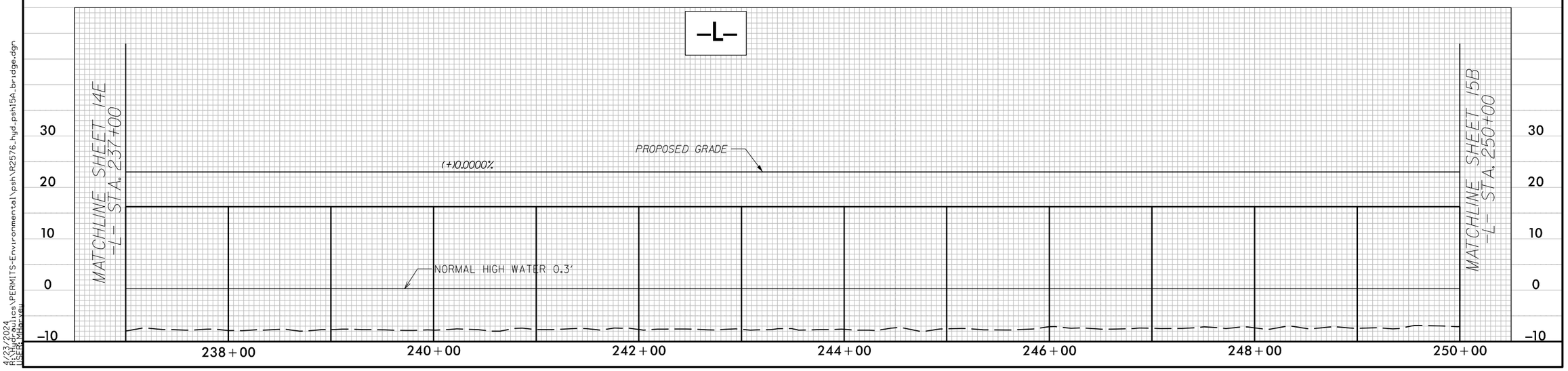
PROJECT REFERENCE NO.	SHEET NO.
R-2576	15A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER:Mdarvey

DENOTES IMPACTS IN
SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB
SAV HABITAT
EPB

PERMIT DRAWING
SHEET 41 OF 89

NAD 83/2011

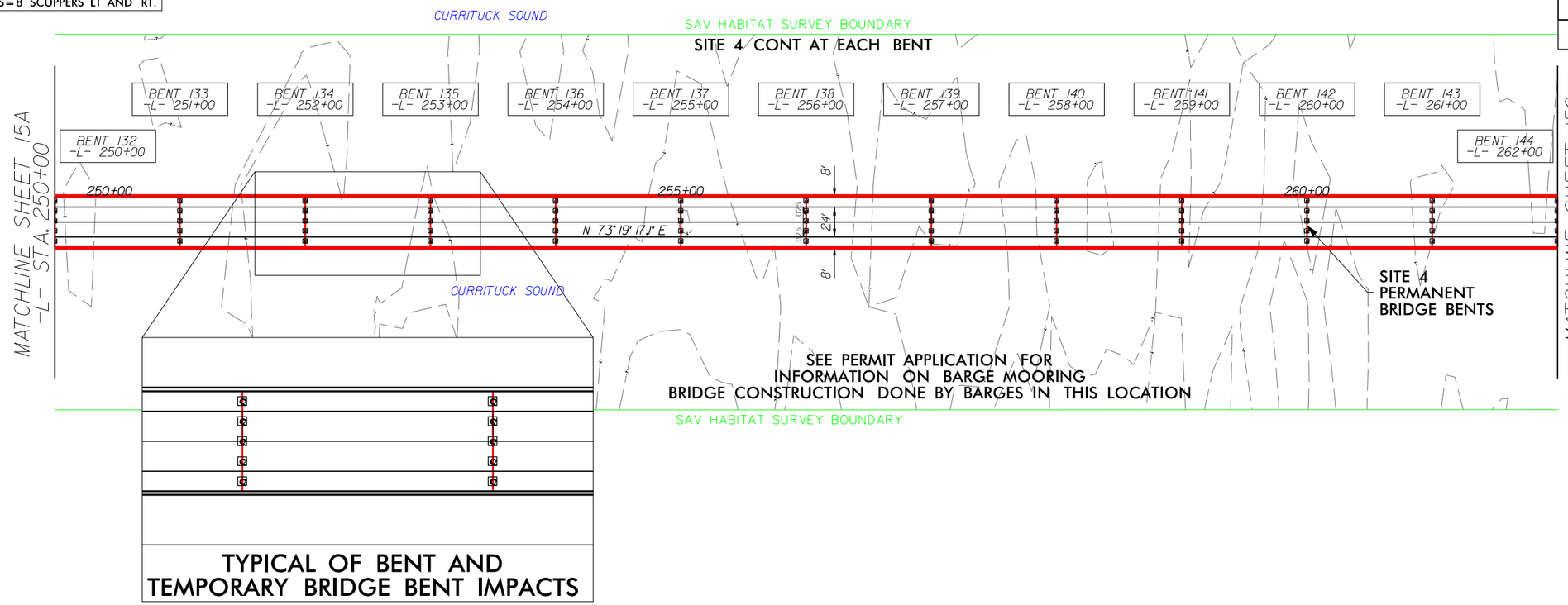
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CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	15B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS



4/23/2024
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USER:Mdarvey

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 42 OF 89

NAD 83/2011

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	15C
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

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

BENT 144 -L- 262+00
BENT 145 -L- 263+00
BENT 146 -L- 264+00
BENT 147 -L- 265+00
BENT 148 -L- 266+00
BENT 149 -L- 267+00
BENT 150 -L- 268+00
BENT 151 -L- 269+00
BENT 152 -L- 270+00
BENT 153 -L- 271+00
BENT 154 -L- 272+00
BENT 155 -L- 273+00
BENT 156 -L- 274+00

MATCHLINE SHEET 15B -L- STA. 262+00

MATCHLINE SHEET 15D -L- STA. 274+00

265+00

270+00

8'
24'
8'

N 73° 19' 17.1" E

CURRITUCK SOUND

SITE 4
PERMANENT
BRIDGE BENTS

SEE PERMIT APPLICATION FOR
INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

SAV HABITAT SURVEY BOUNDARY

TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS

-L-

PROPOSED GRADE
(+)0.0000%

NORMAL HIGH WATER 0.3'

30 20 10 0 -10

262+00 264+00 266+00 268+00 270+00 272+00 274+00

4/23/2024
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USER:Mdarvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

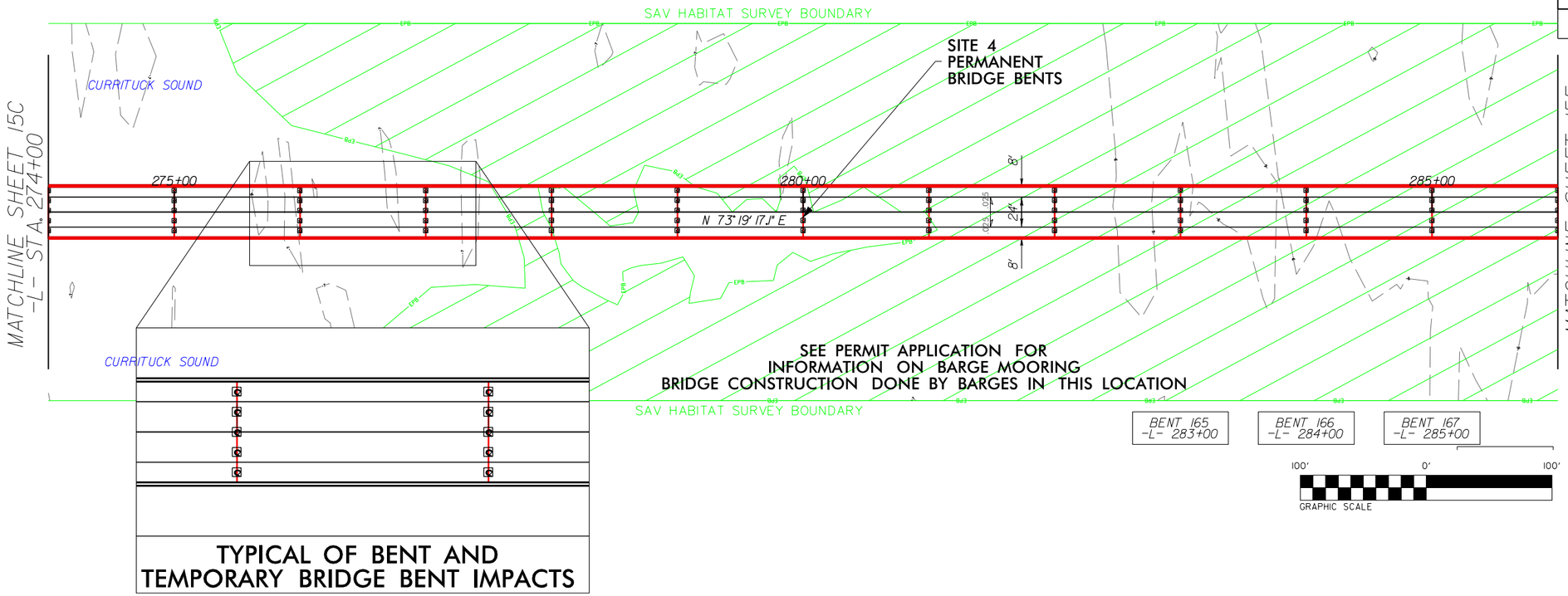
PERMIT DRAWING SHEET 43 OF 89

EPB SAV HABITAT EPB

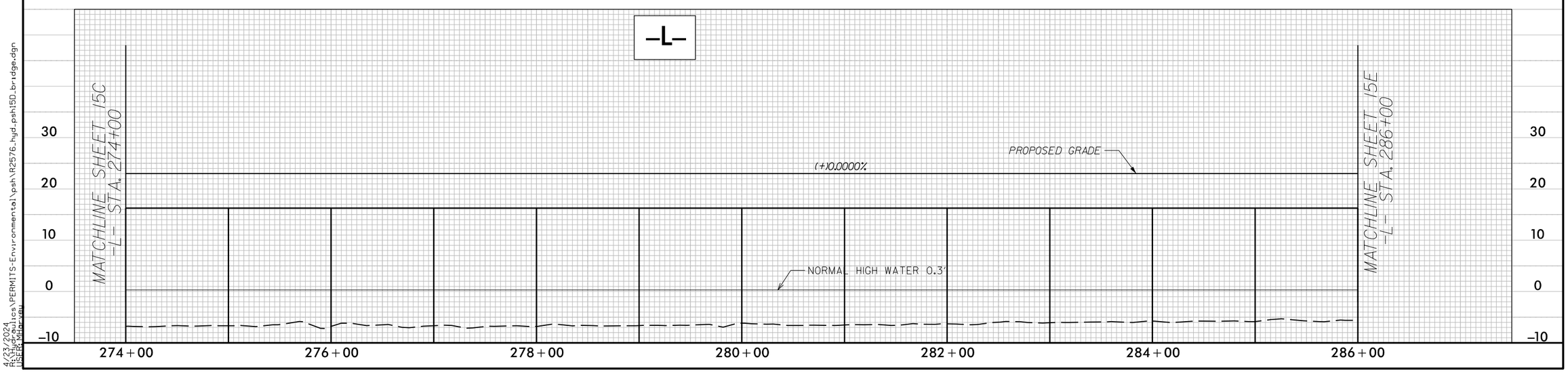
6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

NAD 83/2011

BENT 156 -L- 274+00 | BENT 157 -L- 275+00 | BENT 158 -L- 276+00 | BENT 159 -L- 277+00 | BENT 160 -L- 278+00 | BENT 161 -L- 279+00 | BENT 162 -L- 280+00 | BENT 163 -L- 281+00 | BENT 164 -L- 282+00



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	15D

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
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USER: MHarvey

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

EPB SAV HABITAT EPB

NAD 83/2011

BENT 169 -L- 287+00 | BENT 170 -L- 288+00 | BENT 171 -L- 289+00 | BENT 172 -L- 290+00 | BENT 173 -L- 291+00 | BENT 174 -L- 292+00 | BENT 175 -L- 293+00

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

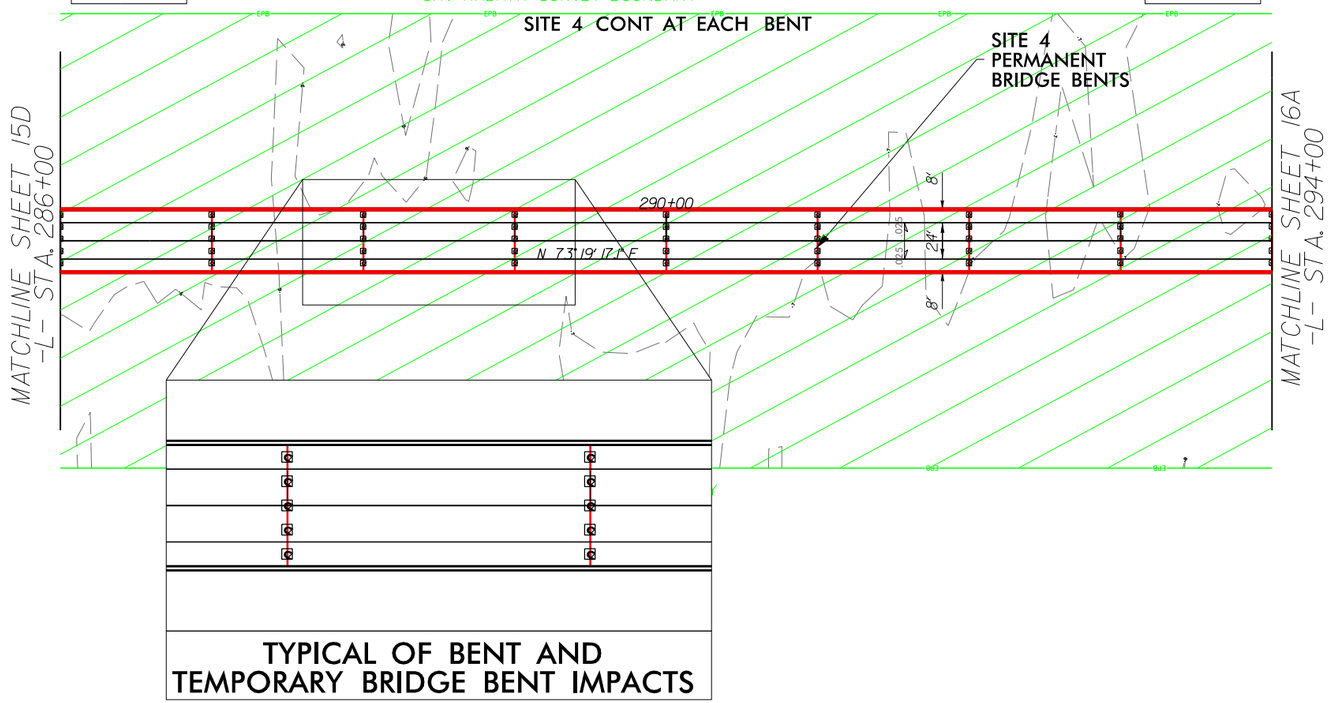
BENT 168 -L- 286+00 | BENT 176 -L- 294+00

CURRITUCK SOUND

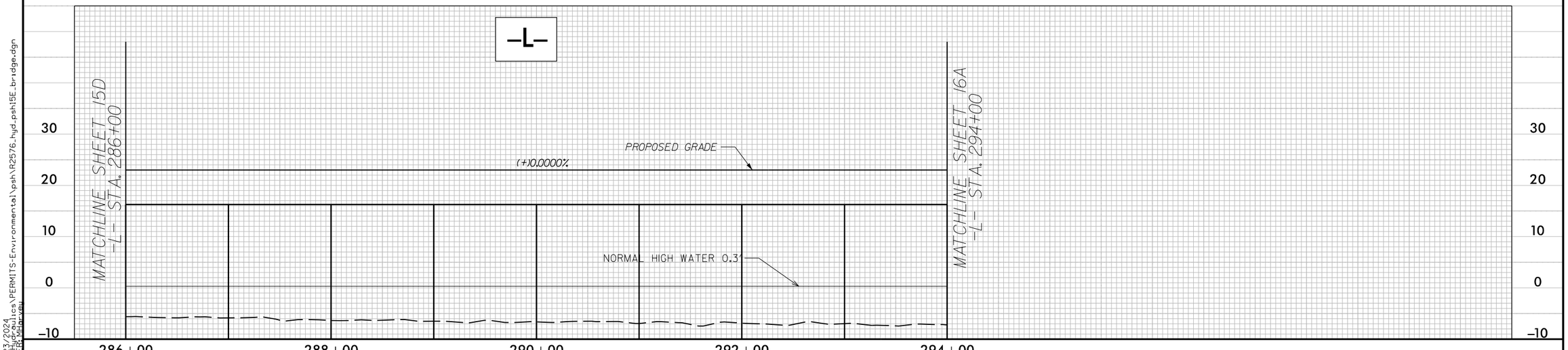
SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

SITE 4 PERMANENT BRIDGE BENTS



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	15E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PERMIT DRAWING
SHEET 44 OF 89

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT. AND RT.

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S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

PERMIT DRAWING SHEET 45 OF 89

EPB SAV HABITAT EPB

NAD 83/2011

BENT 176 -L- 294+00 | BENT 177 -L- 295+00 | BENT 178 -L- 296+00 | BENT 179 -L- 297+00 | BENT 180 -L- 298+00 | BENT 181 -L- 299+00 | BENT 182 -L- 300+00 | BENT 183 -L- 301+00 | BENT 184 -L- 302+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT. AT EACH BENT

SITE 4 PERMANENT BRIDGE BENTS

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

MATCHLINE SHEET 15E -L- STA. 294+00

MATCHLINE SHEET 16B -L- STA. 306+00

295+00 300+00 305+00

8' 24' 8'

.025 .025

N 73° 19' 17.1" E

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

BENT 188 -L- 306+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

BENT 185 -L- 303+00 | BENT 186 -L- 304+00 | BENT 187 -L- 305+00

100' 0' 100'

GRAPHIC SCALE

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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–L–

MATCHLINE SHEET 15E -L- STA. 294+00

MATCHLINE SHEET 16B -L- STA. 306+00

(+)0.0000%

PROPOSED GRADE

NORMAL HIGH WATER 0.3'

30 20 10 0 –10

294+00 296+00 298+00 300+00 302+00 304+00 306+00

4/23/2024
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USER: Marvau

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

PERMIT DRAWING SHEET 46 OF 89

EPB SAV HABITAT EPB

NAD 83/2011

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	16B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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BENT 188 -L- 306+00 | BENT 189 -L- 307+00 | BENT 190 -L- 308+00 | BENT 191 -L- 309+00 | BENT 192 -L- 310+00 | BENT 193 -L- 311+00 | BENT 194 -L- 312+00 | BENT 195 -L- 313+00 | BENT 196 -L- 314+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

SITE 4 PERMANENT BRIDGE BENTS

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS= 8 SCUPPERS LT AND RT.

MATCHLINE SHEET 16A -L- STA. 306+00

MATCHLINE SHEET 16C -L- STA. 318+00

310+00

315+00

N 73°19'17.1"E

8'

24'

8'

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

BENT 200 -L- 318+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

BENT 197 -L- 315+00 | BENT 198 -L- 316+00 | BENT 199 -L- 317+00

100' 0' 100'
GRAPHIC SCALE

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

-L-

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 16A -L- STA. 306+00

MATCHLINE SHEET 16C -L- STA. 318+00

30 20 10 0 -10

306+00 308+00 310+00 312+00 314+00 316+00 318+00

4/23/2024
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6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

PERMIT DRAWING
SHEET 47 OF 89

EPB
SAV HABITAT
EPB

NAD 83/2011

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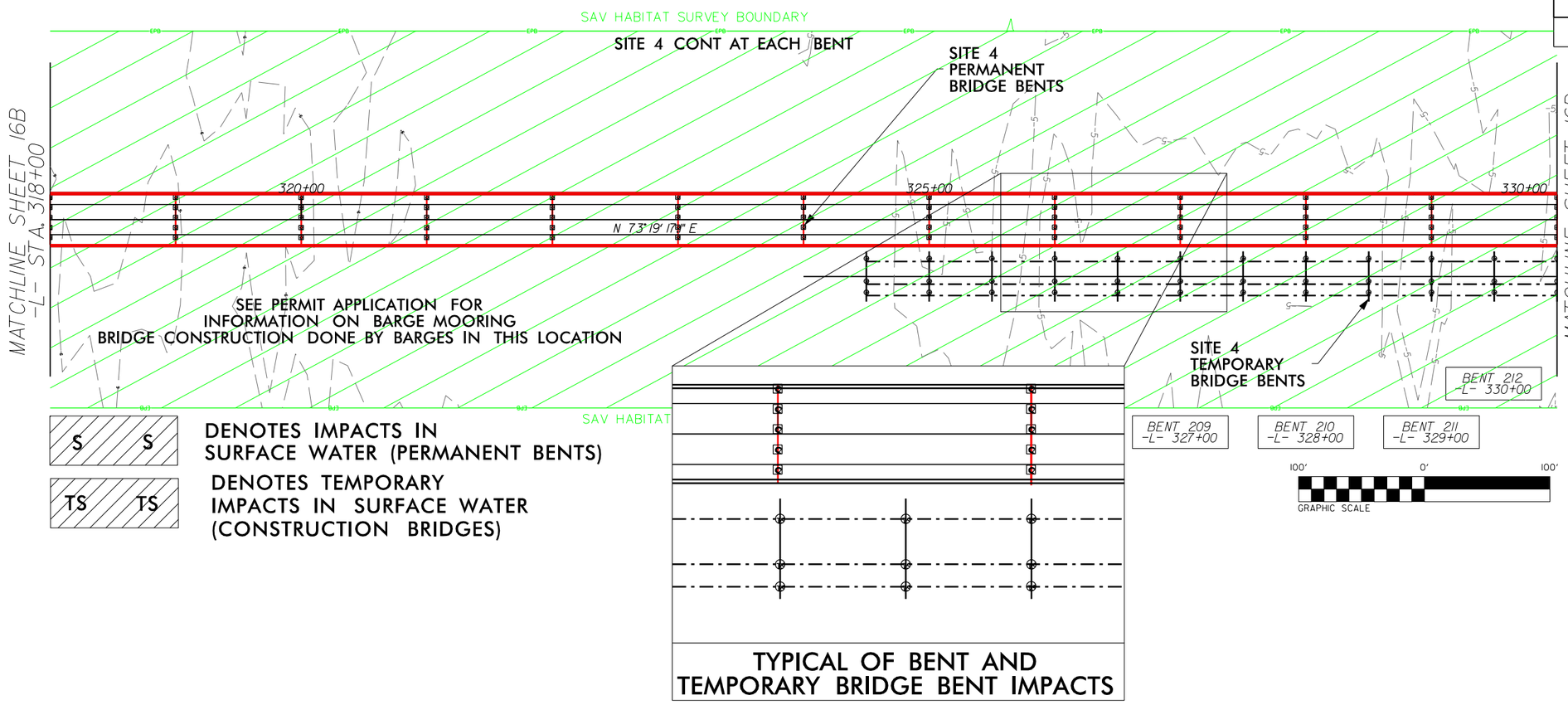
WETHERILL ENGINEERING
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License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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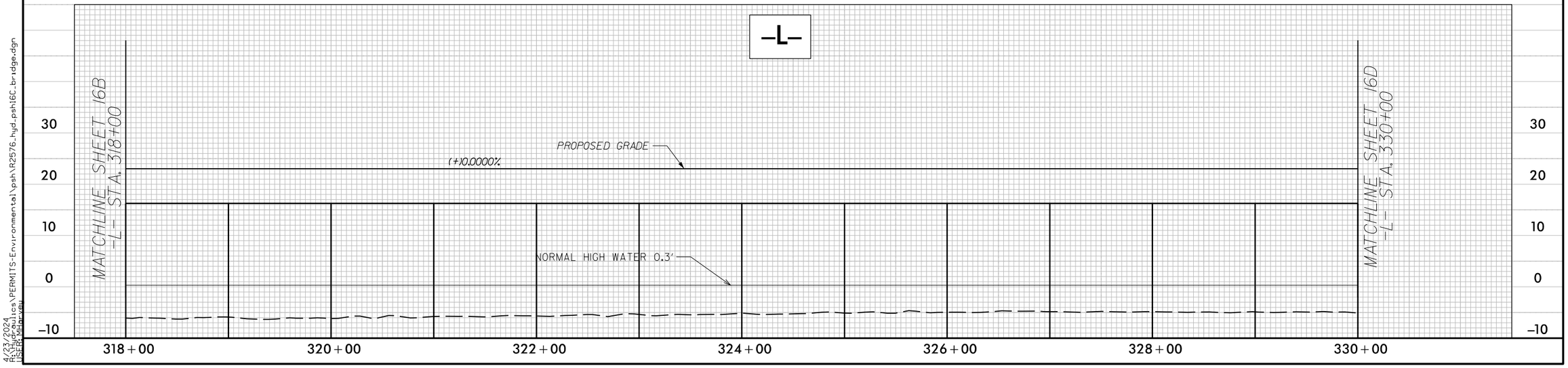
BENT 200 -L- 318+00 | BENT 201 -L- 319+00 | BENT 202 -L- 320+00 | BENT 203 -L- 321+00 | BENT 204 -L- 322+00 | BENT 205 -L- 323+00 | BENT 206 -L- 324+00 | BENT 207 -L- 325+00 | BENT 208 -L- 326+00



S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



4/23/2024
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6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

100' 0' 100'
GRAPHIC SCALE

EPB
SAV HABITAT
EPB

NAD 83/2011

BENT 212 -L- 330+00 | BENT 213 -L- 331+00 | BENT 214 -L- 332+00 | BENT 215 -L- 333+00 | BENT 216 -L- 334+00 | BENT 217 -L- 335+00 | BENT 218 -L- 336+00 | BENT 219 -L- 337+00 | BENT 220 -L- 338+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

SITE 4
PERMANENT
BRIDGE BENTS

MATCHLINE SHEET 16C
-L- STA. 330+00

330+00

335+00

N 73°19' 17.1" E

340+00

MATCHLINE SHEET 16E
-L- STA. 342+00

-L- TRESTLE 3 -

SITE 4
TEMPORARY
BRIDGE BENTS

BENT 224 -L- 342+00

T SURVEY BOUNDARY

CURRITUCK SOUND

BENT 221 -L- 339+00 | BENT 222 -L- 340+00 | BENT 223 -L- 341+00

S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

-L-

MATCHLINE SHEET 16C
-L- STA. 330+00

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 16E
-L- STA. 342+00

30 20 10 0 –10

330+00 332+00 334+00 336+00 338+00 340+00 342+00

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16D

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PERMIT DRAWING
SHEET 48 OF 89

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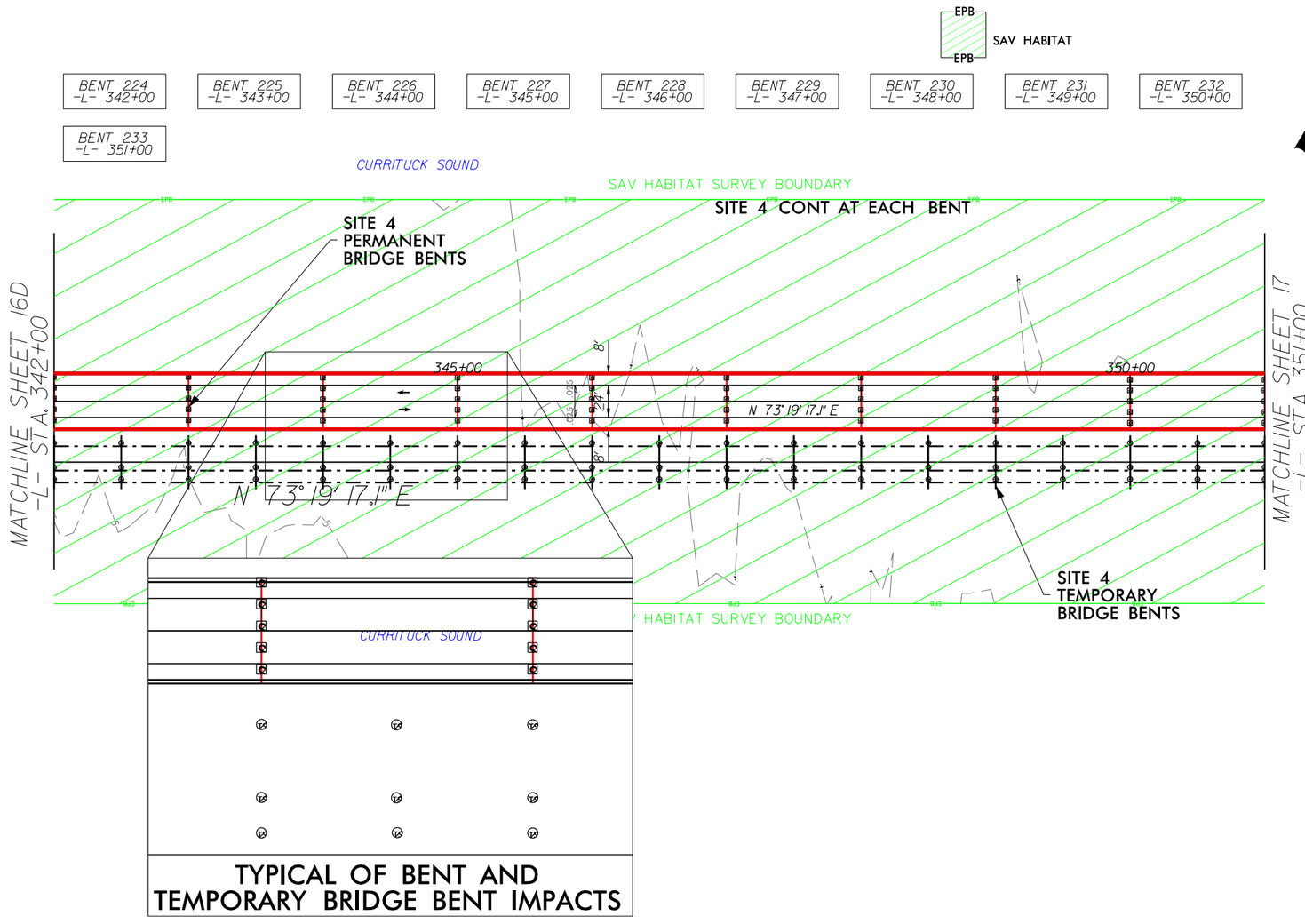
PROJECT REFERENCE NO.	SHEET NO.
R-2576	16E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PERMIT DRAWING SHEET 49 OF 89



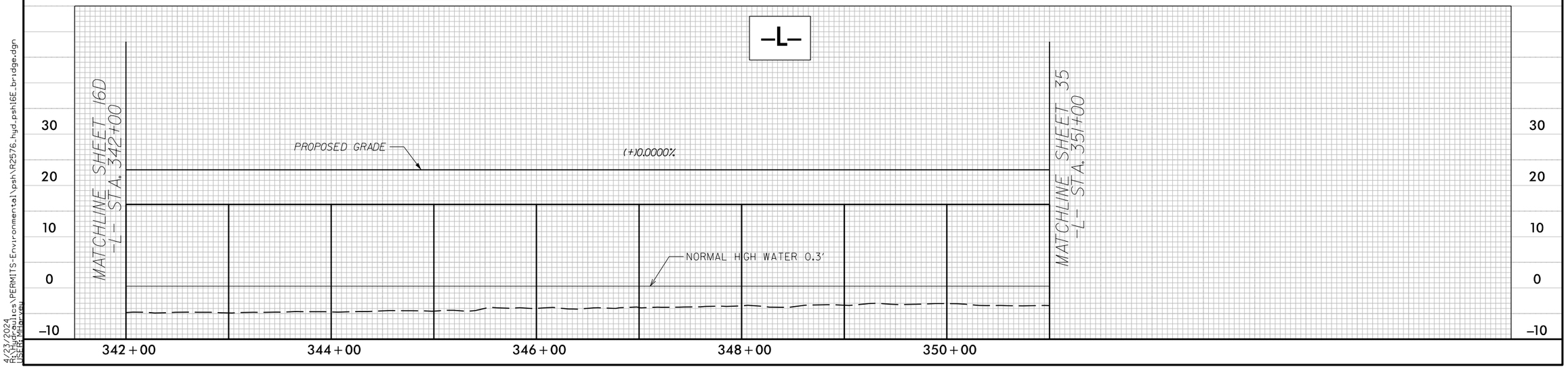
TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

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TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

100' 0' 100'
GRAPHIC SCALE



4/23/2024
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5/28/99

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NC License
Number F-0159

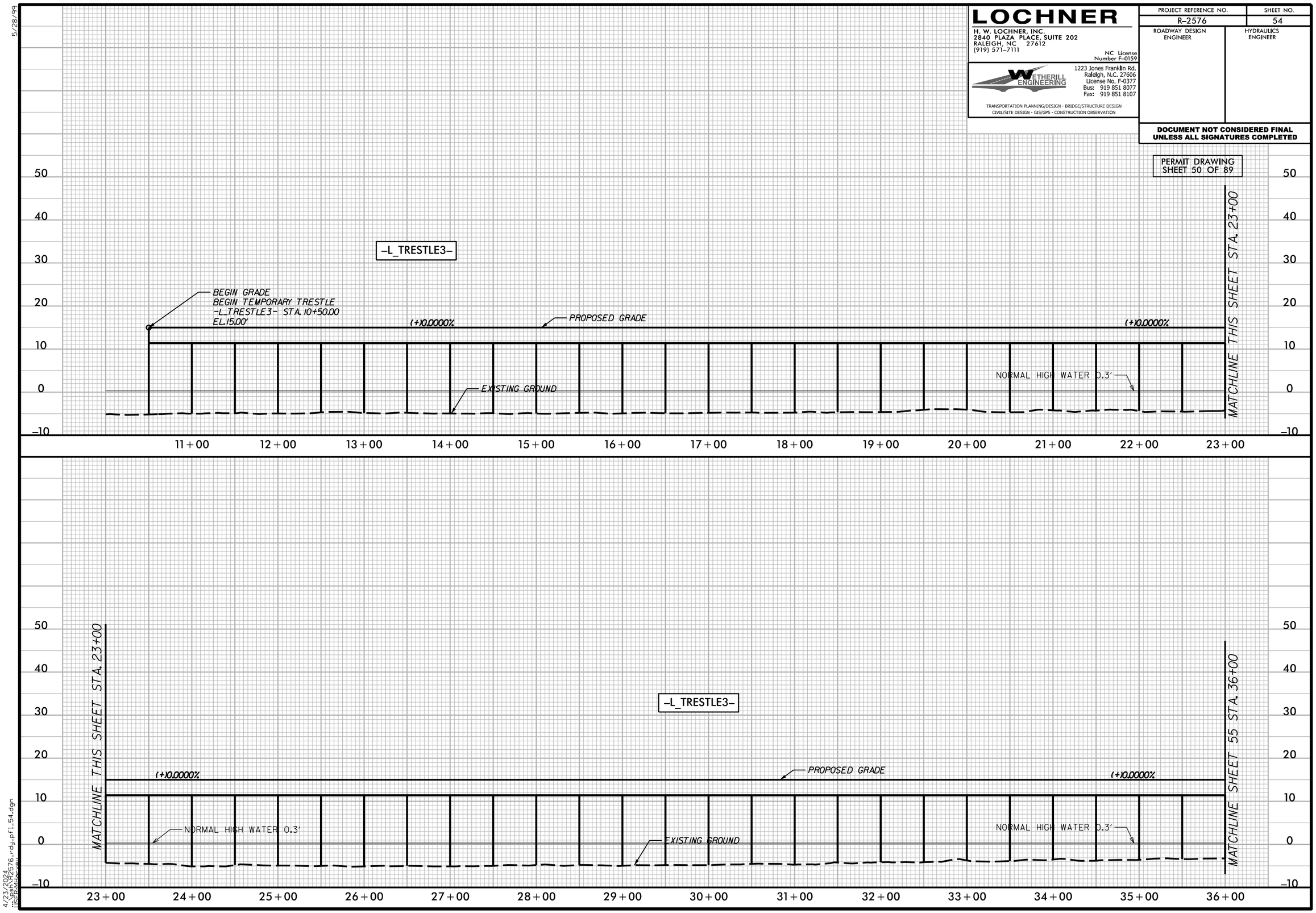
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	54
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PERMIT DRAWING
SHEET 50 OF 89



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6/2/99

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

PERMIT DRAWING SHEET 51 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	17
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.
END DECK DRAINS STA. 358+45 RT.
END DECK DRAINS STA. 358+45 LT.

NAD 83(2011)

100' 0' 100'
GRAPHIC SCALE

NORMAL HIGH WATER 0.3'

EPB SAV HABITAT EPB

PAVED SHOULDER

BENT 233 -L- 351+00
BENT 234 -L- 352+00
BENT 235 -L- 353+00
BENT 236 -L- 354+00
BENT 237 -L- 355+00
BENT 238 -L- 356+00
BENT 239 -L- 357+00
BENT 240 -L- 358+00
BENT 241 -L- 359+00
BENT 242 -L- 360+00
BENT 243 -L- 361+00
BENT 244 -L- 362+00

SAV HABITAT SURVEY BOUNDARY

SAV HABITAT SURVEY BOUNDARY

SITE 4 PERMANENT BRIDGE BENTS

-L_TRESTLE4-

-L_TRESTLE3-

N 73°19'17.1" E

355+00

360+00

BL-1

MATCHLINE SHEET 16E -L- STA. 351+00

MATCHLINE SHEET 18 -L- STA. 364+00

SITE 4 TEMPORARY BRIDGE BENTS

SAV HABITAT SURVEY BOUNDARY

SAV HABITAT SURVEY BOUNDARY

BENT 245 -L- 363+00

BENT 246 -L- 363+85

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE

4/23/2024
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USER:Mdarvell

6/2/99

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 52 OF 89

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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	17
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

100' 0' 100'
GRAPHIC SCALE

NORMAL HIGH WATER 0.3'

EPB SAV HABITAT EPB

PAVED SHOULDER

BENT 233 -L- 351+00
BENT 234 -L- 352+00
BENT 235 -L- 353+00
BENT 236 -L- 354+00
BENT 237 -L- 355+00
BENT 238 -L- 356+00
BENT 239 -L- 357+00
BENT 240 -L- 358+00
BENT 241 -L- 359+00
BENT 242 -L- 360+00
BENT 243 -L- 361+00
BENT 244 -L- 362+00

SAV HABITAT SURVEY BOUNDARY

SAV HABITAT SURVEY BOUNDARY

SITE 4
PERMANENT
BRIDGE BENTS

-L_TRESTLE4-

-L_TRESTLE3-

355+00

360+00

N 73°19' 17.1" E

SITE 4
TEMPORARY
BRIDGE BENTS

MATCHLINE SHEET 16E
-L- STA. 351+00

MATCHLINE SHEET 18
-L- STA. 364+00

SAV HABITAT SURVEY BOUNDARY

SAV HABITAT SURVEY BOUNDARY

BENT 245 -L- 363+00

BENT 246 -L- 363+85

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE

4/23/2021
R:\Projects\PERMITS-Environmental\psh\R2576_HYD_psh17_con.dgn
USER:Mharvey

5/28/99

LOCHNER

H. W. LOCHNER, INC.
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RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

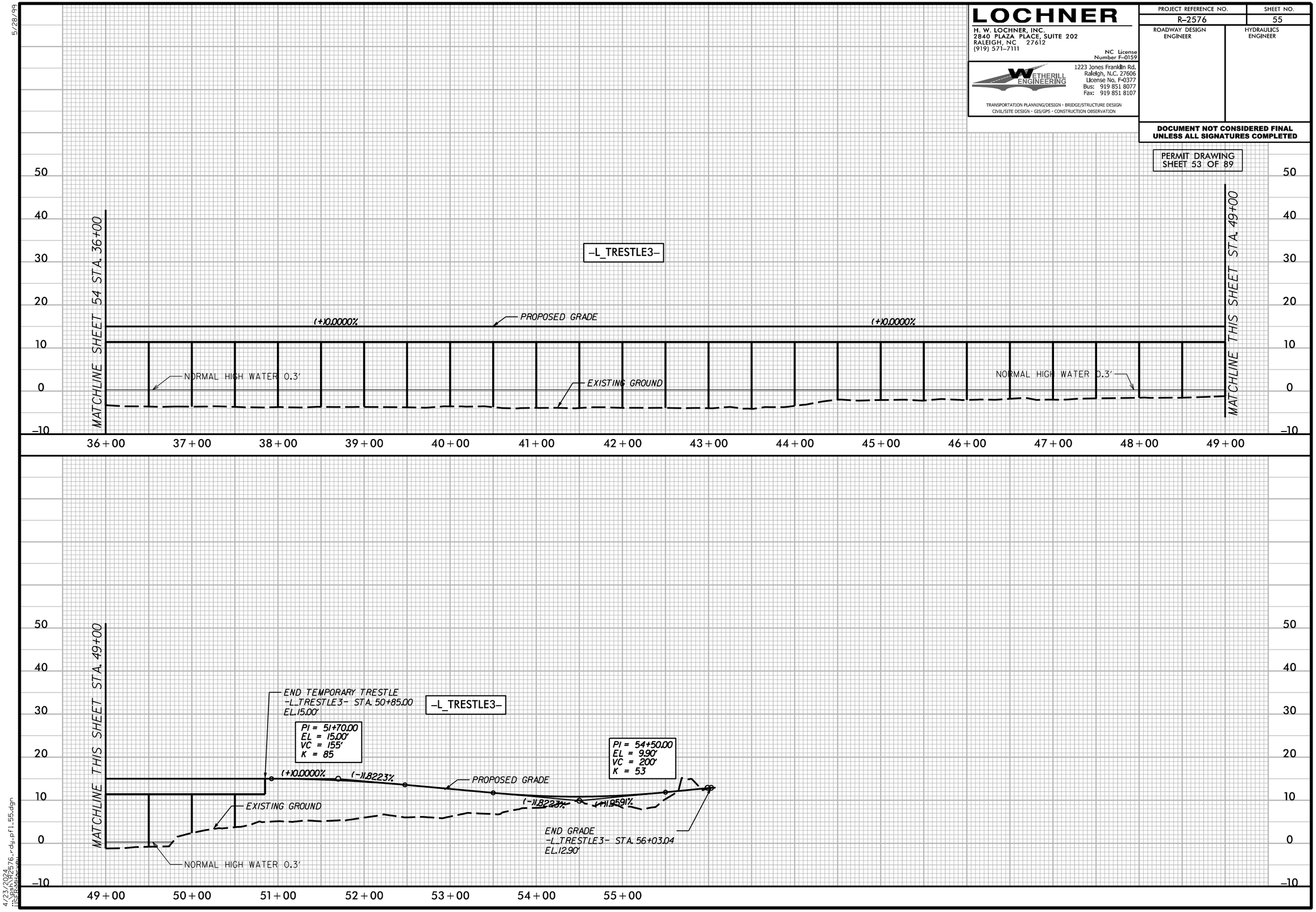
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	55
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PERMIT DRAWING
SHEET 53 OF 89



4/23/2024
R2576_r-dy_prf1_55.dgn
USER:mcvey

6/2/99

100' 0' 100'
GRAPHIC SCALE

NAD 83/2011

MATCHLINE SHEET 27
-Y5- STA. 13+00

MATCHLINE SHEET 17
-L- STA. 364+00

MATCHLINE SHEET 26
-Y4- STA. 39+50

END BENT 2
-L- 364+70 +/-

SITE 7
RETAIN EX. 36" RCP NOT SHOWN IN SURVEY

SITE 6

SITE 5

SITE 5

SITE 5

PO1

WI

WK

WH

WH

WH

CHECK DAM CL. A RIP RAP SEE DETAIL P

CHECK DAM CL. A RIP RAP SEE DETAIL P

CHECK DAM CL. A RIP RAP SEE DETAIL P

LINEAR INFILTRATION SWALE SEE DETAIL L

LINEAR INFILTRATION SWALE SEE DETAIL L

ROCK FILL IN POND SEE DETAIL AC

ROCK FILL IN POND SEE DETAIL AC

SPECIAL CUT BASE DITCH SEE DETAIL M

SPECIAL CUT DITCH SEE DETAIL K

SPECIAL CUT DITCH SEE DETAIL K

SPECIAL CUT BASE DITCH SEE DETAIL M

38' x 7' FOREBAY ELEV=7.0 FT

TRANSITION BERM ELEV=8.5 FT

38'x58' INFILTRATION BASIN

BOTTOM ELEV=7.0 FT

SPILLWAY ELEV=10.0 FT

SPLITTER BOX

PSH SEE DETAIL U

BEGIN SBG -Y5- 95

END SBG -Y5- 72

BEGIN SBG -Y5- 95

END SBG -Y5- 60

CLASS II RIP RAP

JS LINE 2023

30' CAMA BUFFER 2023

15" RCP-IV TB 2GI

18" RCP-IV TB 2GI

18" RCP-IV

18" RCP-IV

18" RCP-IV

6/2/99

GRAPHIC SCALE 100' 0' 100'

NAD 83/2011

MATCHLINE SHEET 27 -Y5- STA. 13+00

MATCHLINE SHEET 17 -L- STA. 364+00

MATCHLINE SHEET 26 -Y4- STA. 39+50

END BENT 2 -L- 364+70 +/-

SITE 7

SITE 6

SITE 5

RETAIN EX 36" RCP NOT SHOWN IN SURVEY

LINEAR INFILTRATION SWALE SEE DETAIL L

CHECK DAM CL A RIP RAP SEE DETAIL P

ROCK FILL IN POND SEE DETAIL AC

SPECIAL CUT BASE DITCH SEE DETAIL M

SPECIAL CUT DITCH SEE DETAIL K

PROP 47" WW FENCE

BEGIN SBG -L- 365+95

END SBG -L- 366+72

BEGIN SBG -Y5- 13+95

END SBG -Y5- 14+60

CLASS II RIP RAP

SPLITTER BOX

PSH SEE DETAIL U

38'x7' FOREBAY ELEV=7.0 FT

TRANSITION BERM ELEV=8.5 FT

38'x58' INFILTRATION BASIN

BOTTOM ELEV=7.0 FT

SPILLWAY ELEV=10.0 FT

30' CAMA BUFFER 2023

JS LINE 2023

SAV HABITAT SURVEY BOUNDARY

NORTHEASTERN N.C. PROPERTIES, LLC

CS LAND HOLDING LLC

THE VILLAS AT COROLLA BAY HOA INC

ROBERT D. CACERES, et ux DB 1256 PG 794 PC B PG 366

MICHAEL G. MILLER, et UX

WAYNE J. STRICKLAND

JASON FISH

NCDOT

WI WK WH PO1

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

EPB EPB SAV HABITAT

PERMIT DRAWING SHEET 55 OF 89

HC HC — DENOTES HAND CLEARING

F F — DENOTES FILL IN WETLAND

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

P P — DENOTES IMPACTS IN SURFACE WATER (POND)

4/23/2024
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PERMIT DRAWING
SHEET 56 OF 89

20' 0' 20'
GRAPHIC SCALE

SITE 5

ROCK FILL
IN POND
SEE DETAIL AC

WH

PO1
BASIN

38'x7' FOREBAY
ELEV = 7.0 FT

TRANSITION BERM
ELEV = 8.5 FT

38'x58'

10'

P P	DENOTES IMPACTS IN SURFACE WATER (POND)
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING
F F	DENOTES FILL IN WETLAND

NAD 83

SITE 5

PERMIT DRAWING
SHEET 57 OF 89

20' 0' 20'

GRAPHIC SCALE

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

NORTHEASTERN N. C. PROPERTIES, LLC

SITE 7

RETAIN
EX 36" RCP
NOT SHOWN
IN SURVEY

WI

WK

SITE 6

NCDOT

NAD 83

6/23/16

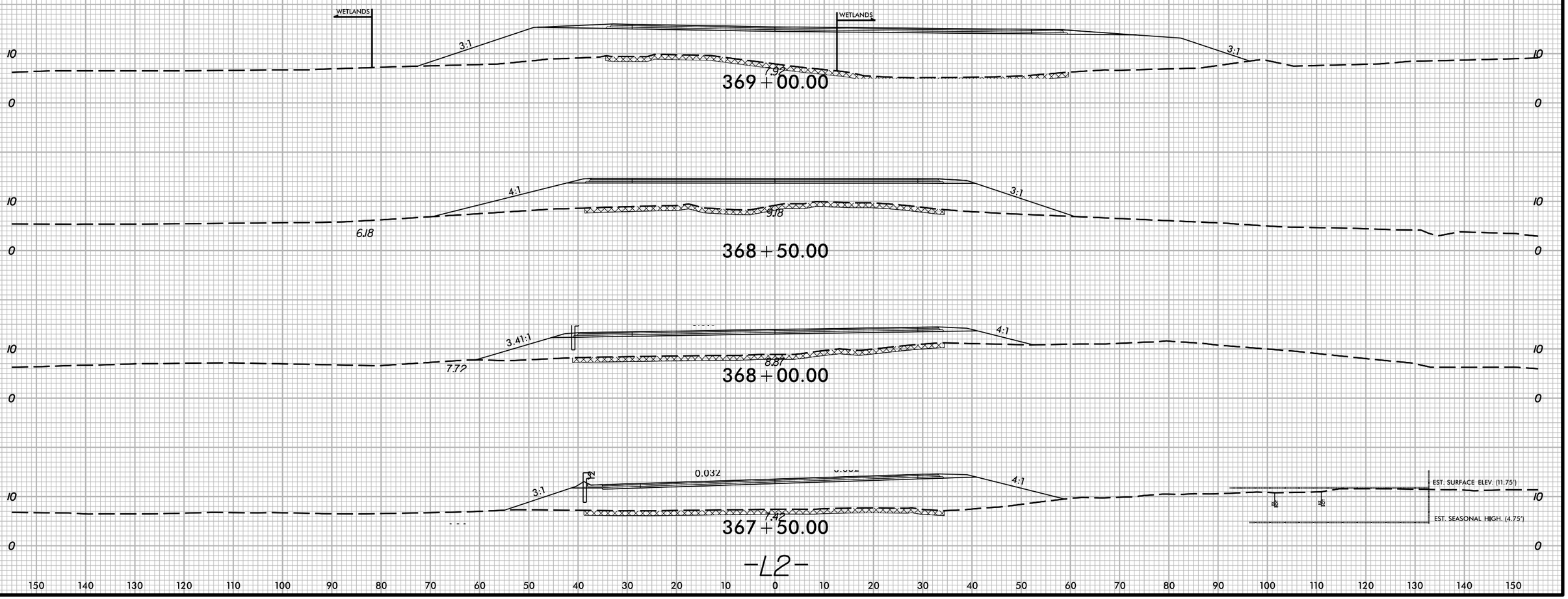
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	R-2576	X-11

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PERMIT DRAWING
SHEET 58 OF 89

SITE 6

SITE 5



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$FILE$

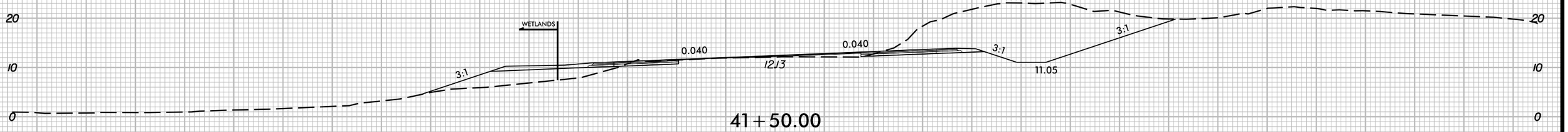
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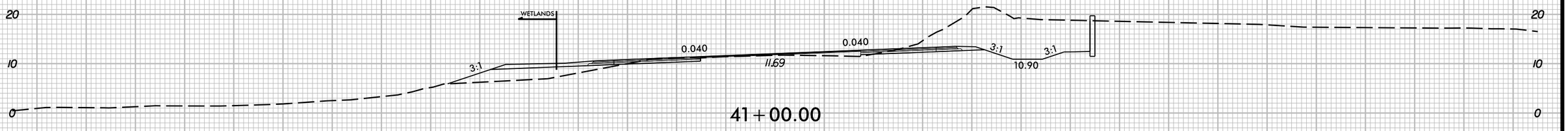
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PERMIT DRAWING
SHEET 59 OF 89

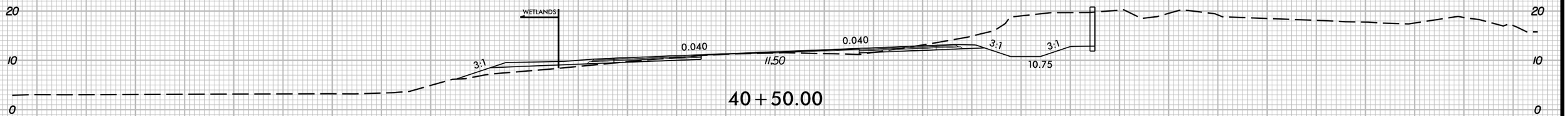
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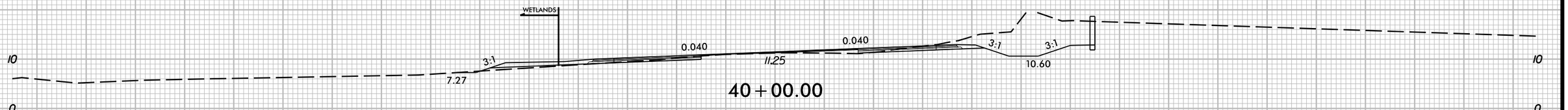
41+50.00



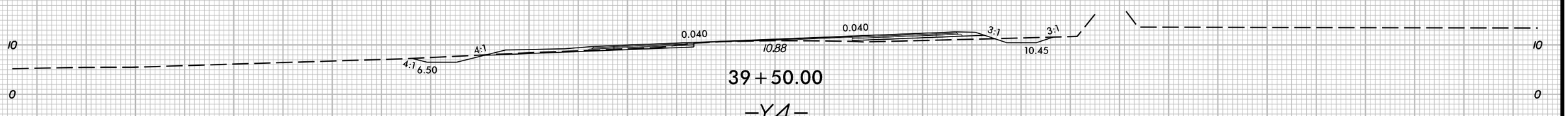
41+00.00



40+50.00



40+00.00



39+50.00

-Y4-

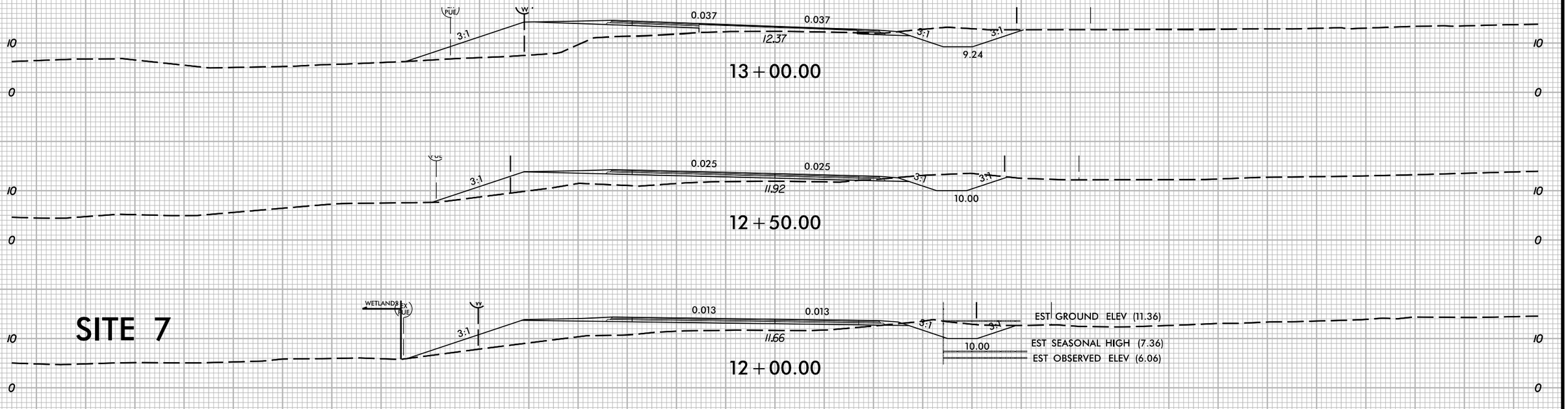
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6/23/16

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	R-2576	X-90

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PERMIT DRAWING
SHEET 60 OF 89



-Y5-

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$USERNAME$
$FILE$

6/2/99

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 61 OF 89

LOCHNER
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(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	19
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83\2011

100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

SUZANNE LEA MIDGETT TRUSTEE
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT
IRREVOCABLE TRUST

JERRY W. WRIGHT, ET AL

SITE 1E

SITE 1B

WB

Q10 = 20.3 cfs
V10 = 1.2 fps

CL. B RIP RAP
EST. 5 TON
EST. 14 SY GF

CL. B RIP RAP
EST. 3 TON
EST. 10 SY GF

CL. B RIP RAP
EST. 6 TON
EST 22 SY GF

TOE PROTECTION
SEE DETAIL Q

REMOVE

15+00

20+00

25+00

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

INNERDUCT

15" RCP-IV

18" RCP-IV

TBDI

DI

TB 2GI

SPECIAL CUT DITCH
SEE DETAIL K

SPECIAL CUT
DETAIL WHINGE
SEE DETAIL S

SPECIAL
LATERAL V DITCH
SEE DETAIL B

CHECK DAM
CL. A RIP RAP
SEE DETAIL P

LINEAR WETLAND SWALE
SEE DETAIL A

CL. B RIP RAP
EST. 2 TON
EST 7 SY GF

TDE

PUE

54.00 -Y-
C 100.00' RT

80.00 -Y-
100.00' RT

118.00' RT

MATCHLINE -Y- STA. 27+00
SHEET 20

MATCHLINE -Y2- STA. 18+50
SHEET 20

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 36 FOR -Y- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE

4/23/2024
K:\C_Projects\PERMITS-Environmental\psh\R2576_HYD_psh19.dgn
USER: Mharvey

6/2/99

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 62 OF 89

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H. W. LOCHNER, INC.
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NC License Number F-0159

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Fax: 919 851 8107
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	19
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

SUZANNE LEA MIDGETT TRUSTEE
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT
IRREVOCABLE TRUST

JERRY W. WRIGHT, ET AL

SITE 1E

SITE 1B

WB

Q10 = 20.3 cfs
V10 = 1.2 fps

CL. B RIP RAP
EST. 5 TON
EST 14 SY GF

CL. B RIP RAP
EST. 3 TON
EST 10 SY GF

CL. B RIP RAP
EST. 6 TON
EST 22 SY GF

TOE PROTECTION
SEE DETAIL Q

REMOVE

15+00

20+00

25+00

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

24" RCP-IV

18" RCP-IV

15" RCP-IV

12" RCP-IV

SPECIAL CUT DITCH
SEE DETAIL K

SPECIAL CUT
DETAIL WHINGE
SEE DETAIL S

CL. B RIP RAP
EST. 2 TON
EST 7 SY GF

SPECIAL
LATERAL V DITCH
SEE DETAIL B

CHECK DAM
CL. A RIP RAP
SEE DETAIL P

LINEAR WETLAND SWALE
SEE DETAIL A

TBDI

DI

TB 2GI

TDE

PUE

MATCHLINE SHEET 20
-Y- STA. 27+00

MATCHLINE SHEET 20
-Y2- STA. 18+50

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 36 FOR -Y- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE

4/23/2024
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USER:Mharvey

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

20′ 0′ 20′

GRAPHIC SCALE

NAD 83

PERMIT DRAWING
SHEET 63 OF 89

Q10 = 20.3 cfs
V10 = 1.2 fps

WB

SITE 1B

CL. B RIP RAP
EST. 6 TON
EST 22 SY GF

TOE PROTECTION
SEE DETAIL Q

REMOVE

WLB

WLB

B

R
W

HC HC HC HCHC HC HC H

EVOCABLE TRUST

20' 0' 20'

GRAPHIC SCALE

PERMIT DRAWING
SHEET 64 OF 89

14

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

SITE 1E

NAD 83

CL. B RIP RAP
EST. 5 TON
EST 14 SY GF

R/W

WLB

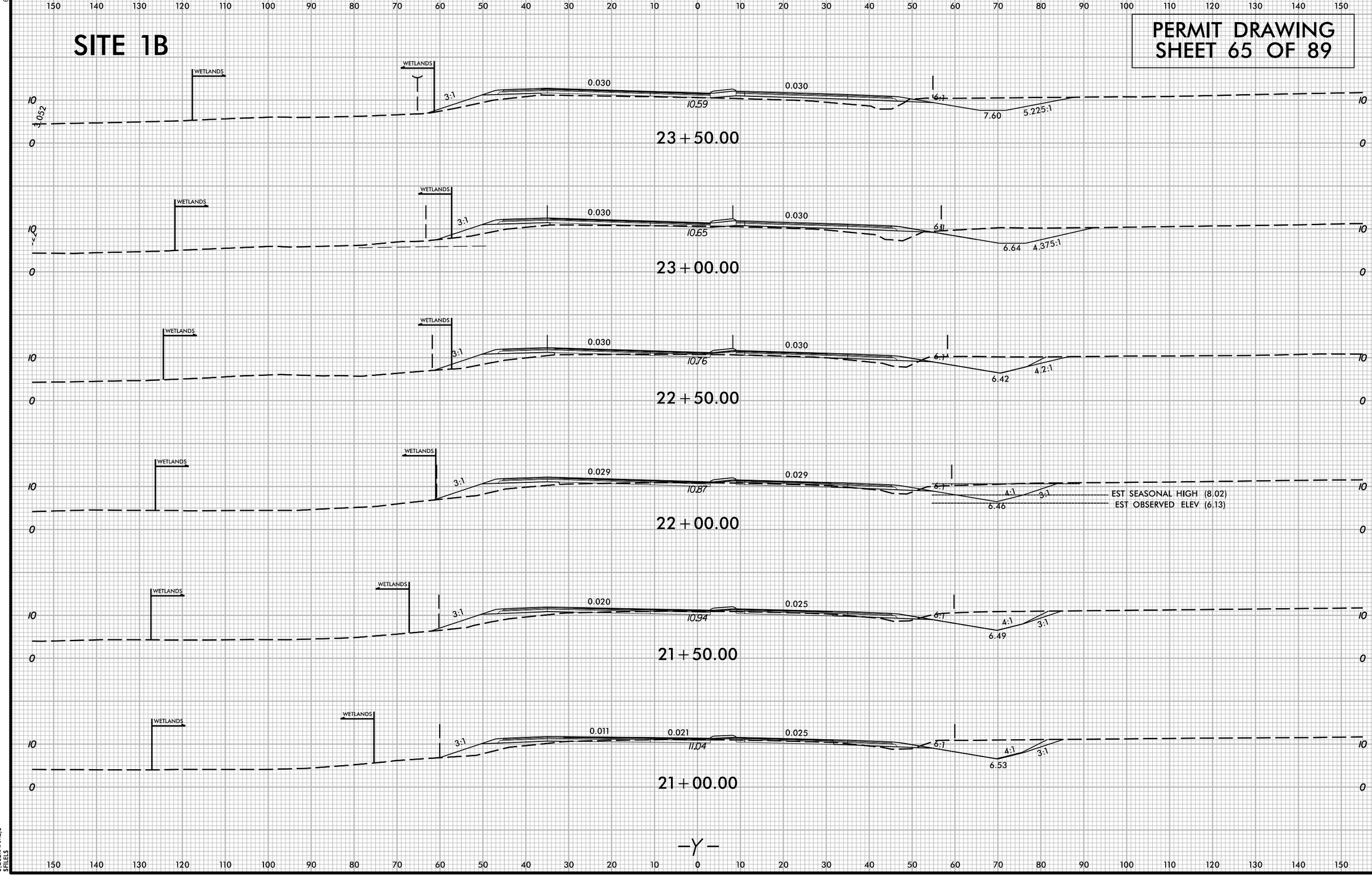
HC HC HC

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-14

SITE 1B

PERMIT DRAWING
SHEET 65 OF 89



$DATES
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6/2/99

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 66 OF 89

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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NAD 83/2011

100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

MILDRED M. MARKERT

ROBERT G. YOUNG

MACON F. BROCK, ET UX

EARL A. MASON, ET UX

MILDRED M. MARKERT

SITE 1C Q10 = 61 cfs V10 = 0.9 fps

SITE 1C

HAND CLEARING

WB

CL. B RIP RAP EST. 3 TON EST. 10 SY GF

REMOVE

SPECIAL CUT DITCH SEE DETAIL X

SPECIAL CUT BASE DITCH SEE DETAIL E

SPECIAL LATERAL BASE DITCH SEE DETAIL Z

SPECIAL LATERAL 'V' DITCH SEE DETAIL I

SPECIAL CUT BASE DITCH SEE DETAIL J

ATTENUATOR

2GI

15" RCP-IV

CL. B RIP RAP EST. 7 SY GF

SPECIAL LATERAL V DITCH SEE DETAIL B

BEGIN CONSTRUCTION -YIA- STA. 10+06.00

MATCHLINE SHEET 4 -Y- SB- STA. 33+50

MATCHLINE SHEET 4 -Y- NB- STA. 44+00

MATCHLINE SHEET 23 -Y- STA. 80+00

MATCHLINE SHEET 23 -YIA- STA. 13+50

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

35+00 45+00 50+00 70+00 75+00 80+00

PUE

SEE SHEET 2D-I FOR DITCH DETAILS	
SEE SHEET 37-38 FOR -Y- PROFILE	SEE SHEET 40-41 FOR -Y_NB- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE	SEE SHEET 44 FOR -YIA- PROFILE

4/23/2024
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6/2/99

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 67 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

MATCHLINE SHEET 4 -Y_SB- STA. 33+50

MATCHLINE SHEET 4 -Y_NB- STA. 44+00

MATCHLINE SHEET 23 -Y- STA. 80+00

MATCHLINE SHEET 23 -YIA- STA. 13+50

MILDRED M. MARKERT

ROBERT G. YOUNG

MACON F. BROCK, ET UX

EARL A. MASON, ET UX

SITE 1C

Q10 = 61cfs
V10 = 0.9 fps

WB

HAND CLEARING

CL. B RIP RAP
EST. 3 TON
EST. 10 SY GF

REMOVE

SPECIAL CUT BASE DITCH
SEE DETAIL E

SPECIAL CUT DITCH
SEE DETAIL X

SPECIAL LATERAL BASE DITCH
SEE DETAIL Z

SPECIAL LATERAL 'V' DITCH
SEE DETAIL I

SPECIAL CUT BASE DITCH
SEE DETAIL J

SPECIAL LATERAL V DITCH
SEE DETAIL B

CL. B RIP RAP
EST. 2 TON
EST. 7 SY GF

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

35+00 45+00 50+00 70+00 75+00 80

PUE

BEGIN CONSTRUCTION
-YIA- STA. 10+06.00

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37-38 FOR -Y- PROFILE
SEE SHEET 40-41 FOR -Y_NB- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 44 FOR -YIA- PROFILE

4/23/2024
R:\Projects\PERMITS-Environmental\psh\R2576_HYD_psh22_con.dgn
USER:MHarvey

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 68 OF 89

NAD 83

50′ 0′ 50′
GRAPHIC SCALE

SITE 1C

Q10 = 61 cfs
V10 = 0.9 fps

CL. B RIP RAP
EST. 3 TON
EST 10 SY GF

SITE 1C

HAND CLEARING

WB

3′ BST SHOULDER

35+00

70+00

75+00

18" RCP-III

REMOVE

US 158 "CARATOKE HIGHWAY" 60′ BST

INNERDUCT

SPECIAL CUT DITCH
SEE DETAIL X

SPECIAL CUT BASE DITCH
SEE DETAIL E

50+00

45+00

SPECIAL CUT BASE DITC
SEE DETAIL J

SPECIAL LATERAL 'V' DITCH
SEE DETAIL I

AL BASE DITCH

2S BK D

CANOPY MTL

IS MTL B

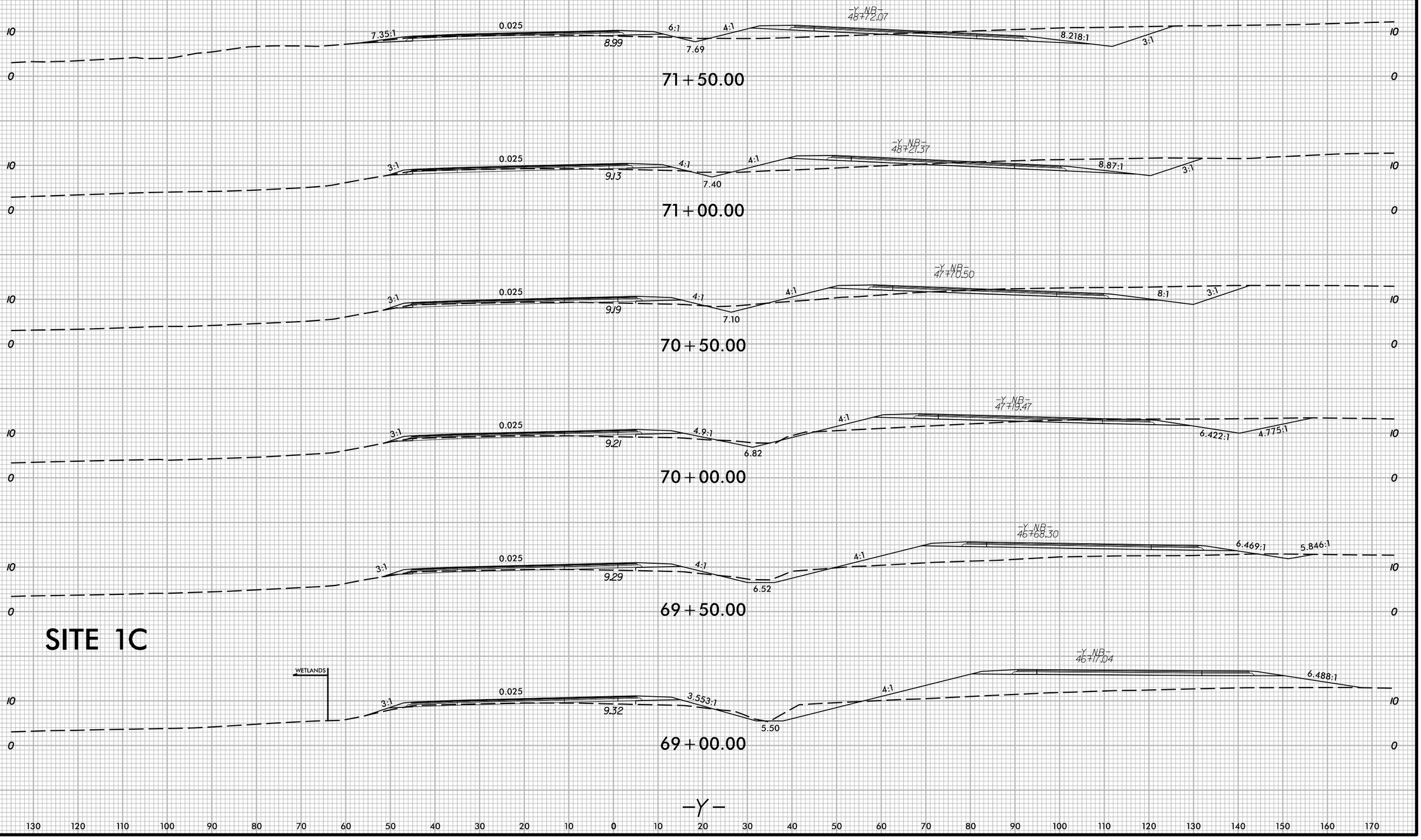
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6/23/16

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	R-2576	X-22

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PERMIT DRAWING
SHEET 69 OF 89



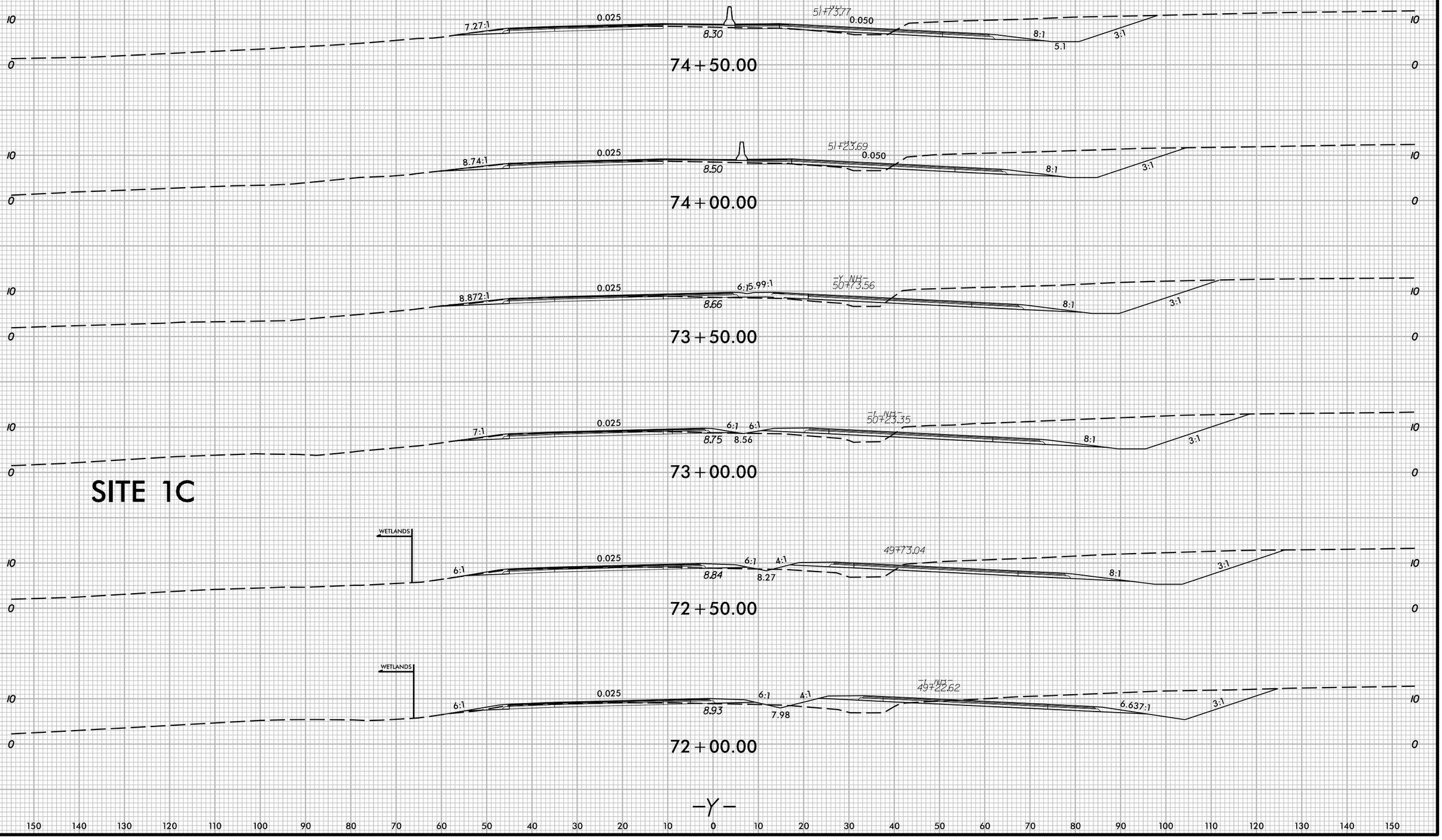
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6/23/16

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	R-2576	X-23

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PERMIT DRAWING
SHEET 70 OF 89



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

4/23/2024
...\CADD\XPL\R2576_rdy_XPL_Y.dgn
USER:mharvey

6/2/99

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING SHEET 71 OF 89

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

PAVED SHOULDER

ROBERT G. YOUNG

MILDRED M. MARKERT

COINJOCK DEVELOPMENT COMPANY, INC

MATCHLINE SHEET 22 -Y- STA. 80+00

MATCHLINE SHEET 24 -Y- STA. 93+50

MATCHLINE SHEET 22 -YIA- STA. 13+50

SITE 1D

Q10 = 29.5 cfs
V10 = 1.9 fps

WB

SITE 1D

REMOVE

2@42"x29" CAAP

RETAIN

18" RCP

15" RCP-IV

2GI

85+00

90+00

EXIST PK

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

INNERDUCT

TOE PROTECTION SEE DETAIL Q

CL B RIP RAP EST. 2 TON EST. 7 SY GF

TDE

SPECIAL CUT BASE DITCH SEE DETAIL J

SITE 8

Q10 = 1.5 cfs
V10 = 0.6 fps

WF

WE

SITE 9

CL B RIP RAP EST. 3 TON EST 10 SY GF

REMOVE

25+00

SR 1142 WATERLILY RD 24' BST

COINJOCK DEVELOPMENT COMPANY, INC

MACON F. BROCK, ET UX

LIBBY GRIGGS HICKMAN

ALICE T. MEYER

STAR INVESTMENTS LLC

MARY L. GRIFFIN

GIDEON L. NEEDHAM, ET AL

GIDEON L. NEEDHAM, ET AL

PUE

DUE

PDE

STANDARD V DITCH
So=1.75%
DDE=185 CF
SEE DETAIL D

SPECIAL LATERAL V DITCH SEE DETAIL B

STANDARD V DITCH
So=0.9%
DDE=42 CF
SEE DETAIL D

STANDARD V DITCH
So=0.5%
DDE=60 CF SEE DETAIL D

STANDARD V DITCH
So=0.4%
DDE=94 CF
SEE DETAIL D

15+00

20+00

18" RCP-IV

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE
SEE SHEET 44 FOR -YI- PROFILE
SEE SHEET 44-45 FOR -YIA- PROFILE
SEE SHEET 45 FOR -YIB- PROFILE

4/23/2024
C:\Projects\PERMITS-Environmental\psh\R2576_HYD_psh23.dgn
USER: mharvey

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

GRAPHIC SCALE 100' 0' 100'

PERMIT DRAWING SHEET 72 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

PAVED SHOULDER

ROBERT G. YOUNG
MILDRED M. MARKERT
COINJOCK DEVELOPMENT COMPANY, INC
MACON F. BROCK, ET UX
LIBBY GRIGGS HICKMAN
ALICE T. MEYER
STAR INVESTMENTS LLC
MARY L. GRIFFIN
GIDEON L. NEEDHAM, ET AL
RYCKMALD CEMETERY (2 GRAVES)

MATCHLINE SHEET 22 -Y- STA. 80+00

MATCHLINE SHEET 24 -Y- STA. 93+50

MATCHLINE SHEET 22 -YIA- STA. 13+50

PROP 47" WW FENCE

SITE 1D — Q10 = 29.5 cfs, V10 = 1.9 fps — WB

SITE 8 — Q10 = 1.5 cfs, V10 = 0.6 fps — WF

SITE 9 — WE

REMOVE 2@42"x29" CAAP

RETAIN 18" RCP

ATTENUATOR

80+00 85+00 90+00 95+00 15+00 20+00 25+00

US 158 "CARATOKE HIGHWAY" 60' BST — 3' BST SHOULDER

INNERDUCT

15" RCP-IV — 2GI

CL B RIP RAP EST. 2 TON EST 7 SY GF — TOE PROTECTION SEE DETAIL Q

CL B RIP RAP EST. 3 TON EST 7 SY GF

SPECIAL CUT BASE DITCH SEE DETAIL J

TDE

STANDARD V DITCH So=1.75% DDE=185 CF SEE DETAIL D

SPECIAL LATERAL V DITCH SEE DETAIL B

18" RCP-IV

STANDARD V DITCH So=0.9% DDE=42 CF SEE DETAIL D

STANDARD V DITCH So=0.5% DDE=60 CF SEE DETAIL D

STANDARD V DITCH So=0.4% DDE=94 CF SEE DETAIL D

CL B RIP RAP EST. 3 TON EST 10 SY GF

PUE — DUE — PDE

SR 1142 WATERLILLY RD 24' BST

12" RCP

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE
SEE SHEET 44 FOR -YI- PROFILE
SEE SHEET 44-45 FOR -YIA- PROFILE
SEE SHEET 45 FOR -YIB- PROFILE

8/23/2024
C:\Users\jcs\PERMITS-Environmental\psh\R2576_HYD_psh23_con.dgn
USER: jcsharpe

PERMIT DRAWING
SHEET 73 OF 89

19

MILDRED M. MARKERT

50' 0' 50'
GRAPHIC SCALE

NAD 83

SITE 1D

Q10 = 29.5 cfs
V10 = 1.9 fps

WB

SITE 1D

REMOVE

2307

2@42"x29" CAAP

54" RCP

2304

85+00

15" RCP-IV

2GI

2GI

2305

15" RCP-IV

3' BST SHOULDER

INNERDUCT

2306

HW

TOE PROTECTION
SEE DETAIL Q

CL. B RIP RAP
EST. 2 TON
EST 7 SY GF

TOE PROTECTION
SEE DETAIL Q

90+00

EXIST PK

N 58° 28' 51.7" E

INNERDUCT

PROP 47" WW FENCE

WF

SITE 8

Q10 = 1.5 cfs
V10 = 0.6 fps

BEGIN CONSTRUCTION
-YIB- STA. 10+20.00

END CONSTRUCTION
-YIB- STA. 11+15.00

CL. B RIP RAP
EST. 3 TON
EST 10 SY GF

TOE PROTECTION
SEE DETAIL Q

18" RCP-V

2311

15" CONC

25+00

PUE

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

6/23/16

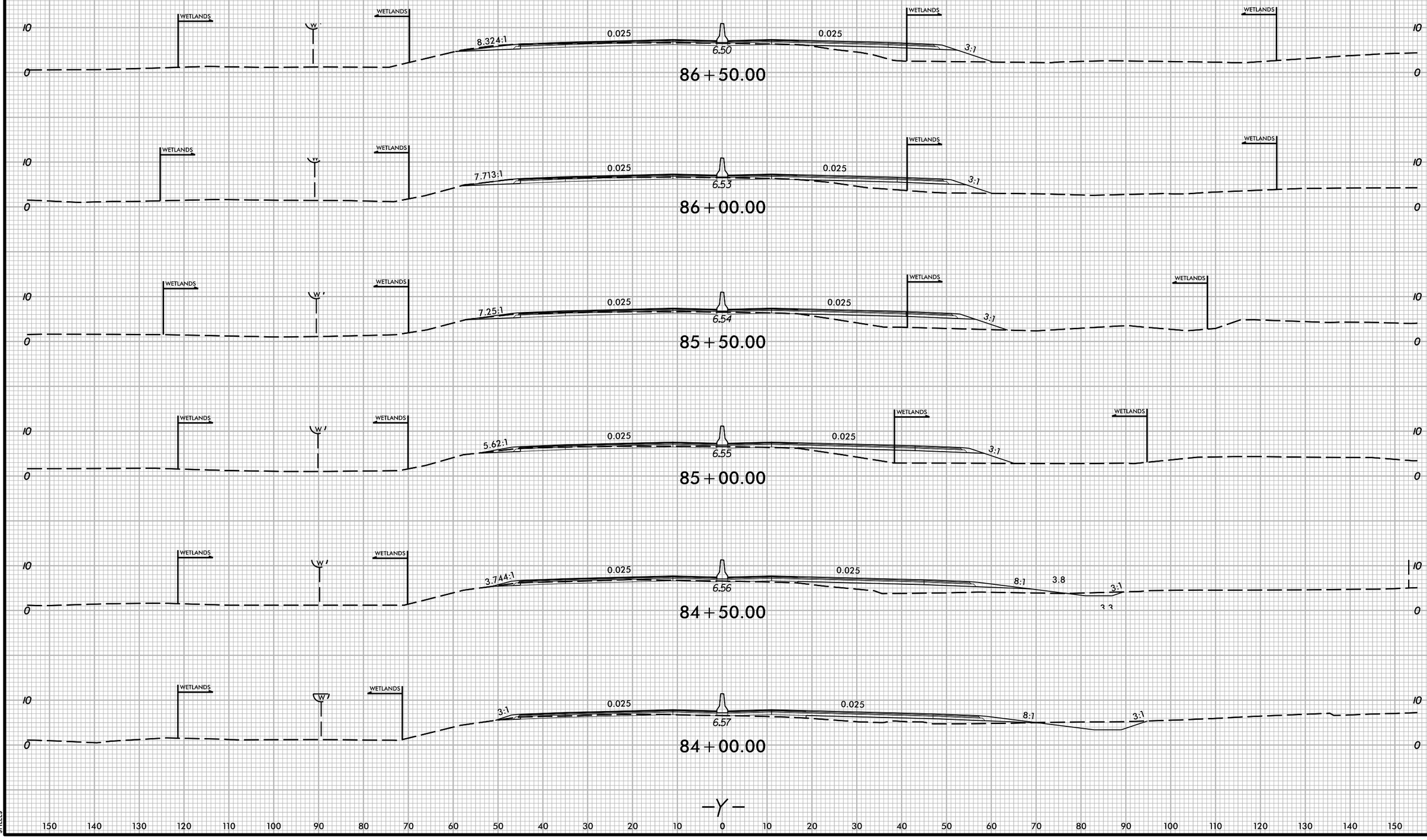
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	R-2576	X-27

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SITE 1D

SITE 8

PERMIT DRAWING
SHEET 74 OF 89



$DATE$
$USERNAME$
$FILE$

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 75 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
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License No. F-0377
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	24
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

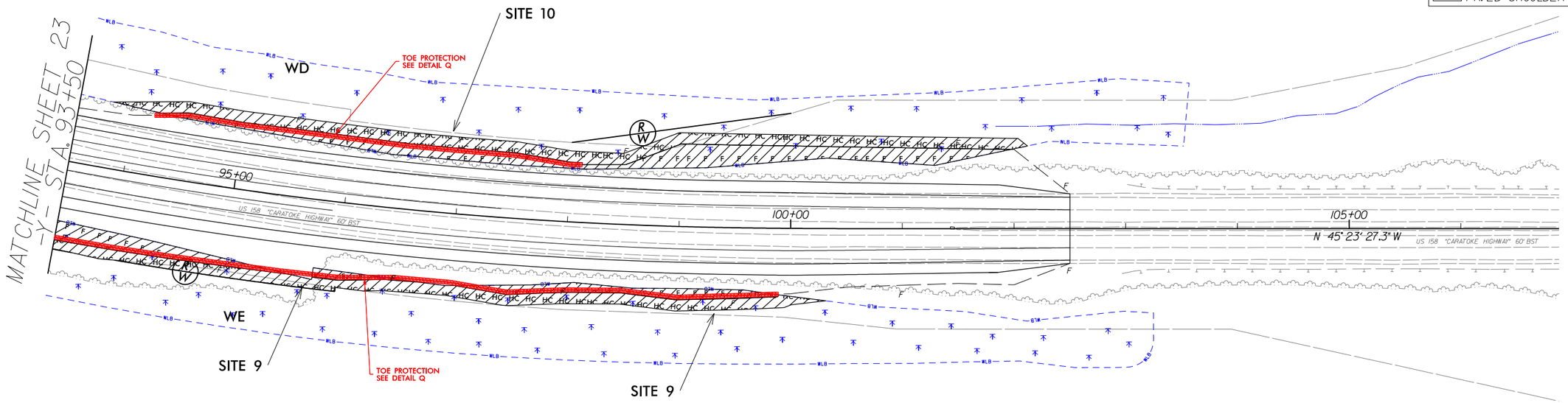
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

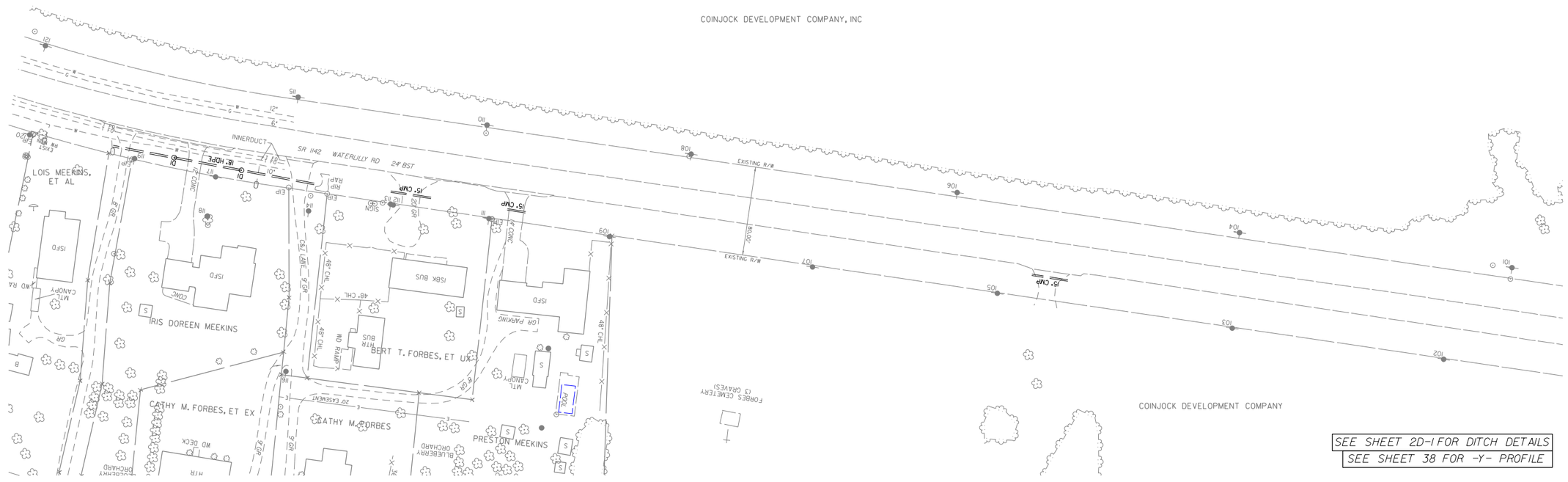
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

COINJOCK DEVELOPMENT COMPANY, INC

PAVED SHOULDER





8/23/2024
R:\2576\roadway\dgns\PERMITS-Environmental\psh\R2576_HYD_psh24.dgn
USER:mharvey

6/2/99

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING
SHEET 76 OF 89

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	24

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

PAVED SHOULDER

COINJOCK DEVELOPMENT COMPANY, INC

MATCHLINE SHEET 23
-Y- STA. 93+50

SITE 10

WD

TOE PROTECTION SEE DETAIL Q

95+00

100+00

105+00

N 45° 23' 27.3" W

US 158 "CARATOKE HIGHWAY" 60' BST

WE

SITE 9

TOE PROTECTION SEE DETAIL Q

SITE 9

COINJOCK DEVELOPMENT COMPANY, INC

INNERDUCT

SR 1142 WATERLILLY RD 24' BST

LOIS MEEKINS, ET AL

IRIS DOREEN MEEKINS

BERT T. FORBES, ET UX

CATHY M. FORBES, ET UX

CATHY M. FORBES

PRESTON MEEKINS

FORBES CEMETERY (3 GRAVES)

COINJOCK DEVELOPMENT COMPANY

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE

4/23/2024
A. Allen
User:Mharvey

C:\Projects\PERMITS-Environmental\psh\R2576_HYD_psh24_con.dgn

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

50′ 0′ 50′

GRAPHIC SCALE

NAD 83

PERMIT DRAWING
SHEET 77 OF 89

SITE 10

WD

TOE PROTECTION
SEE DETAIL Q

WLB

95+00

100+00

US 158 "CARATOKE HIGHWAY" 60' BST

WE

SITE 9

TOE PROTECTION
SEE DETAIL Q

SITE 9

26

COINJOCK DEVELOPMENT COMPANY, INC

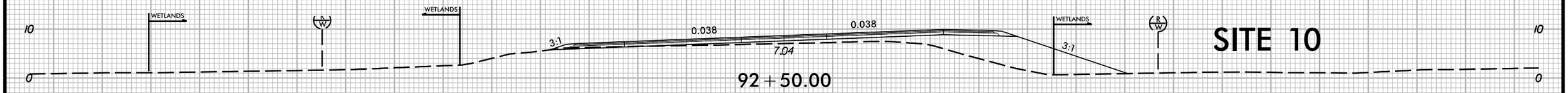
6/23/16

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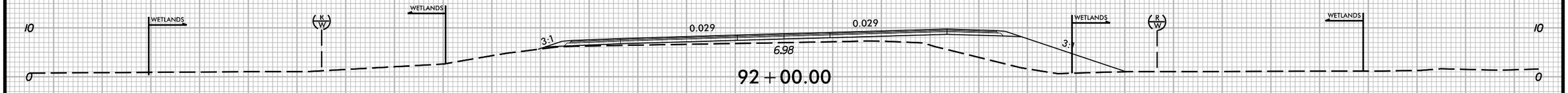
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PERMIT DRAWING
SHEET 78 OF 89

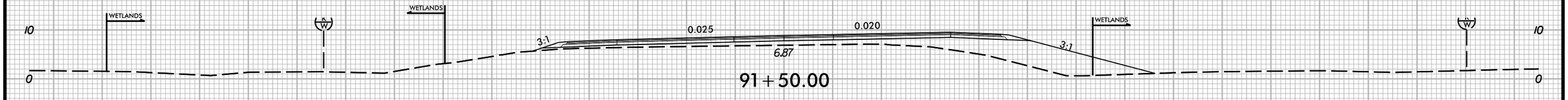


92 + 50.00

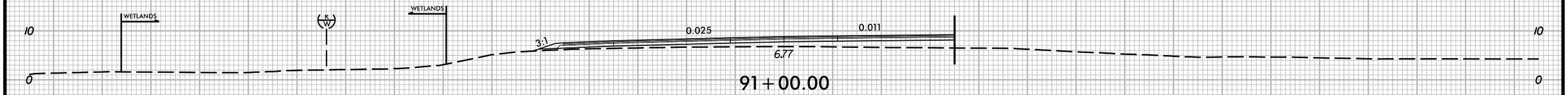
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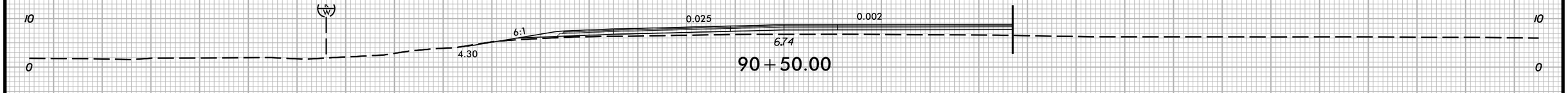
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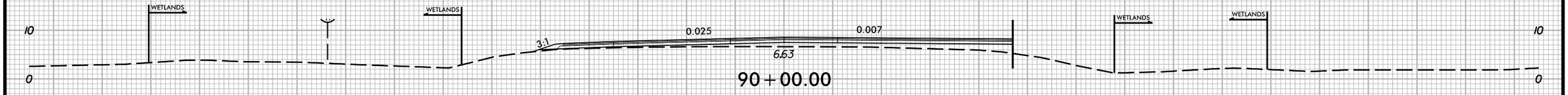
91 + 50.00



91 + 00.00



90 + 50.00



90 + 00.00

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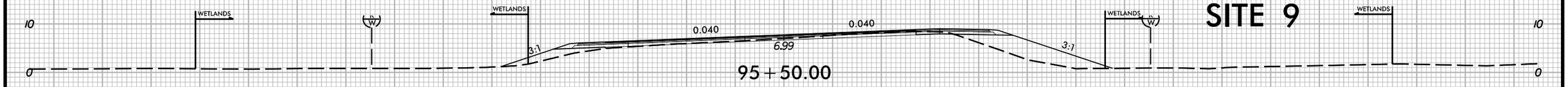
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	R-2576	X-30

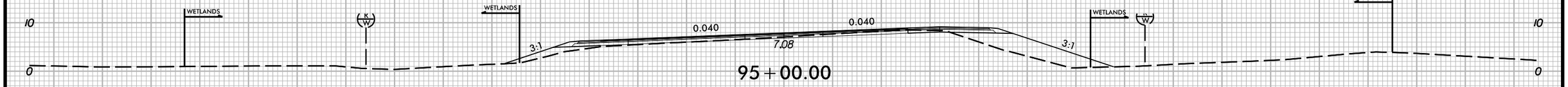
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PERMIT DRAWING
SHEET 79 OF 89

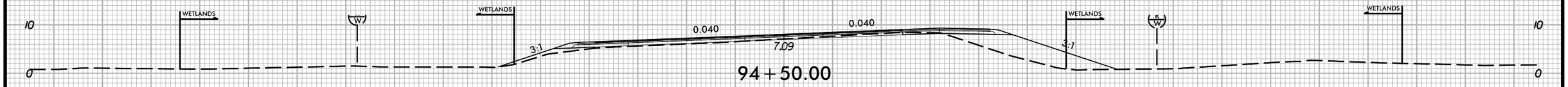
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95 + 50.00

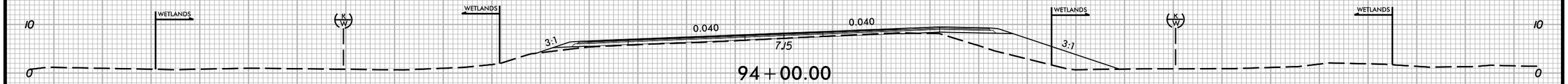


95 + 00.00

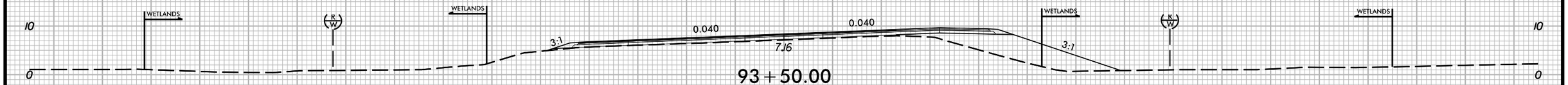


94 + 50.00

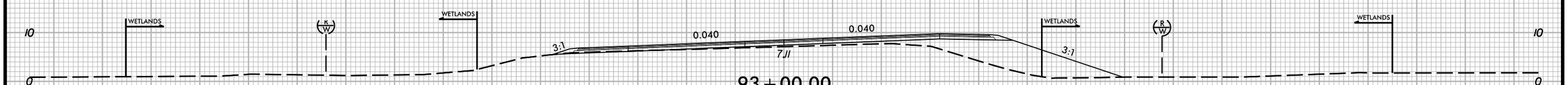
SITE 9



94 + 00.00



93 + 50.00



93 + 00.00

-Y-

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$FILE1$

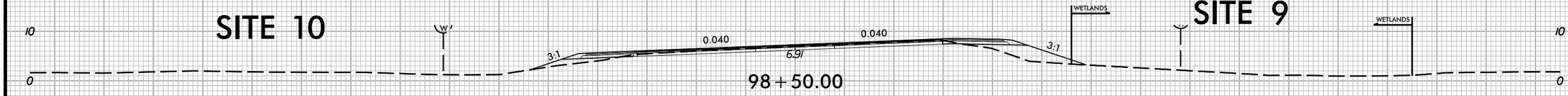
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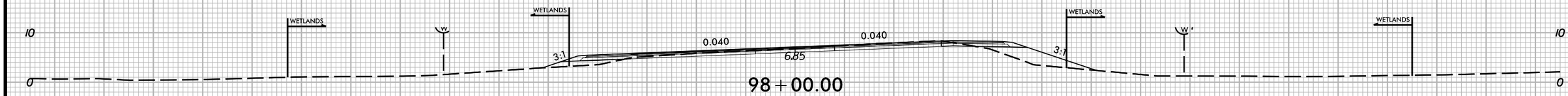
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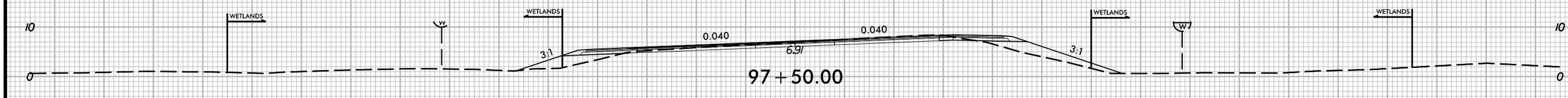
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SHEET 80 OF 89

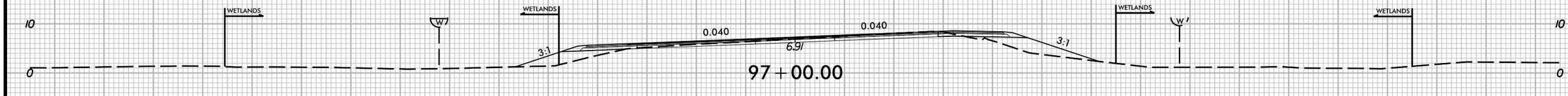
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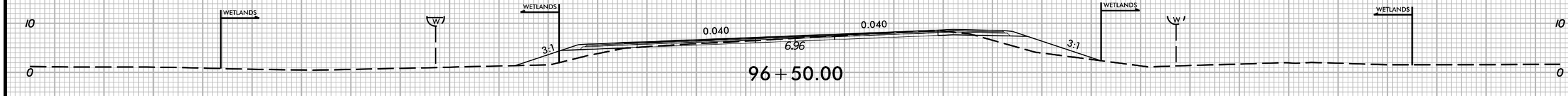


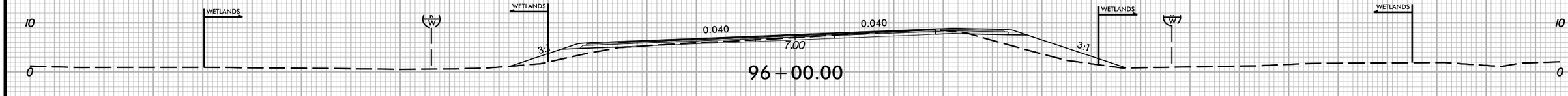
SITE 9











–Y–

$DATES
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6/2/99

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

NAD 83

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING SHEET 81 OF 89

LOCHNER

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Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	25
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

BEGIN CONSTRUCTION -Y4A- STA.10+00.00

MATCHLINE SHEET -Y4- STA. 28+00 26

END CONSTRUCTION -Y4A- STA.13+87.50

BEGIN CONSTUCTION -Y4- STA.19+25.00

MONTERAY SHORES OWNERS ASSO. DB 756 PG 648 PC B PG 366-377

LINDA L. BURNHART DB 803 PG 813 PC B PG 377

JAMIE GARCIA DB 699 PG 383 PC B PG SITE 11

ALBERT E. SCHAUFFLER, et UX DB 776 PG 321 PC B PG 377

JAMES A. KING et UX DB 820 PG 640 PC B PG 377

DAVID K. OVERDORF, et UX DB 824 PG 153 PC B PG 377

JOHN GALLO, et UX DB 724 PG 66 PC B PG 377

ROBERT J. BRONNER DB 1410 PG 663 PC B PG 377

DAVID L. BANKS DB 730 PG 21 PC B PG 366

LINEAR INFILTRATION SWALE SEE DETAIL L

ELIMINATE ROADWAY DITCH FROM STA. 20+00 TO 20+50 LT

CHECK DAM CL. A RIP RAP SEE DETAIL P

INFILTRATION SWALE SEE DETAIL L

SPECIAL CUT BASE DITCH SEE DETAIL M

AUGUSTINE J. BONINU, et al DB 692 PG 271 PC 3 PG 73

JORY A. HANSEN DB 390 PG 276 PC 3 PG 72

GENTRY F. CAROON DB 318 PG 282 PC C PG 72

MARTHA E. BOLES, et al DB 377 PG 895 PC 3 PG 72

RONALD M. MAUPIN, et al DB 218 PG 582 PC 3 PG 73

WILLIAM BELCHERE, et UX DB 761 PG 566 PC 3 PG 72

ERNESTINE RICHARDSON, et UX DB 874 PG 125 PC 3 PG 72

CHRISTOPHER D. PAGE DB 835 PG 210 PC 3 PG 72

PHILLIP P. HURST, et UX DB 878 PG 076 PC 3 PG 72

PATRICIA S. MILLER, et vir DB 493 PG 85 PC C PG 72

ANDREW PICKERELL DB 1071PG 119 PC 3 PG 72

COROLLA BAY WEST SIDE LLC DB 820 PG 834 PC D PG 54

BRIAN K. MALCOM DB 763 PG 919 PC D PG 54

DENNIS M MCGLONE, et UX DB 726 PG 761 PC 3 PG 72

PHILIP C. STEVENS, et UX DB 1009 PG 714 PC 3 PG 72

DAVID K. UNDERHILL DB 1410 PG 377 PC B PG 377

RETENTION POND

WATER FOUNTAIN POND

TENNIS COURTS

BASKETBALL COURT

GAZEBO

POOL

2SF BUS

3SFD

FLAG POLES

6' BST BIKE PATH

20' BST (SOUTH HARBOR VIEW)

20' BST (COROLLA DR)

28' BST (BONITO ST)

32' BST NC 12 (OCEAN TRAIL)

36" CMP

18" RCP TOP=7.86' INV IN=5.74' INV OUT=5.36'

INV=5.92'

8" HDPE TOP=8.57' INV=6.00'

TOP=6.28' INV OUT=4.02'

INV IN=3.68'

INV IN=3.38'

INV IN=0.85'

TOP=9.75' INV=2.46'

INV IN=3.44'

INV IN=3.46'

15+00

20+00

25+00

SEE SHEET 2D-1 FOR DITCH DETAILS

SEE SHEET 48 FOR -Y4- PROFILE

SEE SHEET 49 FOR -Y4A- PROFILE

6/13/2024
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USER:Mharvey

6/2/99

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

NAD 83

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING
SHEET 82 OF 89

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	25
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

MONTERAY SHORES OWNERS ASSO.
DB 756 PG 648
PC B PG 366-377

LINDA L. BURNHART
DB 803 PG 813
PC B PG 377

JAMIE GARCIA
DB 699 PG 383
PC B PG

SITE 11

MATCHLINE SHEET -Y4- STA. 28+00 26

ALBERT E. SCHAUFFER et UX
DB 776 PG 321
PC B PG 377

DAVID K. OVERDORF et UX
DB 824 PG 153
PC B PG 377

JAMES A. KING et UX
DB 820 PG 840
PC B PG 377

ROBERT J. BRUNNER
DB 780 PG 682
PC B PG 377

DAVID L. BANKS
DB 730 PG 81
PC B PG 36

BRIAN V. MALONE
DB 763 PG 824
PC B PG 377

DENNIS MCGLONE, et ux
DB 726 PG 761
PC 3 PG 72

PHILIP C. STEVENS, et ux
DB 1009 PG 714
PC 3 PG 72

COROLLA BAY WEST SIDE LLC
DB 820 PG 834
PC B PG 54

PHILLIP P. HURST, et ux
DB 878 PG 076
PC 3 PG 72

PATRICIA S. MILLER, et vir
DB 493 PG 85
PC C PG 72

ANDREW PICKERELL
DB 1071PG 119
PC 3 PG 72

CHRISTOPHER D. PAGE
DB 835 PG 210
PC B PG 72

ERNEST E. RICHARDSON, et ux
DB 874 PG 125
PC 3 PG 72

WILLIAM BELCHERE, et ux
DB 761PG 566
PC 3 PG 72

RONALD M. MAUPIN, et al
DB 218 PG 582
PC 3 PG 73

GENTRY F. CARDON
DB 318 PG 242
PC C PG 72

MARTHA E. BOLES, et al
DB 377 PG 895
PC 3 PG 72

JORY A. HANSEN
DB 390 PG 276
PC 3 PG 72

AUGUSTINE J. BONINU, et al
DB 692 PG 271
PC 3 PG 73

TENNIS COURTS

BASKETBALL COURT

GAZEBO

RETENTION POND

WATER FOUNTAIN POND

FLAG POLES

ELIMINATE ROADWAY DITCH FROM STA 20+00 TO 20+50 LT

LINEAR INFILTRATION SWALE SEE DETAIL L

CHECK DAM CL. A RIP RAP SEE DETAIL P

SPECIAL CUT BASE DITCH SEE DETAIL M

GRADE TO DRAIN

15+00

20+00

25+00

6' BST BIKE PATH

32' BST NC 12 (OCEAN TRAIL)

20' BST (COROLLA DR)

28' BST (BONITO ST)

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4A- PROFILE

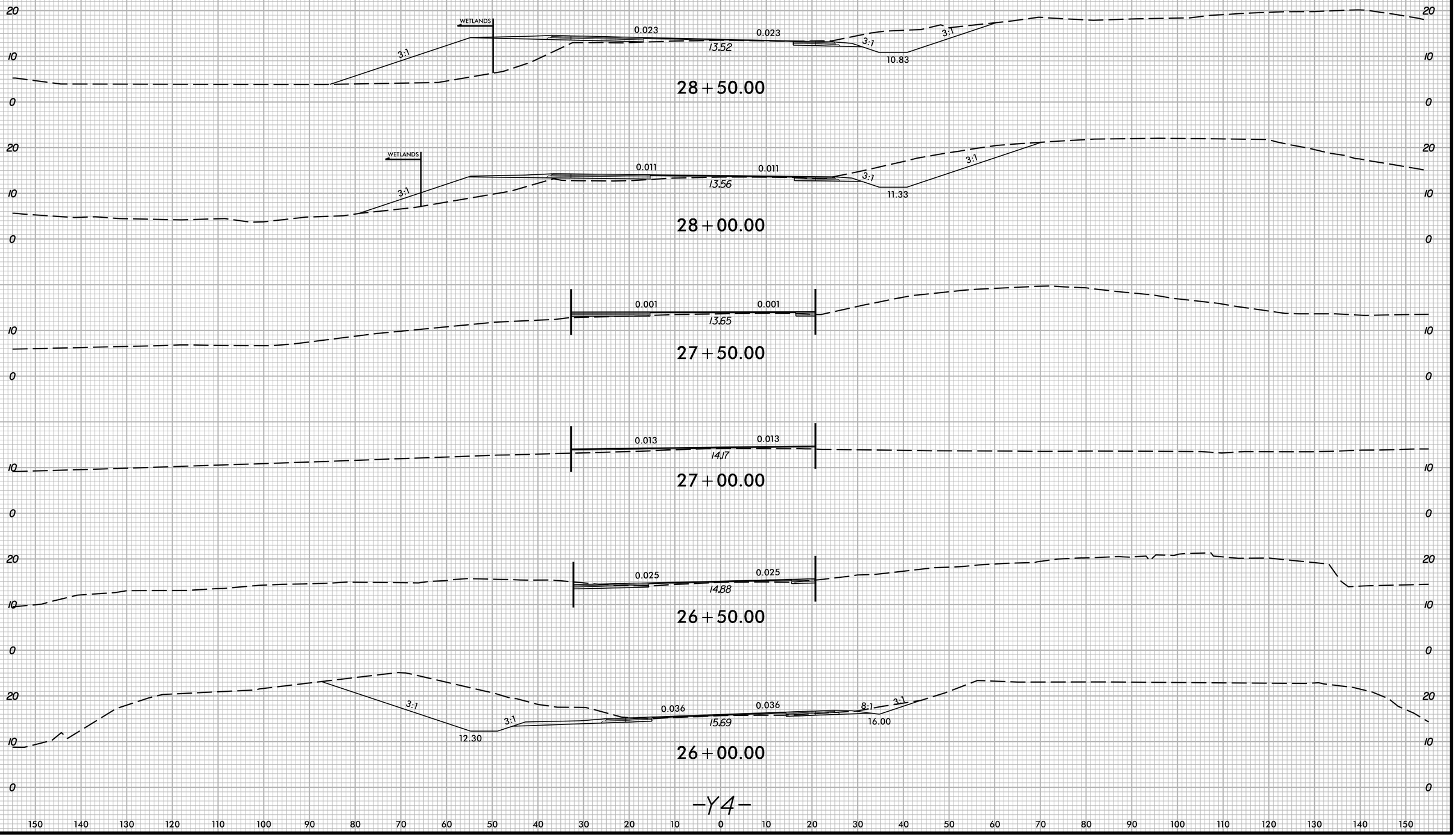
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-79

PERMIT DRAWING
SHEET 83 OF 89

SITE 11



4/23/2024
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6/2/99

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

100' 0' 100'

GRAPHIC SCALE

NAD 832011

ESTUARINE WATERS AEC

30' CAMA BUFFER

30' CAMA BUFFER

ESTUARINE WATERS AEC

ESTUARINE SHORELINE

SITE 11

SITE 11

CL B RIP RAP
EST. 2 TON
EST. 7 SY GF

ROCK FILL IN POND
SEE DETAIL AA
ST 11 GRADITE RIP RAP
EST. 32 TONS

LINEAR WETLAND SWALE
SEE DETAIL A

CL B RIP RAP
EST. 2 TON
EST. 7 SY GF

CHECK DAM
CL A RIP RAP
SEE DETAIL P

SPECIAL CUT BASE DITCH
SEE DETAIL M

SPECIAL CUT BASE DITCH
SEE DETAIL M

MATCHLINE SHEET 25 -Y4- STA. 28+00

MATCHLINE SHEET 18 -Y4- STA. 39+50

MONTERAY SHORES OWNERS ASSOC.

TODD M. BUTTERWORTH, et UX

LUCKE ISLAND ASSOCIATES

STEPHEN J. SINCAVAGE, et ux
DB 948 PG 861
PC B PG 366

JULIE REVOCABLE TRUST

SHARON ANN TUREK

JAY KING, et UX

CHARLES C. ABELES
DB 245 PG 724
PC B PG 366

RICHARD L. GARY JR., et UX
DB 663 PG 501
PC B PG 366

LYNNE STU
DB 1065 PG 585
PC B PG 366

BARBARA DEAM
DB 801PG 893
PC B PG 366

COHEN PARTNERSHIP
DB 792 PG 496
PC B PG 366

WAYNE J. STRICKLAND

CYNTHIA L. FRANCIS, et vir
DB 1614 PG 214
PC B PG 366

MARK B. NEWELL, et UX
DB 1776 PG 533
PC B PG 366

DEUTSCHE BANK TRUST CO. AMERICAS
DB 1126 PG 582
DB 1126 PG 568
PC B PG 366

CHARLOD L. BUSSELL, et ux
DB 964 PG 678
DB 1126 PG 568
PC B PG 366

GILLIE M CHUBB
DB 561 PG 621
PC B PG 366

OWEN D. GRIFFIN, et ux
DB 1072 PG 273
PC B PG 366

ROBERT A. MENSFORM, et UX
DB 524 PG 820
PC B PG 366

DAVID L. HENRY
DB 548 PG 727
PC B PG 366

JOHN C. CONDON
DB 610 PG 533
PC B PG 366

ROBERT G. BORUM, et al
DB 661PG 201
PC B PG 366

AILEN BYNUM III, et UX
DB 313 PG 657
PC B PG 366

ROBERT P. & KRISTIN L. FITZSIMMONS
DB 587 PG 743
PC B PG 366

PUTTING GREEN

SEE SHEET 2D-1 FOR DITCH DETAILS

SEE SHEET 48 FOR -Y4- PROFILE

SEE SHEET 49 FOR -Y4B- PROFILE

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	26
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

PERMIT DRAWING
SHEET 84 OF 89

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6/2/99

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

100' 0' 100'
GRAPHIC SCALE

NAD 832011

MONTERAY SHORES OWNERS ASSOC.

ESTUARINE WATERS AEC

30' CAMA BUFFER

TODD M. BUTTERWORTH et UX

30' CAMA BUFFER

ESTUARINE WATERS AEC

ESTUARINE SHORELINE

SITE 11

SITE 11

STEPHEN V. SINCAVAGE, et UX
DB 948 PG 861
PC B PG 366

CL B RIP RAP
EST. 2 TON
EST. 7 SY GF

ROCK FILE IN POND
SEE DETAIL AA
EST 11 GRANITE RIP RAP
EST 32 TONS

CHARLES C. ABELES
DB 245 PG 724
PC B PG 366

RICHARD L. GARY JR. et UX
DB 663 PG 504
PC B PG 366

LUCKE ISLAND ASSOCIATES

LYNNE STOUT
DB 1065 PG 585
PC B PG 366

LINEAR WETLAND SWALE
SEE DETAIL A

BARBARA DEAM
DB 801PG 893
PC B PG 366

COHEN PARTNERSHIP
DB 792 PG 496
PC B PG 366

WAYNE J. STRICKLAND

CL B RIP RAP
EST. 2 TON
EST. 7 SY GF

CHECK DAM
CL A RIP RAP
SEE DETAIL P

JULIE ROBINSON TRUSTEE

SHARON ANN TURKE

JAY KING, et UX

WG

WG

30+00

35+00

MATCHLINE SHEET 25
-Y4- STA. 28+00

MATCHLINE SHEET 18
-Y4- STA. 39+50

SPECIAL CUT BASE DITCH SEE DETAIL M

DEUTSCHE BANK TRUST CO. AMERICAS
DB 1126 PG 582
DB 1126 PG 868
PC B PG 366

HAROLD L. [illegible] et ux
DB 1054 PG 978
PC B PG 366

CYNTHIA L. FRANCIS, et vir
DB 2614 PG 214
PC B PG 366

MARK R. MCWEENY, et ux
DB 1176 PG 533
PC B PG 366

BILLIE M CHUBB
DB 561 PG 621
PC B PG 366

OWEN ED. G GRIFFIN, et UX
DB 1072 PG 273
PC B PG 366

ROBERT A. MENSFORM, et UX
DB 5243 PG 820
PC B PG 366

DAVID L. HENRY
DB 548 PG 727
PC B PG 366

JOHN G. CONDON
DB 610 PG 533
PC B PG 366

ROBERT G. BORDUM, et al
DB 661 PG 201
PC B PG 366

ALLEN BYNUM III, et UX
DB 313 PG 657
PC B PG 366

ROBERT P. & KRISTIN I. FITZSIMMONS
DB 1587 PG 743
PC B PG 366

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4B- PROFILE

LOCHNER

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WETHERILL ENGINEERING
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Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	26
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

PERMIT DRAWING
SHEET 85 OF 89

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USER:kbolford

PERMIT DRAWING
SHEET 86 OF 89

20' 0' 20'
GRAPHIC SCALE

NAD 83

SITE 11

SITE 11

WG

WG

F F

HC HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

JAMIE GARCIA
DB 699 PG 383
PC B PG 377

JAY KING, et UX
DB 617 PG 275
PC B PG 366

SHARON ANN TU
DB 1631 PG 862
PC B PG 377

DB PG 162
PC B PG 442

POOL

4' WD

8" PVC

20' BST (SC

OUT=-4.02'
IN=0.68'
IN=-3.98'
N=-0.85'

WLB

EXISTING R/W

EOR

EOR

ABAND

N 60° 20' 51.0" W

260

6/2/99

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 87 OF 89

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RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	29
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83(2011)

81 THE DUCK WOODS COUNTRY CLUB, INC.

82 SOUTHERN SHORES CIVIC ASSOCIATION, INC

THE DUCK WOODS COUNTRY CLUB, INC.

SPECIAL LATERAL BASE DITCH
So = 0.3%
DDE = 550 cu.ft.
SEE DETAIL V

CL B RIP RAP
EST. 5 TON
EST. 14 SY GR

PDE

REMOVE

290' 24" RCP (V)

24" CMP

US 158 N CROATAN HWY VAR PAVED ROADWAY

SR 1147 DUCK WOODS DR VAR PAVED ROADWAY

30' CAMA BUFFER

SPECIAL CUT DITCH
SEE DETAIL K

KITTY HAWK ESTATES, LLC

N 70°05'49" E 336.26'
S 19°49'07" E 124.05'
S 16°29'5" E 6'+/-
N 75°50'27" E 145.67'
S 19°49'07" E 123.00'
N 35°38'09" W 197.80'
N 09°07'48" W 207.48'
S 43°37'52" W 0.00'
N 70°05'49" E 292.67'
S 20°47'38" E 104.45'
N 07°42'20" W 76.00'
N 83°20'08" E 102.28'
N 82°42'28" W 198.36'
N 70°05'49" E 370.37'
N 35°57'36" W 8.12'
N 00°42'20" W 43.39'
S 83°08'19" E 67.00'

MATCHLINE SHEET 30
-Y7- STA. 52+00

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 50 FOR -Y7- PROFILE

4/30/2024
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6/2/99

GRAPHIC SCALE 100' 0' 100'

PERMIT DRAWING SHEET 87A OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	29
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

PAVED SHOULDER

81 THE DUCK WOODS COUNTRY CLUB, INC.

82 SOUTHERN SHORES CIVIC ASSOCIATION, INC

THE DUCK WOODS COUNTRY CLUB, INC.

WELL W/ ELEC CTL BOX

IRR CTL BOX IRR VALVE

SPECIAL LATERAL BASE DITCH
So = 0.3%
DDE = 550 cu.ft.
SEE DETAIL V

CL B RIP RAP
EST. 5 TON
EST. 14 SY GF

PDE

ELEC OUTLET

DOM
2073 202
GOF 2064 202

DOM
2073 203
2064 203

REMOVE

24" CMP

24" RCP-N

290'

US 158 N CROATAN HWY VAR PAVED ROADWAY

30' CAMA BUFFER

SPECIAL CUT DITCH
SEE DETAIL K

MATCHLINE SHEET 30
-Y7- STA. 52+00

KITTY HAWK ESTATES, LLC

N 70°05'49" E 336.26'

N 30°41'39" W 83.32'

N 00°22'20" W 44.39'

N 83°08'19" E 67.00'

S 19°49'07" E 124.05'

S 19°49'07" E 123.00'

S 70°10'53" W 61.49'

N 75°50'27" E 145.67'

N 70°05'49" E 292.67'

N 33°18'03" W 181.90'

N 07°07'58" W 207.28'

S 43°37'52" W 0.00'

S 39°47'28" E 168.05'

N 03°40'02" W 76.00'

N 83°21'08" E 102.28'

N 26°52'17" W 924.42'

N 70°05'49" E 370.37'

N 21°53'28" W 195.38'

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 50 FOR -Y7- PROFILE

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2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

PROJECT REFERENCE NO.	SHEET NO.
R-2576	30
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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PERMIT DRAWING
SHEET 88 OF 89

PAVED SHOULDER

100' 0' 100'
GRAPHIC SCALE

MATCHLINE SHEET 29
-Y7- STA. 52+00

PUBLIC TRUST WATERS
30' CAMA BUFFER
82
SOUTHERN SHORES CIVIC ASSOCIATION, INC
SPECIAL CUT DITCH SEE DETAIL K
CL B RIP RAP EST. 1 TON EST. 2 SY GF
83
SOUTHERN SHORES REALTY COMPANY
CL B RIP RAP EST. 2 TONS EST. 7 SY GF
84
SOUTHERN SHORES OWNER, LLC
SPECIAL CUT DITCH SEE DETAIL K
NAD 83/2011
55+00
60+00
65+00
US 158 N CROATAN HWY VAR PAVED ROADWAY
KITTY HAWK ESTATES, LLC
DARE COUNTY ALCOHOLIC BEVERAGE CONTROL BOARD
ECKARD LAND HOLDING COMPANY, INC.
1600 PEACHTREE, LLC

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 5I FOR -Y7- PROFILE

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LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

PROJECT REFERENCE NO.	SHEET NO.
R-2576	30
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

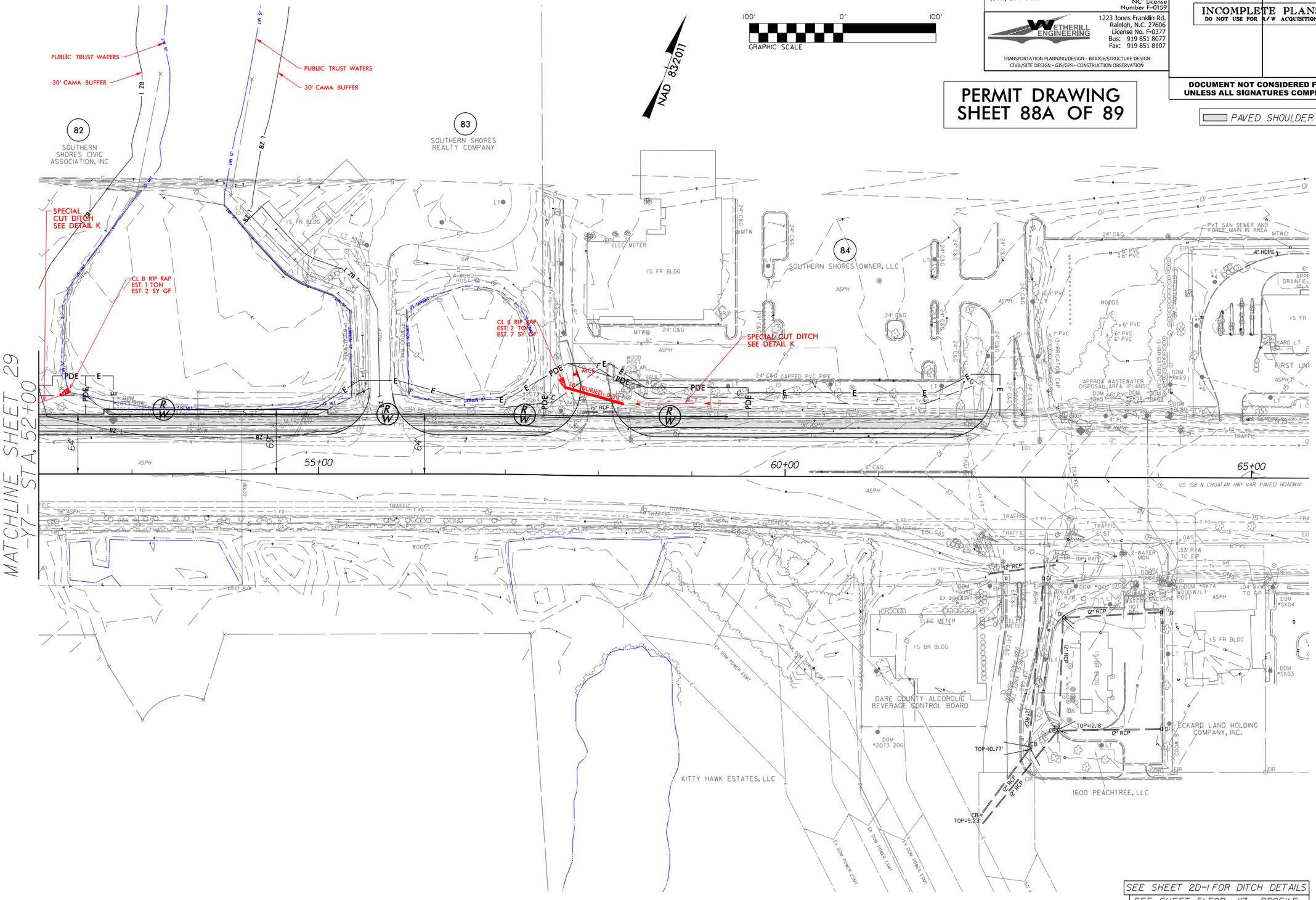
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 88A OF 89

PAVED SHOULDER

100' 0' 100'
GRAPHIC SCALE

NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 51 FOR -Y7- PROFILE

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WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1A	-Y- 40+26 to 42+66 LT	Fill with Toe Protection	0.02				0.05					
1B	-Y- 21+00 to 24+60 LT	Fill with Toe Protection	0.02				0.07					
1C	-Y- 68+65 to 73+00 LT	RipRap outlet/Proximity to Fill	< 0.01				0.02					
1D	-Y- 86+54 to 90+39 LT	2@42"x29" CAAP outlet	< 0.01				0.02					
1E	-Y- 14+74 to 18+10 LT	Fill slope	0.13				0.07					
2	-Y- 55+45	42" RCP-IV						0.04	< 0.01	228	9	
		Bank Stabilization						< 0.01		10		
3	-L- 23+00 to 100+60	Bridge	0.04	4.72		0.03	11.47					
4	-L- 119+00 to 364+00	Bridge										
		Shoreline Stabilization						0.13		229		
5	-Y4- 39+64 to -Y5R- 14+38 LT	Fill in Pond	0.26				0.08	0.04	0.02			
6	-Y5- 10+76 to 10+97 LT	Fill slope	< 0.01				< 0.01					
7	-Y5- 11+74 to 12+01 LT	Fill	< 0.01				0.01					
8	-Y- 84+55 to 90+18 RT	Fill with Toe Protection	0.24				0.14					
9	-Y- 91+28 to 100+32 RT	Fill with Toe Protection	0.19				0.19					
10	-Y- 93+80 to 102+12 LT	Fill with Toe Protection	0.18				0.18					
11	-Y4- 27+50 to 29+13 LT	Fill slope	0.09				0.05	0.02	0.03	105	118	
TOTALS*:			1.18	4.72		0.03	12.36	0.23	0.04	572	127	0

*Rounded totals are sum of actual impacts

NOTES:
Site 1 includes the entire wetland along the Y line (except near end of construction, North side of project)
Site 3 takes into account 1000' of 80' wide temp impacts due to matting at the beginning of the bridge, and 760' at the end.
Site 4 includes 2 temporary bridges for 2007' at the start of the bridge and 2 temporary bridges at the end (4035' and 535' for these two temporary bridges).
Site 4 includes 0.349 acres of Surface Water Impacts from bents and 0.108 acres of Temporary Surface Impacts.
0.13 Ac. of Temporary Fill will be provided for Hand Clearing areas for Erosion Control Devices.
All Wetlands are 404 (No CAMA Wetlands are Impacted)

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
6/13/2024
Currituck Co.
R-2576

R-2576 Mid-Currituck Bridge

Right-of-Way Plans
June, 2024

09/08/99

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CURRITUCK & DARE COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2576	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
34470.1.TA1	BRSTP-000(494)	P.E.	

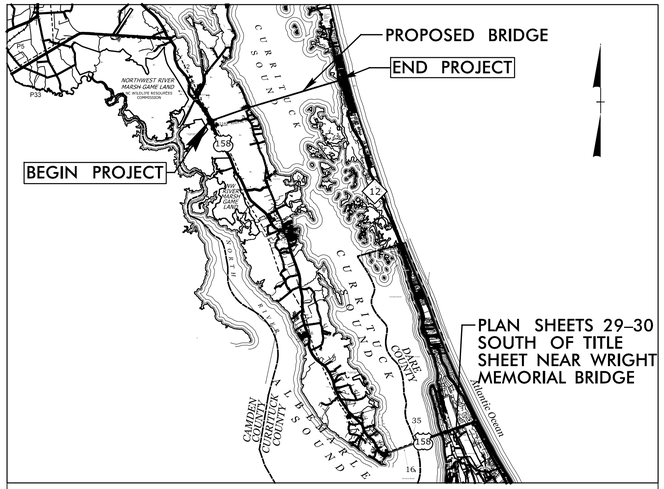
LOCATION: MID-CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK TO NC 12 SOUTH OF COROLLA

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

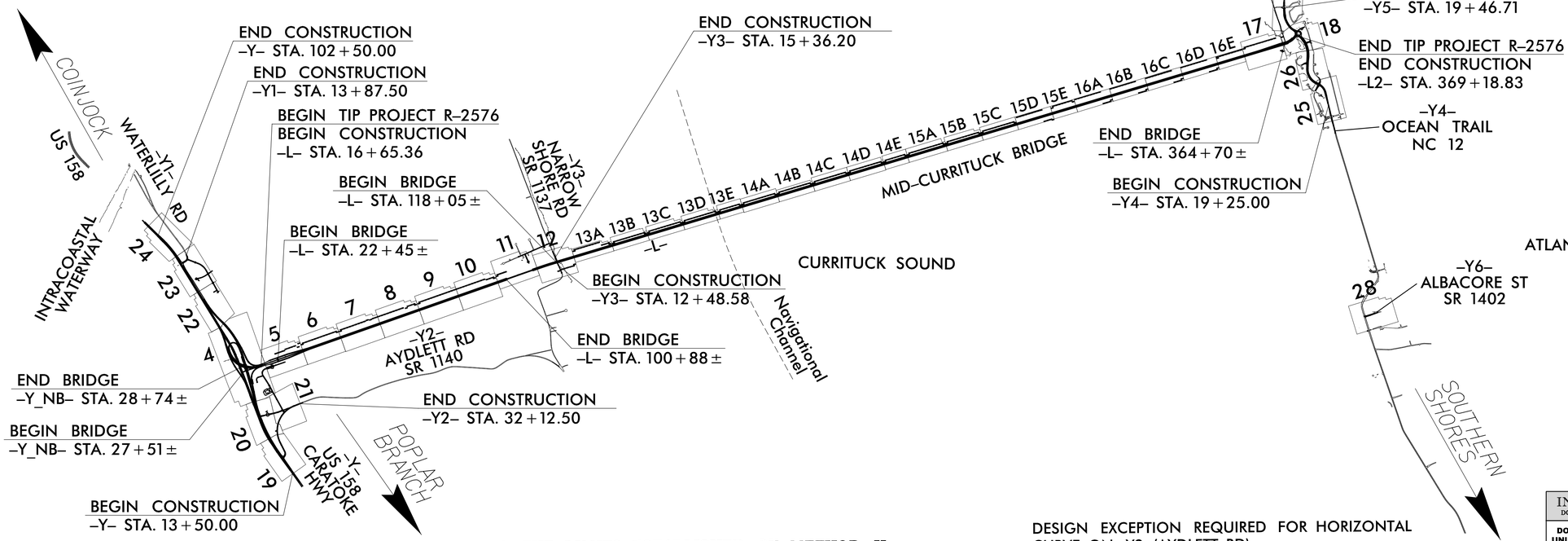
TIP PROJECT: R-2576

CONTRACT:

75% PLANS



VICINITY MAP



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE ON Y2 (AYDLETT RD)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

# ADT 2020	=	11,800
ADT 2040	=	18,000
K	=	9 %
D	=	60 %
T	=	7 % *
V	=	60 MPH

* (TTST=2)+(DUAL=1)+(RV=4)
FUNC CLASS = ARTERIAL STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2576	*=0.520 Miles*
LENGTH STRUCTURES	*=6.157 Miles*
TOTAL LENGTH TIP PROJECT R-2576	*=6.677 Miles*

PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared In the Office of:

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919)571-7111
NC License Number F-0159

ETHERIDGE ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0257
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FY 2024

LETTING DATE: FY 2026

BRIAN K. EASON, PE
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE
PROJECT DESIGN ENGINEER

DENNIS JERNIGAN, PE
NCDOT /NCTA

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

17-JUN-2024 08:35
R:\Roadway_Proj\R2576_rdy_TSH.dgn
$$$$\USERNAME$$$$

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
R-2576	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:

- Head and End Wall
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB
- Paved Ditch Gutter
- Storm Sewer Manhole
- Storm Sewer

UTILITIES:

** SUE – Subsurface Utility Engineering*
LOS – Level of Service – A,B,C or D (Accuracy)

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- U/G Power Line Test Hole (SUE – LOS A)*
- U/G Power Line (SUE – LOS B)*
- U/G Power Line (SUE – LOS C)*
- U/G Power Line (SUE – LOS D)*

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE – LOS A)*
- U/G Telephone Cable (SUE – LOS B)*
- U/G Telephone Cable (SUE – LOS C)*
- U/G Telephone Cable (SUE – LOS D)*
- U/G Telephone Conduit (SUE – LOS B)*
- U/G Telephone Conduit (SUE – LOS C)*
- U/G Telephone Conduit (SUE – LOS D)*
- U/G Fiber Optics Cable (SUE – LOS B)*
- U/G Fiber Optics Cable (SUE – LOS C)*
- U/G Fiber Optics Cable (SUE – LOS D)*

WATER:

- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line Test Hole (SUE – LOS A)*
- U/G Water Line (SUE – LOS B)*
- U/G Water Line (SUE – LOS C)*
- U/G Water Line (SUE – LOS D)*
- Above Ground Water Line

TV:

- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE – LOS A)*
- U/G TV Cable (SUE – LOS B)*
- U/G TV Cable (SUE – LOS C)*
- U/G TV Cable (SUE – LOS D)*
- U/G Fiber Optic Cable (SUE – LOS B)*
- U/G Fiber Optic Cable (SUE – LOS C)*
- U/G Fiber Optic Cable (SUE – LOS D)*

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line Test Hole (SUE – LOS A)*
- U/G Gas Line (SUE – LOS B)*
- U/G Gas Line (SUE – LOS C)*
- U/G Gas Line (SUE – LOS D)*
- Above Ground Gas Line

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE – LOS A)*
- SS Force Main Line (SUE – LOS B)*
- SS Force Main Line (SUE – LOS C)*
- SS Force Main Line (SUE – LOS D)*

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line (SUE – LOS B)*
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- Abandoned According to Utility Records
- End of Information

6/2/99

PAVEMENT DESIGN PENDING

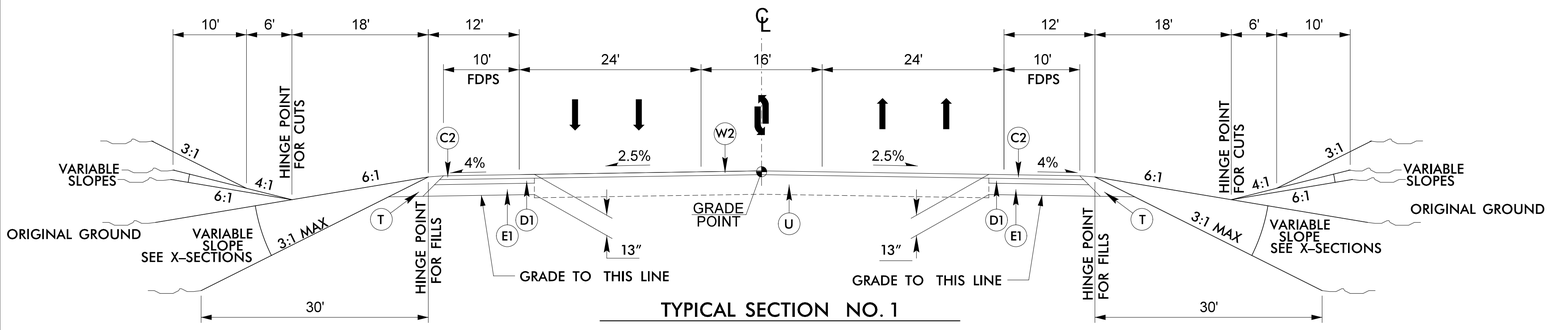
PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

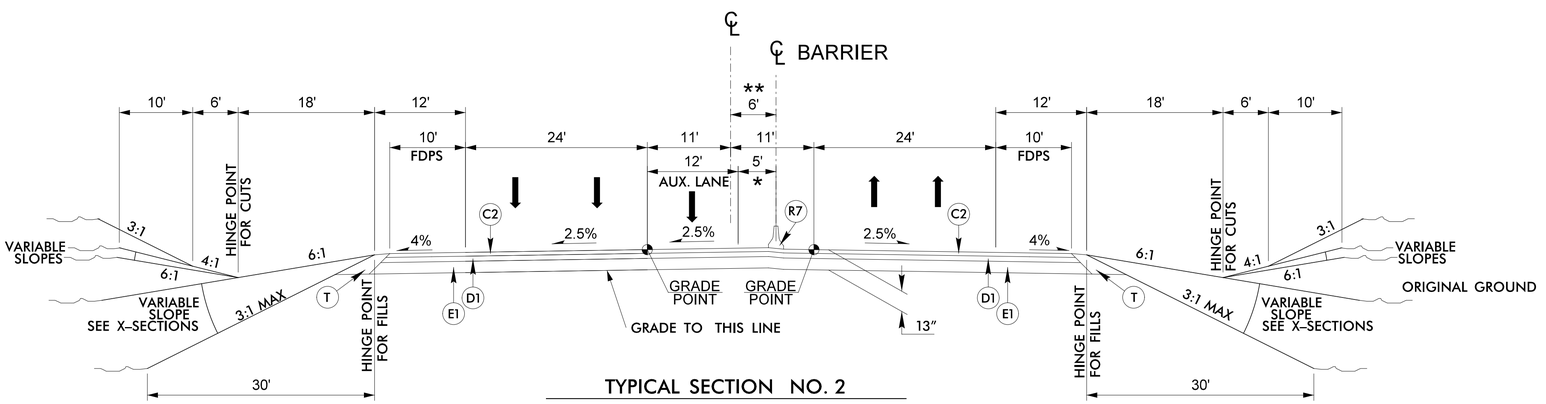
A	12″ PORTLAND CEMENT CONCRETE PAVEMENT (WITH DOWELS)	D4	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS PER SQ YD PER 1″ DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.	R3	8″x18″ CONCRETE CURB		
C1	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS	E1	PROP. APPROX. 7″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS	R4	7″ JOINTED CONCRETE PAVEMENT REINFORCED WITH WIRE MESH 4x4 W3.5xW3.5		
C2	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS	E2	PROP. APPROX. 5″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	R5	5″ MONOLITHIC CONCRETE ISLAND		
C3	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	E3	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS PER SQ YD PER 1″ DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3″ IN DEPTH OR GREATER THAN 5 1/2″ IN DEPTH.	R6	SHOULDER BERM GUTTER		
C4	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	J1	PROP. 11.5″ AGGREGATE BASE COURSE.	R7	MEDIAN CONCRETE BARRIER		
C5	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS PER SQ YD PER 1″ DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2″ IN DEPTH	J2	PROP. 4″ AGGREGATE BASE COURSE.	T	EARTH MATERIAL.	W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL 2)
C6	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS PER SQ YD PER 1″ DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2″ IN DEPTH	J3	PROP. 11″ AGGREGATE BASE COURSE.	U	EXISTING PAVEMENT.	X	PROP. APPROX. 4″ PERMEABLE ASPHALT DRAINAGE LAYER, TYPE P-57, AT AN AVERAGE RATE OF XXX LBS. PER SQ. YD.
D1	PROP. APPROX. 3″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J4	PROP. 5″ AGGREGATE BASE COURSE.	V	MILLING (VARIABLE DEPTH)	Y	8″ PERVIOUS CONCRETE PAVEMENT
D2	PROP. APPROX. 3.5″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.	R1	1′-6″ CONCRETE CURB AND GUTTER.	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL 1)	Z	6″ #57 STONE
D3	PROP. APPROX. 2.5″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	R2	2′-6″ CONCRETE CURB AND GUTTER.				

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



TYPICAL SECTION NO. 1

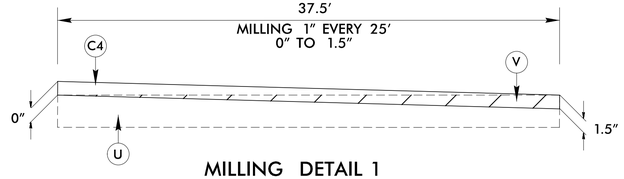
–Y– (US 158) STA. 14+75.00 TO 19+37.13
–Y– (US 158) STA. 89+00.00 TO 102+50.00



TYPICAL SECTION NO. 2

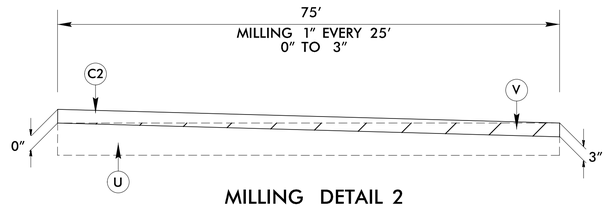
–Y– (US 158) STA. 19+37.13 TO 33+39.23

* 6' FROM -Y- STA. 25+00.00 TO 33+39.23
** 7' FROM -Y- STA. 25+00.00 TO 33+39.23



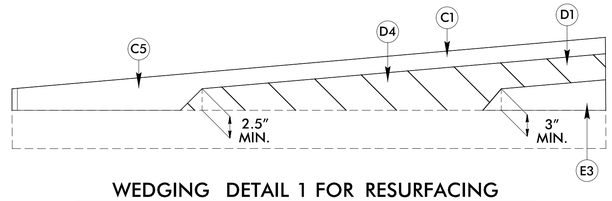
MILLING DETAIL 1

USE MILLING DETAIL AT RESURFACING TIES

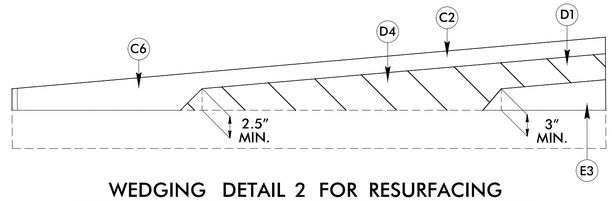


MILLING DETAIL 2

USE MILLING DETAIL AT RESURFACING TIES



WEDGING DETAIL 1 FOR RESURFACING



WEDGING DETAIL 2 FOR RESURFACING

6/17/2024
R2576_rdy_TYP.dgn
rtickett

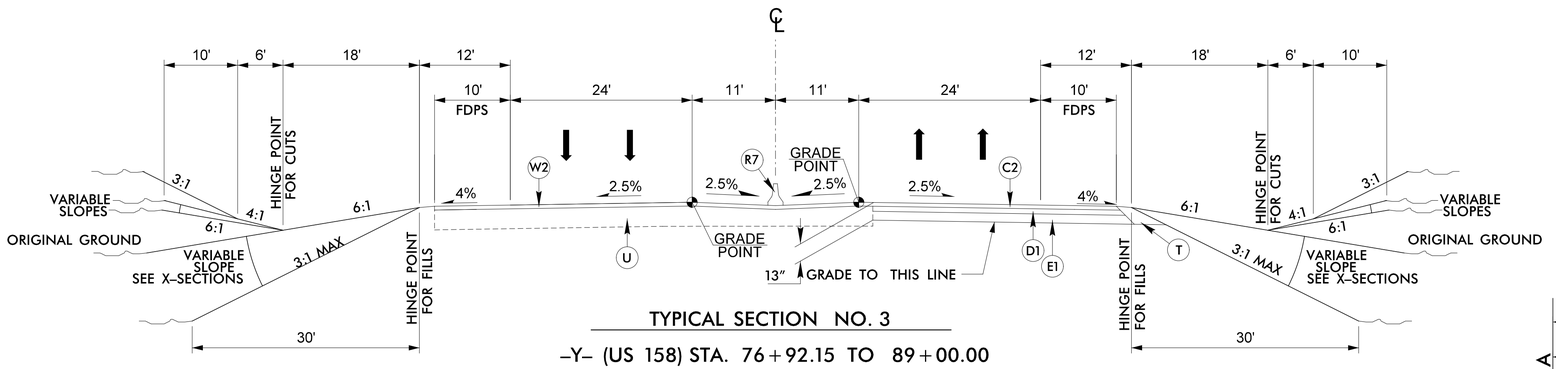
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

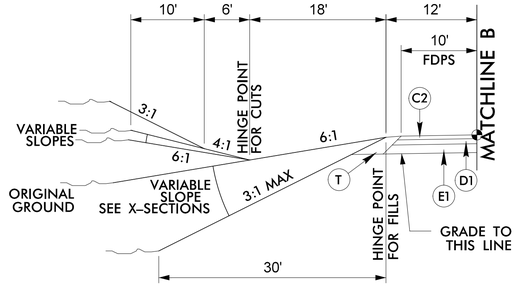
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



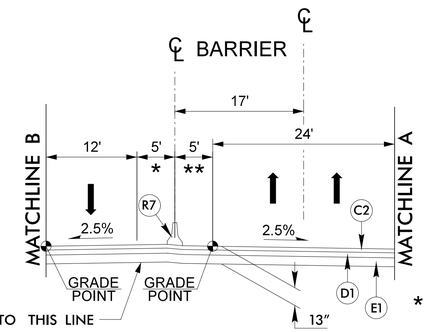
TYPICAL SECTION NO. 3

–Y– (US 158) STA. 76+92.15 TO 89+00.00



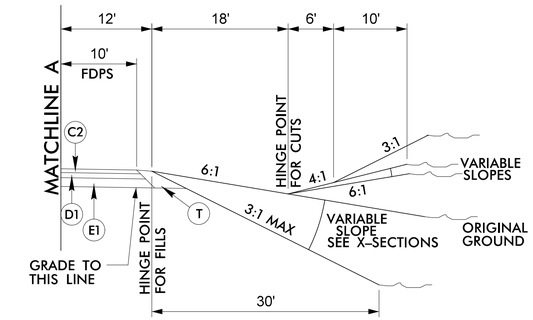
TYPICAL SECTION NO. 4A

–Y_NB– (US 158) STA. 10+00.00 TO 27+45± (BEGIN BRIDGE)
–Y_NB– (US 158) STA. 29+90.00 TO 35+14.27



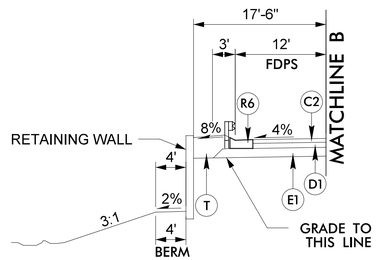
TYPICAL SECTION NO. 4

–Y_NB– (US 158) STA. 10+00.00 TO 27+45± (BEGIN BRIDGE)
–Y_NB– (US 158) STA. 28+77± (END BRDIGE) TO 35+14.27



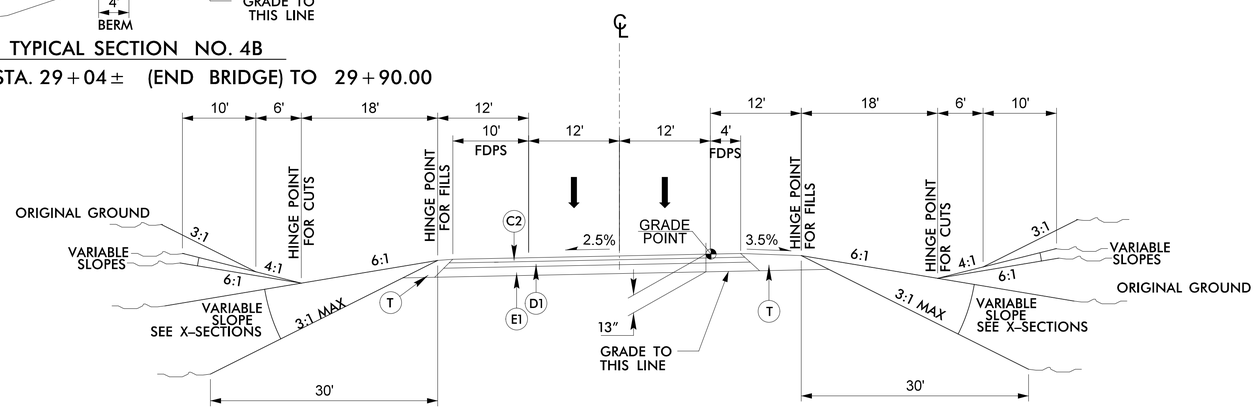
TYPICAL SECTION NO. 4A

–Y_NB– (US 158) STA. 10+00.00 TO 22+50.00
–Y_NB– (US 158) STA. 24+50.00 TO 27+45± (BEGIN BRIDGE)
–Y_NB– (US 158) STA. 33+20.00 TO 35+14.27



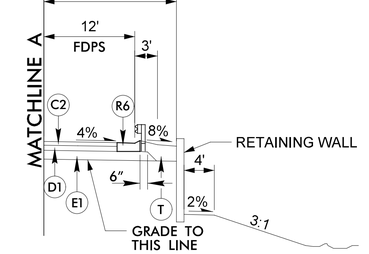
TYPICAL SECTION NO. 4B

–Y_NB– (US 158) STA. 29+04± (END BRIDGE) TO 29+90.00



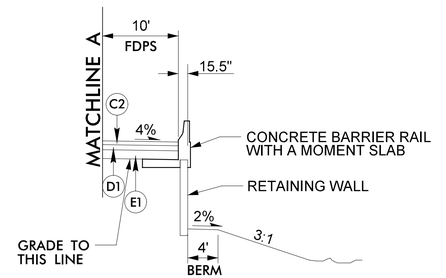
TYPICAL SECTION NO. 5

–Y_SB– (US 158) STA. 10+00.00 TO 25+34.39
–Y_SB– (US 158) STA. 27+50.00 TO 36+00.49
–Y_NB– (US 158) STA. 35+14.27 TO 54+15.97 (MIRRORED)



TYPICAL SECTION NO. 4B

–Y_NB– (US 158) STA. 22+50.00 TO 24+50.00



TYPICAL SECTION NO. 4C

–Y_NB– (US 158) STA. 28+64± (END BRIDGE) TO 33+20.00

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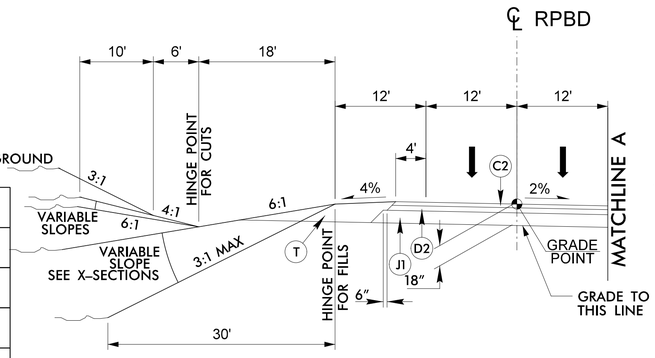
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

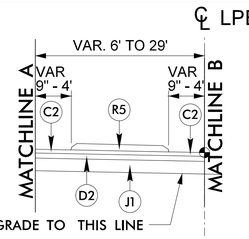
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



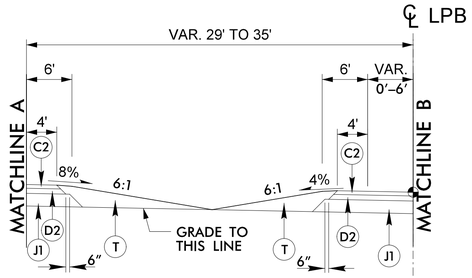
TYPICAL SECTION NO. 6

–RPBD– STA. 10+00.00 TO 23+34.20



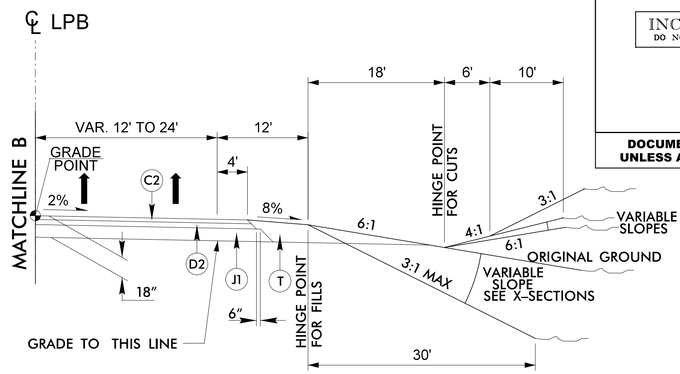
TYPICAL SECTION NO. 6A

–RPBD– STA. 10+00.00 TO 16+36.36
–LPB– STA. 10+00.00 TO 16+61.00



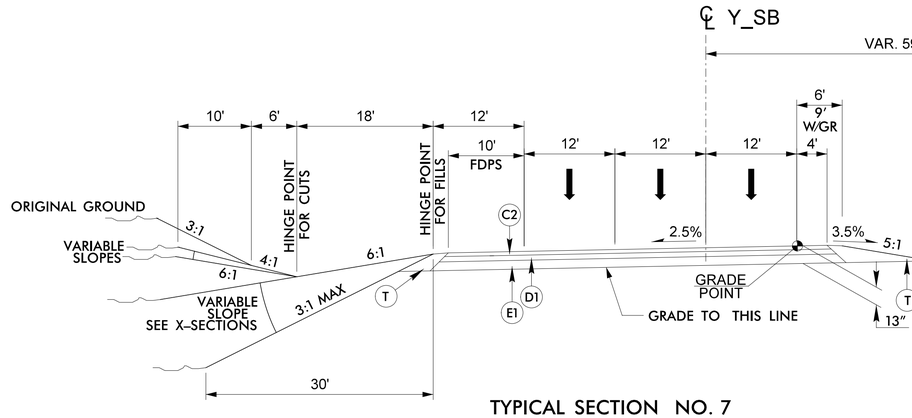
TYPICAL SECTION NO. 6B

–RPBD– STA. 16+36.36 TO 23+34.20
–LPB– STA. 16+61.00 TO 23+16.82



TYPICAL SECTION NO. 6

–LPB– STA. 10+00.00 TO 23+16.82

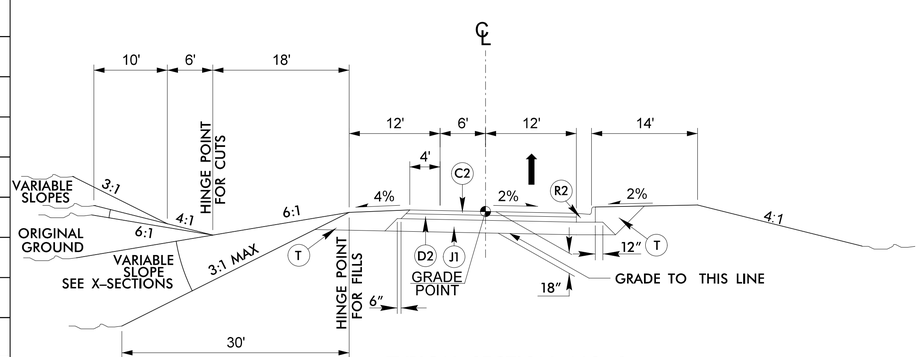


TYPICAL SECTION NO. 7

–Y_SB– (US 158) STA. 25+34.39 TO 27+50.00

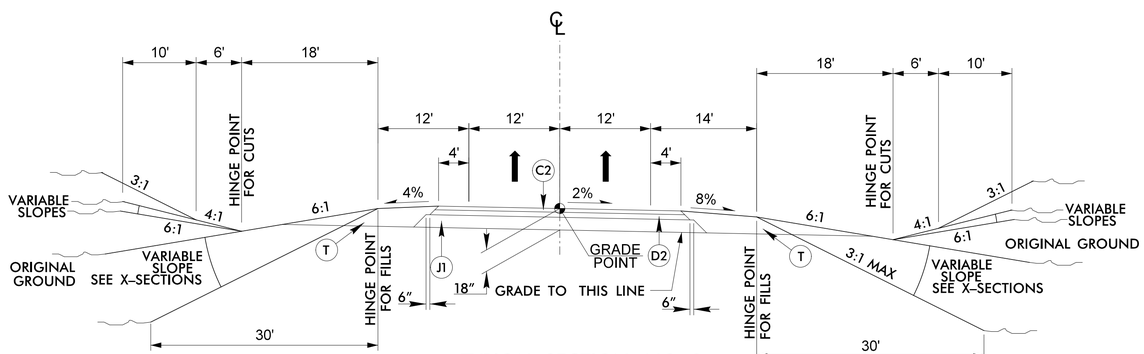
TYPICAL SECTION NO. 7

–LPB– STA. 23+16.82 TO 24+59.90



TYPICAL SECTION NO. 8

–LPB– STA. 24+59.90 TO 28+90.61



TYPICAL SECTION NO. 9

–RPA– STA. 10+00.00 TO 27+50.42

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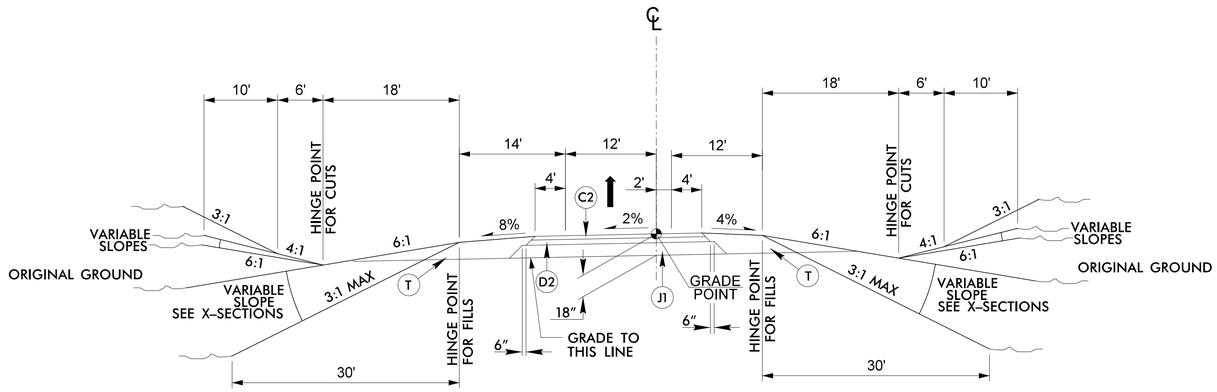
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-4
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

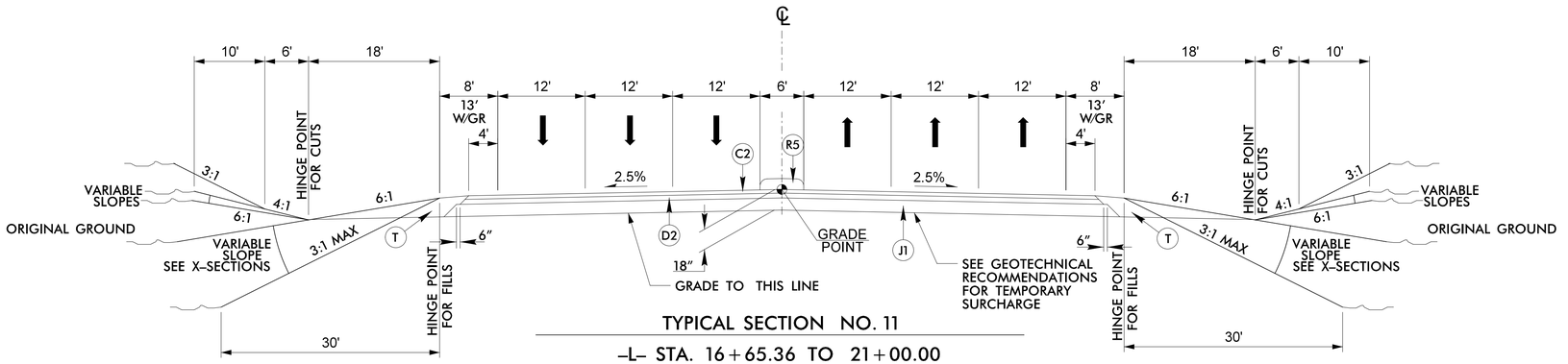
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12″ PCCP (WITH DOWELS)
C1	3″ S9.5B
C2	3″ S9.5C
C3	1″ S9.5B
C4	1.5″ S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3″ I19.5C
D2	3.5″ I19.5C
D3	2.5″ I19.5C
D4	VAR. I19.0C
E1	7″ B25.0
E2	5″ B25.0
E3	VAR. B25.0
J1	11.5″ ABC
J2	4″ ABC
J3	11″ ABC
J4	5″ ABC
R1	1′-6″ CURB
R2	2′-6″ CURB
R3	8″x18″ CURB
R4	7″ JOINTED CONC. PAV.
R5	5″ MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4″ PADL
Y	8″ PERVIOUS CONC. PAVEMENT
Z	6″ #57 STONE



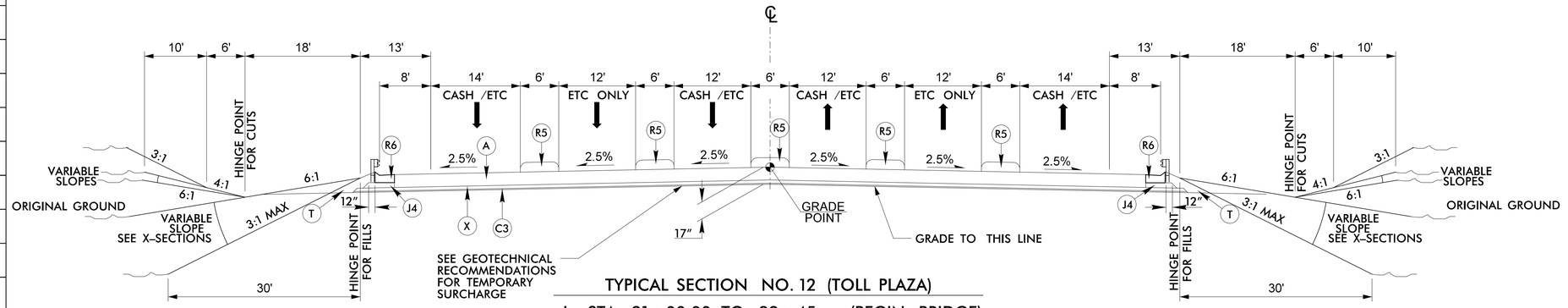
TYPICAL SECTION NO. 10

–RPD– STA. 10+00.00 TO 23+09.74



TYPICAL SECTION NO. 11

–L– STA. 16+65.36 TO 21+00.00



TYPICAL SECTION NO. 12 (TOLL PLAZA)

–L– STA. 21+00.00 TO 22+45± (BEGIN BRIDGE)

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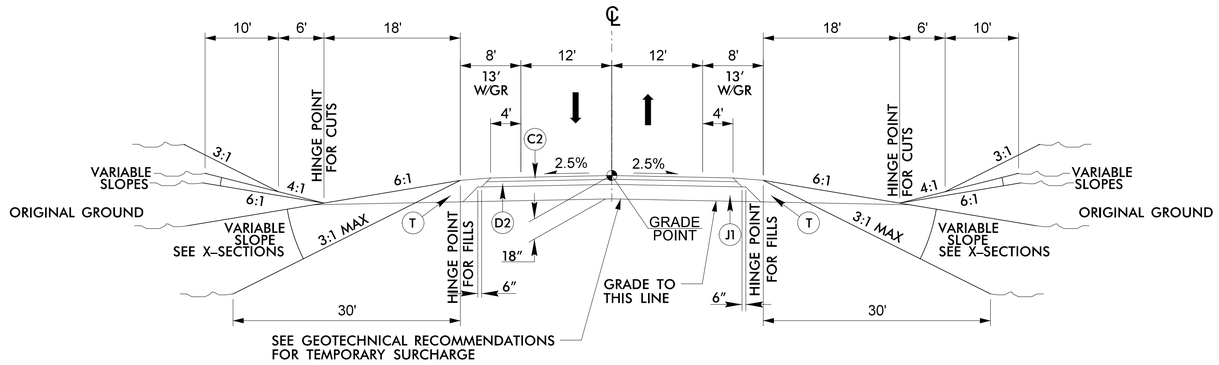
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

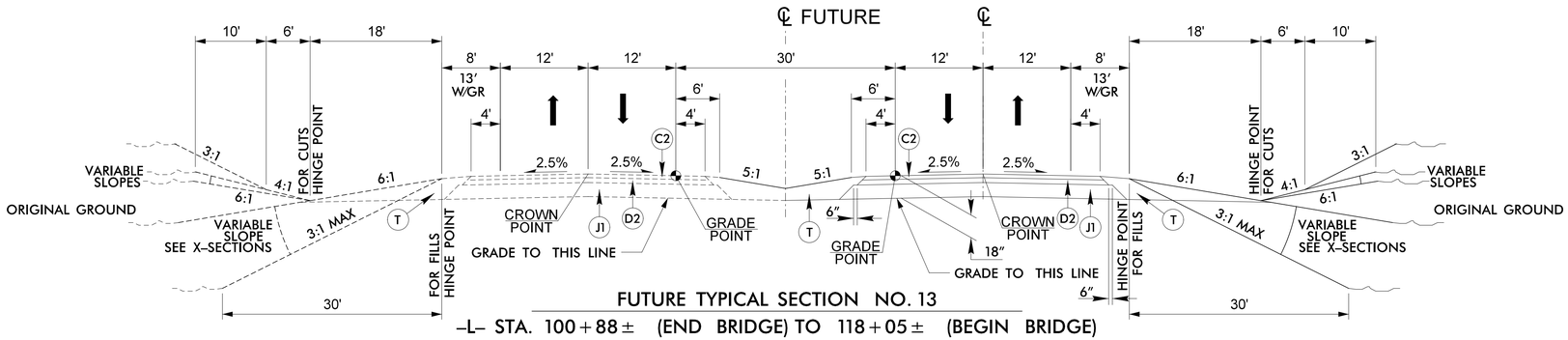
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12″ PCCP (WITH DOWELS)
C1	3″ S9.5B
C2	3″ S9.5C
C3	1″ S9.5B
C4	1.5″ S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3″ I19.5C
D2	3.5″ I19.5C
D3	2.5″ I19.5C
D4	VAR. I19.0C
E1	7″ B25.0
E2	5″ B25.0
E3	VAR. B25.0
J1	11.5″ ABC
J2	4″ ABC
J3	11″ ABC
J4	5″ ABC
R1	1′-6″ CURB
R2	2′-6″ CURB
R3	8″x18″ CURB
R4	7″ JOINTED CONC. PAV.
R5	5″ MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4″ PADL
Y	8″ PERVIOUS CONC. PAVEMENT
Z	6″ #57 STONE



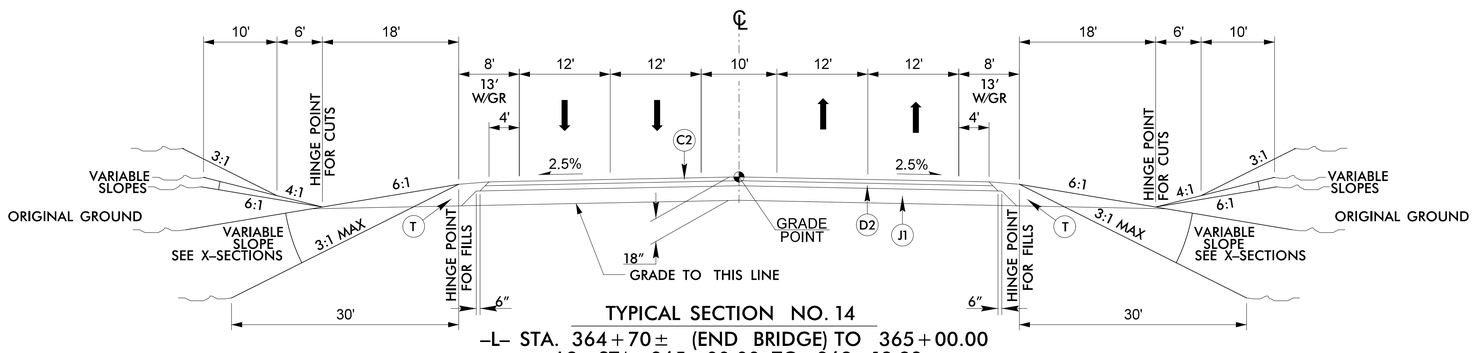
TYPICAL SECTION NO. 13

–L– STA. 100+88± (END BRIDGE) TO 118+05± (BEGIN BRIDGE)



FUTURE TYPICAL SECTION NO. 13

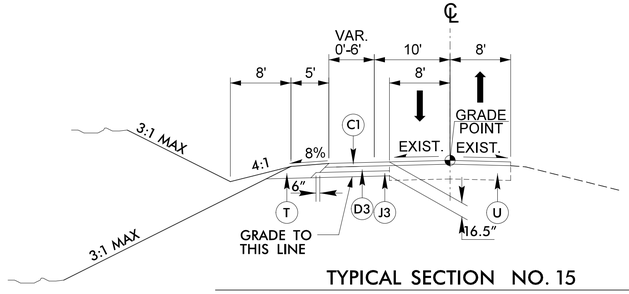
–L– STA. 100+88± (END BRIDGE) TO 118+05± (BEGIN BRIDGE)



TYPICAL SECTION NO. 14

–L– STA. 364+70± (END BRIDGE) TO 365+00.00

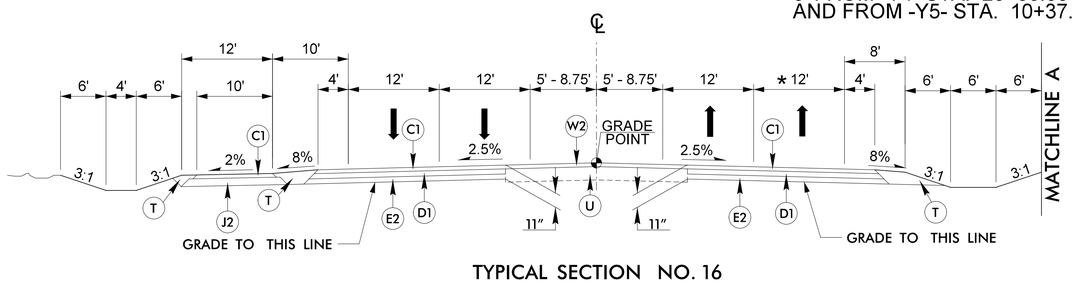
–L2– STA. 365+00.00 TO 369+18.83



TYPICAL SECTION NO. 15

–Y3– (NARROW SHORE RD) STA. 12+48.58 TO 15+36.20

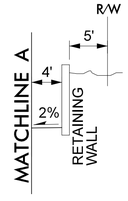
* 0' FROM -Y4- STA. 20+00.00 TO 37+50.00
AND FROM -Y5- STA. 10+37.57 TO 19+46.71



TYPICAL SECTION NO. 16

–Y4– (NC 12) STA. 20+00.00 TO 44+86.83

–Y5– (NC 12) STA. 10+37.57 TO 19+46.71



TYPICAL SECTION NO. 16A

–Y4– (NC 12) STA. 39+80.00 TO 40+60.00

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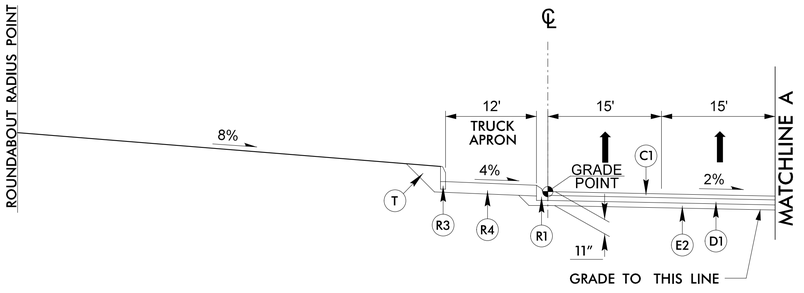
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

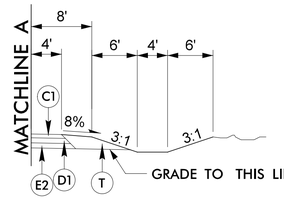
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

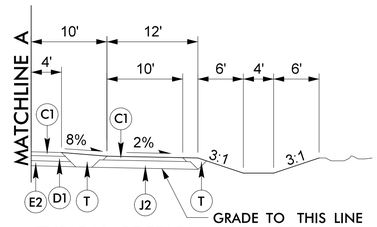
A	12″ PCCP (WITH DOWELS)
C1	3″ S9.5B
C2	3″ S9.5C
C3	1″ S9.5B
C4	1.5″ S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3″ I19.5C
D2	3.5″ I19.5C
D3	2.5″ I19.5C
D4	VAR. I19.0C
E1	7″ B25.0
E2	5″ B25.0
E3	VAR. B25.0
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J3	11″ ABC
J4	5″ ABC
R1	1′-6″ CURB
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R3	8″x18″ CURB
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R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4″ PADL
Y	8″ PERVIOUS CONC. PAVEMENT
Z	6″ #57 STONE



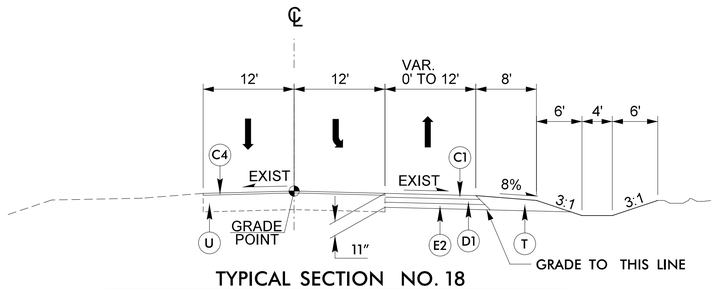
TYPICAL SECTION NO. 17
–Y5R– (ROUNDABOUT) STA. 10+00.00 TO 14+39.82



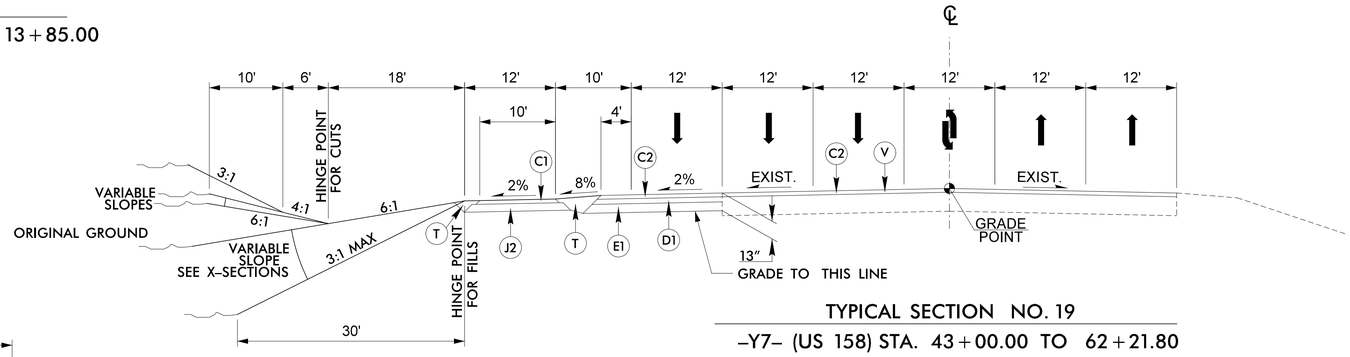
TYPICAL SECTION NO. 17A
–Y5R– STA. 11+12.25 TO 13+20.32



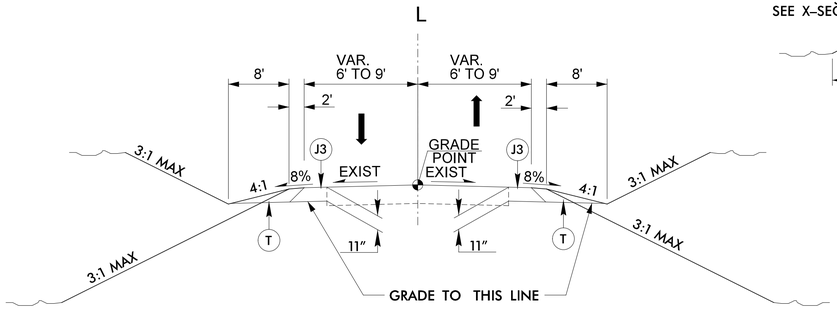
TYPICAL SECTION NO. 17B
–Y5R– STA. 10+00.00 TO 11+12.25
–Y5R– STA. 13+20.32 TO 14+39.82



TYPICAL SECTION NO. 18
–Y6– (ALBACORE RD) STA. 10+15.06 TO 13+85.00



TYPICAL SECTION NO. 19
–Y7– (US 158) STA. 43+00.00 TO 62+21.80



TYPICAL SECTION NO. 20
–Y1B– (YOUNG RD) STA. 10+20.00 TO 11+15.00

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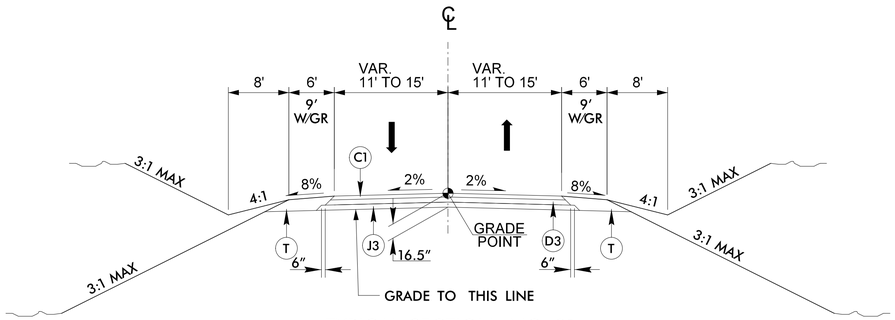
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

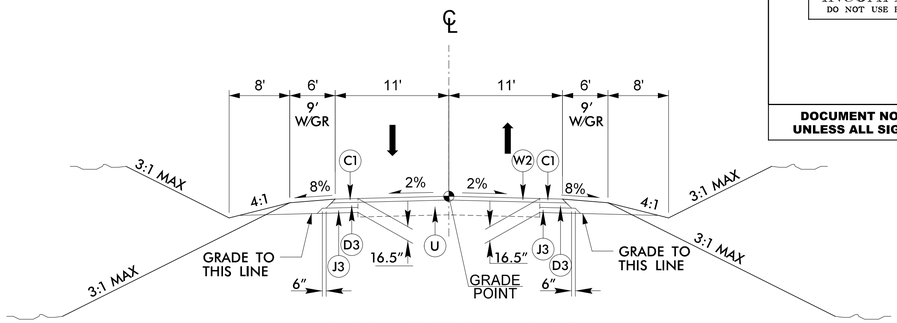
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
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C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
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T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



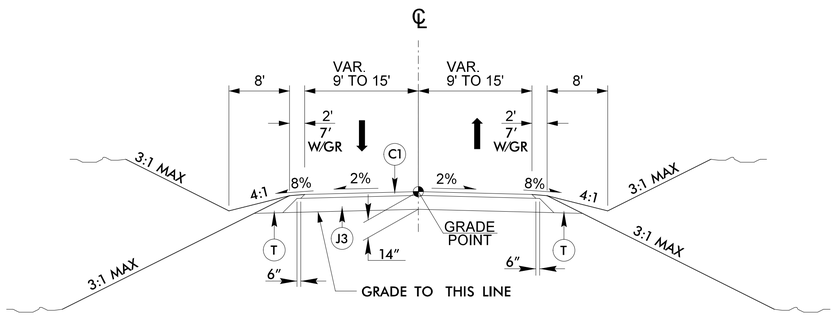
TYPICAL SECTION NO. 21

–Y2– (AYDLETT RD) STA. 10+35.00 TO 28+08.04



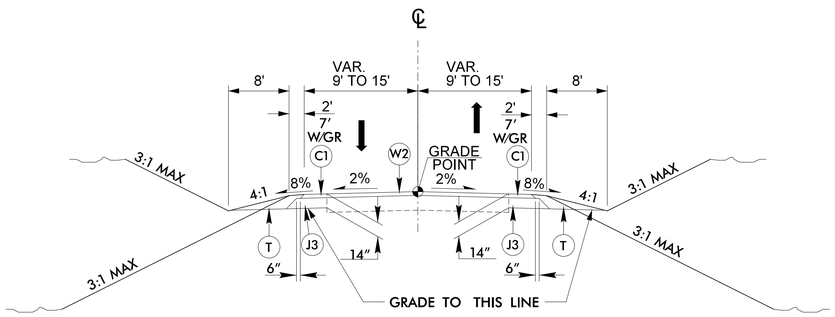
TYPICAL SECTION NO. 22

–Y2– (AYDLETT RD) STA. 28+08.04 TO 31+75.00



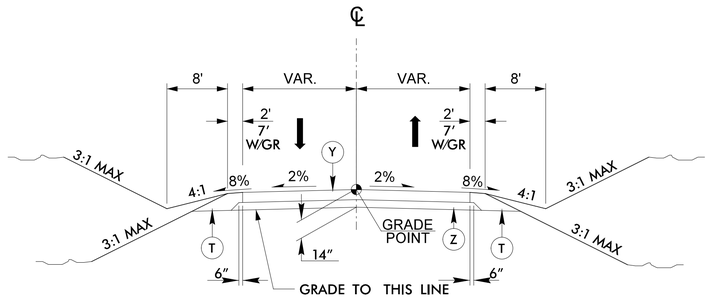
TYPICAL SECTION NO. 23

–Y1A– STA. 10+06.00 TO 25+27.92
–Y2A– STA. 10+11.02 TO 27+16.90
–Y3B– STA. 10+10.00 TO 12+81.74
–Y4C– STA. 10+32.75 TO 11+71.09



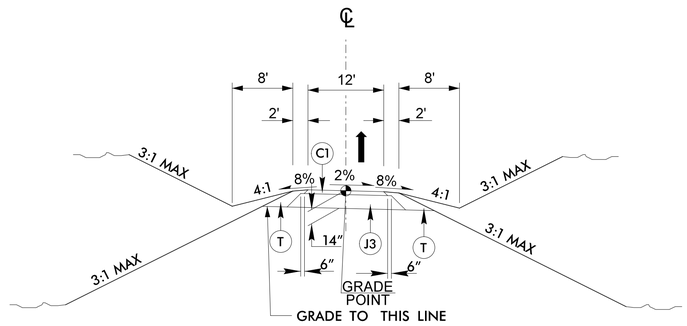
TYPICAL SECTION NO. 24

–Y1– (WATERLILLY RD) STA. 10+35.00 TO 13+50.00
–Y2B– (AYDLETT RD) STA. 11+00.00 TO 16+56.18
–Y4A– (SOUTH HARBOR VIEW) STA. 10+00.00 TO 11+87.73
–Y4A– (NORTH HARBOR VIEW) STA. 12+41.25 TO 13+50.00
–Y4B– (OCEAN FOREST CT) STA. 10+80.00 TO 11+72.61



TYPICAL SECTION NO. 25

PARKING LOT PORTION OF –Y2A– STA. 17+26.72 TO 19+74.16 (LT)
–Y2A– STA. 27+16.90 TO 29+37.64



TYPICAL SECTION NO. 26

–DRW1– STA. 10+70.00 TO 13+51.27

6/17/2024
R2576_rdy_TYP.dgn
TYPICAL

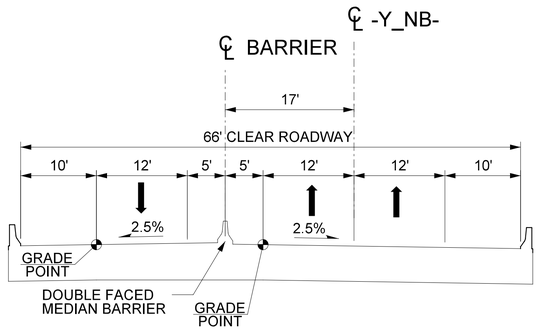
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

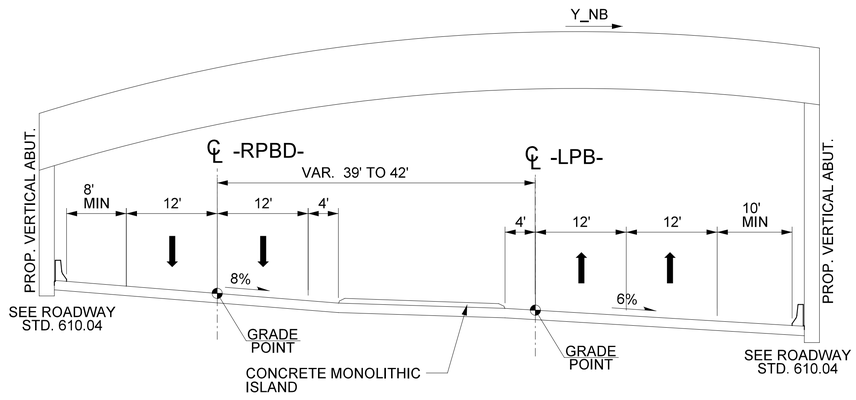
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BRIDGE AT FROM –Y_NB– STA. 27+78.62 OVER –RPBD– STA. 15+04.95 AND AT –Y_NB– STA. 28+24.01 OVER –LPB STA. 15+57.67



STRUCTURE TYPICAL SECTION



TYPICAL SECTION UNDER BRIDGE

6/17/2024
R2576-rdy-TYP.dgn
CTDOT-EF

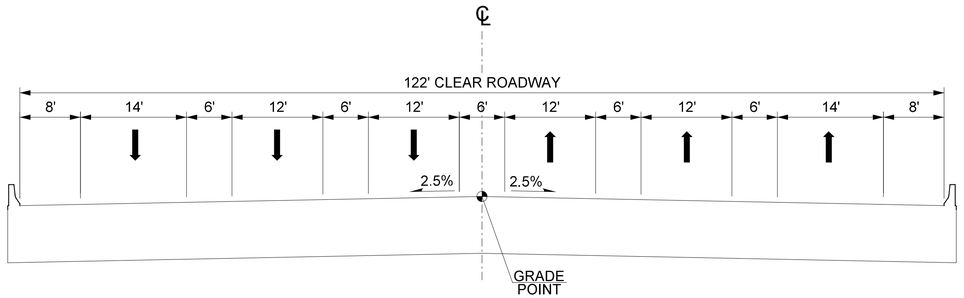
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

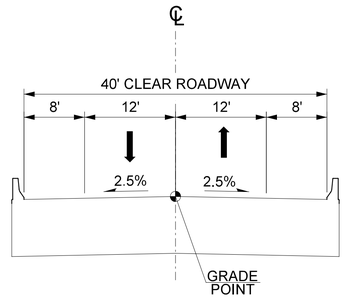
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BRIDGE FROM –L– STA. 22+46± TO STA. 100+88±
OVER MAPLE SWAMP



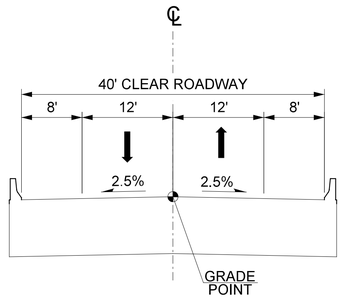
BRIDGE TYPICAL NO. 1
–L– STA. 22+45± (BEGIN BRIDGE) TO 26+00.00

TRANSITION FROM BRIDGE TYPICAL NO. 1 TO NO. 2
AT THE FOLLOWING LOCATIONS:
–L– STA. 26+00.00 TO 33+00.00



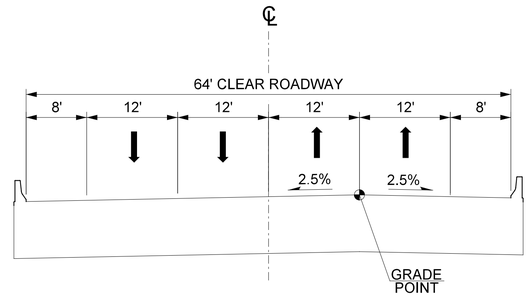
BRIDGE TYPICAL NO. 2
–L– STA. 33+00.00 TO STA. 100+88± (END BRIDGE)

BRIDGE FROM –L– STA. 118+05± TO STA. 364+70±
OVER CURRITUCK SOUND AND AT –L– STA. 118+31.91 OVER –Y3– STA. 13+81.47

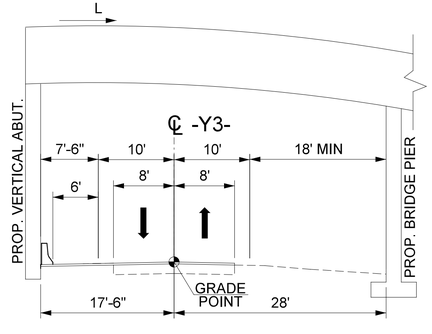


BRIDGE TYPICAL NO. 3
–L– STA. 118+05± TO 356+00.00

TRANSITION FROM BRIDGE TYPICAL NO. 3 TO NO. 4
AT THE FOLLOWING LOCATIONS:
–L– STA. 356+00.00 TO 363+00.00



BRIDGE TYPICAL NO. 4
–L– STA. 363+00.00 TO STA. 364+70±



TYPICAL SECTION UNDER STRUCTURE

6/17/2024
R2576-rdy-TYP.dgn
STDETEF

6/2/99

DITCH DETAILS

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

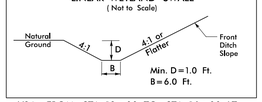
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

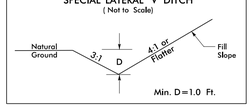
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DETAIL A
LINEAR WETLAND SWALE
(Not to Scale)



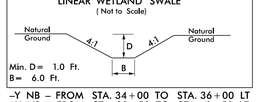
–Y2A– FROM STA. 12+00 TO STA. 16+00 LT
–Y2A– FROM STA. 12+00 TO STA. 17+00 RT
–Y2A– FROM STA. 24+00 TO STA. 25+00 LT
–Y– FROM STA. 22+85 TO STA. 32+50 RT
–Y– FROM STA. 36+00 TO STA. 41+50 RT
–RPD– FROM STA. 12+47 TO STA. 13+75 LT
–RPBD– FROM STA. 10+00 TO STA. 12+00 LT
–RPBD– FROM STA. 11+50 TO STA. 13+50 RT
–RPA– FROM STA. 14+50 TO STA. 15+00 RT
–Y NB– FROM STA. 29+75 TO STA. 35+00 RT
–Y NB– FROM STA. 30+66 TO STA. 34+00 LT
–Y NB– FROM STA. 24+50 TO STA. 25+00 RT
–Y2– FROM STA. 16+50 TO STA. 26+00 RT
–Y2– FROM STA. 18+00 TO STA. 25+50 LT
–Y4– FROM STA. 36+00 TO STA. 39+50 LT

DETAIL B
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



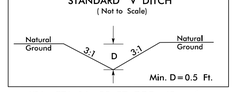
–Y2A– FROM STA. 17+00 TO STA. 17+50 LT
–Y2A– FROM STA. 25+00 TO STA. 27+00 LT
–Y– FROM STA. 33+00 TO STA. 36+00 RT
–Y– FROM STA. 41+50 TO STA. 43+00 RT
–Y2B– FROM STA. 9+58 RT TO STA. 11+34 LT
–Y NB– FROM STA. 20+00 TO STA. 24+50 RT
–Y NB– FROM STA. 35+00 TO STA. 39+00 RT
–RPBD– FROM STA. 10+00 TO STA. 11+50 RT
–Y2– FROM STA. 10+65 TO STA. 15+50 RT
–Y2– FROM STA. 10+85 TO STA. 15+50 LT
–Y2– FROM STA. 25+50 TO STA. 26+10 LT
–Y2– FROM STA. 28+50 TO STA. 31+75 LT
–Y2B– FROM STA. 12+00 TO STA. 16+44 RT
–Y2B– FROM STA. 12+00 TO STA. 16+00 LT
–Y1A– FROM STA. 10+50 TO STA. 13+85 LT
–Y1A– FROM STA. 10+50 TO STA. 14+00 RT
–Y1A– FROM STA. 18+00 TO STA. 19+00 LT

DETAIL C
LINEAR WETLAND SWALE
(Not to Scale)



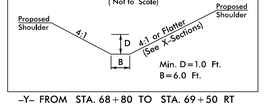
–Y NB – FROM STA. 34+00 TO STA. 36+00 LT
–Y NB – FROM STA. 38+50 TO STA. 41+50 LT

DETAIL D
STANDARD 'V' DITCH
(Not to Scale)



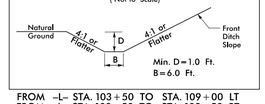
–Y1A– STA. 14+00 RT; DDE=42 cu.ft.
–Y1A– STA. 16+58 LT; DDE=185 cu.ft.
–Y1A– STA. 16+66 RT; DDE=60 cu.ft.
–Y1A– STA. 19+00 RT; DDE=94 cu.ft.

DETAIL E
SPECIAL CUT BASE DITCH
(Not to Scale)



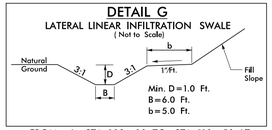
–Y– FROM STA. 68+80 TO STA. 69+50 RT

DETAIL F
LINEAR INFILTRATION SWALE
(Not to Scale)



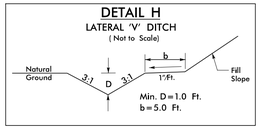
FROM –L– STA. 103+50 TO STA. 109+00 LT
FROM –L– STA. 103+50 TO STA. 109+50 RT

DETAIL G
LATERAL LINEAR INFILTRATION SWALE
(Not to Scale)



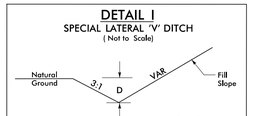
FROM –L– STA. 109+00 TO STA. 110+50 LT
FROM –L– STA. 109+50 TO STA. 110+50 RT

DETAIL H
LATERAL 'V' DITCH
(Not to Scale)



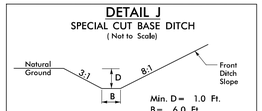
FROM –L– STA. 112+00 TO STA. 116+00 LT

DETAIL I
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



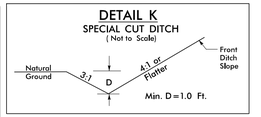
–Y– FROM STA. 70+50 TO STA. 72+50 RT

DETAIL J
SPECIAL CUT BASE DITCH
(Not to Scale)



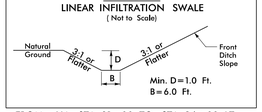
–Y– FROM STA. 72+50 TO STA. 84+50 RT

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)



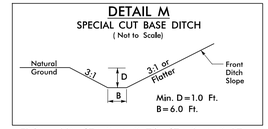
–Y4C– FROM STA. 10+50 TO STA. 11+50 RT
–Y4C– FROM STA. 10+50 TO STA. 11+50 LT
–Y– FROM STA. 15+00 TO STA. 16+00 RT
–Y2B– FROM STA. 10+75 LT TO STA. 11+50 RT
–Y7– FROM STA. 51+30 TO STA. 52+30 LT
–Y7– FROM STA. 58+27 TO STA. 59+50 LT

DETAIL L
LINEAR INFILTRATION SWALE
(Not to Scale)



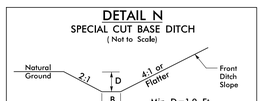
FROM –Y4– STA. 21+00 TO STA. 26+00 LT
FROM –Y4– STA. 20+50 TO STA. 22+50 RT
–Y5– FROM STA. 10+28 TO STA. 19+00 RT
–Y5R– FROM STA. 11+60 TO STA. 13+10 RT

DETAIL M
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM –Y4– STA. 24+70 TO STA. 25+50 RT
FROM –Y4– STA. 30+50 TO STA. 32+50 RT
FROM –Y4– STA. 37+00 TO STA. 37+50 RT
FROM –Y4– STA. 39+50 TO STA. 42+50 RT

DETAIL N
SPECIAL CUT BASE DITCH
(Not to Scale)



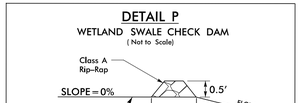
–Y– FROM STA. 32+50 TO STA. 33+00 RT

DETAIL O
LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 113+00 TO STA. 114+50 RT

DETAIL P
WETLAND SWALE CHECK DAM
(Not to Scale)



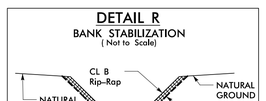
–Y2A– STA. 12+50 LT
–Y2A– STA. 13+00 RT
–Y2A– STA. 15+00 LT
–Y2A– STA. 15+00 RT
–Y2A– STA. 16+00 LT
–Y2A– STA. 16+50 RT
–Y2– STA. 18+50 LT
–Y2– STA. 18+50 RT
–Y2– STA. 22+00 LT
–Y2– STA. 22+50 RT
–Y2– STA. 23+00 LT
–Y2– STA. 24+50 RT
–Y2– STA. 25+50 LT
–Y2– STA. 25+50 RT
–Y– STA. 23+40 RT
–Y– STA. 28+75 RT
–Y– STA. 32+50 RT
–Y– STA. 34+00 RT
–Y– STA. 41+00 RT
–Y NB– STA. 31+50 LT
–Y NB– STA. 32+00 RT
–Y NB– STA. 32+50 LT
–Y NB– STA. 33+00 RT
–Y NB– STA. 40+00 LT
–Y NB– STA. 40+50 LT
–Y4– STA. 21+00 RT
–Y4– STA. 37+45 LT
–Y4– STA. 38+00 LT
–Y5– STA. 10+70 RT
–Y5– STA. 11+50 RT
–Y5– STA. 12+50 RT
–Y5– STA. 13+50 RT
–Y5– STA. 14+50 RT
–Y5R– STA. 12+70 RT

DETAIL Q
TOE PROTECTION
(Not to Scale)



–Y– FROM STA. 21+77 TO STA. 23+70 LT
–Y– FROM STA. 40+83 TO STA. 42+54 LT
–Y– FROM STA 84+63 TO STA. 90+06 RT
–Y– FROM STA 91+24 TO STA. 99+89 RT
–Y– FROM STA. 94+20 TO STA. 98+11 LT
–Y1A– FROM STA. 24+37 TO STA. 24+57 LT
–Y1A– FROM STA. 24+59 TO STA. 24+92 RT

DETAIL R
BANK STABILIZATION
(Not to Scale)



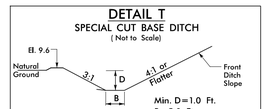
–Y SB– STA. 22+75 LT

DETAIL S
SPECIAL CUT DITCH w/HINGE
(Not to Scale)



–Y– FROM STA. 18+00 TO STA. 19+00 RT
–Y– FROM STA. 20+00 TO STA. 22+85 RT

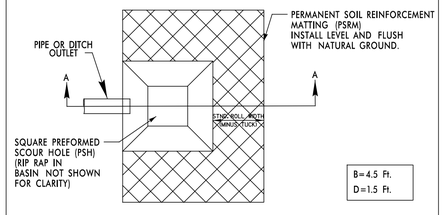
DETAIL T
SPECIAL CUT BASE DITCH
(Not to Scale)



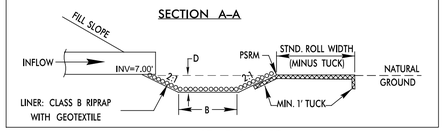
–Y2A– FROM STA. 17+00 TO STA. 18+50 RT

DETAIL U
PREFORMED SCOUR HOLE

PLAN VIEW

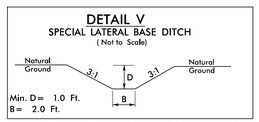


SECTION A–A



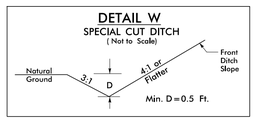
–L2– STA. 366+85 RT

DETAIL V
SPECIAL LATERAL BASE DITCH
(Not to Scale)



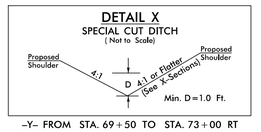
–Y7– FROM STA. 44+00 LT; DDE=550 cu.ft.

DETAIL W
SPECIAL CUT DITCH
(Not to Scale)



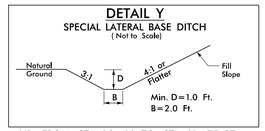
–Y2A– FROM STA. 22+50 TO STA. 23+50 LT

DETAIL X
SPECIAL CUT DITCH
(Not to Scale)



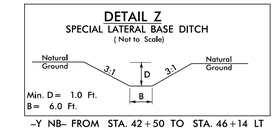
–Y– FROM STA. 69+50 TO STA. 73+00 RT

DETAIL Y
SPECIAL LATERAL BASE DITCH
(Not to Scale)



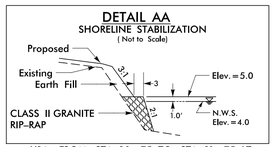
–Y2– FROM STA. 26+00 TO STA. 31+75 RT
–Y2A– FROM STA. 16+00 TO STA. 17+00 LT

DETAIL Z
SPECIAL LATERAL BASE DITCH
(Not to Scale)



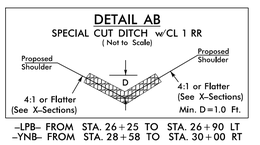
–Y NB– FROM STA. 42+50 TO STA. 46+14 LT

DETAIL AA
SHORELINE STABILIZATION
(Not to Scale)



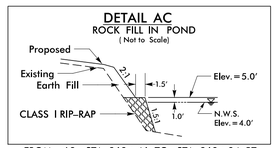
–Y2A– FROM STA. 30+75 TO STA. 31+75 LT

DETAIL AB
SPECIAL CUT DITCH w/CL 1 RR
(Not to Scale)



–LPB– FROM STA. 26+25 TO STA. 26+90 LT
–YNB– FROM STA. 28+58 TO STA. 30+00 RT

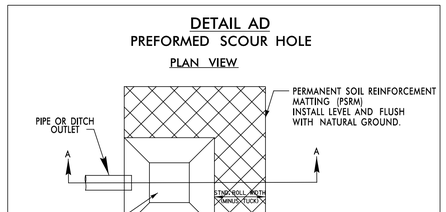
DETAIL AC
ROCK FILL IN POND
(Not to Scale)



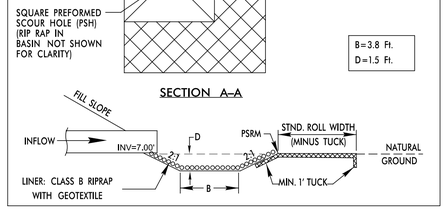
FROM –L2– STA. 368+46 TO STA. 368+84 RT
FROM –Y4– STA. 41+52 TO STA. 42+77 LT

DETAIL AD
PREFORMED SCOUR HOLE

PLAN VIEW

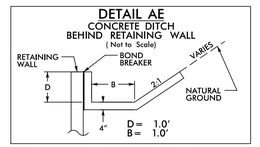


SECTION A–A



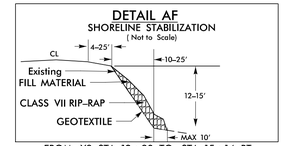
–L STA. 19+65 LT

DETAIL AE
CONCRETE DITCH BEHIND RETAINING WALL
(Not to Scale)



FROM –Y4– STA. 39+80 TO STA. 40+60

DETAIL AF
SHORELINE STABILIZATION
(Not to Scale)



FROM Y3 STA. 12+90 TO STA. 15+14 RT

6/21/00

COMPUTED BY: CLY DATE: 032620
CHECKED BY: — DATE: —

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
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(919)571-7111
NC License Number F-0159

ETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	3B

PRELIMINARY SUMMARY OF EARTHWORK IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
SUMMARY #1					
-L- 16+65 TO 22+46	333	3,612	16,901	16,900	3,944
-Y_NB-20+00 TO 27+51 (BEG BRIDGE)	770	--	221,550	220,780	--
-RPD- 13+00 TO 13+50	179	--	2,459	2,370	--
-RPBD- 10+00 TO 17+00	1,994		26,681	24,687	
-Y_SB- 18+00 TO 36+00	38		163,249	163,211	
TOTAL SUMMARY #1	3,314	3,612	430,931	427,949	3,944
SUMMARY #2					
-Y_NB- 28+74 (END BRIDGE) TO 46+00	2,821	--	346,648	343,827	
-LPB- 25+00 TO 27+00	--	--	20,344	20,344	
-RPA- 14+50 TO 15+00	34	--	2,102	2,068	
TOTAL SUMMARY #2	2,855	--	369,093	366,238	--
					--
SUMMARY #3					--
-Y- 14+75 TO 43+00	10,620	--	50,185	39,565	--
-Y2- 10+35 TO 31+75	4,077	--	4,996	919	--
-Y2A- 10+11 TO 29+38	962		12,879	11,917	--
-Y2B- 11+00 TO 16+56	1,182		407	--	775
-DRWI- 10+25 TO 13+51.27	19	--	649	630	--
TOTAL SUMMARY #3	16,860	--	69,116	53,031	775
SUMMARY #4					
-Y- 69+00 TO 102+50	7,894	--	21,379	13,485	--
-Y1- 10+35 TO 13+50	47	--	416	369	--
-Y1A- 10+06 TO 25+28	298	--	2,423	2,125	--
TOTAL SUMMARY #4	8,239	--	24,218	15,979	--
SUMMARY #5					
-L- 100+89 (END BRIDGE) TO 118+05 (BEG BRIDGE)	2,544	2,285	77,743	75,337	2,423
-Y3- 12+50 TO 15+00	441	--	--	--	441
-Y3B- 9+98 TO 12+82	165	--	282	117	--
TOTAL SUMMARY #5	3,150	2,285	78,025	75,454	2,864
SUMMARY #6					
-L- 364+70 (END BRIDGE) TO -L2- 369+51.21	132	1,342	16,095	16,095	1,474
-Y5R- 10+00 TO 14+39	471	--	10,979	10,508	--
TOTAL SUMMARY #6	603	1,342	27,074	26,063	1,474

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
SUMMARY #7					--
-Y4- 20+00 TO 44+85	14,880	--	5,225	--	9,655
-Y4A- 10+00 TO 11+88	104	--	3	--	101
-Y4A- 12+41 TO 13+50	41	--	1	--	40
-Y4B- 10+80 TO 11+73	16	--	3	--	13
-Y4C- 10+33 TO 11+71	1,529	--	--	--	1,529
TOTAL SUMMARY #7	16,570	--	5,231	--	11,339
		--	10,936	10,616	--
SUMMARY #8					
-Y5- 10+38 TO 19+47	1,933	--	3,916	1,983	
TOTAL SUMMARY #8	1,933		3,916	1,983	
SUMMARY #9					
-Y6- 10+15 TO 13+03	143	--	60	--	83
TOTAL SUMMARY #9	143	--	60	--	83
SUMMARY #10					
-Y7- 42+50 TO 62+22	2,347	--	814	--	1,533
TOTAL SUMMARY #10	2,347	--	814	--	1,533
TOTAL SUMMARIES 1-10	56,134	7,239	1,008,055	966,980	22,297
WASTE IN LIEU OF BORROW	--	--	--	-14,456	-14,456
EST.5% TO REPLACE TOP SOIL ON BORROW PIT	--	--	--	47,626	--
GRAND TOTAL	56,134	7,239	1,008,055	1,000,149	7,841
SAY	56,140	--	--	1,000,150	7,850

6/17/2024
R2576_rdy_psh03B.dgn
RCOKLEY

REVISIONS

LOCHNER

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License No. 74377
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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
FACILITY DESIGN - ECS/CPE - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	4
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

PAVED SHOULDER

NAD 83/2011

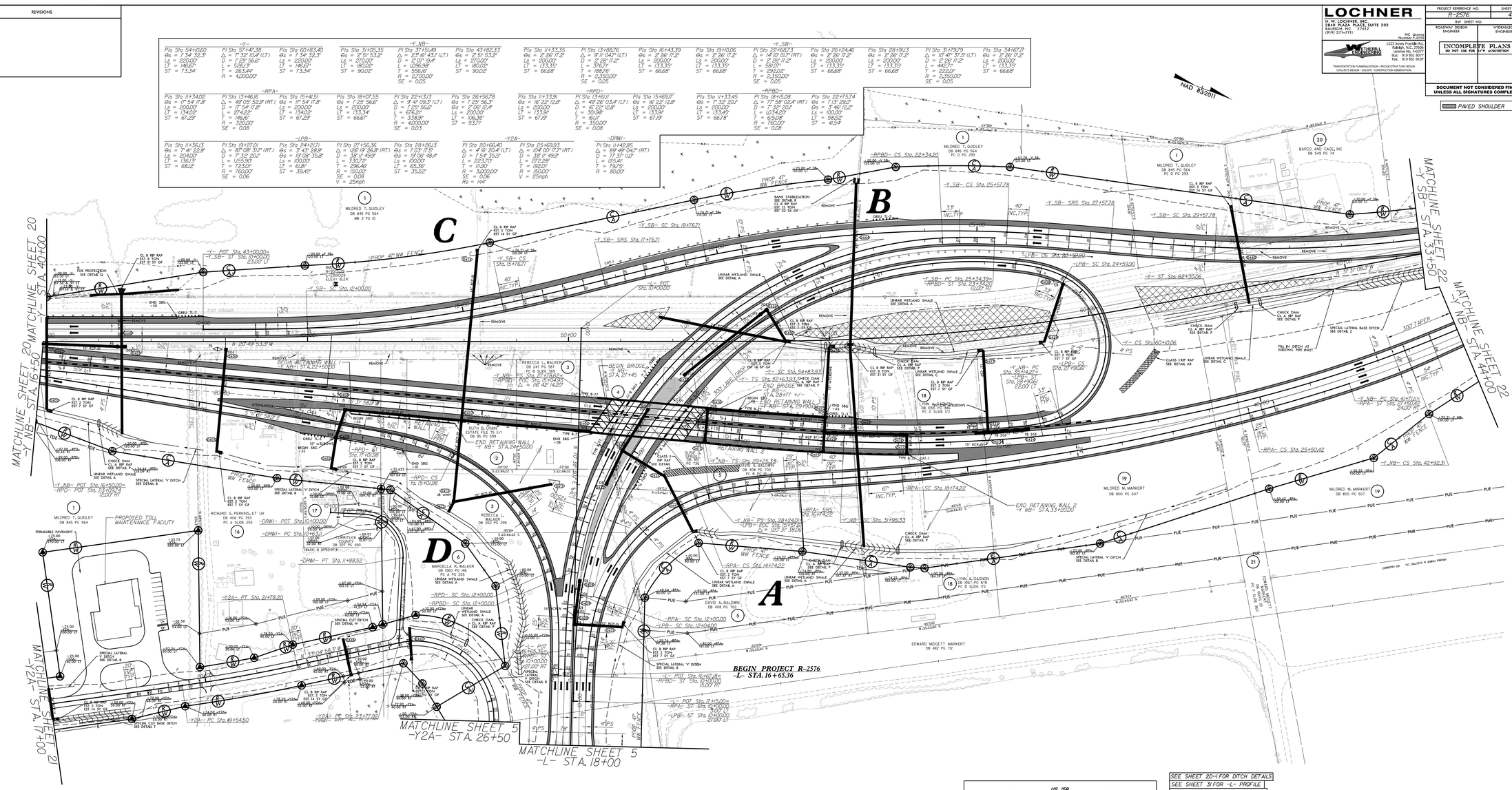
-Y-

Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta
54+10.60	57+47.38	60+83.40	37+05.49	43+82.33	33+33.35	13+88.76	16+43.39	19+10.06	22+68.73	26+24.46
℄s = 1° 34' 32.3"	Δ = 7° 32' 10.4" (LT)	℄s = 1° 34' 32.3"	Δ = 13° 16' 43.4" (LT)	℄s = 1° 51' 53.2"	℄s = 2° 26' 17.2"	Δ = 9° 19' 04.7" (RT)	℄s = 2° 26' 17.2"	℄s = 2° 26' 17.2"	Δ = 14° 10' 01.7" (RT)	℄s = 2° 26' 17.2"
Ls = 220.00'	D = 1° 25' 56.6"	Ls = 220.00'	D = 2° 01' 19.4"	Ls = 210.00'	D = 2° 26' 17.2"	D = 2° 26' 17.2"	Ls = 200.00'	Ls = 200.00'	D = 2° 26' 17.2"	Ls = 200.00'
LT = 146.67'	L = 536.11'	LT = 146.67'	L = 1096.98'	LT = 180.00'	LT = 133.35'	L = 376.27'	LT = 133.35'	LT = 133.35'	L = 581.07'	LT = 133.35'
ST = 73.34'	T = 268.44'	ST = 73.34'	T = 556.16'	ST = 90.02'	ST = 66.68'	T = 188.76'	ST = 66.68'	ST = 66.68'	T = 290.02'	ST = 66.68'
	R = 4000.00'		R = 2770.00'			R = 2,350.00'			R = 2,350.00'	
			SE = 0.05			SE = 0.05			SE = 0.05	

Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta
31+79.79	34+67.17	11+34.02	13+46.26	15+46.51	18+07.55	22+13.23	26+56.78	11+33.91	13+46.01	15+69.17
Δ = 10° 47' 37.5" (LT)	℄s = 2° 26' 17.2"	℄s = 17° 54' 17.8"	Δ = 49° 05' 53.9" (RT)	D = 1° 54' 17.8"	Δ = 9° 41' 09.3" (LT)	D = 1° 25' 56.6"	Δ = 9° 41' 09.3" (LT)	℄s = 10° 22' 12.8"	℄s = 10° 22' 12.8"	D = 10° 22' 12.8"
D = 2° 26' 17.2"	Ls = 200.00'	Ls = 200.00'	D = 1° 54' 17.8"	Ls = 200.00'	D = 1° 25' 56.6"	Ls = 200.00'	℄s = 2° 06' 12.4"	Ls = 200.00'	Ls = 200.00'	Ls = 200.00'
L = 442.71'	LT = 133.35'	LT = 134.02'	Ls = 200.00'	LT = 134.02'	L = 675.27'	LT = 133.35'	Ls = 200.00'	LT = 133.35'	LT = 133.35'	LT = 133.35'
T = 222.57'	ST = 66.68'	ST = 67.29'	T = 146.85'	ST = 67.29'	T = 338.69'	ST = 66.68'	LT = 106.56'	ST = 66.68'	ST = 66.68'	ST = 66.68'
R = 2,350.00'			R = 380.00'		R = 4,000.00'		ST = 93.71'			
SE = 0.05			SE = 0.08		SE = 0.03					

Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta	Pt Sta
11+33.45	7+32.20	7+32.20	7+13.29	3+46.18	19+97.01	24+21.71	27+56.36	28+26.13	20+66.40	25+69.93
℄s = 7° 32' 20.2"	D = 7° 32' 20.2"	Ls = 200.00'	℄s = 3° 46' 18.2"	Ls = 100.00'	Δ = 87° 08' 31.7" (RT)	Δ = 3° 43' 28.9"	D = 108° 19' 26.8" (RT)	Δ = 4° 16' 20.4" (LT)	Δ = 4° 16' 20.4" (LT)	D = 4° 16' 20.4"
Ls = 200.00'	LT = 133.45'	LT = 134.02'	Ls = 100.00'	LT = 56.52'	D = 7° 32' 20.2"	Ls = 100.00'	D = 1° 54' 17.8"	D = 1° 54' 35.5"	L = 221.70'	L = 275.28'
LT = 133.45'	ST = 66.74'	T = 1,034.20'	ST = 41.54'	ST = 28.26'	L = 1,034.20'	T = 651.28'	Ls = 200.00'	L = 221.70'	T = 110.90'	T = 150.21'
ST = 66.74'		R = 760.00'			T = 651.28'		LT = 106.56'	T = 110.90'	R = 3,000.00'	R = 150.00'
		SE = 0.08			R = 760.00'		ST = 93.71'	R = 3,000.00'	SE = 0.06	V = 25mph
					SE = 0.08			SE = 0.06	Ro = 144°	

Pt Sta	Pt Sta	Pt Sta
11+42.85	20+66.40	25+69.93
Δ = 89° 49' 04.7" (RT)	Δ = 4° 16' 20.4" (LT)	D = 104° 07' 17.7" (RT)
D = 77° 37' 11.7"	D = 1° 54' 35.5"	D = 38° 11' 49.5"
L = 125.41'	L = 221.70'	L = 275.28'
T = 79.75'	T = 110.90'	T = 190.01'
R = 80.00'	R = 3,000.00'	R = 150.00'
	SE = 0.06	V = 25mph
	Ro = 144°	


MATCHLINE SHEET 20 -Y NB- STA. 16+60
MATCHLINE SHEET 20 -Y SB- STA. 40+00
MATCHLINE SHEET 22 -Y SB- STA. 33+50
MATCHLINE SHEET 22 -Y NB- STA. 44+00
MATCHLINE SHEET 21 -Y2A- STA. 17+00
MATCHLINE SHEET 5 -Y2A- STA. 26+50
MATCHLINE SHEET 5 -L- STA. 18+00
A
B
C
D
PROPOSED TOLL MAINTENANCE FACILITY
BEGIN PROJECT R-2576 -L- STA. 16+65.36
-Y- POT Sta. 43+00.00= -Y SB- ST Sta. 10+00.00 53.00' LT
-Y SB- SC Sta. 12+00.00
-Y SB- SRS Sta. 17+76.71
-Y SB- SC Sta. 19+76.71
-Y SB- CS Sta. 25+57.78
-Y SB- SRS Sta. 27+57.78
-Y SB- SC Sta. 29+57.78
-Y- POT Sta. 10+00.00
-Y- POT Sta. 62+30.26
-Y- ST Sta. 62+30.26
-Y- CS Sta. 60+10.06
-Y SB- PC Sta. 25+14.19= -RPBD- ST Sta. 23+14.20 12.00' RT
-Y SB- PT Sta. 29+57.78
-LPB- CS Sta. 23+59.90
-LPB- SC Sta. 24+59.90
-LPB- ST Sta. 25+59.90 22.00' LT
-Y NB- PC Sta. 45+14.27= -LPB- ST Sta. 25+59.90 22.00' LT
-Y NB- PC Sta. 41+71.16= -RPA- ST Sta. 27+42.24 24.00' RT
-Y NB- CS Sta. 42+92.31
-Y NB- PT Sta. 16+50.00= -RPD- POT Sta. 23+09.74 12.00' RT
-Y NB- TS Sta. 29+26.33 -LPB- SC Sta. 26+26.33
-Y NB- SC Sta. 31+95.33
-Y NB- PS Sta. 28+24.00= -LPB- POC Sta. 15+91.57 12.00' LT
-RPD- CS Sta. 15+01.98
-RPD- ST Sta. 11+70.98 15.00' RT
-RPD- SC Sta. 12+00.00
-RPBD- SC Sta. 12+00.00
-RPA- CS Sta. 14+74.22
-RPA- SRS Sta. 16+74.22
-RPA- SC Sta. 18+74.22
-RPA- CS Sta. 25+50.42
-RPA- SC Sta. 12+00.00
-LPB- SC Sta. 12+34.00
-RPBD- ST Sta. 11+70.00 15.00' RT
-L- POT Sta. 16+67.18= -RPBD- ST Sta. 11+70.00 15.00' RT
-L- POT Sta. 11+15.00= -RPA- ST Sta. 11+70.00
-LPB- ST Sta. 8+40.00 22.00' LT
-DRWI- POT Sta. 10+00.00
-DRWI- PC Sta. 10+16.41
-DRWI- PT Sta. 11+88.52
-Y2A- PT Sta. 21+78.20
-Y2A- PC Sta. 19+54.50
-Y2A- CP Sta. 23+77.92
-DRWI- POT Sta. 23+77.92
-Y2A- ST Sta. 26+77.92
-RPD- SC Sta. 12+00.00
-RPBD- SC Sta. 12+00.00
-RPA- SC Sta. 12+00.00
-LPB- SC Sta. 12+34.00
-RPBD- ST Sta. 11+70.00 15.00' RT
-L- POT Sta. 11+15.00= -RPA- ST Sta. 11+70.00
-LPB- ST Sta. 8+40.00 22.00' LT
MILDRED T. QUIDLEY DB 845 PG 564 MB 3 PG 10
MILDRED T. QUIDLEY DB 845 PG 564 PC D PG 293
BARCO AND CAGE, INC DB 549 PG 74
MILDRED T. QUIDLEY DB 845 PG 564
RICHARD S. PERKINS, ET UX DB 406 PG 593 PC A SLIDE 255
CHRISTINE C. BOSWELL DB 337 PG 493
REBECCA L. WALKER DB 247 PG 587
REBECCA L. WALKER DB 247 PG 589 PC B SLIDE 389
REBECCA L. WALKER DB 262 PG 299
MARCELLA G. WALKER DB 1065 PG 946 PC A PG 255
RUTH B. DRAIN ESTATE FILE 75 E/I DB 95 PG 599
SUSIE G. SPIVEY DB 1065 PG 946
DAVID A. BALDWIN DB 408 PG 702
MILDRED M. MARKERT DB 800 PG 507
LYNN A. GAGNON DB 1067 PG 878 PC B SLIDE 172
EDWARD MCGETT MARKERT DB 482 PG 702
CL B RIP RAP EST 2 TON EST 7 SY GF
CL B RIP RAP EST 3 TON EST 7 SY GF
CL B RIP RAP EST 5 TON EST 14 SY GF
CL A RIP RAP EST 5 TON EST 32 SY GF
CL B RIP RAP EST 5 TON EST 21 SY GF
CL A RIP RAP EST 8 TON EST 51 SY GF
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CL B RIP RAP EST 470 TON EST 2707 SY GF
CL A RIP RAP EST 470 TON EST 3008 SY GF
CL B RIP RAP EST 480 TON EST 2765 SY GF
CL A RIP RAP EST 480 TON EST 3072 SY GF
CL B RIP RAP EST 490 TON EST 2822 SY GF
CL A RIP RAP EST 490 TON EST 3136 SY GF
CL B RIP RAP EST 500 TON EST 2880 SY GF
CL A RIP RAP EST 500 TON EST 3200 SY GF
CL B RIP RAP EST 510 TON EST 2938 SY GF
CL A RIP RAP EST 510 TON EST 3264 SY GF
CL B RIP RAP EST 520 TON EST 2995 SY GF
CL A RIP RAP EST 520 TON EST 3328 SY GF
CL B RIP RAP EST 530 TON EST 3053 SY GF
CL A RIP RAP EST 530 TON EST 3392 SY GF
CL B RIP RAP EST 540 TON EST 3110 SY GF
CL A RIP RAP EST 540 TON EST 3456 SY GF
CL B RIP RAP EST 550 TON EST 3168 SY GF
CL A RIP RAP EST 550 TON EST 3520 SY GF
CL B RIP RAP EST 560 TON EST 3226 SY GF
CL A RIP RAP EST 560 TON EST 3584 SY GF
CL B RIP RAP EST 570 TON EST 3283 SY GF
CL A RIP RAP EST 570 TON EST 3648 SY GF
CL B RIP RAP EST 580 TON EST 3341 SY GF
CL A RIP RAP EST 580 TON EST 3712 SY GF
CL B RIP RAP EST 590 TON EST 3398 SY GF
CL A RIP RAP EST 590 TON EST 3776 SY GF
CL B RIP RAP EST 600 TON EST 3456 SY GF
CL A RIP RAP EST 600 TON EST 3840 SY GF
CL B RIP RAP EST 610 TON EST 3514 SY GF
CL A RIP RAP EST 610 TON EST 3904 SY GF
CL B RIP RAP EST 620 TON EST 3571 SY GF
CL A RIP RAP EST 620 TON EST 3968 SY GF
CL B RIP RAP EST 630 TON EST 3629 SY GF
CL A RIP RAP EST 630 TON EST 4032 SY GF
CL B RIP RAP EST 640 TON EST 3686 SY GF
CL A RIP RAP EST 640 TON EST 4096 SY GF
CL B RIP RAP EST 650 TON EST 3744 SY GF
CL A RIP RAP EST 650 TON EST 4160 SY GF
CL B RIP RAP EST 660 TON EST 3802 SY GF
CL A RIP RAP EST 660 TON EST 4224 SY GF
CL B RIP RAP EST 670 TON EST 3859 SY GF
CL A RIP RAP EST 670 TON EST 4288 SY GF
CL B RIP RAP EST 680 TON EST 3917 SY GF
CL A RIP RAP EST 680 TON EST 4352 SY GF
CL B RIP RAP EST 690 TON EST 3974 SY GF
CL A RIP RAP EST 690 TON EST 4416 SY GF
CL B RIP RAP EST 700 TON EST 4032 SY GF
CL A RIP RAP EST 700 TON EST 4480 SY GF
CL B RIP RAP EST 710 TON EST 4090 SY GF
CL A RIP RAP EST 710 TON EST 4544 SY GF
CL B RIP RAP EST 720 TON EST 4147 SY GF
CL A RIP RAP EST 720 TON EST 4608 SY GF
CL B RIP RAP EST 730 TON EST 4205 SY GF
CL A RIP RAP EST 730 TON EST 4672 SY GF
CL B RIP RAP EST 740 TON EST 4262 SY GF
CL A RIP RAP EST 740 TON EST 4736 SY GF
CL B RIP RAP EST 750 TON EST 4320 SY GF
CL A RIP RAP EST 750 TON EST 4800 SY GF
CL B RIP RAP EST 760 TON EST 4378 SY GF
CL A RIP RAP EST 760 TON EST 4864 SY GF
CL B RIP RAP EST 770 TON EST 4435 SY GF
CL A RIP RAP EST 770 TON EST 4928 SY GF
CL B RIP RAP EST 780 TON EST 4493 SY GF
CL A RIP RAP EST 780 TON EST 4992 SY GF
CL B RIP RAP EST 790 TON EST 4550 SY GF
CL A RIP RAP EST 790 TON EST 5056 SY GF
CL B RIP RAP EST 800 TON EST 4608 SY GF
CL A RIP RAP EST 800 TON EST 5120 SY GF
CL B RIP RAP EST 810 TON EST 4666 SY GF
CL A RIP RAP EST 810 TON EST 5184 SY GF
CL B RIP RAP EST 820 TON EST 4723 SY GF
CL A RIP RAP EST 820 TON EST 5248 SY GF
CL B RIP RAP EST 830 TON EST 4781 SY GF
CL A RIP RAP EST 830 TON EST 5312 SY GF
CL B RIP RAP EST 840 TON EST 4838 SY GF
CL A RIP RAP EST 840 TON EST 5376 SY GF
CL B RIP RAP EST 850 TON EST 4896 SY GF
CL A RIP RAP EST 850 TON EST 5440 SY GF
CL B RIP RAP EST 860 TON EST 4954 SY GF
CL A RIP RAP EST 860 TON EST 5504 SY GF
CL B RIP RAP EST 870 TON EST 5011 SY GF
CL A RIP RAP EST 870 TON EST 5568 SY GF
CL B RIP RAP EST 880 TON EST 5069 SY GF
CL A RIP RAP EST 880 TON EST 5632 SY GF
CL B RIP RAP EST 890 TON EST 5126 SY GF
CL A RIP RAP EST 890 TON EST 5696 SY GF
CL B RIP RAP EST 900 TON EST 5184 SY GF
CL A RIP RAP EST 900 TON EST 5760 SY GF
CL B RIP RAP EST 910 TON EST 5242 SY GF
CL A RIP RAP EST 910 TON EST 5824 SY GF
CL B RIP RAP EST 920 TON EST 5299 SY GF
CL A RIP RAP EST 920 TON EST 5888 SY GF
CL B RIP RAP EST 930 TON EST 5357 SY GF
CL A RIP RAP EST 930 TON EST 5952 SY GF
CL B RIP RAP EST 940 TON EST 5414 SY GF
CL A RIP RAP EST 940 TON EST 6016 SY GF
CL B RIP RAP EST 950 TON EST 5472 SY GF
CL A RIP RAP EST 950 TON EST 6080 SY GF
CL B RIP RAP EST 960 TON EST 5530 SY GF
CL A RIP RAP EST 960 TON EST 6144 SY GF
CL B RIP RAP EST 970 TON EST 5587 SY GF
CL A RIP RAP EST 970 TON EST 6208 SY GF
CL B RIP RAP EST 980 TON EST 5645 SY GF
CL A RIP RAP EST 980 TON EST 6272 SY GF
CL B RIP RAP EST 990 TON EST 5702 SY GF
CL A RIP RAP EST 990 TON EST 6336 SY GF
CL B RIP RAP EST 1000 TON EST 5760 SY GF
CL A RIP RAP EST 1000 TON EST 6400 SY GF
CL B RIP RAP EST 1010 TON EST 5818 SY GF
CL A RIP RAP EST 1010 TON EST 6464 SY GF
CL B RIP RAP EST 1020 TON EST 5875 SY GF
CL A RIP RAP EST 1020 TON EST 6528 SY GF
CL B RIP RAP EST 1030 TON EST 5933 SY GF
CL A RIP RAP EST 1030 TON EST 6592 SY GF
CL B RIP RAP EST 1040 TON EST 5990 SY GF
CL A RIP RAP EST 1040 TON EST 6656 SY GF
CL B RIP RAP EST 1050 TON EST 6048 SY GF
CL A RIP RAP EST 1050 TON EST 6720 SY GF
CL B RIP RAP EST 1060 TON EST 6106 SY GF
CL A RIP RAP EST 1060 TON EST 6784 SY GF
CL B RIP RAP EST 1070 TON EST 6163 SY GF
CL A RIP RAP EST 1070 TON EST 6848 SY GF
CL B RIP RAP EST 1080 TON EST 6221 SY GF
CL A RIP RAP EST 1080 TON EST 6912 SY GF
CL B RIP RAP EST 1090 TON EST 6278 SY GF
CL A RIP RAP EST 1090 TON EST 6976 SY GF
CL B RIP RAP EST 1100 TON EST 6336 SY GF
CL A RIP RAP EST 1100 TON EST 7040 SY GF
CL B RIP RAP EST 1110 TON EST 6394 SY GF
CL A RIP RAP EST 1110 TON EST 7104 SY GF
CL B RIP RAP EST 1120 TON EST 6451 SY GF
CL A RIP RAP EST 1120 TON EST 7168 SY GF
CL B RIP RAP EST 1130 TON EST 6509 SY GF
CL A RIP RAP EST 1130 TON EST 7232 SY GF
CL B RIP RAP EST 1140 TON EST 6566 SY GF
CL A RIP RAP EST 1140 TON EST 7296 SY GF
CL B RIP RAP EST 1150 TON EST 6624 SY GF
CL A RIP RAP EST 1150 TON EST 7360 SY GF
CL B RIP RAP EST 1160 TON EST 6682 SY GF
CL A RIP RAP EST 1160 TON EST 7424 SY GF
CL B RIP RAP EST 1170 TON EST 6739 SY GF
CL A RIP RAP EST 1170 TON EST 7488 SY GF
CL B RIP RAP EST 1180 TON EST 6797 SY GF
CL A RIP RAP EST 1180 TON EST 7552 SY GF
CL B RIP RAP EST 1190 TON EST 6854 SY GF
CL A RIP RAP EST 1190 TON EST 7616 SY GF
CL B RIP RAP EST 1200 TON EST 6912 SY GF
CL A RIP RAP EST 1200 TON EST 7680 SY GF
CL B RIP RAP EST 1210 TON EST 6970 SY GF
CL A RIP RAP EST 1210 TON EST 7744 SY GF
CL B RIP RAP EST 1220 TON EST 7027 SY GF
CL A RIP RAP EST 1220 TON EST 7808 SY GF
CL B RIP RAP EST 1230 TON EST 7085 SY GF
CL A RIP RAP EST 1230 TON EST 7872 SY GF
CL B RIP RAP EST 1240 TON EST 7142 SY GF
CL A RIP RAP EST 1240 TON EST 7936 SY GF
CL B RIP RAP EST 1250 TON EST 7200 SY GF
CL A RIP RAP EST 1250 TON EST 8000 SY GF
CL B RIP RAP EST 1260 TON EST 7258 SY GF
CL A RIP RAP EST 1260 TON EST 8064 SY GF
CL B RIP RAP EST 1270 TON EST 7315 SY GF
CL A RIP RAP EST 1270 TON EST 8128 SY GF
CL B RIP RAP EST 1280 TON EST 7373 SY GF
CL A RIP RAP EST 1280 TON EST 8192 SY GF
CL B RIP RAP EST 1290 TON EST 7430 SY GF
CL A RIP RAP EST 1290 TON EST 8256 SY GF
CL B RIP RAP EST 1300 TON EST 7488 SY GF
CL A RIP RAP EST 1300 TON EST 8320 SY GF
CL B RIP RAP EST 1310 TON EST 7546 SY GF
CL A RIP RAP EST 1310 TON EST 8384 SY GF
CL B RIP RAP EST 1320 TON EST 7603 SY GF
CL A RIP RAP EST 1320 TON EST 8448 SY GF
CL B RIP RAP EST 1330 TON EST 7661 SY GF
CL A RIP RAP EST 1330 TON EST 8512 SY GF
CL B RIP RAP EST 1340 TON EST 7718 SY GF
CL A RIP RAP EST 1340 TON EST 8576 SY GF
CL B RIP RAP EST 1350 TON EST 7776 SY GF
CL A RIP RAP EST 1350 TON EST 8640 SY GF
CL B RIP RAP EST 1360 TON EST 7834 SY GF
CL A RIP RAP EST 1360 TON EST 8704 SY GF
CL B RIP RAP EST 1370 TON EST 7891 SY GF
CL A RIP RAP EST 1370 TON EST 8768 SY GF
CL B RIP RAP EST 1380 TON EST 7949 SY GF
CL A RIP RAP EST 1380 TON EST 8832 SY GF
CL B RIP RAP EST 1390 TON EST 8006 SY GF
CL A RIP RAP EST 1390 TON EST 8896 SY GF
CL B RIP RAP EST 1400 TON EST 8064 SY GF
CL A RIP RAP EST 1400 TON EST 8960 SY GF
CL B RIP RAP EST 1410 TON EST 8122 SY GF
CL A RIP RAP EST 1410 TON EST 9024 SY GF
CL B RIP RAP EST 1420 TON EST 8179 SY GF
CL A RIP RAP EST 1420 TON EST 9088 SY GF
CL B RIP RAP EST 1430 TON EST 8237 SY GF
CL A RIP RAP EST 1430 TON EST 9152 SY GF
CL B RIP RAP EST 1440 TON EST 8294 SY GF
CL A RIP RAP EST 1440 TON EST 9216 SY GF
CL B RIP RAP EST 1450 TON EST 8352 SY GF
CL A RIP RAP EST 1450 TON EST 9280 SY GF
CL B RIP RAP EST 1460 TON EST 8410 SY GF
CL A RIP RAP EST 1460 TON EST 9344 SY GF
CL B RIP RAP EST 1470 TON EST 8467 SY GF
CL A RIP RAP EST 1470 TON EST 9408 SY GF
CL B RIP RAP EST 1480 TON EST 8525 SY GF
CL A RIP RAP EST 1480 TON EST 9472 SY GF
CL B RIP RAP EST 1490 TON EST 8582 SY GF
CL A RIP RAP EST 1490 TON EST 9536 SY GF
CL B RIP RAP EST 1500 TON EST 8640 SY GF
CL A RIP RAP EST 1500 TON EST 9600 SY GF
CL B RIP RAP EST 1510 TON EST 8698 SY GF
CL A RIP RAP EST 1510 TON EST 9664 SY GF
CL B RIP RAP EST 1520 TON EST 8755 SY GF
CL A RIP RAP EST 1520 TON EST 9728 SY GF
CL B RIP RAP EST 1530 TON EST 8813 SY GF
CL A RIP RAP EST 1530 TON EST 9792 SY GF
CL B RIP RAP EST 1540 TON EST 8870 SY GF
CL A RIP RAP EST 1540 TON EST 9856 SY GF
CL B RIP RAP EST 1550 TON EST 8928 SY GF
CL A RIP RAP EST 1550 TON EST 9920 SY GF
CL B RIP RAP EST 1560 TON EST 8986 SY GF
CL A RIP RAP EST 1560 TON EST 9984 SY GF
CL B RIP RAP EST 1570 TON EST 9043 SY GF
CL A RIP RAP EST 1570 TON EST 10048 SY GF
CL B RIP RAP EST 1580 TON EST 9101 SY GF
CL A RIP RAP EST 1580 TON EST 10112 SY GF
CL B RIP RAP EST 1590 TON EST 9158 SY GF
CL A RIP RAP EST 1590 TON EST 10176 SY GF
CL B RIP RAP EST 1600 TON EST 9216 SY GF
CL A RIP RAP EST 1600 TON EST 10240 SY GF
CL B RIP RAP EST 1610 TON EST 9274 SY GF
CL A RIP RAP EST 1610 TON EST 10304 SY GF
CL B RIP RAP EST 1620 TON EST 9331 SY GF
CL A RIP RAP EST 1620 TON EST 10368 SY GF
CL B RIP RAP EST 1630 TON EST 9389 SY GF
CL A RIP RAP EST 1630 TON EST 10432 SY GF
CL B RIP RAP EST 1640 TON EST 9446 SY GF
CL A RIP RAP EST 1640 TON EST 10496 SY GF
CL B RIP RAP EST 1650 TON EST 9504 SY GF
CL A RIP RAP EST 1650 TON EST 10560 SY GF
CL B RIP RAP EST 1660 TON EST 9562 SY GF
CL A RIP RAP EST 1660 TON EST 10624 SY GF
CL B RIP RAP EST 1670 TON EST 9619 SY GF
CL A RIP RAP EST 1670 TON EST 10688 SY GF
CL B RIP RAP EST 1680 TON EST 9677 SY GF
CL A RIP RAP EST 1680 TON EST 10752 SY GF
CL B RIP RAP EST 1690 TON EST 9734 SY GF
CL A RIP RAP EST 1690 TON EST 10816 SY GF
CL B RIP RAP EST 1700 TON EST 9792 SY GF
CL A RIP RAP EST 1700 TON EST 10880 SY GF
CL B RIP RAP EST 1710 TON EST 9850 SY GF
CL A RIP RAP EST 1710 TON EST 10944 SY GF
CL B RIP RAP EST 1720 TON EST 9907 SY GF
CL A RIP RAP EST 1720 TON EST 11008 SY GF
CL B RIP RAP EST 1730 TON EST 9965 SY GF
CL A RIP RAP EST 1730 TON EST 11072 SY GF
CL B RIP RAP EST 1740 TON EST 10022 SY GF
CL A RIP RAP EST 1740 TON EST 11136 SY GF
CL B RIP RAP EST 1750 TON EST 10080 SY GF
CL A RIP RAP EST 1750 TON EST 11200 SY GF
CL B RIP RAP EST 1760 TON EST 10138 SY GF
CL A RIP RAP EST 1760 TON EST 11264 SY GF
CL B RIP RAP EST 1770 TON EST 10195 SY GF
CL A RIP RAP EST 1770 TON EST 11328 SY GF
CL B RIP RAP EST 1780 TON EST 10253 SY GF
CL A RIP RAP EST 1780 TON EST 11392 SY GF
CL B RIP RAP EST 1790 TON EST 10310 SY GF
CL A RIP RAP EST 1790 TON EST 11456 SY GF
CL B RIP RAP EST 1800 TON EST 10368 SY GF
CL A RIP RAP EST 1800 TON EST 11520 SY GF
CL B RIP RAP EST 1810 TON EST 10426 SY GF
CL A RIP RAP EST 1810 TON EST 11584 SY GF
CL B RIP RAP EST 1820 TON EST 10483 SY GF
CL A RIP RAP EST 1820 TON EST 11648 SY GF
CL B RIP RAP EST 1830 TON EST 10541 SY GF
CL A RIP RAP EST 1830 TON EST 11712 SY GF
CL B RIP RAP EST 1840 TON EST 10598 SY GF
CL A RIP RAP EST 1840 TON EST 11776 SY GF
CL B RIP RAP EST 1850 TON EST 10656 SY GF
CL A RIP RAP EST 1850 TON EST 11840 SY GF
CL B RIP RAP EST 1860 TON EST 10714 SY GF
CL A RIP RAP EST 1860 TON EST 11904 SY GF
CL B RIP RAP EST 1870 TON EST 10771 SY GF
CL A RIP RAP EST 1870 TON EST 11968 SY GF
CL B RIP RAP EST 1880 TON EST 10829 SY GF
CL A RIP RAP EST 1880 TON EST 12032 SY GF
CL B RIP RAP EST 1890 TON EST 10886 SY GF
CL A RIP RAP EST 1890 TON EST 12096 SY GF
CL B RIP RAP EST 1900 TON EST 10944 SY GF
CL A RIP RAP EST 1900 TON EST 12160 SY GF
CL B RIP RAP EST 1910 TON EST 11002 SY GF
CL A RIP RAP EST 1910 TON EST 12224 SY GF
CL B RIP RAP EST 1920 TON EST 11059 SY GF
CL A RIP RAP EST 1920 TON EST 12288 SY GF
CL B RIP RAP EST 1930 TON EST 11117 SY GF
CL A RIP

6/2/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

PROJECT REFERENCE NO.	SHEET NO.
R-2576	5

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83/2011

EDWARD MIDGETT MARKERT
DB 482 PG 712

EDWARD MIDGETT MARKERT
DB 451PG 121
PC F SLIDE 360

S 6°10'42" W
732.69'

S 60°11'34" W
564.39'

6
MARCELLA R. WALKER
DB 1060 PG 146
PC A PG 255

END BENT 1 -L- 22+45 +/-
BENT 1 -L- 23+33
BENT 2 -L- 24+22
BENT 3 -L- 25+11
BENT 4 -L- 26+00
BENT 5 -L- 27+00
BENT 6 -L- 28+00
BENT 7 -L- 29+00
BENT 8 -L- 30+00
BENT 9 -L- 31+00

MATCHLINE SHEET 4 -L- STA. 18+00

MATCHLINE SHEET 4 -Y2A- STA. 26+50

MATCHLINE SHEET 6 -L- STA. 31+00

PROP 47" WW FENCE

+00.00 -L- 135.00' LT

+90.00 -L- 135.00' LT

125' TAPER

200' TOLL QUEUE/RECOVERY ZONE

100' TOLL COLLECTION ZONE

400' TOLL QUEUE/RECOVERY ZONE

700' TAPER (TOLL APPROACH/DEPARTURE ZONE)

PSH
SEE DETAIL AD

END SBG +20

CLASS II RIP RAP

TYPE B-77

0505 BEGIN SBG +50

CAT 1

2GI 15" RCP-IV 2GI

0504 0503

14' (CASH) LANE

12' (ETC & CASH LANE)

12' (CASH) LANE

ATTENUATOR

20+00

25+00

30+00

N 70° 38' 30.1" E

0501 BEGIN SBG ±50

0502 GREU TL-3

TYPE B-77

±90.00 -L- 80.00' RT

BEGIN BRIDGE -L- STA. 22+45 +/-

±60.00 -L- 80.00' RT

±10.00 -L- 80.00' RT

FOREBAY ±45.00 -L- 115.00' RT

END FENCE ±56.29 -L- 80.00' RT

BEG FENCE ±82.43 -L- 80.00' RT

END SBG +20

±20.00 -L- 80.00' RT

TOP OF BERM 14.5

0506 CL B RIP RAP EST. 3 TON EST. 10 SY GF

18" RCP-III

INFILTRATION BASIN

±10.00 -L- 115.00' RT

TOLL COLLECTION BUILDING

N 70° 55' 19.4" E

END CONSTRUCTION -Y2A- STA. 31+00.00

-Y2A- POT Sta. 33+18.62

±05.00 -Y2A- 45.00' RT

CL B RIP RAP EST. 3 TON EST. 10 SY GF

±86.88 -Y2A- 70.00' RT

PERMEABLE PAVEMENT

SPECIAL LATERAL V DITCH SEE DETAIL B

±00.00 -Y2A- 70.00' RT

-Y2A- PT Sta. 26+50.20

±00.00 -Y2A- 105.00' RT

±00.00 -Y2A- 105.00' RT

6
MARCELLA R. WALKER
DB 1060 PG 146
PC A PG 255

N 68°28'37" E
1943.57'

RICHARD S. PERKINS, ET UX
DB 406 PG 393
PC A SLIDE 255

-L- POT Sta. 13+51.75

VIRGINIA POWER & ELECTRIC CO. 120' EASEMENT

VIRGINIA POWER & ELECTRIC CO. 120' EASEMENT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 47 FOR -Y2A- PROFILE

6/17/2024
R2576_rdy_psh05.dgn
KKELLEY

6/2/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	6

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

EDWARD MIDGETT MARKERT
DB 451 PG 121
PC F SLIDE 360

S 60°11'34" W
1049.72'

NAD 83/2011

7
EDWARD MIDGETT MARKERT
DB 482 PG 712
PC G SLIDE 86

8

BENT 10 -L- 32+00
BENT 11 -L- 33+00
BENT 12 -L- 34+00
BENT 13 -L- 35+00
BENT 14 -L- 36+00
BENT 15 -L- 37+00
BENT 16 -L- 38+00
BENT 17 -L- 39+00
BENT 18 -L- 40+00
BENT 19 -L- 41+00
BENT 20 -L- 42+00
BENT 21 -L- 43+00
BENT 9 -L- 31+00
BENT 22 -L- 44+00

WLB

MATCHLINE SHEET 5 -L- STA. 31+00

MATCHLINE SHEET 7 -L- STA. 44+00

700' TAPER

N 63°46'27" W
80.95'

100.00'

8'

0.025

24"

35+00

40+00

N 70° 38' 30.1" E

21"

+00.00 -L-
135.00' LT

+00.00 -L-
80.00' RT

6
MARCELLA R. WALKER
DB 1060 PG 146
PC A PG 255

RICHARD S. PERKINS, ET UX
DB 406 PG 393
PC A SLIDE 255

7
EDWARD MIDGETT MARKERT
DB 482 PG 712
PC G SLIDE 86

8
MILDRED M. MARKERT
DB 800 PG 507

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

6/17/2024
R2576_rdy_psh06.dgn
RLUKEFLET

6/2/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
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Raleigh, N.C. 27606
License No. F-0377
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	7

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83(2011)

N 17°29'57" W
2406.42'

8
MILDRED M. MARKERT
DB 800 PG 507

8
MILDRED M. MARKERT
DB 800 PG 507
PC "L" PG 76

BENT 22 -L- 44+00
BENT 23 -L- 45+00
BENT 24 -L- 46+00
BENT 25 -L- 47+00
BENT 26 -L- 48+00
BENT 27 -L- 49+00
BENT 28 -L- 50+00
BENT 29 -L- 51+00
BENT 30 -L- 52+00
BENT 31 -L- 53+00
BENT 32 -L- 54+00
BENT 33 -L- 55+00
BENT 34 -L- 56+00
BENT 35 -L- 57+00

WLB

RW
CA
RW

+00.00 -L-
135.00 LT

+00.00 -L-
80.00 RT

8'
8'
8'
8'

.025
.025

45+00
50+00
55+00

N 70° 38' 30.1" E

MATCHLINE SHEET 6
-L- STA. 44+00

MATCHLINE SHEET 8
-L- STA. 57+50

8
MILDRED M. MARKERT
DB 800 PG 507

8
MILDRED M. MARKERT
DB 800 PG 507
PC "L" PG 76

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

6/17/2024
R2576_rdy_psh07.dgn
RCOKLEY

6/2/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	8

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

8
MILDRED M. MARKERT
DB 800 PG 507
PC "L" PG 76

NAD 83/2011

N 14°01'69.0"
W 80°20'12.2"

BENT 36 -L- 58+00
BENT 37 -L- 59+00
BENT 38 -L- 60+00
BENT 39 -L- 61+00
BENT 40 -L- 62+00
BENT 41 -L- 63+00
BENT 42 -L- 64+00
BENT 43 -L- 65+00
BENT 44 -L- 66+00
BENT 45 -L- 67+00
BENT 46 -L- 68+00
BENT 47 -L- 69+00
BENT 48 -L- 70+00
BENT 49 -L- 71+00

WLB

CA

RW

+00.00 -L-
135.00' LT

+00.00 -L-
80.00' RT

8'

2.4%

.025

.025

60+00

N 70° 38' 30.1" E

65+00

70+00

MATCHLINE SHEET 7
-L- STA. 57+50

MATCHLINE SHEET 9
-L- STA. 71+00

9
J. W. JONES LUMBER CO., INC.
DB 160 PG 63
MB 5 PG 79

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

6/17/2024
R2576_rdy_psh08.dgn
$USER$

6/2/99

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	9

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83(2011)

9
J. W. JONES LUMBER CO., INC
DB 160 PG 63
MB 5 PG 79

BENT 49 -L- 71+00
BENT 50 -L- 72+00
BENT 51 -L- 73+00
BENT 52 -L- 74+00
BENT 53 -L- 75+00
BENT 54 -L- 76+00
BENT 55 -L- 77+00
BENT 56 -L- 78+00
BENT 57 -L- 79+00
BENT 58 -L- 80+00
BENT 59 -L- 81+00
BENT 60 -L- 82+00
BENT 61 -L- 83+00
BENT 62 -L- 84+00

MATCHLINE SHEET 8 -L- STA. 71+00

MATCHLINE SHEET 10 -L- STA. 84+50

WLB

+00.00 -L- 135.00' LT

75+00

80+00

N 70° 38' 30.1" E

8'

2%

.025

.025

2%

8'

8'

8'

S 51°27'40" W
250.00'

+00.00 -L- 80.00' RT

10
PATRICIA A. PARKER
WB "09/E" PG 164

N 65°34'41" E
831.12'

S 65°39'45" E
253.46'

8'TM

MILDRED M. MARKERT
DB 800 PG 507
PC "L" PG 76

CHARLES G. ANGUS, ET UX
DB 142 PG 717
PC C2 PG 285

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

6/17/2024
R2576rdy_psh09.dgn
kjones

6/2/99

LOCHNER

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	10

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83/2011

BENT 63 -L- 85+00
BENT 64 -L- 86+00
BENT 65 -L- 87+00
BENT 66 -L- 88+00
BENT 67 -L- 89+00
BENT 68 -L- 90+00
BENT 69 -L- 91+00
BENT 70 -L- 92+00
BENT 71 -L- 93+00
BENT 72 -L- 94+00
BENT 73 -L- 95+00
BENT 74 -L- 96+00
BENT 75 -L- 97+00
BENT 76 -L- 98+00

9
J. W. JONES LUMBER CO., INC
DB 160 PG 63
MB 5 PG 79

10
PATRICIA A. PARKER
WB '09/E' PG 164

MATCHLINE SHEET 9 -L- STA. 84+50

MATCHLINE SHEET 11 -L- STA. 98+00

85+00
90+00
95+00

N 70° 38' 30" E

+00.00 -L-
135.00' LT

+00.00 -L-
80.00' RT

WLB

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 34 FOR -L- PROFILE

6/17/2024
R2576_rdy_psh10.dgn
RCOKLEY

6/2/99

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	11

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

NAD 83/2011

SR 1419 LIGHTHOUSE VIEW 22' BST

-Y3A- POT Sta. 12+21.52=
-Y3B- POT Sta. 12+90.86

END CONSTRUCTION
-Y3B- STA. 12+81.74
EXISTING R/W

10+00 NAIL

-Y3A- POT Sta. 10+00.00

JOHN C. APPLETON
DB 82 PG 310

ALTON MITCHELL BABB, ET UX
DB 743 PG 315
PC A PG 310

ROBERT L. HARRELL, JR., ET UX
DB 560 PG 176
PC A PG 310

GARRIE GENE BARNES, ET UX
DB 544 PG 680
PC A PG 310

KRISTIN L. FRANCIS, ET AL
DB 798 PG 338
PC A PG 310

J. W. JONES LUMBER CO., INC
DB 160 PG 63
MB 5 PG 79

GERALD ROBACK, ET UX
DB 266 PG 801
PC 'A' PG 310

WILLIAM HENRY TEVEPAUGH, JR., ET UX
DB 289 PG 756
PC A PG 310

SCOTT LEE McMURRAY, ET UX
DB 356 PG 887
PC A PG 310

BENJAMIN E. PITTMAN, ET UX
DB 644 PG 410
PC A PG 310

THOMAS FRANCIS McPAUL, ET UX
DB 256 PG 624
PC A PG 310

ROBERT W. & ASHLEY M. LARKIN
DB 1429 PG 946
PC A PG 310

AYAD ALEC JACOB
DB 1501 PG 651
PC A PG 310

31
TIMBER, INC.
DB 207 PG 952
PC A PG 310

BENT 77
-L- 98+73

BENT 78
-L- 99+46

BENT 79
-L- 100+19

END BENT 2
-L- 100+88 +/-

BENT 76
-L- 98+00

BEGIN CONSTRUCTION
-Y3B- STA. 9+97.55

-Y3B- POT Sta. 9+75.00

MATCHLINE SHEET 10
-L- STA. 98+00

MATCHLINE SHEET 12
-L- STA. 111+50

PROP 47" WW FENCE

+80.00 -L-
135.00' LT

+80.00 -L-
80.00' RT

10
PATRICIA A. PARKER
WB 09/E PG 164

END BRIDGE
-L- STA. 100+88 +/-

CLASS II RIP RAP

TYPE B-77

GREU TL-3

100+00

105+00

110+00

N 70° 38' 30.1" E

LINEAR INFILTRATION SWALE
SEE DETAIL F

LINEAR INFILTRATION SWALE
SEE DETAIL G

CL B RIP RAP
EST. 2 TONS
EST. 7 SY GF

BEGIN SBG
+00

15" w/ELBOWS

15" RCP-IV

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 47 FOR -Y3B- PROFILE
SEE SHEET 34 FOR -L- PROFILE

6/17/2024
R2576_roy_psh11.dgn
CDOE_EY

6/2/99

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	12

ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-	-Y3-
PI Sta 114+63.86	PI Sta 16+39.88
Δ = 2° 40' 47.0" (RT)	Δ = 0° 26' 29.0" (RT)
D = 0° 28' 38.9"	D = 0° 12' 37.5"
L = 561.24'	L = 209.76'
T = 280.67'	T = 104.88'
R = 12,000.00'	R = 27,229.59'
SE = NC	

PAVED SHOULDER

EPB / SAV HABITAT / EPB

NAD 83(2011)

MATCHLINE SHEET 11 -L- STA. 111+50

MATCHLINE SHEET 13A -L- STA. 124+00

-Y3- PT Sta. 17+44.76

-Y3- POT Sta. 15+35.00

-L- PC Sta. 111+83.19

-L- PT Sta. 117+44.43

END CONSTRUCTION -Y3- STA. 15+38.21

BEGIN BRIDGE -L- STA. 118+05 +/-

-L- POT Sta. 118+30.91=
-Y3- POT Sta. 13+81.47
Δ = 83° 29' 33.80"

BEGIN CONSTRUCTION -Y3- STA. 12+46.57

END BENT 1 -L- 118+05 +/-

-Y3- POT Sta. 10+00.00

-BY1- POT GPS R2576-6

N 23° 11' 09" W 1078.00'

N 73° 19' 17" E

S 66°26'49" W 171.02'

S 66°26'49" W 109.99'

S 66°26'49" W 53.64'

S 66°26'49" W 109.96'

S 66°26'49" W 109.99'

S 66°26'49" W 109.99'

S 66°26'49" W .05'

S 65°20'02" E 170.54'

N 23°01'51" W 261.14'

S 23°11' E 483.38'

10 PATRICIA A. PARKER WB "09/E" PG 164

11 ROBERT F. JORDAN, ET UX DB 474 PG 238

12 CHARLES G. ANGUS, ET UX DB 142 PG 717 PC C2 PG 285

RADLEY M. PIERCE DB 182 PG 753 PC A PG 310

WHITEHURST 102 PG 284 A PG 310

JON KENT HOGGETT ET UX 180 PG 721 C A PG 310

ES 144 10

PROP 47" WW FENCE

LATERAL V DITCH SEE DETAIL H

SAUNDERS CEMETERY (2 GRAVES)

18" RCP-IV

END SBG +78

END SBG +82

TYPE B-77

END FENCE +07.09 -L- 20.00' RT

SHORELINE STABILIZATION SEE DETAIL AF

CL B RIP RAP EST. 2 TON EST. 7 SY GF

LATERAL BASE DITCH SEE DETAIL O

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

ESTUARINE SHORELINE AEC

30' CAMA BUFFER

PROPERTY LINE ALONG HIGH WATER MARK

EXISTING R/W

GRAPE VINES

48" WD RAIL

BENT 1 -L- 119+00

BENT 2 -L- 120+00

BENT 3 -L- 121+00

BENT 4 -L- 122+00

BENT 5 -L- 123+00

BENT 6 -L- 124+00

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 47 FOR -Y3- PROFILE

6/17/2024
R2576_rdy_psh12.dgn
RAKEL.ET

LOCHNER

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NC License
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WETHERILL ENGINEERING
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13A
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 83-2011

EPB SAV HABITAT

BENT 6 -L- 124+00
BENT 7 -L- 125+00
BENT 8 -L- 126+00
BENT 9 -L- 127+00
BENT 10 -L- 128+00
BENT 11 -L- 129+00
BENT 12 -L- 130+00
BENT 13 -L- 131+00
BENT 14 -L- 132+00
BENT 15 -L- 133+00
BENT 16 -L- 134+00
BENT 17 -L- 135+00
BENT 18 -L- 136+00
BENT 19 -L- 137+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

MATCHLINE SHEET 12 -L- STA. 124+00

MATCHLINE SHEET 13B -L- STA. 137+00

125+00 130+00 135+00

.025 .025

N 73° 19' 17.1" E

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

-L-

PI = 126+70.00
EL = 23.00'
VC = 500'
K = 167

PROPOSED GRADE

(-)2.9885%

(-)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 35 -L- STA. 124+00

MATCHLINE SHEET 13B -L- STA. 137+00

30 20 10 0 -10

124+00 126+00 128+00 130+00 132+00 134+00 136+00

8/17/2024
8/17/2024
R2576_psh13A.dgn
YOKLEY

EPB
SAV HABITAT
EPB

NAD 83/2011

LOCHNER

H. W. LOCHNER, INC.
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Raleigh, N.C. 27606
License No. F-0377
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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

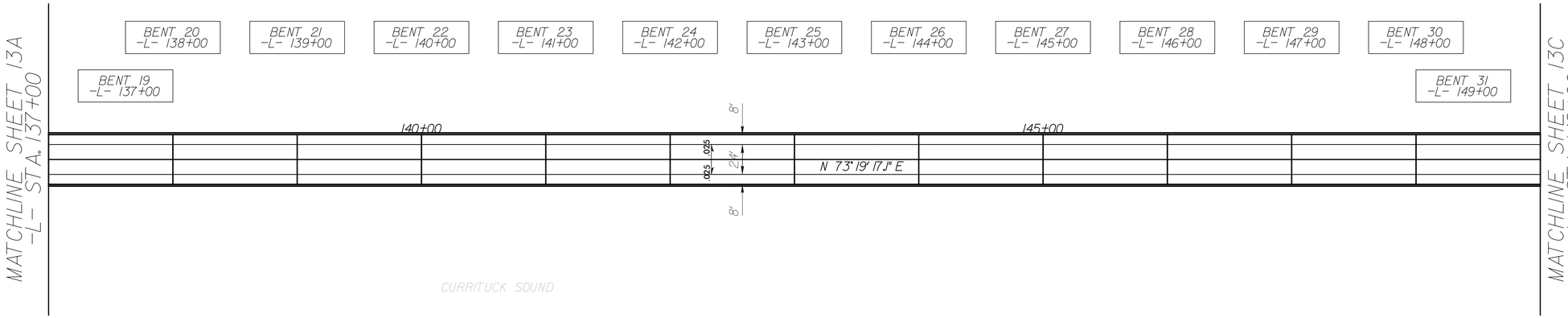
PROJECT REFERENCE NO.	SHEET NO.
R-2576	13B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

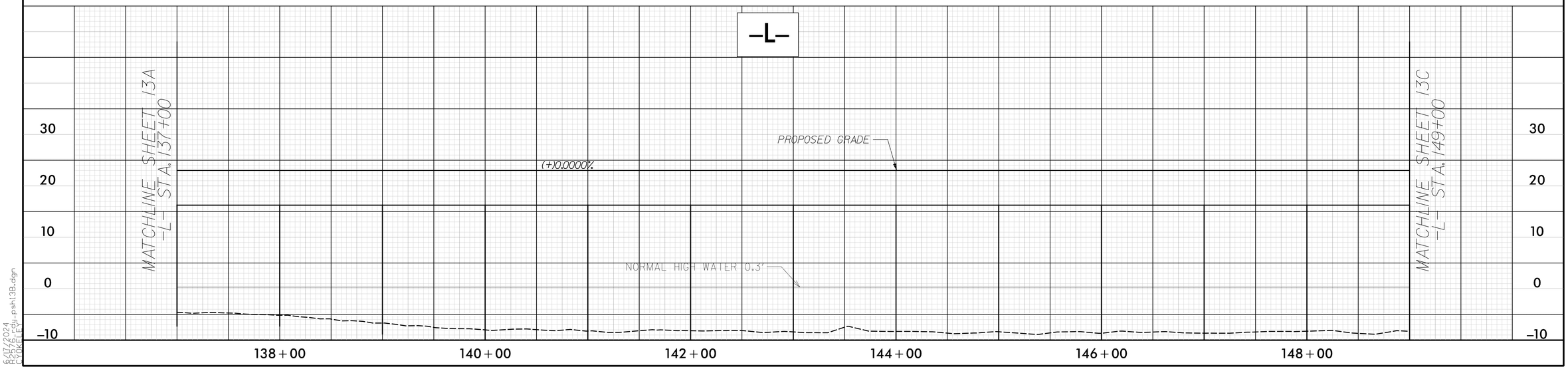
CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



6/17/2024
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KOKELEY

EPB

SAV HABITAT

EPB

NAD 83/2011

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

BENT 31
-L- 149+00

BENT 32
-L- 150+00

BENT 33
-L- 151+00

BENT 34
-L- 152+00

BENT 35
-L- 153+00

BENT 36
-L- 154+00

BENT 37
-L- 155+00

BENT 38
-L- 156+00

BENT 39
-L- 157+00

BENT 40
-L- 158+00

BENT 41
-L- 159+00

BENT 42
-L- 160+00

BENT 43
-L- 161+00

150+00

155+00

160+00

8'

.025

.025

21'

N 73° 19' 17.1" E

8'

MATCHLINE SHEET 13B
-L- STA. 149+00

MATCHLINE SHEET 13D
-L- STA. 161+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

LOCHNER

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13C
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

-L-

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

30
20
10
0
-10

150+00
152+00
154+00
156+00
158+00
160+00

MATCHLINE SHEET 13B
-L- STA. 149+00

MATCHLINE SHEET 13D
-L- STA. 161+00

8/17/2024
8/17/2024
R2576_13C_psh13C.dgn
KDKELLEY

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13D
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

EPB
SAV HABITAT
EPB

NAD 83/2011

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

BENT 43 -L- 161+00
BENT 44 -L- 162+00
BENT 45 -L- 163+00
BENT 46 -L- 164+00
BENT 47 -L- 165+00
BENT 48 -L- 166+00
BENT 49 -L- 167+00
BENT 50 -L- 168+00
BENT 51 -L- 169+00
BENT 52 -L- 170+00
BENT 53 -L- 171+00
BENT 54 -L- 172+00
BENT 55 -L- 173+00

MATCHLINE SHEET 13C -L- STA. 161+00

165+00

8'
.025
24'
.025
8'

170+00

N 73° 19' 17.1" E

MATCHLINE SHEET 13E -L- STA. 173+00

NAVIGATIONAL CHANNEL

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

-L-

PI = 162+15.00
EL = 23.00'
VC = 150'
K = 200

PI = 171+50.00
EL = 30.00'
VC = 250'
K = 167

PROPOSED GRADE

(+)0.0000%
(+)0.7487%
(+)0.7487%
(-)0.7487%

NORMAL HIGH WATER 0.3'

30
20
10
0
-10

162+00
164+00
166+00
168+00
170+00
172+00

6/17/2024
8:57:27 AM
R2576_psh13D.dgn
KOKELEY

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

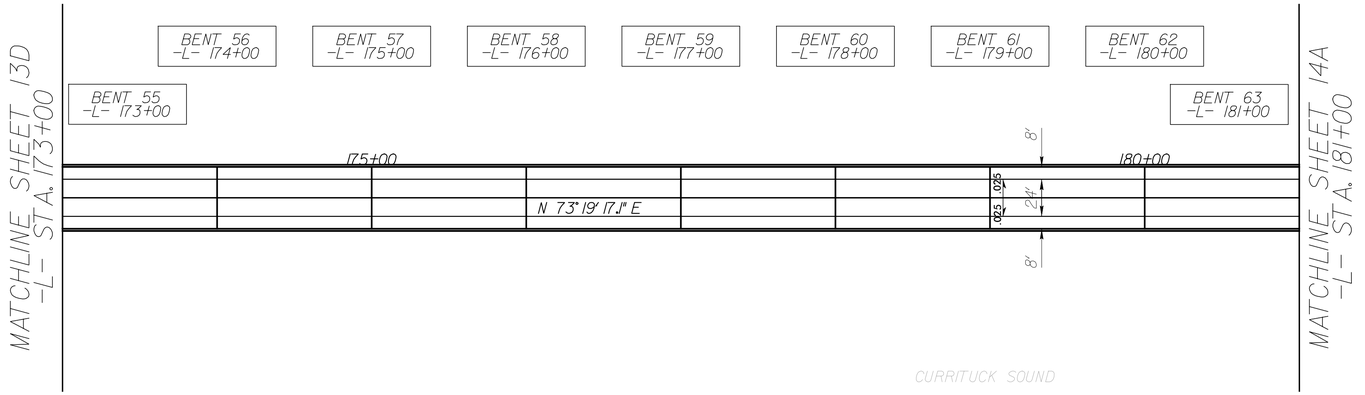
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

EPB
SAV HABITAT
EPB

NAD 83/2011

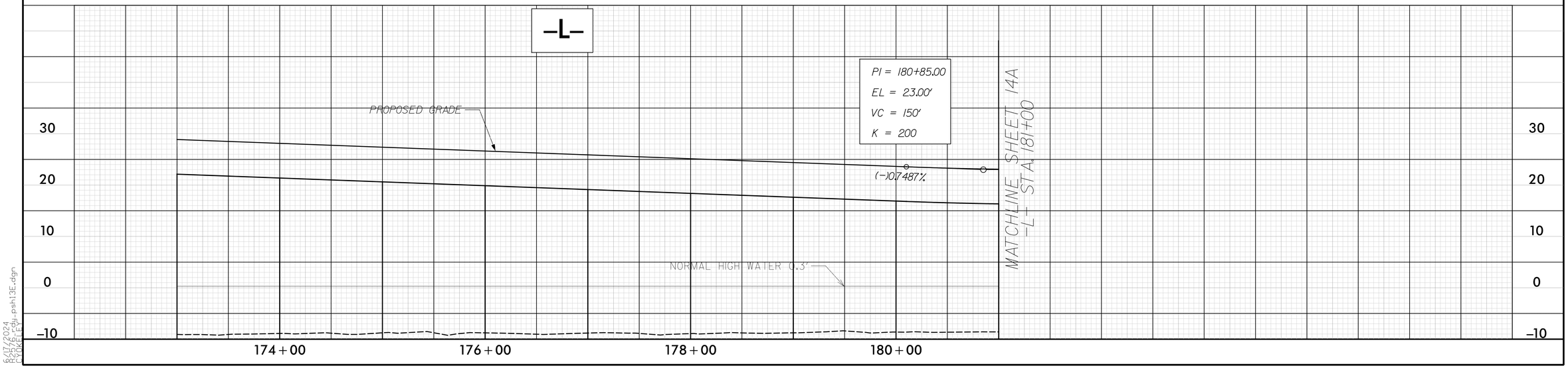
CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



6/17/2024
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(XOREF)

EPB

SAV HABITAT

EPB

NAD 83/2011

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

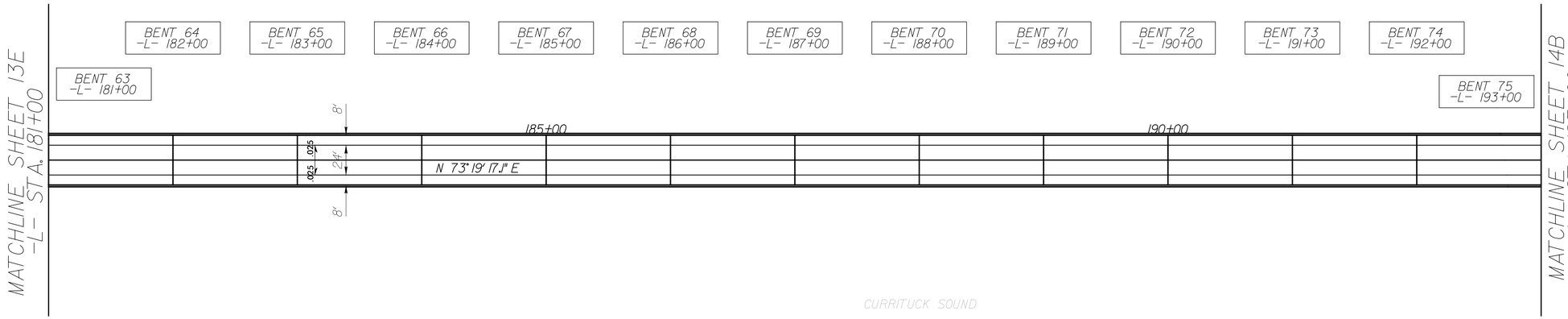
PROJECT REFERENCE NO.	SHEET NO.
R-2576	14A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

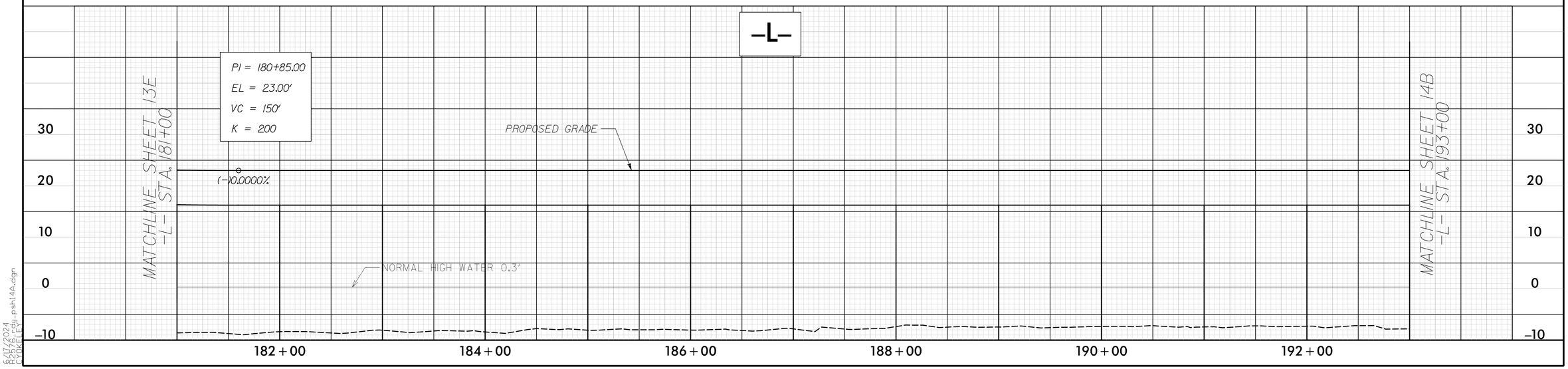
CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



6/17/2024
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kdkelley

EPB
SAV HABITAT
EPB

NAD 83/2011

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	14B
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

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

MATCHLINE SHEET 14A -L- STA. 193+00

BENT 75 -L- 193+00
BENT 76 -L- 194+00
BENT 77 -L- 195+00
BENT 78 -L- 196+00
BENT 79 -L- 197+00
BENT 80 -L- 198+00
BENT 81 -L- 199+00
BENT 82 -L- 200+00
BENT 83 -L- 201+00
BENT 84 -L- 202+00
BENT 85 -L- 203+00.00
BENT 86 -L- 204+00
BENT 87 -L- 205+00

195+00
200+00
205+00

8'
.025
24'
.025
8'

N 73° 19' 17.1" E

MATCHLINE SHEET 14C -L- STA. 205+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

-L-

PROPOSED GRADE
(+)0.0000%
NORMAL HIGH WATER 0.3'

30
20
10
0
-10

194+00
196+00
198+00
200+00
202+00
204+00

8/17/2024
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EPB

SAV HABITAT

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R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

BENT 87 -L- 205+00
BENT 88 -L- 206+00
BENT 89 -L- 207+00
BENT 90 -L- 208+00
BENT 91 -L- 209+00
BENT 92 -L- 210+00
BENT 93 -L- 211+00
BENT 94 -L- 212+00
BENT 95 -L- 213+00
BENT 96 -L- 214+00
BENT 97 -L- 215+00
BENT 98 -L- 216+00
BENT 99 -L- 217+00

MATCHLINE SHEET 14B -L- STA. 205+00

205+00

8'

210+00

215+00

.025

24'

.025

N 73° 19' 17.1" E

8'

MATCHLINE SHEET 14D -L- STA. 217+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

-L-

MATCHLINE SHEET 14B -L- STA. 205+00

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 14D -L- STA. 217+00

30
20
10
0
-10

206+00
208+00
210+00
212+00
214+00
216+00

6/17/2024
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KOKELEY

LOCHNER

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

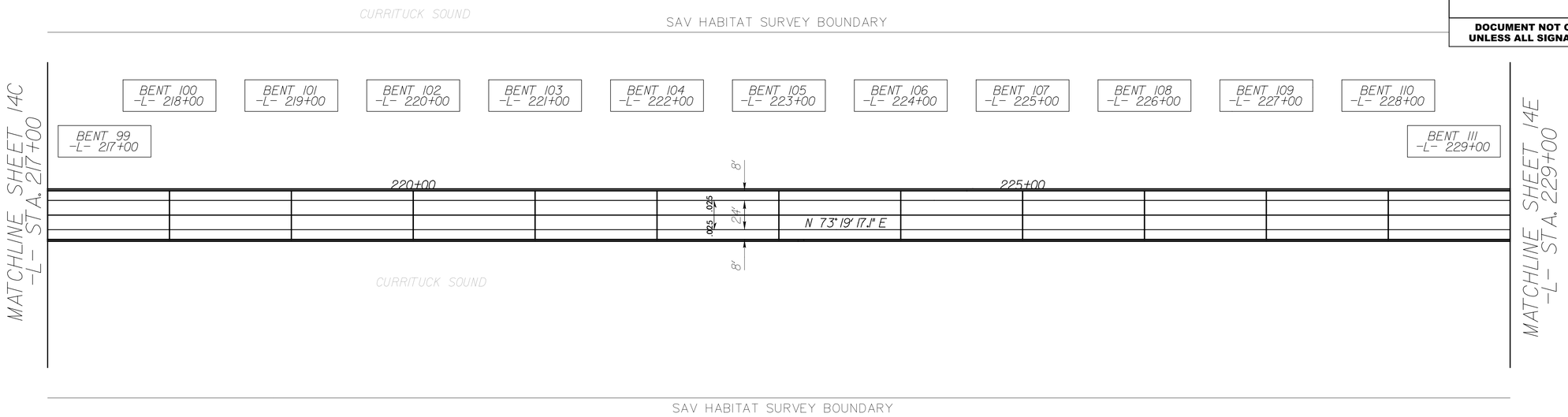
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R-2576	14D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

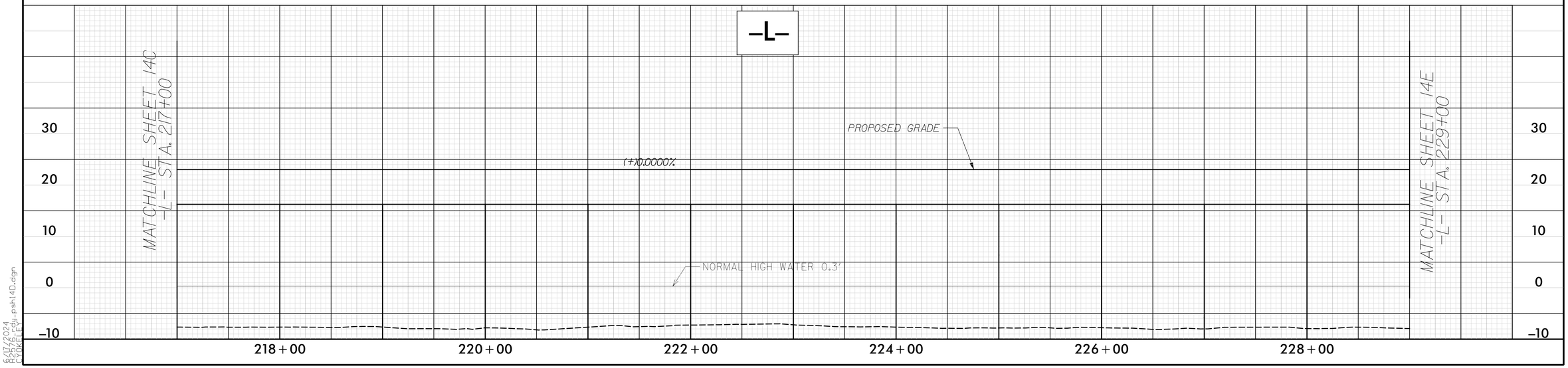
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SAV HABITAT
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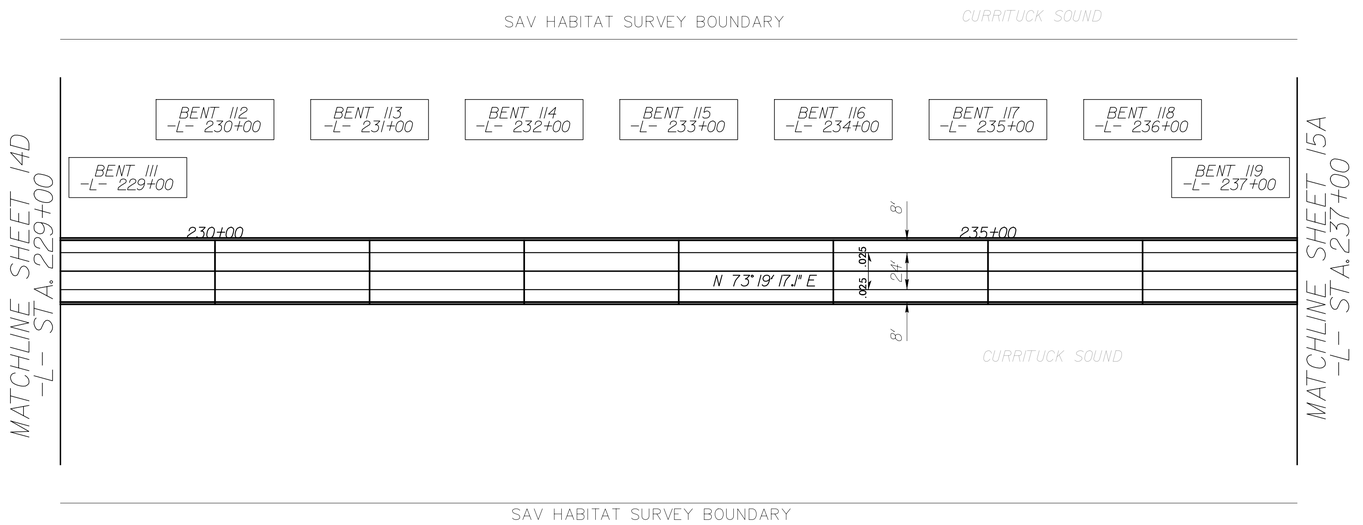
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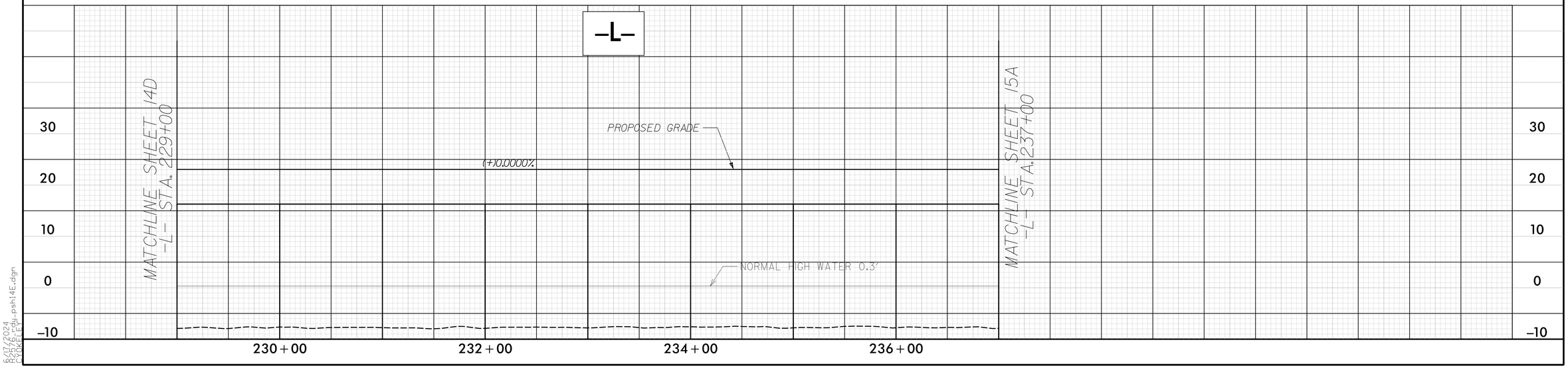
PROJECT REFERENCE NO.	SHEET NO.
R-2576	14E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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EPB SAV HABITAT EPB





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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

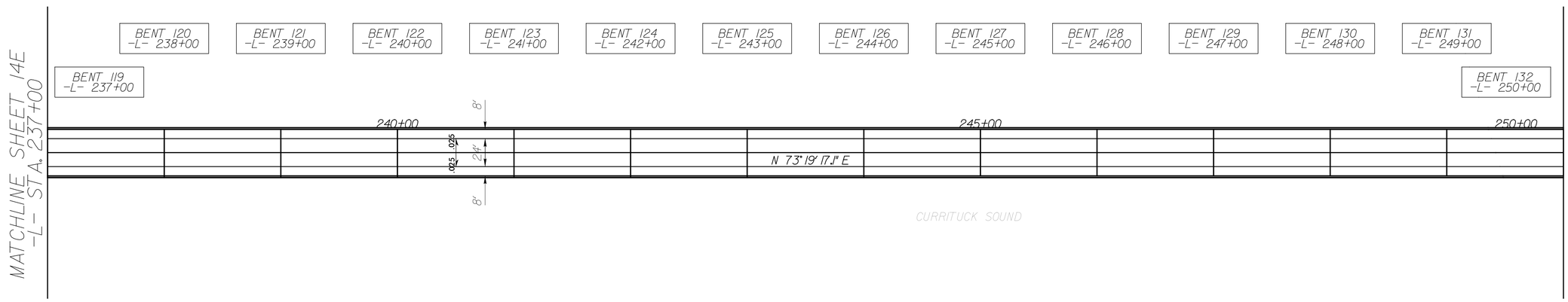
PROJECT REFERENCE NO.	SHEET NO.
R-2576	15A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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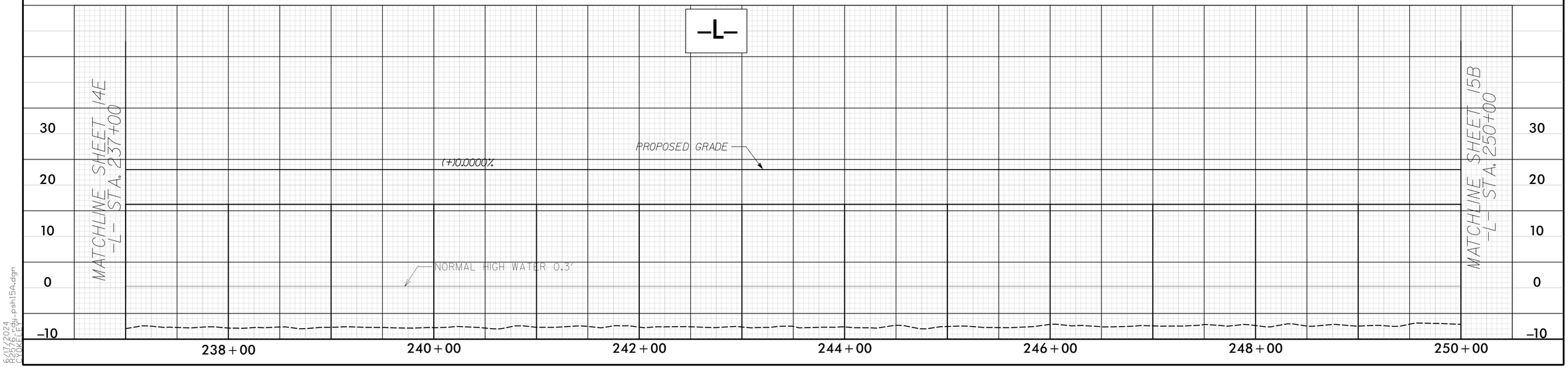
SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND



CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY



8/17/2024
8/16/2024
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kdkelley

EPB

SAV HABITAT

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	15B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

MATCHLINE SHEET 15A
-L- STA. 250+00

BENT 132
-L- 250+00

BENT 133
-L- 251+00

BENT 134
-L- 252+00

BENT 135
-L- 253+00

BENT 136
-L- 254+00

BENT 137
-L- 255+00

BENT 138
-L- 256+00

BENT 139
-L- 257+00

BENT 140
-L- 258+00

BENT 141
-L- 259+00

BENT 142
-L- 260+00

BENT 143
-L- 261+00

BENT 144
-L- 262+00

250+00

255+00

260+00

8'

24'

8'

.025

.025

N 73° 19' 17.1" E

MATCHLINE SHEET 15C
-L- STA. 262+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

-L-

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 15A
-L- STA. 250+00

MATCHLINE SHEET 15C
-L- STA. 262+00

30
20
10
0
-10

250+00
252+00
254+00
256+00
258+00
260+00
262+00

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R-2576	15C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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EPB
SAV HABITAT
EPB

NAD 83-2011

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

MATCHLINE SHEET 15B
-L- STA. 262+00

BENT 144
-L- 262+00

BENT 145
-L- 263+00

BENT 146
-L- 264+00

BENT 147
-L- 265+00

BENT 148
-L- 266+00

BENT 149
-L- 267+00

BENT 150
-L- 268+00

BENT 151
-L- 269+00

BENT 152
-L- 270+00

BENT 153
-L- 271+00

BENT 154
-L- 272+00

BENT 155
-L- 273+00

BENT 156
-L- 274+00

265+00

270+00

8'

24'

8'

025 025

N 73° 19' 17.1" E

MATCHLINE SHEET 15D
-L- STA. 274+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

-L-

MATCHLINE SHEET 15B
-L- STA. 262+00

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 15D
-L- STA. 274+00

30
20
10
0
-10

262+00
264+00
266+00
268+00
270+00
272+00
274+00

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EPB

SAV HABITAT

EPB

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	15D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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BENT 156 -L- 274+00 | BENT 157 -L- 275+00 | BENT 158 -L- 276+00 | BENT 159 -L- 277+00 | BENT 160 -L- 278+00 | BENT 161 -L- 279+00 | BENT 162 -L- 280+00 | BENT 163 -L- 281+00 | BENT 164 -L- 282+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

MATCHLINE SHEET 15C -L- STA. 274+00

275+00

280+00

285+00

N 73° 19' 17.1" E

8'

.025

2'

.025

8'

MATCHLINE SHEET 15E -L- STA. 286+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

BENT 165 -L- 283+00 | BENT 166 -L- 284+00 | BENT 167 -L- 285+00

-L-

MATCHLINE SHEET 15C -L- STA. 274+00

PROPOSED GRADE

(+)0.0000%

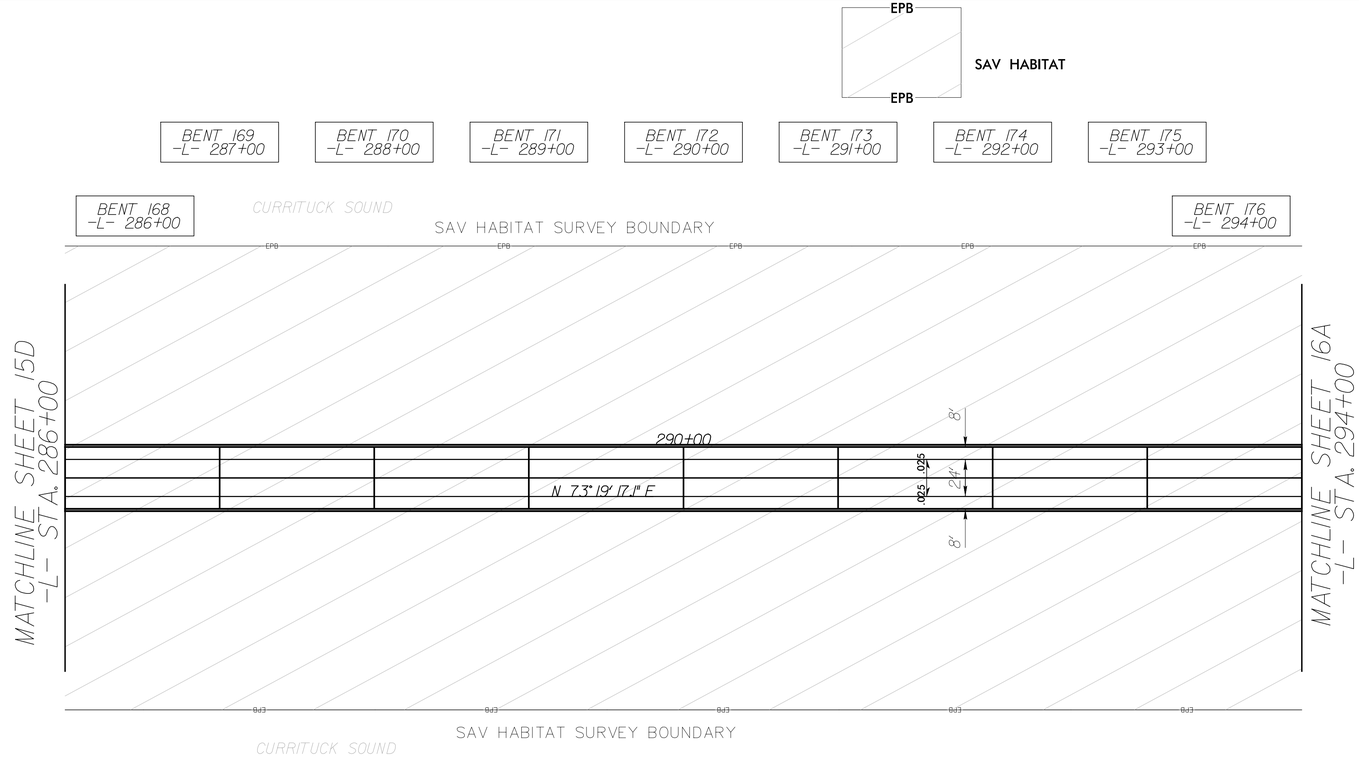
NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 15E -L- STA. 286+00

30 | 20 | 10 | 0 | -10

274+00 | 276+00 | 278+00 | 280+00 | 282+00 | 284+00 | 286+00

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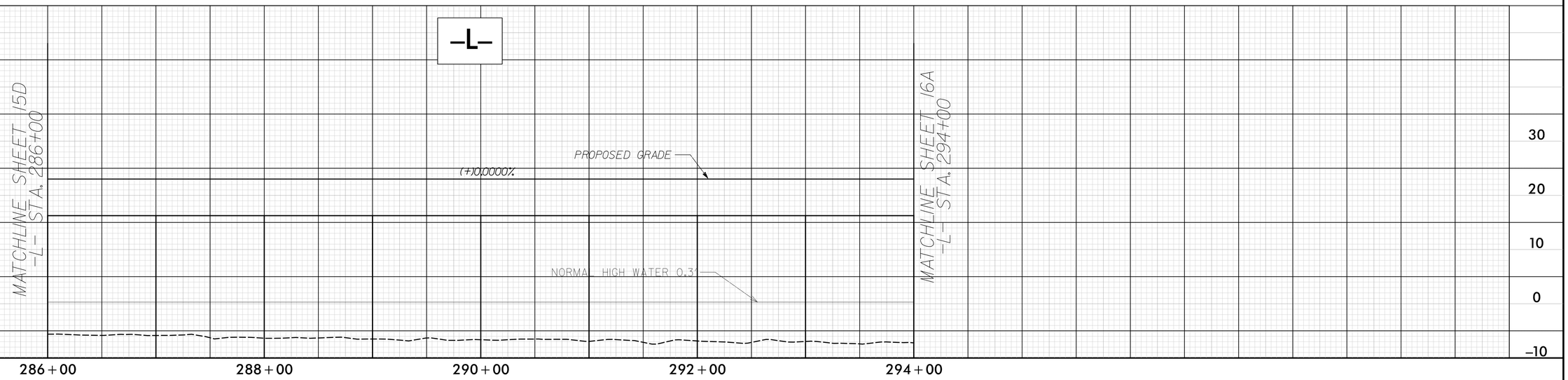
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R-2576	15E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	16A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83/2011

EPB — SAV HABITAT — EPB

BENT 176 -L- 294+00 | BENT 177 -L- 295+00 | BENT 178 -L- 296+00 | BENT 179 -L- 297+00 | BENT 180 -L- 298+00 | BENT 181 -L- 299+00 | BENT 182 -L- 300+00 | BENT 183 -L- 301+00 | BENT 184 -L- 302+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

EPB

MATCHLINE SHEET 15E -L- STA. 294+00

295+00 | 300+00 | 305+00

8'
.025
2'
.025
8'

N 73° 19' 17.1" E

MATCHLINE SHEET 16B -L- STA. 306+00

BENT 188 -L- 306+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

BENT 185 -L- 303+00 | BENT 186 -L- 304+00 | BENT 187 -L- 305+00

-L-

MATCHLINE SHEET 15E -L- STA. 294+00

(+)0.0000%

PROPOSED GRADE

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 16B -L- STA. 306+00

30 | 20 | 10 | 0 | -10

294+00 | 296+00 | 298+00 | 300+00 | 302+00 | 304+00 | 306+00

6/17/2024
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KDKELLEY

8/27/2024

EPB

SAV HABITAT

EPB

NAD 83/2011

BENT 188 -L- 306+00 | BENT 189 -L- 307+00 | BENT 190 -L- 308+00 | BENT 191 -L- 309+00 | BENT 192 -L- 310+00 | BENT 193 -L- 311+00 | BENT 194 -L- 312+00 | BENT 195 -L- 313+00 | BENT 196 -L- 314+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

EPB EPB EPB EPB EPB EPB EPB EPB EPB

MATCHLINE SHEET 16A -L- STA. 306+00

310+00

315+00

MATCHLINE SHEET 16C -L- STA. 318+00

8'

.025

2'4"

.025

8'

N 73°19'17.1" E

BENT 200 -L- 318+00

EPB EPB EPB EPB EPB EPB EPB EPB EPB

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

BENT 197 -L- 315+00 | BENT 198 -L- 316+00 | BENT 199 -L- 317+00

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R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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–L–

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 16A -L- STA. 306+00

MATCHLINE SHEET 16C -L- STA. 318+00

30 | 20 | 10 | 0 | –10

306+00 | 308+00 | 310+00 | 312+00 | 314+00 | 316+00 | 318+00

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EPB

SAV HABITAT

EPB

BENT 200 -L- 318+00 | BENT 201 -L- 319+00 | BENT 202 -L- 320+00 | BENT 203 -L- 321+00 | BENT 204 -L- 322+00 | BENT 205 -L- 323+00 | BENT 206 -L- 324+00 | BENT 207 -L- 325+00 | BENT 208 -L- 326+00

SAV HABITAT SURVEY BOUNDARY

EPB EPB EPB EPB EPB EPB EPB EPB

MATCHLINE SHEET 16B -L- STA. 318+00

320+00 325+00 330+00

N 73°19'17.1" E

MATCHLINE SHEET 16D -L- STA. 330+00

BENT 212 -L- 330+00

EPB EPB EPB EPB EPB EPB EPB EPB

SAV HABITAT SURVEY BOUNDARY

BENT 209 -L- 327+00 | BENT 210 -L- 328+00 | BENT 211 -L- 329+00

-L-

MATCHLINE SHEET 16B -L- STA. 318+00

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 16D -L- STA. 330+00

30 20 10 0 -10

318+00 320+00 322+00 324+00 326+00 328+00 330+00

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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16D
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

EPB

SAV HABITAT

NAD 83/2011

BENT 212 -L- 330+00 | BENT 213 -L- 331+00 | BENT 214 -L- 332+00 | BENT 215 -L- 333+00 | BENT 216 -L- 334+00 | BENT 217 -L- 335+00 | BENT 218 -L- 336+00 | BENT 219 -L- 337+00 | BENT 220 -L- 338+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

MATCHLINE SHEET 16C -L- STA. 330+00

330+00 | 335+00 | 340+00

8'

.025

2%

.025

N 73° 19' 17.1" E

8'

MATCHLINE SHEET 16E -L- STA. 342+00

BENT 224 -L- 342+00

SAV HABITAT SURVEY BOUNDARY

CURRITUCK SOUND

BENT 221 -L- 339+00 | BENT 222 -L- 340+00 | BENT 223 -L- 341+00

-L-

MATCHLINE SHEET 16C -L- STA. 330+00

PROPOSED GRADE

(+)0.0000%

NORMAL HIGH WATER 0.3'

MATCHLINE SHEET 16E -L- STA. 342+00

30 | 20 | 10 | 0 | -10

330+00 | 332+00 | 334+00 | 336+00 | 338+00 | 340+00 | 342+00

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kokelley

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111

NC License
Number F-0159

WETHERILL ENGINEERING

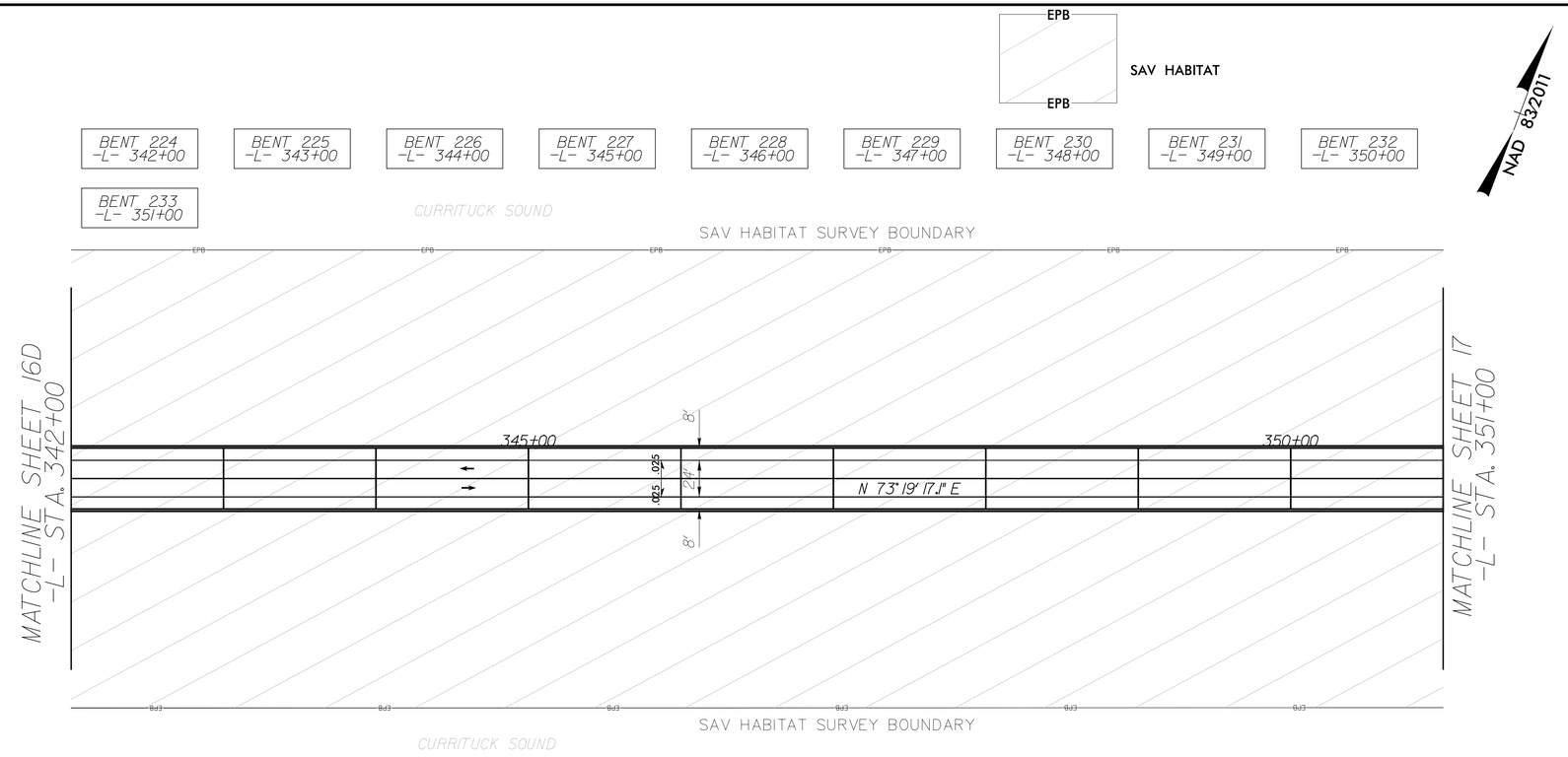
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

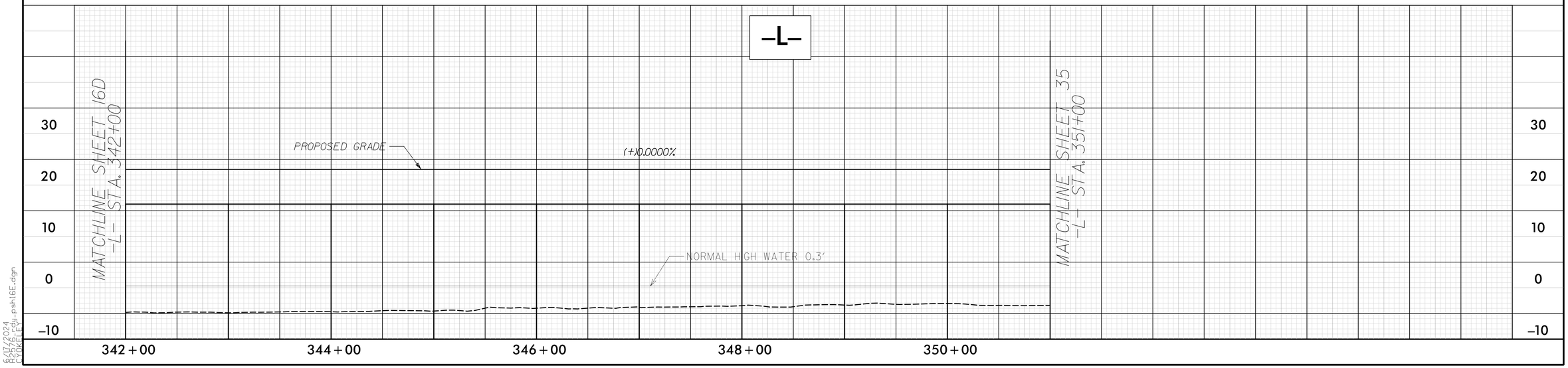
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16E
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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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	17

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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NAD 83/2011

EPB

SAV HABITAT

PAVED SHOULDER

BENT 233 -L- 351+00
BENT 234 -L- 352+00
BENT 235 -L- 353+00
BENT 236 -L- 354+00
BENT 237 -L- 355+00
BENT 238 -L- 356+00
BENT 239 -L- 357+00
BENT 240 -L- 358+00
BENT 241 -L- 359+00
BENT 242 -L- 360+00
BENT 243 -L- 361+00
BENT 244 -L- 362+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SAV HABITAT SURVEY BOUNDARY

MATCHLINE SHEET 16E -L- STA. 351+00

700' OUTSIDE TAPER

350' LANE DROP

+00.00

355+00

360+00

N 73°19'17.1" E

24'

8'

.025

EXISTING R/W

DB 1239 PG 9

PC 9

S

N 37°09'20" W 26.98'

N 37°09'53" W 240.07'

N 37°08'36" W 702.47'

13

NCDOT
DB 1354 PG 471

RW

C1

C2

N 25°32'26" W 1,010.12'

N 47°16'27" W 95.26'

N 37°09'20" W 40.07'

MATCHLINE SHEET 18 -L- STA. 364+00

SAV HABITAT SURVEY BOUNDARY

SAV HABITAT SURVEY BOUNDARY

BENT 245 -L- 363+00

BENT 246 -L- 363+85

CURRITUCK SOUND

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE

6/17/2024
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

NAD 83/2011

MATCHLINE SHEET 27 -Y5- STA. 13+00

MATCHLINE SHEET 17 -L- STA. 364+00

MATCHLINE SHEET 26 -Y4- STA. 39+50

END BENT 2 -L- 364+70 +/-

END PROJECT R-2576
END CONSTRUCTION
-L2- STA. 369+18.83

-L2- PC Sta. 365+25.99

-L2- PT Sta. 368+74.98

-L2- POT Sta. 369+51.21=
-Y5R- POC Sta. 10+00.00=
-Y5R- POC Sta. 14+39.82

-Y5- PC Sta. 11+15.79

-Y5- POT Sta. 10+00.00=
-Y5R- POC Sta. 13+20.32

-Y5A- POT Sta. 11+20.61

-Y5A- POT Sta. 10+00.00

-Y4- POT Sta. 45+17.37
-Y5R- POT Sta. 11+12.25

-Y4- PT Sta. 44+10.12

-L- PT Sta. 365+00.00
-L2- PT Sta. 365+00.00
17.00' LT

END BRIDGE -L- STA. 364+70 +/-

-Y4- POC Sta. 41+94.42=
-Y4C- POT Sta. 10+00.00
△ = 90° 00' 00.00"

END RETAINING WALL 1 -Y4- STA. 41+41.89

BEGIN RETAINING WALL 4 -Y4- STA. 39+80.00

END CONSTRUCTION -Y4C- STA. 11+71.09

-Y4C- PC Sta. 10+39.90

-Y4C- PT Sta. 11+41.93

-Y4C- POT Sta. 11+84.58

THE VILLAS AT COROLLA BAY HOA INC
DB 1266 PG 703
PC M SL 160

MICHAEL A. CALLENDER
DB 1756 PG 578
PC N SL 133

HARBOR VIEW HOMES, LLC
DB 1668 PG 96
PC Q SL 76

MELISSA B. GOURLEY
BRUCE A. DOOLIN
DB 1655 PG 26
PC N SL 133

HARDWAY ACRES LLC
ATTN: ANDY MELICK
DB 1565 PG 718
PC N SL 133

NORTHEASTERN N. C. PROPERTIES, LLC
DB 1295 PG 60
PC Q SL 9

NCDOT
DB 1354 PG 471

NCDOT
DB 1473 PG 647

OREN SHAPIRO & JODI SHAPIRO
DB 1645 PG 924
PC R SL 273

MAKALU LLC
DB 1619 PG 592
PC N SL 133

ERIK J. & CECILIA M. BURGOS
DB 1639 PG 548
PC N SL 133

POND REAL ESTATE LLC
DB 1716 PG 765
PC Q SL 76

THE JULIAN PROJECT LLC
DB 1699 PG 659
PC Q SL 76

STEPHEN R. & AMBRA S. WATKINS
DB 1611 PG 820
PC Q SL 76

ROBERT H. WRIGHT III &DIANE L. WRIGHT
DB 1639 PG 499
PC N SL 133

ZANDPANAH, ALI TRUSTEE
CURLEY, SHANNON ANNE TRUSTEE
DB 1702 PG 365
PC N SL 133

KIMBERLY L. CARTER
DB 1754 PG 573
PC B PG 366

WILLIAM K. & BARBARA A. COOVER
DB 1365 PG 532
PC B PG 366

DONALD F. & TRACI K. HOETING
DB 1415 PG 208
PC B PG 366

MICHAEL G. MILLER, et UX
DB 614 PG 540
PC B PG 366

WAYNE J. STRICKLAND
DB 1114 PG 118
PC B PG 366

LINEAR INFILTRATION SWALE SEE DETAIL L

CHECK DAM CL. A RIP RAP SEE DETAIL P

END FENCE END CA +75.00 -Y5- 83.43' LT

RETAIN EX. 36" RCP NOT SHOWN IN SURVEY

10' MULTI-USE PATH

PROP. 47" WW FENCE

300' TAPER

PROP. 4' CHAIN LINK FENCE

TEMPORARY CONSTRUCTION EASEMENT DB 1473 PG 647

SPECIAL CUT BASE DITCH SEE DETAIL M

SPECIAL CUT DITCH SEE DETAIL K

ROCK FILL IN POND SEE DETAIL AC

BEG FENCE BEG CA +25.00 -Y4- 81.03' LT

END FENCE END CA +75.00 -Y5- 55.00RT

PUE FROM EIR TO R/W

38'x7' FOREBAY ELEV=7.0 FT

BOTTOM ELEV=7.0 FT

TRANSITION BERM ELEV=8.5 FT

38'x58' INFILTRATION BASIN

SPILLWAY ELEV=10.0 FT

PSH SEE DETAIL U

SPLITTER BOX

JS LINE 2023

CLASS II RIP RAP

30' CAMA BUFFER 2023

SAV HABITAT

-L- STA. 13+00 = -Y5- STA. 13+00

-L- STA. 14+00 = -Y5- STA. 14+00

-L- STA. 15+00 = -Y5- STA. 15+00

-L- STA. 16+00 = -Y5- STA. 16+00

-L- STA. 17+00 = -Y5- STA. 17+00

-L- STA.

6/2/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	19

ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y-		
PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y2-	
PI Sta 11+70.00	PI Sta 25+17.49
Δ = 81° 32' 22.8" (LT)	Δ = 95° 09' 21.1" (RT)
D = 36° 57' 54.1"	D = 6° 44' 26.4"
L = 220.59'	L = 1,411.67'
T = 133.65'	T = 930.15'
R = 155.00'	R = 850.00' **
SE = 0.06	SE = 0.06
Ro = 144'	Ro = 144'

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

NAD 83/2011

SUZANNE LEA MIDGETT TRUSTEE
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT
IRREVOCABLE TRUST
DB 974 PG 425
14

JERRY W. WRIGHT, ET AL
DB 268 PG 254
15

-Y- POT Sta. 19+37.18=
-Y2- POT Sta. 10+00.00
Δ = 89° 59' 01.7"

-Y- TS Sta. 20+42.26

-Y- SC Sta. 22+07.26

BEGIN CONSTRUCTION
-Y- STA. 13+50.00

CL. B RIP RAP
EST. 5 TON
EST 14 SY GF

CL. B RIP RAP
EST. 3 TON
EST 10 SY GF

CL. B RIP RAP
EST. 6 TON
EST 22 SY GF

PROP. 5" MONOLITHIC ISLAND

PROP. 47" WW FENCE

TOE PROTECTION
SEE DETAIL Q

REMOVE

N 35° 24' 08.3" W

15+00

20+00

25+00

US 158 "CARATOKE HIGHWAY" 60' BST

INNERMOST LANE

BST SHOULDER

ATTENUATOR

SPECIAL CUT DITCH
SEE DETAIL K

55'
INC. TYP.

400' TAPER

-Y2- PC Sta. 10+36.35

-Y2- PT Sta. 12+56.94

-Y2- PC Sta. 15+87.34

SPECIAL CUT
DETAIL W/HINGE
SEE DETAIL S

BEG FENCE
BEG CA
-Y96.31 -Y-
75.00' LT

SPECIAL
LATERAL V DITCH
SEE DETAIL B

CHECK DAM
CL. A RIP RAP
SEE DETAIL P

LINEAR WETLAND SWALE
SEE DETAIL A

CL. B RIP RAP
EST. 2 TON
EST 7 SY GF

N 26° 55' 32.8" W

MATCHLINE SHEET 20
-Y- STA. 18+50
-Y2- STA. 27+00

MATCHLINE SHEET 20
-Y- STA. 27+00
-Y2- STA. 18+50

SUZANNE LEA MIDGETT TRUSTEE
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT
IRREVOCABLE TRUST
DB 974 PG 425
14

JERRY W. WRIGHT, ET AL
DB 268 PG 254
15

US 158	43,800 / 47,000		44,500 / 48,000	US 158
		200 / 300	900 / 1,300	
		1,100 / 1,600		
		AYDLETT RD		2020 ADT / 2040 ADT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 36 FOR -Y- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE

6/17/2024
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PSHEET

6/2/99

-Y-		
PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y_NB-		-Y2-	-Y2B-
PI Sta 12+34.73	PIs Sta 15+24.12	PI Sta 25+17.49	PI Sta 14+46.16
Δ = 5° 17' 39.2" (RT)	Θs = 0° 55' 51.8"	Δ = 95° 09' 21.1" (RT)	Δ = 8° 07' 45.1" (LT)
D = 1° 07' 42.7"	Ls = 165.00'	D = 6° 44' 26.4"	D = 2° 51' 53.2"
L = 469.12'	LT = 110.00'	L = 1,411.67'	L = 283.76'
T = 234.73'	ST = 55.00'	T = 930.15'	T = 142.12'
R = 5,077.00'		R = 850.00' **	R = 2,000.00'
SE = 0.03		SE = 0.06	
		Ro = 144'	

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

NAD 83/2011

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	20
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

1 MILDRED T. QUIDLEY DB 845 PG 564 MB 3 PG 10

15 JERRY W. WRIGHT, ET AL DB 268 PG 254

-Y- CS Sta. 33+39.23

-Y- ST Sta. 35+04.23

-Y- PC Sta. 33+39.23= -Y_NB- PC Sta. 10+00.00 23.00' RT

-Y2B- POT Sta. 9+45.00

-Y2B- PC Sta. 13+03.90

-Y_NB- CS Sta. 14+69.12

-Y_NB- ST Sta. 16+34.12

MATCHLINE SHEET 19 -Y- STA. 27+00

MATCHLINE SHEET 19 -Y2- STA. 18+50

MATCHLINE SHEET 21 -Y2- STA. 22+00

MATCHLINE SHEET 21 -Y2B- STA. 13+50

MATCHLINE SHEET 4 -Y- STA. 40+00

MATCHLINE SHEET 4 -Y- STA. 16+50

MATCHLINE SHEET 4 -Y_NB- STA. 16+50

PROP. 47" WW FENCE

US 158 "CARATOKE HIGHWAY" 60' BST

N 20° 49' 53.3" W

N 77° 49' 45.7" E

CL. B RIP RAP EST. 10 TON EST 28 SY GF

CL. B RIP RAP EST. 2 TON EST 7 SY GF

CHECK DAM CL. A RIP RAP SEE DETAIL P

LINEAR WETLAND SWALE SEE DETAIL A

SPECIAL BASE DITCH SEE DETAIL N

SPECIAL LATERAL 'V' DITCH SEE DETAIL B

SPECIAL LATERAL V DITCH SEE DETAIL B

SPECIAL CUTDITCH SEE DETAIL K

REMOVE

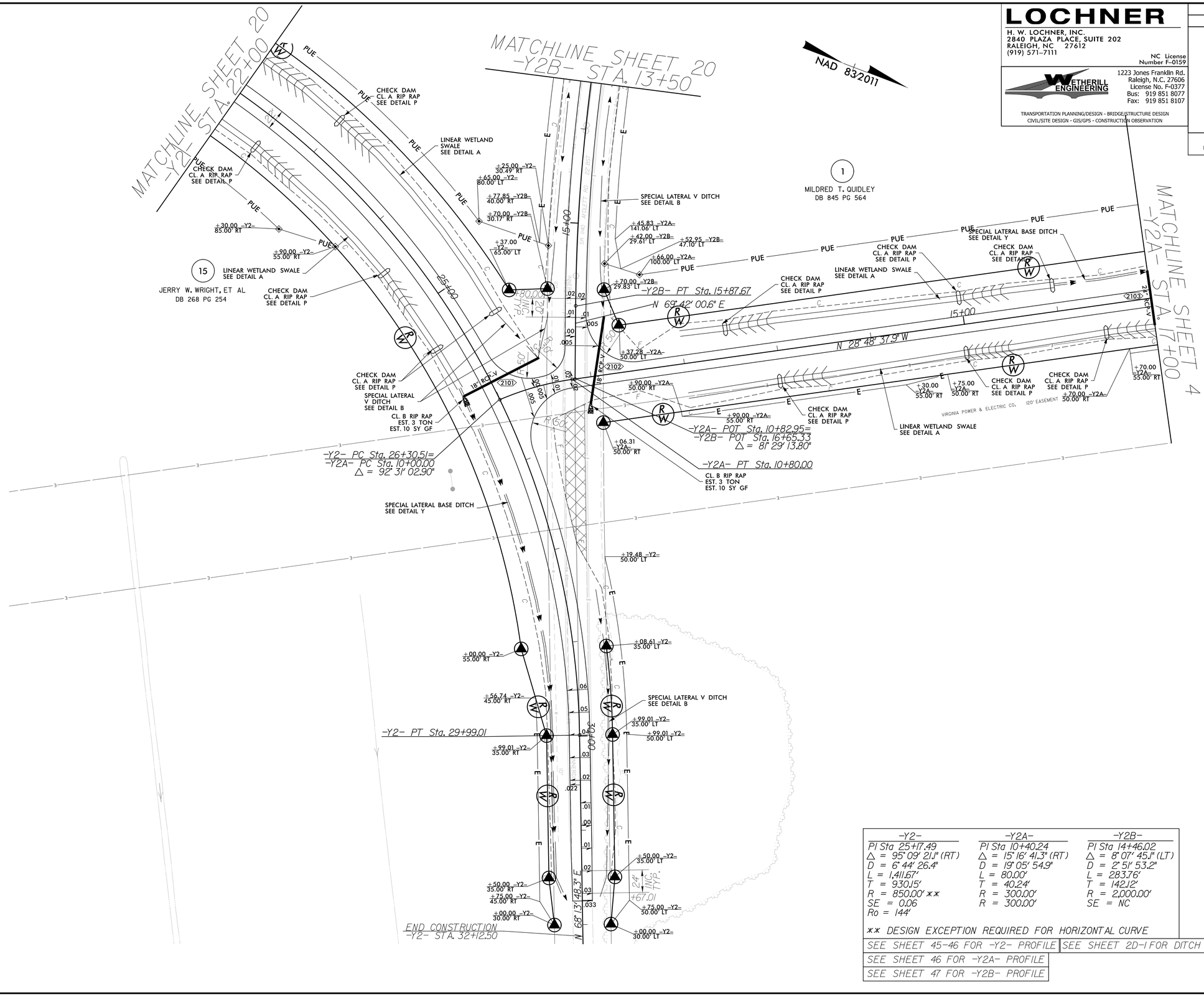
DO NOT DISTURB

CEMETERY (4 GRAVES)

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 40 FOR -Y_NB- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE
SEE SHEET 47 FOR -Y2B- PROFILE

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-Y2-	-Y2A-	-Y2B-
PI Sta 25+17.49	PI Sta 10+40.24	PI Sta 14+46.02
△ = 95° 09' 21.1" (RT)	△ = 15° 16' 41.3" (RT)	△ = 8° 07' 45.1" (LT)
D = 6° 44' 26.4"	D = 19° 05' 54.9"	D = 2° 51' 53.2"
L = 1,411.67'	L = 80.00'	L = 283.76'
T = 930.15'	T = 40.24'	T = 142.12'
R = 850.00' **	R = 300.00'	R = 2,000.00'
SE = 0.06	R = 300.00'	SE = NC
Ro = 144'		

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

SEE SHEET 45-46 FOR -Y2- PROFILE | SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 46 FOR -Y2A- PROFILE
SEE SHEET 47 FOR -Y2B- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	21
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

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RDY_SHEET_17

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y_NB-		
PIs Sta 47+22.32	PI Sta 49+89.44	PIs Sta 52+55.98
Θs = 2° 32' 47.3"	△ = 7° 55' 45.6" (RT)	Θs = 2° 32' 47.3"
Ls = 240.00'	D = 2° 07' 19.4"	Ls = 240.00'
LT = 160.02'	L = 373.66'	LT = 160.02'
ST = 80.02'	T = 187.13'	ST = 80.02'
	R = 2,700.00'	
	SE = 0.05	

NAD 83/2011

19
MILDRED M. MARKERT
DB 800 PG 507

22
ROBERT G. YOUNG
DB 159 PG 191
PC K SLIDE 191

24
MACON F. BROCK, ET UX
DB 385 PG 433
PC D SLIDE 330

23
EARL A. MASON, ET UX
DB 245 PG 476
DB 555 PG 855

MATCHLINE SHEET 4 -Y_SB- STA. 33+50

MATCHLINE SHEET 4 -Y_NB- STA. 44+00

MATCHLINE SHEET 23 -Y- STA. 80+00

MATCHLINE SHEET 23 -YIA- STA. 13+50

-Y_SB- CS Sta. 34+00.49

-Y- ST Sta. 68+99.97=
-Y_SB- ST Sta. 36+00.49
23.00' LT

BEGIN MEDIAN BARRIER
-Y_NB- STA. 51+19.26

+00.49 -Y_SB-
60.00' LT

+00.49 -Y_SB-
61.00' LT

+06.00 -Y-
84° & 88° LT

+16.00 -Y-
84° & 88° LT

+00.49 -Y_SB-
61.00' LT

+44.00 -Y-
84.72' & 91' LT

+54.00 -Y-
84.79' & 91' LT

+89.00 -Y-
86.48' & 95' LT

+79.00 -Y-
86.41' & 93' LT

40' INC. TYP.

300' TAPER

PROP 47" WW FENCE

CL B RIP RAP
EST. 3 TON
EST 10 SY GF

REMOVE

18" RCP-III

15" RCP-IV

ATTENUATOR

SPECIAL CUT DITCH
SEE DETAIL X

SPECIAL CUT BASE DITCH
SEE DETAIL E

SPECIAL LATERAL BASE DITCH
SEE DETAIL Z

SPECIAL CUT BASE DITCH
SEE DETAIL J

SPECIAL LATERAL 'V' DITCH
SEE DETAIL I

48' INC. TYP.

54' INC. TYP.

4' PS

35+00

70+00

75+00

50+00

45+00

N 31° 31' 08.3" W

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

+75.97 -Y_NB-
90.00' LT

-Y_NB- CS Sta. 51+75.97

+02.31
-Y_NB-
80.00' LT

-Y_NB- SC Sta. 48+02.31

+62.31
-Y_NB-
80.00' LT

-Y_NB- SRS Sta. 45+62.31

+15.97 -Y_NB-
87.00' LT

-Y- POT Sta. 76+92.15=
-Y_NB- ST Sta. 54+15.97
23.00' RT

CL B RIP RAP
EST. 2 TON
EST 7 SY GF

+45.00 -Y_NB-
437.00' RT

+24.00 -Y_NB-
462.00' RT

-YIA- POT Sta. 10+00.00

+05.28 -YIA-
50.00' LT

+50.00 -YIA-
30.00' LT

+50.00 -YIA-
30.00' LT

+50.00 -YIA-
30.00' LT

SPECIAL LATERAL V DITCH
SEE DETAIL B

BEGIN CONSTRUCTION
-YIA- STA. 10+06.00

+12.24 -YIA-
30.00' LT

+16.61 -YIA-
80.29' LT

+50.00 -YIA-
90.00' & 135' RT

+00.00 -YIA-
90.00' & 137.10' RT

PUE

R 30'

SEE SHEET 37-38 FOR -Y- PROFILE	SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 39 FOR -Y_SB- PROFILE	SEE SHEET 40-41 FOR -Y_NB- PROFILE
	SEE SHEET 44 FOR -YIA- PROFILE

6/17/2024
R2576_rdy_psh22.dgn
DOKEY

6/2/99

-Y1-	-Y1A-	-Y1B-	-Y1B-	-Y-	-Y-
PI Sta 12+70.31	PI Sta 19+89.68	PI Sta 10+83.72	PI Sta 12+68.51	PIs Sta 91+87.20	PI Sta 95+75.07	PIs Sta 99+61.26
△ = 80° 42' 12.5" (LT)	△ = 40° 22' 05.5" (LT)	△ = 4° 47' 38.4" (LT)	△ = 19° 08' 28.0" (LT)	Θs = 1° 48' 02.6"	△ = 10° 16' 13.8" (LT)	Θs = 1° 48' 02.6"
D = 46° 55' 31.0"	D = 11° 27' 33.0"	D = 2° 51' 53.2"	D = 9° 32' 57.5"	Ls = 220.00'	D = 1° 38' 13.3"	Ls = 220.00'
L = 171.98'	L = 352.28'	L = 167.34'	L = 200.45'	LT = 146.67'	L = 627.39'	LT = 146.67'
T = 103.74'	T = 183.81'	T = 83.72'	T = 101.17'	ST = 73.34'	T = 314.54'	ST = 73.34'
R = 122.10'	R = 500.00'	R = 2,000.00'	R = 600.00'		R = 3,500.00'	
SE = 0.06	SE = 0.05				SE = 0.04	
Ro = 124'	Ro = 100'					

NAD 83 2011

LOCHNER
H. W. LOCHNER, INC.
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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

ROBERT G. YOUNG
DB 159 PG 191
PC K SLIDE 191
22

19
MILDRED M. MARKERT
DB 800 PG 507

COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217
-Y- TS Sta. 90+40.53
-Y- POT Sta. 90+63.30=
-Y1- POT Sta. 10+00.00
△ = 90° 00' 00.00"

MATCHLINE SHEET 22
-Y- STA. 80+00

MATCHLINE SHEET 24
-Y- STA. 93+50

END MEDIAN BARRIER
-Y- STA. 89+00.00

PROP 47" WW FENCE

REMOVE

2@42"x29" CAAP

ATTENUATOR

END FENCE
END CA
+00.00 -Y-
93.73' LT

-Y- SC
Sta. 92+60.53

200' MEDIAN TAPER

RETAIN

15" RCP-IV

N 31° 31' 08.3" W

N 58° 28' 51.7" E

CL B RIP RAP
EST. 2 TON
EST 7 SY GF

STANDARD V DITCH
SEE DETAIL D

TOE PROTECTION
SEE DETAIL Q

CL. B RIP RAP
EST. 2 TON
EST 7 SY GF

300' TAPER

-Y1- PC Sta. 11+66.57

-Y1- POT Sta. 12+46.83=
-Y1A- POT Sta. 25+42.92
△ = 90° 00' 00.00"

-Y1B- PC Sta. 10+00.00

BEGIN CONSTRUCTION
-Y1B- STA. 10+20.00

END CONSTRUCTION
-Y1B- STA. 11+15.00

-Y1B- PCC Sta. 11+67.34

-Y1A- PT Sta. 21+58.15

-Y1- PT Sta. 13+38.55

-Y1- POT Sta. 13+96.70

END CONSTRUCTION
-Y1- STA. 13+87.50

N 22° 13' 20.7" W

N 69° 10' 43.8" W

-Y1B- PT
Sta. 13+67.79

-Y1A- PC
Sta. 18+05.87

STANDARD V DITCH
So=0.4%
DDE=94 CF
SEE DETAIL D

STANDARD V DITCH
So=0.5%
DDE=60 CF SEE DETAIL D

STANDARD V DITCH
So=0.9%
DDE=42 CF
SEE DETAIL D

STANDARD V DITCH
So=1.75%
DDE=185 CF
SEE DETAIL D

SPECIAL LATERAL V DITCH
SEE DETAIL B

24
MACON F. BROCK, ET UX
DB 385 PG 433
PC D SLIDE 330

25
LIBBY GRIGGS HICKMAN
DB 160 PG 15

26
COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217

27
ALICE T. MEYER
DB 884 PG 255
PC I SLIDE 59

28
STAR INVESTMENTS LLC
DB 822 PG 854
PC I SLIDE 60

29
MARY L. GRIFFIN
DB 819 PG 275
PC I SLIDE 60

30
GIDEON L. NEEDHAM, ET AL
ESTATE FILE 03/E 143

GIDEON L. NEEDHAM, ET AL
DB 818 PG 314
ESTATE FILE 03/E 143

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE
SEE SHEET 44 FOR -Y1- PROFILE
SEE SHEET 44-45 FOR -Y1A- PROFILE
SEE SHEET 45 FOR -Y1B- PROFILE

6/17/2024
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USER: ERY

6/2/99

-Y-		
PIs Sta 91+87.20	PI Sta 95+75.07	PIs Sta 99+61.26
Θs = 1° 48' 02.6"	△ = 10° 16' 13.8" (LT)	Θs = 1° 48' 02.6"
Ls = 220.00'	D = 1° 38' 13.3"	Ls = 220.00'
LT = 146.67'	L = 627.39'	LT = 146.67'
ST = 73.34'	T = 314.54'	ST = 73.34'
	R = 3,500.00'	
	SE = 0.04	

LOCHNER

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	24
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

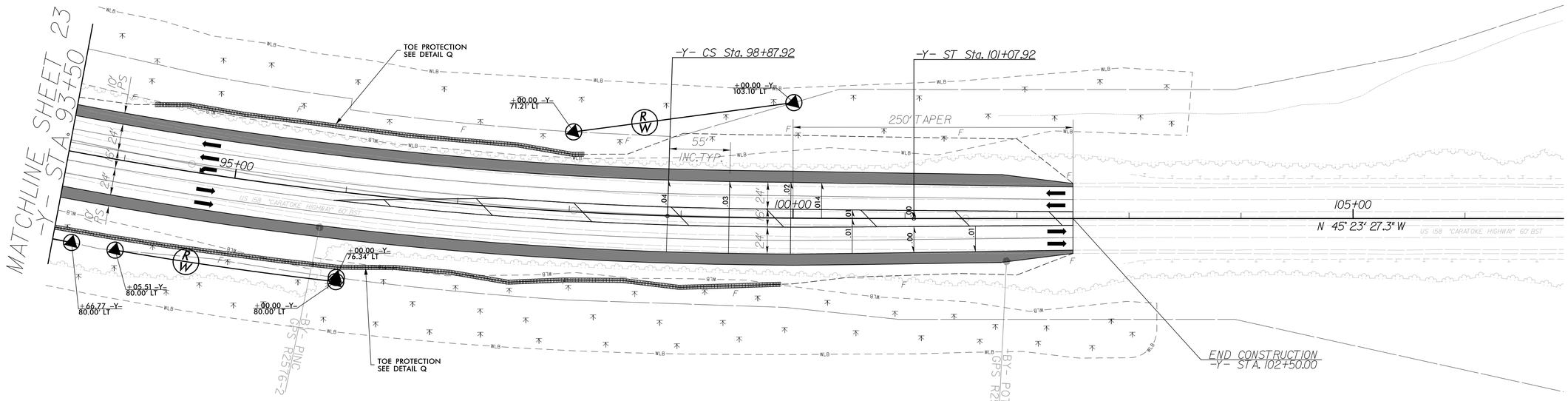
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DO NOT USE FOR R/W ACQUISITION

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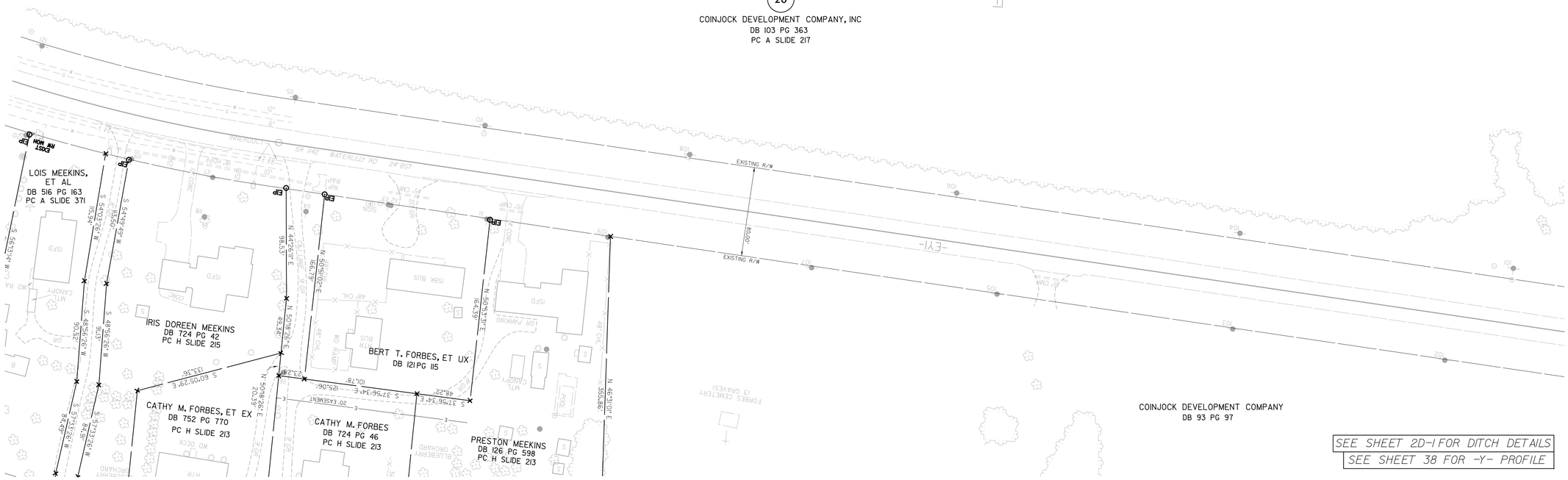
NAD 83/2011

26
COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217

PAVED SHOULDER



26
COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE

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PSHEET

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	25
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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PAVED SHOULDER

NAD 832011

BEGIN CONSTRUCTION
-Y4A- STA 10+00.00

-Y4A- POT Sta. 10+00.00

MATCHLINE SHEET -Y4- STA. 28+00.26

-Y4- PT Sta. 26+71.64

-Y4- POT Sta. 26+95.40=
-Y4A- POT Sta. 12+20.49
△ = 9° 25' 20.56"

END CONSTRUCTION
-Y4A- STA. 13+87.50
-Y4A- PC Sta. 12+71.87

BEGIN CONSTUCTION
-Y4- STA. 19+25.00

-Y4- PC Sta. 23+47.53

ELIMINATE ROADWAY DITCH FROM STA. 20+00 TO 20+50 LT

10' MULTI-USE PATH TIE TO EXISTING

LINEAR INFILTRATION SWALE SEE DETAIL L

CHECK DAM CL A RIP RAP SEE DETAIL P

SPECIAL CUT BASE DITCH SEE DETAIL M

-BY2B- R257609

-EY4-

-EY6-

-BY2B- R257610

-Y4-	-Y4A-
PI Sta 25+19.08	PI Sta 13+80.16
△ = 46° 25' 35.5" (LT)	△ = 75° 26' 28.2" (LT)
D = 14° 19' 26.2"	D = 40° 55' 32.0"
L = 324.12'	L = 184.34'
T = 171.55'	T = 108.28'
R = 400.00'	R = 140.00'
SE = 0.04	SE = EXIST.
Ro = 132'	
V = 35mph	

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4A- PROFILE

6/17/2024
R2576_rdy_psh25.dgn
RICKEY EY

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LOCHNER

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	26
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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PAVED SHOULDER

NAD 83/2011

MONTERAY SHORES OWNERS ASSOC. DB 756 PG 647, DB 343 PG 323, PC B PG 366 — ESTUARINE WATERS AEC — 30' CAMA BUFFER

TODD M. BUTTERWORTH, et UX DB 1125 PG 784 PC B PG 366

LUCKE ISLAND ASSOCIATES DB 248 PG 663 PC B PG 366

STEPHEN J. SINCAVAGE, et UX DB 948 PG 861 PC B PG 377

SHARON ANN TUREK DB 1631 PG 862 PC B PG 377

JULIE RENE HOVERMALE REVOC TRUST DB 1625 PG 442 PC B PG 371

JAY KING, et UX DB 617 PG 275 PC B PG 366

CHARLES C. ABELES DB 245 PG 724 PC B PG 366

RICHARD L. GARY JR., et UX DB 663 PG 501 PC B PG 366

BARBARA DEAM DB 801 PG 893 PC B PG 366

LYNNENSTU LLC DB 1065 PG 585 PC B PG 366

COHEN & PARTNERSHIP DB 792 PG 496 PC B PG 366

WAYNE J. STRICKLAND DB 1114 PG 118 PC B PG 366

DEUTSCHE BANK TRUST CO. AMERICAS DB 1126 PG 587 DB 1125 PG 868 PC B PG 366

HARLOD L. RUSSEL, et UX DB 464 PG 78 PC B PG 366

CYNTHIA L. FRANCIS, et vir DB 614 PG 214 PC B PG 366

MARK R. NEWELL, et UX DB 776 PG 333 PC B PG 366

ROBERT A. WENSTROM, et UX DB 524 PG 827 PC B PG 366

DAVID L. HENRY DB 548 PG 727 PC B PG 366

JOHN G. CONDON DB 610 PG 533 PC B PG 366

ROBERT G. BORUM, et al DB 661 PG 201 PC B PG 366

ALLEN BYNUM III, et UX DB 313 PG 657 PC B PG 366

ROBERT P. & KRISTIN L. FITZSIMMONS DB 1587 PG 743 PC B PG 366

BILLIE M CHUBB DB 561 PG 621 PC B PG 366

OWEN D. GRIFFIN, et UX DB 1072 PG 273 PC B PG 366

DAVID L. BANKS DB 1430 PG 221 PC B PG 366

-Y4- PT Sta. 33+59.70

-Y4B- POT Sta. 10+00.00

BEGIN CONSTRUCTION -Y4B- STA. 10+42.50

-Y4B- PC Sta. 10+68.00

10' MULTI-USE PATH

-Y4B- PT Sta. 11+60.65

-Y4- PC Sta. 28+34.88

-Y4- PC Sta. 38+02.71

-Y4A- PT Sta. 14+56.21

MATCHLINE SHEET 25 -Y4- STA. 28+00

MATCHLINE SHEET 27 -Y4- STA. 39+50

N 60°12'29" W 510.07'

N 39°09.2" E 355.00'

S 20°50.8' E

-Y4-		-Y4B-
PI Sta 31+26.29	PI Sta 41+22.31	PI Sta 11+15.50
△ = 62° 00' 00.2" (RT)	△ = 44° 03' 11.7" (LT)	△ = 31° 13' 30.7" (RT)
D = 11° 48' 48.8"	D = 7° 15' 09.5"	D = 33° 42' 12.2"
L = 524.82'	L = 607.41'	L = 92.65'
T = 291.42'	T = 319.61'	T = 47.51'
R = 485.00'	R = 790.00'	R = 170.00'
SE = 0.04	SE = 0.04	SE = EXIST.
Ro = 168'	Ro = 168'	

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4B- PROFILE

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R2576_rdy_psh26.dgn
USER:ET

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LOCHNER

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	27

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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PAVED SHOULDER

WILLIAM R. MILLER III, et al
DB 1034 PG 100
PC J SL 198

NORTHEASTERN N. C. PROPERTIES, LLC
DB 1295 PG 60
PC Q SL 9

HOMES BY EILLU LLC
DB 1496 PG 226
PC Q SL 9

CURRITUCK COUNTY
DB 716 PG 76

THE VILLAS AT COROLLA BAY HOA INC
DB 1266 PG 703
PC M SL 160

-EY1- -EY2- -EY2B- -EY4-

10' MULTI-USE PATH

100' TAPER

-Y5- PCC Sta. 13+10.99

CL B RIP RAP
EST. 2 TON
EST. 7 SY GF

-Y5- PT Sta. 19+31.59

END CONSTRUCTION -Y5- STA. 19+46.71

MATCHLINE SHEET 18 -Y5- STA. 13+00

LINEAR INFILTRATION SWALE SEE DETAIL L

CHECK DAM CL. A RIP RAP SEE DETAIL P

-Y5-	
PI Sta 12+15.37	PI Sta 16+34.20
Δ = 27° 57' 40.8" (RT)	Δ = 39° 30' 31.4" (RT)
D = 14° 19' 26.2"	D = 6° 21' 58.3"
L = 195.21'	L = 620.60'
T = 99.59'	T = 323.21'
R = 400.00'	R = 900.00'
SE = 0.04	SE = 0.04
Ro = 168'	Ro = 168'
V = 35mph	

DEVILS BAY RD

	300 / 600			
	200 / 400		100 / 200	
NC 12	13,200 / 14,000		12,700 / 13,200	NC 12
	700 / 1,000		200 / 400	
	900 / 1,400			

HERRING ST

2020 ADT
2040 ADT

SEE SHEET 2D-1 FOR DITCH DETAILS

SEE SHEET 49 FOR -Y5- PROFILE

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CLOSE_EF

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	28

ROADWAY DESIGN ENGINEER

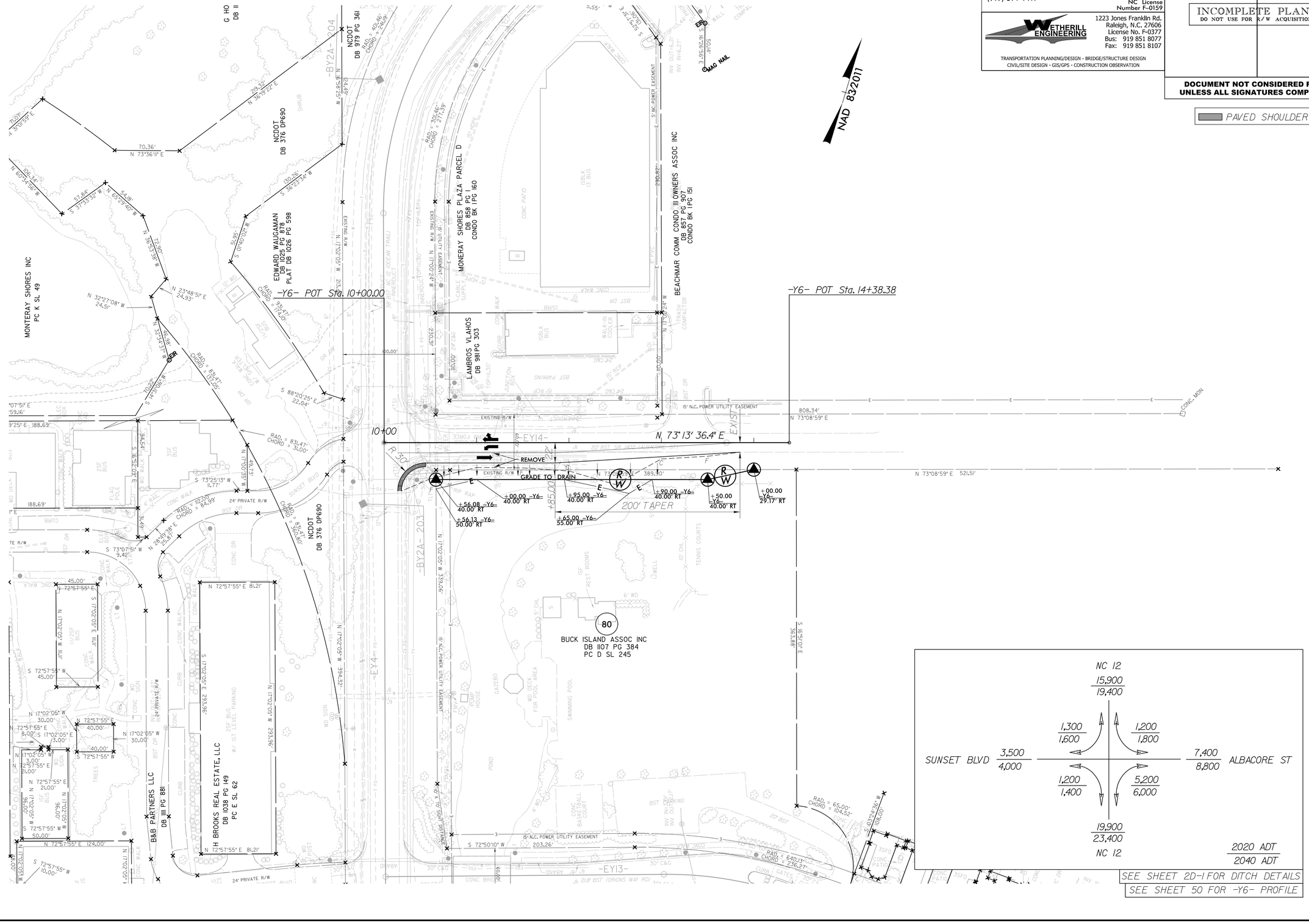
PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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PAVED SHOULDER

NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS

SEE SHEET 50 FOR -Y6- PROFILE

6/17/2024
R2576_roy_psh28.dgn
KEITH LEY

6/2/99

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	29
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

NAD 83-2011

81
THE DUCK WOODS COUNTRY CLUB, INC.
DB 1484 PG 278
PC 5 PG 34

82
SOUTHERN SHORES CIVIC ASSOCIATION, INC
DB 244 PG 208
PC 3 PG 141

THE DUCK WOODS COUNTRY CLUB, INC.
DB 1484 PG 278
PC 5 PG 34

SPECIAL LATERAL BASE DITCH
So = 0.3%
DDE = 550 cu.ft.
SEE DETAIL V

CL B RIP RAP
EST. 5 TON
EST. 14 SY GF

10' MULTI-USE PATH

300' TAPER

50' TAPER

SPECIAL CUT DITCH
SEE DETAIL K

EXIST R/W

100.00'

40+00 -EL- -Y7- N 70° 16' 50.7" E

45+00

50+00

BEGIN CONSTRUCTION
-Y7- STA. 43+00.00

MATCHLINE SHEET 30
-Y7- STA. 52+00

REMOVE 24" RCP

US 158 N CROATAN HWY VAR RAISED ROADWAY

KITTY HAWK ESTATES, LLC
DB 2189 PG 133
PC 1 PG 140

N 70°05'49" E 336.26'
N 30°37'36" W 83.32'
N 01°42'20" W 41.39'
N 83°08'19" E 67.00'
S 19°49'07" E 124.05'
S 19°49'07" E 29.00'
S 16°29'15" E 6.49'
N 75°50'27" E 145.67'
N 09°07'48" W 201.47'
S 43°37'52" W 0.00'

KITTY HAWK ESTATES, LLC
DB 2189 PG 133
PC 1 PG 140

N 70°05'49" E 292.67'
N 35°58'09" W 187.80'

KITTY HAWK ESTATES, LLC
DB 2189 PG 133
PC 1 PG 140

S 38°41'38" E 106.45'
N 01°44'01" W 76.00'
N 27°28'28" W 198.56'
N 83°21'08" E 102.28'

KITTY HAWK ESTATES, LLC
DB 2189 PG 133
PC 1 PG 140

N 70°05'49" E 370.37'

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 50 FOR -Y7- PROFILE

6/17/2024
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kmeier

6/2/99

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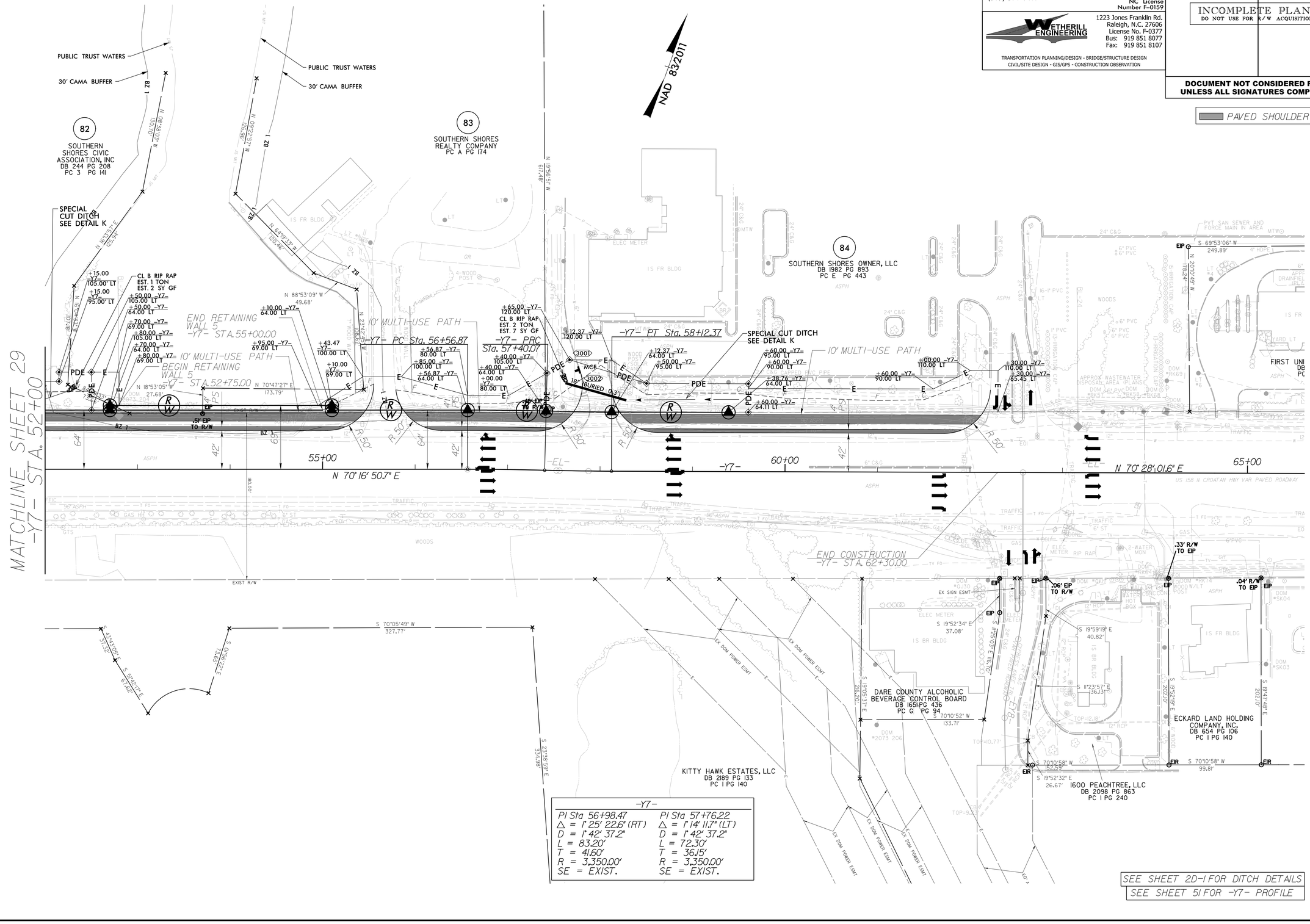
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	30
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 51 FOR -Y7- PROFILE

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5/28/99

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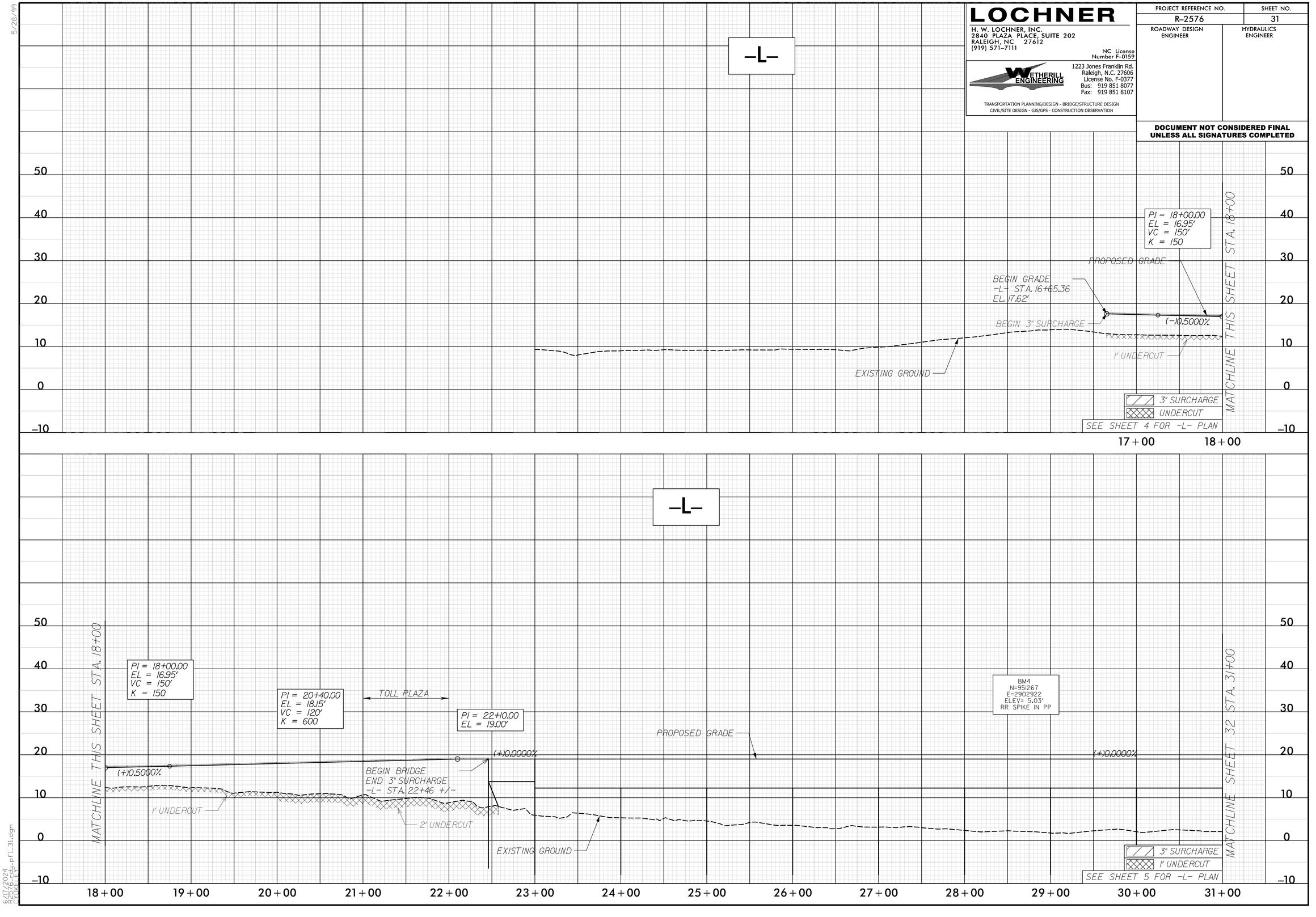
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1223 Jones Franklin Rd.
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License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	31
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	32
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

50
40
30
20
10
0
-10

31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00

MATCHLINE SHEET 31 STA. 31+00

(+)0.0000%

PROPOSED GRADE

EXISTING GROUND

(+)0.0000%

MATCHLINE THIS SHEET STA. 44+00

SEE SHEET 6 FOR -L- PLAN

-L-

50
40
30
20
10
0
-10

44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00

MATCHLINE THIS SHEET STA. 44+00

BM5
N=951786
E=2904735
ELEV= 3.47'
RR SPIKE IN PP

(+)0.0000%

PROPOSED GRADE

EXISTING GROUND

(+)0.0000%

MATCHLINE SHEET 33 STA. 57+00

SEE SHEET 7 FOR -L- PLAN

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R2576_rdy_pf1_32.dgn
kjbickley

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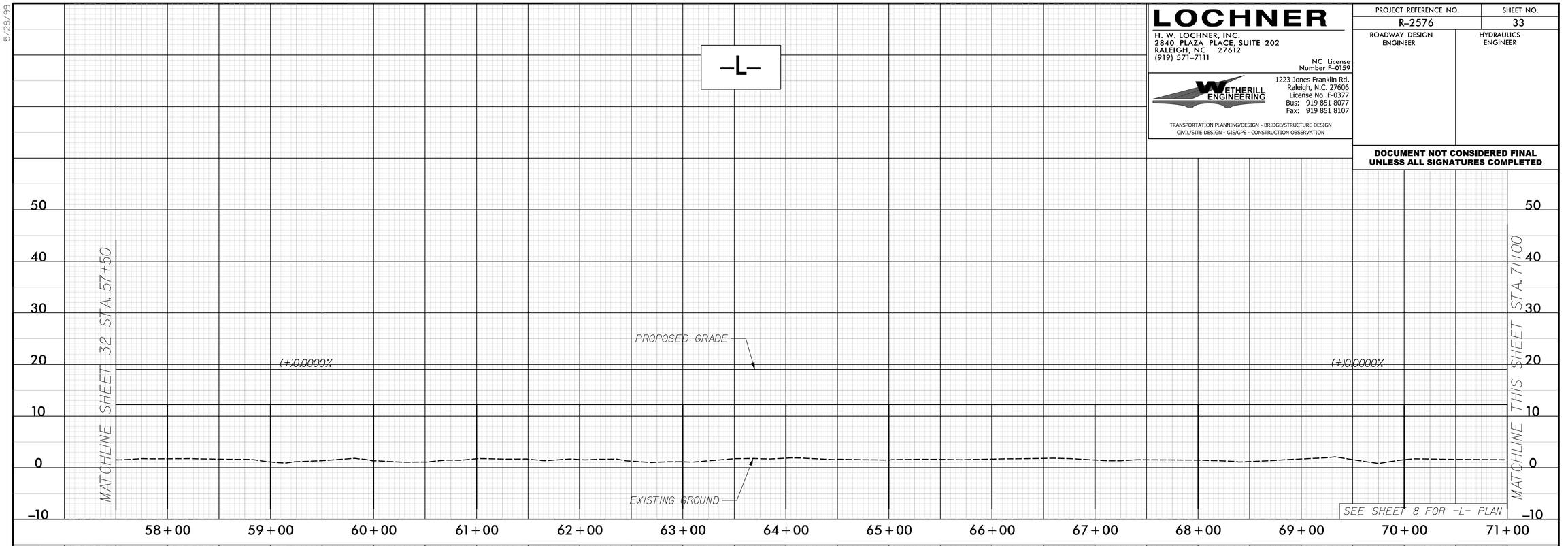
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Number F-0159

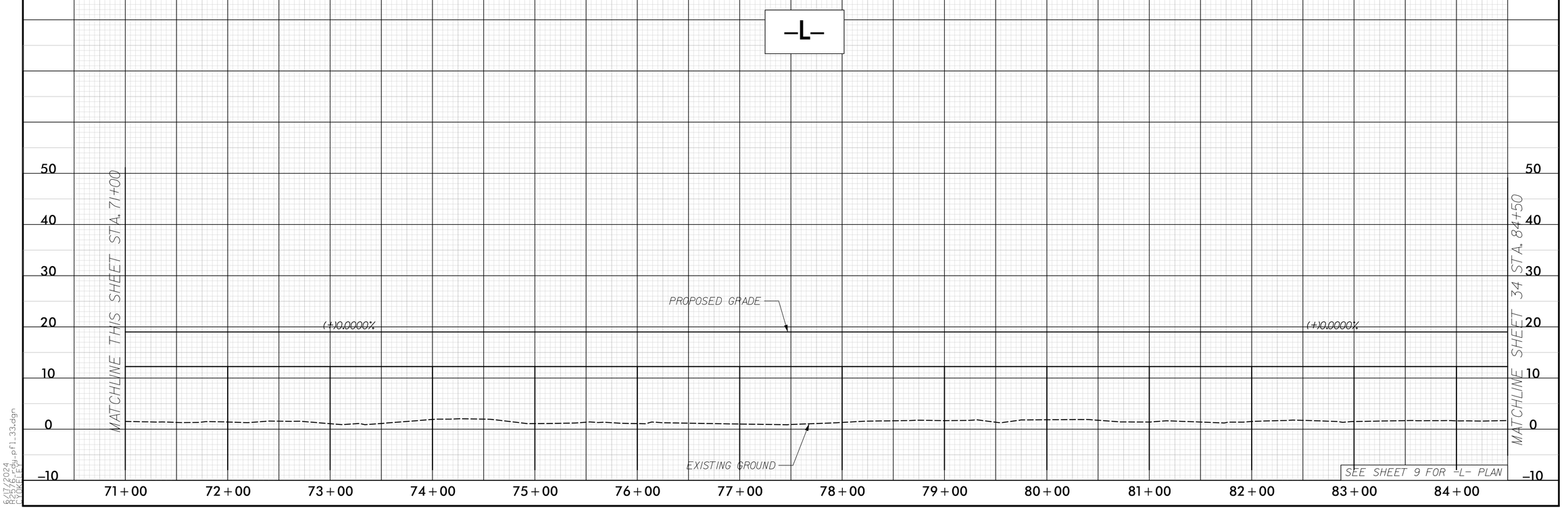
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	33
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	34
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

BM6
N=952856
E=2908345
ELEV= 2.49'
RR SPIKE IN PP

MATCHLINE SHEET 33 STA. 84+50

(+)0.0000%

PROPOSED GRADE

EXISTING GROUND

(+)0.0000%

MATCHLINE THIS SHEET STA. 98+00

SEE SHEET 10 FOR -L- PLAN

50 40 30 20 10 0 -10

85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00

-L-

MATCHLINE THIS SHEET STA. 98+00

END BRIDGE
BEGIN 5" SURCHARGE
-L- STA. 100+88 +/-

100+86

PI = 101+80.00
EL = 19.00'
VC = 180'
K = 515

(+)0.0000%

(-)0.3493%

END 5" SURCHARGE

EXISTING GROUND

PROPOSED GRADE

BEGIN DITCH
STA 103+50.00 (RT)
ELEV=14.00 FT

BEGIN DITCH
STA 103+50.00 (LT)
ELEV=14.00 FT

(-)0.3493%

STA 106+00.00 (RT)
ELEV=14.00 FT

STA 106+00.00 (LT)
ELEV=14.00 FT

PI = 106+60.00
EL = 17.32'
VC = 500'
K = 160

(+) 2.0%

(+) 2.0%

0.0%
0.0%

STA 107+00.00 (RT)
ELEV=16.00 FT

STA 107+00.00 (LT)
ELEV=16.00 FT

(+)2.1786%

0.0%
0.0%

END DITCH
STA 110+50.00 (RT)
ELEV=16.00 FT

END DITCH
STA 110+50.00 (LT)
ELEV=16.00 FT

1' UNDERCUT
5" SURCHARGE

SEE SHEET 11 FOR -L- PLAN

MATCHLINE SHEET 35 STA. 111+50

50 40 30 20 10 0 -10

98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	35
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PIPE HYDRAULIC DATA

18" RCP-IV Sta.114+00 -L-

DRAINAGE AREA	= 3.3	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 4.7	CFS
DESIGN HW ELEVATION	= 16.4	FT
100 YEAR DISCHARGE	= 5.2	CFS
100 YEAR HW ELEVATION	= 16.5	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 10.3	CFS
OVERTOPPING ELEVATION	= 18.2	FT

-L-

℄ -Y3- NARROW SHORE RD.

-L- POT Sta. 118+30.91=
-Y3- POT Sta. 13+81.47

PI = 118+00.00
EL = 49.00'
VC = 900'
K = 156

BM8
N=954241
E=291362
ELEV= 20.17'
RR SPIKE IN 14" PINE

BEGIN 5" SURCHARGE

(+)2.7786%

(-)2.9885%

PROPOSED GRADE

BEGIN BRIDGE
END 5" SURCHARGE
-L- STA. 118+05 +/-

MATCHLINE SHEET 34 STA. 111+50

MATCHLINE SHEET 13A STA. 124+00

(-)0.3%

0.0%

(+)0.9%

BEGIN DITCH STA 112+00.00 (LT) ELEV=15.84 FT

BEGIN DITCH STA 113+00.00 (RT) ELEV=14+68 FT

STA 114+00.00 (LT) ELEV=15.24 FT

END DITCH STA 114+50.00 (RT) ELEV=14+68 FT

END DITCH STA 116+00.00 (LT) ELEV=17.04 FT

EXISTING GROUND

NORMAL HIGH WATER 0.3'

1' UNDERCUT

5" SURCHARGE

SEE SHEET 12 FOR -L- PLAN

50 40 30 20 10 0 -10

112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00

-L-

MATCHLINE SHEET 16E STA. 351+00

PI = 360+20.00
EL = 23.00'
VC = 350'
K = 233

PROPOSED GRADE

(+)0.0000%

(-)1.5000%

END GRADE
-L- STA. 365+00.00
EL. 15.80'

END BRIDGE
BEGIN 3" SURCHARGE
-L- STA. 364+20 +/-

EXISTING GROUND

NORMAL HIGH WATER 0.3'

1' UNDERCUT

3" SURCHARGE

SEE SHEET 17 FOR -L- PLAN

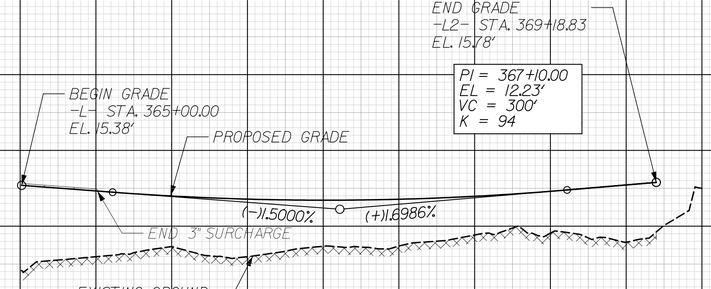
50 40 30 20 10 0 -10

351+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359+00 360+00 361+00 362+00 363+00 364+00 365+00

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–L2–



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PROJECT REFERENCE NO.	SHEET NO.
R–2576	36
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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3" SURCHARGE
1' UNDERCUT

SEE SHEET 18 FOR –L2– PLAN

–Y–
US 158

PIPE HYDRAULIC DATA
24" RCP–IV Sta.15+25 –Y–

DRAINAGE AREA	= 4.2	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 13.7	CFS
DESIGN HW ELEVATION	= 8.5	FT
100 YEAR DISCHARGE	= 15.0	CFS
100 YEAR HW ELEVATION	= 8.6	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 20.0	CFS
OVERTOPPING ELEVATION	= 9.2	FT

BM3
N=948174
E=2902493
ELEV= 16.00'
RR SPIKE IN 20" GUM

PIPE HYDRAULIC DATA
2@24" RCP–IV Sta.22+87 –Y–

DRAINAGE AREA	= 8.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 26.0	CFS
DESIGN HW ELEVATION	= 8.4	FT
100 YEAR DISCHARGE	= 31.7	CFS
100 YEAR HW ELEVATION	= 8.7	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 58.0	CFS
OVERTOPPING ELEVATION	= 11.5	FT

℄ –Y2–
AYDLETT RD.

PI = 18+00.00
EL = 12.43'
VC = 180'
K = 297

PI = 21+70.00
EL = 11.30'
VC = 180'
K = 257

PI = 24+70.00
EL = 12.49'
VC = 180'
K = 250

PI = 26+50.00
EL = 11.90'
VC = 180'
K = 285

BEGIN GRADE
–Y– STA. 14+75.00
EL. 11.46'

PROPOSED GRADE

(+)0.3000%
(–)0.3059%
(–)0.070%
(+)0.3948%
(–)0.3240%
0.0%
(+)0.8%

(–)2.8%
(+)1.2%
(–)0.6%
(±)2.4%

EXISTING GROUND

BEGIN DITCH STA 15+00 (RT) ELEV=7.20 FT
STA 15+25 (RT) ELEV=6.50 FT
END DITCH STA 16+00 (RT) ELEV=7.40 FT
BEGIN DITCH STA 18+00 (RT) ELEV=7.60 FT
END DITCH STA 19+00 (RT) ELEV=7.0 FT
BEGIN DITCH STA 20+00 (RT) ELEV=6.6 FT
STA 22+85 (RT) ELEV=6.4 FT
STA 22+90 (RT) ELEV=6.4 FT
STA 23+40 (RT) ELEV=7.60 FT
STA 26+50 (RT) ELEV=7.60 FT
STA 27+00 (RT) ELEV=8.00 FT

SEE SHEET 19 FOR –Y– PLAN

MATCHLINE SHEET 37 STA. 27+00

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kwhite

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	37
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y- US 158

PIPE HYDRAULIC DATA
2@24" RCP-IV Sta.33+00 -Y-

DRAINAGE AREA	= 5.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 19.0	CFS
DESIGN HW ELEVATION	= 8.07	FT
100 YEAR DISCHARGE	= 20.0	CFS
100 YEAR HW ELEVATION	= 8.15	FT
OVERTOPPING FREQUENCY	= 100	YRS
OVERTOPPING DISCHARGE	= 20	CFS
OVERTOPPING ELEVATION	= 8.1	FT

PI = 26+50.00
EL = 11.90'
VC = 180'
K = 285

PI = 28+75.00
EL = 12.60'
VC = 180'
K = 290

PI = 32+00.00
EL = 11.58'
VC = 180'
K = 294

PI = 39+25.00
EL = 13.76'
VC = 350'
K = 184

PROPOSED GRADE

(+)0.3083%
(-)0.3125%
(-)0.3125%
(+)0.3000%
(+)0.3000%
(+)2.1981%
0.0%
(-)0.8%
0.0%
(-)2.2%
(+)1.1%
(-)0.6%
0.0%
2 @ 24"
EXISTING GROUND

STA 27+00 (RT)
ELEV=8.00 FT

STA 30+50 (RT)
ELEV=8.00 FT

STA 31+00 (RT)
ELEV=7.60 FT

STA 32+50 (RT)
ELEV=7.6 FT

STA 33+00 (RT)
ELEV=6.5 FT

STA 34+00 (RT)
ELEV=7.6 FT

STA 36+00 (RT)
ELEV=6.4 FT

MATCHLINE SHEET 36 STA. 27+00

MATCHLINE THIS SHEET STA. 40+00

SEE SHEET 20 FOR -Y- PLAN

27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00

50 40 30 20 10 0 -10

-Y- US 158

PIPE HYDRAULIC DATA
30" RCP-III Sta.41+44 -Y-

DRAINAGE AREA	= 7.49	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 25.7	CFS
DESIGN HW ELEVATION	= 8.1	FT
100 YEAR DISCHARGE	= 27.7	CFS
100 YEAR HW ELEVATION	= 8.3	FT
OVERTOPPING FREQUENCY	= 50	YRS
OVERTOPPING DISCHARGE	= 26.0	CFS
OVERTOPPING ELEVATION	= 8.1	FT

PIPE HYDRAULIC DATA
18" RCP-III Sta.68+80 -Y-

DRAINAGE AREA	= 2.25	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 7.4	CFS
DESIGN HW ELEVATION	= 7.1	FT
100 YEAR DISCHARGE	= 8.0	CFS
100 YEAR HW ELEVATION	= 7.19	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 16.5	CFS
OVERTOPPING ELEVATION	= 9.6	FT

PI = 39+25.00
EL = 13.76'
VC = 350'
K = 184

END GRADE
-Y- STA. 43+00.00
EL. 22.00'

BEGIN GRADE
-Y- STA. 69+00.00
EL. 10.73'

PROPOSED GRADE

(-)2.05%
(+)2.37%
(+)2.0400%
(+)0.5834%
(-)2.3000%
(-)0.3015%
(+)0.5834%
(-)0.2000%
(-)0.0%
30"
18"
EXISTING GROUND

STA 41+00 (RT)
ELEV=6.4 FT

STA 41+44 (RT)
ELEV=5.5 FT

END DITCH
STA 43+00 (RT)
ELEV=9.2 FT

STA 69+00 (RT)
=46+33 (LT) -YNB-
ELEV=5.5 FT

DITCH
STA 69+50 (RT)
ELEV=6.52 FT

BEGIN DITCH
STA 70+50 (RT)
ELEV=8.85 FT

STA 72+00 (RT)
ELEV=5.4 FT

END DITCH
STA 73+00 (RT)
ELEV=8.56 FT

STA 73+50 (RT)
ELEV=5.1 FT

STA 75+50 (RT)
ELEV=5.1 FT

MATCHLINE THIS SHEET STA. 40+00

MATCHLINE SHEET 38 STA. 77+00

SEE SHEET 4 & 22 FOR -Y- PLAN

40+00 41+00 42+00 43+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00

50 40 30 20 10 0 -10

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–Y–
US 158

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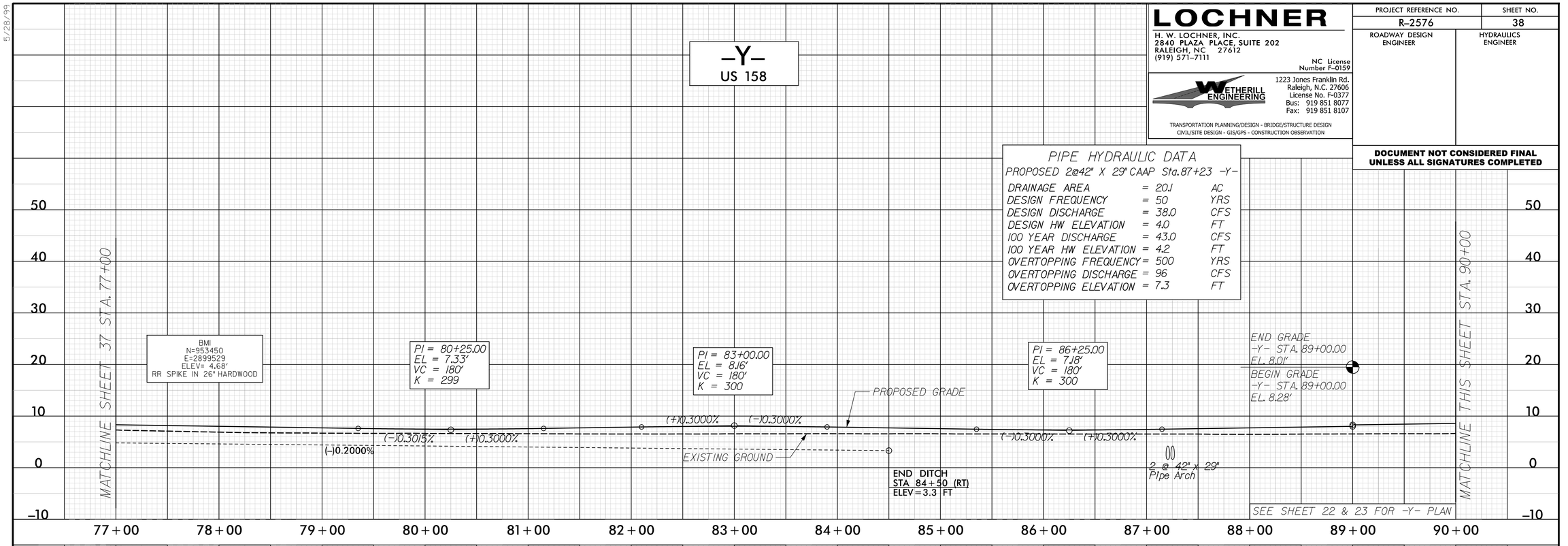
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PROJECT REFERENCE NO.	SHEET NO.
R–2576	38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

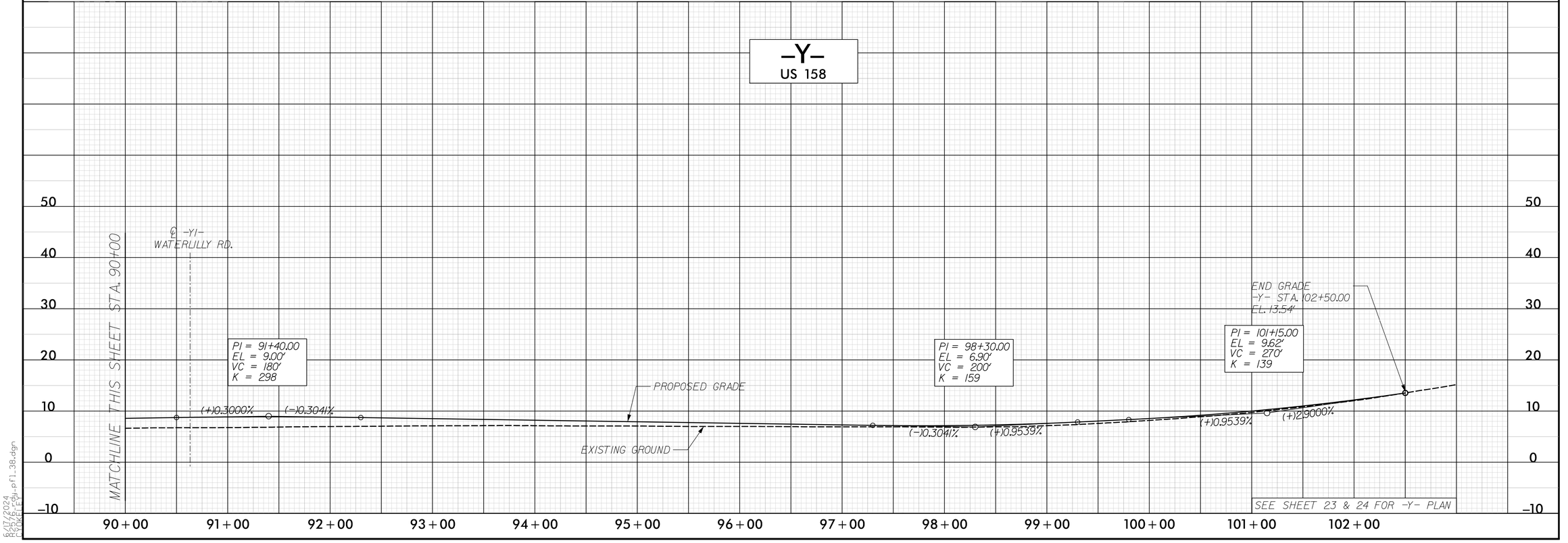
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PIPE HYDRAULIC DATA
PROPOSED 2@42" X 29" CAAP Sta.87+23 -Y-

DRAINAGE AREA	= 20.1	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 38.0	CFS
DESIGN HW ELEVATION	= 4.0	FT
100 YEAR DISCHARGE	= 43.0	CFS
100 YEAR HW ELEVATION	= 4.2	FT
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING DISCHARGE	= 96	CFS
OVERTOPPING ELEVATION	= 7.3	FT



–Y–
US 158



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-Y_SB-
US 158

BM2
N=950579
E=2901029
ELEV= 8.24'
RR SPIKE IN 20" HARDWOOD

BEGIN GRADE
-Y_SB- STA. 10+00.00
EL. 22.00'

PI = 12+50.00
EL = 27.50'
VC = 500'
K = 154

(+)2.1980%

(-)1.0577%

PI = 16+75.00
EL = 23.00'
VC = 300'
K = 165

(-)1.0577%

(+)0.7627%

PROPOSED GRADE

EXISTING GROUND

42"

PI = 22+90.00
EL = 27.69'
VC = 440'
K = 197

(+)0.7627%

MATCHLINE THIS SHEET STA. 23+00

SEE SHEET 4 FOR -Y_SB- PLAN

PIPE HYDRAULIC DATA
42" RCP-IV Sta. 22+65 -YSB-

DRAINAGE AREA	= 21.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 62.1	CFS
DESIGN HW ELEVATION	= 9.1	FT
100 YEAR DISCHARGE	= 67.8	CFS
100 YEAR HW ELEVATION	= 9.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 150	CFS
OVERTOPPING ELEVATION	= 15.6	FT

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	39
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y_SB-
US 158

PI = 22+90.00
EL = 27.69'
VC = 440'
K = 197

(-)1.4740%

PROPOSED GRADE

PI = 34+00.00
EL = 11.33'
VC = 200'
K = 171

END GRADE
-Y_SB- STA. 36+00.49
EL. 10.73'

(-)1.4740%

(+)0.3015%

EXISTING GROUND

24"

MATCHLINE THIS SHEET STA. 23+00

SEE SHEETS 4 & 22 FOR -Y_SB- PLAN

PIPE HYDRAULIC DATA
24" RCP-III Sta. 30+03 -YSB-

DRAINAGE AREA	= 4.2	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 13.3	CFS
DESIGN HW ELEVATION	= 8.0	FT
100 YEAR DISCHARGE	= 14.5	CFS
100 YEAR HW ELEVATION	= 8.1	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 29.0	CFS
OVERTOPPING ELEVATION	= 10.0	FT

6/17/2024
R2576_rdy_pl1_39.dgn
R.TUCKER

5/28/99

–Y_NB–
US 158

LOCHNER
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NC License Number F–0159

WETHERILL ENGINEERING
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R–2576	40
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PI = 14+60.00
EL = 13.38'
VC = 180'
K = 155

PI = 17+20.00
EL = 17.18'
VC = 250'
K = 162

BEGIN GRADE
–Y_NB– STA. 10+00.00
EL. 12.00'

PROPOSED GRADE

(+)0.3000%
(+)1.4597%
(+)1.4597%
(+)3.0000%
(–)0.5778%

EXISTING GROUND

BEGIN DITCH
STA 20+00 (RT)
ELEV = 10.0 FT

MATCHLINE THIS SHEET STA. 23+00

SEE SHEETS 4 & 20 FOR –Y_NB– PLAN

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

50 40 30 20 10 0 –10

–Y_NB–
US 158

PIPE HYDRAULIC DATA
24" RCP–IV Sta.24+62 –Y NB–

DRAINAGE AREA	= 4.74	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 15	CFS
DESIGN HW ELEVATION	= 9.5	FT
100 YEAR DISCHARGE	= 17.0	CFS
100 YEAR HW ELEVATION	= 9.7	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 26.5	CFS
OVERTOPPING ELEVATION	= 11.5	FT

℄ –RPBD–
–Y_NB– PS Sta. 27+78.62=
–RPBD– POC Sta. 15+04.95

℄ –LPB–
–Y_NB– PS Sta. 28+24.01=
–LPB– POC Sta. 15+57.67

PI = 27+65.00
EL = 48.53'
VC = 790'
K = 152

(+)3.0000%
(–)2.1969%

PROPOSED GRADE

EXISTING GROUND

PIPE HYDRAULIC DATA
36"RCP–V Sta.32+20 –Y NB–

DRAINAGE AREA	= 9.9	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 22.5	CFS
DESIGN HW ELEVATION	= 9.7	FT
100 YEAR DISCHARGE	= 24.6	CFS
100 YEAR HW ELEVATION	= 10.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 60.0	CFS
OVERTOPPING ELEVATION	= 13.2	FT

PI = 33+40.00
EL = 35.90'
VC = 350'
K = 140

(–)2.1969%
(+)0.3000%

MATCHLINE THIS SHEET STA. 23+00

MATCHLINE SHEET 41 STA. 36+00

STA 24+50 (RT)
ELEV = 7.4 FT

24"

0.0%

STA 25+00 (RT)
= 13+75 (LT) –RPD–
ELEV = 7.4 FT

STA 29+75 (RT)
= 15+00 –RPA–
ELEV = 7.3 FT

BEGIN DITCH
STA 30+66 (LT)
ELEV = 7.2 FT

0.0%
0.0%

STA 31+50 (LT)
ELEV = 7.2 FT

(–)3.74%

STA 32+00 (LT)
ELEV = 5.33 FT

STA 32+00 (RT)
ELEV = 7.3 FT

(+)3.74%

36"

STA 32+42 (RT)
ELEV = 6.43 FT

STA 32+50 (LT)
ELEV = 7.2 FT

(–)2.07%

(+)1.5000%

STA 33+00 (RT)
ELEV = 7.3 FT

0.0%
0.0%

STA 35+00 (RT)
ELEV = 7.3 FT

(+)1.3000%
0.0%

END DITCH
STA 36+00 (LT)
ELEV = 7.2 FT

SEE SHEET 4 FOR –Y_NB– PLAN

23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00

50 40 30 20 10 0 –10

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kmiller

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–Y_NB–
US 158

PI = 38+75.00
EL = 37.50'
VC = 520'
K = 170

(+)0.3000%

(–)2.7534%

PROPOSED GRADE

END DITCH
STA. 39+00 (RT)
ELEV=12.5 FT

EXISTING GROUND

(+)1.3000%

BEGIN DITCH
STA. 38+50 (LT)
ELEV=7.8 FT

0.0%

(–)7.2%

(+)7.2%

STA. 40+00 (LT)
ELEV=7.8 FT

STA. 40+25 (LT)
ELEV=6.0 FT

STA. 40+50 (LT)
ELEV=7.8 FT

0.0%

END DITCH
STA. 41+50 (LT)
ELEV=7.8 FT

DITCH BLOCK
ELEV=10.0

BEGIN DITCH
STA. 42+50 (LT)
ELEV=8.0 FT

(–)0.7%

STA. 46+14 (LT)
ELEV=5.5 FT

STA. 46+33 (LT)
=69+00 (RT) –Y–
ELEV=5.5 FT

PI = 48+75.00
EL = 9.97'
VC = 400'
K = 163

(+)2.7534%

MATCHLINE SHEET 40 STA. 36+00

MATCHLINE THIS SHEET STA. 49+00

SEE SHEETS 4 & 22 FOR –Y_NB– PLAN

36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00

50 40 30 20 10 0 –10

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PROJECT REFERENCE NO.	SHEET NO.
R–2576	41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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–Y_NB–
US 158

PI = 48+75.00
EL = 9.97'
VC = 400'
K = 163

PROPOSED GRADE

END GRADE
–Y_NB– STA. 54+15.97
EL. 8.34'

EXISTING GROUND

(–)0.3015%

MATCHLINE THIS SHEET STA. 49+00

–LPB–

BEGIN GRADE
–LPB– STA. 10+00.00
EL. 17.30'

PI = 11+25.00
EL = 17.93'
VC = 150'
K = 156

PI = 12+95.00
EL = 17.14'
VC = 90'
K = 45

PI = 14+30.00
EL = 13.85'
VC = 180'
K = 65

(+)0.5000%

(–)0.4593%

(–)0.4593%

(–)2.4426%

(–)2.4426%

(+)0.3400%

PROPOSED GRADE

EXISTING GROUND

℄ –Y_NB–
–Y_NB– PS Sta. 28+24.01=
–LPB– POC Sta. 15+57.67

MATCHLINE SHEET 42 STA. 16+50

SEE SHEET 22 FOR –Y_NB– PLAN
SEE SHEET 4 FOR –LPB– PLAN

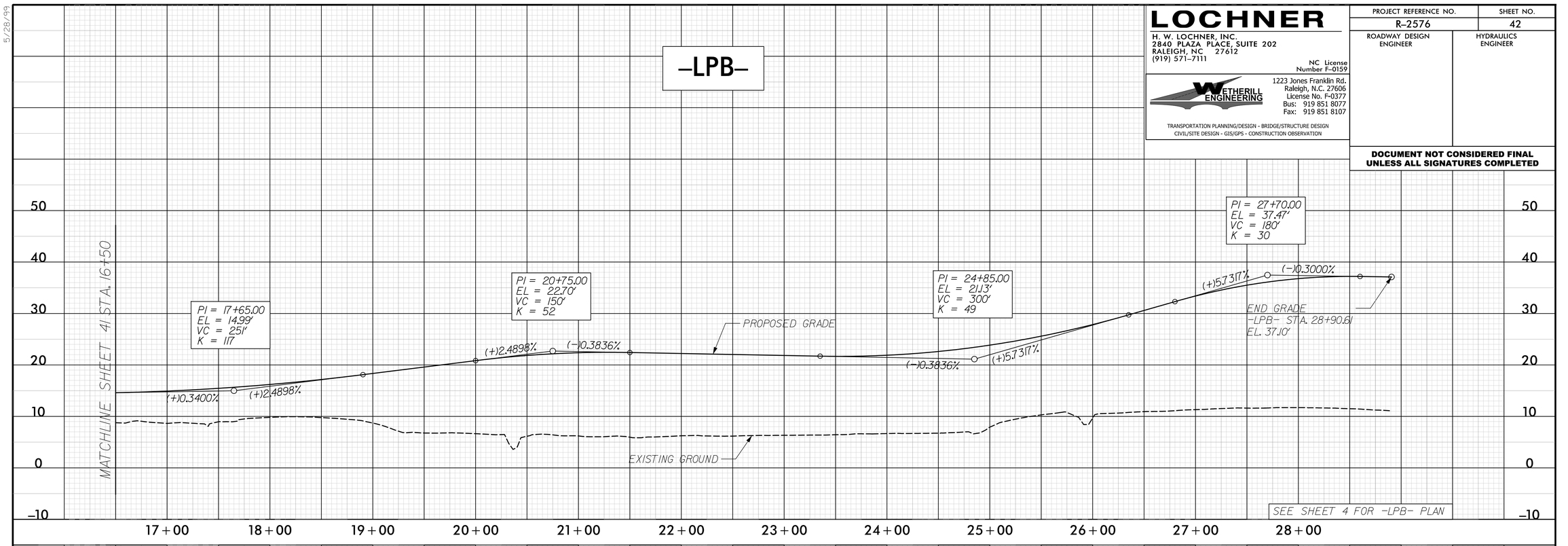
49+00 50+00 51+00 52+00 53+00 54+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00

50 40 30 20 10 0 –10

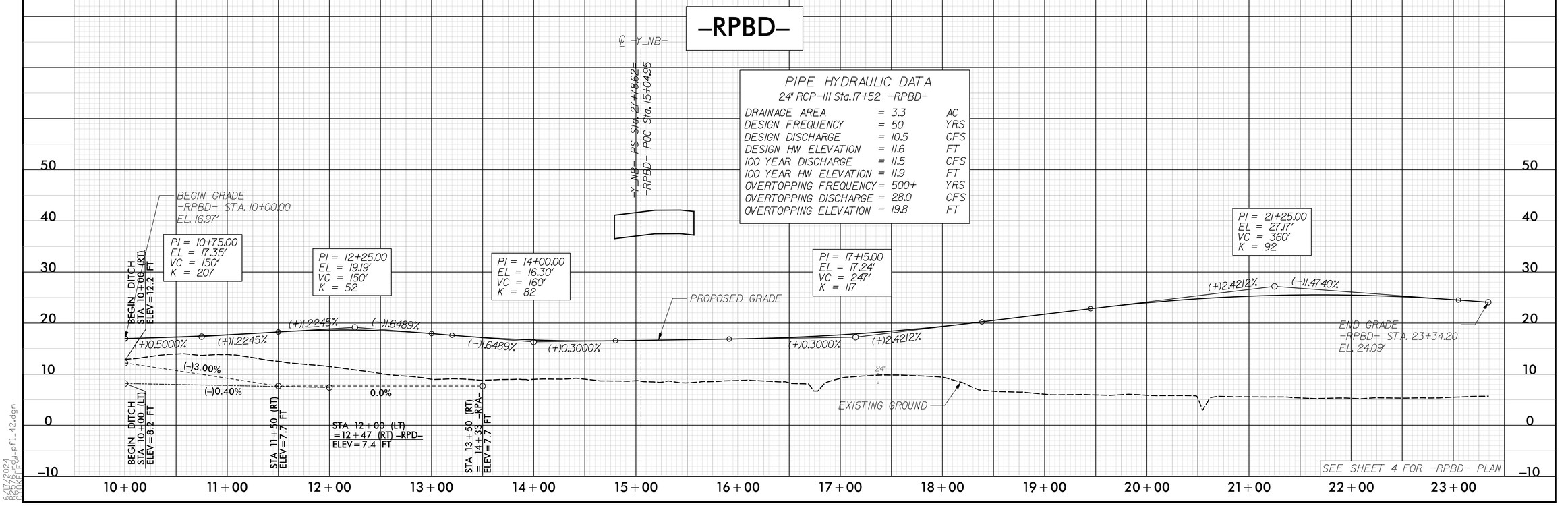
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–LPB–



–RPBD–



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PROJECT REFERENCE NO.	SHEET NO.
R–2576	42
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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5/28/99

–RPA–

PIPE HYDRAULIC DATA

Proposed 18"–III RCP Sta.14+40 –RPA–

DRAINAGE AREA	= 1.46	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 5.6	CFS
DESIGN HW ELEVATION	= 9.4	FT
100 YEAR DISCHARGE	= 6.8	CFS
100 YEAR HW ELEVATION	= 9.7	FT
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING DISCHARGE	= 17.0	CFS
OVERTOPPING ELEVATION	= 13.6	FT

BEGIN GRADE
–RPA– STA. 10+00.00
EL. 16.71'

PI = 11+20.00
EL = 17.31'
VC = 130'
K = 41

PI = 13+40.00
EL = 11.40'
VC = 300'
K = 39

PI = 18+85.00
EL = 38.49'
VC = 400'
K = 86

PI = 21+90.00
EL = 39.41'
VC = 200'
K = 185

(+)0.5000%
(–)2.6847%
(–)2.6847%
(+)4.9716%
(+)4.9717%
(+)0.3000%
(+)0.3000%
(–)0.7799%
0.0%
(–)0.8%

PROPOSED GRADE
EXISTING GROUND

STA 14+33 (RT) = 13+50 –RPBD– ELEV=7.7 FT
STA 14+50 (RT) ELEV=7.7 FT
STA 15+00 (RT) = 29+75 –YNB– ELEV=7.3 FT

SEE –RPBD–
STA 10+00 TO 13+50
FOR DITCH PROFILE

SEE –YNB–
STA 29+75 TO 39+00
FOR DITCH PROFILE

MATCHLINE THIS SHEET STA. 23+00

SEE SHEET 4 FOR –RPA– PLAN

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

50 40 30 20 10 0 –10

–RPA–

PI = 24+25.00
EL = 37.58'
VC = 150'
K = 212

PI = 26+25.00
EL = 34.60'
VC = 180'
K = 142

(–)0.7799%
(–)1.4876%
(–)1.4876%
(–)2.7535%

PROPOSED GRADE
EXISTING GROUND

END GRADE
–RPA– STA. 27+50.42
EL. 31.15'

MATCHLINE THIS SHEET STA. 23+00

SEE SHEET 4 FOR –RPA– PLAN

23+00 24+00 25+00 26+00 27+00

50 40 30 20 10 0 –10

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PROJECT REFERENCE NO.	SHEET NO.
R–2576	43
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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–RPD–

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PROJECT REFERENCE NO.	SHEET NO.
R–2576	44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PI = 10+25.00
EL = 16.82'
VC = 50'
K = 42

PI = 10+75.00
EL = 17.66'
VC = 50'
K = 62

PI = 12+05.00
EL = 18.81'
VC = 200'
K = 86

PI = 16+50.00
EL = 33.06'
VC = 540'
K = 90

PI = 21+95.00
EL = 17.71'
VC = 150'
K = 147

(+)1.6936% (+)0.8814% (+)0.8814% (+)3.2026% (+)3.2026% (–)2.8162% (–)2.8162% (–)1.7986% (+)0.5000%

PROPOSED GRADE

EXISTING GROUND

BEGIN GRADE
–RPD– STA. 10+00.00
EL. 16.69'

0.0%

END GRADE
–RPD– STA. 23+09.74
EL. 15.65'

SEE –RPBD–
STA 10+00 To 12+00 (LT)
FOR DITCH PROFILE

STA 12+47 (LT)
=12+00 (LT) –RPBD–
ELEV=7.4 FT

STA 13+75 (LT)
=25+00 (RT) –YNB–
ELEV=7.4 FT

SEE SHEET 4 FOR –RPD– PLAN

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

50 40 30 20 10 0 –10

–Y1–
WATERLILLY RD

PI = 10+85.00
EL = 9.06'
VC = 100'
K = 44

PI = 12+25.00
EL = 6.31'
VC = 120'
K = 72

℄ –Y1A–

(+)0.3000% (–)1.9696% (–)0.3000%

PROPOSED GRADE

EXISTING GROUND

BEGIN GRADE
–Y1– STA. 10+35.00
EL. 8.9'

END GRADE
–Y1– STA. 13+50.00
EL. 5.93'

11+00 12+00 13+00

–Y1A–

BEGIN DITCH
STA 10+50.00 (LT)
ELEV=9.57 FT

BEGIN GRADE
–Y1A– STA. 10+06.00
EL. 10.51'

10.51'

BEGIN DITCH
STA 10+50.00 (RT)
ELEV=9.50 FT

PROPOSED GRADE

EXISTING GROUND

STA 13+85.00 (LT)
ELEV=8.60 FT

END DITCH
STA 14+00 (RT)
ELEV=8.45 FT

PI = 14+30.00
EL = 12.84'
VC = 150'
K = 133

(+)0.5500% (–)0.5760% (–)0.5760% (+)0.4731% (–)1.2%

(–)0.3%
(–)0.3%

18"

PI = 17+40.00
EL = 11.06'
VC = 150'
K = 143

BEGIN DITCH STA
18+00.00 (LT)
ELEV=8.20 FT

STA 18+50.00 (LT)
ELEV=7.60 FT

MATCHLINE SHEET 45 STA. 18+50

SEE SHEET 23 FOR –Y1– PLAN
SEE SHEETS 22 & 23 FOR –Y1A– PLAN

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00

50 40 30 20 10 0 –10

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kyle.lee

5/28/99

–Y1A–

PIPE HYDRAULIC DATA
18" RCP–V Sta. 19+00 –Y1A–

DRAINAGE AREA	= 0.7	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 1.1	CFS
DESIGN HW ELEVATION	= 7.9	FT
100 YEAR DISCHARGE	= 1.3	CFS
100 YEAR HW ELEVATION	= 8.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 13.2	CFS
OVERTOPPING ELEVATION	= 10.3	FT

PIPE HYDRAULIC DATA
18" RCP–V Sta. 24+88 –Y1A–

DRAINAGE AREA	= 2.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 4.8	CFS
DESIGN HW ELEVATION	= 5.1	FT
100 YEAR DISCHARGE	= 5.8	CFS
100 YEAR HW ELEVATION	= 5.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 12.5	CFS
OVERTOPPING ELEVATION	= 6.9	FT

MATCHLINE SHEET 44 STA. 18+50

STA 18+50.00 (LT)
ELEV=7.60 FT

PI = 19+75.00
EL = 12.17'
VC = 150'
K = 125

(+)0.473%

(–)0.7258%

(+)0.4%

PROPOSED GRADE

EXISTING GROUND

END DITCH
STA 19+00.00
(LT) ELEV=7.40 FT

PI = 25+00.00
EL = 8.36'
VC = 50'
K = 15

(–)0.7258%

(–)4.0000%

END GRADE
–Y1A– STA. 25+27.92
EL. 7.24'

SEE SHEET 23 FOR –Y1A– PLAN
SEE SHEET 23 FOR –Y1B– PLAN

–Y1B–
YOUNG RD

–Y2–
AYDLETT

PIPE HYDRAULIC DATA
18" RCP–IV Sta.10+75 –Y2–

DRAINAGE AREA	= 3.2	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 7.7	CFS
DESIGN HW ELEVATION	= 8.7	FT
100 YEAR DISCHARGE	= 9.3	CFS
100 YEAR HW ELEVATION	= 9.1	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 16.3	CFS
OVERTOPPING ELEVATION	= 11.5	FT

BEGIN GRADE
–Y2– STA. 10+35.00
EL. 11.42'

BEGIN DITCH
STA 10+65 (RT)
ELEV=7.0 FT

BEGIN DITCH
STA 10+85 (LT)
ELEV=6.6 FT

STA 12+00 (RT)
ELEV=9.16 FT

STA 12+00 (LT)
ELEV=8.50 FT

STA 13+50 (RT)
ELEV=10.06 FT

STA 13+50 (LT)
ELEV=10.00 FT

END DITCH
STA 15+50 (RT)
ELEV=10.66 FT

END DITCH
STA 15+50 (LT)
ELEV=10.60 FT

BEGIN DITCH
STA 16+50.00 (RT)
ELEV=11.50 FT

BEGIN DITCH
STA 18+00.00 (LT)
ELEV=11.50 FT

STA 18+50.00 (RT)
ELEV=11.50 FT

STA 18+50.00 (LT)
ELEV=11.50 FT

STA 19+00.00 (RT)
ELEV=11.00 FT

STA 19+00.00 (LT)
ELEV=11.00 FT

PI = 21+00.00
EL = 16.74'
VC = 200'
K = 200

(+)0.5001%

(–)0.5000%

STA 22+00.00 (RT)
ELEV=11.00 FT

STA 22+00.00 (LT)
ELEV=11.00 FT

STA 23+00.00 (RT)
ELEV=10.50 FT

STA 23+00.00 (LT)
ELEV=10.50 FT

STA 24+50 (LT)
ELEV=10.50 FT

(+)1.6%
(+)1.65%
(+)0.6%
(+)1.0%
(+)0.3%
(+)0.3%
0.0%
0.0%
(–)1.0%
(–)1.0%
0.0%
0.0%
(–)1.0%
(–)1.0%
0.0%

EXISTING GROUND

PROPOSED GRADE

SEE SHEETS 19–21 FOR –Y2– PLAN

MATCHLINE SHEET 46 STA. 23+00

19+00 20+00 21+00 22+00 23+00 24+00 25+00 10+00 11+00 12+00 13+00 14+00

50 40 30 20 10 0 –10

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PROJECT REFERENCE NO.	SHEET NO.
R–2576	45
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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kyoder

5/28/99

–Y2–
AYDLETT

PIPE HYDRAULIC DATA
18" RCP–V Sta.26+10 –Y2–

DRAINAGE AREA	= 2.3	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 4.2	CFS
DESIGN HW ELEVATION	= 10.8	FT
100 YEAR DISCHARGE	= 5.1	CFS
100 YEAR HW ELEVATION	= 11.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 18.2	CFS
OVERTOPPING ELEVATION	= 15.0	FT

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PROJECT REFERENCE NO.	SHEET NO.
R–2576	46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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–DRW1–

MATCHLINE SHEET 45 STA. 23+00

STA. 23+00.00 (RT) ELEV=10.50 FT
STA. 24+50.00 (RT) ELEV=10.50 FT
STA. 25+00.00 (RT) ELEV=10.00 FT
STA. 25+50.00 (RT) ELEV=10.00 FT
STA. 26+50.00 (RT) ELEV=9.00 FT
℄ –Y2A–
PI = 27+15.00
EL = 13.67'
VC = 180'
K = 262
(–)0.5000%
(–)1.1875%
PROPOSED GRADE
PI = 29+50.00
EL = 10.88'
VC = 180'
K = 339
STA. 30+00.00 (LT) ELEV=7.30 FT
END GRADE –Y2– STA. 31+75.00 EL. 9.40'
(–)1.1875%
(–)0.9%
(–)0.6561%
(–)0.5%
(–)0.32%
(–)0.64%
EXISTING GROUND
(–)1.0%
0.0%
STA. 23+00.00 (LT) ELEV=10.50 FT
STA. 23+50.00 (LT) ELEV=10.00 FT
STA. 25+50.00 (LT) ELEV=10.00 FT
END DITCH STA. 26+10.00 (LT) ELEV=9.70 FT
BEGIN DITCH STA. 28+50.00 (LT) ELEV=8.65 FT
STA. 30+00.00 (RT) ELEV=6.76 FT
END DITCH STA. 31+75.00 (RT) ELEV=6.20 FT
END DITCH STA. 31+75.00 (LT) ELEV=6.43 FT

BEGIN GRADE –DRW1– STA. 10+25.00 EL. 11.72'
END GRADE –DRW1– STA. 13+42.44 EL. 14.55'
PI = 11+45.00
EL = 12.32'
VC = 70'
K = 42
PI = 12+60.00
EL = 14.81'
VC = 60'
K = 24
PROPOSED GRADE
(+)0.5000%
(+)2.1610%
(–)0.3094%
EXISTING GROUND

SEE SHEET 21 FOR –Y2– PLAN
SEE SHEET 4 FOR –DRW1– PLAN

23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 11+00 12+00 13+00

50 40 30 20 10 0 –10

–Y2A–

PIPE HYDRAULIC DATA
18" RCP–V Sta.11+04 –Y2A–

DRAINAGE AREA	= 0.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 0.6	CFS
DESIGN HW ELEVATION	= 10.3	FT
100 YEAR DISCHARGE	= 0.8	CFS
100 YEAR HW ELEVATION	= 10.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 2.3	CFS
OVERTOPPING ELEVATION	= 10.7	FT

PIPE HYDRAULIC DATA
24" RCP–V Sta.17+00 –Y2A–

DRAINAGE AREA	= 5.7	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 10.5	CFS
DESIGN HW ELEVATION	= 9.6	FT
100 YEAR DISCHARGE	= 14.1	CFS
100 YEAR HW ELEVATION	= 9.9	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 32.0	CFS
OVERTOPPING ELEVATION	= 12.6	FT

PIPE HYDRAULIC DATA
24" RCP–V Sta.22+75 –Y2A–

DRAINAGE AREA	= 4.0	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 10.6	CFS
DESIGN HW ELEVATION	= 10.1	FT
100 YEAR DISCHARGE	= 12.8	CFS
100 YEAR HW ELEVATION	= 10.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 23.0	CFS
OVERTOPPING ELEVATION	= 11.6	FT

BEGIN GRADE –Y2A– STA. 10+11.02 EL. 14.74'
℄ –Y2B–
(+)2.0000%
(–)0.5000%
PI = 10+55.00
EL = 15.62'
VC = 50'
K = 20
V = 30mph
18"

BEGIN DITCH STA. 12+00.00 (LT) ELEV=10.00 FT
STA. 12+50.00 (LT) ELEV=10.00 FT
STA. 13+00.00 (LT) ELEV=9.50 FT
STA. 15+00.00 (LT) ELEV=9.50 FT
STA. 15+50.00 (LT) ELEV=9.00 FT
STA. 16+00.00 (LT) ELEV=9.00 FT
PI = 17+00.00
EL = 12.40'
VC = 150'
K = 187
END DITCH STA. 17+50.00 (LT) ELEV=8.10 FT
PROPOSED GRADE
(–)0.5000%
(+)0.3000%
24"
(–)0.56%
EXISTING GROUND
PI = 23+25.00
EL = 14.27'
VC = 150'
K = 241
(+)0.3000%
BEGIN DITCH STA. 22+50.00 (LT) ELEV=8.54 FT
STA. 22+75.00 (LT) ELEV=8.40 FT

BEGIN DITCH STA. 12+00.00 (RT) ELEV=9.50 FT
STA. 13+00.00 (RT) ELEV=9.50 FT
STA. 13+50.00 (RT) ELEV=9.00 FT
STA. 15+00.00 (RT) ELEV=9.00 FT
STA. 15+50.00 (RT) ELEV=8.50 FT
STA. 16+50.00 (RT) ELEV=8.50 FT
STA. 17+00 (RT) ELEV=7.70 FT
STA. 17+00 (LT) ELEV=7.90 FT
END DITCH STA. 18+50 (RT) ELEV=7.70 FT
(–)1.0%
(–)1.1%
(–)1.6%
0.0%

SEE SHEETS 4 & 21 FOR –Y2A– PLAN
MATCHLINE SHEET 47 STA. 23+00

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

50 40 30 20 10 0 –10

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–Y2A–

PIPE HYDRAULIC DATA
18" RCP–III Sta.24+00 –Y2A–

DRAINAGE AREA	= 0.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 1.2	CFS
DESIGN HW ELEVATION	= 10.9	FT
100 YEAR DISCHARGE	= 1.4	CFS
100 YEAR HW ELEVATION	= 10.9	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 10.8	CFS
OVERTOPPING ELEVATION	= 12.0	FT

PIPE HYDRAULIC DATA
18" RCP–III Sta.27+00 –Y2A–

DRAINAGE AREA	= 1.3	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 4.4	CFS
DESIGN HW ELEVATION	= 10.5	FT
100 YEAR DISCHARGE	= 5.2	CFS
100 YEAR HW ELEVATION	= 10.6	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 10.0	CFS
OVERTOPPING ELEVATION	= 11.5	FT

MATCHLINE SHEET 46 STA. 23+00

PI = 23+25.00
EL = 14.27'
VC = 150'
K = 241

℄ –DRWI–

(–)0.3234%

(+)0.83%

18"

0.0%

(–)0.3234%

(+)1.2535%

(–)0.3%

PROPOSED GRADE

END GRADE
–Y2A– STA. 29+37.64
EL. 18.17'

EXISTING GROUND

PI = 25+65.00
EL = 13.50'
VC = 150'
K = 95

END DITCH
STA 23+50.00 (LT)
ELEV=9.02 FT

BEGIN DITCH
STA 24+00.00 (LT)
ELEV=9.80 FT

END DITCH
STA 25+00.00 (LT)
ELEV=9.80 FT

BEGIN DITCH
STA 25+00 (LT)
ELEV=9.90 FT

END DITCH
STA 27+00.00 (LT)
ELEV=9.30 FT

–Y3–
NARROW SHORE RD

℄ –L–

–L– POT
Sta. 187+30.91
–L3– POT
Sta. 13+81.47

EXISTING GROUND

SEE SHEET 4 FOR –Y2A– PLAN
SEE SHEET 12 FOR –Y3– PLAN

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R–2576	47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–Y2B–

BEGIN GRADE
–Y2B– STA. 11+00.00
EL. 11.16'

PROPOSED GRADE

PI = 13+65.00
EL = 13.35'
VC = 150'
K = 133

(+)0.8269%

(–)0.3000%

(+)0.7%

(+)0.7%

EXISTING GROUND

PI = 15+15.00
EL = 12.90'
VC = 150'
K = 75

END GRADE
–Y2B– STA. 16+56.18
EL. 15.30'

(+)1.6977%

(–)0.3000%

(–)0.40%

(–)0.40%

(+)0.37%

END DITCH
STA 11+50.00 (LT)
ELEV=8.46 FT

BEGIN DITCH
STA –Y2B– 10+00.00 (LT)
ELEV=7.29 FT

TIE DITCH
STA –Y– 35+03.60 (RT)
ELEV=6.98 FT

BEGIN DITCH
STA 12+00.00 (RT)
ELEV=9.30 FT

BEGIN DITCH
STA 12+00.00 (LT)
ELEV=9.30 FT

STA 14+00.00 (RT)
ELEV=10.70 FT

STA 14+00.00 (LT)
ELEV=10.70 FT

END DITCH
STA 16+00 (LT)
ELEV=9.90 FT

END DITCH
STA 16+44.00 (RT)
ELEV=9.70 FT

–Y3B–

BEGIN GRADE
–Y3B– STA. 10+10.00
EL. 19.81'

PI = 10+65.00
EL = 19.65'
VC = 70'
K = 47

PROPOSED GRADE

(–)0.3000%

(–)1.8045%

(+)1.0000%

EXISTING GROUND

END GRADE
–Y3B– STA. 12+81.74
EL. 15.74'

SEE SHEETS 20 & 21 FOR –Y2B– PLAN
SEE SHEET 11 FOR –Y3B– PLAN

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	48
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y4-
NC 12

BMI4
ELEVATION = 9.67'
N 959410
E 2936330
BY2B STATION 5+03.00 49' RIGHT
R/R SPIKE IN 18 IN OAK

BEGIN GRADE
-Y4- STA. 20+00.00
EL. 13.98

PI = 21+50.00
EL = 16.54'
VC = 200'
K = 182

PI = 24+50.00
EL = 18.35'
VC = 250'
K = 113

PI = 27+10.00
EL = 14.16'
VC = 120'
K = 92

℄ -Y4A-
SOUTH HARBOR VIEW

PI = 28+85.00
EL = 13.64'
VC = 120'
K = 122

PI = 32+15.00
EL = 9.39'
VC = 120'
K = 72

13.98

(+)1.7056%
(+)0.6050%
(+)0.6050%
(-)1.6114%
(-)1.6114%
(-)0.3000%
(-)0.3000%
(-)1.2863%
(-)1.2863%
(+)0.
(+)0.475%
(-)3.98%

PROPOSED GRADE
EXISTING GROUND

0.0%
0.0%
0.0%
0.0%
0.03%

BEGIN DITCH
STA 20+50.00 (RT)
ELEV=12.10 FT

STA 21+00.00 (RT)
ELEV=12.10 FT

BEGIN DITCH
STA 21+00.00 (LT)
ELEV=12.30 FT

END DITCH
STA 22+50.00 (RT)
ELEV=13.00 FT

BEGIN DITCH
STA 24+70.00 (RT)
ELEV=15.24 FT

END DITCH
STA 25+50.00 (RT)
ELEV=15.62 FT

END DITCH
STA 26+00.00 (LT)
ELEV=12.30 FT

BEGIN DITCH
STA 30+50 (RT)
ELEV=8.21 FT

STA 31+00 (RT)
ELEV=6.22 FT

END DITCH
STA 32+50.00 (RT)
ELEV=6.26 FT

SEE SHEETS 25 & 26 FOR -Y4- PLAN

MATCHLINE THIS SHEET STA. 32+50

50 40 30 20 10 0 -10

20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

-Y4-
NC 12

MATCHLINE THIS SHEET STA. 32+50

PI = 32+15.00
EL = 9.39'
VC = 120'
K = 72

℄ -Y4B-
OCEAN FOREST CT

PI = 36+25.00
EL = 10.95'
VC = 120'
K = 177

PI = 38+10.00
EL = 10.39'
VC = 120'
K = 139

PI = 41+35.00
EL = 12.21'
VC = 120'
K = 204

℄ -Y4C-

PI = 43+25.00
EL = 14.40'
VC = 120'
K = 185

END GRADE
-Y4- STA. 44+86.83
EL. 15.21'

(+)0.3785%
(+)0.3785%
(-)0.3000%
(-)0.3000%
(+)1.20%
(+)0.5612%
(+)0.5612%
(+)0.30%
(+)1.1501%
(+)1.1501%
(+)1.30%
(+)0.5000%

PROPOSED GRADE
EXISTING GROUND

0.0%
0.0%

END DITCH
STA 37+50 (RT)
ELEV=7.96 FT

BEGIN DITCH
STA 37+00 (RT)
ELEV=8.56 FT

BEGIN DITCH
STA 39+50 (RT)
ELEV=10.45 FT

BEGIN DITCH
STA 36+00.00 (LT)
ELEV=6.50 FT

STA 37+45.00 (LT)
ELEV=6.50 FT
ELEV=6.00 FT

STA 38+00.00 (LT)
ELEV=6.00 FT
ELEV=6.50 FT

END DITCH
STA 39+50.00 (LT)
ELEV=6.50 FT

STA 41+50 (RT)
ELEV=11.05 FT

END DITCH
STA 42+50.00 (RT)
ELEV=12.35 FT

SEE SHEETS 18 & 26 FOR -Y4- PLAN

50 40 30 20 10 0 -10

33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00

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–Y4A–
SOUTH HARBOR VIEW

–Y4B–
OCEAN FOREST CT

–Y4C–

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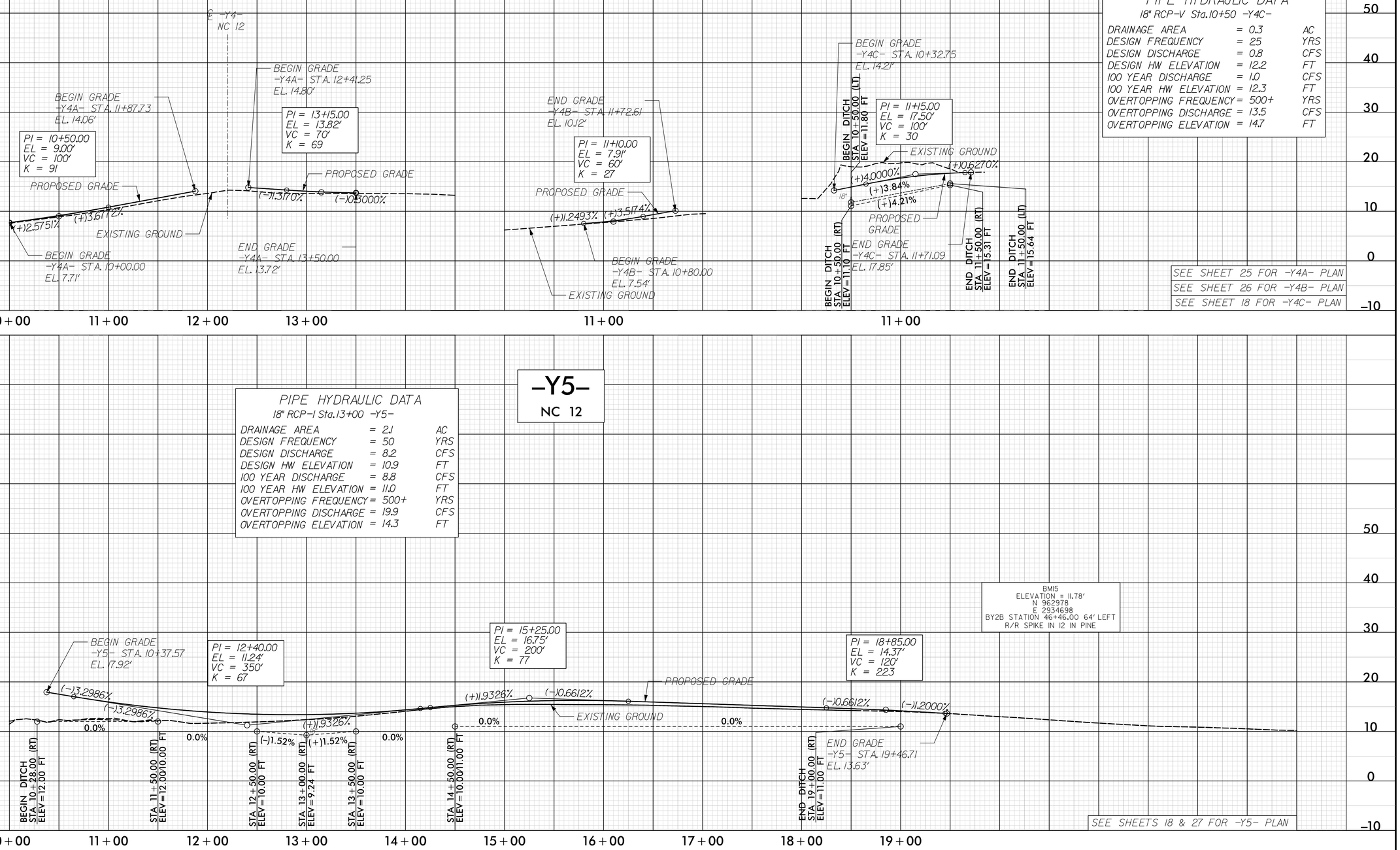
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R–2576	49
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PIPE HYDRAULIC DATA
18" RCP–V Sta.10+50 –Y4C–

DRAINAGE AREA	= 0.3	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 0.8	CFS
DESIGN HW ELEVATION	= 12.2	FT
100 YEAR DISCHARGE	= 1.0	CFS
100 YEAR HW ELEVATION	= 12.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 13.5	CFS
OVERTOPPING ELEVATION	= 14.7	FT



SEE SHEET 25 FOR –Y4A– PLAN
SEE SHEET 26 FOR –Y4B– PLAN
SEE SHEET 18 FOR –Y4C– PLAN

–Y5–
NC 12

PIPE HYDRAULIC DATA
18" RCP–I Sta.13+00 –Y5–

DRAINAGE AREA	= 2.1	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 8.2	CFS
DESIGN HW ELEVATION	= 10.9	FT
100 YEAR DISCHARGE	= 8.8	CFS
100 YEAR HW ELEVATION	= 11.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 19.9	CFS
OVERTOPPING ELEVATION	= 14.3	FT

SEE SHEETS 18 & 27 FOR –Y5– PLAN

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–Y5R–
ROUNDABOUT

–Y5A–
NORTH HARBOR VIEW

–Y6–
ALBACORE ST

–Y7–
US 158

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PROJECT REFERENCE NO.	SHEET NO.
R–2576	50
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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BEGIN GRADE
–Y5R– STA. 10+00.00
EL. 16.58'

℄ –Y4–
NC 12

PI = 10+80.00
EL = 14.98'
VC = 120'
K = 30

(–)2.0000%

(+).9984%

PROPOSED GRADE

PI = 13+00.00
EL = 19.38'
VC = 120'
K = 30

℄ –Y5–
NC 12

(+).9984%

(–)2.0000%

0.0%

0.0%

EXISTING GROUND

BEGIN DITCH
STA. 11+60.00 (RT)
ELEV=13.00 FT

STA. 12+70.00 (RT)
ELEV=13.00
12.00 FT

END DITCH
STA. 13+10.00 (RT)
ELEV=12.00 FT

END GRADE
–Y5R– STA. 14+39.82
EL. 16.58'

EXISTING GROUND

BEGIN 1.5" OVERLAY
Y6 STA. 10+15.06
EL. 9.61'

EXISTING GROUND

END 1.5" OVERLAY
–Y6– STA. 13+85.00
EL. 10.78'

SEE SHEET 18 FOR –Y5A– PLAN
SEE SHEET 18 FOR –Y5R– PLAN
SEE SHEET 28 FOR –Y6– PLAN

BEGIN 3" MILL AND REPLACE
–Y7– STA. 10+00

24"

EXISTING GROUND

BEGIN DITCH
STA. 51+30.00 (LT)
ELEV=3.34 FT

(–)0.3%

MATCHLINE SHEET 51 STA. 52+00

SEE SHEET 29 FOR –Y7– PLAN

PIPE HYDRAULIC DATA
Proposed 24" RCP Sta. 44+25 –Y7–

DRAINAGE AREA	= 5.6	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 11	CFS
DESIGN HW ELEVATION	= 3.72	FT
100 YEAR DISCHARGE	= 12	CFS
100 YEAR HW ELEVATION	= 3.81	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 22	CFS
OVERTOPPING ELEVATION	= 5.20	FT

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–Y7–

US 158

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
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PROJECT REFERENCE NO.	SHEET NO.
R–2576	51
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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BMI2
ELEVATION = 17.09
N 870778
E 2968105
BL STATION 63+44.00 15 LEFT
PK NAIL POWER POLE

50
40
30
20
10
0
–10

52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00

MATCHLINE SHEET 50 STA. 52+00

END DITCH
STA. 52+30.00 (LT)
ELEV = 3.04 FT

(–)0.3%

BEGIN DITCH
STA. 58+27.00 (LT)
ELEV = 3.83 FT

(+)0.3%

END DITCH
STA. 59+50.00 (LT)
ELEV = 4.20 FT

END 3" MILL AND REPLACE
–Y7– STA. 62+21.80

EXISTING GROUND

SEE SHEET 30 FOR –Y7– PLAN

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CJAKE17

R-2576 Mid-Currituck Bridge

Wetland Utility Impacts Permit Drawings

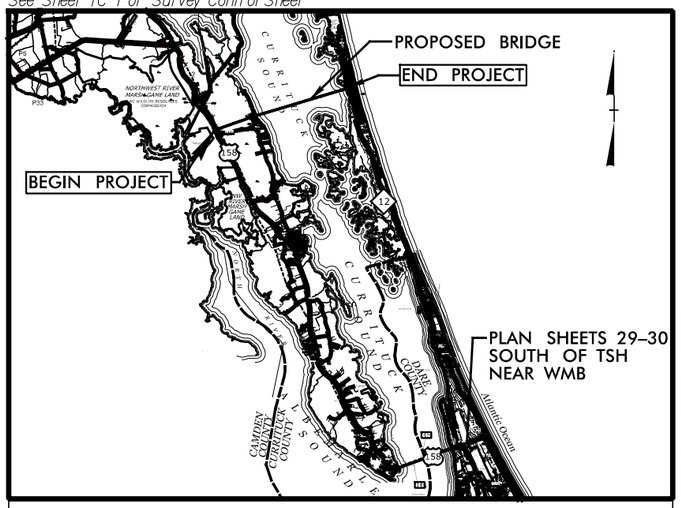
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TIP PROJECT: R-2576

CONTRACT:

2/5/2024
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ACHIODO

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols
See Sheet 1C For Survey Control Sheet



VICINITY MAP

75% PLANS

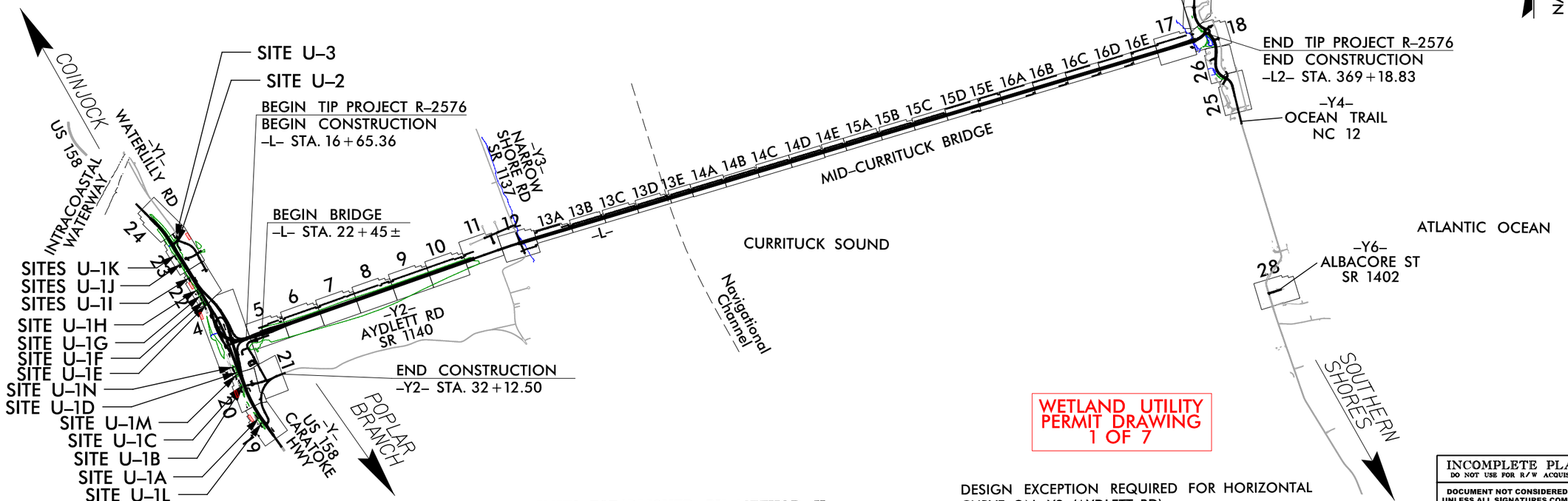
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CURRITUCK & DARE COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R–2576	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
34470.1.TA1	BRSTP–000(494)	P.E.	

LOCATION: MID–CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK TO NC 12 SOUTH OF COROLLA

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

WETLAND UTILITY PERMIT DRAWING 1 OF 7

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE ON Y2 (AYDLETT RD)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2020 = 11,800
ADT 2040 = 18,000
K = 9 %
D = 60 %
T = 7 % *
V = 60 MPH
* (TTST=2)+(DUAL=1) +(RV=4)
FUNC CLASS = ARTERIAL STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R–2576	*=0.524 Miles*
LENGTH STRUCTURES	*=6.153 Miles*
TOTAL LENGTH TIP PROJECT R–2576	*=6.677 Miles*

PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared In the Office of:

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2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FY 2026

LETTING DATE: FY 2026

BRIAN K. EASON, PE
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE
PROJECT DESIGN ENGINEER

DENNIS JERNIGAN, PE
NCDOT /NCTA

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

REVISIONS

LOCHNER
H. W. LOCHNER, INC.
TRAIL RIDGE, PAGE, SUITE 202
RALEIGH, NC 27612
(919) 571-2111

NC License Number P-0533

KITTELSON & ASSOCIATES, INC.
1223 Jones Franklin Rd.
Raleigh, N.C., 27606
License No. P-0377
Bus: 919 851 8077
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TRANSPORTATION PLANNING • OPERATIONS • ITS • ROADWAY DESIGN • TRAFFIC DESIGN
BICYCLE & PEDESTRIAN • TOLL DESIGN • CONSTRUCTION ENGINEERING & INSPECTION

PROJECT REFERENCE NO. R-2576 | SHEET NO. 4
R/W SHEET NO.
ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

WETLAND UTILITY PERMIT DRAWING
2 OF 7

PAVED SHOULDER

DENOTES TEMPORARY FILL IN WETLAND

NAD 83

50′ 0′ 100′

-Y-

Pls Sta	54+10.80	Pl Sta	57+47.38	Pls Sta	60+83.40
Θs =	1° 34' 33.3"	Δ =	7° 35' 10.4" (LT)	Θs =	1° 34' 32.3"
Ls =	220.00'	D =	1° 25' 56.0"	Ls =	220.00'
LT =	146.67'	L =	526.13'	LT =	146.67'
ST =	73.34'	T =	263.44'	ST =	73.34'
		R =	4,000.00'		

-RPA-

Pls Sta	11+34.02	Pl Sta	13+46.26	Pls Sta	15+46.51
Θs =	17° 54' 11.8"	Δ =	49° 05' 53.9" (RT)	Θs =	17° 54' 11.8"
Ls =	200.00'	D =	11° 54' 17.8"	Ls =	200.00'
LT =	134.05'	L =	411.72'	LT =	134.05'
ST =	69.29'	T =	216.82'	ST =	69.29'
		R =	480.00'		
		SE =	0.08		

-LPB-

Pls Sta	11+36.13	Pl Sta	19+27.01	Pls Sta	24+29.71
Θs =	7° 41' 22.9"	Δ =	87° 09' 31.7" (RT)	Θs =	3° 43' 28.9"
Ls =	204.00'	D =	7° 32' 20.1"	Θs =	19° 08' 35.8"
LT =	136.13'	L =	1,205.00'	Ls =	100.00'
ST =	68.12'	T =	723.10'	LT =	61.81'
		R =	760.00'	ST =	39.42'
		SE =	0.26		

-Y_NB-

Pls Sta	37+15.49	Pls Sta	43+82.33
Δ =	23° 16' 43.4" (LT)	Θs =	1° 51' 53.2"
D =	2° 01' 19.4"	Ls =	210.00'
L =	1,096.98'	LT =	180.02'
T =	556.61'	ST =	90.02'
R =	2,700.00'		
SE =	0.05		

-RPC-

Pls Sta	17+29.53	Pls Sta	18+07.55
Θs =	1° 25' 56.0"	Ls =	200.00'
LT =	133.34'	LT =	133.34'
ST =	66.68'	ST =	66.68'

-LPC-

Pls Sta	22+13.13	Pls Sta	26+56.78
Δ =	9° 48' 09.3" (LT)	Θs =	1° 25' 56.0"
D =	1° 25' 56.0"	Θs =	2° 06' 12.4"
L =	673.27'	Ls =	200.00'
T =	336.98'	LT =	266.50'
R =	4,000.00'	ST =	133.17'
SE =	0.03		

-Y2A-

Pls Sta	20+66.40
Δ =	4° 16' 35.4" (LT)
D =	1° 54' 35.5"
L =	223.77'
T =	111.90'
R =	3,000.00'
SE =	0.06
Ro =	1.44°

-Y_SB-

Pls Sta	11+33.35	Pl Sta	13+88.76
Θs =	2° 28' 17.2"	Δ =	17° 11' 04.7" (LT)
Ls =	200.00'	D =	2° 28' 17.2"
LT =	133.35'	L =	376.71'
ST =	66.68'	T =	189.76'
		R =	2,350.00'
		SE =	0.05

-RPD-

Pls Sta	11+33.91	Pls Sta	13+46.11
Θs =	16° 22' 12.8"	D =	16° 22' 12.8"
Ls =	200.00'	L =	301.98'
LT =	133.34'	T =	151.91'
ST =	67.19'	R =	350.00'
		SE =	0.08

-DRM-

Pls Sta	11+42.85
Δ =	89° 49' 04.2" (RT)
D =	71° 37' 11.0"
L =	125.24'
T =	79.75'
R =	80.00'

-Y_NB-

Pls Sta	43+82.33
Θs =	1° 51' 53.2"
Ls =	210.00'
LT =	180.02'
ST =	90.02'

-RPD-

Pls Sta	15+46.11
D =	16° 22' 12.8"
Ls =	200.00'
LT =	133.34'
ST =	67.19'

-Y_SB-

Pls Sta	19+10.06	Pls Sta	22+68.13
Θs =	2° 28' 17.2"	Θs =	2° 28' 17.2"
Ls =	200.00'	Ls =	200.00'
LT =	133.35'	LT =	133.35'
ST =	66.68'	ST =	66.68'

-RPD-

Pls Sta	15+69.17
Θs =	16° 22' 12.8"
Ls =	200.00'
LT =	133.34'
ST =	67.19'

-RPBD-

Pls Sta	11+33.45
Θs =	7° 32' 20.1"
Ls =	200.00'
LT =	133.45'
ST =	66.78'

-Y_SB-

Pls Sta	22+68.13	Pl Sta	26+24.46
Θs =	2° 28' 17.2"	Θs =	2° 28' 17.2"
Ls =	200.00'	Ls =	200.00'
LT =	133.35'	LT =	133.35'
ST =	66.68'	ST =	66.68'

-RPBD-

Pls Sta	18+15.08
Δ =	17° 58' 55.4" (RT)
D =	7° 32' 20.1"
L =	1,034.29'
T =	519.52'
R =	760.00'
SE =	0.08

-Y_SB-

Pls Sta	28+98.13	Pl Sta	X+79.79
Θs =	2° 28' 17.2"	Δ =	10° 47' 37.5" (LT)
Ls =	200.00'	D =	2° 28' 17.2"
LT =	133.35'	L =	448.21'
ST =	66.68'	T =	225.24'
		R =	2,350.00'
		SE =	0.05

-RPBD-

Pls Sta	22+75.74
Θs =	7° 13' 29.2"
Θs =	3° 46' 18.2"
Ls =	200.00'
LT =	58.52'
ST =	41.54'

-Y_SB-

Pls Sta	34+67.17
Θs =	2° 28' 17.2"
Ls =	200.00'
LT =	133.35'
ST =	66.68'

SITE U-1D
(TYP. DETAIL A, THIS SHEET)
SITE U-1N
(TYP. DETAIL C, THIS SHEET)

SITE U-1E (TYP. DETAIL B, THIS SHEET)

MATCHLINE SHEET 20
-Y- STA. 40+00

MATCHLINE SHEET 20
-Y_NB- STA. 16+50

MATCHLINE SHEET 22
-Y_SB- STA. 33+50

MATCHLINE SHEET 22
-Y_NB- STA. 44+00

MATCHLINE SHEET 21
-Y2A- STA. 17+00

MATCHLINE SHEET 5
-Y2A- STA. 26+50

MATCHLINE SHEET 5
-L- STA. 18+00

BEGIN PROJECT R-2576
-L- STA. 16+65.36

MILDRED T. QUDLEY DB 845 PG 564 MB 3 PG 10

BARCO AND CAGE, INC DB 549 PG 74

MILDRED T. QUDLEY DB 845 PG 564 PC D PG 295

LYNN A. GAGNON DB 1067 PG 878 PC D SLIDE 172

MILDRED M. MARKERT DB 800 PG 507

RICHARD S. PERKINS, ET UX DB 406 PG 393 PC A SLIDE 255

CURRITUCK COUNTY DB 227 PG 453

RETAINING WALL 1 -Y_NB- STA. 22+40.00

END RETAINING WALL 1 -Y_NB- STA. 24+20.00

RETAINING WALL 2

END RETAINING WALL 2 -Y_NB- STA. 33+20.00

BEGIN BRIDGE -Y_NB- STA. 27+45 +/-

END BRIDGE -Y_NB- STA. 28+77 +/-

RUTH B. CRAN ESTATE FILE 75 E/I DB 98 PG 599

REBECCA L. WALKER DB 282 PG 299

MARCELLA P. WALKER DB 1060 PG 146 PC A PG 255

SUSIE G. SPIVEY DB 1067 PG 726

DAVID A. BALDWIN DB 408 PG 702 PC B PG 52

EDWARD MIDGETT MARKERT DB 482 PG 70

UTILITY RELOCATION CORRIDOR

PROPOSED TOLL MAINTENANCE FACILITY

PROP. 47' WW FENCE

REMOVE BILLBOARD

REMOVE POWER POLE

REMOVE

N 20°49'53.5" W

N 37°08'58.9" W

N 37°08'58.9" W

N 37°08'58.9

6/2/99

-Y-		
PI Sta 21+52.26	PI Sta 27+75.58	PI Sta 33+94.24
Θs = 0° 55' 36.6"	△ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y2-	
PI Sta 11+70.00	PI Sta 25+17.49
△ = 81° 32' 22.8" (LT)	△ = 95° 09' 21.1" (RT)
D = 36° 57' 54.1"	D = 6° 44' 26.4"
L = 220.59'	L = 1,411.67'
T = 133.65'	T = 930.15'
R = 155.00'	R = 850.00' **
SE = 0.06	SE = 0.06
Ro = 144'	Ro = 144'

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

DENOTES TEMPORARY FILL IN WETLAND

NAD 83

WETLAND UTILITY PERMIT DRAWING 3 OF 7

LOCHNER
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WETHERILL ENGINEERING
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License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	19
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

50' 0' 100'

SUZANNE LEA MIDGETT TRUSTEE
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT
IRREVOCABLE TRUST
DB 974 PG 425
14

JERRY W. WRIGHT, ET AL
DB 268 PG 254
15

BEGIN CONSTRUCTION -Y- STA. 13+50.00

REMOVE BILLBOARD

SITE U-1L (TYP. DETAIL C, DRAWING 2)

SITE U-1A (TYP. DETAIL B, DRAWING 2)

REMOVE POWER POLE

PROP. 47" WW FENCE

TOE PROTECTION SEE DETAIL Q

N 35° 24' 08.3" W

15+00

20+00

25+00

N 26° 55' 32.8" W

US 158 "CARATOKE HIGHWAY" 60' BST

REMOVE

ATTENUATOR

15" RCP-IV

18" RCP-IV

24" RCP-IV

TBDI

TB 2GI

INNERDUCT

-BY- PNG GPS R2576-3

-BL- ALIGNMENT

PUE

PUEB

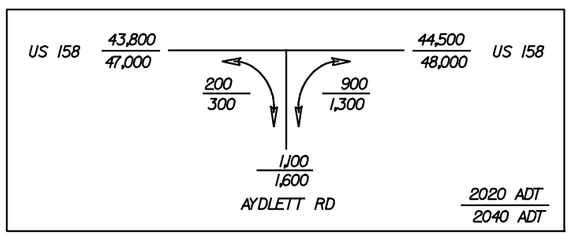
TDE

UTILITY RELOCATION CORRIDOR

MATCHLINE SHEET 20 -Y- STA. 27+00

MATCHLINE SHEET 20 -Y2- STA. 18+50

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 36 FOR -Y- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE



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6/2/99

-Y-		
PI Sta 21+52.26	PI Sta 27+75.58	PI Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y_NB-		-Y2-	-Y2B-
PI Sta 12+34.73	PI Sta 15+24.12	PI Sta 25+17.49	PI Sta 14+46.16
Δ = 5° 17' 39.2" (RT)	Θs = 0° 55' 51.8"	Δ = 95° 09' 21.1" (RT)	Δ = 8° 07' 45.1" (LT)
D = 1° 07' 42.7"	Ls = 165.00'	D = 6° 44' 26.4"	D = 2° 51' 53.2"
L = 469.12'	LT = 110.00'	L = 1,411.67'	L = 283.76'
T = 234.73'	ST = 55.00'	T = 930.15'	T = 142.12'
R = 5,077.00'		R = 850.00' **	R = 2,000.00'
SE = 0.03		SE = 0.06	
		Ro = 144'	

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

DENOTES TEMPORARY FILL IN WETLAND

WETLAND UTILITY PERMIT DRAWING 4 OF 7

NAD 1983

50' 0' 100'

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	20
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

1 MILDRED T. QUIDLEY DB 845 PG 564 MB 3 PG 10

JERRY W. WRIGHT, ET AL DB 268 PG 254

15

REMOVE POWER POLE

SITE U-1B (TYP. DETAIL A, DRAWING 2)

SITE U-1C (TYP. DETAIL A, DRAWING 2)

SITE U-1M (TYP. DETAIL C, DRAWING 2)

REMOVE BILLBOARD

PROP. 47" WW FENCE

US 158 "CARATOKE HIGHWAY" 60' BST

BEGIN SBG +00

35+00

30+00

15+00

N 20° 49' 53.3" W

REMOVE

MATCHLINE SHEET 19 -Y- STA. 27+00

MATCHLINE SHEET 4 -Y- STA. 40+00

MATCHLINE SHEET 4 -Y NB- STA. 16+50

DO NOT DISTURB

UTILITY RELOCATION CORRIDOR

PUE

20+00

MATCHLINE SHEET 19 -Y2- STA. 18+50

MATCHLINE SHEET 21 -Y2- STA. 22+00

MATCHLINE SHEET 21 -Y2B- STA. 13+50

N 77° 49' 45.7" E

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 40 FOR -Y_NB- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE
SEE SHEET 47 FOR -Y2B- PROFILE

2/5/2024
R2576_rdy_psh20_UtilityImpacts.dgn
anthinn

6/2/99

50′ 0′ 100′

LOCHNER

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2840 PLAZA PLACE, SUITE 202
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(919) 571-7111
NC License Number F-0159

PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

WETHERILL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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PAVED SHOULDER

NAD 83

-Y_NB-

PIs Sta 47+22.32	PI Sta 49+89.44	PIs Sta 52+55.98
Θs = 2° 32' 47.3"	Δ = 7° 55' 45.6" (RT)	Θs = 2° 32' 47.3"
Ls = 240.00'	D = 2° 07' 19.4"	Ls = 240.00'
LT = 160.02'	L = 373.66'	LT = 160.02'
ST = 80.02'	T = 187.13'	ST = 80.02'
	R = 2,700.00'	
	SE = 0.05	

DENOTES TEMPORARY FILL IN WETLAND

WETLAND UTILITY PERMIT DRAWING 5 OF 7

SITE U-1F (TYP. DETAIL B, DRAWING 2)

SITE U-1G (TYP. DETAIL B, DRAWING 2)

SITE U-1H (TYP. DETAIL B, DRAWING 2)

SITE U-1I (TYP. DETAIL A, DRAWING 2)

MATCHLINE SHEET 4 -Y_SB- STA. 33+50

MATCHLINE SHEET 4 -Y_NB- STA. 44+00

MATCHLINE SHEET 23 -Y- STA. 80+00

MATCHLINE SHEET 23 -YIA- STA. 13+50

19 MILDRED M. MARKERT DB 800 PG 507

22 ROBERT G. YOUNG DB 159 PG 191 PC K SLIDE 191

24 MACON F. BROCK, ET UX DB 385 PG 433 PC D SLIDE 330

23 EARL A. MASON, ET UX DB 245 PG 476 DB 955 PG 855

REMOVE POWER POLE

PROP 47" WW FENCE

REMOVE

REMOVE BILLBOARD

ATTENUATOR

INNERDUCT

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

35+00 50+00 70+00 75+00 80+00 45+00

N 31° 31' 08.3" W

15" RCP-IV

18" RCP-III

UTILITY RELOCATION CORRIDOR

PUE

+45.00 -Y_NB- 437.00' RT

+24.00 -Y_NB- 462.00' RT

BEGIN CONSTRUCTION -YIA- STA. 10+06.00

+12.24 -YIA- 30.00' LT

S 28°50'48" E 415.80'

N 56°30'07" E 579.23'

SPECIAL LATERAL V DITCH SEE DETAIL B

SEE SHEET 37-38 FOR -Y- PROFILE	SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 39 FOR -Y_SB- PROFILE	SEE SHEET 40-41 FOR -Y_NB- PROFILE
	SEE SHEET 44 FOR -YIA- PROFILE

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-Y1-	-Y1A-	-Y1B-		-Y-	
PI Sta 12+70.31	PI Sta 19+89.68	PI Sta 10+83.72	PI Sta 12+68.51	PIs Sta 91+87.20	PI Sta 95+75.07	PIs Sta 99+61.26
△ = 80° 42' 12.5" (LT)	△ = 40° 22' 05.5" (LT)	△ = 4° 47' 38.4" (LT)	△ = 19° 08' 28.0" (LT)	Θs = 1° 48' 02.6"	△ = 10° 16' 13.8" (LT)	Θs = 1° 48' 02.6"
D = 46° 55' 31.0"	D = 11° 27' 33.0"	D = 2° 51' 53.2"	D = 9° 32' 57.5"	Ls = 220.00'	D = 1° 38' 13.3"	Ls = 220.00'
L = 171.98'	L = 352.28'	L = 167.34'	L = 200.45'	LT = 146.67'	L = 627.39'	LT = 146.67'
T = 103.74'	T = 183.81'	T = 83.72'	T = 101.17'	ST = 73.34'	T = 314.54'	ST = 73.34'
R = 122.10'	R = 500.00'	R = 2,000.00'	R = 600.00'		R = 3,500.00'	
SE = 0.06	SE = 0.05				SE = 0.04	
Ro = 12.4°	Ro = 10.0°					

NAD 83

DENOTES TEMPORARY FILL IN WETLAND

DENOTES HAND CLEARING

ROBERT G. YOUNG
DB 159 PG 191
PC K SLIDE 191
22

MILDRED M. MARKERT
DB 800 PG 507
19

REMOVE POWER POLE

SITE U-1J
(TYP. DETAIL A, DRAWING 2)

REMOVE POWER POLE

SITE U-1K
(TYP. DETAIL A, DRAWING 2)

COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217

-Y- TS Sta. 90+40.53
-Y- POT Sta. 90+63.30=
-Y1- POT Sta. 10+00.00
△ = 90° 00' 00.00"

-Y- SC Sta. 92+60.53

MATCHLINE SHEET 22
-Y- STA. 80+00

MATCHLINE SHEET 24
-Y- STA. 93+50

PROP 47" WW FENCE

N 31°31' 08.3" W

85+00

90+00

15" RCP-IV

2@42"x29" CAAP

ATTENUATOR

REMOVE

RETAIN

US 158 "CARATOKE HIGHWAY" 60' BST

3' BST SHOULDER

INNERDUCT

TOE PROTECTION SEE DETAIL Q

HW

-Y- PC Sta. 11+66.57

INSTALL U/G TEL & CATV AND U/G TEL & FO

SITE U-2
-Y1- POT Sta. 12+46.83=
-Y1A- POT Sta. 25+42.92
△ = 90° 00' 00.00"

N 58° 28' 57.7" E

TDE

+22.00 -Y- 110.00' RT

+22.00 -Y- 134.00' RT

+63.00 -Y- 110.00' RT

+63.00 -Y- 134.00' RT

-Y1B- PC Sta. 10+00.00

BEGIN CONSTRUCTION
-Y1B- STA. 10+20.00

END CONSTRUCTION
-Y1B- STA. 11+15.00

-Y1B- PCC Sta. 11+67.34

24
MACON F. BROCK, ET UX
DB 385 PG 433
PC D SLIDE 330

25
LIBBY GRIGGS HICKMAN
DB 160 PG 15

26
COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217

SITE U-3
ADJUST OVERHEAD POWER

END CONSTRUCTION
-Y1- STA. 13+87.50

UTILITY RELOCATION CORRIDOR

PUE

-Y1A- PT Sta. 21+58.15

N 69° 10' 45.8" W

-Y1- PT Sta. 13+38.55

27
ALICE T. MEYER
DB 884 PG 255
PC ISLIDE 59

28
STAR INVESTMENTS LLC
DB 822 PG 854
PC ISLIDE 60

-Y1B- PT Sta. 13+67.79

DUE

PDE

MATCHLINE SHEET 22
-Y1A- STA. 13+50

15+00

N 28° 48' 38.3" W

20+00

-Y1A- PC Sta. 18+05.87

N 55° 04' 10.2" W

29
MARY L. GRIFFIN
DB 819 PG 275
PC ISLIDE 60

30
GIDEON L. NEEDHAM, ET AL
ESTATE FILE 03/E 143

-Y1- POT Sta. 13+96.70

GIDEON L. NEEDHAM, ET AL
DB 818 PG 314
ESTATE FILE 03/E 143

SR 1142 WATERLILLY RD 24' BST

N 22° 13' 20.7" W

50' 0' 100'

WETLAND UTILITY PERMIT DRAWING
6 OF 7

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE
SEE SHEET 44 FOR -Y1- PROFILE
SEE SHEET 44-45 FOR -Y1A- PROFILE
SEE SHEET 45 FOR -Y1B- PROFILE

2/5/2024
R2576_rdy_psh23_Utilityimpacts.dgn
dshilton

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	23

ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
U-1A	-Y- 34+72 to 34+82 LT			0.002								
U-1B	-Y- 34+72 to 34+82 LT			0.001								
U-1C	-Y- 35+22 to 35+32 LT			0.001								
U-1D	-Y- 40+13 to 40+23 LT			< 0.001								
U-1E	-Y- 66+37 to 66+47 LT			0.002								
U-1F	-Y- 67+85 to 67+95 LT			0.003								
U-1G	-Y- 70+11 to 70+21 LT			0.003								
U-1H	-Y- 72+43 to 72+53 LT			0.004								
U-1I	-Y- 77+44 to 77+54 LT			< 0.001								
U-1J	-Y- 83+20 to 83+30 LT			0.004								
U-1K	-Y- 86+76 to 86+86 LT			0.006								
U-1L	-Y- 20+49 to 20+81 LT			0.010								
U-1M	-Y- 39+30 to 39+49 LT			0.014								
U-1N	-Y- 42+32 to 42+47 LT			0.012								
2	-Y1- 11+75 to 12+01 RT						0.009					
3	-Y1- 13+03 to 13+53 RT						0.004					
TOTALS*:				0.062			0.013			0	0	0

*Rounded totals are sum of actual impacts

NOTES:
Site 1 includes the entire wetland along the Y line (US 158)
Site 1 assumes the use a 10' wide construction mat in wetlands to access power poles to be removed.
Site 1 assumes a 5' buffer for construction mats around billboards to be removed.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
2/5/2024
Currituck County
R-2576
34470.1.TA1

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

Permittee: NCDOT/NCTA **Action ID:** SAW-1995-2242
Project Name: NCDOT/NCTA R-2576 Mid-Currituck Bridge **County: Currituck/Dare**

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 to the U.S. Army Corps of Engineers (USACE) 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 must verify that the mitigation requirements (credits) shown below are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether or not 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 bank ledger to the Permittee, the USACE Project Manager, and the Wilmington 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:** 03010205, Chowan River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
			1.21			

*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:** 03010205, Chowan River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
			2.42			

Mitigation Site Debited: _____
(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 USACE, 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 USACE 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 USACE 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. 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 the Sponsor must be provided to the USACE within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the USACE 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 USACE 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 USACE, the Sponsor must obtain case-by-case approval from the USACE 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 USACE administrative records for both the permit and the Bank/ILF Instrument.

Comments/Additional Conditions:

This form is not valid unless signed below by the USACE 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 USACE Project Manager at the address below, and 3) the Wilmington District Mitigation Office, Attn: Todd Tugwell, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (email: todd.tugwell@usace.army.mil)***. Questions regarding this form or any of the permit conditions may be directed to the USACE Project Manager below.

USACE Project Manager: Kyle Barnes
USACE Field Office: Washington Regulatory Field Office
US Army Corps of Engineers
2407 West Fifth Street
Washington, NC 27889
Email: kyle.w.barnes@usace.army.mil

Kyle Barnes
USACE Project Manager Signature

October 16, 2025
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.

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at http://regulatory.usacesurvey.com/ to complete the survey online.