



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

December 1, 2023

MEMORANDUM TO: Division Environmental and Construction Units

FROM: *mat* Michael A. Turchy, ECAP Group Leader
Environmental Analysis Unit

SUBJECT: Environmental Permits for the Replacement of Bridge 28 on NC 210 over Long Creek in Pender County, Division 3, **TIP: B-5156.**

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Regional General Permit 50	May 25, 2025
NC Division of Water Resources Section 401 Water Quality Certification	General Certification No. 4135 [RGP50]	May 25, 2025
NC Division of Coastal Management Coastal Area Management Act	CAMA Major Development Permit	NA

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans.

The Environmental Coordination and Permitting Group or the Division Environmental Office must be consulted if any deviation from the permit(s) or accompanying drawings is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:
https://xfer.services.ncdot.gov/pdea/PermIssued/_General_Conditions_and_Certifications/

PROJECT COMMITMENTS

T.I.P. Project No B-5156
Replacement of Bridge No. 28 over Long Creek
On NC 210
Pender County
W.B.S. No. 42331.1.2

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Hydraulics Unit - FEMA Coordination

The Hydraulics Unit will coordinate with the N.C. Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Hydraulics Unit / Division 3 Construction - FEMA - As-Built Construction Plans

This project involves construction on or adjacent to a FEMA-regulated stream. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the project was built as shown on the construction plans.

Environmental Analysis Unit / Hydraulics Unit - CAMA Permit

Two Coastal Area Management Act (CAMA) Areas of Environmental Concern (AECs) were identified in the study area. Long Creek is a designated Public Trust Water and Coastal Shoreline. A CAMA permit from the N.C. Division of Coastal Management (NCDCM) will be required for all impacts to designated AECs within the study area. *A CAMA Major Development Permit was issued for the project on June 30, 2023*

COMMITMENTS FROM PERMITTING

Division 3 Construction

CAMA Major Permit Condition 2): In order to protect fisheries resources in Long Creek, and due to the classification of Long Creek as an Anadromous Fish Spawning Area, no in-water work shall be conducted between February 15 through June 30 of any year without prior approval of the N.C. Division of Coastal Management (DCM), in consultation with the appropriate resource agencies.

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action Id. SAW-2015-00992 County: Pender County U.S.G.S. Quad: Currie

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: Jason Dilday
NC DOT
Address: 1598 Mail Service Center
Raleigh NC, 27699-1598
Telephone Number: *****

Size (acres) 10 Nearest Town Long Creek
Nearest Waterway Long Creek River Basin Cape Fear
USGS HUC 03030007 Coordinates Latitude: 34.439167; Longitude: -78.025716
Location description: Bridge 28 over Long Creek on NC 210 near Long Creek, North Carolina.

Description of projects area and activity: Replace structurally deficient and functionally obsolete bridge on existing location utilizing an on-site detour. This verification authorizes 0.69 acres of permanent fill if wetlands, 0.039 acres of excavation and 0.198 acres of mechanized clearing in wetlands and 31 In ft of temporary stream impacts.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344);
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number and/or Nationwide Permit Number: GP 50 - NCDOT - Bridge, Road Widening and Interchanges
SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted application and attached information dated March 15, 2023 Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

SAW-2015-00992

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Morehead City, NC, at (252) 808-2808.

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Thomas Steffens at (910) 251-4615 or Thomas.A.Steffens@usace.army.mil.**

Corps Regulatory Official:  2023.05.09 08:22:50
-04'00' Date: **May 9, 2023**
Expiration Date of Verification: **May 25, 2025**

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 our Customer Satisfaction Survey, located online at <https://regulatory.ops.usace.army.mil/customer-service-survey/>

Copy furnished:

SPECIAL CONDITIONS

1. CONSTRUCTION PLANS: All work authorized by this permit must be performed in strict compliance with the attached plans dated originally 03-15-2023, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.

2. UNAUTHORIZED DREDGE OR FILL: Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.

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. Tom Steffens Regulatory Field Office prior to any active construction in waters or wetlands.

5. 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 Quality at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

6. 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).

7. Endangered Species: The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (PBO) titled, "NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8", dated November 6, 2020, contains agreed upon conservation measures for the

NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. Your authorization under this Department of the Army permit is conditional upon your compliance with all applicable conservation measures in the PBO, which are incorporated by reference in this permit. Failure to comply with the applicable conservation measures would constitute non-compliance with your Department of the Army permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.

Habitat for Cooley's meadowrue and roughleaved loosestrife exists in the study area. Surveys, most recently updated in July 2022 found no specimens. **Surveys for Cooley's meadowrue and rough-leaved loosestrife will be updated prior to project construction.**

8. The Permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operations associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, flooding, and/or stream bank erosion. The Permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately. Permanent corrective measures may require additional authorization by the U.S. Army Corps of Engineers.

9. 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, drawings and attachments shall be available at the project site during the construction and maintenance of this project.

10. To compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit.

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. SAW-2015-00992

County: Pender County

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Applicant: NC DOT
Jason Dilday
Address: 1598 Mail Service Center

Telephone Number: Raleigh, NC, 27699-1598
**
—

Size (acres) 5 Nearest Town Long Creek
Nearest Waterway Long Creek River Basin Cape Fear
USGS HUC 03030007 Coordinates Latitude: 34.439167855284; Longitude: -78.0257168193998
Location description: Bridge 28 over Long Creek on NC 210 near Long Creek North Carolina.

Indicate Which of the Following Apply:

A. Preliminary Determination

There appear to be waters, including wetlands, on the above described property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.

There appear to be waters, including wetlands, on the above described property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.

- There appear to be waters, including wetlands, on the above described property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the waters, including wetlands, have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the waters, including wetlands, at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the waters of the U.S., including wetlands, on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are waters of the U.S., including wetlands, on the above described property subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

— We recommend you have the waters of the U.S., including wetlands, on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

— The waters of the U.S., including wetlands, on your property have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, unless there is a change in law or our published regulations, may be relied upon for a period not to exceed five years from the date of this notification.

— The waters of the U.S., including wetlands, have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on _____ . Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are no waters of the U.S., to include wetlands, present on the above described property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Morehead City, NC, at (252) 808-2808 to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **Thomas Steffens at (910) 251-4615 or Thomas.A.Steffens@usace.army.mil.**

C. Basis For Determination: N/A. An Approved JD has not been completed.

D Remarks: PJD 12-13-2018

E. Attention USDA Program Participants

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

F. Appeals Information for Approved Jurisdiction Determinations (as indicated in Section B. above)

If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers
South Atlantic Division
Attn: Mr. Philip A. Shannin
Administrative Appeal Review Officer
60 Forsyth Street SW, Floor M9
Atlanta, Georgia 30303-8803

AND
PHILIP.A.SHANNIN@USACE.ARMY.MIL

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by .

It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.

SAW-2015-00992

Monte
Matthews

2023.05.09 08:24:23 -04'00'

Corps Regulatory Official: _____

Date of JD: **May 9, 2023** Expiration Date: **N/A if PJD**

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 our Customer Satisfaction Survey, located online at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Copy Furnished:

Action ID Number: SAW-2015-00992

County: Pender County

Permittee: Jason Dilday
NC DOT

Project Name: NCDOT / B-5156 / Br 28 / NC 210 / Division 3

Date Verification Issued: May 9, 2023

Project Manager: Thomas Steffens

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

**US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
Attn: Thomas Steffens**

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

U.S. ARMY CORPS OF ENGINEERS

Wilmington District

Compensatory Mitigation Responsibility Transfer Form

Permittee: NCDOT
Project Name: B-5156 Bridge 28

Action ID: SAW-2015-00992
County: Pender

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

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

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*: 8-digit HUC and Basin: 03030007, Cape Fear River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
			0.93			

*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: 03030007, Cape Fear River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
			1.86			

Mitigation Site Debited: NCDMS

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

Section to be completed by the Mitigation Sponsor

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

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

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

Conditions for Transfer of Compensatory Mitigation Credit:

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

Comments/Additional Conditions:

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

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

USACE Project Manager: Thomas Steffens
USACE Field Office: Washington Regulatory Field Office
US Army Corps of Engineers
2407 West Fifth Street
Washington, NC 27889
Email: thomas.a.steffens@usace.army.mil



Wilmington District Project Manager Signature

May 8, 2023

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>.



ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

RICHARD E. ROGERS, JR.
Director

March 10, 2023

DWR # 20211530
TIP B-5156
Pender County

Mr. Jamie Lancaster
Environment Analysis Unit Head
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: APPROVAL OF 401 WATER QUALITY CERTIFICATION WITH ADDITIONAL CONDITONS
NCDOT B-5156, Replace Bridge No. 28 over Long Creek on NC 210 in Pender County.
Long Creek [Cape Fear River Basin, 18-74-55, C; Sw]

Dear Mr. Lancaster:

You have our approval for the impacts listed below for the purpose of replacing Bridge No. 28 over Long Creek on NC 210 as described in your application dated received by the Division of Water Resources on February 23, 2023. These impacts are covered by the attached Water Quality General Certification Number 4135 and the conditions listed below. This certification is associated with the use of the Reginal General Permit 201902350 once it is issued to you by the U.S. Army Corps of Engineers. Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations.

The Division has determined that the proposed project will comply with water quality requirements provided that you adhere to the conditions listed in the enclosed certification and to the additional conditions itemized below.

The following proposed impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]



Wetland Impacts in the Cape Fear River Basin

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Impacts (ac)
Site 1	0.692	---	0.038	0.198	0.246	1.174
Site 1 *utilities	---	---	---	---	0.098	0.098
Totals	0.692	---	0.038	0.198	0.344	1.272

Total Wetland Impact for Project: 1.272 acres

(permanent impacts: 0.928 ac)

*utilities included in total impacts *

Open Water Impacts in the Cape Fear River Basin

Site	Permanent Fill in Open Waters (ac)	Temporary Fill in Open Waters (ac)	Total (ac)
Site 1	---	0.007	0.007
Total	---	0.007	0.007

Total Open Water Impacts for Project: 0.007 acres

This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. If total wetland fills for this project (now or in the future) exceed 1/10 acre, or total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).

If you are unable to comply with any of the conditions of the attached Water Quality General Certification or with the additional conditions itemized below, you must notify the DWR Transportation Permitting Branch within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the Wilmington Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200] including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.

Additional Conditions:

1. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
2. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]



3. Compensatory mitigation for impacts to 0.930 acres of wetlands is required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands through the North Carolina Division of Mitigation Services (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. DMS has indicated in a letter dated February 21, 2023 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with DMS's Mitigation Banking Instrument signed July 28, 2010.
4. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization, including all non-commercial borrow and waste sites associated with the project, shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
5. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
6. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
7. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
8. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
9. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
10. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
11. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0200]
 - a. Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual*.



- b. All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
 - c. For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
 - d. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-1, WS-11, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watershed*. [15A NCAC 02H.0506(b)(3) and (c)(3); GC 4135]
12. Sediment and erosion control measures shall not be placed in wetlands or surface waters or within 5 feet of the top of bank without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]
13. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02B .0201]
14. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, then design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands, stream beds, or banks, adjacent to or upstream and downstream of the above structures. All sediment and erosion control devices shall be removed from wetlands and waters and the natural grade restored within two (2) months of the date that the Division of Energy, Mining and Land Resources (DEMLR) or locally delegated program has released the specific area within the project. [15A NCAC 02H.0506(b)(3) and (c)(3)]
15. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
16. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) where possible before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the North Carolina Department of Transportation Stormwater Best Management Practices Toolbox manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
17. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water. [15A NCAC 02H .0506(b)(3)]



18. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first. [15A NCAC 02H.0506(b)(2)]
19. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank, or during the removal of bents from an old bridge. This condition can be waived with prior approval from the NCDWR. [15A NCAC 02H .0506(b)(3)]
20. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
21. Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original streambed elevation and streambank contours are restored and maintained and shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other approved materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)]
22. Any rip-rap used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201]
23. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H .0506(b)(3)]
24. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02H.0506(b)(2)]
25. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
26. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000.
27. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]



28. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
29. The NCDOT will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the permit conditions and any potential issues at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
30. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete the "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
31. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)] .

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

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

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

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

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



This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Hannah Sprinkle at hannah.sprinkle@ncdenr.gov if you have any questions or concerns.

Sincerely,

DocuSigned by:

Amy Chapman

9C9886312DCD474...

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

cc:

Thomas A. Steffens, USACE Washington Regulatory Field Office (via email)
Michael A. Turchy, NC Department of Transportation
Jason Dilday, NC Department of Transportation
Steven Lane, NC Division of Coastal Management
Cathy Brittingham, NC Division of Coastal Management
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
Hannah Sprinkle, NC Division of Water Resources Wilmington Regional Office
File Copy



NCDWR Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

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

Signature: _____ Date: _____

Agent's Certification

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

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

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

Signature _____ Registration No. _____
Date _____



Permit Class
NEW

Permit Number
74-23

STATE OF NORTH CAROLINA
Department of Environmental Quality
and
Coastal Resources Commission

Permit

for

Major Development in an Area of Environmental Concern
pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

Issued to N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1598

Authorizing development in Pender County at Long Creek, Bridge No. 28 on NC 210

as requested in the permittee's application dated 2/20/23, including the
attached workplan drawings (35) as referenced in Condition No. 1 of this permit.

This permit, issued on June 30, 2023, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

TIP No. B-5156, Replacement of Bridge No. 28

- 1) Unless specifically altered herein, all work authorized by this permit shall be carried out in accordance with the following attached workplan drawings:
Wetland and Surface Water Impacts (7 sheets): dated as received 2/23/23.
Utility drawings (6 sheets): dated as received 2/23/23.
Roadway design drawings (22 sheets): 20 dated 8/23/19; 1 dated 8/28/19; and 1 dated 4/19/16.
- 2) In order to protect fisheries resources in Long Creek, and due to the classification of Long Creek as an Anadromous Fish Spawning Area, no in-water work shall be conducted between February 15 through June 30 of any year without prior approval of the N.C. Division of Coastal Management (DCM), in consultation with the appropriate resource agencies.

(See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

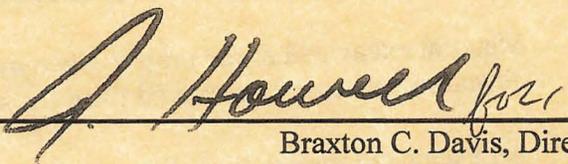
Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

No expiration date, pursuant to GS 136-44.7B

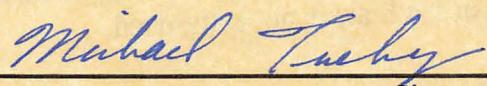
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DEQ and the Chair of the Coastal Resources Commission.



Braxton C. Davis, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

ADDITIONAL CONDITIONS

- 3) In order to satisfy concerns of the resource agencies, the permittee shall implement the N.C. Department of Transportation's (NCDOT's) Stream Crossing Guidelines for Anadromous Fish Passage.
- 4) In accordance with commitments made by the permittee, bridge deck drains shall not be located over the open waters of Long Creek and shall not cause erosion of adjacent wetlands.
- 5) The installation and removal of the piles for the new bridge, existing bridge and temporary work bridge shall be accomplished by pile driving and/or the use of a vibratory hammer. Should the permittee and/or its contractor propose to utilize another type of pile installation, such as jetting or drilled shaft construction, additional authorization from DCM shall be required.
- 6) All construction and demolition access shall be through the use of the existing bridge, temporary work bridge, the partially constructed new bridge, barges, and/or existing high ground areas.
- 7) The existing bridge, including piles and bridge abutments, and the temporary work bridge, as well as any remnant structures from previous bridges, shall be removed in their entirety within 90 days after they are no longer needed, or within 30 days of written notification from DCM, whichever comes first. However, if this timeframe occurs while the moratorium referenced in Condition No. 2 of this permit is in effect, then the existing bridge, including piles, and the temporary work bridge shall be removed in their entirety within 90 days of the moratorium end date. Deviation from this condition shall require additional authorization from DCM, in consultation with appropriate resource agencies.
- 8) In the event that a piling or other component breaks during removal and cannot be removed in its entirety, the piling or other component may be cut off flush with the bed of the water body, and DCM shall be notified of each occurrence within one working day.
- 9) Barges shall be utilized only in areas of sufficient depth such that the barges avoid contact with the bottom and do not rest on the bottom during periods of low tide.
- 10) No excavation or filling shall take place at any time in any vegetated wetlands or surrounding waters outside of the alignment of the areas indicated on the attached workplan drawings, without permit modification.
- 11) All fill material shall be clean and free of any pollutants except in trace quantities.
- 12) Material excavated at the project site may be used in fill areas associated with the project once properly dewatered or shall be removed from the site and taken to a high ground location.
- 13) All excavated materials shall be confined above normal high water and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- 14) The temporary placement and/or double handling of any excavated or fill material within wetlands or waters of the State is not authorized.

ADDITIONAL CONDITIONS

- 15) Construction mats shall be utilized to support equipment within wetland areas to minimize temporary wetland impacts. The mats shall be removed immediately when they are no longer necessary.
- 16) The permittee shall minimize the need to cross wetlands in transporting equipment to the maximum extent practicable.
- 17) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State.
- 18) The placement of riprap and rock plating shall be limited to the areas as depicted on the attached workplan drawings. The riprap material and rock plating shall consist of clean rock or masonry materials, such as but not limited to, granite, marl, or broken concrete without exposed rebar, and it shall be clean and free from loose dirt or any pollutant except in trace quantities. It shall be of a size sufficient to prevent its movement from the approved alignment by wave action. If the riprap and/or rock plating becomes dislodged from the approved alignment at any point in the future, the permittee shall immediately contact DCM to determine the appropriate course of action.
- 19) Uncured concrete or water that has been in contact with uncured concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.
- 20) The demolition plan for removal of the existing bridge structure shall be submitted to DCM for review and approval prior to commencement of the demolition activities.
- 21) All reasonable efforts shall be made to contain all debris and excess materials associated with the authorized activities, with the intent that materials/debris do not enter wetlands or waters of the State, even temporarily. Any waste materials or debris generated in the authorized activities, shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations are obtained from any relevant state, federal, or local authorities.

Impacts to Wetlands and Waters of the State, and Compensatory Mitigation

NOTE: This project will permanently impact approximately 0.93 acres of Riparian 404 Wetlands (0.69 acres due to permanent fill, 0.04 acres due to excavation, and 0.2 acres due to mechanized clearing. This project will temporarily impact approximately 0.35 acres of Riparian 404 Wetlands due to hand clearing (0.25 acres due to bridge construction and 0.10 acres due to utility relocation). This project will temporarily impact approximately 305 square feet of surface waters.

NOTE: In accordance with the N.C. Division of Mitigation Services (DMS) letter dated 2/21/23, compensatory mitigation for permanent impacts of 0.93 acres of riparian wetlands associated with the authorized project shall be provided by the DMS in accordance with the DMS In-Lieu Fee Instrument dated 7/28/10.

ADDITIONAL CONDITIONS

- 22) Wetland areas to be temporarily impacted by hand clearing shall not be grubbed. There shall be no clearing of wetlands outside of the areas indicated for impacts on the attached workplan drawings without prior approval from DCM.
- 23) Any voids in wetlands or shallow bottom habitat caused by the removal of the temporary work bridge shall be restored to the elevation of pre-existing conditions with suitable material. The permittee shall notify DCM's Transportation Field Representative in Morehead City to provide DCM with an opportunity to inspect the material for suitability prior to backfilling.
- 24) In accordance with commitments made by the permittee, the existing roadway embankment shall be excavated to reestablish the floodplain of Long Creek.

NOTE: To the maximum extent practicable, the permittee is strongly encouraged to restore the existing roadway embankment to riparian forested wetlands by excavating down to match the elevations of adjacent, similar undisturbed wetlands, and reducing soil compaction within the area by disking, undercutting and backfilling with suitable organic materials or similar procedures, followed by planting appropriate native riparian forested wetland vegetation.

Utility Impacts

NOTE: Construction of the new bridge will also require relocation of aerial telecommunications utilities. Impacts resulting from these utility relocations have been included in the overall impacts for this project.

- 25) Any utility work associated with this project that is not specifically depicted on the attached workplan drawings, or described within the attached permit application, shall require approval from DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.

NOTE: If the permittee plans to conduct any work (re-location, installation, extend utilities, etc.) involving the public water supply system per Title 15A Subchapter 18C Section .0301 Rules Governing Public Water Systems, plans and specifications should be submitted and approved by the N.C. Division of Water Resources Public Water Supply Section for all new waterlines prior to construction beginning. Please also be aware of separation requirements in regards to water/sewer according to 15A NCAC 18C Section .0906 Rules Governing Public Water Systems. Check with the local water system for cross-connection requirements for this project. Public Water Supply Section guidelines are listed in Appendix B, Figure 2 in the Rules Governing Public Water Systems but the water system may have additional requirements. Contact the N.C. Division of Water Resources, Public Water Supply Plan Review Section at (910) 796-7215 with any questions.

ADDITIONAL CONDITIONS

Sedimentation and Erosion Control

- 26) This project shall conform to all requirements of the N.C. Sedimentation Pollution Control Act and the N.C. Department of Transportation's (NCDOT's) Memorandum of Agreement with the N.C. Division of Energy, Mineral and Land Resources.
- 27) Turbidity curtains shall be used to isolate all in-water work areas from the adjacent waters of Long Creek, including but not limited to pile installation, pile removal, and removal of remnant structures from previous bridges. The turbidity curtains shall not impede navigation, and shall be of sufficient length and effectiveness to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels.
- 28) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.

General

- 29) During construction and/or demolition of the existing bridge and temporary work bridge, the permittee shall make every attempt to allow the same navigation that is currently possible in Long Creek, upstream and downstream of the existing bridge.
- 30) No attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work following completion of construction.
- 31) The permittee shall exercise all available precautions during construction, operation, and maintenance of the bridge and adjacent roadway to prevent waste from entering the adjacent waters and wetlands.
- 32) Development authorized by this permit shall only be conducted on lands owned by NCDOT and/or its right-of-ways and/or easements. Utility Work associated with this project shall only be conducted on lands owned by the utility and/or its right-of-ways and/or easements.
- 33) If it is determined that additional permanent and/or temporary impacts are necessary that are not shown on the attached workplan drawings or described in the authorized permit application, a permit modification and/or additional authorization from DCM may be required. In addition, any changes in the approved plan may also require a permit modification and/or additional authorization from DCM. The permittee shall contact a representative of DCM prior to commencement of any such activity for this determination and any permit modification.
- 34) The permittee and/or its contractor shall contact the DCM Transportation Project Field Representative in Morehead City at (252) 515-5408 to request a preconstruction conference prior to project initiation.

ADDITIONAL CONDITIONS

- 35) The permittee shall install and maintain at its expense any signal lights or signals prescribed by the U.S. Coast Guard, through regulation or otherwise, on the authorized facilities. At a minimum, permanent reflectors shall be attached to the structure in order to make it more visible during hours of darkness or inclement weather.
- 36) The N.C. Division of Water Resources (DWR) authorized the proposed project on 3/10/23 (DWR Project No. 20211530) under General Water Quality Certification No. 4135. Any violation of the Certification issued by DWR shall be considered a violation of this CAMA permit.

NOTE: This project shall be constructed in accordance with the permittee's Stormwater Management Plan dated 12/9/21, and the provisions of the NCDOT's National Pollutant Discharge Elimination (NPDES) Stormwater Permit NCS000250, including the application requirements of the NCG01000.

NOTE: This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required, including but not limited to a U.S. Coast Guard Permit if required.

NOTE: The U.S. Army Corps of Engineers authorized the proposed project under Regional General Permit Number 50 (COE Action ID No. SAW-2015-00992), which was issued on 5/9/23.

NOTE: An application processing fee of \$475 was received by DCM for this project. This fee also satisfied the Section 401 application processing fee requirements of DWR.



North Carolina Department of Transportation
 Highway Stormwater Program
 STORMWATER MANAGEMENT PLAN
 FOR NCDOT PROJECTS



(Version 2.08; Released April 2018)

WBS Element: 42331.1.2 **TIP No.:** B-5156 **County(ies):** Pender **Page** 1 **of** 1

WBS Element:	42331.1.2	TIP Number:	B-5156	Project Type:	Bridge Replacement	Date:	6/14/2022
NCDOT Contact:	Mason Herndon			Contractor / Designer:	Kimley-Horn		
Address:	Highway Division 3			Address:	421 Fayetteville Street		
	5501 Barbados Blvd.				Suite #600		
	Castle Hayne, NC, 28429				Raleigh, NC, 27601		
Phone:	(910) 341-2036			Phone:	(919) 653-6623		
Email:	tmherndon@ncdot.gov			Email:	vance.blanton@kimley-horn.com		
City/Town:	Long Creek			County(ies):	Pender		
River Basin(s):	Cape Fear			CAMA County?	Yes		
Wetlands within Project Limits?	Yes						

Project Description			
Project Length (lin. miles or feet):	0.392 miles	Surrounding Land Use:	Rural/Coastal
Proposed Project		Existing Site	
Project Built-Upon Area (ac.)	1.6 ac.	Number of Spans:	4
Typical Cross Section Description:	2 @ 12' wide lanes w/ 8' paved shoulders and 2:1 side slopes Number of Spans: 4 Span Arrangement: 2@45'-0", 1@65'-0", 1@50'-0" 24" Cored Slab on SR 1120, 45" Girder deck w/ 4'-0" caps and spill though abutments, 90 sew; Bridge Length: 205 FT	Span Arrangement:	42'-8", 42'-5", 42'-9", 41'-9" ; Concrete Girder Deck w/ Vertical Abutment Bridge Length: 170 FT
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 3600 Year: 2040	Existing:	3000 Year: 2020
General Project Narrative: (Description of Minimization of Water Quality Impacts)	<p>The bridge replacement on NC 210 conveys Long Creek from North to South and ultimately drains into the Northeast Cape Fear River. The existing bridge, overall length OAL = 170' and width 32' will be replaced with a bridge having an OAL = 205' and width = 32'. The new bridge is longer than the existing bridge to accommodate the spatial difference between the previous bridge location to the new location. The proposed bridge and roadway improvements minimized the existing overtopping condition and maintain a minimal transition between existing and new roadway.</p> <p>The runoff from the bridge is caught by the low side of the bridge in the shoulder berm gutter and traffic bearing 2GI's on all four sides of the bridge. The 15" pipe systems with elbows are designed to outfall (with rip rap outlet protection) either outside of the existing wetlands or where mechanized clearing has occurred.</p> <p>Long Creek is a FEMA stream that is shown on Flood Insurance Rate Map (FIRM) panel 370344-2295-J, dated 02/16/2007. A hydraulic analysis on Long Creek was performed to assess the potential flood level increases associated with this project. Based on this analysis, the proposed bridge replacement project was not shown to cause an increase, but instead cause a maximum decrease in base flood elevation of 0.3'. This project qualifies for an MOA Type 2a.</p> <p>Additionally, rock plating has been used on slopes of 2:1 to prevent increased impacts to the existing wetlands.</p>		

Waterbody Information			
Surface Water Body (1):	Long Creek	NCDWR Stream Index No.:	18-74-55
NCDWR Surface Water Classification for Water Body	Primary Classification:	Class C	
	Supplemental Classification:	Swamp Waters (SW)	
Other Stream Classification:	Anadromous Fish		
Impairments:	None		
Aquatic T&E Species?	No Comments:		
NRTR Stream ID:		Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No
Deck Drains Discharge Over Water Body?	No	Dissipator Pads Provided in Buffer?	N/A
(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	

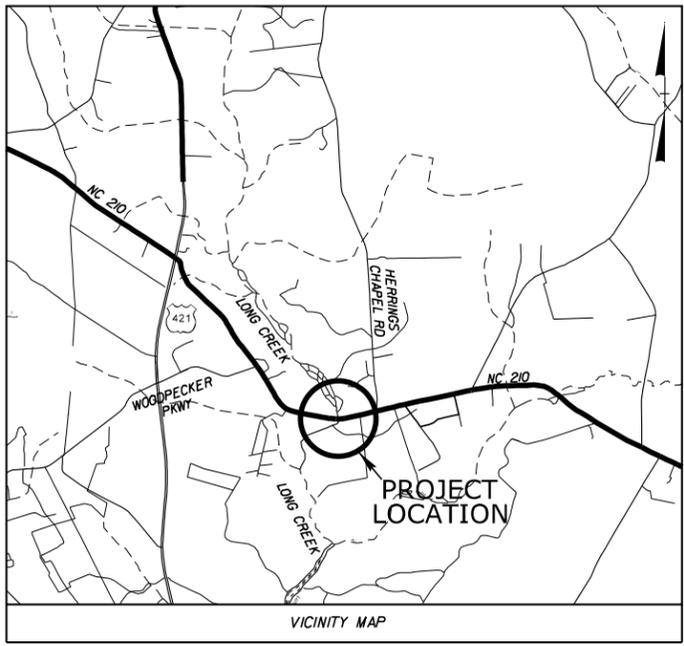
09/28/19

TIP PROJECT: B-5156

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 Submitted 2/20/2023
PENDER COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5156	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42331.1.2		P.E.	
42331.2.1		RIGHT OF WAY UTILITIES	
42331.2.1			

PERMIT DRAWING SHEET 1 OF 8

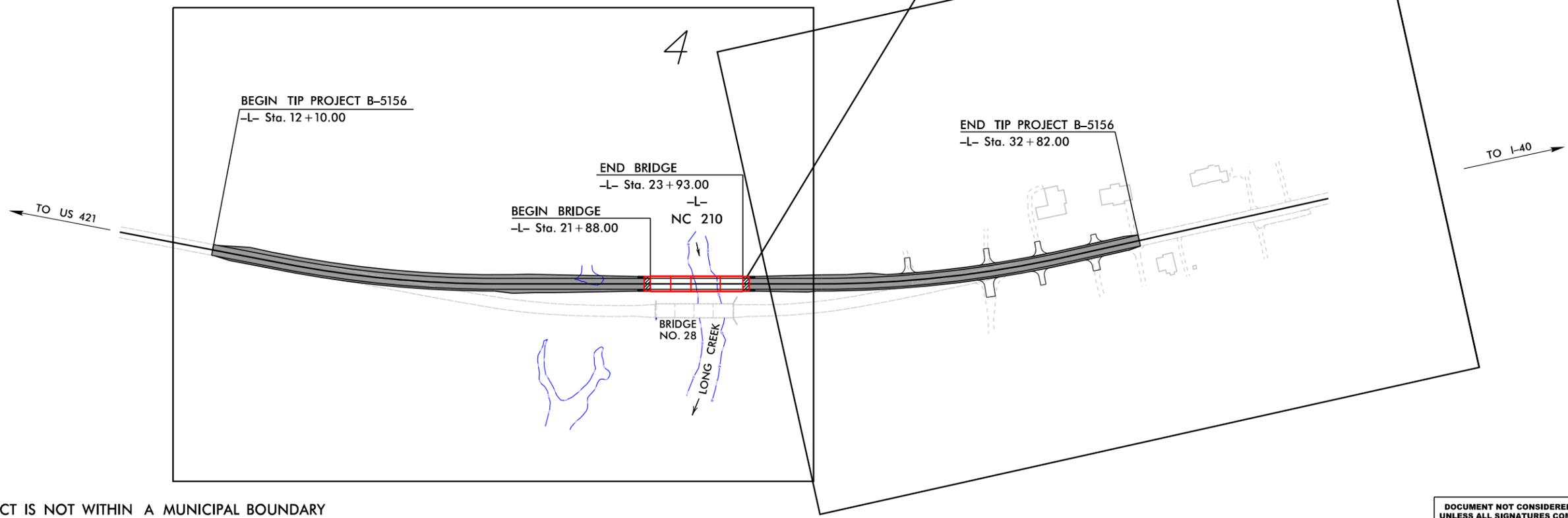


RW PLANS

WETLAND AND SURFACE WATER
 IMPACTS PERMIT
 FEBRUARY 28, 2022

LOCATION: BRIDGE 28 OVER LONG CREEK ON NC 210
 TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

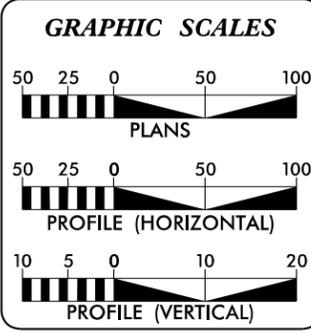
SITE 1



THIS PROJECT IS NOT WITHIN A MUNICIPAL BOUNDARY
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

AADT 2020 =	3,000
AADT 2040 =	3,600
K =	10%
D =	55%
T =	12%*
V =	60 MPH
* (TTST 4% + DUAL 8%)	
FUNCTIONAL CLASSIFICATION:	RURAL MAJOR COLLECTOR
REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5156	=	0.353 MILES
LENGTH STRUCTURES TIP PROJECT B-5156	=	0.039 MILES
LENGTH ROADWAY TIP PROJECT B-5156	=	0.392 MILES

PLANS PREPARED FOR THE NCDOT BY:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 28, 2019

LETTING DATE:
SEPTEMBER 21, 2021

Kimley»Horn

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

SETH DENNEY, P.E.
PROJECT DESIGN ENGINEER

DAVID STUTTS, P.E.
STRUCTURES MANAGEMENT UNIT
PROJECT ENGINEER-
PEE/PROGRAM MANAGEMENT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



\$DATE\$

5/14/99

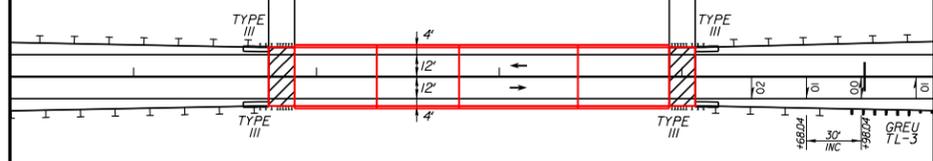


BEGIN APPROACH SLAB
-L- Sta. 21+73.83

END BRIDGE
-L- Sta. 24+25.00

BEGIN BRIDGE
-L- Sta. 21+88.00

END APPROACH SLAB
-L- Sta. 24+07.17



DETAIL SHOWING BRIDGE /PAVEMENT RELATIONSHIP

Submitted 2/20/2023

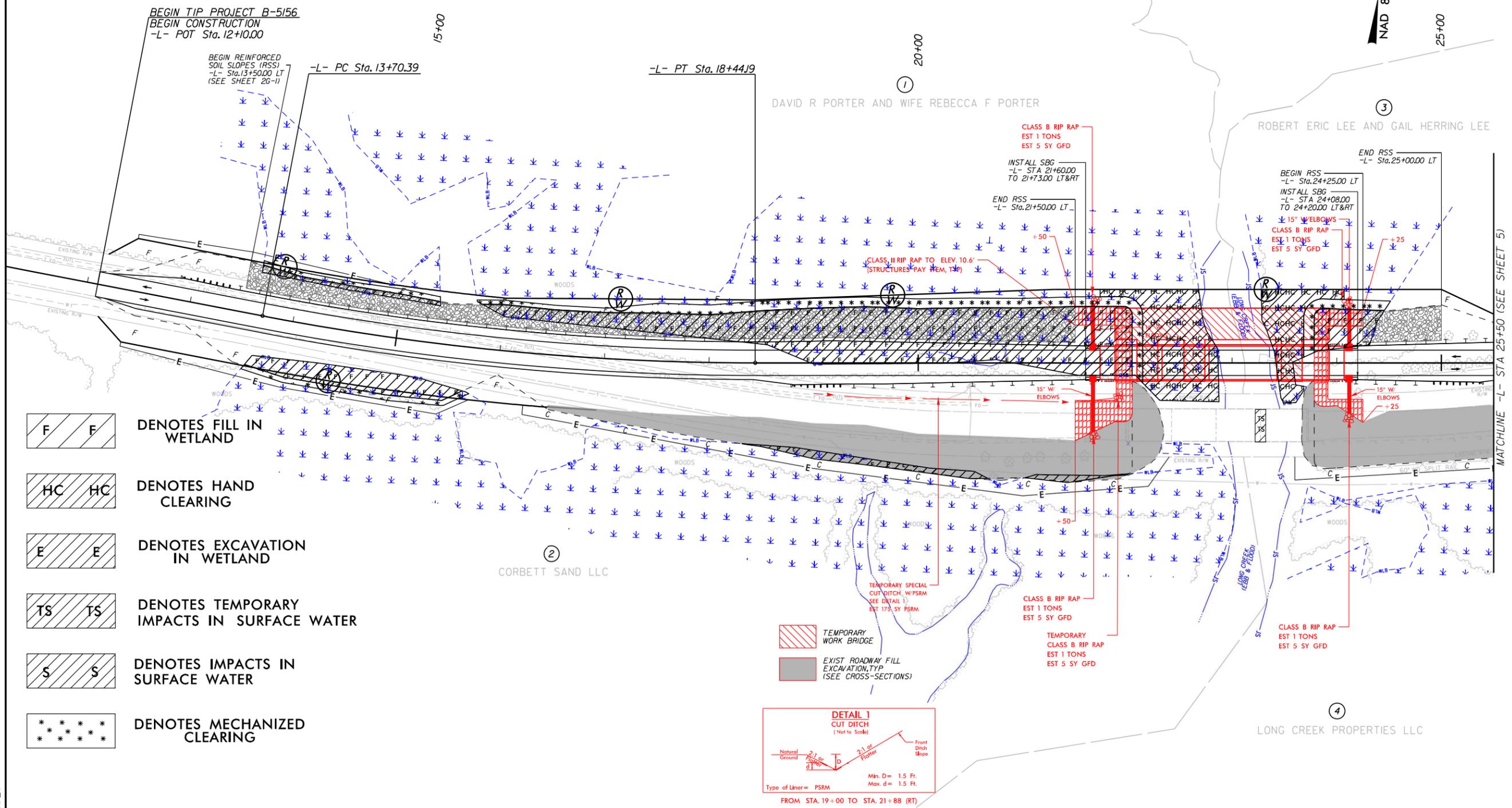
-L-
PI Sta 16+08.01
 $\Delta = 10^\circ 51' 31.3" (LT)$
 $D = 2' 17" 30.6"$
 $L = 473.80'$
 $T = 237.61'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$

Kimley»Horn
P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO. B-5156	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
PERMIT DRAWING
SHEET 2 OF 8

SITE 1



DENOTES FILL IN WETLAND



DENOTES HAND CLEARING



DENOTES EXCAVATION IN WETLAND



DENOTES TEMPORARY IMPACTS IN SURFACE WATER

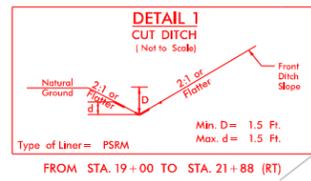


DENOTES IMPACTS IN SURFACE WATER



DENOTES MECHANIZED CLEARING

TEMPORARY WORK BRIDGE
EXIST ROADWAY FILL EXCAVATION, TYP (SEE CROSS-SECTIONS)



MATCHLINE -L- STA 25+50 (SEE SHEET 5)

\$DATE\$

5/14/99

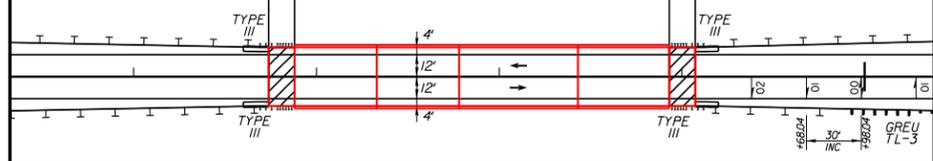


BEGIN APPROACH SLAB
-L- Sta. 21+73.83

END BRIDGE
-L- Sta. 24+25.00

BEGIN BRIDGE
-L- Sta. 21+88.00

END APPROACH SLAB
-L- Sta. 24+07.17



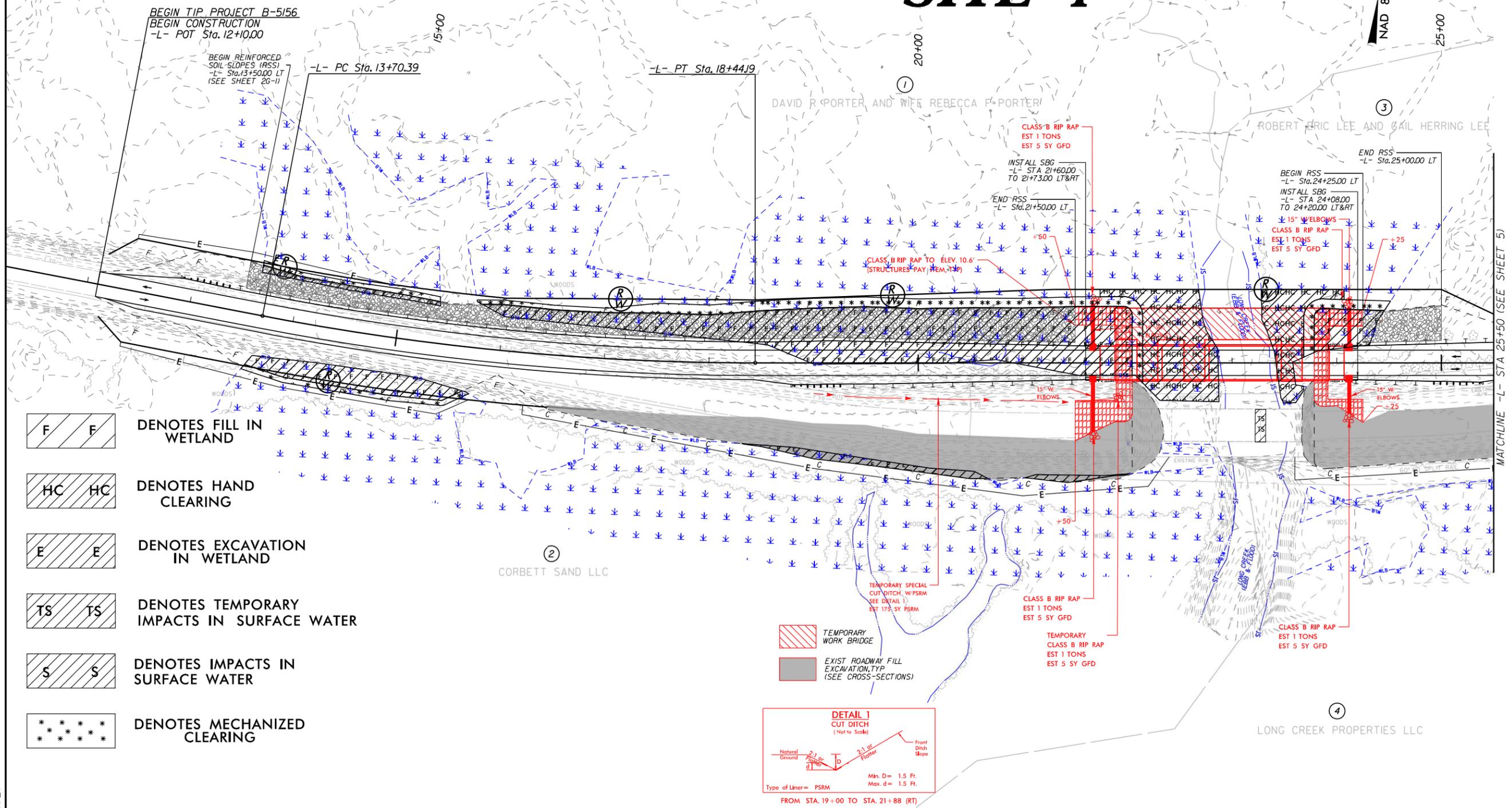
DETAIL SHOWING BRIDGE /PAVEMENT RELATIONSHIP

Submitted 2/20/2023

-L-
PI Sta 16+08.01
 $\Delta = 10^\circ 51' 31.3" (LT)$
 $D = 2' 17' 30.6"$
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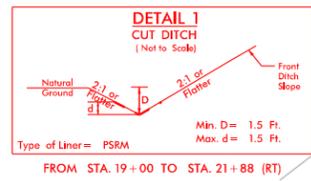
PROJECT REFERENCE NO. B-5156		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
PERMIT DRAWING SHEET 3 OF 8			

SITE 1



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

- TEMPORARY WORK BRIDGE
- EXIST ROADWAY FILL EXCAVATION, TYP (SEE CROSS-SECTIONS)



MATCHLINE -L- STA 25+50 (SEE SHEET 5)

\$DATE\$

5/14/99

PROJECT REFERENCE NO. B-5156	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Submitted 2/20/2023

**BRIDGE HYDRAULIC DATA
BRIDGE 700028**

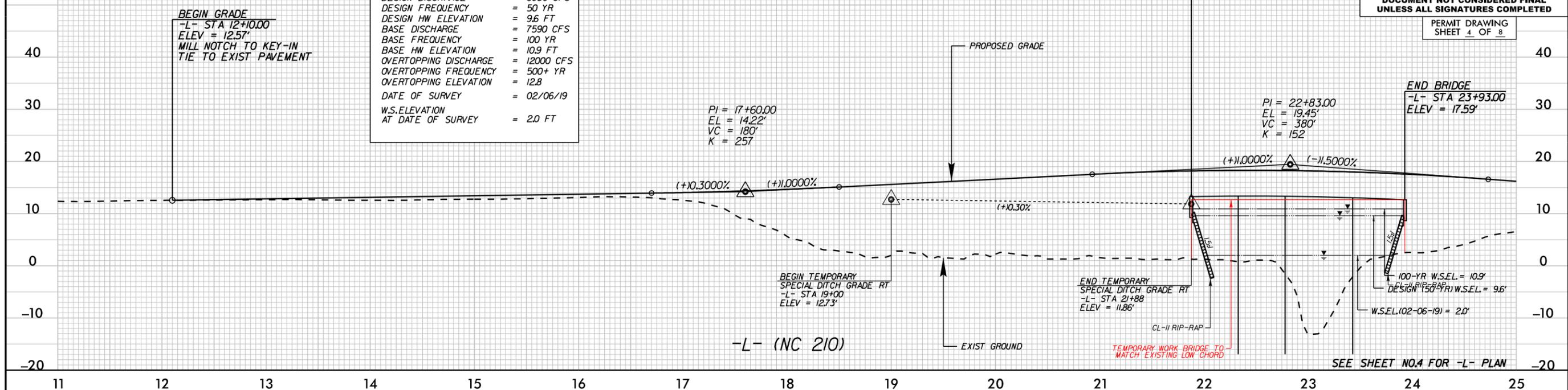
DESIGN DISCHARGE	= 6030 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 9.6 FT
BASE DISCHARGE	= 7590 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 10.9 FT
OVERTOPPING DISCHARGE	= 12000 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 12.8
DATE OF SURVEY	= 02/06/19
W.S.ELEVATION AT DATE OF SURVEY	= 2.0 FT

BM*1
 ELEV = 8.21'
 -L- STATION 24+37.93
 153.89' RIGHT
 N 252204 E 2293845
 TIE SPIKE SET IN 24" PINE

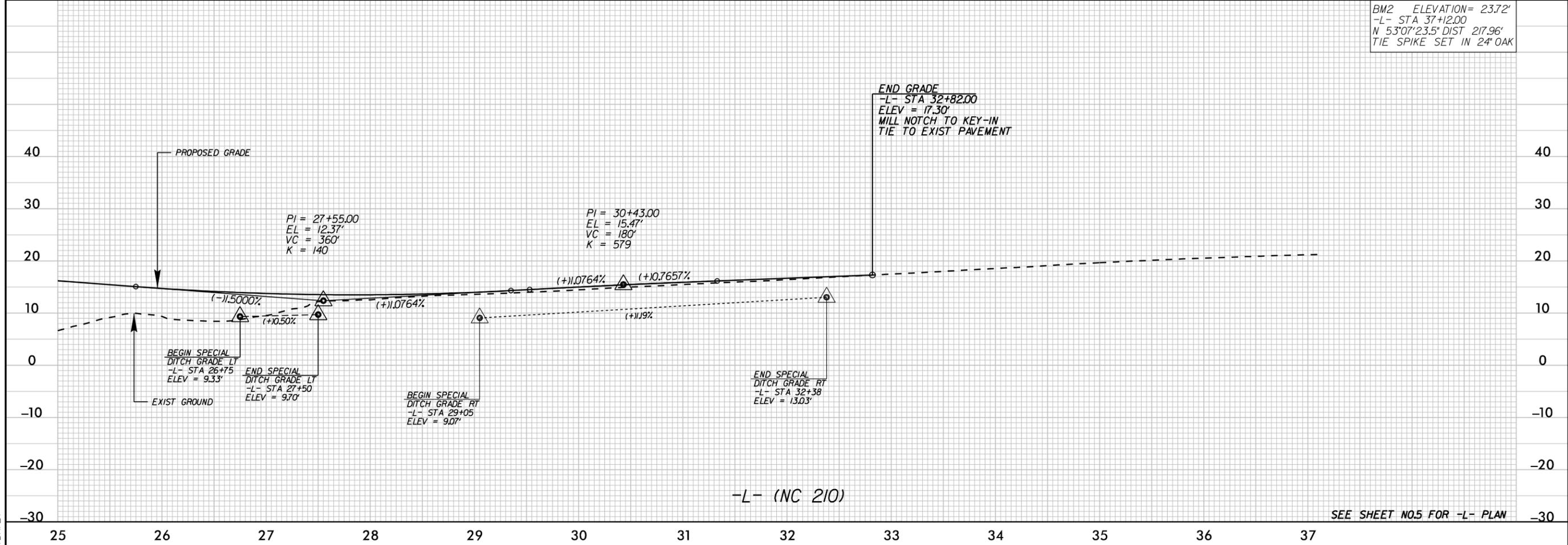
BEGIN BRIDGE
 -L- STA 21+88.00
 ELEV = 18.20'

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
 SHEET 4 OF 8



BM2 ELEVATION = 23.72'
 -L- STA 37+12.00
 N 53°07'23.5" DIST 217.96'
 TIE SPIKE SET IN 24" OAK



\$DATE\$

8/23/99



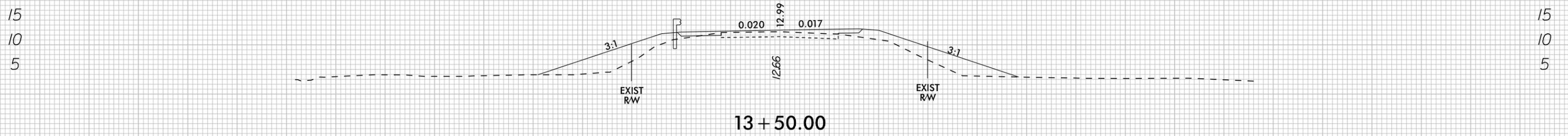
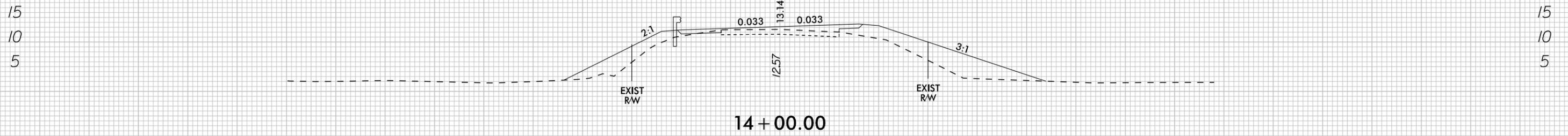
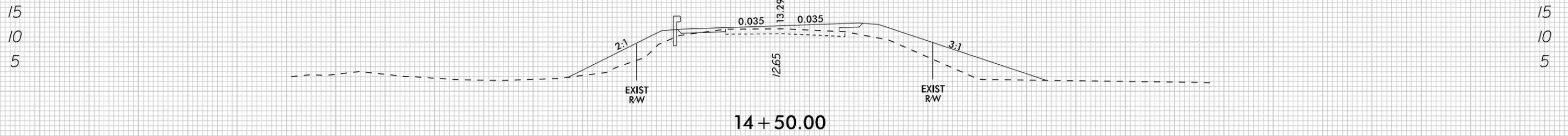
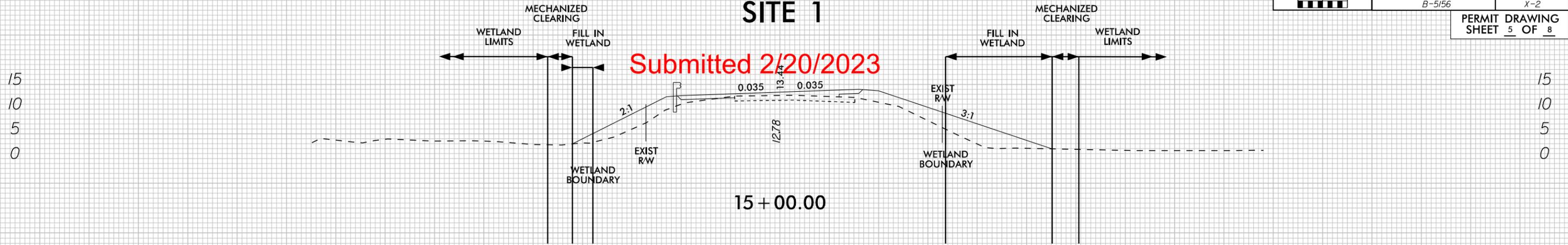
PROJ. REFERENCE NO. B-5/56

SHEET NO. X-2

PERMIT DRAWING SHEET 5 OF 8

SITE 1

Submitted 2/20/2023



DATE\$

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8/23/99



PROJ. REFERENCE NO.
B-5/56

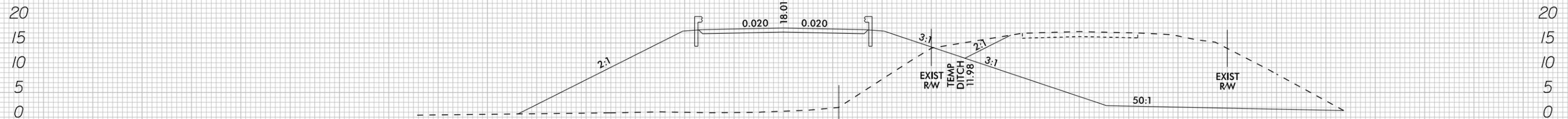
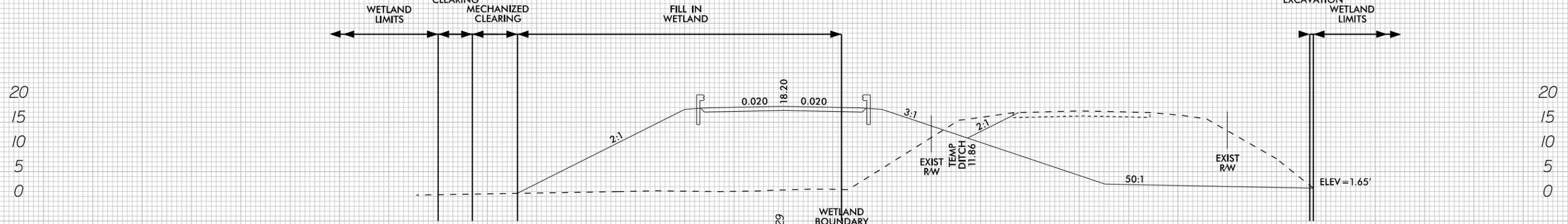
SHEET NO.
X-7

PERMIT DRAWING
SHEET 6 OF 8

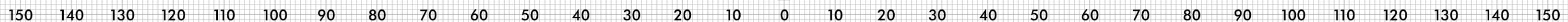
Submitted 2/20/2023



SITE 1



SDATES



8/23/99

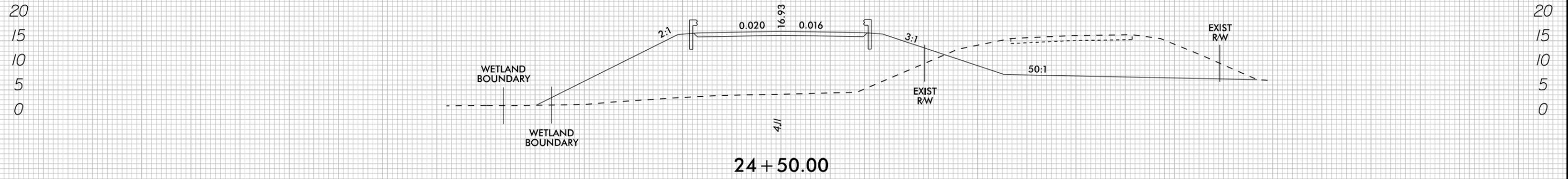


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B-5/56

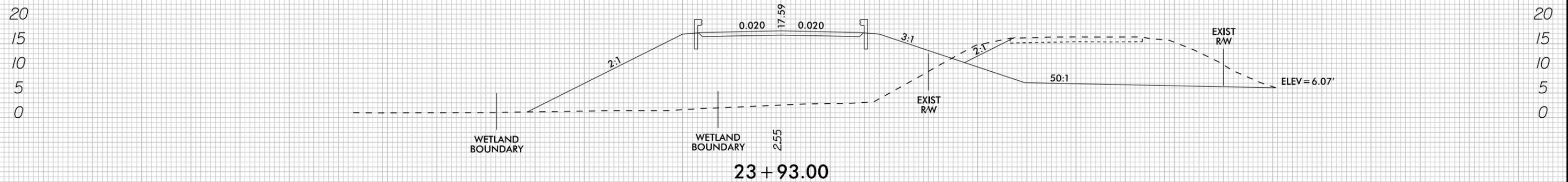
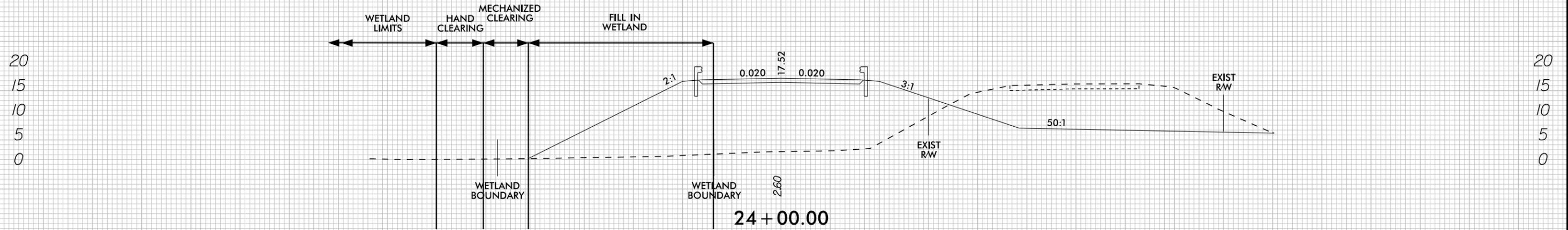
SHEET NO.
X-9

PERMIT DRAWING
SHEET 7 OF 8

Submitted 2/20/2023



SITE 1



SDATES

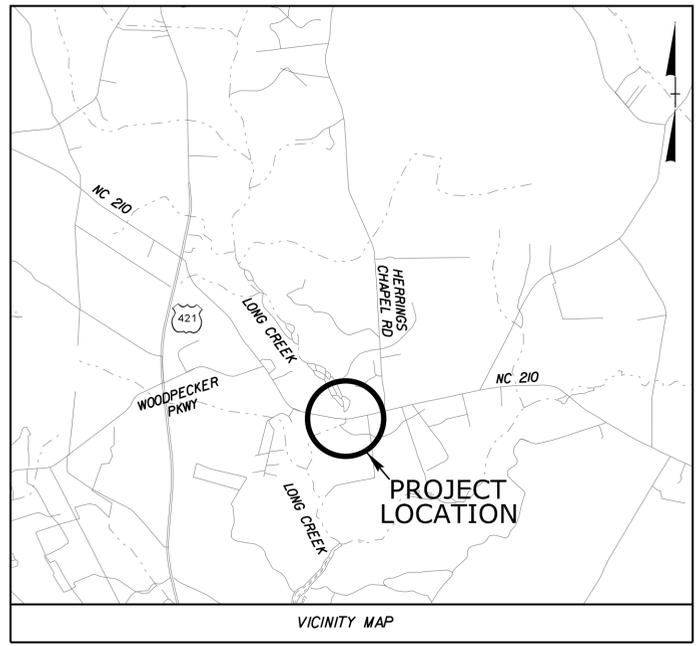
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09/08/19

TIP PROJECT: B-5156

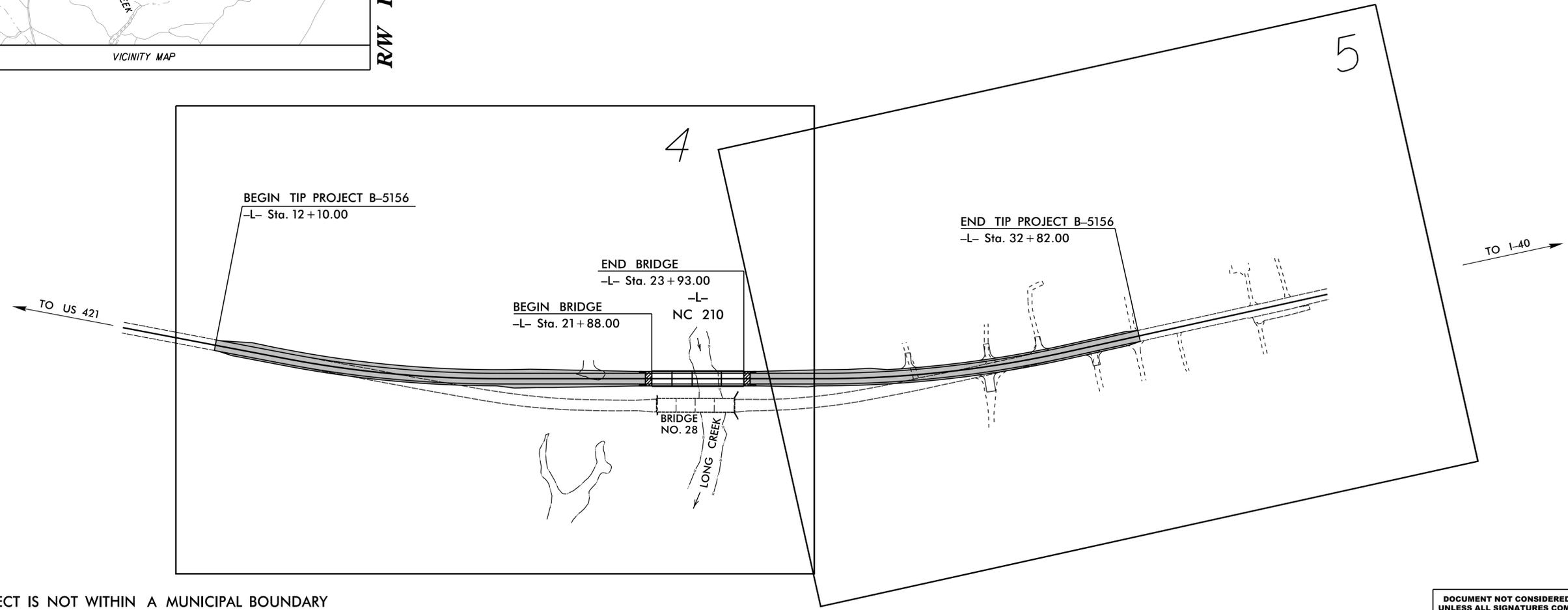
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PENDER COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5156	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42331.1.2		P.E.	
42331.2.1		RIGHT OF WAY	
42331.2.1		UTILITIES	



RW PLANS

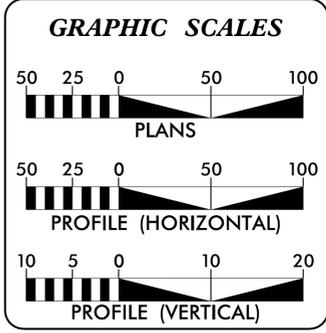
LOCATION: BRIDGE 28 OVER LONG CREEK ON NC 210
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES



THIS PROJECT IS NOT WITHIN A MUNICIPAL BOUNDARY
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

AADT 2020 =	3,000
AADT 2040 =	3,600
K =	10%
D =	55%
T =	12%*
V =	60 MPH
* (TTST 4% + DUAL 8%)	
FUNCTIONAL CLASSIFICATION:	RURAL MAJOR COLLECTOR
REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5156	=	0.353 MILES
LENGTH STRUCTURES TIP PROJECT B-5156	=	0.039 MILES
LENGTH ROADWAY TIP PROJECT B-5156	=	0.392 MILES

PLANS PREPARED FOR THE NCDOT BY:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 28, 2019

LETTING DATE:
SEPTEMBER 21, 2021

Kimley »Horn

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

SETH DENNEY, P.E.
PROJECT DESIGN ENGINEER

DAVID STUTTS, P.E.
STRUCTURES MANAGEMENT UNIT
PROJECT ENGINEER-
PEPROGRAM MANAGEMENT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

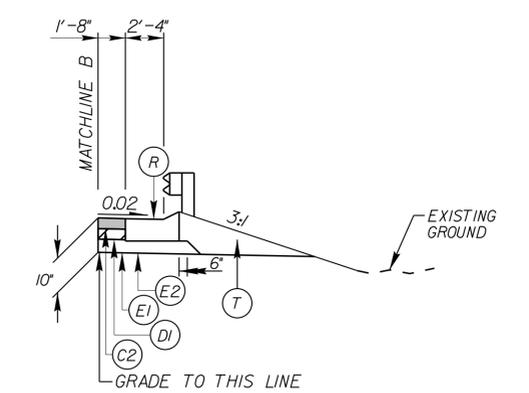
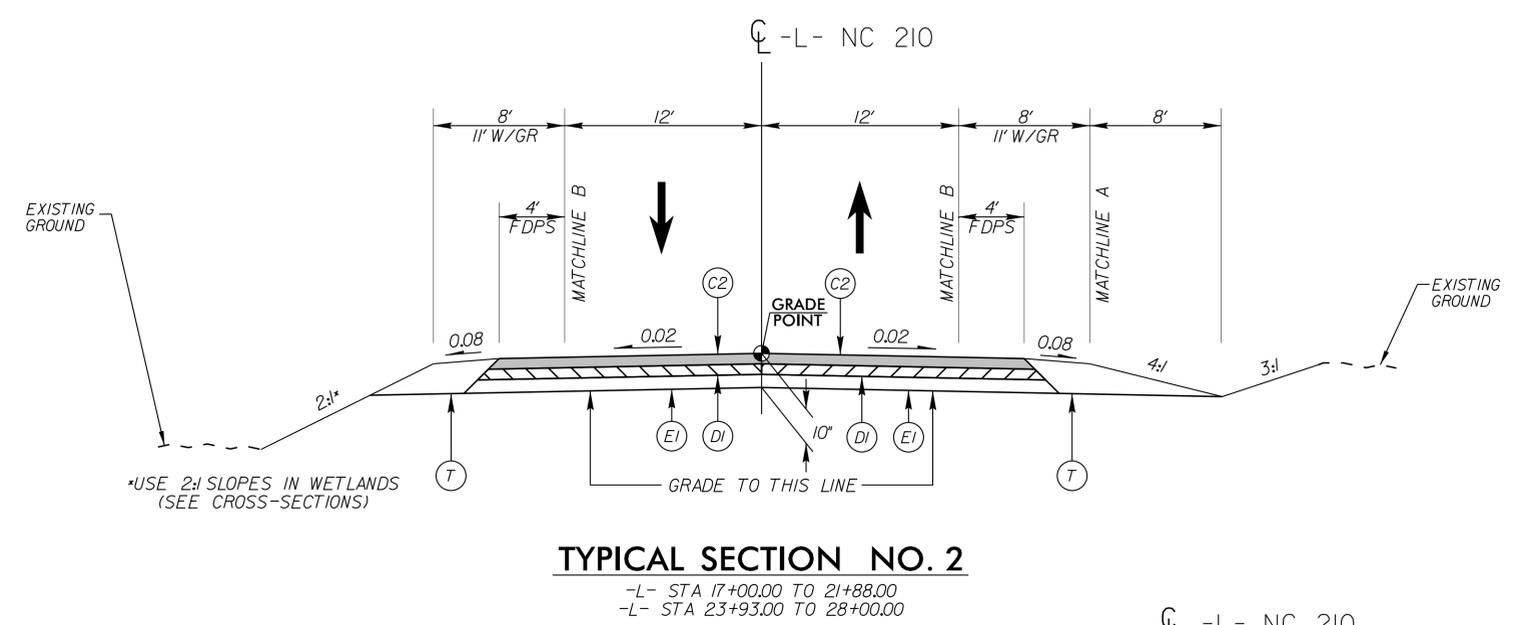
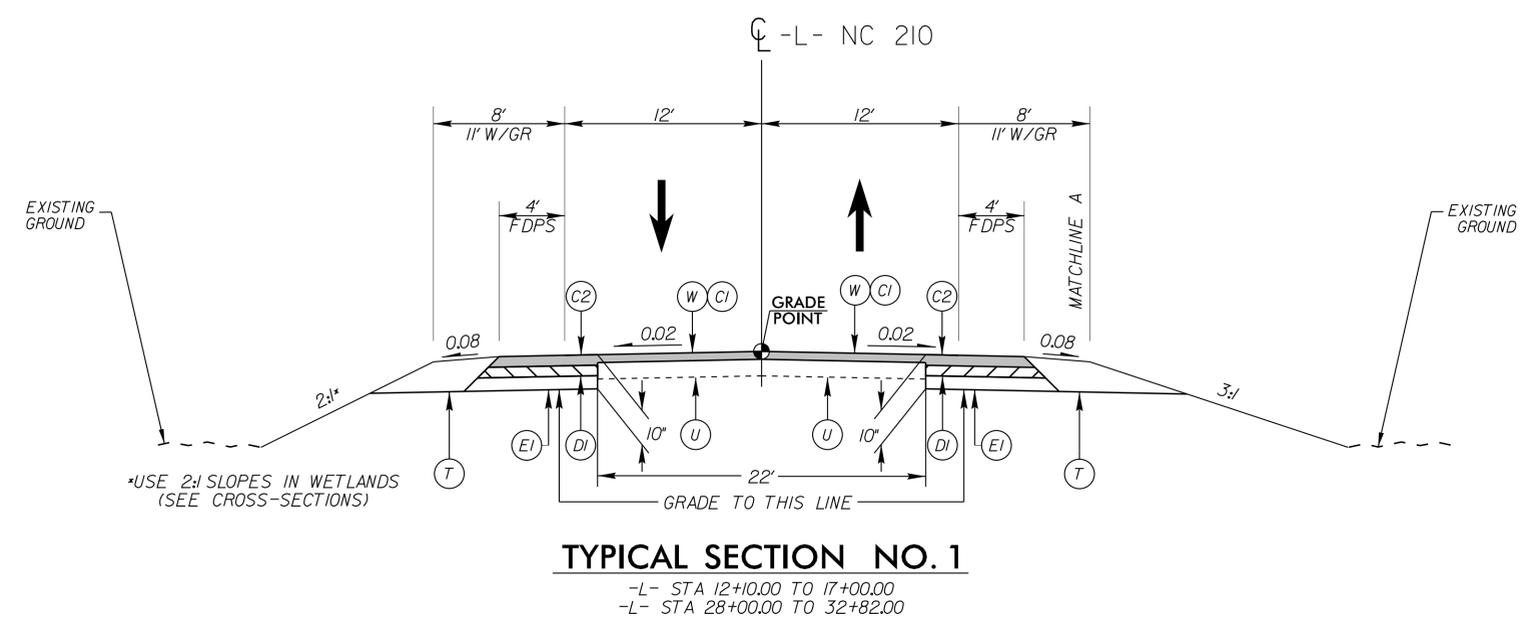
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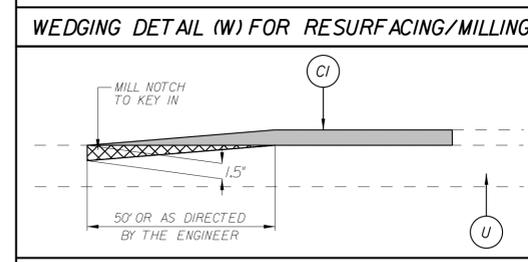
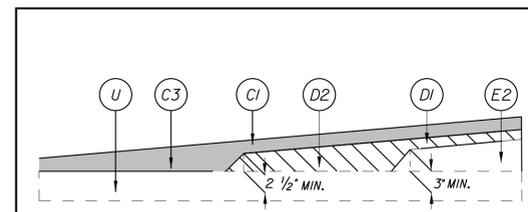
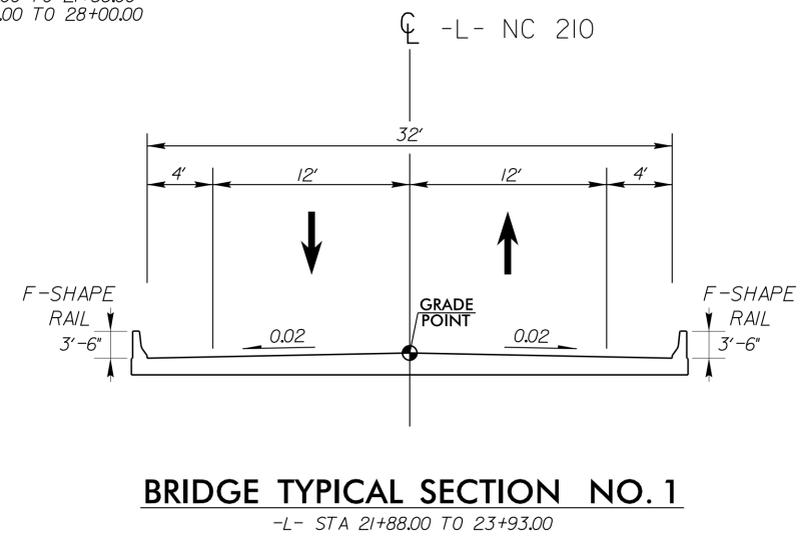
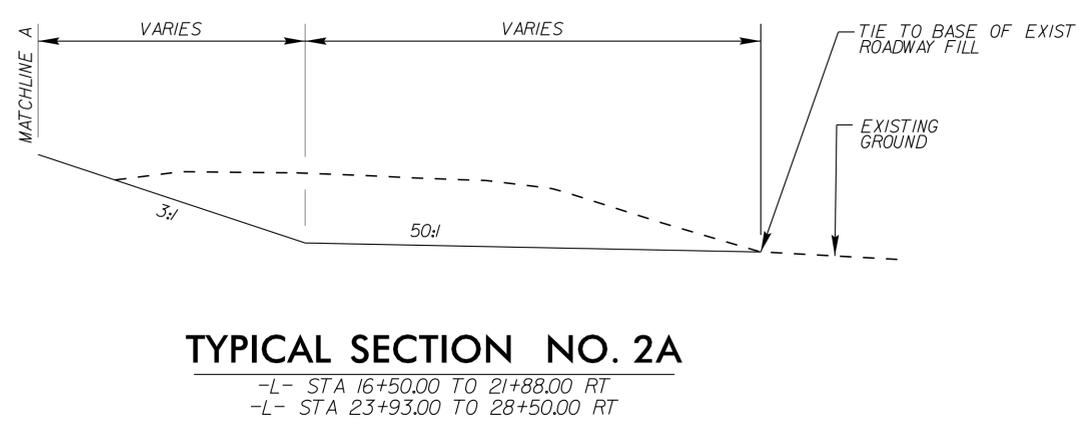
8/28/2019

5/14/99

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NOTE: PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED



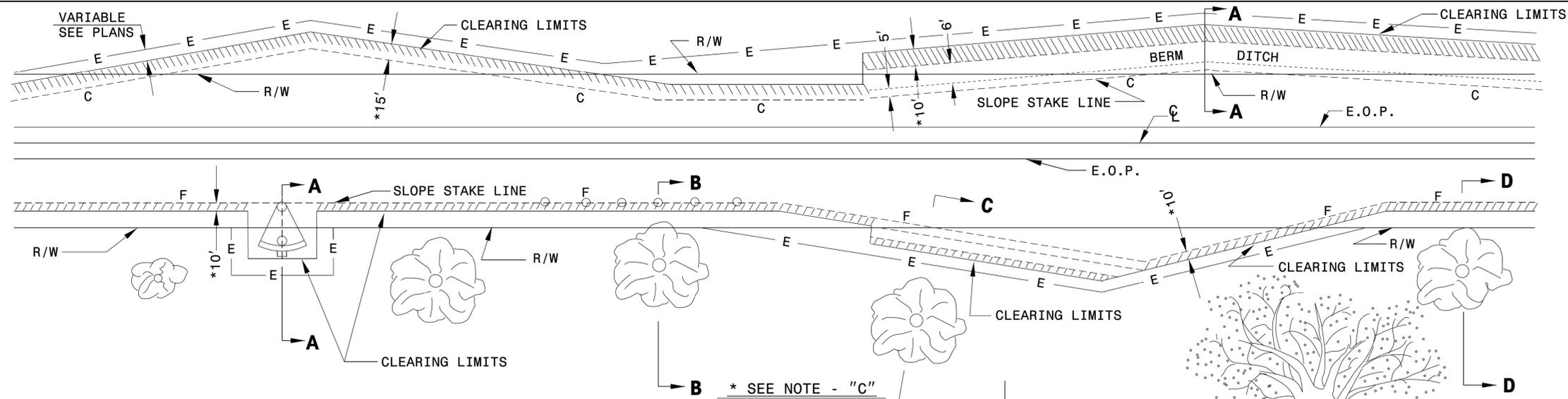
REVISIONS

8/23/2019

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
METHOD OF CLEARING
MODIFIED METHOD - III

SHEET 1 OF 1
200D03



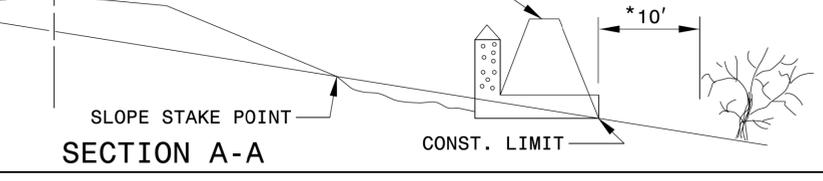
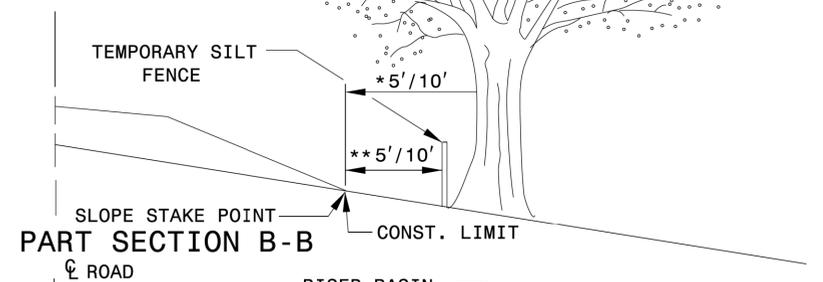
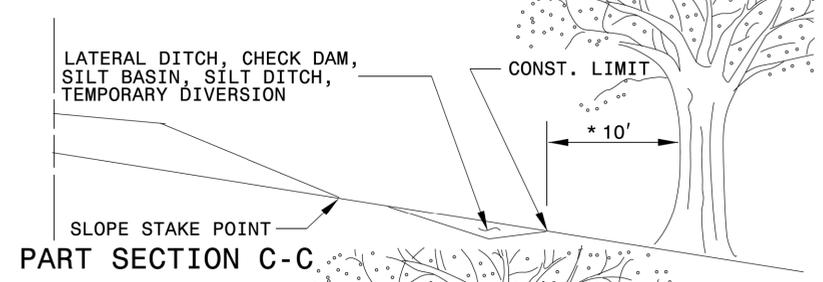
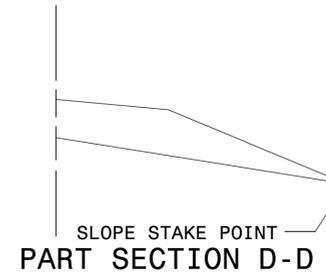
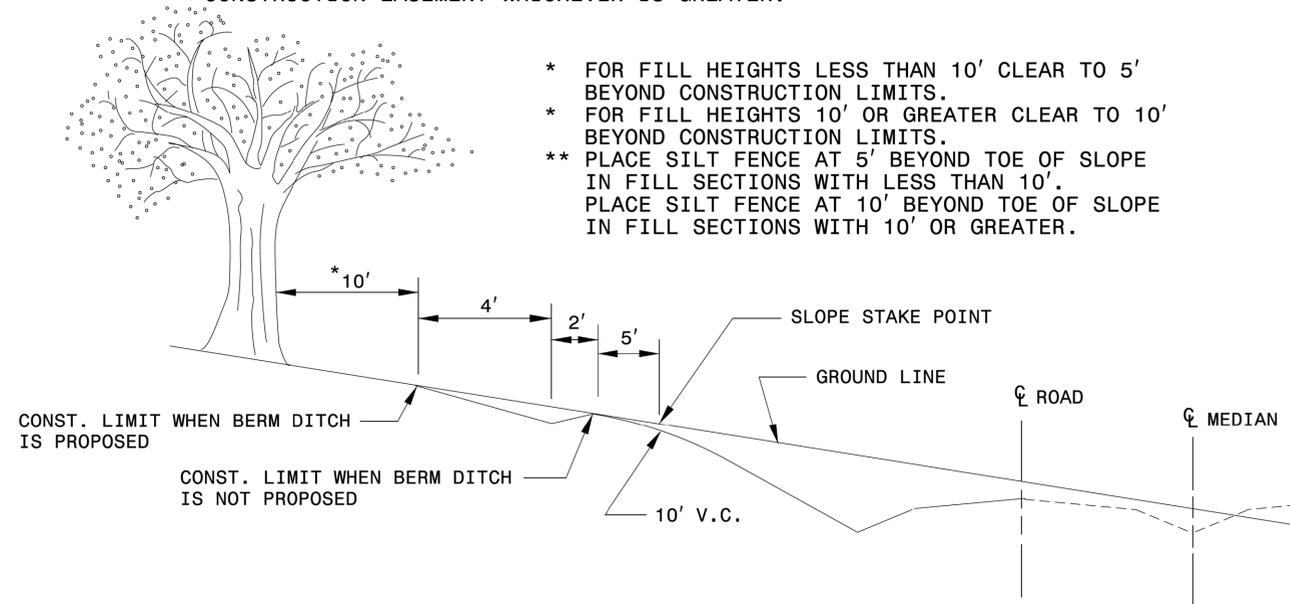
GENERAL NOTES:

1. REMOVE TREES OUTSIDE THE CLEARING LIMIT WHEN, IN THE OPINION OF THE ENGINEER, THE UTILITY OF A TREE WILL BE DESTROYED BY THE CONSTRUCTION OR THE CLEARING OPERATION.
2. CLEAR IN ACCORDANCE WITH THIS STANDARD EXCEPT WHERE ADDITIONAL CLEARING IS REQUIRED FOR SAFETY AS SHOWN ON THE PLANS.

METHOD III CLEARING LIMITS

- (A) CUTS -- CLEAR TO CONSTRUCTION LIMITS.
- (B) FILLS - CLEAR TO 5'/10' * BEYOND CONSTRUCTION LIMITS, UNLESS SPECIFIED OTHERWISE BY WETLAND PERMIT.
- (C) CUTS AND FILLS - WHEN THE CLEARING LIMITS (A AND B) EXCEED THE PROPOSED R/W OR PROPOSED CONSTRUCTION EASEMENTS, THEN CLEAR ONLY TO THE R/W OR CONSTRUCTION EASEMENT WHICHEVER IS GREATER.

- * FOR FILL HEIGHTS LESS THAN 10' CLEAR TO 5' BEYOND CONSTRUCTION LIMITS.
- * FOR FILL HEIGHTS 10' OR GREATER CLEAR TO 10' BEYOND CONSTRUCTION LIMITS.
- ** PLACE SILT FENCE AT 5' BEYOND TOE OF SLOPE IN FILL SECTIONS WITH LESS THAN 10'. PLACE SILT FENCE AT 10' BEYOND TOE OF SLOPE IN FILL SECTIONS WITH 10' OR GREATER.



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
METHOD OF CLEARING
MODIFIED METHOD - III

SHEET 1 OF 1
200D03

REVISIONS

8/23/2019

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
SUMMARY OF EARTHWORK
 IN CUBIC YARDS

REVISIONS

STATION	STATION	EXCAVATION		EMBANKMENT	BORROW	WASTE	
		TOTAL UNCLASSIFIED	UNDERCUT	EMBANKMENT +%		TOTAL	
PHASE I (NEW LOCATION)							
SUMMARY NO. 1							
-L- 15 + 00.00	-L- 21 + 88.00	120		15928	15808		
-L- 23 + 93.00	-L- 29 + 00.00	164		5840	5676		
TOTAL SUMMARY NO. 1							
	SUBTOTAL	284		21678	21484		
PHASE II (REMOVE EXISTING)							
SUMMARY NO. 2							
-L- 12 + 10.00	-L- 21 + 88.00	8949		1675		7274	
-L- 23 + 93.00	-L- 32 + 82.00	4124		286		3838	
TOTAL SUMMARY NO. 2							
	SUBTOTAL	13073		1961		11112	
	TOTAL	13357		23729	21484	11112	
EARTH WASTE TO REPLACE BORROW					-11112	-11112	
PROJECT TOTAL		13357		23729	10372	0	
EST. 5% TO REPLACE TOPSOIL ON BORROW PIT					519		
GRAND TOTAL		13357		23729	10891	0	
SAY		13400			10900		

NOTE: APPROXIMATE QUANTITIES ONLY. CLEARING AND GRUBBING, UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, AND REMOVAL OF EXISTING ASPHALT PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING."
 THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

8/23/2019

5/14/99

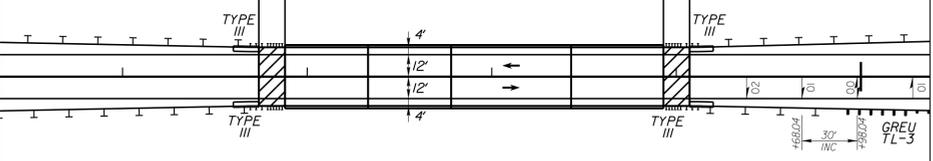
NAD 83/NA 2011

BEGIN APPROACH SLAB
-L- Sta. 21+73.83

END BRIDGE
-L- Sta. 23+93.00

BEGIN BRIDGE
-L- Sta. 21+88.00

END APPROACH SLAB
-L- Sta. 24+07.17



DETAIL SHOWING BRIDGE / PAVEMENT RELATIONSHIP

Kimley Horn
P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO. B-5156	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 4 OF 6

DOCUMENT NOT CONSIDERED FINAL
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-L-
PI Sta. 16+08.01
 $\Delta = 10' 5" 31.3" (LT)$
 $D = 2' 17" 30.6"$
 $L = 473.80'$
 $T = 237.61'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$

NAD 83/NA 2011

BEGIN TIP PROJECT B-5156
BEGIN CONSTRUCTION
-L- POT Sta. 12+10.00

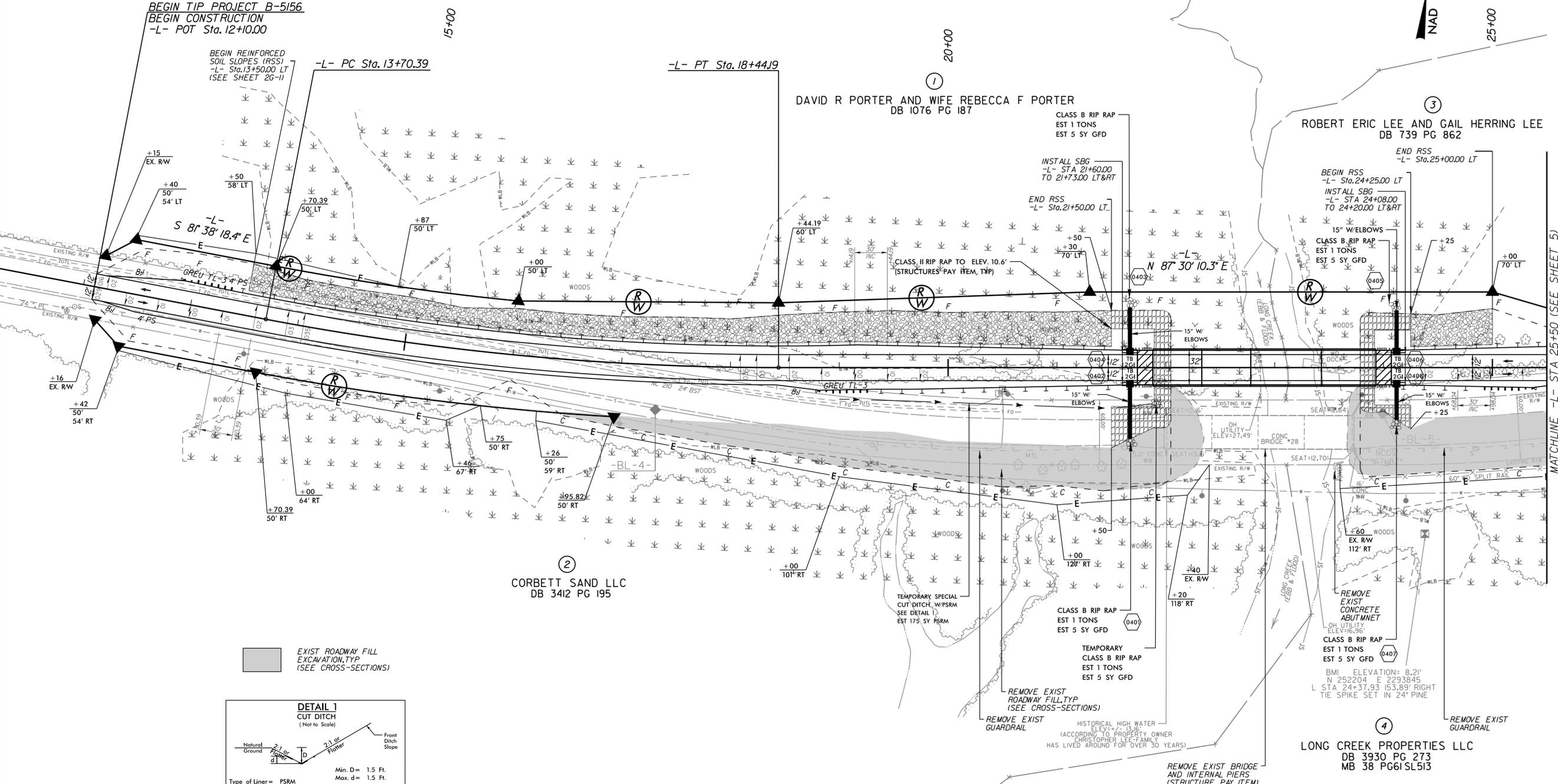
BEGIN REINFORCED
SOIL SLOPES (RSS)
-L- Sta. 13+50.00 LT
(SEE SHEET 2G-1)

-L- PC Sta. 13+70.39

-L- PT Sta. 18+44.19

DAVID R PORTER AND WIFE REBECCA F PORTER
DB 1076 PG 187

ROBERT ERIC LEE AND GAIL HERRING LEE
DB 739 PG 862



+15 EX. RW
50' LT

+50 EX. RW
58' LT

+70.39 EX. RW
50' LT

+87 EX. RW
50' LT

+44.19 EX. RW
60' LT

+50 EX. RW
70' LT

+25 EX. RW
70' LT

+16 EX. RW
50' RT

+70.39 EX. RW
50' RT

+46 EX. RW
67' RT

+26 EX. RW
50' RT

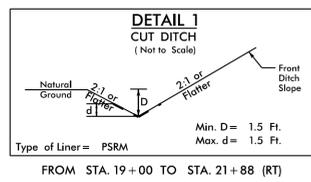
+95.82 EX. RW
50' RT

+00 EX. RW
101' RT

+40 EX. RW
118' RT

+60 EX. RW
112' RT

EXIST ROADWAY FILL
EXCAVATION, TYP
(SEE CROSS-SECTIONS)



FROM STA. 19+00 TO STA. 21+88 (RT)

CORBETT SAND LLC
DB 3412 PG 195

HISTORICAL HIGH WATER
ELEV. = 7.15' (1916)
(ACCORDING TO PROPERTY OWNER
CHRISTOPHER LEE-FAMILY
HAS LIVED AROUND FOR OVER 30 YEARS)

LONG CREEK PROPERTIES LLC
DB 3930 PG 273
MB 38 PG61 SL513

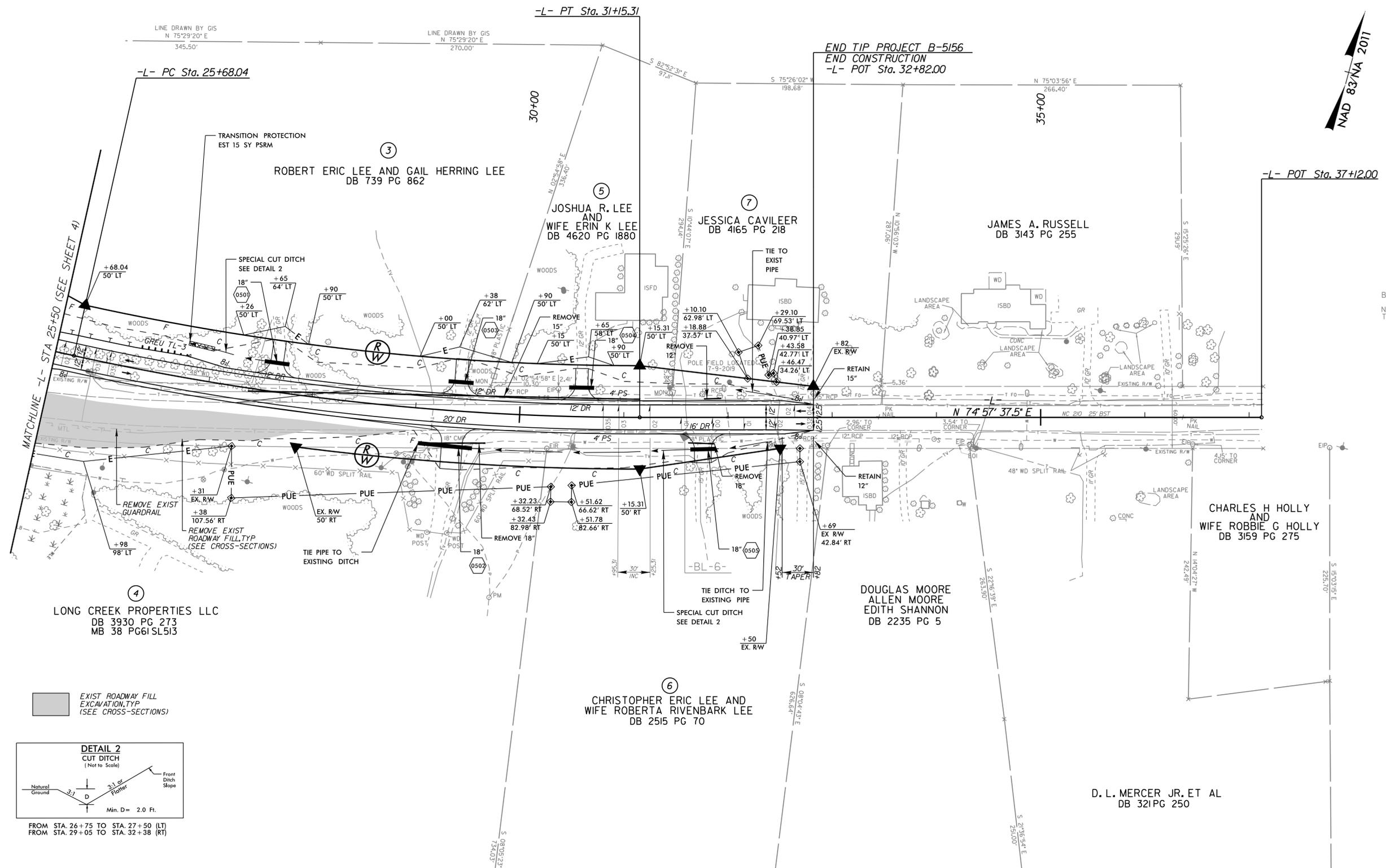
REMOVE EXIST BRIDGE
AND INTERNAL PIERS
(STRUCTURE PAY ITEM)

MATCHLINE -L- STA 25+50 (SEE SHEET 5)

8/23/2019

PROJECT REFERENCE NO.	SHEET NO.
B-5156	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

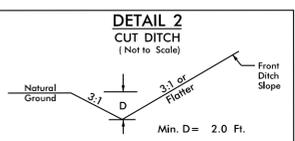
-L-
 PI Sta 28+42.77
 $\Delta = 12' 32" 32.8" (LT)$
 $D = 2' 17" 30.6"$
 $L = 547.27'$
 $T = 274.73'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$



BM2 ELEVATION= 23.72'
 L STA 37+12.00
 N 53°07'23.5\"/>



EXIST ROADWAY FILL
 EXCAVATION, TYP
 (SEE CROSS-SECTIONS)



FROM STA. 26+75 TO STA. 27+50 (LT)
 FROM STA. 29+05 TO STA. 32+38 (RT)

REVISIONS

5/14/99

8/23/2019

5/14/99

PROJECT REFERENCE NO. B-5156	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

-----	TEMPORARY SPECIAL DITCH GRADE RIGHT	40
-----	TEMPORARY SPECIAL DITCH GRADE LEFT	40

**BRIDGE HYDRAULIC DATA
BRIDGE 700028**

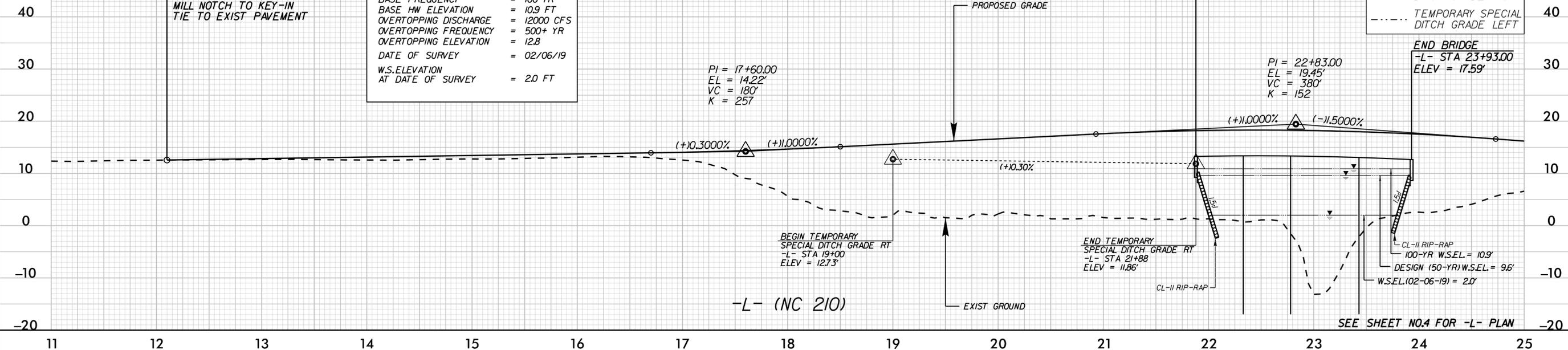
DESIGN DISCHARGE = 6030 CFS
 DESIGN FREQUENCY = 50 YR
 DESIGN HW ELEVATION = 9.6 FT
 BASE DISCHARGE = 7590 CFS
 BASE FREQUENCY = 100 YR
 BASE HW ELEVATION = 10.9 FT
 OVERTOPPING DISCHARGE = 12000 CFS
 OVERTOPPING FREQUENCY = 500+ YR
 OVERTOPPING ELEVATION = 12.8
 DATE OF SURVEY = 02/06/19
 W.S.ELEVATION AT DATE OF SURVEY = 2.0 FT

BM*1
 ELEV = 8.21'
 -L- STATION 24+37.93
 153.89' RIGHT
 N 252204 E 2293845
 TIE SPIKE SET IN 24' PINE

BEGIN BRIDGE
 -L- STA 21+88.00
 ELEV = 18.20'

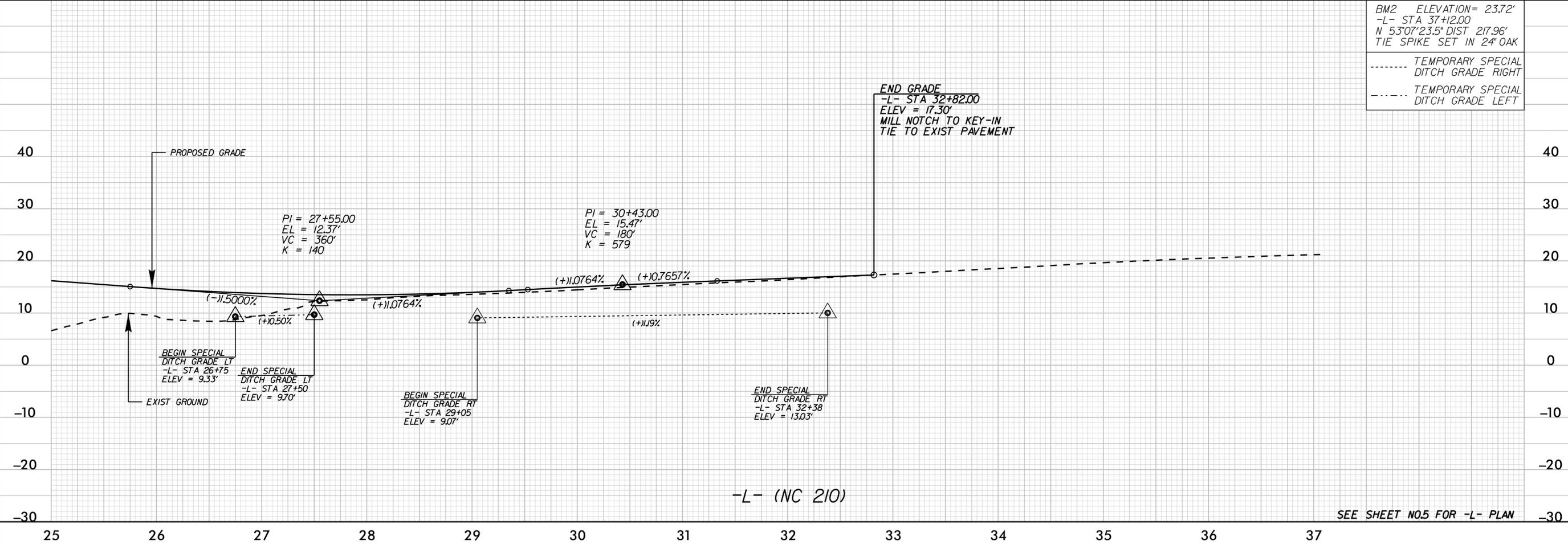
BEGIN GRADE
 -L- STA 12+10.00
 ELEV = 12.57'
 MILL NOTCH TO KEY-IN
 TIE TO EXIST PAVEMENT

END BRIDGE
 -L- STA 23+93.00
 ELEV = 17.59'



-----	TEMPORARY SPECIAL DITCH GRADE RIGHT	40
-----	TEMPORARY SPECIAL DITCH GRADE LEFT	40

END GRADE
 -L- STA 32+82.00
 ELEV = 17.30'
 MILL NOTCH TO KEY-IN
 TIE TO EXIST PAVEMENT



8/23/2019

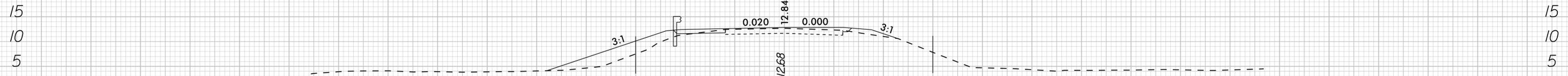
8/23/09



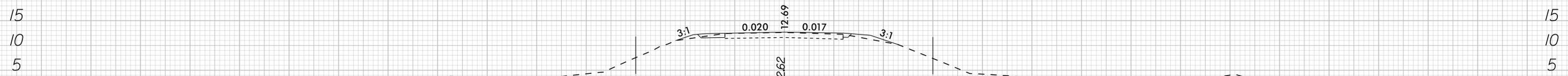
PROJ. REFERENCE NO.
B-5156

SHEET NO.
X-1

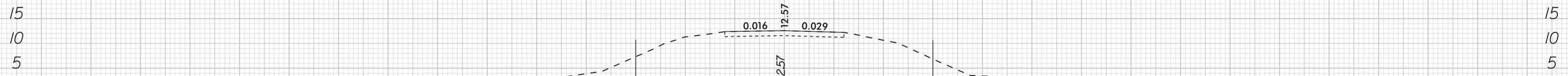
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



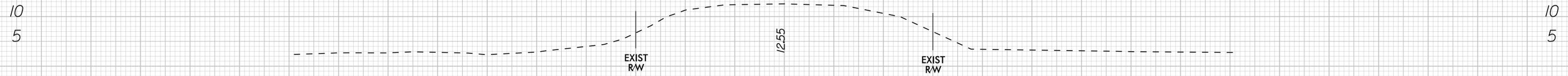
13 + 00.00



12 + 50.00



12 + 10.00

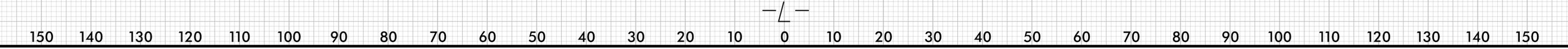
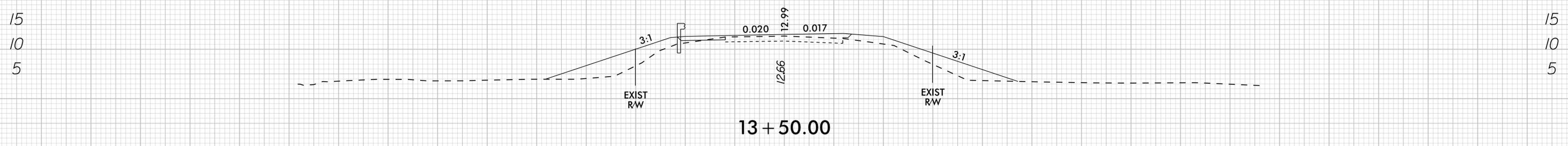
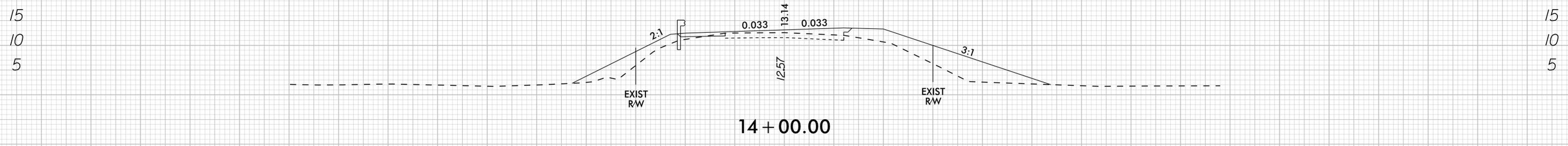
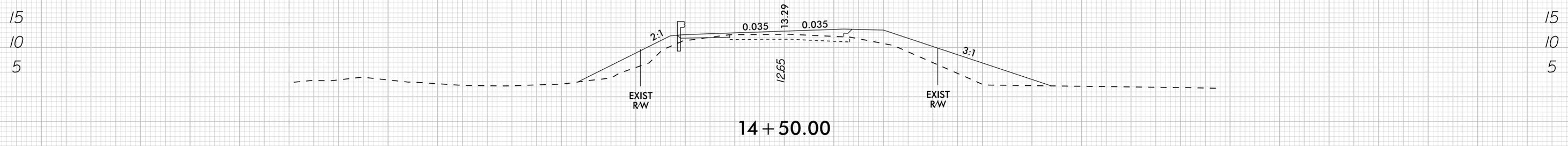
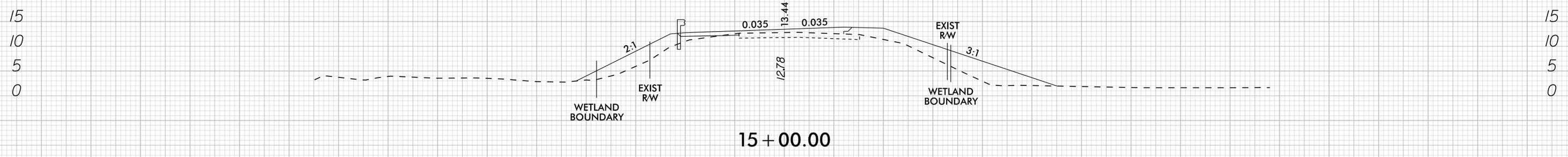


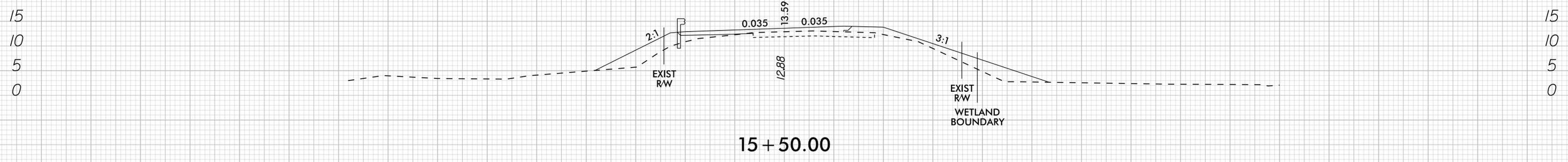
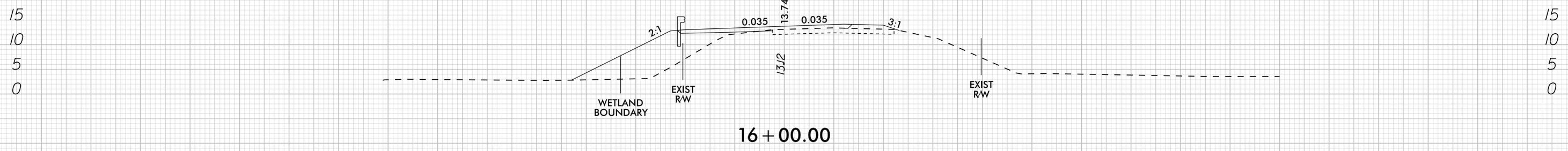
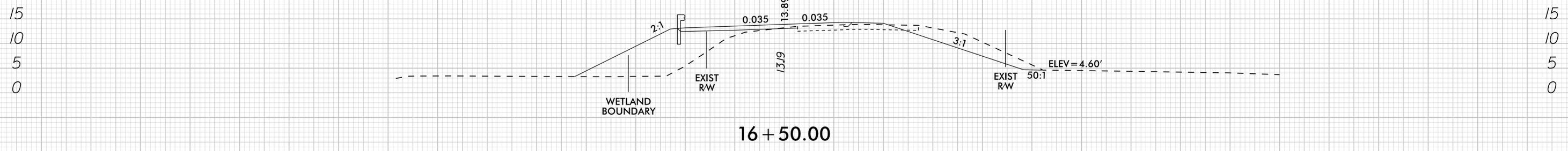
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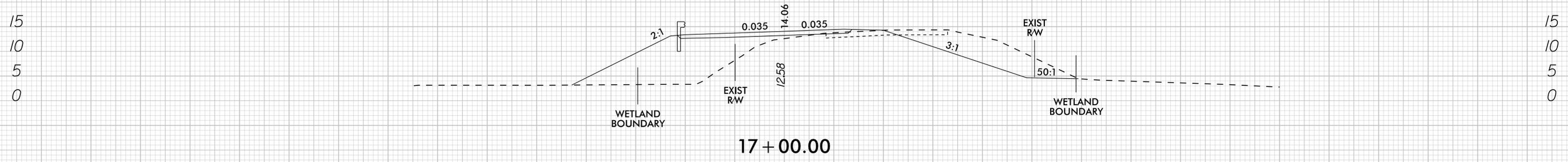
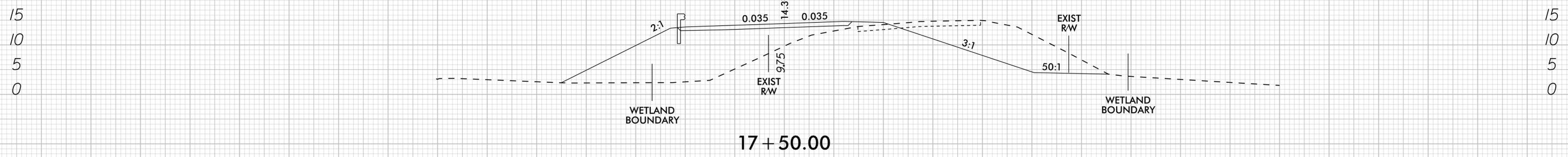
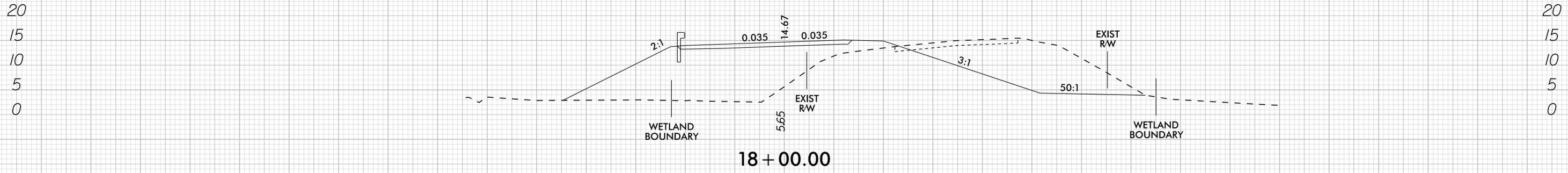
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8/23/2009

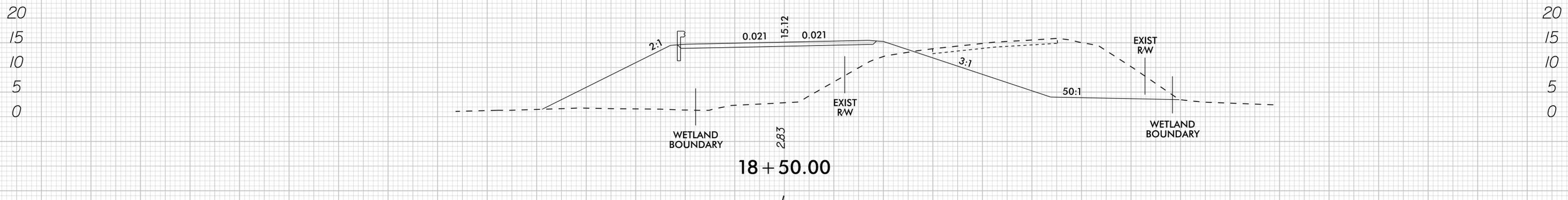
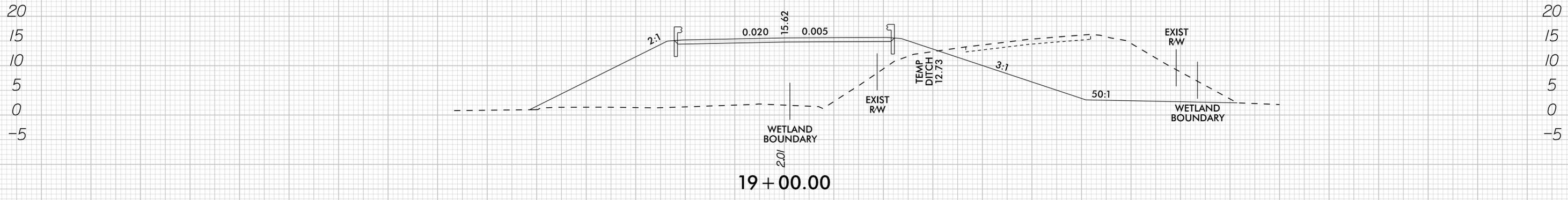
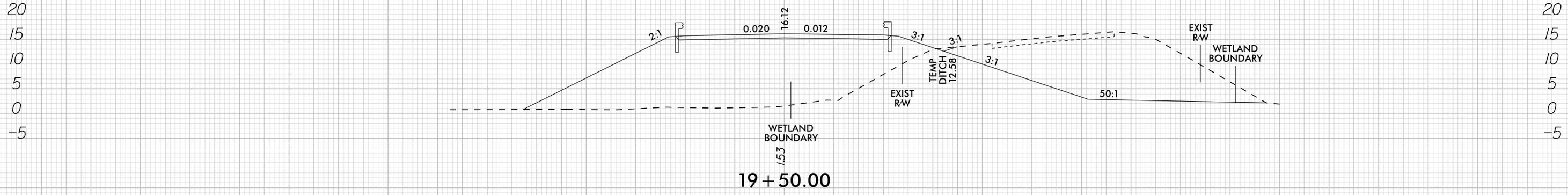


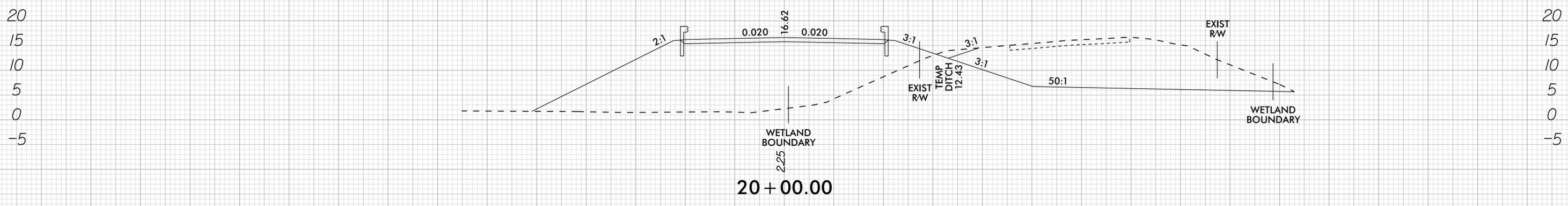
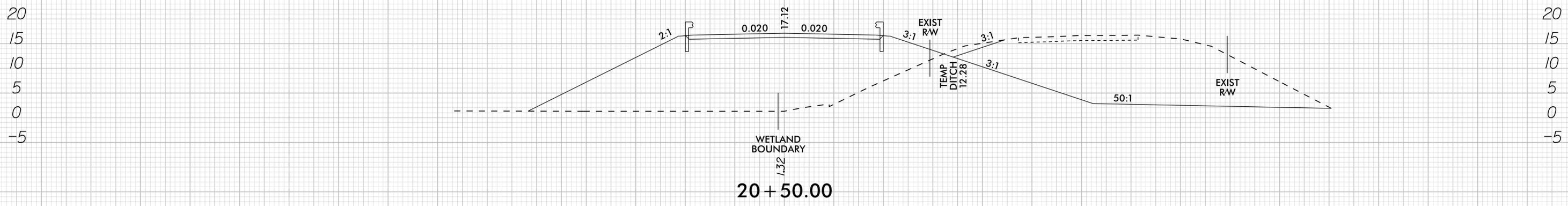
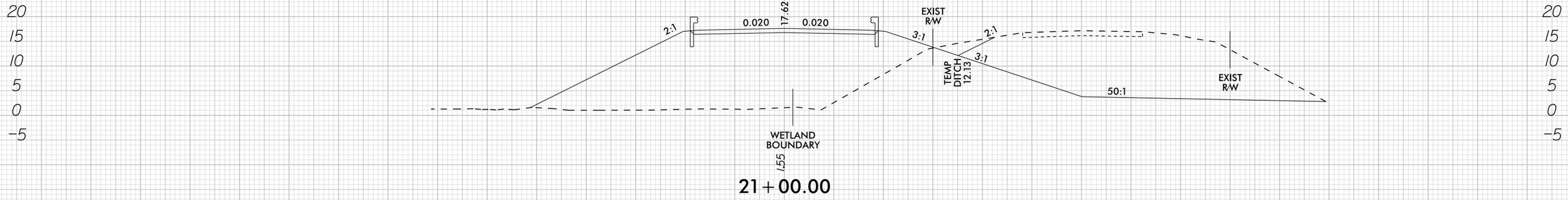


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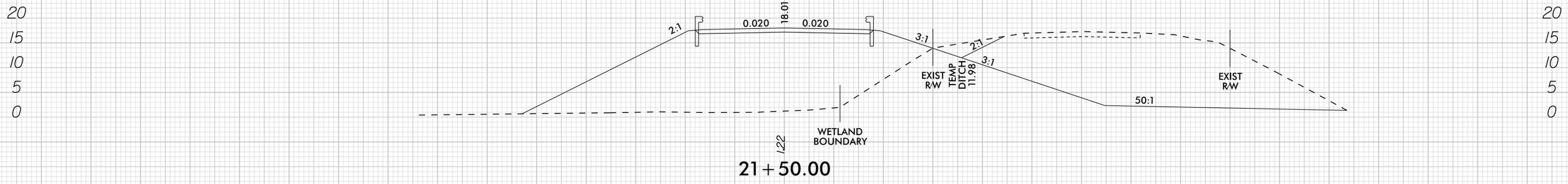
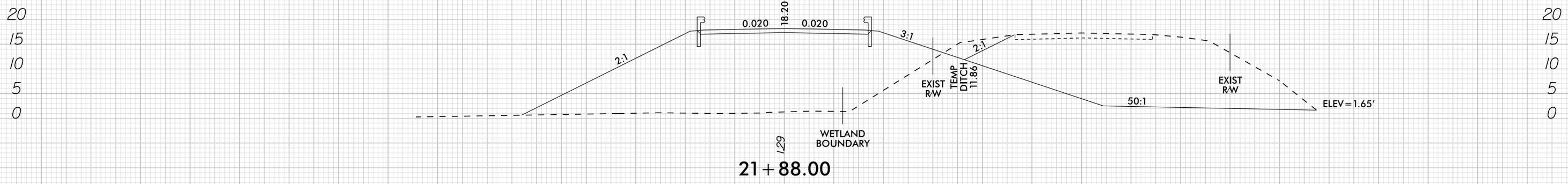
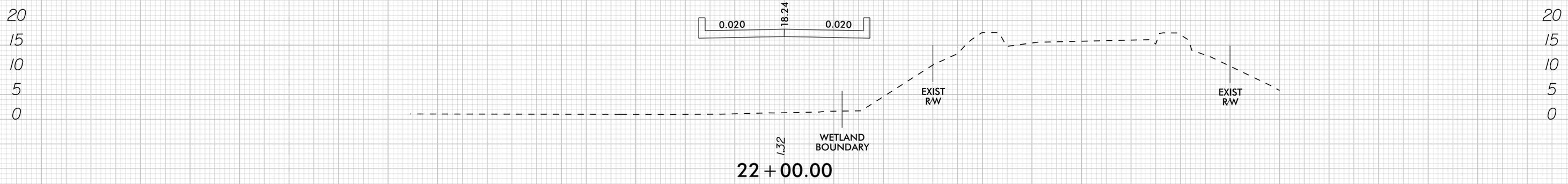


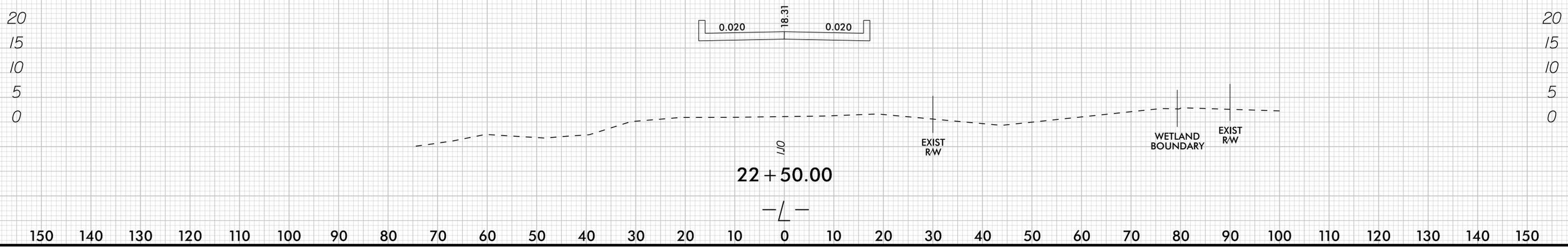
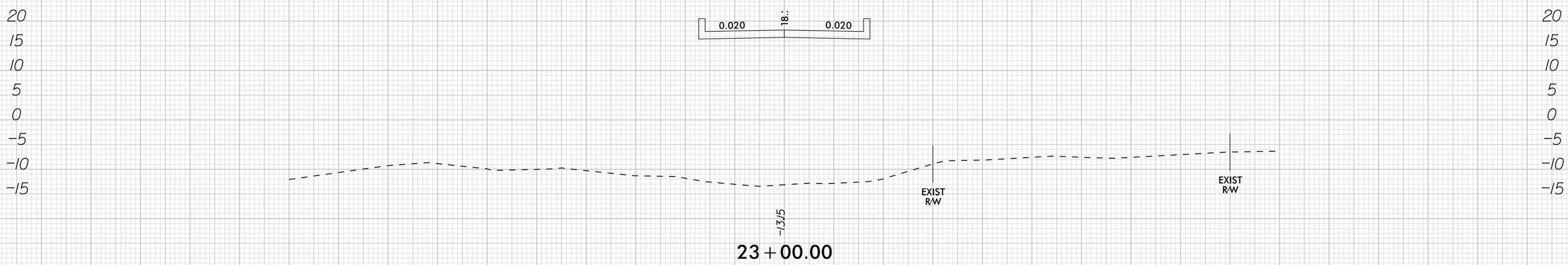
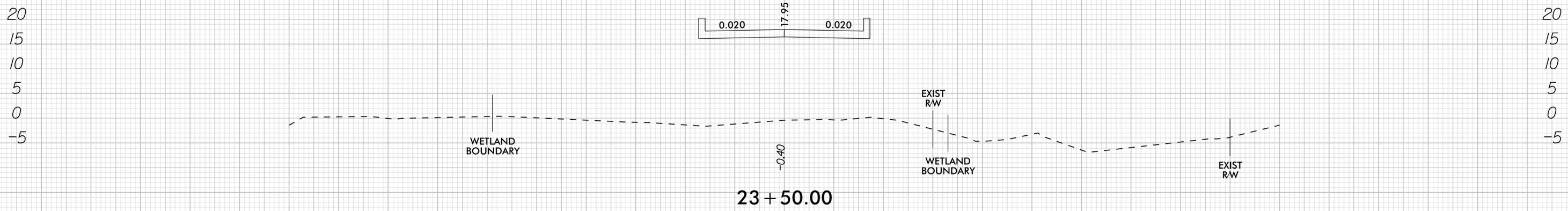
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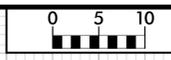


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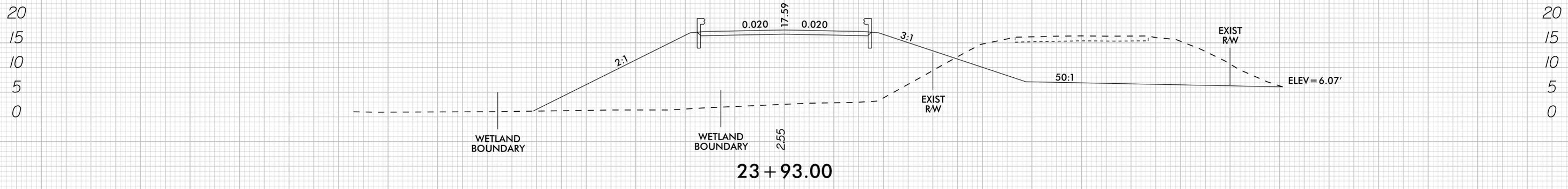
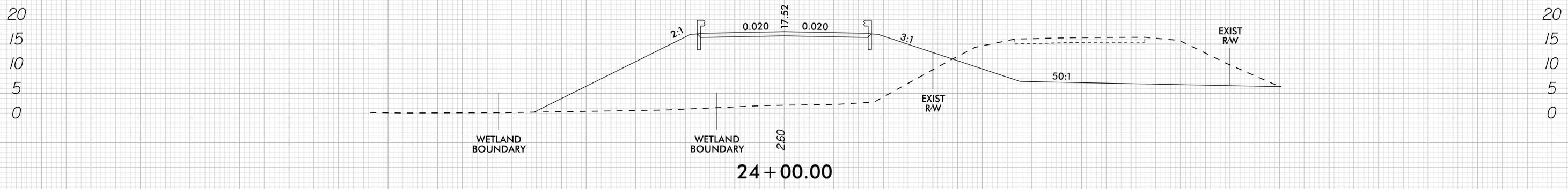
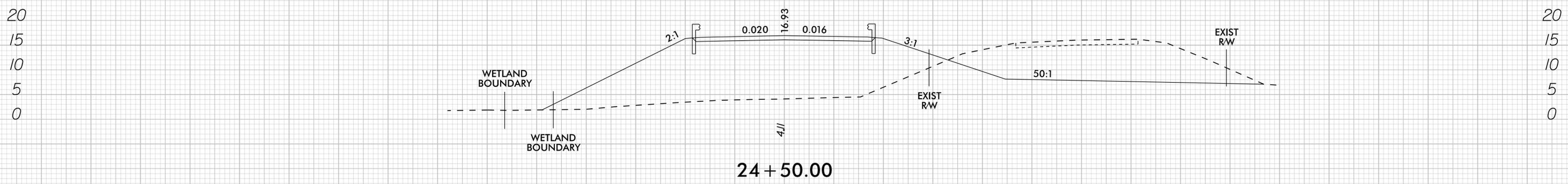


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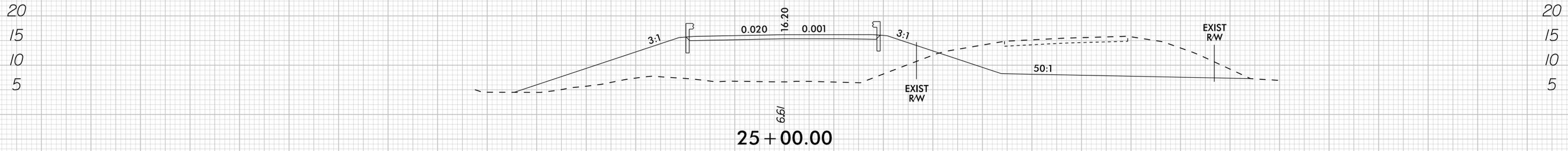
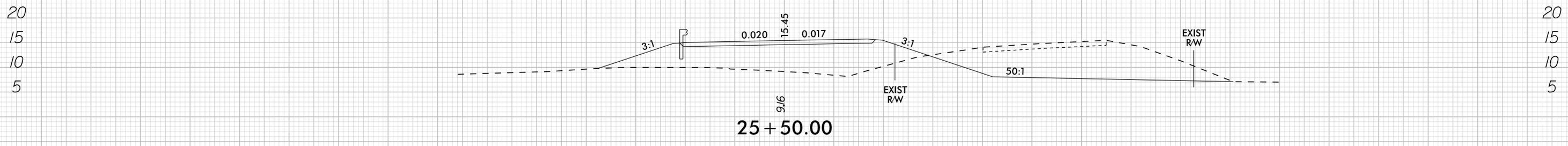
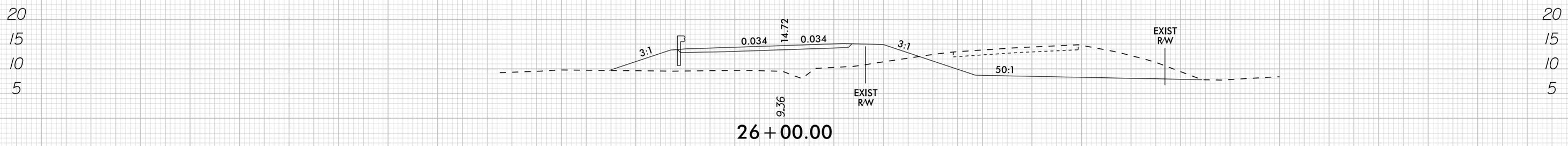
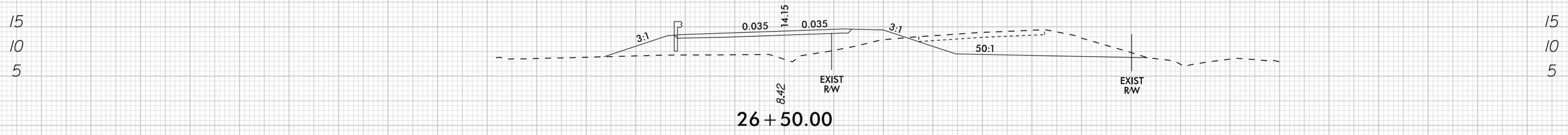
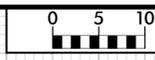
PROJ. REFERENCE NO.
B-5156

SHEET NO.
X-9

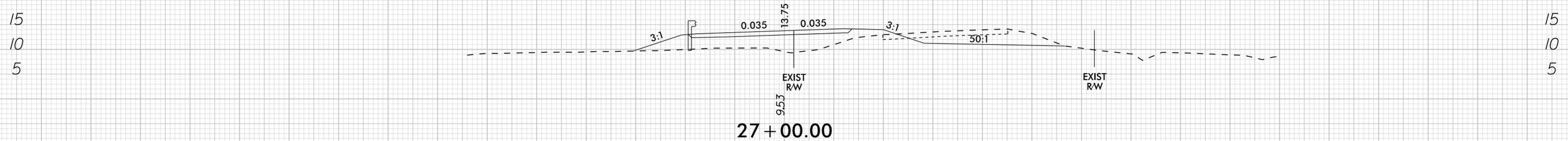
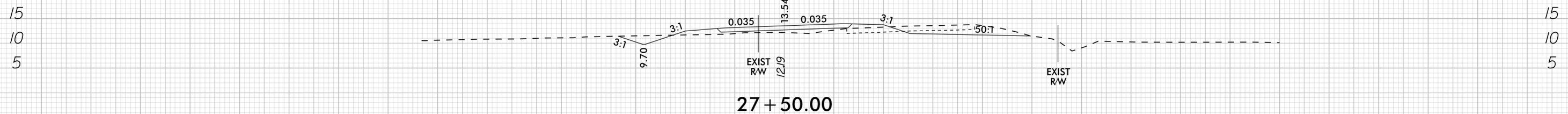
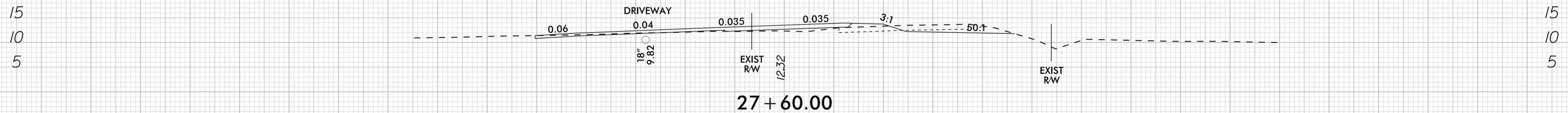
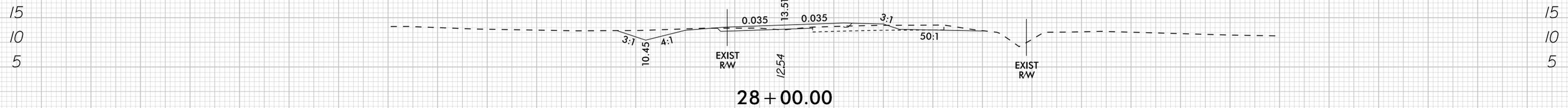


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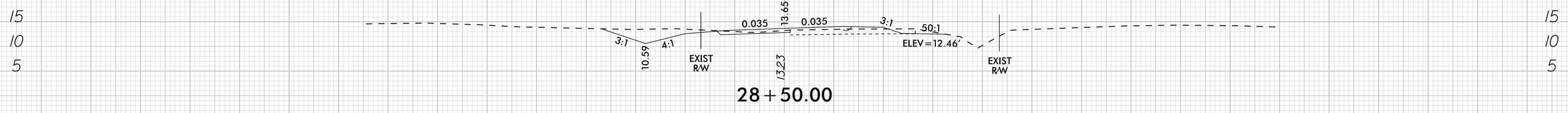
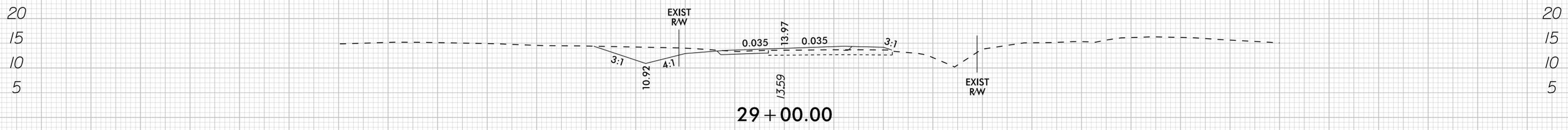
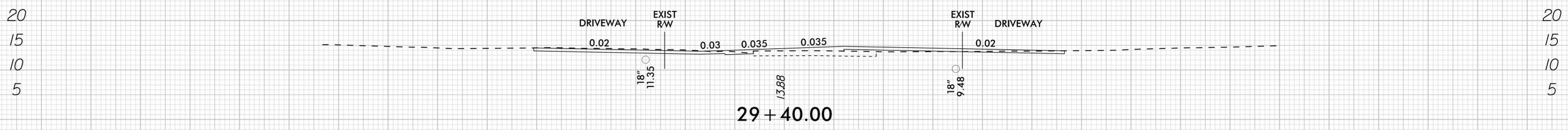
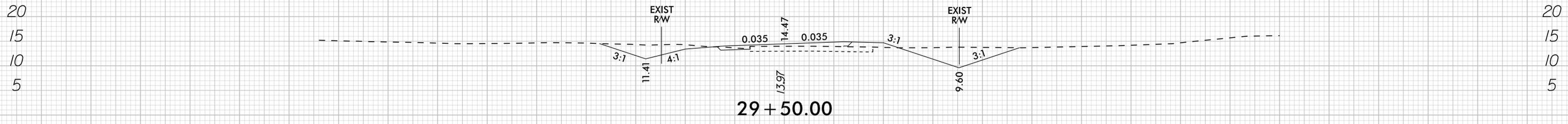
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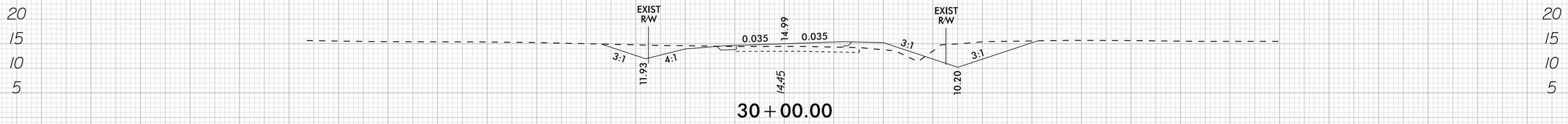
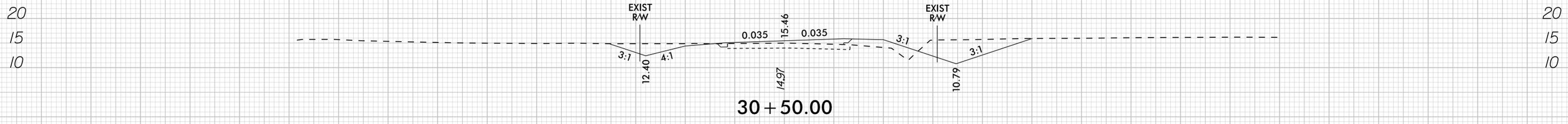
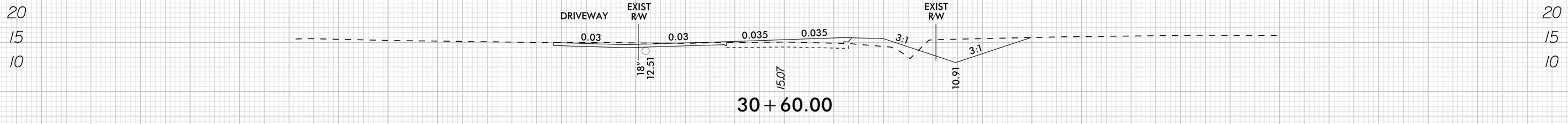
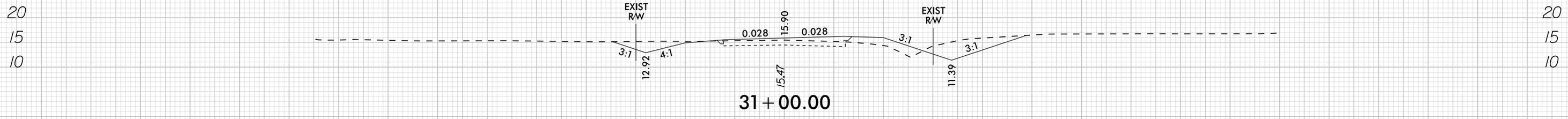
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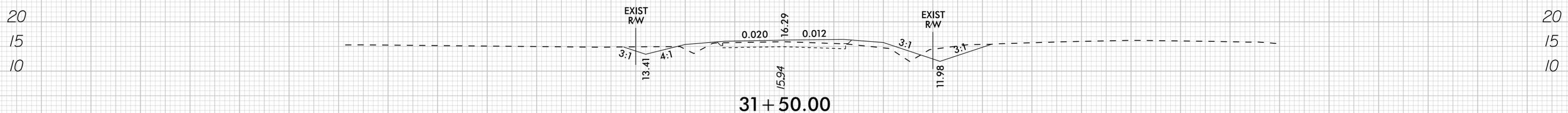
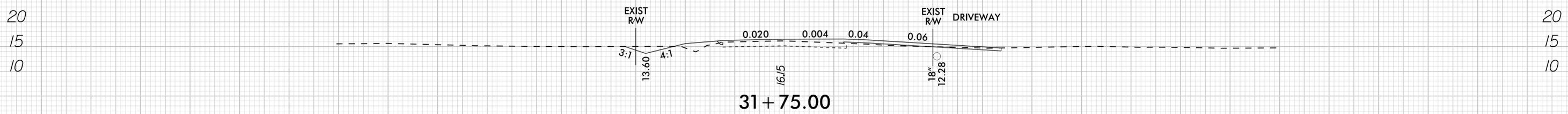
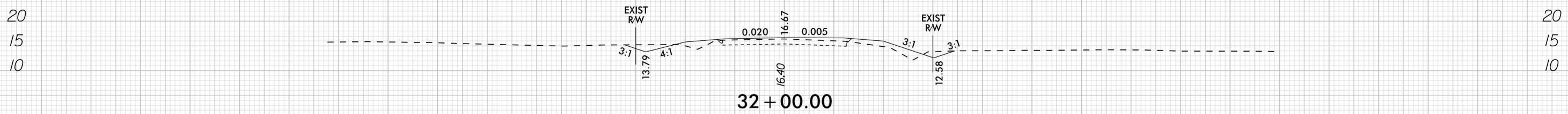
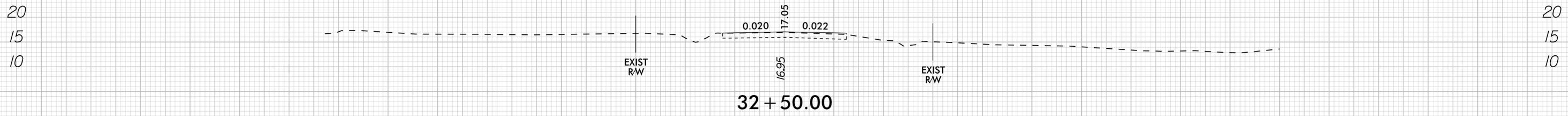


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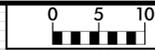




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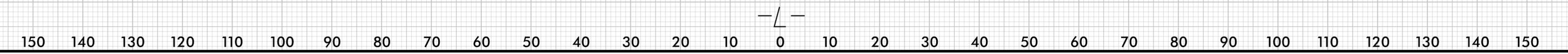
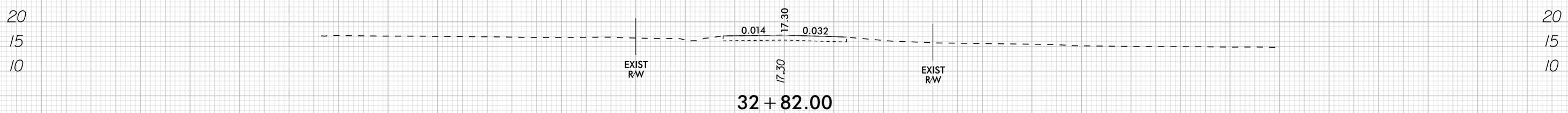
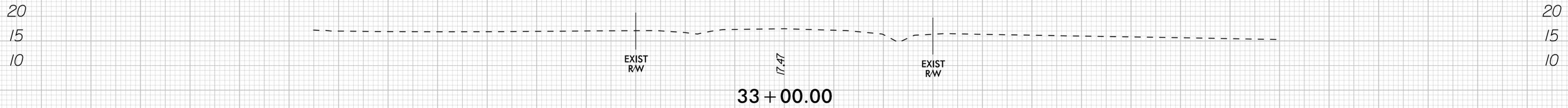
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8/23/09



PROJ. REFERENCE NO.
B-5156

SHEET NO.
X-15



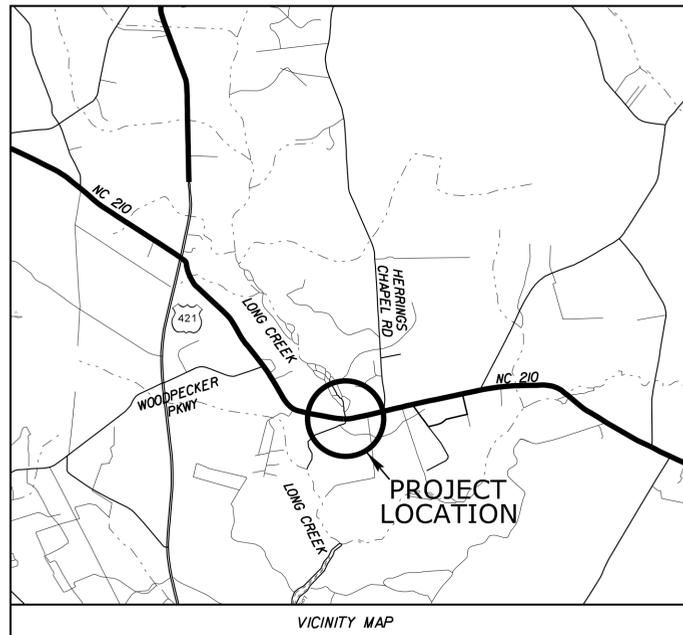
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09/08/99

TIP PROJECT: B-5156

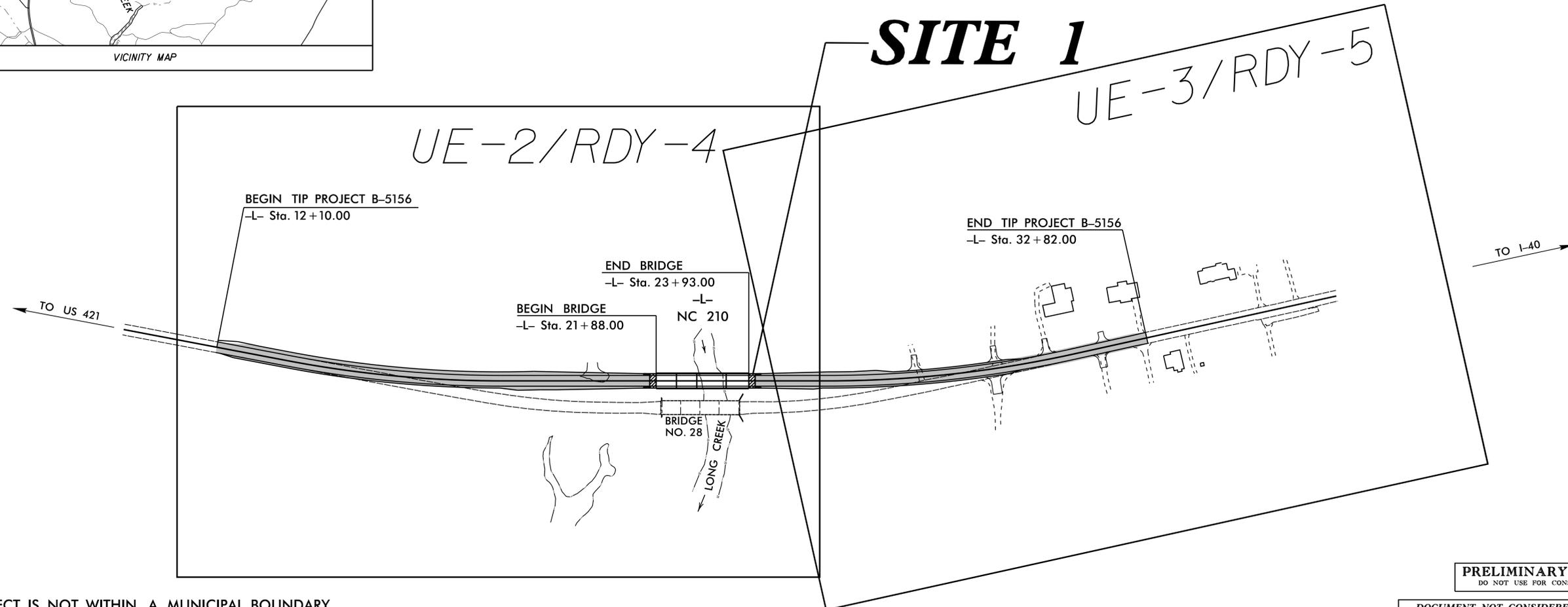
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO. B-5156	SHEET NO. UE-1
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UTILITIES ENVIRONMENTAL PERMIT PLANS PENDER COUNTY

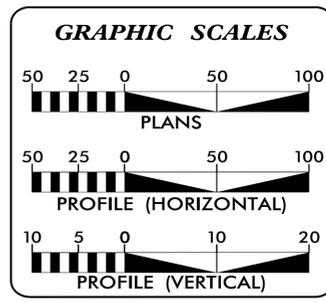
LOCATION: BRIDGE 28 OVER LONG CREEK ON NC 210
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES
UTILITIES: RELOCATION OF AT&T FIBER. ALL OTHER UTILITIES TO REMAIN.



THIS PROJECT IS NOT WITHIN A MUNICIPAL BOUNDARY
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



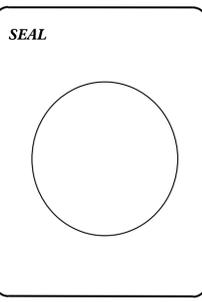
SHEET NO.:	DESCRIPTION:
UE-1	TITLE SHEET
UE-2 / UE-3	UTILITY ENVIRONMENTAL PLANSHEETS
UE-4	PROFILE SHEETS

UTILITY OWNERS ON PROJECT
(A) WATERSANITARY SEWER: PENDER COUNTY
(B) ELECTRIC: DUKE ENERGY
(C) FIBER: AT&T
(D) TELEPHONE: AT&T
(E) CABLE: CHARTER

PREPARED IN THE OFFICE OF

Kimley »Horn

JEFFERY W. MOORE, P.E. PROJECT DESIGN ENGINEER
 SETH DENNEY, P.E. STRUCTURES ENGINEER
 VANCE BLANTON, P.E. HYDRAULIC ENGINEER



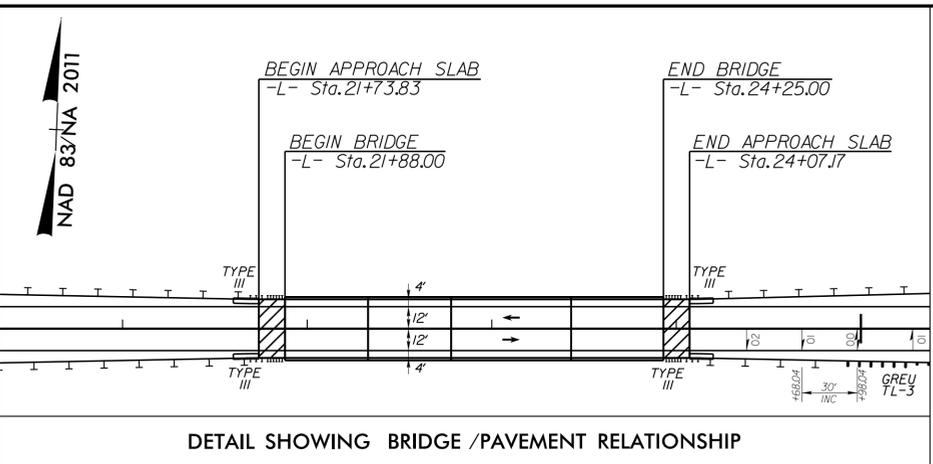
**DIVISION OF HIGHWAYS
UTILITIES UNIT**
 1555 MAIL SERVICES CENTER
 RALEIGH, NC 27699-1555
 PHONE (919) 707-6690
 FAX (919) 250-4151

NABIL HAMDAN UTILITIES REGIONAL ENGINEER
 LARRY JAMES JR UTILITIES ENGINEER
 TANGA SAMPSON UTILITIES AREA COORDINATOR
 LARRY JAMES JR SENIOR UTILITIES COORDINATOR

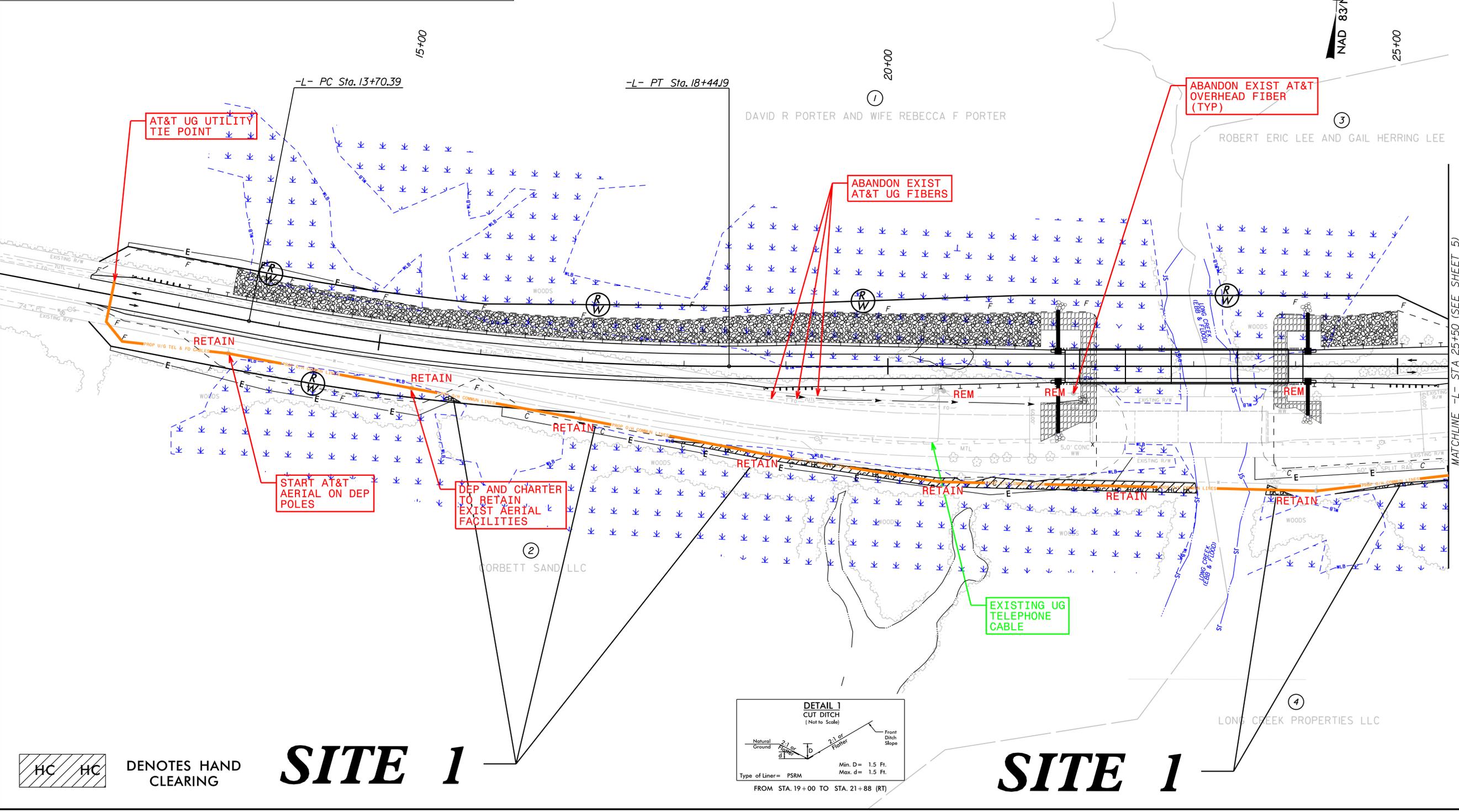
\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DDN\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

5/14/99
NAD 83/NA 2011
\$DATE\$

PROJECT REFERENCE NO. B-5156		SHEET NO. UE-2	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



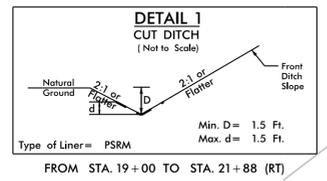
-L-
 PI Sta. 16+08.01
 $\Delta = 10' 51'' 31.3''$ (LT)
 $D = 2' 17'' 30.6''$
 $L = 473.80'$
 $T = 237.61'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$



HC HC DENOTES HAND CLEARING

SITE 1

SITE 1



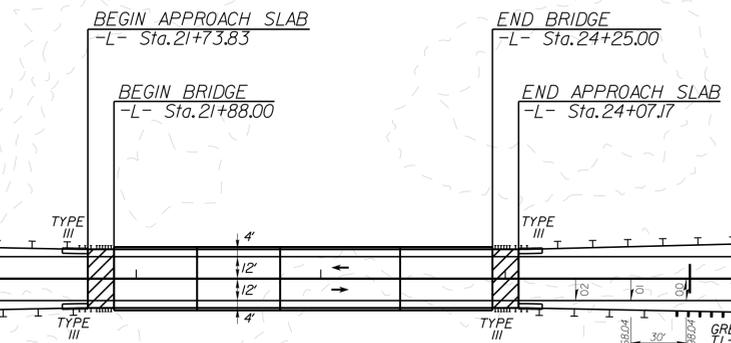
5/14/99

NAD 83/NA 2011

Kimley»Horn
P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

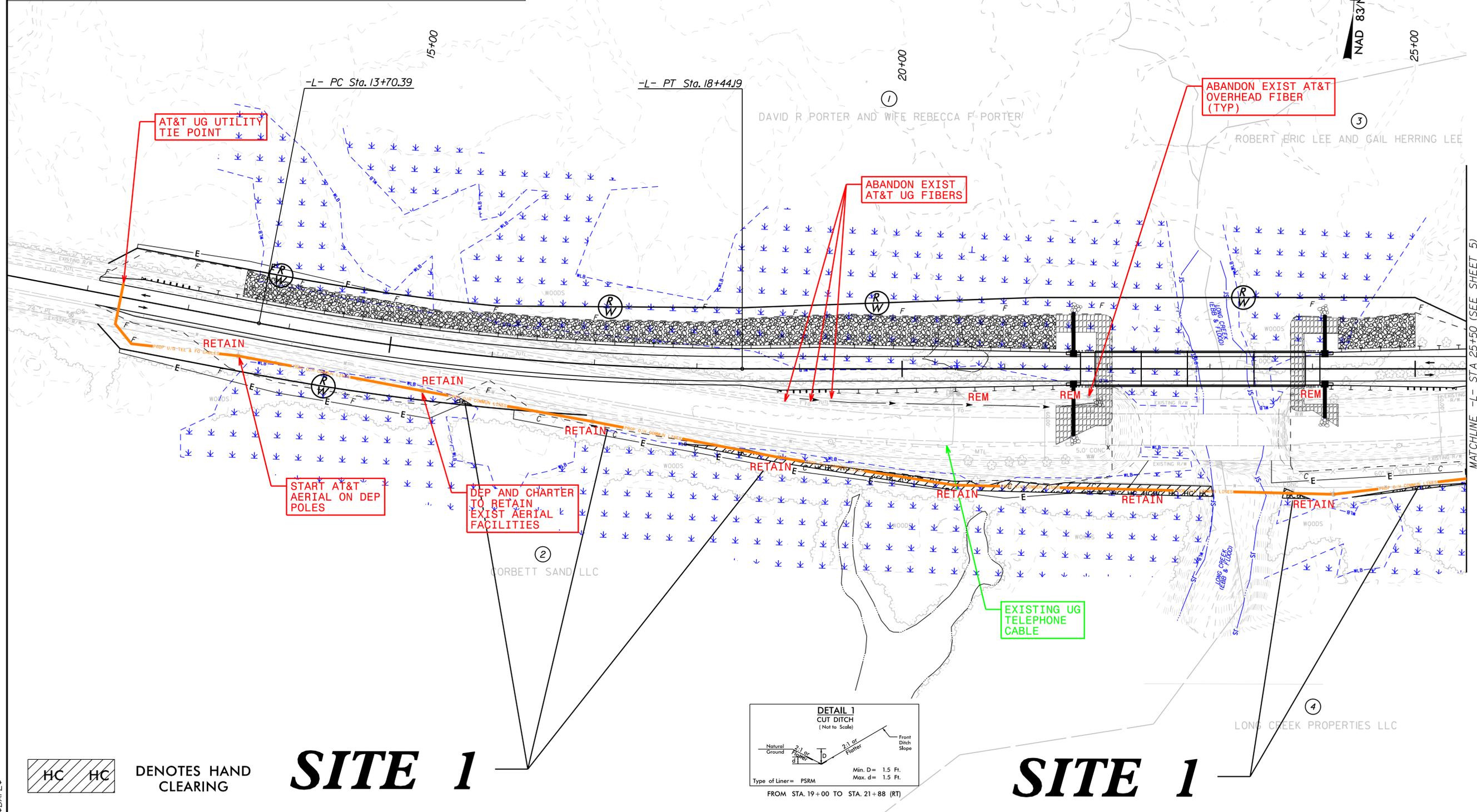
PROJECT REFERENCE NO. B-5156	SHEET NO. UE-2(CON)
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



DETAIL SHOWING BRIDGE / PAVEMENT RELATIONSHIP

-L-
 PI Sta. 16+08.01
 $\Delta = 10' 51" 31.3" (LT)$
 $D = 2' 17" 30.6"$
 $L = 473.80'$
 $T = 237.61'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$

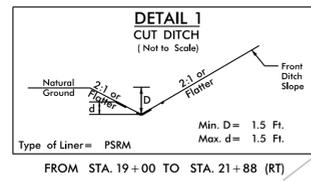


MATCHLINE -L- STA 25+50 (SEE SHEET 5)



DENOTES HAND CLEARING

SITE 1



FROM STA. 19+00 TO STA. 21+88 (RT)

SITE 1

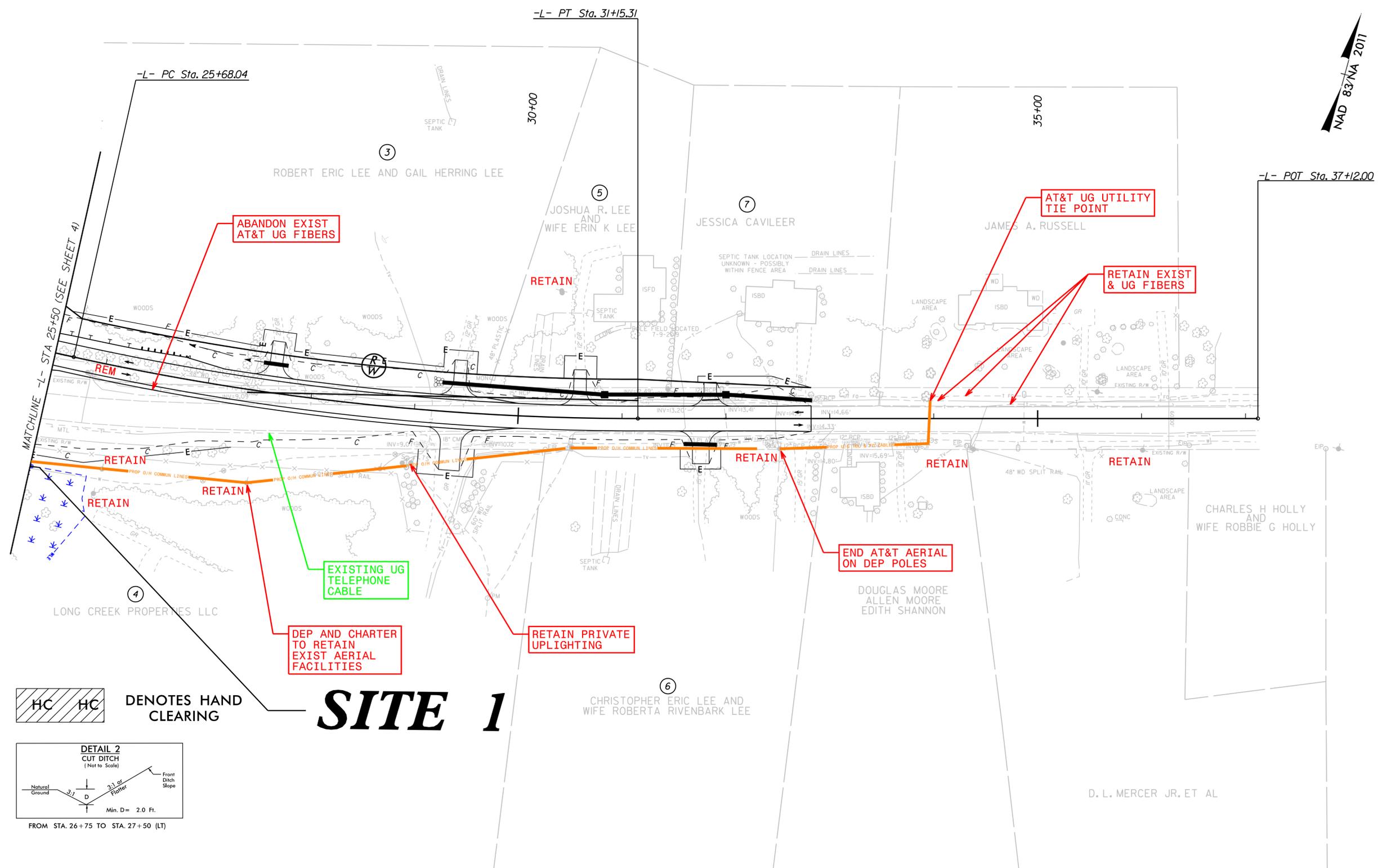
\$DATE\$

PROJECT REFERENCE NO. B-5156	SHEET NO. UE-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

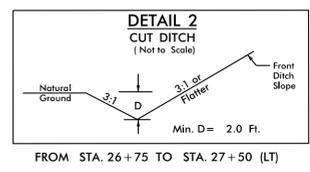
-L-
 PI Sta 28+42.77
 $\Delta = 12' 32'' 32.8''$ (LT)
 $D = 2' 17'' 30.6''$
 $L = 547.27'$
 $T = 274.73'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$



REVISIONS



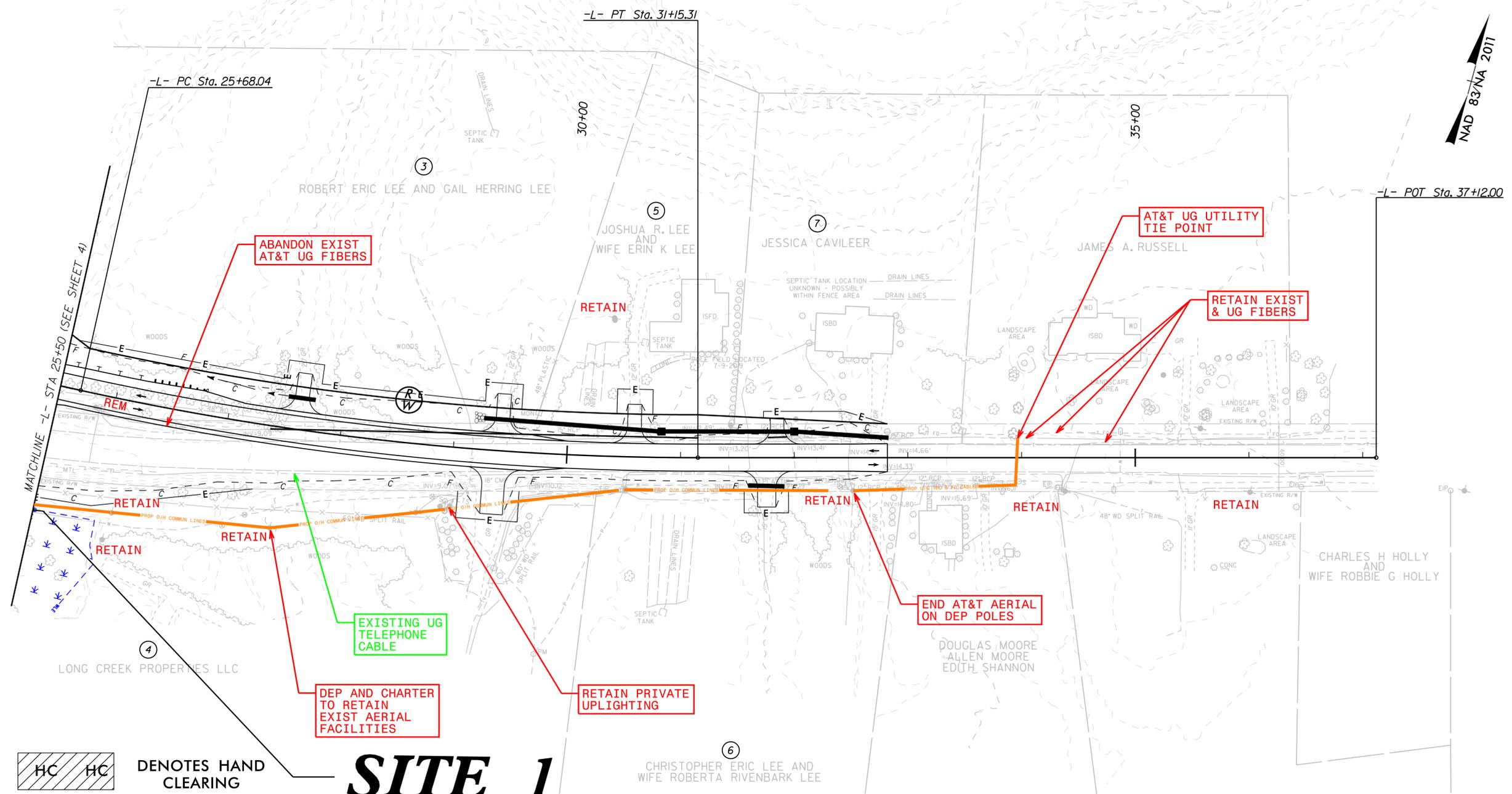
HC HC DENOTES HAND CLEARING



\$DATE\$

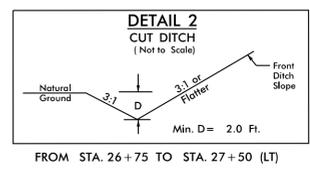
PROJECT REFERENCE NO. B-5156	SHEET NO. UE-3(CON)
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-L-
 PI Sta 28+42.77
 $\Delta = 12^{\circ} 32' 32.8" (LT)$
 $D = 217' 30.6"$
 $L = 547.27'$
 $T = 274.73'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$



HC HC DENOTES HAND CLEARING

SITE 1



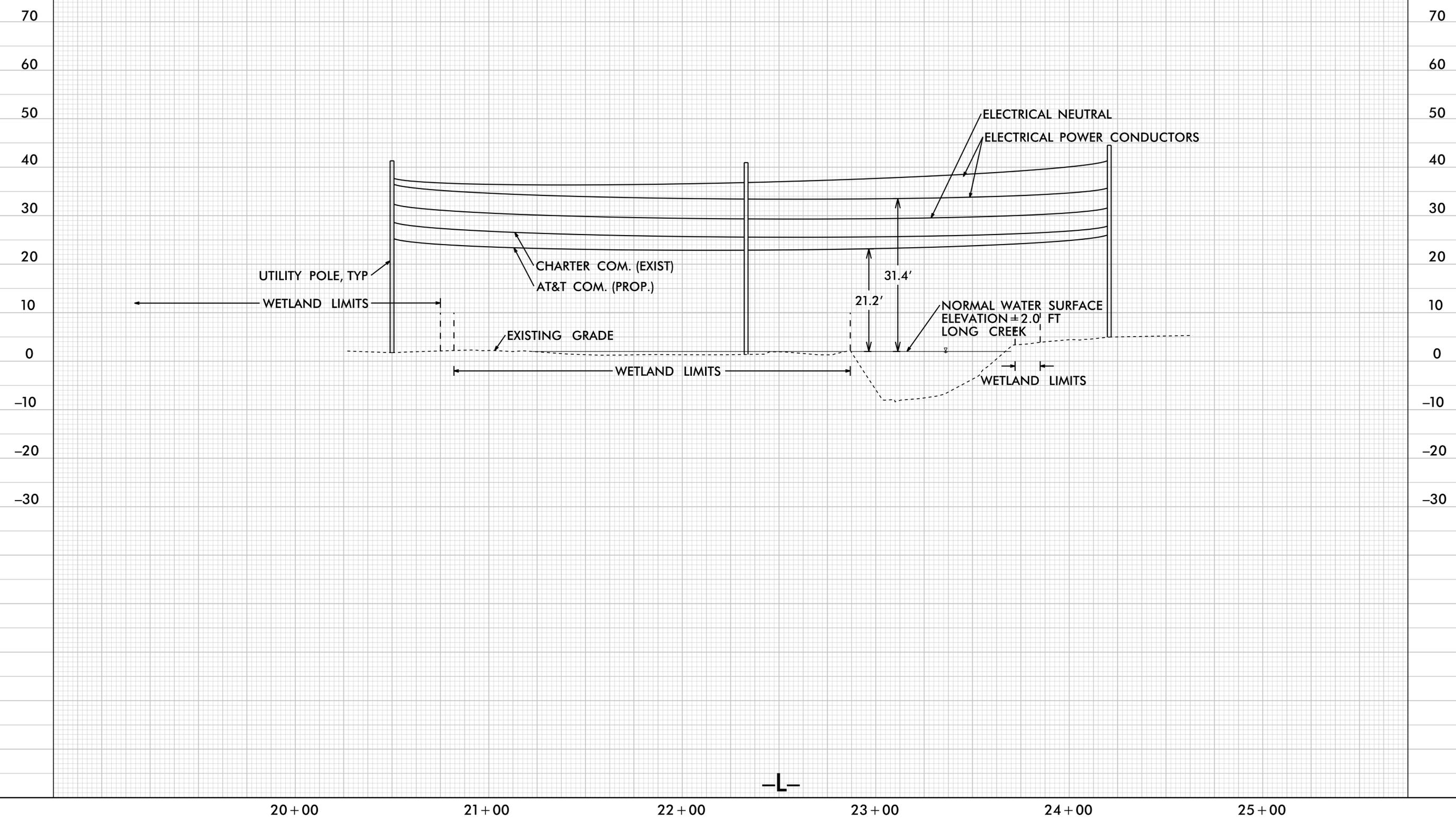
FROM STA. 26+75 TO STA. 27+50 (LT)

5/14/99

\$DATE\$

5/14/99

Kimley»Horn <small>©2002</small> 421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601	PROJECT REFERENCE NO.	SHEET NO.
	B-5/56	UE-4
DESIGNED BY:		
DRAWN BY:		
CHECKED BY:		
APPROVED BY:		
REVISED:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		



\$DATE\$

