



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

1/29/2026

MEMORANDUM TO: Division Environmental and Construction Units

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

SUBJECT: Environmental Permits for the Improvements to NC211 from US15/501
in Aberdeen to SR1244/SR1311 in Raeford in Moore and Hoke Counties,
Division 8, **TIP R-5709**.

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 31 (renewed 12/15/2025) <i>Replaces previous 7/19/21issuance</i>	May 25, 2030
NC Division of Water Resources Section 401 Water Quality Certification	General Cert. No. 4135 [RGP31] (renewed 12/9/2025) <i>Replaces previous 7/14/21issuance</i>	May 25, 2030

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) 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/



**DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WILMINGTON REGULATORY OFFICE
69 DARLINGTON AVENUE
WILMINGTON NORTH CAROLINA 28403**

December 15, 2025

Regulatory Program/Division
SAW-2018-02283

Sent Via Email: jldilday1@ncdot.gov

Jason Dilday, Eastern Regional Team Lead
NCDOT, ECAP, Environmental Analysis Unit
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Mr. Dilday:

This letter is in response to the application you submitted to the Wilmington District, WRDA / Transportation Branch on October 21, 2025, for a Department of the Army general permit verification. This project has been assigned the file number SAW-2018-02283 and is known as NCDOT/R-5709/NC 211 from US 15/501 to SR 1244/SR1311/Division 8. This file number should be referenced in all correspondence concerning this project.

A review of the information provided indicates that the proposed work would include the widening of approximately 15.6-mile-long segment of NC-211 from Aberdeen to Raeford. This verification of the R-5709 project includes minor modifications from what was previously authorized by the Corps on July 19, 2021. The revised R-5709 project will include the permanent placement of fill/structures in a total of 2.29 acres of several wetlands, permanent placement of structures/fill in a total of 1,302 linear feet (lf) of several tributaries, the permanent placement of a total of 104 lf of bank stabilization in several tributaries, the temporary placement of structures/fill in a total of 150 lf of several tributaries for construction/dewatering, and will include the dewatering of a 3 acre open water impoundment. In addition to these impacts, this project will include hand clearing activities in several wetland areas as part of the project construction and utility work. The project area for this determination includes an approximately 223 acres area which is illustrated on the enclosed site plans/maps. The project/review area is located along an approximately 15.6-mile-long segment of NC-211 from the existing two travel lane to the proposed four travel lanes from the NC-211 intersection with NC 15-501 in Aberdeen south to its intersection with SR 1244 (West Palmer Street) and SR 1311 (Mockingbird Hill Road) in Raeford, at Latitude 35.055560 and Longitude -79.332960; in Moore and Hoke Counties, North Carolina.

We have determined that the proposed work is authorized by Regional General Permit 31 (RGP-31) pursuant to authorities under Section 404 of the Clean Water Act (33 U.S.C § 1344). The proposed work must be accomplished in strict accordance with

the enclosed general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans Sheets 1-60 of 60, entitled, "TIP Project: R-5709, NC 211 from US15/US 501 in Aberdeen to SR 1244 (West Palmer St)/SR 1311 (Mockingbird Hill Rd) in Raeford, Moore/Hoke Counties" and dated November 5, 2025 by NCDOT. If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised application must be submitted to this office for written approval before work is initiated. Any deviation from the terms and conditions of the permit, or your submitted plans, may subject the permittee to enforcement action.

This verification is valid until May 25, 2030, unless the subject general permit(s) is suspended, revoked, or is modified prior to that date such that the activity no longer complies with the terms and conditions of the general permit.

Project Specific Special Conditions:

1. All work must be performed in strict compliance with (a) the description of work in the PCN and (b) the Wetlands and Surface Water Impact Permit Drawing(s) (Permit Plans) in the application dated October 21, 2025. Any modification to the description of work and/or the permit plans must be approved by the USACE prior to implementation.
2. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this authorization letter 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 authorization letter, all conditions, and any authorized modifications. A copy of this authorization letter, all conditions, and any authorized modifications, shall be available at the project site during construction and maintenance of this project.
3. The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Conference Opinion (PCO) titled "NCDOT Program Effects on the Tricolored Bat in Divisions 1-8", dated November 20, 2023, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that are specified in the PCO. Your authorization under this Corps permit is conditional upon your compliance with all the mandatory terms and conditions associated with incidental take of the PCO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the PCO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PCO, and with the ESA.

This general permit verification and any associated authorizations does not preclude the necessity to obtain any other Federal, State, or local permits, licenses, and/or certifications, which may be required.

If you have any questions related to this verification or have issues accessing documents referenced in this letter, please contact Stephen Brumagin, WRDA/Transportation Project Manager of the Charlotte Field Office at 704-798-6471, by mail at the above address, or by email at stephen.a.brumagin@usace.army.mil. Please take a moment to complete our customer satisfaction survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Sincerely,

A handwritten signature in black ink that reads "M. Scott Jones". The signature is written in a cursive, flowing style.

M. Scott Jones, PWS
WRDA/Transportation Branch Chief

Enclosures

Revised R-5709 project plans
401 WQC
RGP 31

cc (w/enclosures):

Rex Badgett, NCDOT Div 8 DEO (via jsbadgett@ncdot.gov)

U.S. Army Corps of Engineers (USACE) CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.		<i>Form Approved -</i> OMB No. 0710-0003 <i>Expires 2027-10-31</i>
The Agency Disclosure Notice (ADN) The Public reporting burden for this collection of information, 0710-0003, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil . Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.		
PURPOSE: This form is used by recipients of U.S. Army Corps of Engineer Regulatory permits to certify compliance with the permit terms and conditions. Your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.		
Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, Wilmington District, Regulatory Office. The certification can be submitted by email at <u>Enter Email Name</u> @usace.army.mil or by mail at the below address: U.S. Army Corps of Engineers Wilmington District Office Street Address: 69 Darlington Avenue City: Wilmington State: North Carolina Zip Code: 28403		
COMPLETED BY THE CORPS		
Corps Action Number: SAW-2018-02283 Permit Type: General Permit General Permit Number and Name (if applicable): RGP-31 Name of Permittee: Jason Dilday Project Name: NCDOT/R-5709/NC 211 from US 15/501 to SR 1244/SR1311/Division 8 Project Location (physical address): NC 211 from US 15/501 in Aberdeen to SR 1244/SR 1311 in Raeford Moore and Hoke Counties, North Carolina		
PERMITTEE'S CERTIFICATION		
Date Work Started: Date Work Completed: Enclose photographs showing the completed project (if available). I _____ hereby certify that the work authorized by the above referenced permit has been completed in accordance with all of the permit terms and conditions, and that any required compensatory mitigation has been completed in accordance with the permit conditions.		
Name	Date	Signature

 North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS											
WBS Element: 50205.1.1		TIP No.: R-5709		County(ies): Hoke Moore		Project Type: Roadway Widening		Date: 6/18/2021		Page 1 of 3	
General Project Information											
WBS Element: 50205.1.1		TIP Number: R-5709		Contractor / Designer: Trent Cormier		Address: 8601 Six Forks Road Forum 1, Suite 700 Raleigh, NC 27615		Phone: (919)878-9560		Email: tcormier@rkk.com	
NCDOT Contact: Paul Atkinson, PE		Address: 1202 Birch Ridge Drive Raleigh, NC 27610		County(ies): Hoke		CAMA County? No		City/Town: Lumber		River Basin(s): Aberdeen, Raeford	
Wetlands within Project Limits?		Yes		No		No		No		No	
Project Description											
Project Length (lin. miles or feet):		15.648 Mi.		Surrounding Land Use: Farmland, Woods, Residential		Proposed Project		Existing Site			
Project Built-Upon Area (ac.)		222.7 ac.		A typical cross-section - 178 foot-wide will be used; which will include four 12-foot travel lanes with varying grass medians (23 foot, 30 foot, or 46 foot). It also contains varying exterior shoulder sections where 10-feet is paved, curb and gutter, and open shoulder section.		63.3 ac.		The existing typical cross-section is 24-feet wide with two 12-foot travel lanes and varying 8 to 10-foot unpaved shoulders.			
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: 16,100 / 22,300		Year: 2022 / 2040		Existing: 10,000		Year: 2001			
General Project Narrative: (Description of Minimization of Water Quality Impacts)		R-5709 is a roadway widening project of NC 211 from the existing two lanes to the proposed four lanes in Hoke and Moore Counties. The expansion is 15.648 miles long and begins from US 15-501 in Aberdeen to east of SR 1244 (West Palmer Street) – SR 1311 (Mockingbird Hill Road) in Raeford. Wetlands, perennial streams, and intermittent streams are found within the limits of the project area. The jurisdictional streams within the study area have no impairments and do not provide habitat for any threatened or endangered aquatic species. Design Mitigations for wetlands and streams include: 1. Steepening of roadway fill slopes within jurisdictional areas. 2. Stormwater was designed to avoid direct discharge into jurisdictional features to the maximum extent practicable. 3. Stormwater design velocities entering jurisdictional features have been mitigated to be non-erosive (less than 2 fps). 4. Open shoulder sections were maximized to promote sheet flow from the roadway. 5. Diffuse flow provided at outlets that do not have a well defined outfall.									
Waterbody Information											
Surface Water Body (1):		UT to Devil Gut Branch		NCDWR Stream Index No.:		14-2-11-7					
NCDWR Surface Water Classification for Water Body		Primary Classification: Class C		Supplemental Classification: None							
Other Stream Classification:		None		None							
Impairments:		None		None							
Aquatic T&E Species?		No		Comments:							
NRTS Stream ID:		SA, SB, SD		Buffer Rules in Effect:		N/A					
Project Includes Bridge Spanning Water Body?		No		Dissipator Pads Provided in Buffer?		N/A					
Deck Drains Discharge Over Water Body?		N/A		(If yes, describe in the General Project Narrative)		(If yes, describe in the General Project Narrative)					

 North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS										Page	2	of	3
WBS Element: 50205.1.1 TIP No.: R-5709 County(ies): Hoke Moore													
Additional Waterbody Information													
Surface Water Body (2):		Devil Gut Branch		NCDWR Stream Index No.:		14-2-11-7							
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C									
		Supplemental Classification:		None									
Other Stream Classification:		None											
Impairments:		None											
Aquatic T&E Species?		No		Comments:									
NRTR Stream ID:		SC				Buffer Rules in Effect:		N/A					
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?					
Deck Drains Discharge Over Water Body?		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)					
Surface Water Body (3):		Quewhiffle Creek		NCDWR Stream Index No.:		14-2-14							
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C									
		Supplemental Classification:		None									
Other Stream Classification:		None											
Impairments:		None											
Aquatic T&E Species?		No		Comments:									
NRTR Stream ID:		SE				Buffer Rules in Effect:		N/A					
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?					
Deck Drains Discharge Over Water Body?		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)					
Surface Water Body (4):		UT to Quewhiffle Creek		NCDWR Stream Index No.:		14-2-14							
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C									
		Supplemental Classification:		None									
Other Stream Classification:		None											
Impairments:		None											
Aquatic T&E Species?		No		Comments:									
NRTR Stream ID:		SF, SJ				Buffer Rules in Effect:		N/A					
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?					
Deck Drains Discharge Over Water Body?		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)					
Surface Water Body (5):		UT to Mountain Creek		NCDWR Stream Index No.:		14-2-16-(2)							
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C									
		Supplemental Classification:		None									
Other Stream Classification:		None											
Impairments:		None											
Aquatic T&E Species?		No		Comments:									
NRTR Stream ID:		SG				Buffer Rules in Effect:		N/A					
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?					
Deck Drains Discharge Over Water Body?		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)					

 North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS															
WBS Element: 50205.1.1		TIP No.: R-5709		County(ies): Hoke Moore		Page 3		of 3							
Surface Water Body (6):										UT to Buffalo Creek		NCDWR Stream Index No.: Class C		14-2.5	
NCDWR Surface Water Classification for Water Body										Primary Classification:		Class C			
										Supplemental Classification:		None			
Other Stream Classification:										None					
Impairments:										None					
Aquatic T&E Species?										No		Comments:			
NRTR Stream ID:										SH				Buffer Rules in Effect:	
Project Includes Bridge Spanning Water Body?										No		Deck Drains Discharge Over Buffer?		N/A	
Deck Drains Discharge Over Water Body?										N/A		(If yes, provide justification in the General Project Narrative)		Dissipator Pads Provided in Buffer?	
(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)	
Surface Water Body (7):										UT to Toneys Creek		NCDWR Stream Index No.: Class C		14-10-1.2	
NCDWR Surface Water Classification for Water Body										Primary Classification:		Class C			
										Supplemental Classification:		Swamp Waters (Sw)			
Other Stream Classification:										None					
Impairments:										None					
Aquatic T&E Species?										No		Comments:			
NRTR Stream ID:										SI, SM				Buffer Rules in Effect:	
Project Includes Bridge Spanning Water Body?										No		Deck Drains Discharge Over Buffer?		N/A	
Deck Drains Discharge Over Water Body?										N/A		(If yes, provide justification in the General Project Narrative)		Dissipator Pads Provided in Buffer?	
(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)	
Surface Water Body (8):										UT to Rockfish Creek		NCDWR Stream Index No.: Class B		18-31-(12)	
NCDWR Surface Water Classification for Water Body										Primary Classification:		Class B			
										Supplemental Classification:		None			
Other Stream Classification:										None					
Impairments:										None					
Aquatic T&E Species?										No		Comments:			
NRTR Stream ID:										SK, SL				Buffer Rules in Effect:	
Project Includes Bridge Spanning Water Body?										No		Deck Drains Discharge Over Buffer?		N/A	
Deck Drains Discharge Over Water Body?										N/A		(If yes, provide justification in the General Project Narrative)		Dissipator Pads Provided in Buffer?	
(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)	

11/5/2025 (For Reverification Purposes)

STATE	PROJECT NUMBER	REVISION NO.	DATE
N.C.	R-5709	1	
STATE PROJECT	DESCRIPTION		
50205.1.1	PE		
50205.2.1	ROW		
50205.2.2	UTILITIES		
50205.3.1	CONSTRUCTION		

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

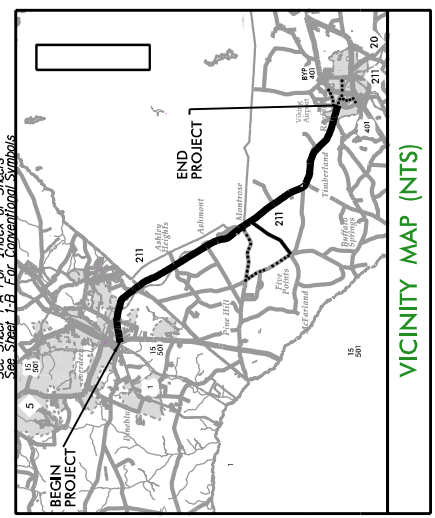
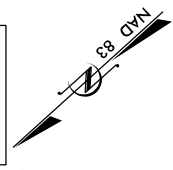
MOORE/HOKE COUNTIES

LOCATION: NC 211 FROM US 15/US 501 IN ABERDEEN TO SR 1244
(WEST PALMER ST)/SR 1311 (MOCKINGBIRD HILL RD) IN RAEFORD

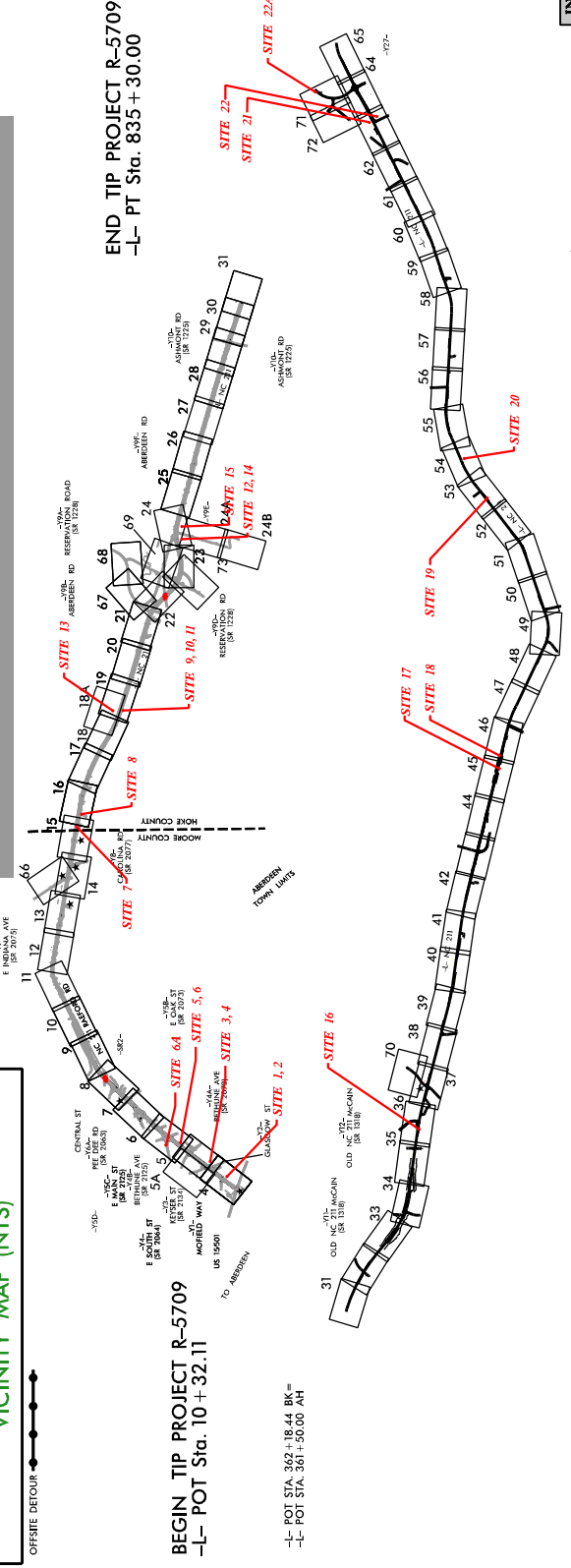
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES AND SIGNALS

WETLAND AND SURFACE WATER IMPACTS
PERMIT DRAWINGS

PERMIT DRAWING
SHEET 1 OF 60
REVISED 12/20/2023



VICINITY MAP (NTS)



END TIP PROJECT R-5709
-L- PT Sta. 835 + 30.00

BEGIN TIP PROJECT R-5709
-L- POT Sta. 10 + 32.11

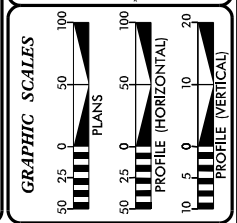
-L- POT STA. 342 + 18.44 BK =
-L- POT STA. 361 + 50.00 AH

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

★ PROPOSED SIGNAL

NOTE:
1. THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS
BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

CONTRACT:



DESIGN DATA
ADT 2024 = 16,400
ADT 2044 = 23,400
K = 9%
D = 60%
T = 21%
**V = 50 MPH/60 MPH
*TST = 16% DUAL 5%
FUNC CLASS =
MINOR ARTERIAL
REGIONAL TIER
**DESIGN SPEED CHANGES AT COUNTY LINE

PROJECT LENGTH
LENGTH ROADWAY TIP PROJECT R-5709..... 15.607 miles
LENGTH STRUCTURE TIP PROJECT R-5709..... 0.031 miles
TOTAL LENGTH OF PROJECT R-5709..... 15.638 miles

NC DOT CONTACT
Terry E. Farr, PE
PROJECT MANAGER



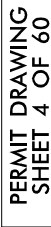
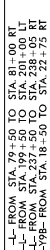
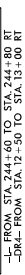
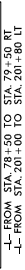
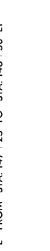
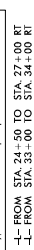
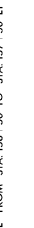
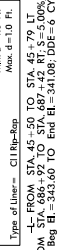
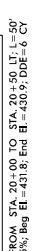
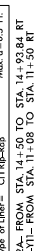
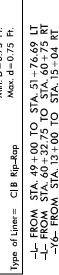
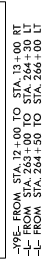
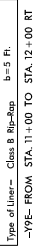
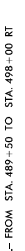
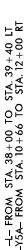
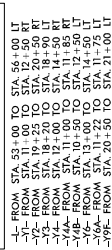
RIGHT OF WAY DATE:
APRIL 23, 2021
LETTING DATE:
MARCH 19, 2024

PROJECT ENGINEER
Brandon McInnis, PE
PROJECT ASSOCIATE ENGINEER
Mary Mays Vahl, PE

HYDRAULICS ENGINEER
P.E.
ROADWAY DESIGN
ENGINEER
P.E.



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



REVISÉ 12/20/2023

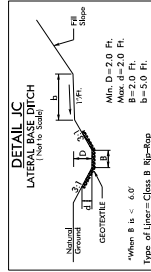
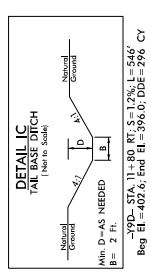
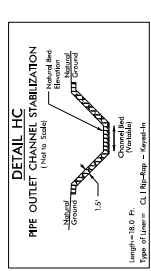
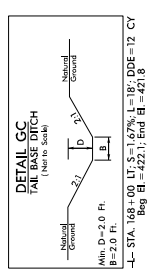
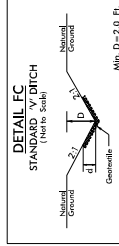
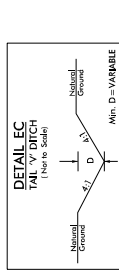
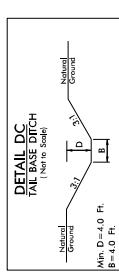
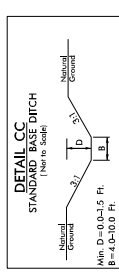
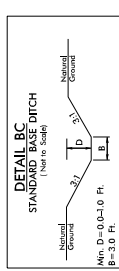
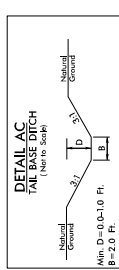
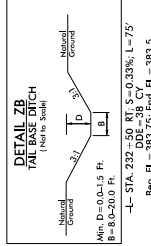
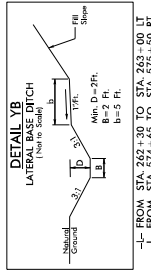
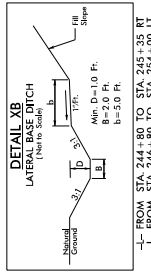
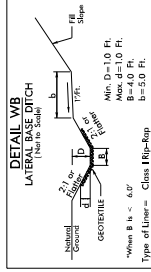
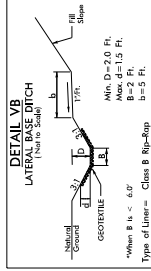
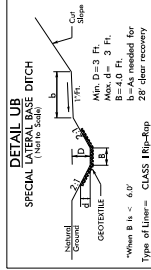
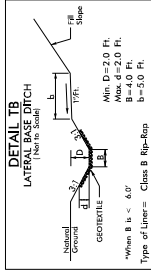
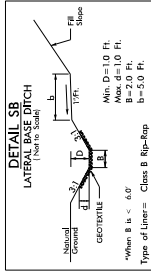
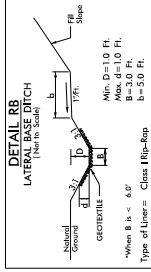
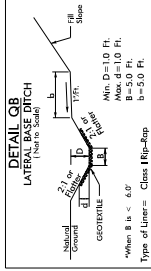
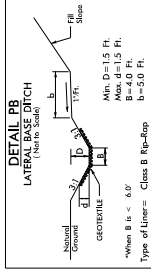
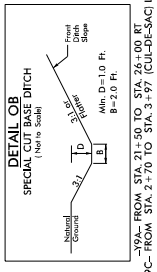
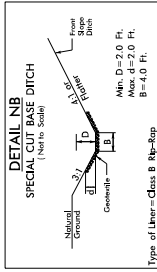
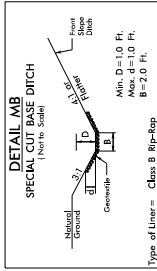
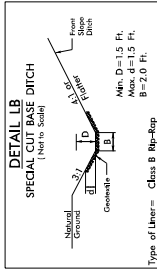


N/A, UD3158, NCS, P-9112
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PROJECT REFERENCE NO.	SHEET NO.
R-5709	2D-4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 5 OF 60

REVISED 12/20/2023

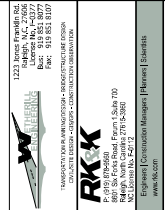
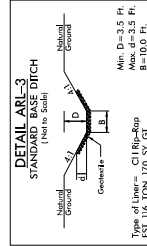
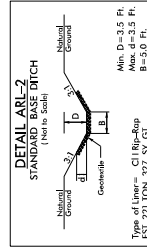
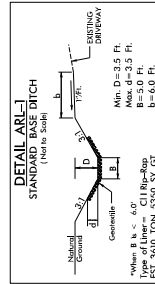
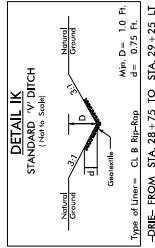
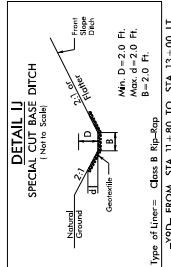
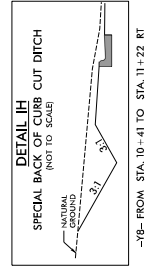
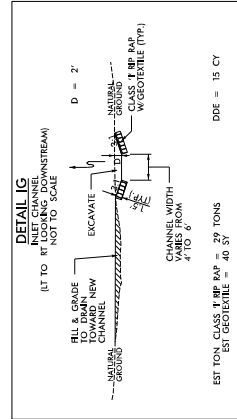
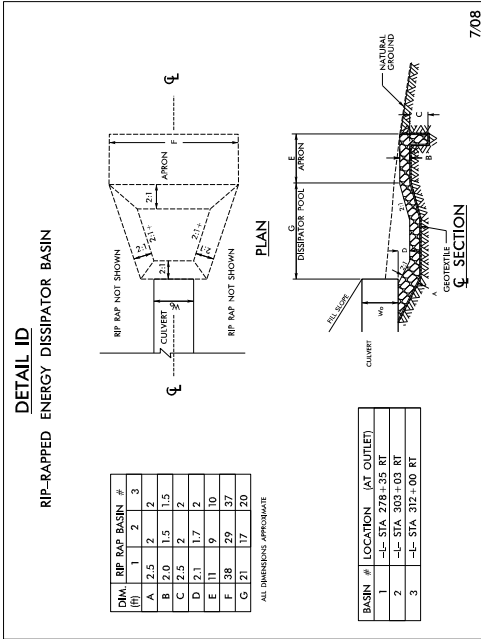
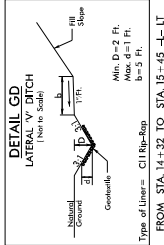
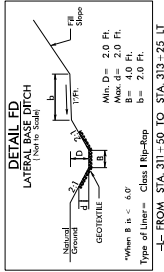
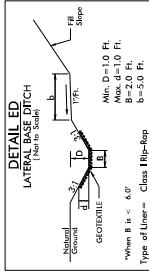
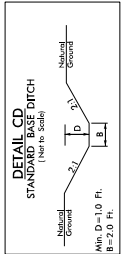


1221 South Main Street
Tampa, FL 33606
Phone: 813.251.1377
Fax: 813.251.1377
Toll-Free: 800.368.5673

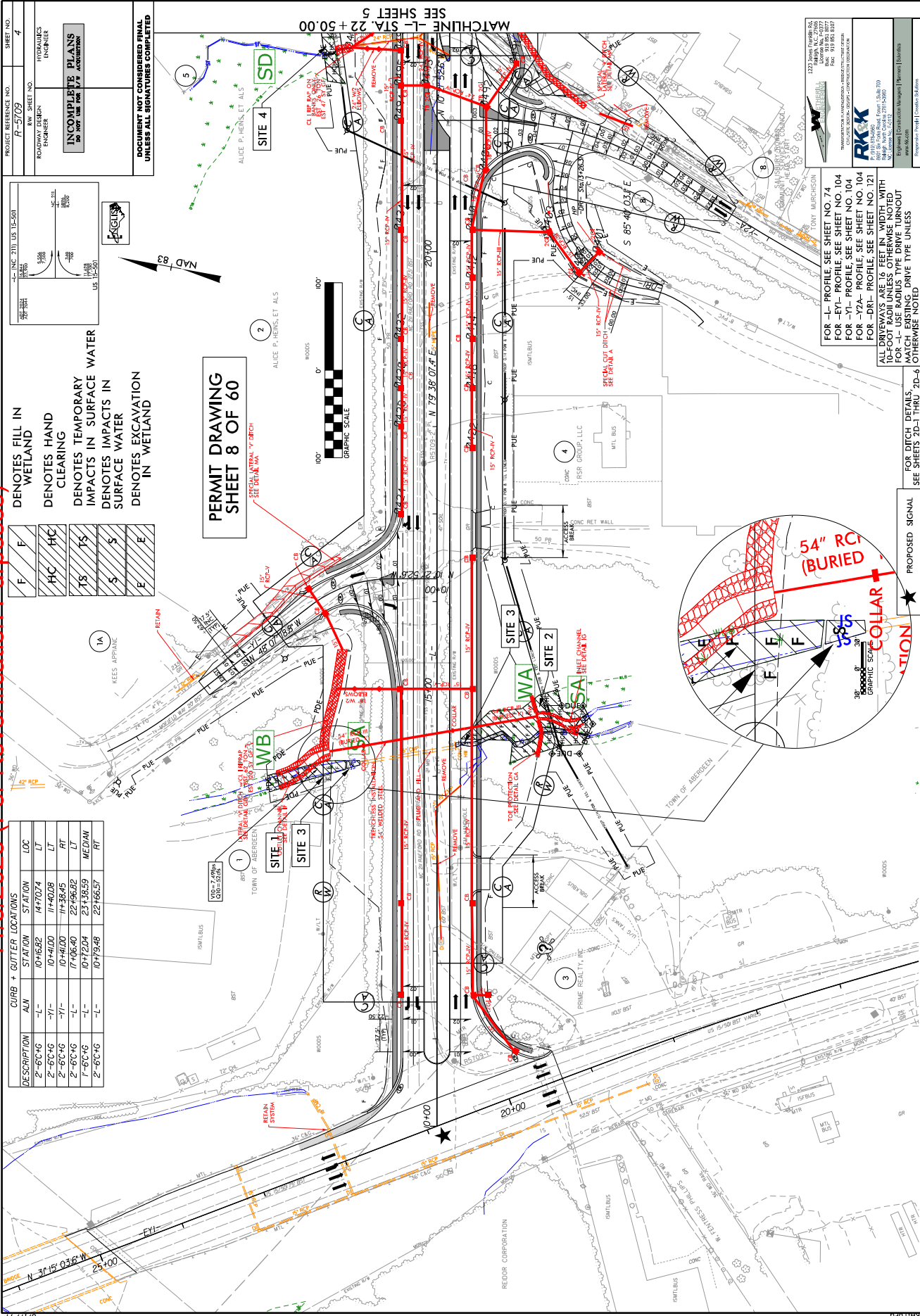
Professional Engineering
Professional Surveying
Professional Land Surveying
Professional Civil Engineering
Professional Mechanical Engineering
Professional Electrical Engineering
Professional Chemical Engineering
Professional Environmental Engineering
Professional Industrial Engineering
Professional Nuclear Engineering
Professional Petroleum Engineering
Professional Marine Engineering
Professional Aeronautical Engineering
Professional Astronautical Engineering
Professional Biomedical Engineering
Professional Biotechnology Engineering
Professional Food Engineering
Professional Textile Engineering
Professional Leather Engineering
Professional Paper Engineering
Professional Printing Engineering
Professional Packaging Engineering
Professional Transportation Engineering
Professional Marine Engineering
Professional Aeronautical Engineering
Professional Astronautical Engineering
Professional Biomedical Engineering
Professional Biotechnology Engineering
Professional Food Engineering
Professional Textile Engineering
Professional Leather Engineering
Professional Paper Engineering
Professional Printing Engineering
Professional Packaging Engineering
Professional Transportation Engineering

PROJECT REFERENCE NO.	SHEET NO.
R-5709	2D-6
HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING SHEET 7 OF 60
REVISED 12/20/2023



11/5/2025 (For Reverification Purposes)



CURB + GUTTER LOCATIONS			
DESCRIPTION	ALN	STATION	LOC
2'-6\"C+G	-L-	0+682	44702.4
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8
2'-6\"C+G	-L-	0+700	44702.8

PERMIT DRAWING
SHEET 8 OF 60

PROJECT REFERENCE NO. R-5709

SHEET NO. 4

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

FOR -L- PROFILE, SEE SHEET NO. 74

FOR -EY- PROFILE, SEE SHEET NO. 104

FOR -YI- PROFILE, SEE SHEET NO. 104

FOR -Y2A- PROFILE, SEE SHEET NO. 104

FOR -DR- PROFILE, SEE SHEET NO. 121

ALL DRIVEWAYS ARE 16 FEET IN WIDTH, WITH 10 FEET OF SIDEWALKS ON EACH SIDE

FOR USE RADIIUS OF DRIVEWAY, BUT MATCH EXISTING DRIVE TYPE UNLESS OTHERWISE NOTED

FOR DITCH DETAILS, SEE SHEETS 2D-1 THRU 2D-6

PROPOSED SIGNAL

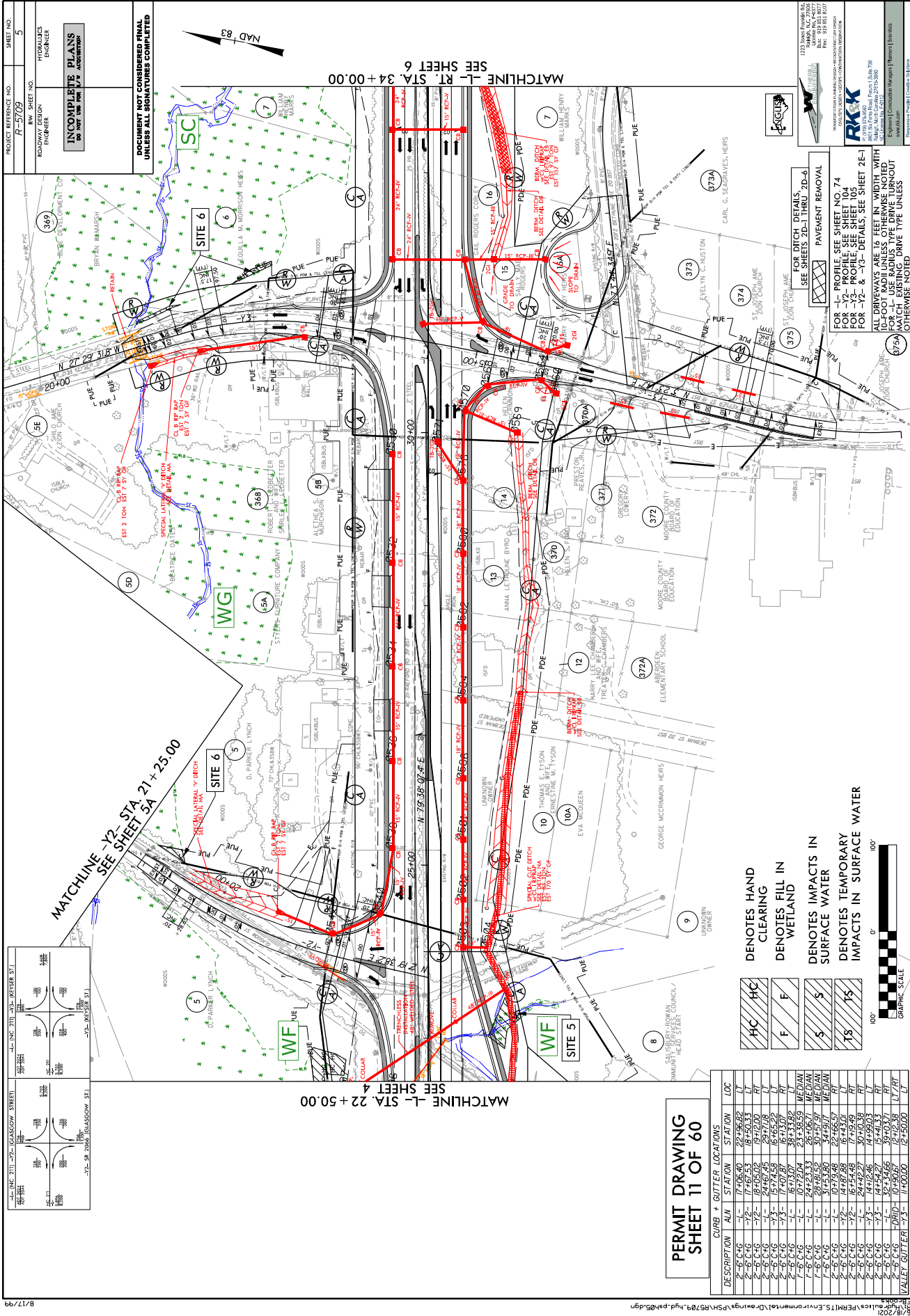
1233 James Street, Suite 200
TAMPA, FL 33606
PH: 813.855.8877
FAX: 813.855.8877
WWW.RK-K.COM

REGISTERED PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. 12576
EXPIRATION DATE: 12/31/2025

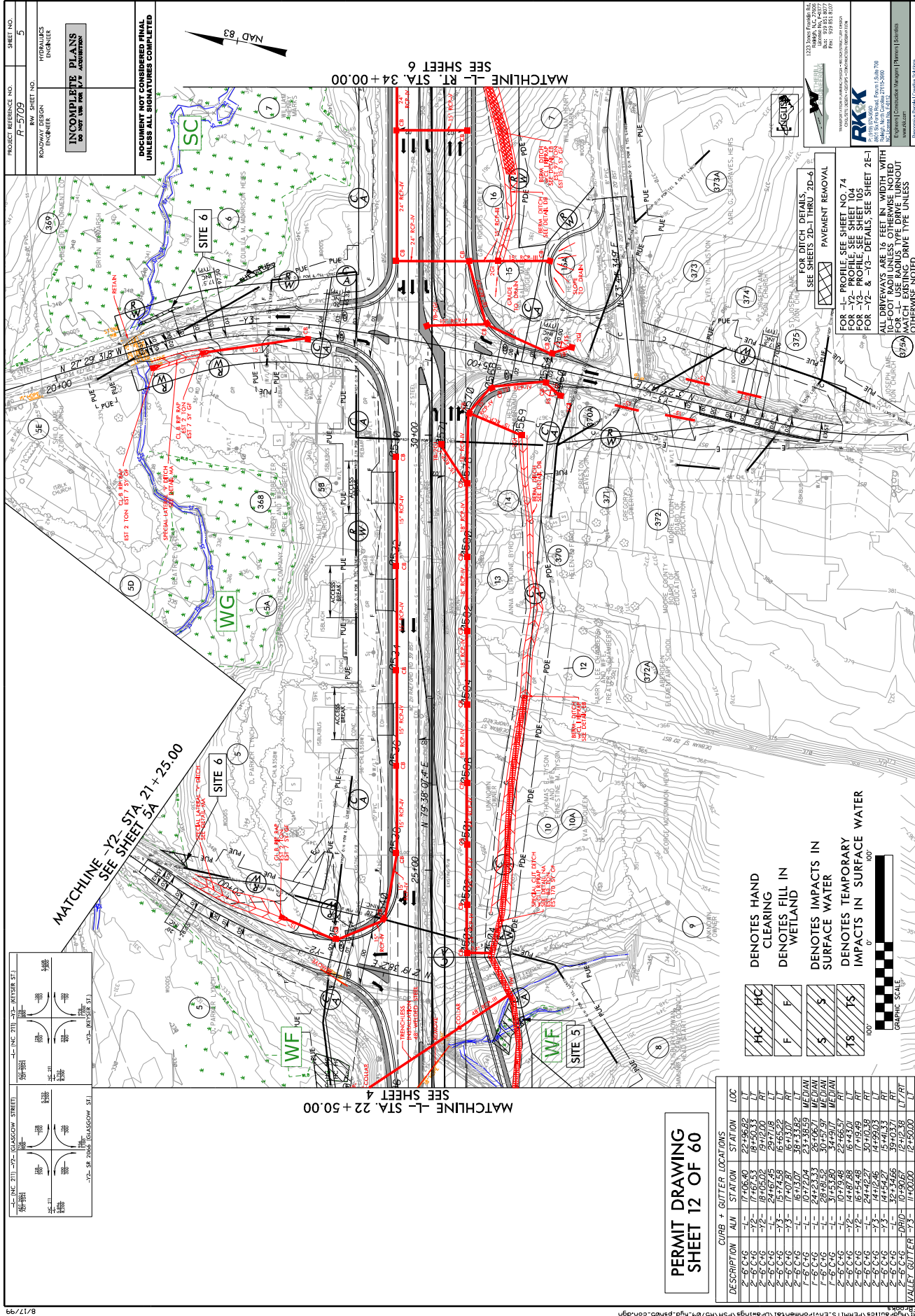
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STATE OF FLORIDA
No. 12576
EXPIRATION DATE: 12/31/2025

914

11/5/2025 (For Reverification Purposes)



11/5/2025 (For Reverification Purposes)



11/5/2025 (For Reverification Purposes)

5/8/2021
C:\Users\jg1616\OneDrive\Documents\Drawings\PSH-R-5709_Rdy_XPL.dgn
6/23/16

SHEET NO.		PROJ. REFERENCE NO.	
ST X-7		R-5709	

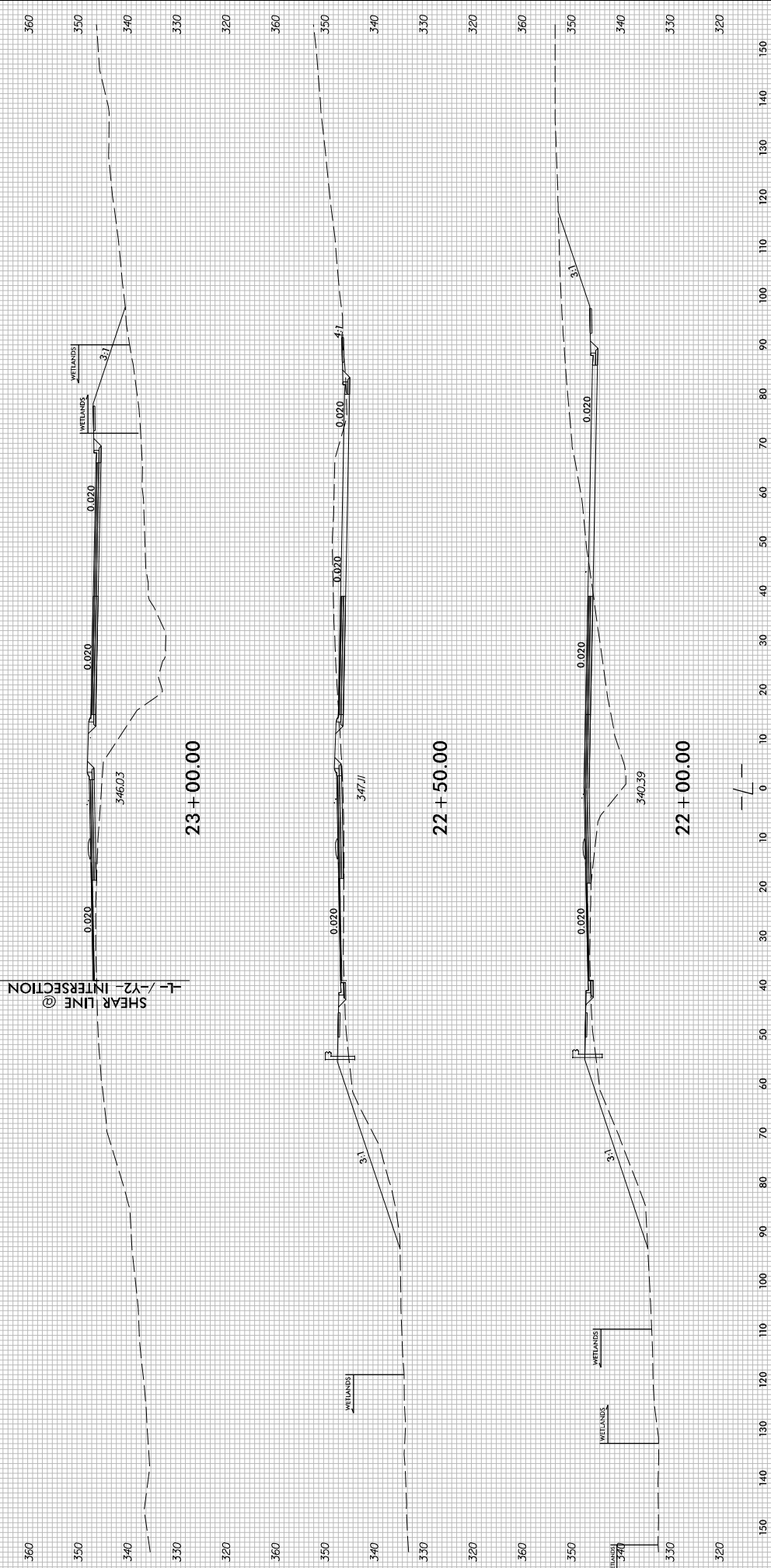
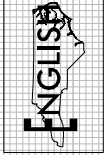
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100	110	120	130	140	150
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PERMIT DRAWING
SHEET 13 OF 60

SITE 4

SITE 5



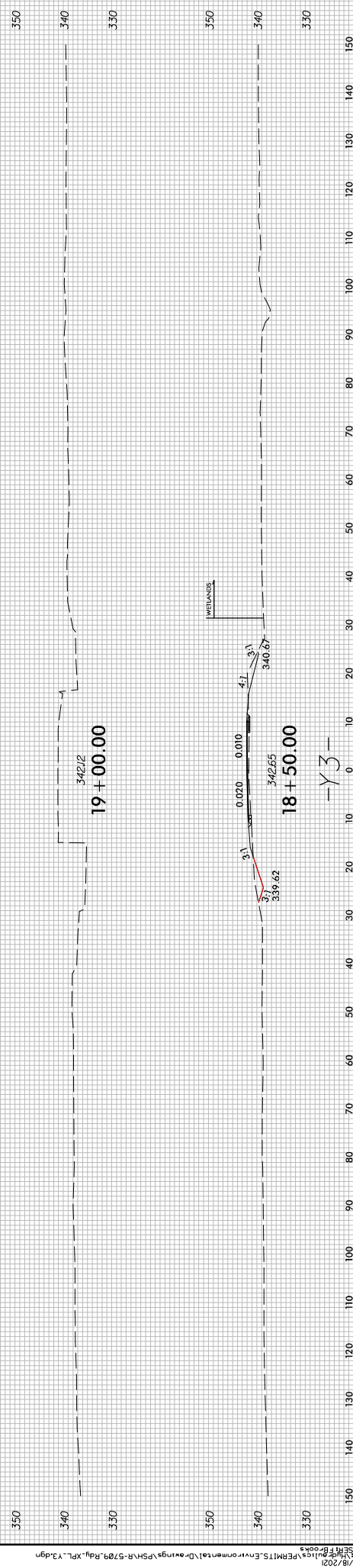
11/5/2025 (For Reverification Purposes)



PERMIT DRAWING
SHEET 14 OF 60



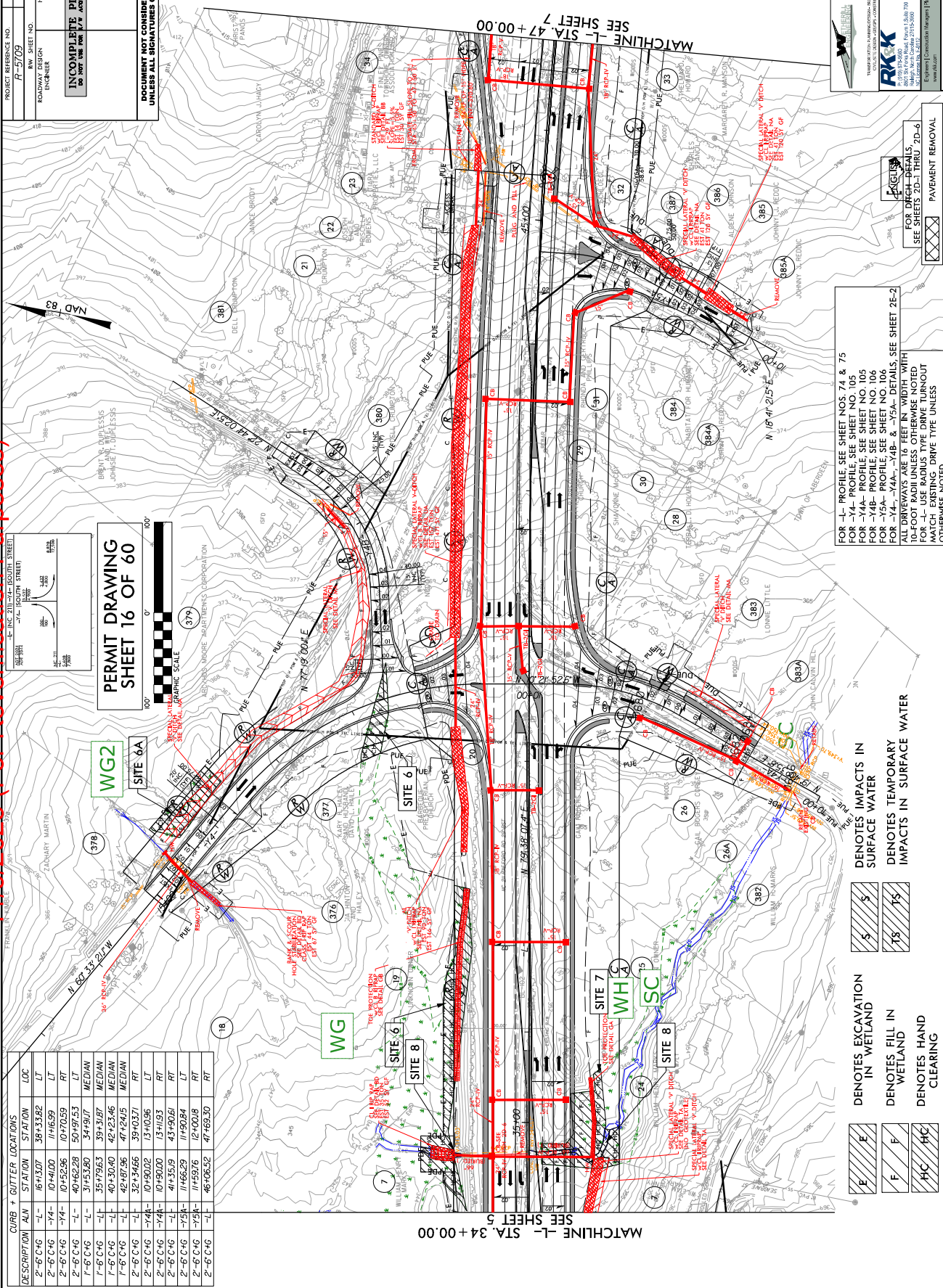
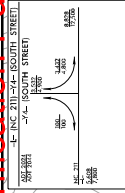
SITE 6



PROJECT REFERENCE NO.	R-5709	SHEET NO.	6
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR P/V ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

DESCRIPTION	CURB		BUTTER		LOCATIONS	
	ALN	STATION	ALN	STATION	LOC	
2'-6" C-6	-Y-	6+13.07	38+33.82	LT		
2'-6" C-6	-Y-	10+41.00	11+66.99	RT		
2'-6" C-6	-Y-	10+52.96	10+70.59	RT		
2'-6" C-6	-Y-	40+46.28	50+49.53	LT		
2'-6" C-6	-Y-	40+162.80	34+187.7	MEDIAN		
2'-6" C-6	-Y-	35+719.63	35+138.7	MEDIAN		
2'-6" C-6	-Y-	40+30.40	42+23.46	MEDIAN		
2'-6" C-6	-Y-	42+48.96	47+24.15	MEDIAN		
2'-6" C-6	-Y-	32+34.66	39+03.71	MEDIAN		
2'-6" C-6	-Y-	10+90.02	13+01.96	LT		
2'-6" C-6	-Y-	10+90.02	13+01.93	RT		
2'-6" C-6	-Y-	44+35.19	43+90.61	RT		
2'-6" C-6	-Y-	11+66.29	11+90.84	RT		
2'-6" C-6	-Y-	11+66.52	12+00.18	RT		
2'-6" C-6	-Y-	46+06.76	47+63.30	RT		

PERMIT DRAWING
SHEET 16 OF 60



FOR -1- PROFILE, SEE SHEET NOS. 74 & 75
FOR -Y4- PROFILE, SEE SHEET NO. 105
FOR -Y4A- PROFILE, SEE SHEET NO. 105
FOR -Y4B- PROFILE, SEE SHEET NO. 106
FOR -Y4B- PROFILE, SEE SHEET NO. 106
FOR -Y4A- -Y4A- -Y4B- -Y5A- DETAILS, SEE
ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH
10-FOOT RADII UNLESS OTHERWISE NOTED
FOR -L- USE RADIIUS TYPE DRIVE TURNOUT
MATCH EXISTING DRIVE TYPE UNLESS
OTHERWISE NOTED

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


**FOR DITCH DETAILS,
SEE SHEETS 2D-1 THRU 2D-6**

PAVEMENT REMOVAL



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Fax: 919 851 8107

TRANSFORMATION PLANNING DESIGN • RECONSTRUCTION DESIGN
CONSTRUCTION DESIGN • CONSTRUCTION ADMINISTRATION



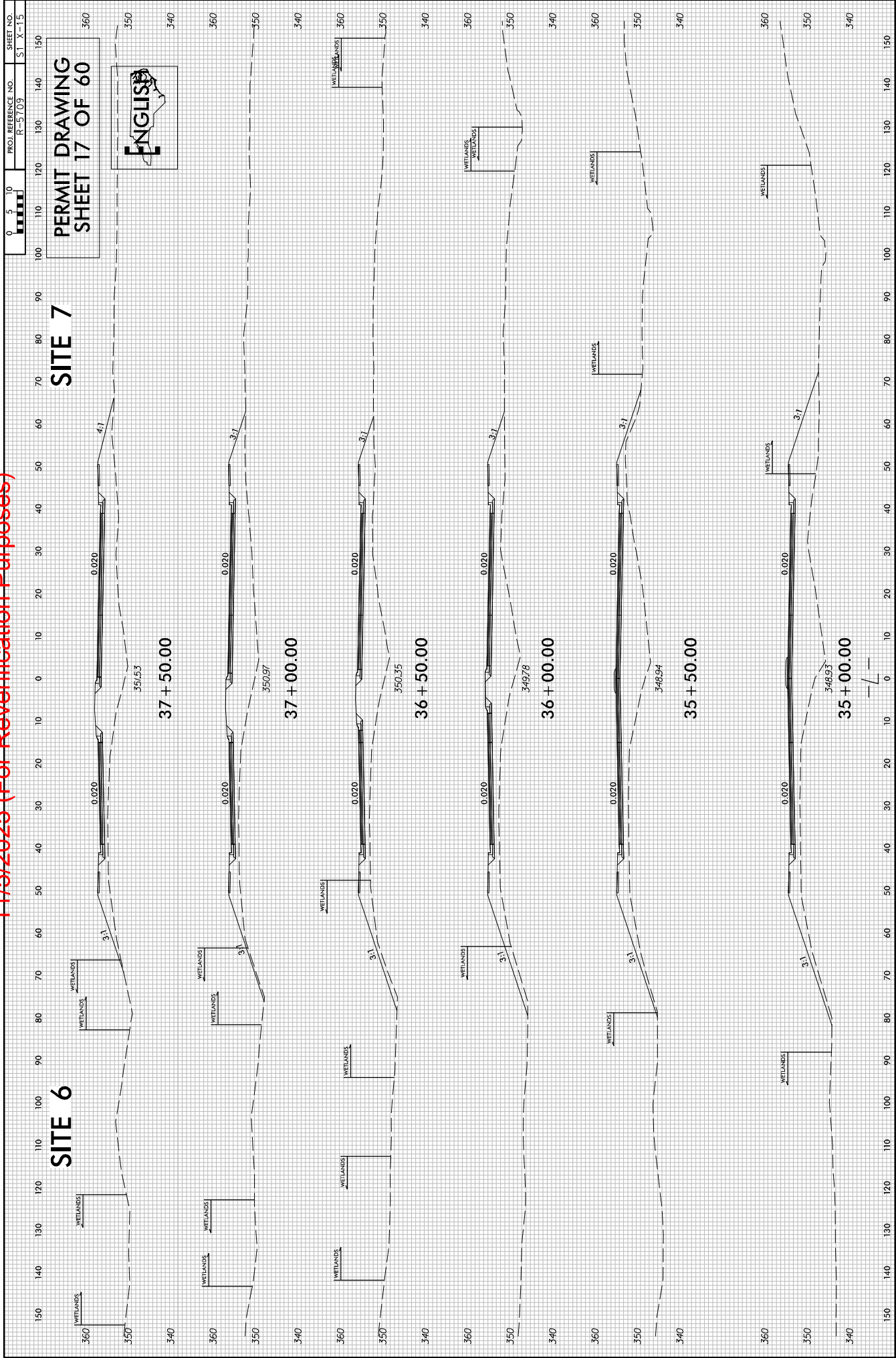
26 3100 878-0469
3601 St. Francis Road, Fourth Floor
Raleigh, North Carolina 27615-3990
SC License No. F-4112

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6/23/16



SITE 6

SITE 7

PERMIT DRAWING
SHEET 17 OF 60



PROJ. REFERENCE NO.				SHEET NO.			
R-5709				S1 X-15			

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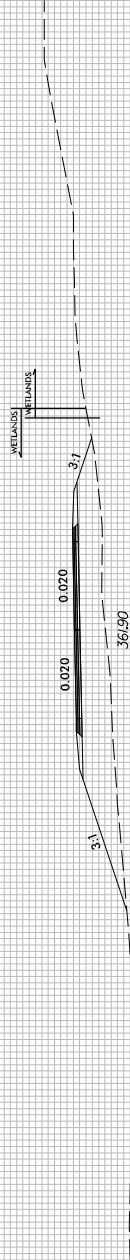
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			R-5709	ST X-167

SITE 6

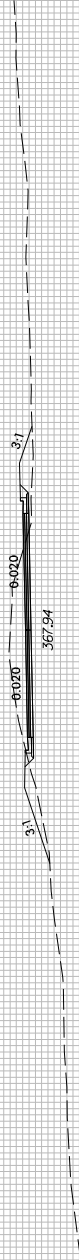
PERMIT DRAWING
SHEET 18 OF 60



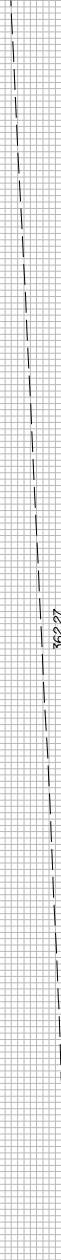
12 + 00.00



11 + 50.00



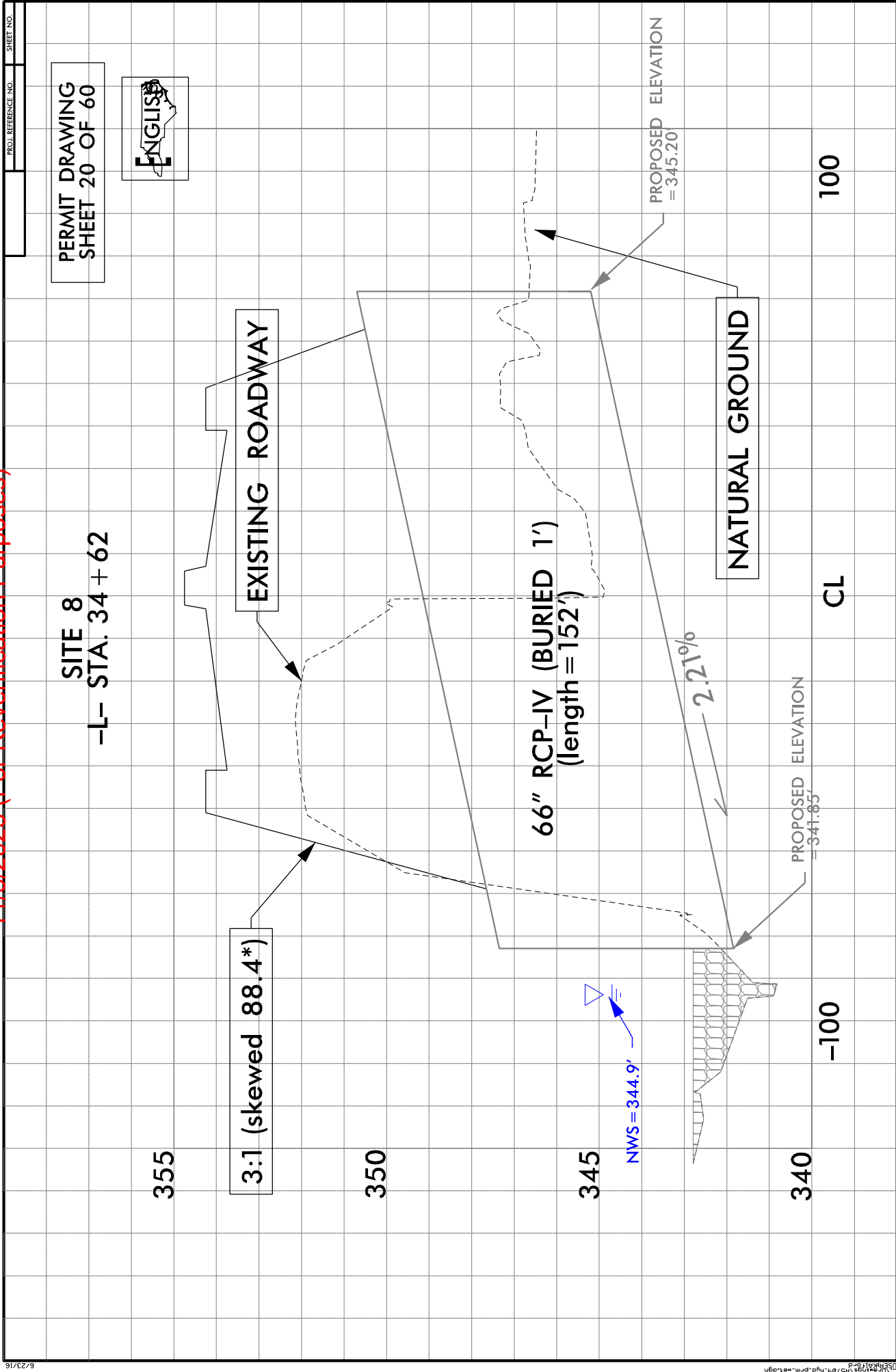
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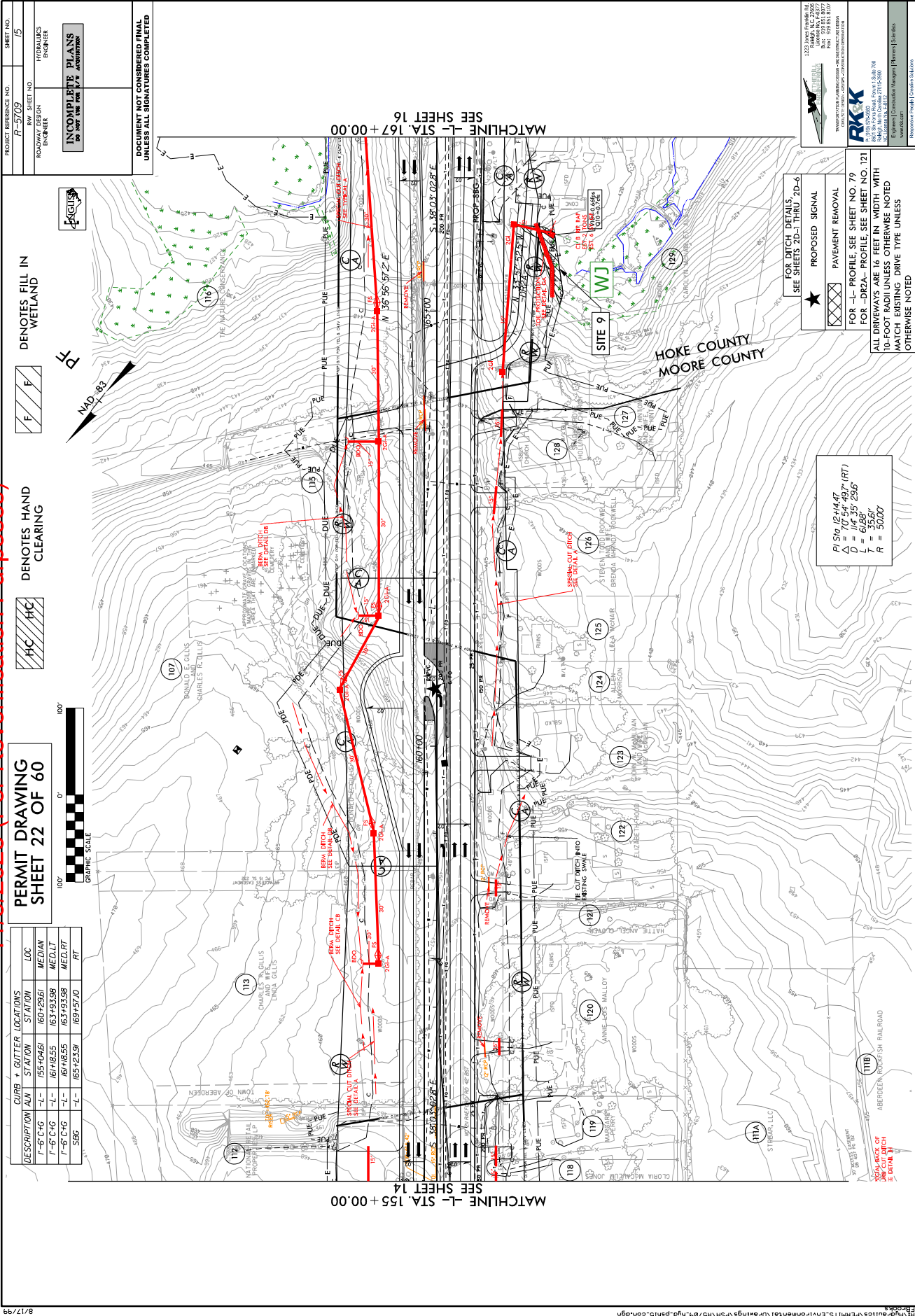
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-Y4-

11/5/2025 (For Reverification Purposes)



11/5/2025 (For Reverification Purposes)



PROJECT REFERENCE NO. **R-5709**

SHEET NO. **15**

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION

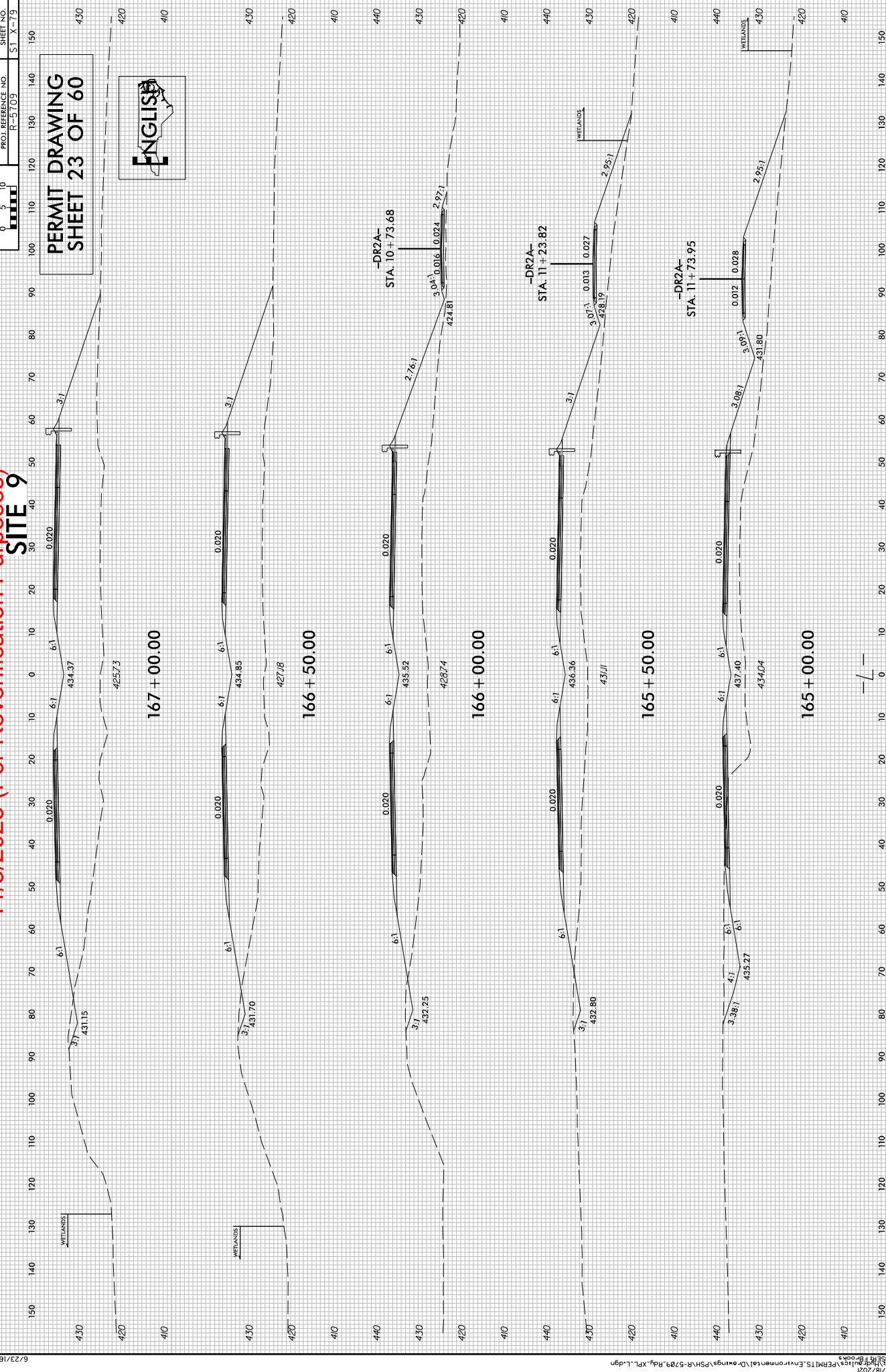
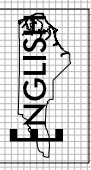
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CURB + GUTTER LOCATIONS			
DESCRIPTION	ALN	STATION	LOC
F-6 C+G	-L-	155+04.61	MEDIAN
F-6 C+G	-L-	161+08.55	MEDIAN
F-6 C+G	-L-	161+08.55	MEDIAN
SEG	-L-	165+23.59	169+57.00

11/5/2025 (For Reverification Purposes)

SITE 9

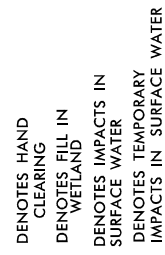
PERMIT DRAWING
SHEET 23 OF 60



PROJECT REFERENCE NO.	R-5709	BW SHEET NO.	
SHEET NO.	16	HYDRAULICS ENGINEER	
		ROADWAY DESIGN ENGINEER	

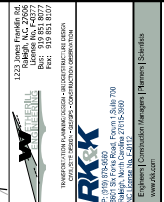
INCOMPLETE PLANS
DO NOT USE FOR A/W ACQUISITION

PERMIT DRAWING
SHEET 25 OF 60



FOR DITCH DETAILS,
SEE SHEETS 2D-1 THRU 2D-6

ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH 10-FOOT RADII UNLESS OTHERWISE NOTED MATCH EXISTING DRIVE TYPE UNLESS OTHERWISE NOTED



11/5/2025 (For Reverification Purposes)

PROJ. REFERENCE NO. R-5709

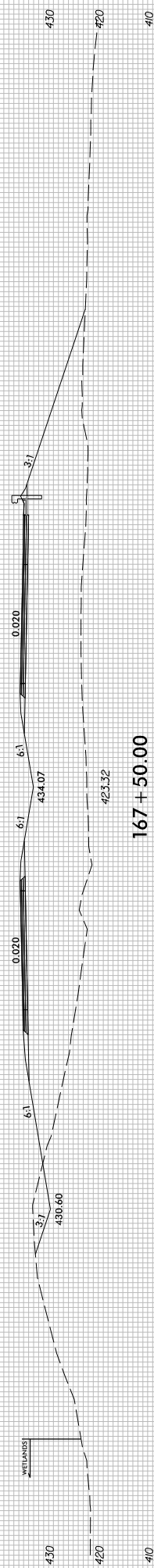
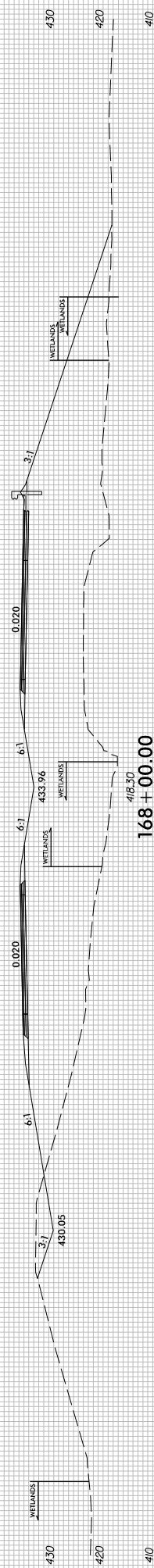
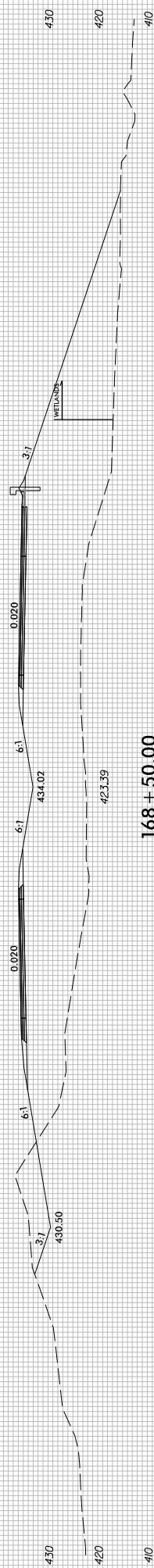
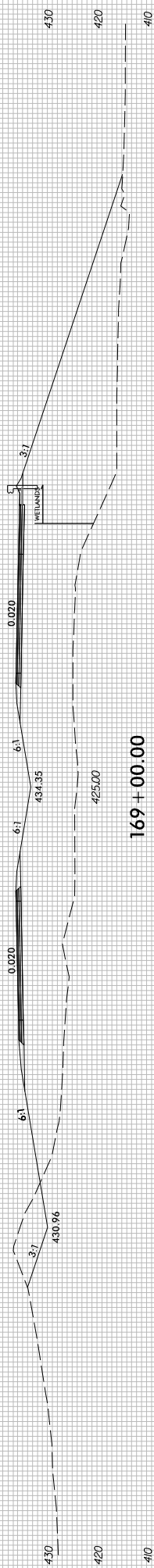
SHEET NO. S1 X-80

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PERMIT DRAWING
SHEET 26 OF 60

SITE 10



—L—

11/5/2025 (For Reverification Purposes)

PROJECT REFERENCE NO.	SHEET NO.
R-5709	18
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 28 OF 60

F
F

100' 0' 100'

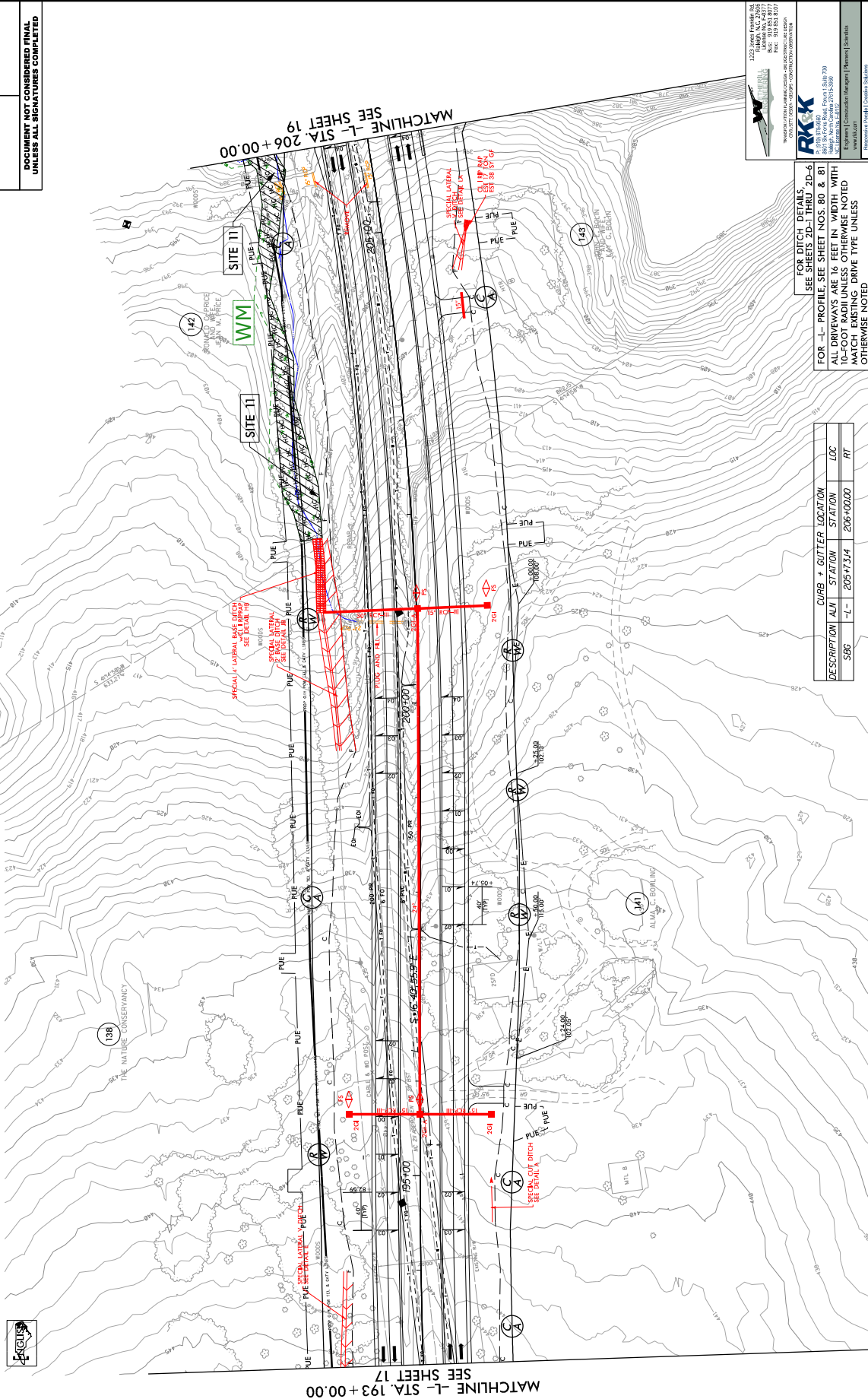


HC
HC

HC
HC



NAD 83



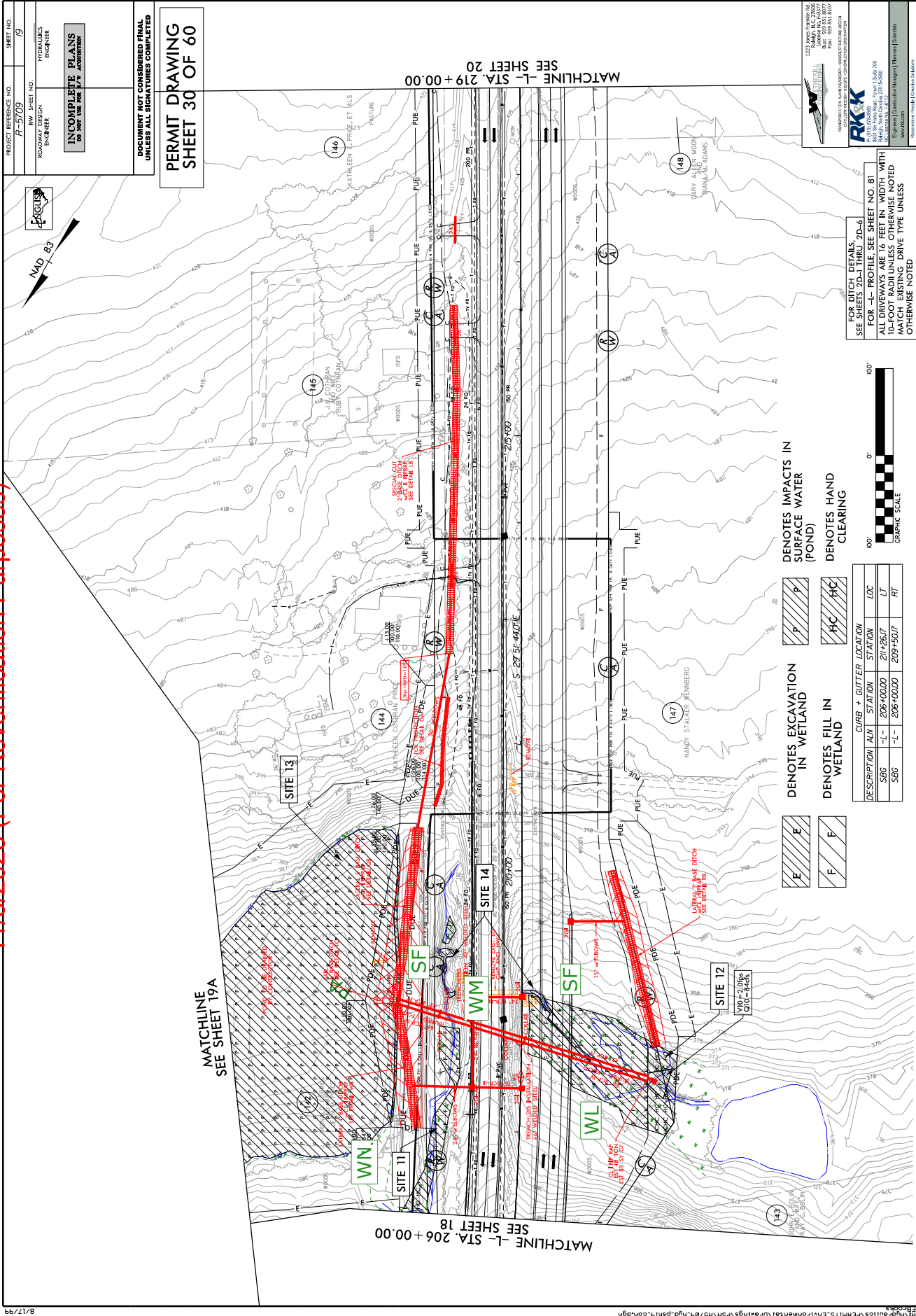
DESCRIPTION	ALN	STATION	LOCATION	LOC
SBC	-L-	205+73.4	206+00.00	RT

FOR DITCH DEATHS
SEE SHEET 20-1 THRU 20-6
FOR -L- PROFILE SEE SHEET NOS. 80 & 81
ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH
10-FOOT RADIUS UNLESS OTHERWISE NOTED
MATCH EXISTING DRIVE TYPE UNLESS
OTHERWISE NOTED

RK&K
1230 West Broadway, Suite 200
Alhambra, CA 91803
Tel: 626.286.8800
Fax: 626.286.8801
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FOR THE CITY OF ALHAMBRA, CALIFORNIA - A COMMUNITY DEVELOPMENT PROJECT

11/5/2025 (For Reverification Purposes)



11/5/2025 (For Reverification Purposes)

PROJECT REFERENCE NO.	SHEET NO.
R-5709	19A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

100'

0'

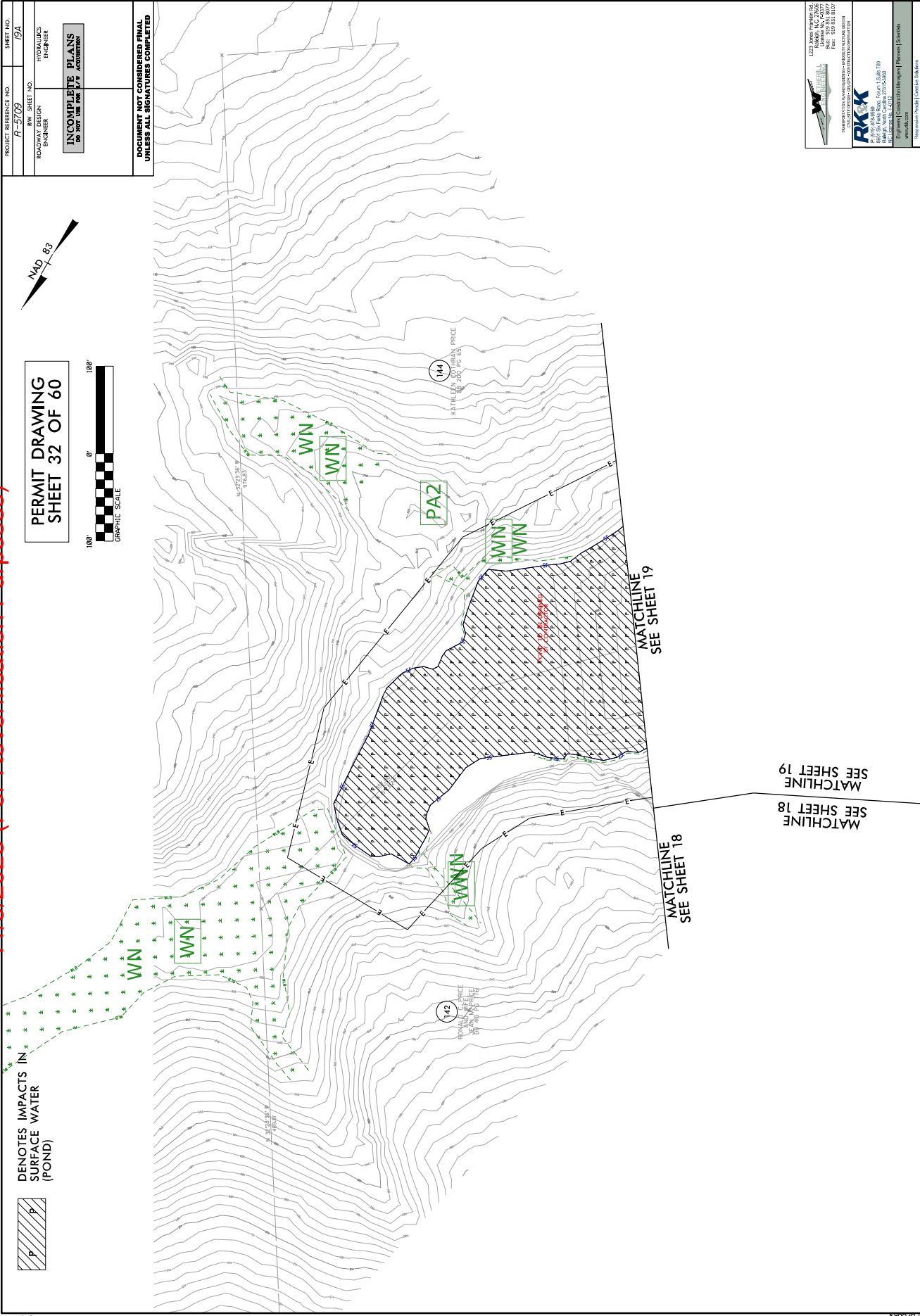
100'

GRAPHIC SCALE

NAD 83

PERMIT DRAWING

SHEET 32 OF 60



1225 New South Rd.
Suite 200
Raleigh, NC 27606
Phone: 919.551.8877
Fax: 919.551.8877
www.rkk.com

RKK

RALEIGH KIMMEL ASSOCIATES, INC.
A Division of RKK
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F: 919.551.8877
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1225 New South Rd.
Suite 200
Raleigh, NC 27606
Phone: 919.551.8877
Fax: 919.551.8877
www.rkk.com

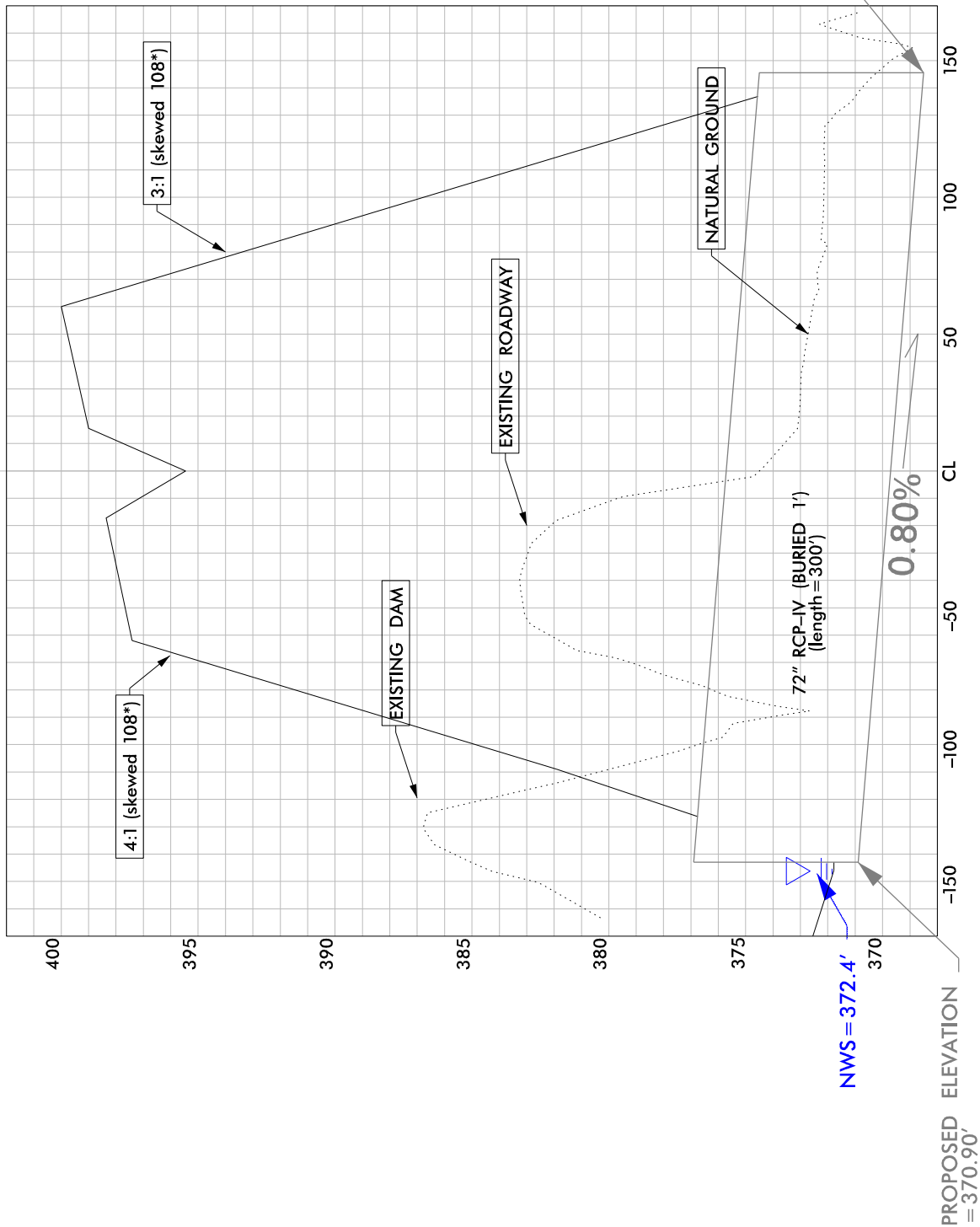
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11/5/2025 (For Reverification Purposes)

SITE 14
-L- STA. 208+07

PERMIT DRAWING
SHEET 33 OF 60

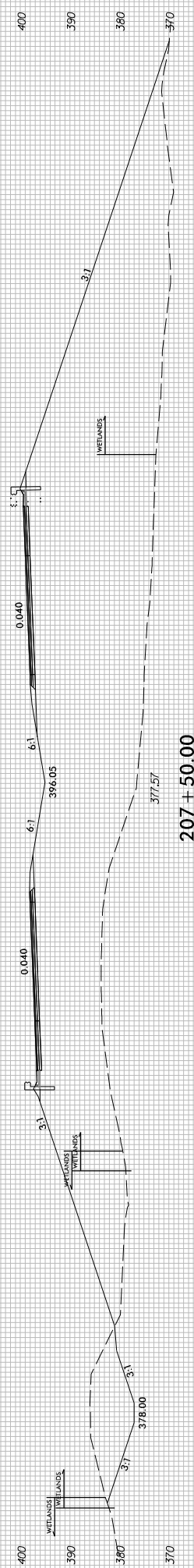
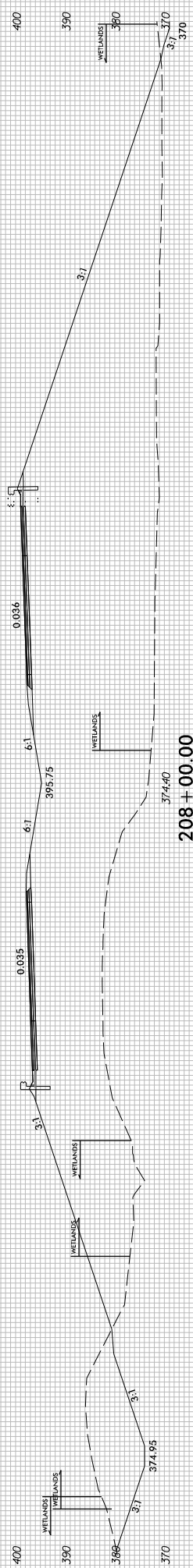
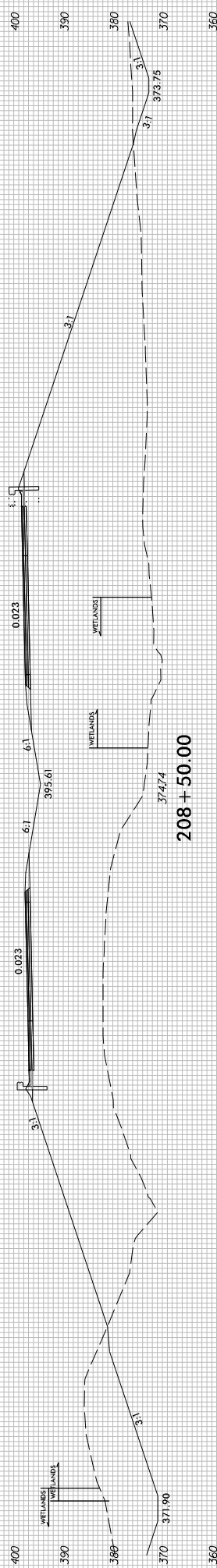
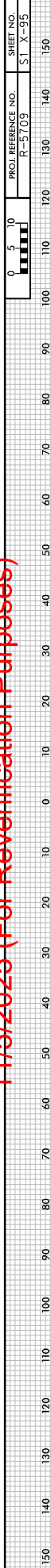


11/5/2025 (For Reverification Purposes)

SITES 11, 13

SITES 12

PERMIT DRAWING
SHEET 34 OF 60

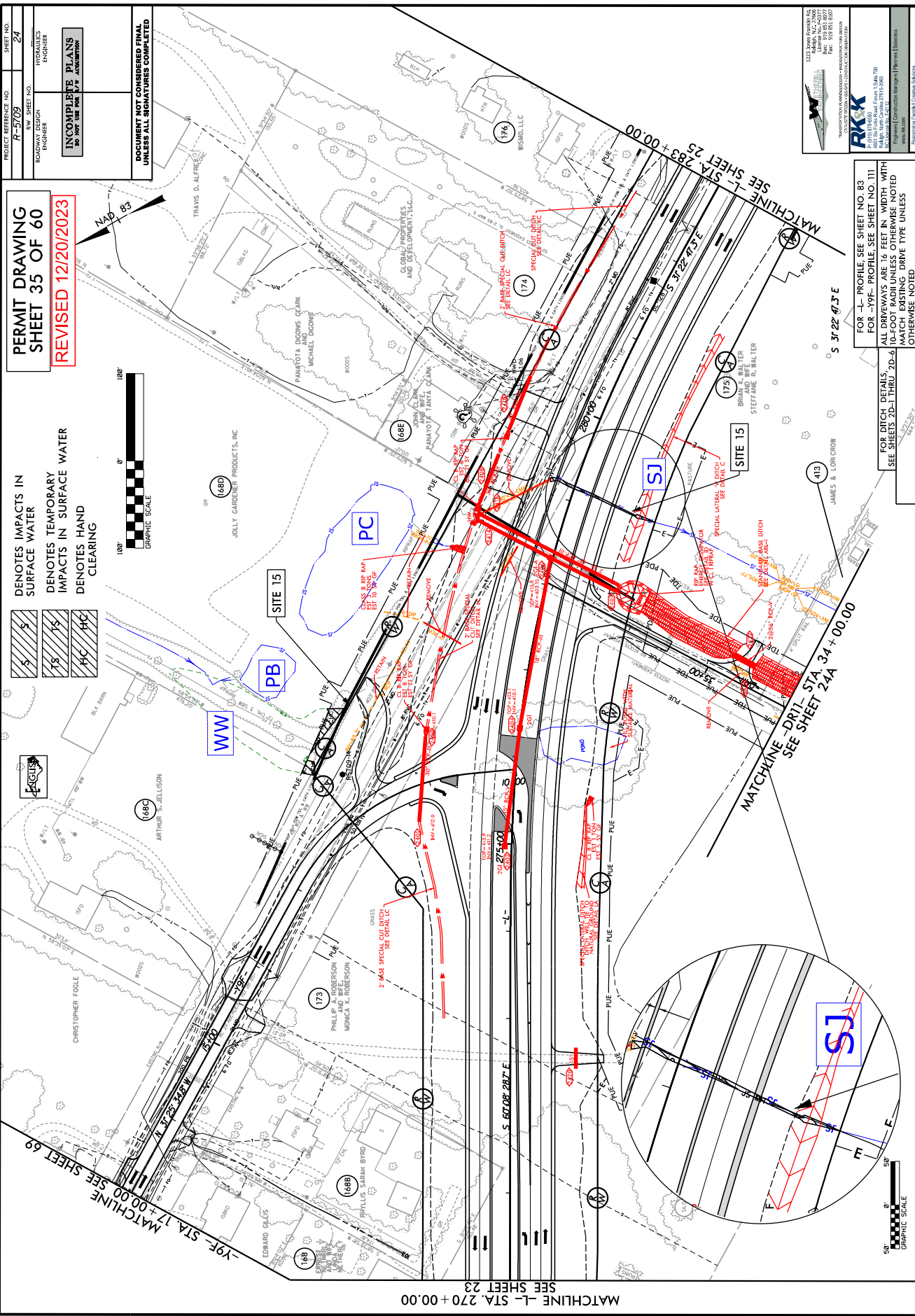


	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE
	DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 35 OF 60
REVISED 12/20/2023

REVISED 12/20/2023

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



FOR -L- PROFILE, SEE SHEET NO. 83
FOR -Y9F- PROFILE, SEE SHEET NO. 1111

FOR DITCH DETAILS,
SEE SHEETS 2D-1 THRU 2D-6

5,

BAR

9

F

A close-up view of the 50-degree angle on the protractor. The angle is marked with a blue line and a black line, and the number 50 is visible.

0' 1"

50'  GRAPHIC

3/3/2024
R:\Hydrolics\PE\HStgob

11/5/2025 (For Reverification Purposes)

6/23/16	PROJ. REFERENCE NO.	SHEET NO.
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PERMIT DRAWING
SHEET 37 OF 60

420

SITE 15
-L- STA. 278+80

4:1 (skewed 72.5*)

EXISTING ROADWAY

415

NATURAL GROUND

2@48" RCP-III
length = 174'

410

NWS = 410.2'

PROPOSED ELEVATION
= 409.40'

0.98%

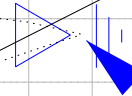
405

PROPOSED ELEVATION
= 407.70'

-100

CL

100



11/5/2025 (For Reverification Purposes)



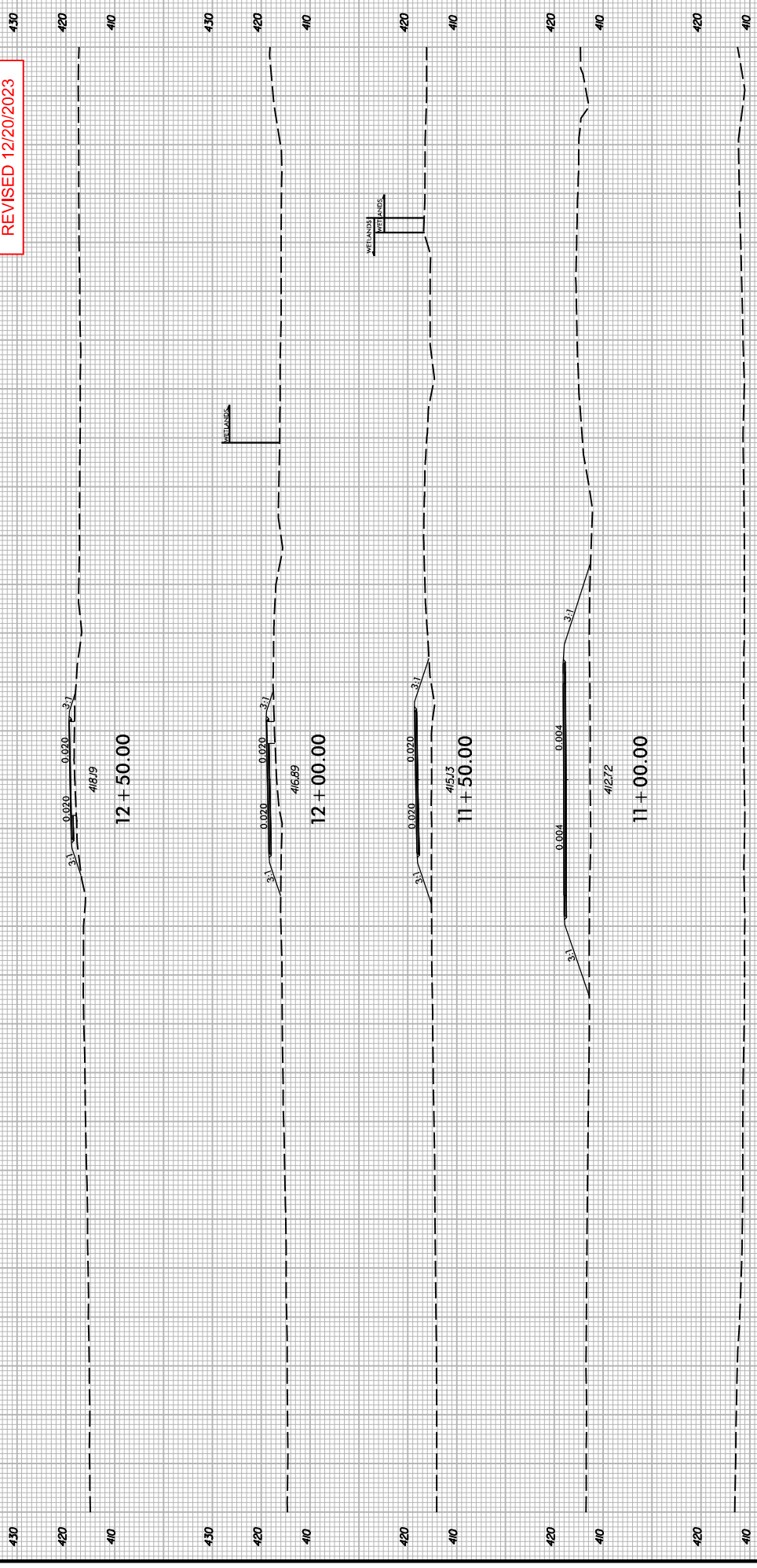
6/23/16 5/9/2023 12:53:29 Rdy.XPL.Y9F.dgn

SITE 15

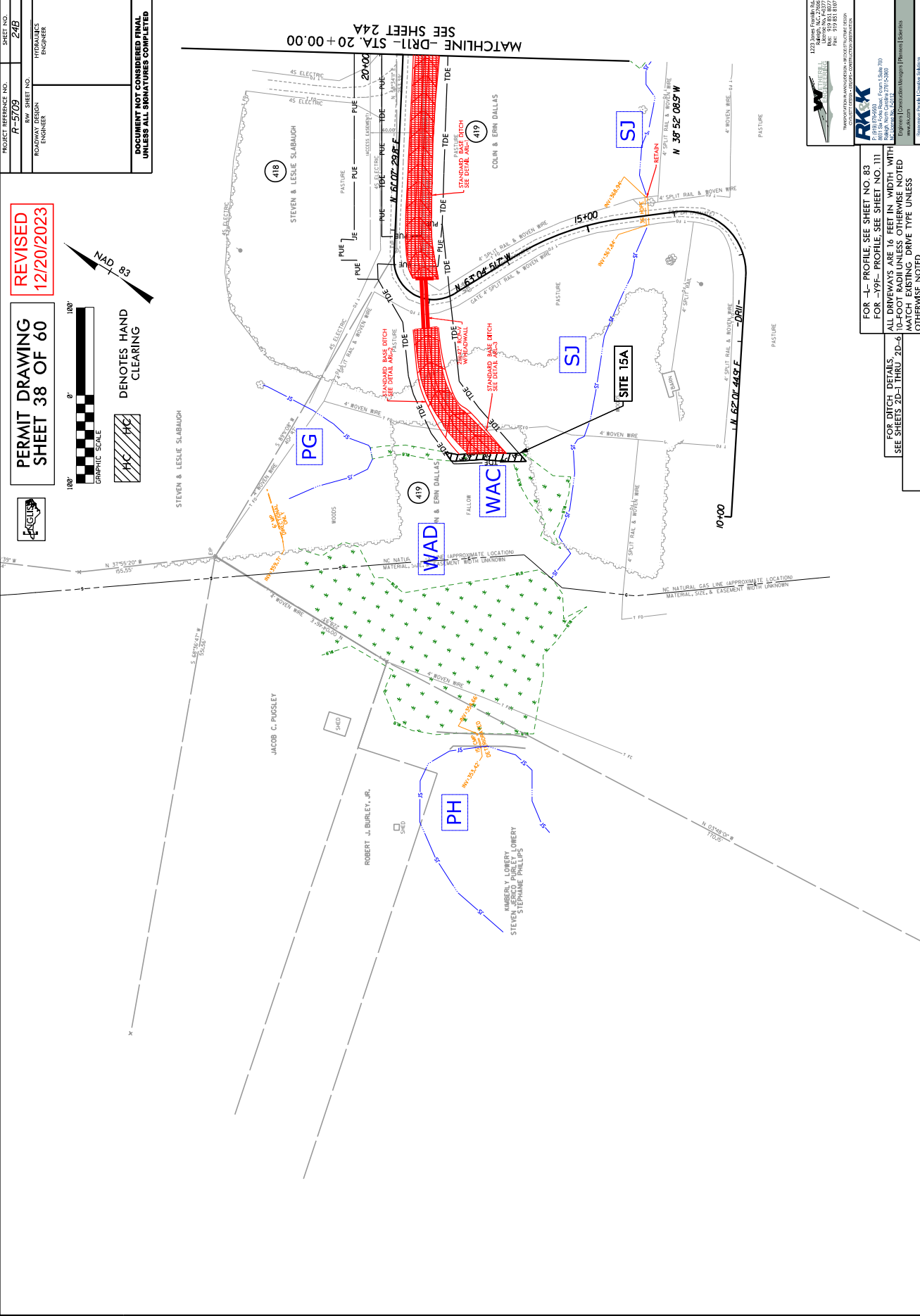
PERMIT DRAWING
SHEET 37 OF 60



REVISED 12/20/2023



11/5/2025 (For Reverification Purposes)



PROJECT REFERENCE NO.	SHEET NO.
R-5709	24B
ROADWAY DESIGN	HYDRAULICS
ENGINEER	ENGINEER

REVISED
12/20/2023

PERMIT DRAWING
SHEET 38 OF 60

NAD 83

0' 50' 100'

GRAPHIC SCALE

HC HC
DENOTES HAND
CLEARING

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

FOR L PROFILE SEE SHEET NO. 83
FOR -199- PROFILE SEE SHEET NO. 111
ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH
16' MINIMUM DRIVEWAY WIDTH
MATCH EXISTING DRIVE TYPE UNLESS
OTHERWISE NOTED

FOR DRUG DEALS
SEE SHEETS 2D-1 THRU 2D-4

W&A
1223 JAMES H. WATKINS
4444 N. W. 100th Ave.
Miami, FL 33178
Phone: 305.451.1000
Fax: 305.451.1001

R&K
1223 JAMES H. WATKINS
4444 N. W. 100th Ave.
Miami, FL 33178
Phone: 305.451.1000
Fax: 305.451.1001

PERMIT DRAWING
SHEET 38A OF 60

PROJECT REFERENCE NO.	R-5709	SHEET NO.	248
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

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

MATCHLINE -DR11- STA. 20+00.00
SEE SHEET 24A

FOR -L- PROFILE, SEE SHEET NO. 83

ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH 3-FOOT RADIUS UNLESS OTHERWISE NOTED. MATCH EXISTING DRIVE TYPE UNLESS

FOR DITCH DETAILS,
SEE SHEETS 2D-1 THRU

CIVIL/STATE ENGINEERING

P: (919) 878-9550
9501 Six Forks Road, Forum 1, Suite 700
Raleigh, North Carolina 27615-3950

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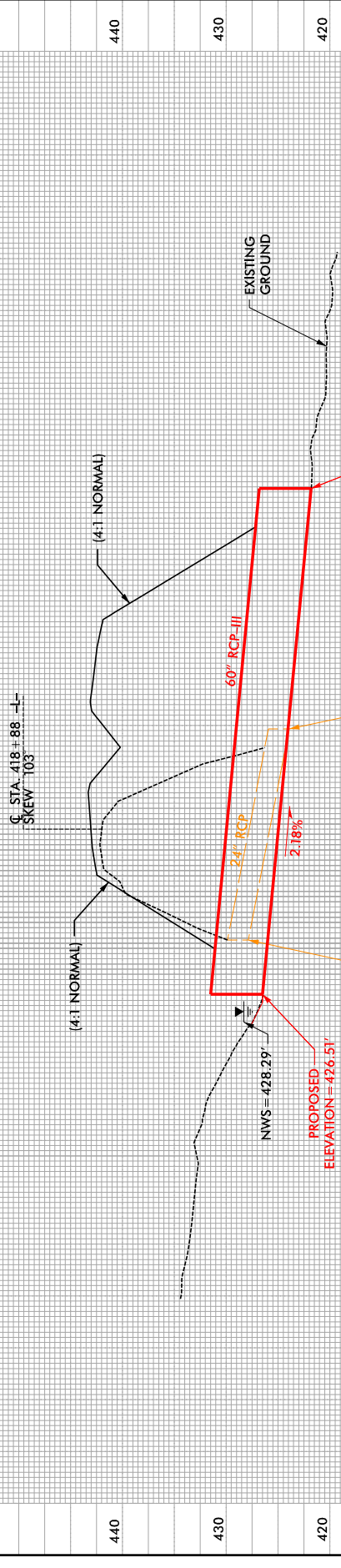
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PROJECT REFERENCE NO. R-5709		HYDRAULICS CAPACITIES	
ROADWAY DESIGN STANDARD			

PERMIT DRAWING
SHEET 41 OF 60

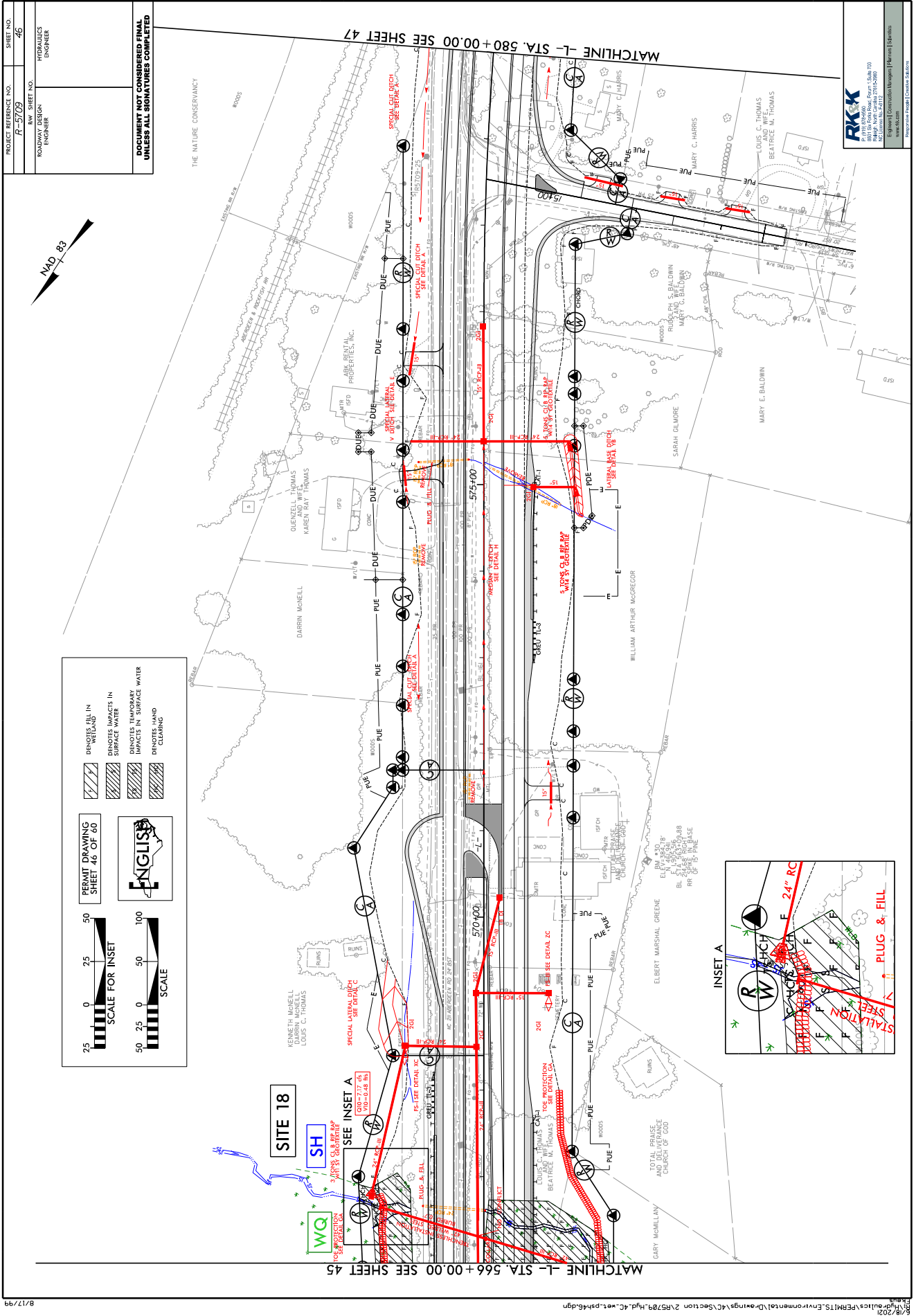


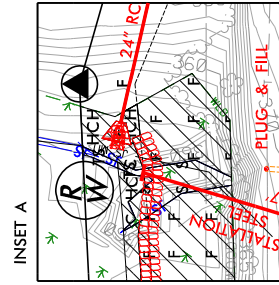
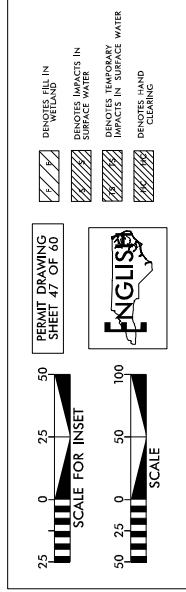
250	200	150	100	50	0	50	100	150	200	250
 RKX 2-1011 10th Street 8801 St. Louis Road, 1 Suite 700 St. Louis, Missouri 63114 Tel: 314-291-5900 Fax: 314-291-5900 E-Mail: info@rkx.com Web: www.rkx.com										
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ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH
10-FOOT RADII UNLESS OTHERWISE NOTED
MATCH EXISTING DRIVE TYPE UNLESS
OTHERWISE NOTED

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Raleigh, North Carolina 27615-3960
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PF

SEE INSET A

W

SCALE FOR INSEI



DENOTES IMPACTS IN
SURFACE WATER
(POND)

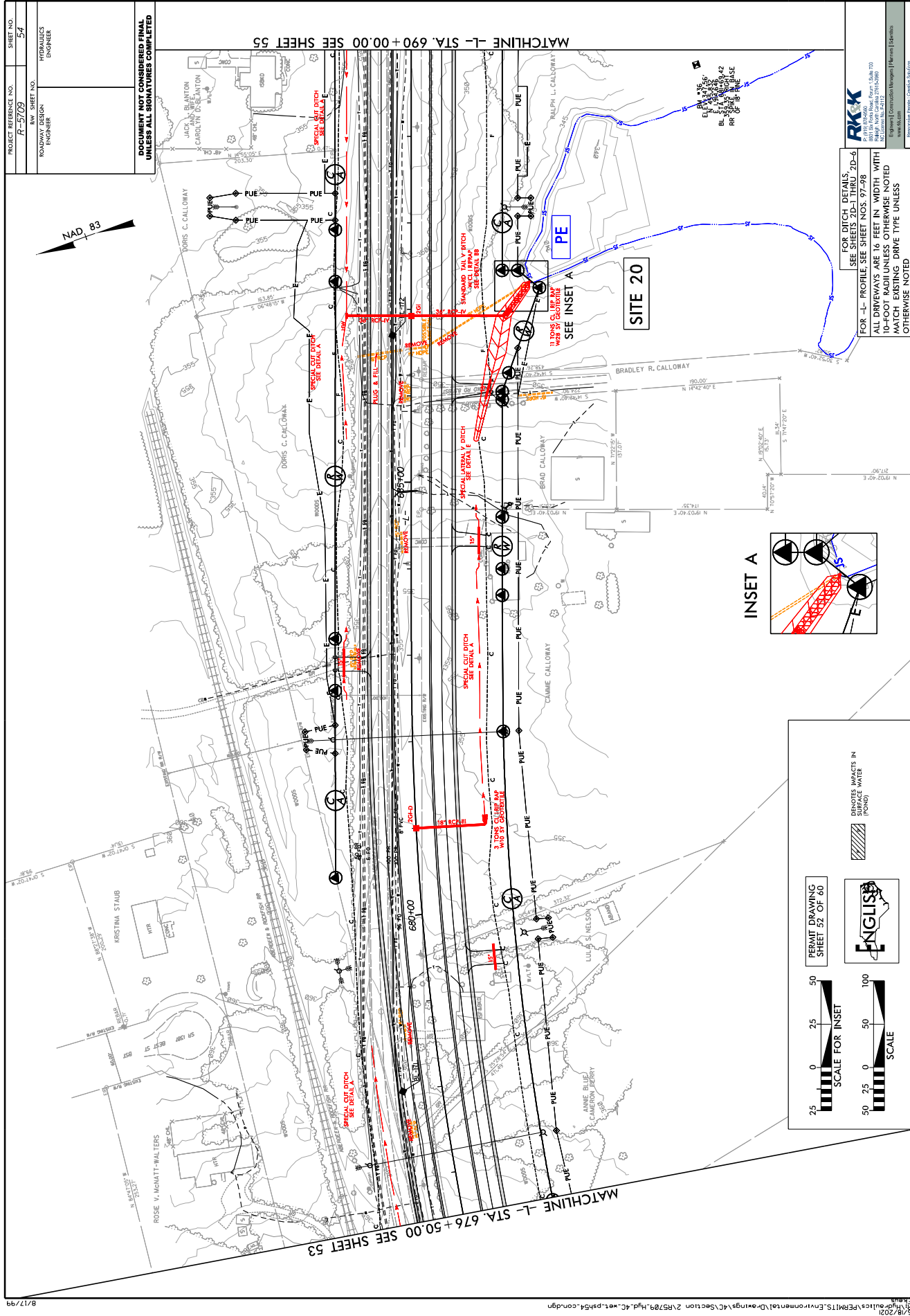


1

1

7/18/2005
H:\H
Kaus

11/5/2025 (For Reverification Purposes)



PROJECT REFERENCE NO.	SHEET NO.
R-5709	54
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

FOR DITCH DETAILS SEE SHEETS 2D-1 THRU 2D-6

FOR -L- PROFILE, SEE SHEET NOS. 97-98

ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH 10-FOOT RADIUS UNLESS OTHERWISE NOTED

MATCH EXISTING DRIVE TYPE UNLESS OTHERWISE NOTED

FOR DITCH DETAILS SEE SHEETS 2D-1 THRU 2D-6

FOR -L- PROFILE, SEE SHEET NOS. 97-98

ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH 10-FOOT RADIUS UNLESS OTHERWISE NOTED

MATCH EXISTING DRIVE TYPE UNLESS OTHERWISE NOTED

FOR DITCH DETAILS SEE SHEETS 2D-1 THRU 2D-6

FOR -L- PROFILE, SEE SHEET NOS. 97-98

ALL DRIVEWAYS ARE 16 FEET IN WIDTH WITH 10-FOOT RADIUS UNLESS OTHERWISE NOTED

MATCH EXISTING DRIVE TYPE UNLESS OTHERWISE NOTED

11/5/2025 (For Reverification Purposes)

PKK&K
P: (919) 275-5650
3611 Six Forks Road, Fourth Floor 7200
Raleigh, North Carolina 27615-5360
McL license No. E-0112
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11/5/2025 (For Reverification Purposes)

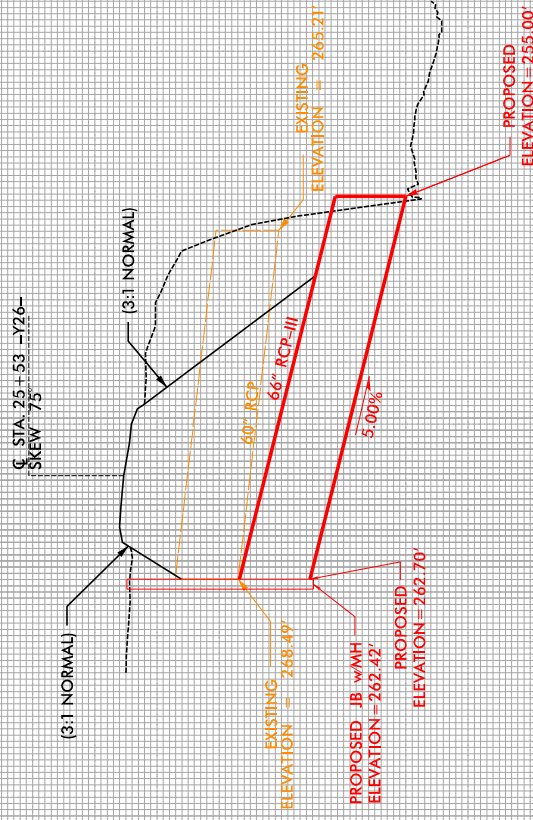
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5/14/99

PROJECT REFERENCE NO.	R-5709	HYDRAULICS ENGINEER
SHEET NO.		

PERMIT DRAWING
SHEET 58 OF 60



**66" RCP-III
(length = 154')**

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3907 Six Forks Road, Fourth 700
Raleigh, North Carolina 27615-3980
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250

200

150

100

50

0

50

100

150

200

250

18/2
Hyc
Krus

11/5/2025 (For Reverification Purposes)

WETLAND AND SURFACE WATER IMPACTS SUMMARY											
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS			
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)
1	14+10 -L- LT	ROADWAY FILL -WB	0.02		< 0.01		< 0.01				
2	14+50 -L- RT	ROADWAY FILL -WA	0.07		< 0.01		0.05				
3	14+30 -L-	54" RCP-III (BURIED 1') -SA						0.02	< 0.01	183	20
4	22+30 -L- LT	BANK STABILIZATION -SD					0.01	< 0.01	< 0.01	20	12
		ROADWAY FILL -WF					< 0.01				
		UTILITY IMPACTS					0.02				
5	23+25 -L- RT	-Y2- WF					< 0.01				
6	20+60 -Y2- RT	UTILITY IMPACTS -WG	0.02				< 0.01				
6	18+50 -Y3- RT	ROADWAY FILL -WG					< 0.01				
6	36+00 -L- LT	ROADWAY FILL -WG	0.06				0.09				
6	39+50 -L- LT	-Y4- WG	0.03				< 0.01				
6A	14+00 -Y4- RT	ROADWAY FILL -WG2	< 0.01		0.03		0.02				
7	35+00 -L- RT	ROADWAY FILL -WH	0.06		< 0.01		0.03				
8	34+65 -L-	66" RCP IV (BURIED 1') -SC						< 0.01	< 0.01	85	53
		BANK STABILIZATION						< 0.01		26	
9	165+50 -L- RT	ROADWAY FILL -WJ	0.01				0.02				
10	168+00 -L-	ROADWAY FILL -WI	0.19				0.05				
		54" RCP-III -SE						< 0.01		70	
		UTILITY IMPACTS -WI					< 0.01				
11	203+50 -L- LT	ROADWAY FILL -WM	0.07				0.07				
		UTILITY IMPACTS					0.15				
12	207+80 -L- RT	ROADWAY FILL -WL	0.29				0.06				
13	208+50 -L- LT	**POND DRAINAGE -WN			0.02		< 0.01				
14	208+61 -L-	72" RCP IV (BURIED 1') -SF						0.02		185	
15	279+00 -L-	2@48" RCP III -SJ						< 0.01	< 0.01	103	
	11+75 -Y9F- RT	UTILITY IMPACTS-WW					0.01				
15A	17+00 -DR11- LT	-DR11- WAC					0.02				
TOTALS*:			0.83		0.06		0.65	3.06	< 0.01	672	85

*Rounded totals are sum of actual impacts

NOTES:

**Site 13 Pond Drainage - WN is a total pond take.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
February 2024 (Revised October 2025)
HOKE & MOORE COUNTIES
R-5709

SHEET 59 OF 60

WETLAND AND SURFACE WATER IMPACTS SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
16	419+00 -L- RT	60" RCP-III -SG						< 0.01		116		
		BANK STABILIZATION -SG						< 0.01	< 0.01	20	11	
17	557+75 -L-	ROADWAY FILL -WP	0.82				0.14					
18	564+63 -L-	ROADWAY FILL -WQ	0.54				0.05					
		INLET, 42" RCP-III -SH							< 0.01		26	
		CHANNEL RELOCATION -SH						0.02		213		
		BANK STABILIZATION -SH						< 0.01	< 0.01	15	12	
19	666+34 -L- RT	ROADWAY FILL -WR	0.03									
20	687+32 -L- RT	DITCH TO POND -PE						< 0.01				
21	809+80 -L- LT	ROADWAY FILL -WT	0.01				0.01					
22	810+32 -L- RT	ROADWAY FILL AND						0.02	< 0.01	341	12	
		TAIL DITCH -SM										
22A	25+53 -Y26- LT	66" RCP-III - SK						< 0.01	< 0.01	6		
		BANK STABILIZATION -SK						< 0.01		23	3	
	TOTALS for SHEET 1:		0.83		0.06		0.65		< 0.01	672	85	
	TOTALS for SHEET 2:		1.41				0.20	0.06	< 0.01	734	65	
TOTALS*:			2.23		0.06		0.85		0.01	1406	150	

*Rounded totals are sum of actual impacts

NOTES:

Site 19 has 13 SF of wetland WR that is outside of the fill slope. This area will be considered a take for the purposes of this summary. There will be 0.08 acre of temporary fill in wetlands in the hand clearing areas for erosion control measures.

JOSH STEIN

Governor

D. REID WILSON

Secretary

RICHARD E. ROGERS, JR.

Director



NORTH CAROLINA
Environmental Quality

December 9, 2025

Mr. Jason Dilday
NCDOT- ECAP Eastern Regional Team Lead
Environmental Analysis Unit
1000 Birch River Drive
Raleigh, NC 27610
jldilday1@ncdot.gov

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with
ADDITIONAL CONDITIONS for the proposed improvements to NC 211 from US 15/501 in
Aberdeen to SR 1244/SR 1311 in Raeford, Moore and Hoke Counties.
NCDWR Project No. 20211043.V3 NCDOT TIP: R-5907. SAW-2018-02283

Dear Mr. Dilday,

Attached hereto is a copy of Certification No. 008413 issued to the NCDOT dated December 9, 2025.

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

Sincerely,

Signed by:

Paith Hardin

3185423002EA45E
Richard E. Rogers, Jr. Director
Division of Water Resources

Electronic copy only distribution:

Steve Brumagin, US Army Corps of Engineers
Chris Rivenbark, RK&K
Rex Badgett, NCDOT Division 8 DEO

401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS.

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 1,556 linear feet of jurisdictional streams and 3.14 acres of jurisdictional wetlands located in Hoke/Moore County. The project shall be constructed pursuant to the application dated September 11, 2025, and updated impact tables submitted on November 5, 2025. The authorized impacts are described below:

Stream Impacts in the Cape Fear and Lumber River Basin

Site	Permanent Impacts in Perennial Stream (linear ft)	Temporary Impacts in Perennial Stream (linear ft)	Total Stream Impacts (linear ft)	Total Stream Mitigation (linear ft)
Site 3- 54" RCP-III, (Buried 1') SA	183	20	203	183
Site 4- Bank Stabilization- SD	20	12	32	
Site 8- 66" RCP IV, (Buried 1') SC	111	53	164	111
Site 10- 54" RCP-III, SE	70	0	70	70
Site 14- 72" RCP-III, (Buried 1') SF	185	0	185	185
Site 15- 2 at 48" RCP III, SJ	103	0	103	103
Site 16- 60" RCP-III, Bank Stabilization-SG	136	11	147	136
Site 18- Inlet, 42" RCP-III, channel relocation, bank stabilization, SH	228	38	266	228
Site 22- Roadway fill and Tail Ditch- SM	341	12	353	341
Site 22A- 66" RCP-III, Bank Stabilization- SK	29	3	32	29
Total	1,406	150	1,556	

Total Stream Impact for Project: 1,556 linear feet.

Wetland Impacts in the Cape Fear and Lumber River Basin

Site	Permanent Fill (ac)	Excavation (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
Site 1-Roadway Fill- WB	0.02	<0.01	< 0.01	0.02
Site 2- Roadway Fill-WA	0.07	<0.01	0.05	0.12
Site 4- Roadway Fill -WF Utility Impacts	0	0	< 0.01 0.02	0.02
Site 5- Y2- WF	0.02	0	<0.01	0.02
Site 6- Utility Impacts- WG	0	0	<0.01	0
Site 6-Roadway Fill- WG	0	0	<0.01	0
Site 6-Roadway Fill- WG	0.06	0	0.09	0.15
Site 6- Y4- WG	0.03	0	<0.01	0.03
Site 6A -Roadway Fill- WG2	<0.01	0.03	0.02	0.05
Site 7- Roadway Fill - WH	0.06	<0.01	0.03	0.09
Site 9- Roadway Fill- WJ	0.01	0	0.02	0.03
Site 10-Roadway Fill-WI Utility Impacts- WI	0.19	0	0.05 <0.01	0.24
Site 11-Roadway Fill- WM Utility Impacts- WM	0.07	0	0.07 0.15	0.29
Site 12- Roadway Fill- WL	0.29	0	0.06	0.35
Site 13-Pond Drain- WN	0	0.02	0.01	0.02
Site 15- Utility Impacts-WW	0	0	< 0.01	0.016
Site 15A- DR11- WAC	0	0	0.02	0.02



Site	Permanent Fill (ac)	Excavation (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
Site 17- Roadway Fill- WP	0.82	0	0.14	0.96
Site 18- Roadway Fill- WQ	0.54	0	0.05	0.59
Site 19- Roadway Fill- WR	0.03	0	0	0.03
Site 21- Roadway Fill- WT	0.01	0	0.01	0.02
Total	2.23	0.06	0.85	3.14

Total Wetland Impact for Project: 3.14 acres.

* Site 19 has 13.0 SF of wetland WR that is outside of the fill slope. This area will be considered a take for the purposes of this summary. There will be 0.08 acres of temporary fill in wetlands in the hand clearing areas for erosion control measures.

Open Water Impacts in the Cape Fear and Lumber River Basin

Site	Permanent Fill in Open Waters (ac)	Total Fill in Open Waters (ac)
Site 3- 54" RCP-III, (Buried 1') SA	0.02	0.02
Site 4- Bank Stabilization- SD	<0.01	<0.01
Site 8- 66" RCP IV, (Buried 1') SC	<0.01	<0.01
Site 10- 54" RCP-III, SE	<0.01	<0.01
Site 13-Pond Drain- WN	3.0	3.0
Site 14- 72" RCP-III, (Buried 1') SF	0.02	0.02
Site 15- 2 at 48" RCP III, SJ	<0.01	<0.01
Site 16- 60" RCP-III, Bank Stabilization-SG	<0.01	<0.01
Site 18- Channel relocation, SH Bank Stabilization	0.02 <0.01	0.02 <0.01
Site 20- Ditch to Pond- PE	<0.01	0.01
Site 22- Roadway fill and Tail Ditch- SM	0.02	0.02
Site 22A- 66" RCP-III, Bank Stabilization- SK	<0.01	<0.01
Total	3.12	3.12

Total Open Water Impact for Project: 3.12 acres.

*Site 13- Pond Drainage- WN is a total pond take.

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

This approval is only valid for the purpose and design that you submitted in your application. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).

For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.



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

Condition(s) of Certification:

Project Specific Conditions

1. The NCDOT Division Environmental Officer or Environmental Assistant will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the potential issues with stream and pipe alignment at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
2. **Off-Site Wetland Mitigation**
Compensatory mitigation for impacts to 2.3 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 June 22, 2021, 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.
3. *Relocations not for credit*
Channel relocations shall be completed and stabilized, and approved on site by NCDWR staff, prior to diverting water into the new channel. Stream banks shall be matted with coir-fiber matting. Vegetation used for bank stabilization shall be limited to native riparian vegetation, and should include establishment of a vegetated buffer on both sides of the relocated channel to the maximum extent practical. Also, rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested. Once the stream has been turned into the new channel, it may be necessary to relocate stranded fish to the new channel to prevent fish kills. [15A NCAC 02H .0506(b)(3)]
4. At locations where ponds will be drained, proper measures will be taken to drain the pond with limited impact to upstream and downstream channel stability as well as to native aquatic species. Proper measures will be taken to avoid sediment release and/or sediment accumulation downstream as a result of pond draining. If typical pond draining techniques will create significant disturbance to native aquatic species, additional measures such as collection and relocation may be necessary to prevent a significant fish kill. NCDOT shall consult with NC Wildlife Resources staff to determine if there are any sensitive species, and the most appropriate measures to limit impacts to these species. The permittee shall observe any natural channel re-establishment, or utilize natural channel construction techniques, to ensure that the jurisdictional stream channel above and below the drained pond remain stable, and that no additional impacts occur within the natural stream channel as a result of draining the pond. [15A NCAC 2H.0506(b)(3)].
5. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams, shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by the NCDWR. If this condition is unable to be met due to bedrock or other limiting features



encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]

6. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible. including pipes or barrels at flood plain elevation and/ or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage. [15A NCAC 02H.0506(b)(2)] Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed. [15A NCAC 02H. 0506(b)(2)]
7. Channel relocations shall be completed and stabilized, and approved on site by NCDWR staff, prior to diverting water into the new channel. Stream banks shall be matted with coir-fiber matting. Vegetation used for bank stabilization shall be limited to native riparian vegetation, and should include establishment of a vegetated buffer on both sides of the relocated channel to the maximum extent practical. Also, rip- rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested. Once the stream has been turned into the new channel, it may be necessary to relocate stranded fish to the new channel to prevent fish kills. [15A NCAC 02H .0506(b)(3).
8. 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)
9. For all linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species. [15A NCAC 02H. 0506(b)(2)]
10. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining the stream bank stability. [15A NCAC 02H. 0506(b)(2)]

General Conditions

1. 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]
2. 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)]
3. 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)]
4. 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)]
5. 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)]
6. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]
7. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]



8. 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)]
9. 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)]
10. Discharging hydroseed mixtures and washing out hydro seeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
11. 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]
12. 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)]
13. 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)]
14. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
15. 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.
16. 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)]
17. Upon completion of the project (including any impacts at associated borrow or waste sites), NCDOT project engineer (or appointee) shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
18. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]
19. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.



- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
20. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]
21. 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]
22. 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*. 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.
23. 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.

This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

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

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina



General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.

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

Dan Hirschman, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

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

This the 9th day of December, 2025

Signed by: DIVISION OF WATER RESOURCES

Faith Hardin
Richard E. Rogers, Jr., Director

WQC No. 008413



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