Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits

(along with corresponding Water Quality Certifications)

September 29, 2018 Ver 3

*Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.*

Also, if at any point you wish to print a copy of the E-PCN, all you need to do is right-click on the document and you can print a copy of the form.

Below is a link to the online help file.

https://edocs.deq.nc.gov/WaterResources/0/edoc/624704/PCN%20Help%20File%202018-1-30.pdf

A. Processing Information

County (or Counties) where the project is located:*

Pitt

Is this project a public transportation project?*

(•) Yes ( ) No

This is any publicly funded by municipal,state or federal funds road, rail, airport transportation project.

Is this a NCDOT Project?*

(•) Yes ( ) No

(NCDOT only) T.I.P. or state project number:

BR-0119

WBS #*

48828.1.1

(for NCDOT use only)

1a. Type(s) of approval sought from the Corps:*

- [x] Section 404 Permit (wetlands, streams and waters, Clean Water Act)
- [ ] Section 10 Permit (navigable waters, tidal waters, Rivers and Harbors Act)

1b. What type(s) of permit(s) do you wish to seek authorization?*

- [x] Nationwide Permit (NWP)
- [ ] Regional General Permit (RGP)
- [ ] Standard (IP)

This form may be used to initiate the standard/individual permit process with the Corps. Please contact your Corps representative concerning submittals for standard permits. All required items that are not provided in the E-PCN can be added to the miscellaneous upload area located at the bottom of this form.

1c. Has the NWP or GP number been verified by the Corps?*

( ) Yes (•) No

Nationwide Permit (NWP) Number: 03 - Maintenance

NWP Numbers (for multiple NWPS):

List all NW numbers you are applying for not on the drop down list.

1d. Type(s) of approval sought from the DWR:*

check all that apply

- [x] 401 Water Quality Certification - Regular
- [ ] Non-404 Jurisdictional General Permit
- [ ] Individual Permit
- [ ] 401 Water Quality Certification - Express
- [x] Riparian Buffer Authorization

1e. Is this notification solely for the record because written approval is not required?

*

For the record only for DWR 401 Certification: ( ) Yes (•) No

For the record only for Corps Permit: (•) Yes ( ) No

1f. Is this an after-the-fact permit application?*

( ) Yes (•) No

1g. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts?

If so, attach the acceptance letter from mitigation bank or in-lieu fee program

○ Yes ◉ No

Acceptance Letter Attachment

Click the upload button or drag and drop files here to attach document

FILE TYPE MUST BE PDF

1h. Is the project located in any of NC's twenty coastal counties?*

○ Yes ◉ No

1j. Is the project located in a designated trout watershed?*

○ Yes ◉ No

Link to trout information: http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx

B. Applicant Information

1a. Who is the Primary Contact?*

NCDOT

1b. Primary Contact Email:*

crivenbark@ncdot.gov

1c. Primary Contact Phone:*

(xxx)xxx-xxxx

(919)707-6152

1d. Who is applying for the permit?*

☑ Owner ☐ Applicant (other than owner)

(Check all that apply)

1e. Is there an Agent/Consultant for this project?*

○ Yes ◉ No

2. Owner Information

2a. Name(s) on recorded deed:*

NCDOT

2b. Deed book and page no.:

2c. Responsible party:

(for Corporations)

2d. Address*

Street Address

1000 Birch Ridge Drive

Address Line 2

City

Raleigh

State / Province / Region

NC

Postal / Zip Code

27610

Country

USA

2e. Telephone Number:*

(xxx)xxx-xxxx

(919)707-6123

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address:*

pharris@ncdot.gov

C. Project Information and Prior Project History

1. Project Information

1a. Name of project:*

Bridge 109 over Grindle Creek on SR 1514 (BR-0119 Central)

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town:*

Stokes

2. Project Identification

2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

State / Province / Region

Postal / Zip Code

Country

2d. Site coordinates in decimal degrees

Please collect site coordinates in decimal degrees. Use between 4-6 digits (unless you are using a survey-grade GPS device) after the decimal place as appropriate, based on how the location was determined. (For example, most mobile phones with GPS provide locational precision in decimal degrees to map coordinates to 5 or 6 digits after the decimal place.)

Latitude: *

35.695933

ex: 34.208504

Longitude: *

-77.345866

-77.796371

3. Surface Waters

3a. Name of the nearest body of water to proposed project: *

Grindle Creek

3b. Water Resources Classification of nearest receiving water: *

C; NSW

Surface Water Lookup

3c. What river basin(s) is your project located in? *

Tar-Pamlico

3d. Please provide the 12-digit HUC in which the project is located. *

030201030601

River Basin Lookup

4. Project Description and History

4a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: *

Land use in the project vicinity consists primarily of agriculture, forested communities and minor residential development.

4b. Have Corps permits or DWR certifications been obtained for this project (including all prior phases) in the past? *

○ Yes ◉ No ○ Unknown

4d. Attach an 8 1/2 X 11 excerpt from the most recent version of the USGS topographic map indicating the location of the project site. (for DWR)

Click the upload button or drag and drop files here to attach document

File type must be pdf

4e. Attach an 8 1/2 X 11 excerpt from the most recent version of the published County NRCS Soil Survey map depicting the project site. (for DWR)

Click the upload button or drag and drop files here to attach document

File type must be pdf

4f. List the total estimated acreage of all existing wetlands on the property:

0

4g. List the total estimated linear feet of all existing streams on the property:

(intermittent and perennial)

1100

4h. Explain the purpose of the proposed project: *

While the bridge is categorized as "Not Deficient", superstructure and substructure timber elements show signs of deterioration, and has had priority maintenance repairs performed. This replacement will also improve the safety of the structure.

4i. Describe the overall project in detail, including indirect impacts and the type of equipment to be used: *

This project involves replacing the 70-foot, 4 span bridge with a 90-foot, single span bridge on the existing alignment using an off-site detour. Standard road building equipment, such as trucks, dozers and cranes will be used.

4j. Please upload project drawings for the proposed project.

Click the upload button or drag and drop files here to attach document

BR-0119_PERMITS_BUFFER_20200114.pdf	3.97MB
BR-0119_PERMITS_WETLANDS_20200114.pdf	2.26MB

File type must be pdf

5. Jurisdictional Determinations

5a. Have the wetlands or streams been delineated on the property or proposed impact areas? *

◉ Yes ○ No ○ Unknown

Comments:

Two perennial streams identified. No wetlands are in the study area.

5b. If the Corps made a jurisdictional determination, what type of determination was made? *

○ Preliminary ○ Approved ◉ Not Verified ○ Unknown ○ N/A

Corps AID Number:

Example: SAW-2017-99999

5c. If 5a is yes, who delineated the jurisdictional areas?

Name (if known): James Mason

Agency/Consultant Company: Three Oaks Engineering

Other:

5d1. Jurisdictional determination upload

Click the upload button or drag and drop files here to attach document

File type must be PDF

6. Future Project Plans

6a. Is this a phased project? *

○ Yes ◉ No

Are any other NWP(s), regional general permit(s), or individual permits(s) used, or intended to be used, to authorize any part of the proposed project or related activity? This includes other separate and distant crossing for linear projects that require Department of the Army authorization but don't require pre-construction notification.

D. Proposed Impacts Inventory

1. Impacts Summary

1a. Where are the impacts associated with your project? (check all that apply):

☐ Wetlands ☑ Streams-tributaries ☑ Buffers

☐ Open Waters ☐ Pond Construction

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

"S." will be used in the table below to represent the word "stream".

	3a. Reason for impact * (?)	3b.Impact type *	3c. Type of impact *	3d. S. name *	3e. Stream Type * (?)	3f. Type of Jurisdiction *	3g. S. width *	3h. Impact length *
S1	Pipe outfall	Permanent	Bank Stabilization	Grindle Creek	Perennial	Both	30 Average (feet)	36 (linear feet)
S2	Pipe outfall	Permanent	Bank Stabilization	Grindle Creek	Perennial	Both	30 Average (feet)	29 (linear feet)

** All Perennial or Intermittent streams must be verified by DWR or delegated local government.

3i. Total jurisdictional ditch impact in square feet:

0

3i. Total permanent stream impacts:

65

3i. Total temporary stream impacts:

0

3i. Total stream and ditch impacts:

65

3j. Comments:

Shown as <0.01 ac of surface water impacts on impact summary sheet.

6. Buffer Impacts (for DWR)

If project will impact a protected riparian buffer, then complete the chart below. Individually list all buffer impacts below.

6a. Project is in which protect basin(s)? *

Check all that apply.

- [ ] Neuse
- [ ] Catawba
- [ ] Goose Creek
- [ ] Other
- [x] Tar-Pamlico
- [ ] Randleman
- [ ] Jordan Lake

6b. Impact Type * (?)	6c. Per or Temp * (?)	6d. Stream name *	6e. Buffer mitigation required? *	6f. Zone 1 impact *	6g. Zone 2 impact *
Bridge-Allowable	P	Grindle Creek	No	4,015 (square feet)	919 (square feet)
Roadway Crossing-Allowable	P	Grindle Creek	No	130 (square feet)	2,102 (square feet)

6h. Total buffer impacts:

	Zone 1	Zone 2
Total Temporary impacts:	0.00	0.00

	Zone 1	Zone 2
Total Permanent impacts:	4,145.00	3,021.00

	Zone 1	Zone 2
Total combined buffer impacts:	4,145.00	3,021.00

6i. Comments:

Supporting Documentation - i.e. Impact Maps, Plan Sheet, etc.

Click the upload button or drag and drop files here to attach document

File must be PDF

E. Impact Justification and Mitigation

1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project: *

The bridge will be replaced on the existing alignment. The proposed bridge will span Grindle Creek, with minimal impact to the creek. There will be no direct discharge into Grindle Creek. See the stormwater management plan for additional measures.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques: *

An off-site detour will be used during construction. NCDOT's Design Standards for Sensitive Watersheds will be adhered to.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?

- ○ Yes
- ◉ No

2b. If this project DOES NOT require Compensatory Mitigation, explain why:

Impacts are considered minimal and allowable.

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's RIBITS website.

F. Stormwater Management and Diffuse Flow Plan (required by DWR)

*** Recent changes to the stormwater rules have required updates to this section .***

1. Diffuse Flow Plan

1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?

- ◉ Yes
- ○ No

1b. All buffer impacts and high ground impacts require diffuse flow or other form of stormwater treatment. If the project is subject to a state implemented riparian buffer protection program, include a plan that fully documents how diffuse flow will be maintained.

All Stormwater Control Measures (SCM)s must be designed in accordance with the NC Stormwater Design Manual. Associated supplement forms and other documentation shall be provided.

What type of SCM are you providing?

- [ ] Level Spreader
- [x] Vegetated Conveyance (lower SHWT)
- [ ] Wetland Swale (higher SHWT)
- [ ] Other SCM that removes minimum 30% nitrogen
- [ ] Proposed project will not create concentrated stormwater flow through the buffer

(check all that apply)

For a list of options to meet the diffuse flow requirements, click here.

Diffuse Flow Documentation

Click the upload button or drag and drop files here to attach document

File type must be PDF

2. Stormwater Management Plan

2a. Is this a NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250? *

(•) Yes ( ) No

Comments:

G. Supplementary Information

1. Environmental Documentation

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? *

(•) Yes ( ) No

1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)? *

(•) Yes ( ) No

1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) *

(•) Yes ( ) No

NEPA or SEPA Final Approval Letter

Click the upload button or drag and drop files here to attach document

FILE TYPE MUST BE PDF

2. Violations (DWR Requirement)

2a. Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)? *

( ) Yes (•) No

3. Cumulative Impacts (DWR Requirement)

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? *

( ) Yes (•) No

3b. If you answered "no," provide a short narrative description.

Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

4. Sewage Disposal (DWR Requirement)

4a. Is sewage disposal required by DWR for this project? *

( ) Yes ( ) No (•) N/A

5. Endangered Species and Designated Critical Habitat (Corps Requirement)

5a. Will this project occur in or near an area with federally protected species or habitat? *

(•) Yes ( ) No

5b. Have you checked with the USFWS concerning Endangered Species Act impacts? *

(•) Yes ( ) No

5c. If yes, indicate the USFWS Field Office you have contacted.

Raleigh

5d. Is another Federal agency involved? *

( ) Yes (•) No ( ) Unknown

5e. Is this a DOT project located within Division's 1-8? *

(•) Yes ( ) No

5j. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? *

N.C. Natural Heritage Program database; USFWS-Raleigh Field Office website; biological surveys for protected species listed for Pitt County, which include Tar River spinymussel, yellow lance, dwarf wedgemussel, West Indian manatee, American alligator and red-cockaded woodpecker. All species received a biological conclusion of "No Effect". The Northern long-eared bat will be covered by the Programmatic Biological Opinion for the species.

Consultation Documentation Upload

Click the upload button or drag and drop files here to attach document

File type must be PDF

6. Essential Fish Habitat (Corps Requirement)

6a. Will this project occur in or near an area designated as an Essential Fish Habitat? *

○ Yes ◉ No

6b. What data sources did you use to determine whether your site would impact an Essential Fish Habitat? *

NMFS county index

7. Historic or Prehistoric Cultural Resources (Corps Requirement)

Link to the State Historic Preservation Office Historic Properties Map (does not include archaeological data: http://gis.ncdcr.gov/hpoweb/

7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)? *

○ Yes ◉ No

7b. What data sources did you use to determine whether your site would impact historic or archeological resources? *

NEPA documentation

7c. Historic or Prehistoric Information Upload

Click the upload button or drag and drop files here to attach document

File must be PDF

8. Flood Zone Designation (Corps Requirement)

Link to the FEMA Floodplain Maps: https://msc.fema.gov/portal/search

8a. Will this project occur in a FEMA-designated 100-year floodplain? *

◉ Yes ○ No

8b. If yes, explain how project meets FEMA requirements:

NCDOT Hydraulics Unit coordination with FEMA

8c. What source(s) did you use to make the floodplain determination? *

FEMA maps

Miscellaneous

Comments

Miscellaneous attachments not previously requested.

Click the upload button or drag and drop files here to attach document

File must be PDF or KMZ

Signature

*

☑ By checking the box and signing below, I certify that:

- I have given true, accurate, and complete information on this form;
- I agree that submission of this PCN form is a “transaction” subject to Chapter 66, Article 40 of the NC General Statutes (the “Uniform Electronic Transactions Act”);
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the “Uniform Electronic Transactions Act”);
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the PCN form.

Full Name: *

Mack Christopher Rivenbark, III

Signature

Mack C. Rivenbark, III

Date

1/16/2020

Revised 1/29/20

North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 2.08; Released April 2018)

General Project Information

WBS Element:	48828.1.1	**TIP Number:**	BR-0119	**Project Type:**	Bridge Replacement
Date:	1/29/2019				
NCDOT Contact:	David Stutts, PE	**Contractor / Designer:**	Kisinger Campo & Associates		
Address:	1000 Birch Ridge Drive Raleigh, North Carolina 2760	**Address:**	301 Fayettville St., Suite 1500 Raleigh, NC 27604		
Phone:	(919) 707-6400	**Phone:**	(919) 882-7839		
Email:	dstutts@ncdot.gov	**Email:**	jmcnulty@kcaeng.com		
City/Town:	Stokes	**County(ies):**	Pitt		
River Basin(s):	Tar-Pamlico	**CAMA County?**	No		
Wetlands within Project Limits?	No				

Project Description

Project Length (lin. miles or feet):	630 ft.	**Surrounding Land Use:**	Agricultural

	Proposed Project	Existing Site
Project Built-Upon Area (ac.)	0.4 ac.	0.4 ac.
Typical Cross Section Description:	The proposed typical section on either side of the bridge will be superelevated with cross slope of 0.020, and consist of two 11' lanes with 3' paved shoulder and 3:1 or flatter side slopes to existing ground with the exception around the bridge opening.	Existing roadways consists of two 11' lanes, with 3' unpaved shoulders.
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 970 Year: 2016	Existing: 970 Year: 2016
General Project Narrative: (Description of Minimization of Water Quality Impacts)	State project 48828.1.1 will consist of replacing the structurally deficient NCDOT bridge #730109 on SR 1523 over Grindle Creek. The proposed replacement structure is a 1-span (1@90') 33" PCBB with 4' caps with an out-to-out deck width of 33' which will replace the existing 4-span (1@17'-8", 1@17'-0", 1@17'-0", 1@17'-8"). Roadway fill slopes will be 3:1 or flatter, with the exception around the bridge opening, and will all be grassy to encourage a diffuse flow pattern and passive stormwater treatment. Stormwater runoff from the bridge and approach slabs will be collected by traffic bearing grated inlets where it will discharge to roadside swales with rip rap dissipator pads at the pipe outlets. All areas in which fill slopes impact existing ditches will be replaced by a swale to maintain existing drainage patterns. There are no wetlands present for this project.	

Waterbody Information

Surface Water Body (1):	Grindle Creek	**NCDWR Stream Index No.:**	28-100		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C		
		Supplemental Classification:	Nutrient Sensitive Waters (NSW)		
Other Stream Classification:					
Impairments:	mercury (Hg)				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	N/A			**Buffer Rules in Effect:**	Tar-Pamlico
Project Includes Bridge Spanning Water Body?	Yes	**Deck Drains Discharge Over Buffer?**	No	**Dissipator Pads Provided in Buffer?**	Yes
Deck Drains Discharge Over Water Body?	No	(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)	
(If yes, provide justification in the General Project Narrative)					

Revised 1/29/20

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 2.08; Released April 2018)

WBS Element: 48828.1.1 **TIP No.:** BR-0119 **County(ies):** Pitt

Swales

Sheet No.	Station & Coordinates (Road and Non Road Projects)	Surface Water Body	Base Width (ft)	Front Slope (H:1)	Back Slope (H:1)	Drainage Area (ac)	Recommended Treatm't Length (ft)	Actual Length (ft)	Longitudinal Slope (%)	Q2 (cfs)	V2 (fps)	Q10 (cfs)	V10 (fps)	Rock Checks Used	BMP Associated w/ Buffer Rules?
4	-L- 13+00 LT 35.695703, -77.345968	(1)Grindle Creek	2.0	3.0	3.0	0.2	20	170	0.36%	20.3	6.0	26.3	5.1	Yes	No
4	-L- 15+00 LT 35.696050, -77.345798	(1)Grindle Creek	0.0	3.0	3.0	0.2	20	80	0.33%	4.8	1.9	6.2	1.4	Yes	No
4	-L- 16+00 RT 35.696108, -77.345655	(1)Grindle Creek	0.0	3.0	3.0	0.1	10	197	0.31%	2.3	1.6	3.0	1.1	Yes	No
4	-L- 11+00 RT 35-695587, -77.345829	(1)Grindle Creek	0.0	3.0	3.0	0.1	10	52	0.60%	2.7	2.0	3.4	1.5	Yes	No

Additional Comments

Please note: Swales are proposed to compensate for existing swales impacted by proposed fill slopes. Rip rap dissipator pads are provided at the end of all swales to reduce velocity into buffer zones. Recommended treatment length determined from drainage area of proposed project limits. Velocities and Flow Rates determined for overall drainage area, including offsiteflow into swales.

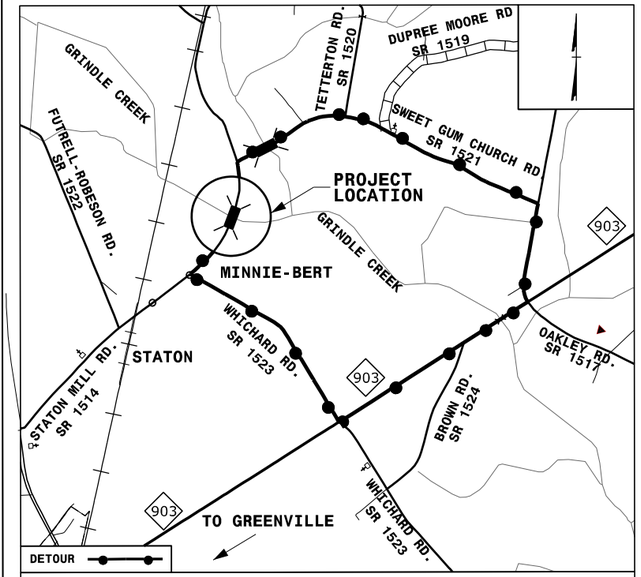
09/08/99

Revised 1/29/20

TIP PROJECT: BR-0119

CONTRACT: C204521

See Sheet 1A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PITT COUNTY

LOCATION: BRIDGE 730109 ON SR 1514 (STATON MILL RD) OVER GRINDLE CREEK

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0119	1	

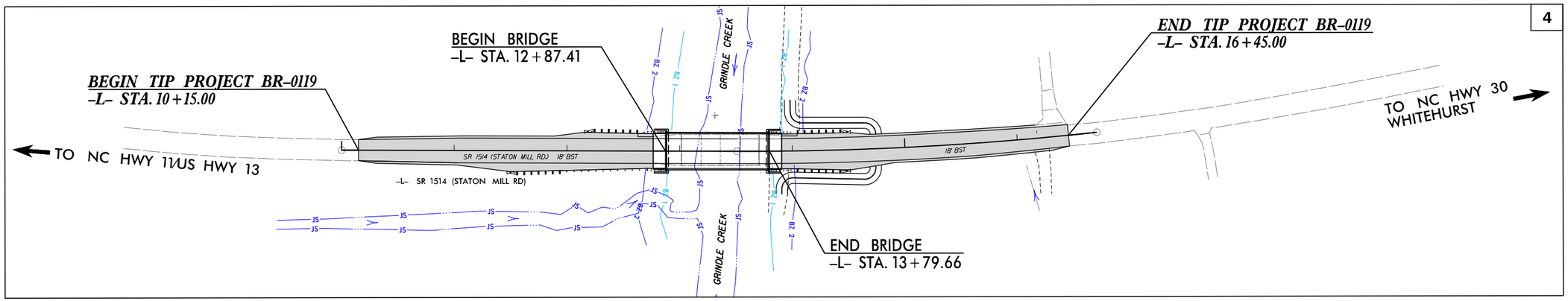
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48828.1.1	N/A	PE
48828.2.1	N/A	R/W, UTILITIES
48828.3.1	2020001	CONSTRUCTION

WETLAND & STREAM IMPACTS

1/29/2020

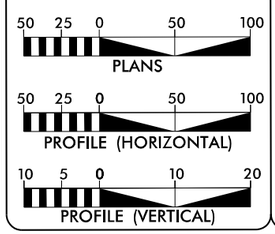
PERMIT DRAWING SHEET 1 OF 6

NAD 83 NA 2011 NC GRID



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 830
T = 6 % *
V = 55 MPH
* TTST = 3% DUAL 3%
FUNC CLASS = MINOR COLLECTOR SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0119	=	0.102 MILES
LENGTH STRUCTURES TIP PROJECT BR-0119	=	0.017 MILES
TOTAL LENGTH TIP PROJECT BR-0119	=	0.119 MILES

NCDOT CONTACT: DAVID STUTTS, PE
SMU PROJECT MANAGER

Prepared in the Office of:
KCA KISINGER CAMPO & ASSOCIATES
NC FIRM LICENSE No: C-1506
301 Fayetteville St., Suite 1500
Raleigh, NC 27601
(919)882-7839

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: SEPTEMBER 12, 2019

LETTING DATE: MARCH 17, 2020

JOHN P. MAZERES, PE
PROJECT ENGINEER

ALLEN J. MCSWAIN
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 043571 ENGINEER SAMUEL L CALLUM P.E.

SIGNATURE:

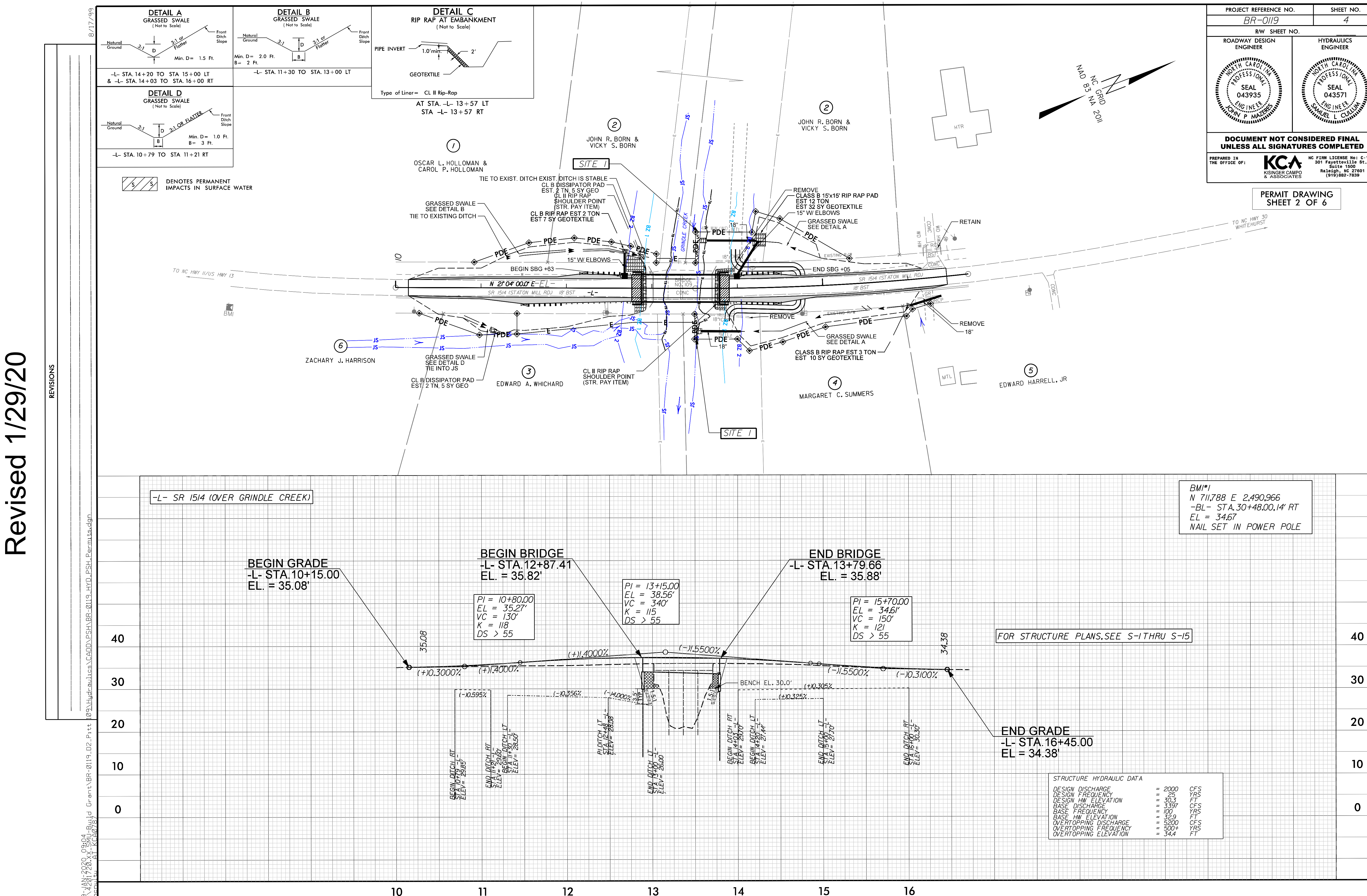
ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 043935 ENGINEER JOHN P MAZERES P.E.

SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

29-JAN-2020 09:04
G:\420\720.XX_SMU-Build_Grant\BR-0119_D2_Pitt 109\Hydraulics\CADD\PSH\BR-0119_Permit_tsh_PERMITS.dgn
jmcnulty AT KCA0787



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	=	2000	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	30.3	FT
BASE DISCHARGE	=	3397	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	32.9	FT
OVERTOPPING DISCHARGE	=	5200	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	34.4	FT

Revised 1/29/20

REVISIONS

8/17/99

29-JAN-2020 09:04
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SITE ENLARGEMENT

S / S DENOTES PERMANENT IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.	SHEET NO.
BR-0119	4
R/W SHEET NO.	

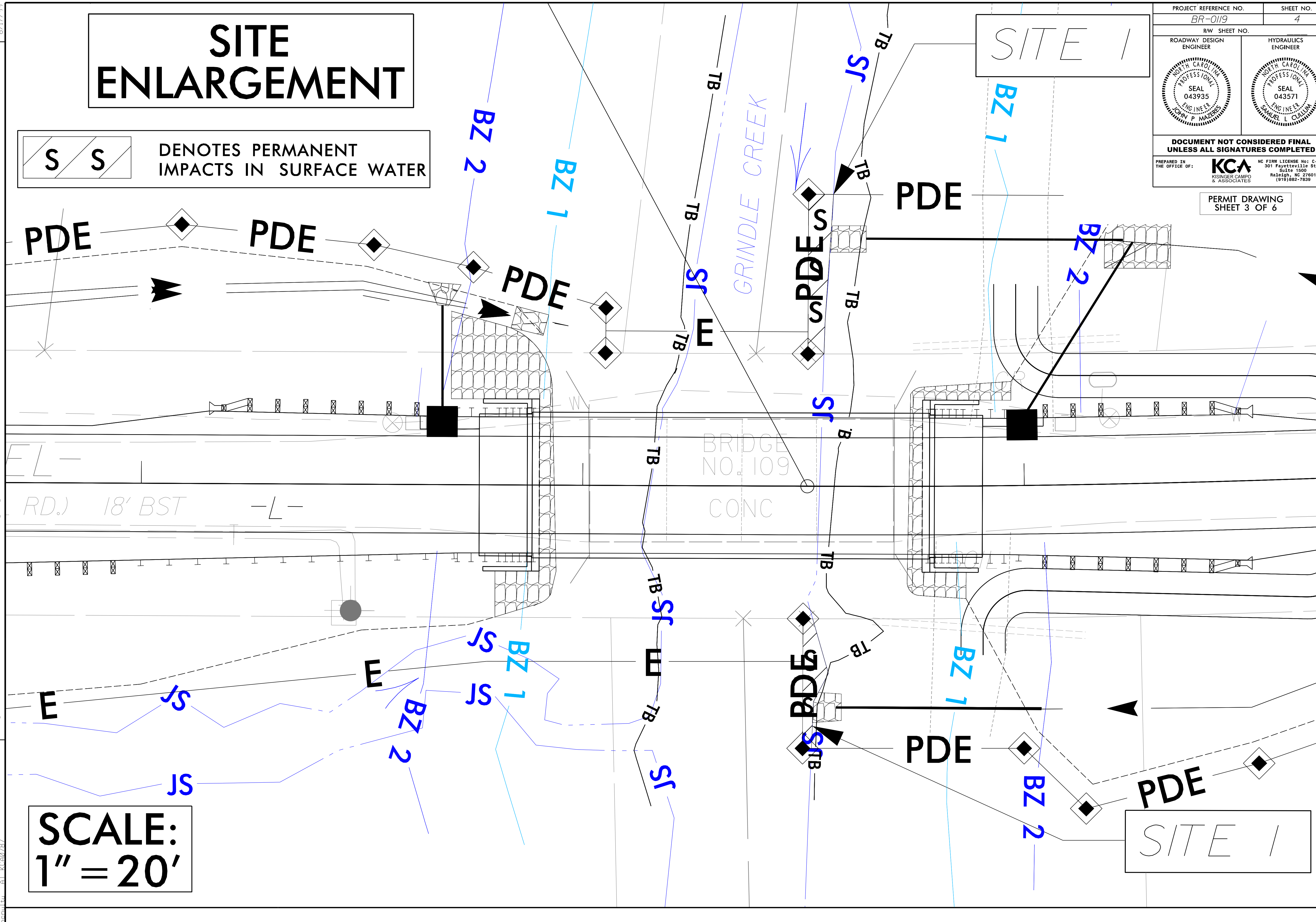
ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 043935 ENGINEER JOHN P MAZERES

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 043571 ENGINEER SAMUEL L CULLUM

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PREPARED IN THE OFFICE OF: KCA KISINGER CAMPO & ASSOCIATES — NC FIRM LICENSE No: C-1506, 301 Fayetteville St., Suite 1500, Raleigh, NC 27601, (919)882-7839

PERMIT DRAWING SHEET 3 OF 6



SCALE: 1" = 20'

Revised 1/29/20

PROJECT REFERENCE NO.	SHEET NO.
BR-0119	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 043935 ENGINEER JOHN P. MAZERES	NORTH CAROLINA PROFESSIONAL SEAL 043571 ENGINEER SAMUEL L. CULLUM

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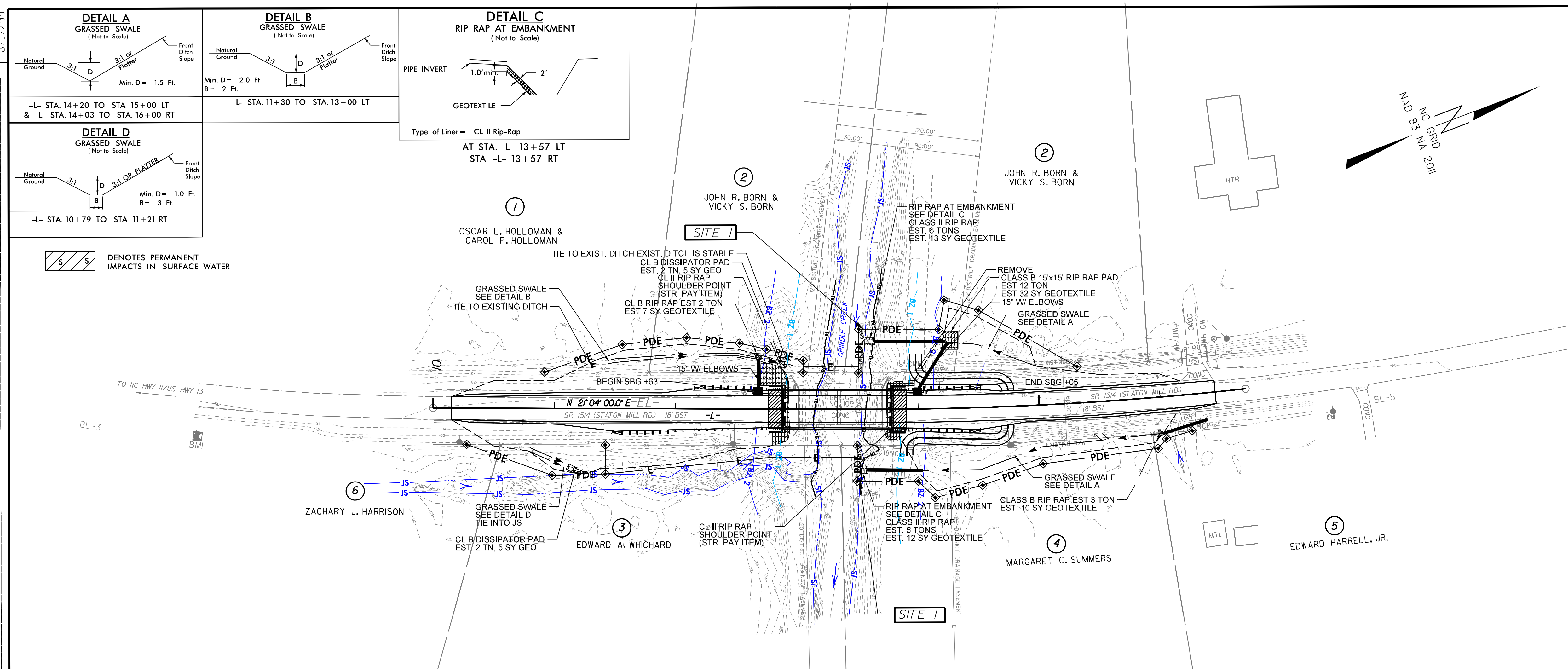
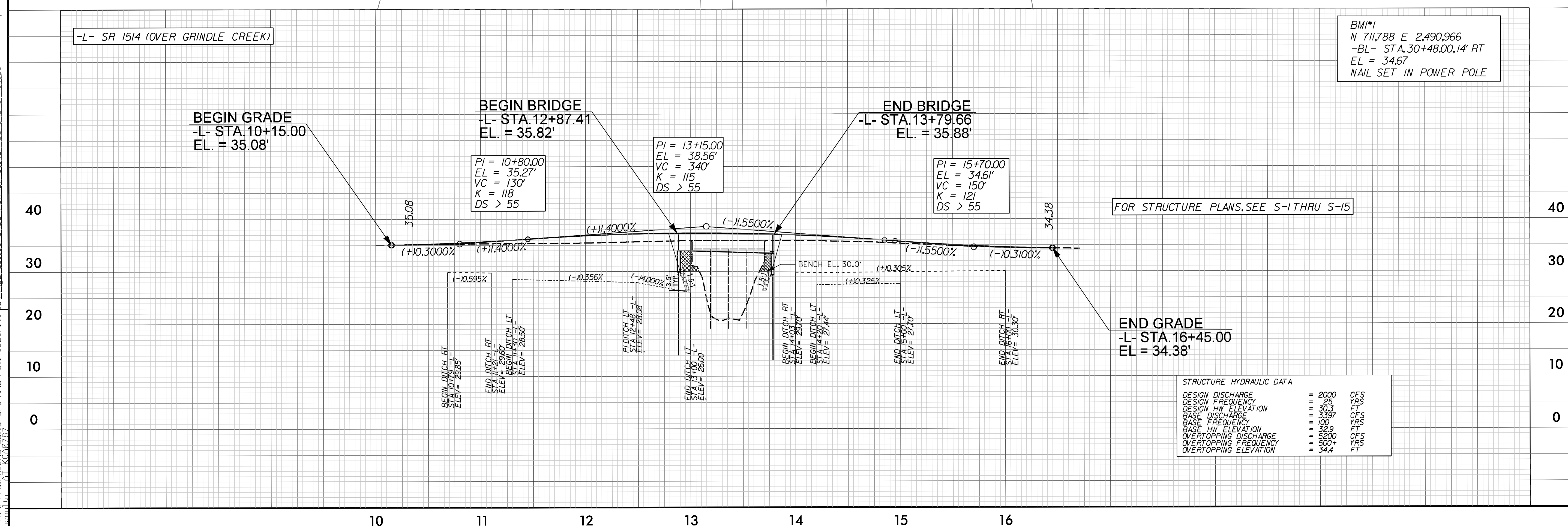
(919)882-7839

PERMIT DRAWING
SHEET 4 OF 6





REVISIONS

8/17/99

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SITE ENLARGEMENT

S S DENOTES PERMANENT IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.	SHEET NO.
BR-0119	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 043935 ENGINEER JOHN P MAZZEO

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PERMIT DRAWING SHEET 5 OF 6

SITE 1

PDE PDE PDE PDE PDE PDE PDE PDE

BZ 1 BZ 2 BZ 1 BZ 2 BZ 1 BZ 2

JS JS JS JS JS JS JS JS

E E E E

TB TB TB TB TB TB TB TB

GRINDLE CREEK

BRIDGE NO. 109

CONC

RD.) 18' BST

SCALE: 1" = 20'

REVISIONS

8/17/99

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WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	13+51 / 13+57 -LT-	Bank Stabilization						< 0.01				
1	13+50 / 13+56 -RT-	Bank Stabilization						< 0.01				
TOTALS*:								< 0.01				

*Rounded totals are sum of actual impacts

NOTES:

Site 1 (LT): Permanent Surface Water Impacts: 164.2 sq. ft

Site 1 (RT): Permanent Surface Water Impacts: 99.4 sq. ft

NC DEPARTMENT OF TRANSPORTATION
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48828.1.1
SHEET 6 OF 6

09/08/99

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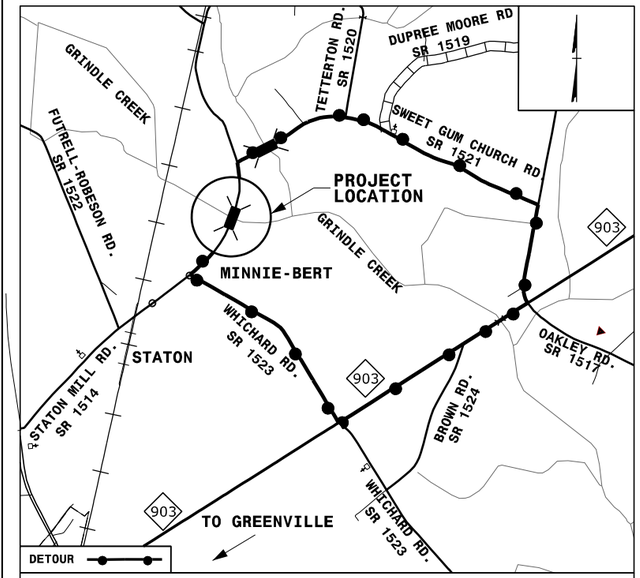
TIP PROJECT: BR-0119

CONTRACT: C204521

See Sheet 1A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PITT COUNTY

LOCATION: BRIDGE 730109 ON SR 1514 (STATON MILL RD) OVER GRINDLE CREEK

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0119	1	

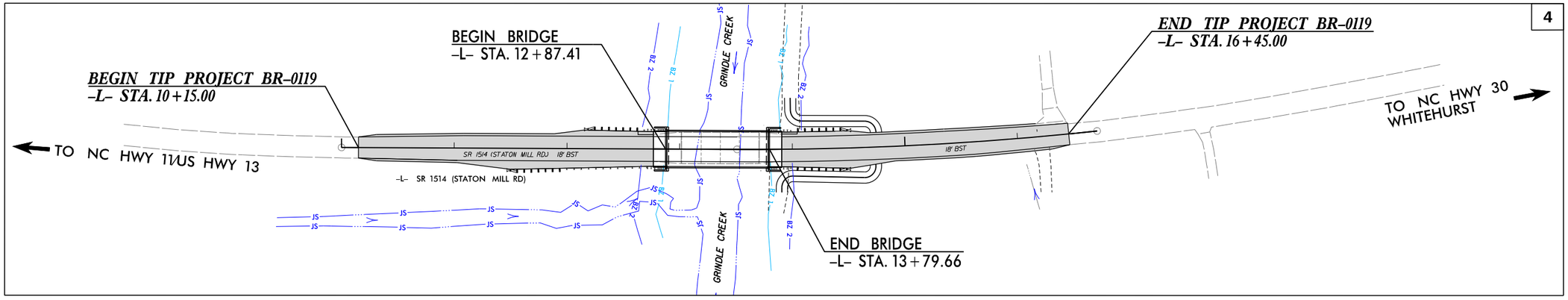
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48828.1.1	N/A	PE
48828.2.1	N/A	RW, UTILITIES
48828.3.1	2020001	CONSTRUCTION

BUFFER IMPACTS PERMIT

1/29/2020

BUFFER DRAWING SHEET 1 OF 5

NC GRID NAD 83 NA 2011



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GRAPHIC SCALES

PLANS 50 25 0 50 100

PROFILE (HORIZONTAL) 50 25 0 50 100

PROFILE (VERTICAL) 10 5 0 10 20

DESIGN DATA

ADT 2020 = 830
T = 6 % *
V = 55 MPH
* TTST = 3% DUAL 3%
FUNC CLASS = MINOR COLLECTOR
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0119	=	0.102 MILES
LENGTH STRUCTURES TIP PROJECT BR-0119	=	0.017 MILES
TOTAL LENGTH TIP PROJECT BR-0119	=	0.119 MILES

NCDOT CONTACT: DAVID STUTTS, PE
SMU PROJECT MANAGER

Prepared in the Office of:

KCA KISINGER CAMPO & ASSOCIATES
NC FIRM LICENSE No: C-1506
301 Fayetteville St., Suite 1500
Raleigh, NC 27601
(919)882-7839

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: SEPTEMBER 12, 2019

LETTING DATE: MARCH 17, 2020

JOHN P. MAZERES, PE
PROJECT ENGINEER

ALLEN J. MCSWAIN
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 043571 ENGINEER SAMUEL L CULLUM P.E.

SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 043935 ENGINEER JOHN P MAZERES P.E.

SIGNATURE:

REGISTERED STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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Revised 1/29/20

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
BR-0119	4
R/W SHEET NO.	

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HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043571 SAMUEL L CULLUM

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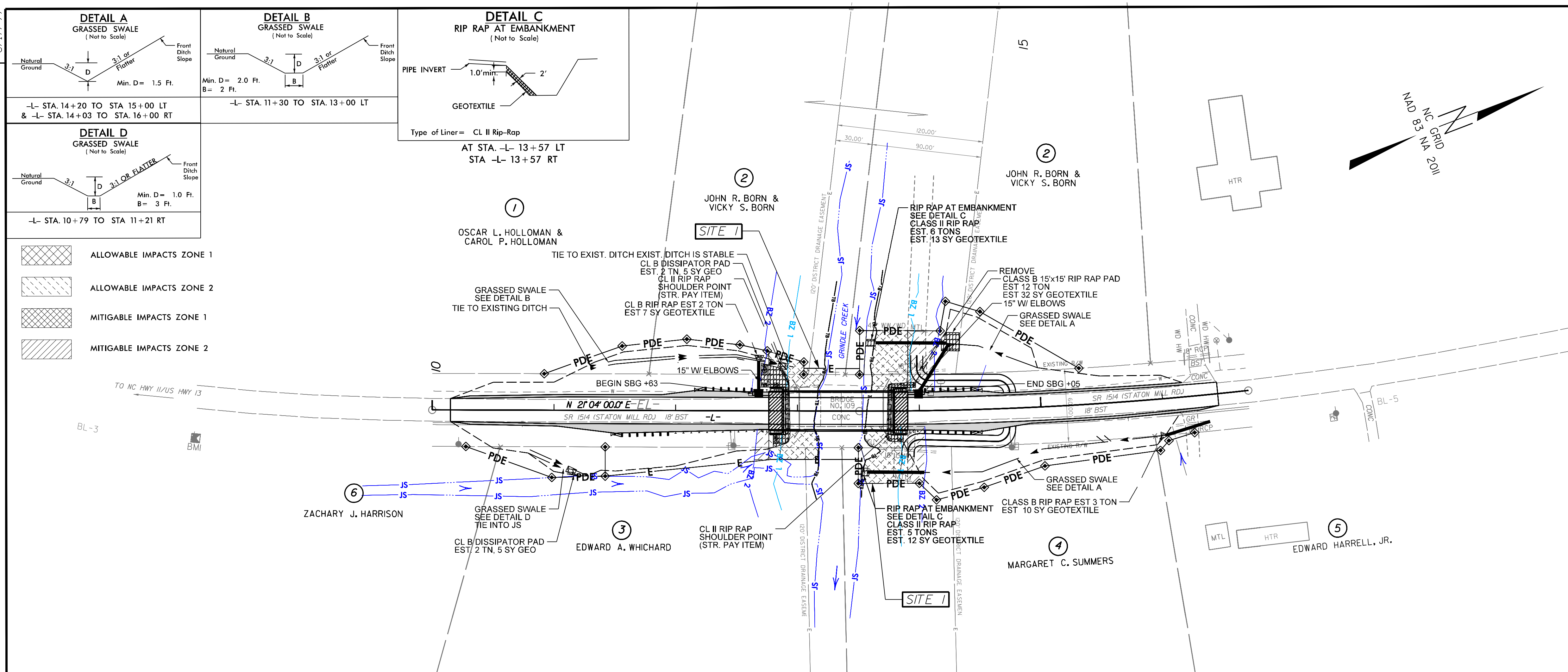
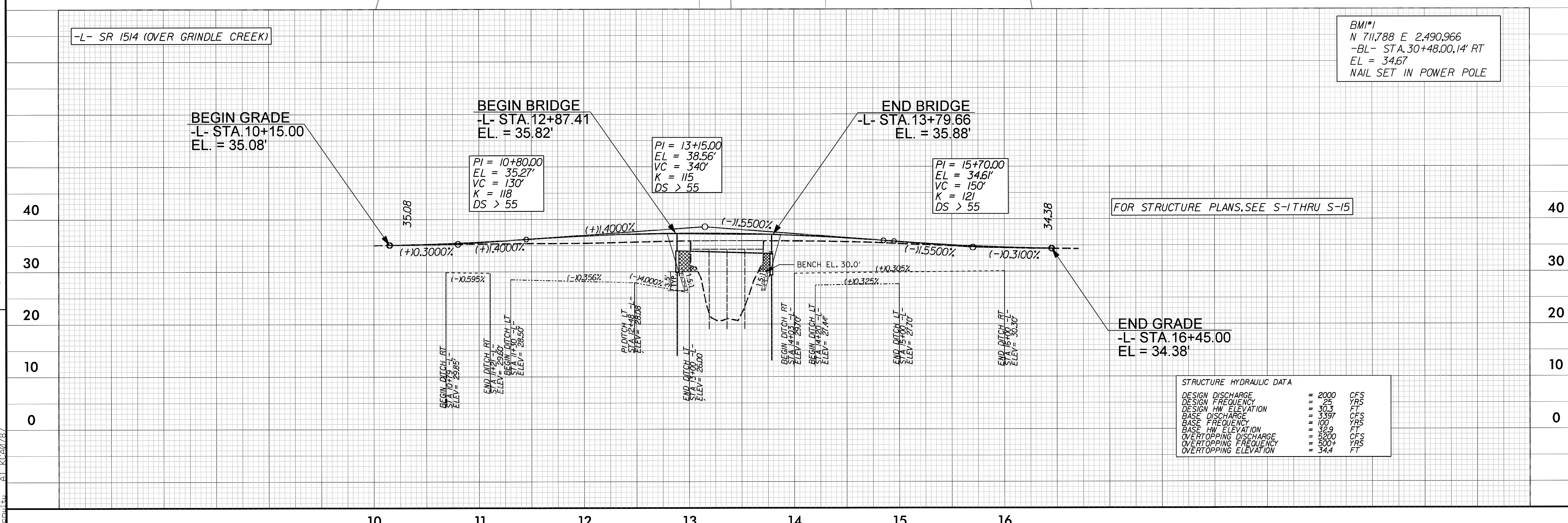
BUFFER DRAWING
SHEET 2 OF 5





STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 2000	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 30.3	FT
BASE DISCHARGE	= 3397	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 32.9	FT
OVERTOPPING DISCHARGE	= 5200	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 34.4	FT

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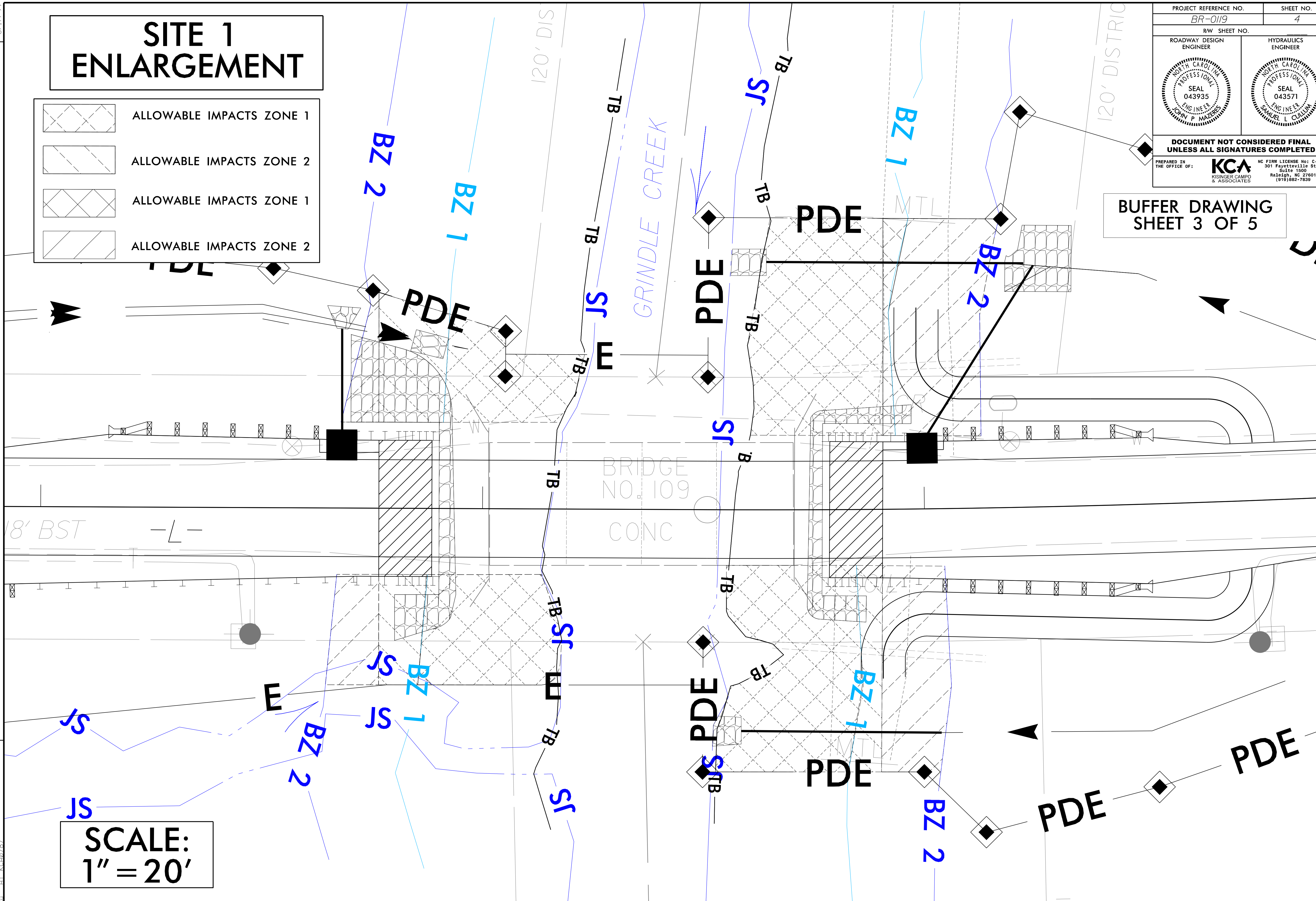
jmcnulty AT KCA0787

SITE 1 ENLARGEMENT

▨	ALLOWABLE IMPACTS ZONE 1
▨	ALLOWABLE IMPACTS ZONE 2
▨	ALLOWABLE IMPACTS ZONE 1
▨	ALLOWABLE IMPACTS ZONE 2



PROJECT REFERENCE NO.	SHEET NO.
BR-0119	4
R/W SHEET NO.	

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BUFFER DRAWING
SHEET 3 OF 5

SCALE: 1" = 20'

Revised 1/29/20

REVISIONS

8/17/99

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RIPARIAN BUFFER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	IMPACTS									BUFFER REPLACEMENT	
			TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft^2)	ZONE 2 (ft^2)	TOTAL (ft^2)	ZONE 1 (ft^2)	ZONE 2 (ft^2)	TOTAL (ft^2)	ZONE 1 (ft^2)	ZONE 2 (ft^2)
1	12+77 / 13+91	90' Prop Bridge		X		4015	919	4934					
1	12+65 / 12+76	Roadway Crossing	X							417	417		
1	13+91 / 14+17	Roadway Crossing	X						130	1685	1815		
TOTALS*:						**4015**	**919**	**4934**	**130**	**2102**	**2232**	**0**	**0**

Revised 1/29/20

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
1/29/2020
Pitt
BR-0119
48828.1.1
SHEET 4 OF 5

Revised 1/29/20

WETLANDS IN BUFFER IMPACTS SUMMARY

SITE NO.	STATION (FROM/TO)		WETLANDS IN BUFFERS ZONE 1 (ft^2)	WETLANDS IN BUFFERS ZONE 2 (ft^2)
1	12+69 / 14+21		0	0
TOTAL:			**0**	**0**

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
1/29/2020
Pitt
BR-0119
48820.1.1
SHEET 5 OF 5

Revised 2018 Feb

Rev. Jan 2009