



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

February 12, 2020

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Nicholle Braspennickx
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 13 and 33, and 401 Water Quality Certification** for the proposed replacement of Bridge No. 165 on SR 1601 (Branton Road) over Rocky Creek in Iredell County, Division 12, TIP No. BR-0114, WBS Element 48823.1.1.

Dear Madam:

NCDOT proposes to replace Bridge No. 165 on S.R. 1601 (Branton Road) over Rocky Creek in Iredell County. NCDOT Structures Management Unit records indicate Bridge No. 480165 has a sufficiency rating of 69.92 out of a possible 100 and has a posted weight limit. The proposed project will be designed to meet the legal load rating.

The project proposes replacing the existing two-lane bridge with an approximately 30-foot wide structure with two 10-foot travel lanes with 3-foot 11-inch paved shoulders. The proposed bridge would be approximately 102 feet in length and the proposed right of way varies from 40 feet to 90 feet. The total length of the project is approximately 740 feet. The proposed bridge will not be posted and will be designed to meet the legal load rating. The bridge replacement will be constructed in place using an off-site detour and includes structural and geometric improvements. The roadway is classified as a Local Route with a 55-mile per hour design speed with a sag vertical curve (K value) design exception that will result in a speed limit reduction in the area of the bridge. Bridge No. 480165 has a posted Single Vehicle weight limit of 21 tons and a Truck Tractor Semitrailer weight limit of 24 tons. The project has been designed to meet the legal load rating.

There will be a total of 61 linear feet of bank stabilization impacts. There will be a total of 64 linear feet (0.01 acre) of temporary impacts from the impervious dike on both the left and right banks of Rocky Creek; however, all but three (3) lf are within the bank stabilization impacts.

There will be no utility impacts for this project.

Avoidance and Minimization

NCDOT has avoided permanent stream impacts to Rocky Creek (other than bank stabilization) by spanning the creek with the bridge. The only permanent stream impacts will be those for bank stabilization under the new bridge and at the tie-in of the V-ditch at Sta. 15+98 LT.

Mitigation

NCDOT does not propose mitigation for the 61 linear feet of bank stabilization impacts, as bank stabilization does not require fill in the streambed and therefore, under Section 404 of the Clean Water Act, does not constitute Loss of Waters of the U.S. and is not subject to compensatory mitigation.

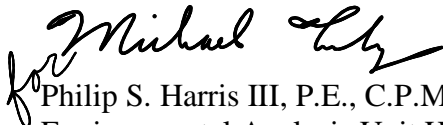
Please see enclosed copies of the Pre-Construction Notification (PCN), stormwater management plan, permit drawings and design plans for the above-referenced project.

A Categorical Exclusion was completed in July 2019 and distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of July 21, 2020 and a review date of June 2, 2020.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please contact Bill Barrett at wabarrett@ncdot.gov or (919) 707-6103.

Sincerely,

A handwritten signature in black ink, appearing to read "for Michael Luby".

Philip S. Harris III, P.E., C.P.M.
Environmental Analysis Unit Head

Cc: NCDOT Permit Application Standard Distribution List



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:*

Iredell

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-0114

WBS #*

48823.1.1

(for NCDOT use only)

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

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?*

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:

13 - Bank Stabilization

Nationwide Permit (NWP) Number:

33 - Temporary Construction

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

401 Water Quality Certification - Regular

Non-404 Jurisdictional General Permit

Individual Permit

401 Water Quality Certification - Express

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

FILETYPE 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 - William A. Barrett

1b. Primary Contact Email: *

wabarrett@ncdot.gov

1c. Primary Contact Phone: *

(xxx)xxx-xxxx
(919)707-6103

1d. Who is applying for the permit? *

Owner
(Check all that apply)

Applicant (other than owner)

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

1598 Mail Service Center

Address Line 2

City

Raleigh

Postal / Zip Code

27699

State / Province / Region

NC

Country

United States

2e. Telephone Number: *

(xxx)xxx-xxxx
(919)707-6103

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: *

Replace Bridge No. 480165 on SR 1601 (Branton Road) over Rocky Creek

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Union Grove

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

Postal / Zip Code

State / Province / Region

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:*

36.019303
ex: 34.208504

Longitude:*

-81.010141
-77.796371

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

Rocky Creek

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

C

[Surface Water Lookup](#)

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

Yadkin-PeeDee

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

030401020104

[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:***

Undeveloped woods, agriculture land, and some residences.

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)

842

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

The replacement of Bridge No. 480165 is part of the Growing Rural Economy and Agriculture through Transportation and Technology Enhancement or Replacement in North Carolina (GREATER-NC) Project under the United States Department of Transportation's 2018 Better Utilizing Investments to Leverage Development (BUILD) Grant program. The purpose of the grant and this bridge replacement project is to provide transportation infrastructure to support economic development and improve physical and digital connectivity in rural communities in North Carolina. The posted weight restriction on Bridge No. 460165 prohibits large or heavy vehicles, typically used in transporting agricultural and manufactured products, from using the bridge. Vehicles above the posted weight must detour approximately 3.75 miles to avoid the bridge. Replacing the existing bridge will eliminate posted weight limits by providing a safe crossing for all legal loads and will make accommodations for broadband installation in order to support economic competitiveness. The proposed project has been designed to meet the legal load rating.

* This project will utilize the NCDOT project BR-0115, which proposes the replacement of Bridge No. 480166 on SR 1598 (Coolbrooke Road) over Rocky Creek, as a detour route. As such, NCDOT project BR-0115 will be constructed prior to this project.

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

The project proposes replacing the existing two-lane bridge with an approximately 30-foot wide structure with two 10-foot travel lanes with 3-foot 11-inch paved shoulders. The proposed bridge would be approximately 102 feet in length and the proposed right of way varies from 40 feet to 90 feet. The total length of the project is approximately 740 feet. The proposed bridge will not be posted and will be designed to meet the legal load rating. The bridge replacement would be constructed in place using an off-site detour and includes structural and geometric improvements. The roadway is classified as a Local Route with a 55-mile per hour design speed with a sag vertical curve (K value) design exception that will result in a speed limit reduction in the area of the bridge.

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

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

BR-0114_Permit Drawings (1).pdf

3.77MB

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:

No wetlands at project site.

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): Jim Mason and Hayley Wood

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.

No.

D. Proposed Impacts Inventory

1. Impacts Summary

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

Wetlands Open Waters Streams-tributaries Pond Construction Buffers

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".

Table with 9 columns: ID, Reason for impact, Impact type, Type of impact, S. name, Stream Type, Type of Jurisdiction, S. width, Impact length. Rows include S1 (Bank stabilization) and S2 (Impervious dikes).

** 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:

61

3i. Total temporary stream impacts:

3

3i. Total stream and ditch impacts:

64

3j. Comments:

There will be a total of 64 linear feet (0.01 acre) of temporary impacts from the impervious dike on both the left and right banks of Rocky Creek; however, all but three (3) if are within the bank stabilization impacts.

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 proposed single-span bridge (no interior bents) will replace a 3-span bridge. It will be replaced in-place and will utilize an off-site detour. The new bridge will be approximately 12 feet longer than the existing bridge.

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

Impervious dikes will be used around existing abutments to prevent sediment from entering the stream during the removal of existing bridge and will be dewatered as needed.

Two TB 2GIs will collect water from the pavement and convey it to the stream through a riprap-lined Standard V Ditch. A special lateral V ditch with riprap is provided where capacity is not sufficient, and the flow from this ditch dissipates into the floodplain.

Best Management Practices for Surface Waters will be used during all phases of construction.

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:

NCDOT does not propose mitigation for the 61 linear feet of bank stabilization impacts, as bank stabilization does not require fill in the streambed and therefore, under Section 404 of the Clean Water Act, does not constitute Loss of Waters of the U.S. and is not subject to compensatory mitigation.

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

For a list of options to meet the diffuse flow requirements, click [here](#).

If no, explain why:

not located within a Buffer Basin.

2. Stormwater Management Plan

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

Yes No

Comments:

see attached Permit Drawings.

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

BR_0114_Final_CE.pdf

3.91MB

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.

Asheville

5d. Is another Federal agency involved? *

Yes

No

Unknown

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

Yes No

5f. Will you cut any trees in order to conduct the work in waters of the U.S.? *

Yes No

5g. Does this project involve bridge maintenance or removal? *

Yes No

5g(1). If yes, have you inspected the bridge for signs of bat use such as staining, guano, bats, etc.? Representative photos of signs of bat use can be found in the NLEB SLOPES, Appendix F, pages 3-7.

Yes No

Link to the NLEB SLOPES document: http://saw-reg.usace.army.mil/NLEB/1-30-17-signed_NLEB-SLOPES&apps.pdf

If you answered "Yes" to 5g(1), did you discover any signs of bat use? *

Yes No Unknown

*** If yes, please show the location of the bridge on the permit drawings/project plans.

5h. Does this project involve the construction/installation of a wind turbine(s)?** *

Yes No

5i. Does this project involve (1) blasting, and/or (2) other percussive activities that will be conducted by machines, such as jackhammers, mechanized pile drivers, etc.? *

Yes No

If yes, please provide details to include type of percussive activity, purpose, duration, and specific location of this activity on the property.

[Click the upload button or drag and drop files here to attach document](#)

File must be PDF

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

IPAC, USFWS website, NCNHP website, and on-site pedestrian surveys.

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? *

NSEPA Documentation

7c. Historic or Prehistoric Information Upload

[Click the upload button or drag and drop files here to attach document](#)

BR-0114 Catawba Response 2020-01-16.pdf 282.75KB

BR-0114 Cherokee Nation Response 2020-01-14.pdf 215.24KB

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 Flood Maps (Panel 3710480300K)

Miscellaneous

Comments

Miscellaneous attachments not previously requested.

[Click the upload button or drag and drop files here to attach document](#)

BR-0114 Application Cover Letter.pdf 371.4KB

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: *

Michael Anthony Turchy

Signature

Michael Turchy

Date

2/12/2020



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



(Version 2.08; Released April 2018)

WBS Element: 67114.1.1 **TIP No.:** BR-0114 **County(ies):** Iredell **Page** 1 **of** 1

General Project Information

WBS Element:	67114.1.1	TIP Number:	BR-0114	Project Type:	Bridge Replacement	Date:	12/5/2019
NCDOT Contact:	David Stutts		Contractor / Designer:	STV Engineers, Inc. / Shirshant Sharma			
	Address:	1020 Birch Ridge Drive Raleigh, NC 27610			Address:	900 West Trade Street, Ste. 715 Charlotte, NC 28202	
	Phone:	(919) 707-6442			Phone:	(704) 816-2556	
	Email:	dstutts@ncdot.gov			Email:	Shirshant.Sharma@stvinc.com	
City/Town:	Love Valley, NC		County(ies):	Iredell			
River Basin(s):	Yadkin-Pee Dee		CAMA County?	No			
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.14	Surrounding Land Use:	Agricultural, Rural Residential				
	Proposed Project			Existing Site			
Project Built-Upon Area (ac.)	0.4	ac.	0.4	ac.			
Typical Cross Section Description:	Bridge : Two 10' lanes, 5' to the right and 5' to the left paved shoulders Approach: Two 10' lanes, variable paved shoulders			Bridge: Two 11' lanes, 1' to the left and right shoulders Approach: Two 10' lanes, variable shoulders			

Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	960	Year:	2040	Existing:	430	Year:	2014
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**General Project Narrative:
 (Description of Minimization of Water Quality Impacts)**

The existing 89', 3 span bridge over Rocky Creek on SR 1601 is being replaced with a 1 span bridge with a span arrangement of 1 @ 100' (39" box beam). The bridge will have 1.5:1 sloping abutments. The bridge will be superelevated 4% to the left with 10' travel lanes with 3'-11" to the right and 3'-11" to the left shoulders, and 30' OTO width. The existing bridge structure will be removed. Overall drainage patterns will be maintained. On the begin bridge side, the roadside drainage patterns will be maintained. Two TB 2GIs will collect water from the pavement and convey it to the stream through a Riprap lined Standard V Ditch. On the end bridge side A special lateral V ditch with riprap is provided where the capacity was not sufficient and the flow from that ditch dissipates into the floodplain. Class-II riprap abutment protection on both banks of the stream is also proposed to prevent future erosion and stream migration. Deck drains will not required to meet spread criteria on this bridge. Impervious dikes will be used to prevent sediment from entering the stream and will be dewatered as needed.

Waterbody Information

Surface Water Body (1):	Rocky Creek		NCDWR Stream Index No.:	12-108-11				
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:							Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	N/A	Dissipater Pads Provided in Buffer?				N/A
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)							

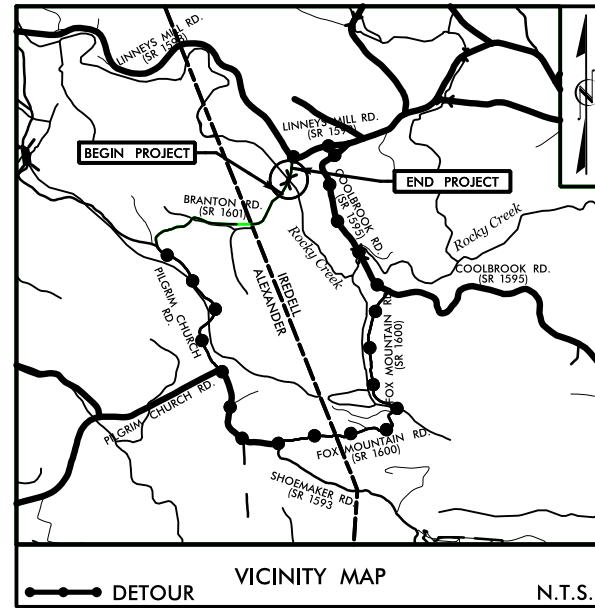
09/28/19

I:\16\2020\Hydraulics\PERMITS_Environmental\Drawings\Prm_SHT\BR-0114_HYD_PRM_psh01_tsh.dgn
mstecmo

TIP PROJECT: BR-0114

CONTRACT:

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet



RIGHT-OF-WAY PLANS

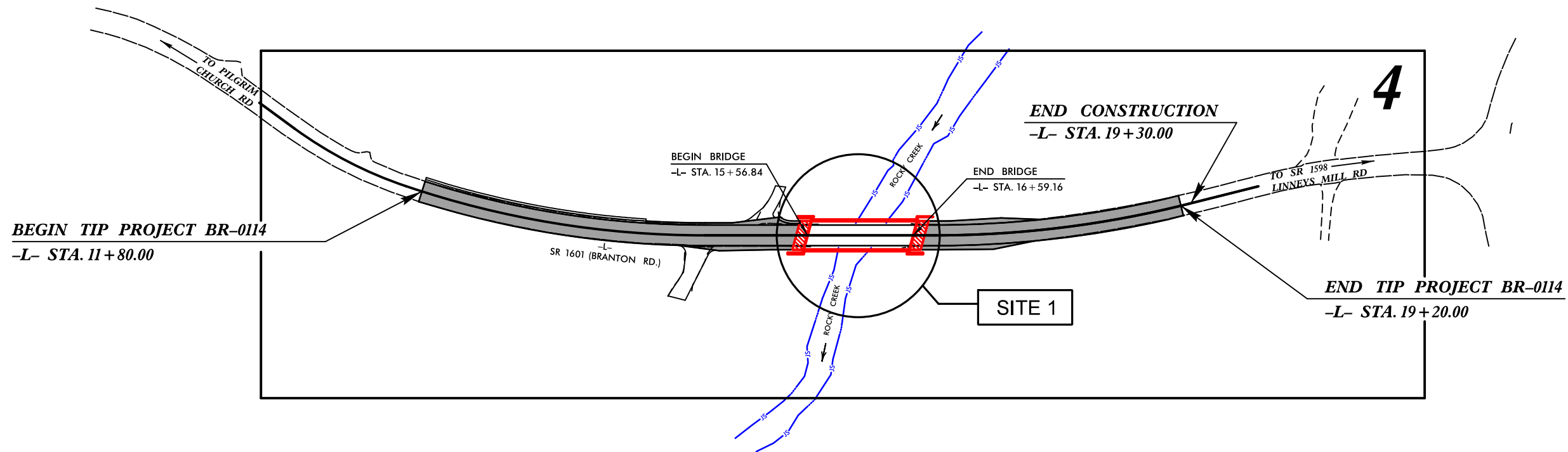
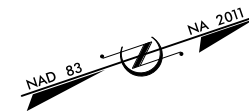
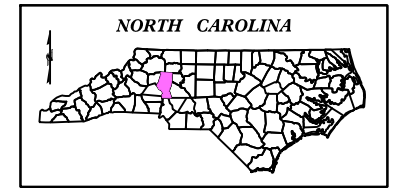
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY

**LOCATION: BRIDGE #165 OVER ROCKY CREEK
ON SR 1601 (BRANTON RD)**
TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE

SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0114	1	5
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48823.1.1	2020001	P.E.	
48823.2.1	2020001	R.O.W/UTILITIES	

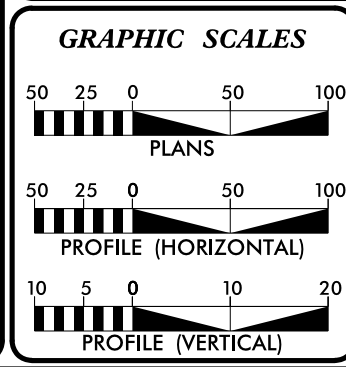


DESIGN EXCEPTION REQUIRED FOR K VALUE & NIGHTTIME VERTICAL SSD.

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED
TO THE LIMITS ESTABLISHED BY METHOD III.

Permit Drawing
Sheet 1 of 5

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2016 =	430
ADT 2040 =	960
DHV =	N/A
D =	N/A
T =	N/A
V =	55 MPH

FUNC. CLASSIFICATION:
LOCAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT BR-0114 =	0.121 MILES
LENGTH OF STRUCTURE TIP PROJECT BR-0114 =	0.019 MILES
TOTAL LENGTH OF TIP PROJECT BR-0114 =	0.140 MILES

NCDOT CONTACT: DAVID STUTTS, PE
Structures Management Unit

PLANS PREPARED FOR THE NCDOT BY:

STV 100 Years STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOVEMBER 27, 2019

LETTING DATE:
APRIL 21, 2020

SHANE SHARPE, PE
PROJECT ENGINEER

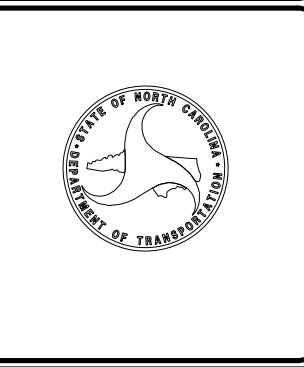
BHUPESH R. JOSHI, EIT
PROJECT DESIGNER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

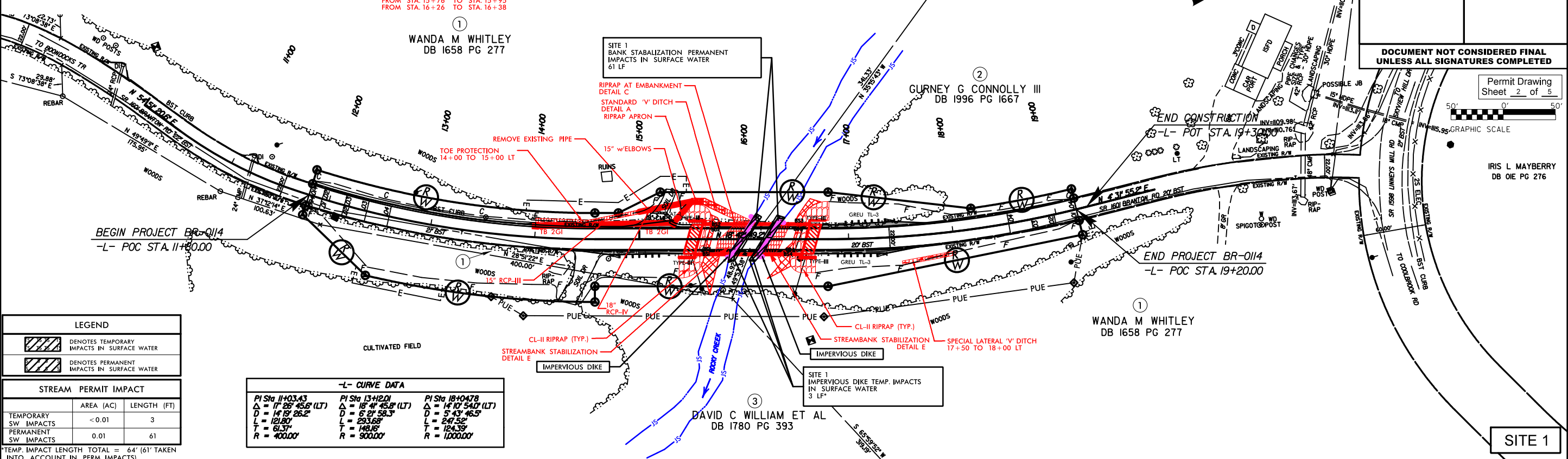
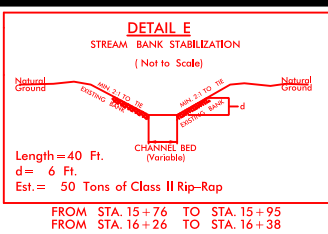
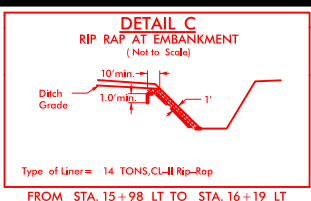
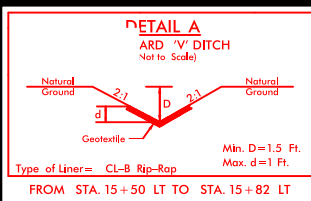


8/17/19

RW SHEET NO. ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



LEGEND

Denotes TEMPORARY IMPACTS IN SURFACE WATER

Denotes PERMANENT IMPACTS IN SURFACE WATER

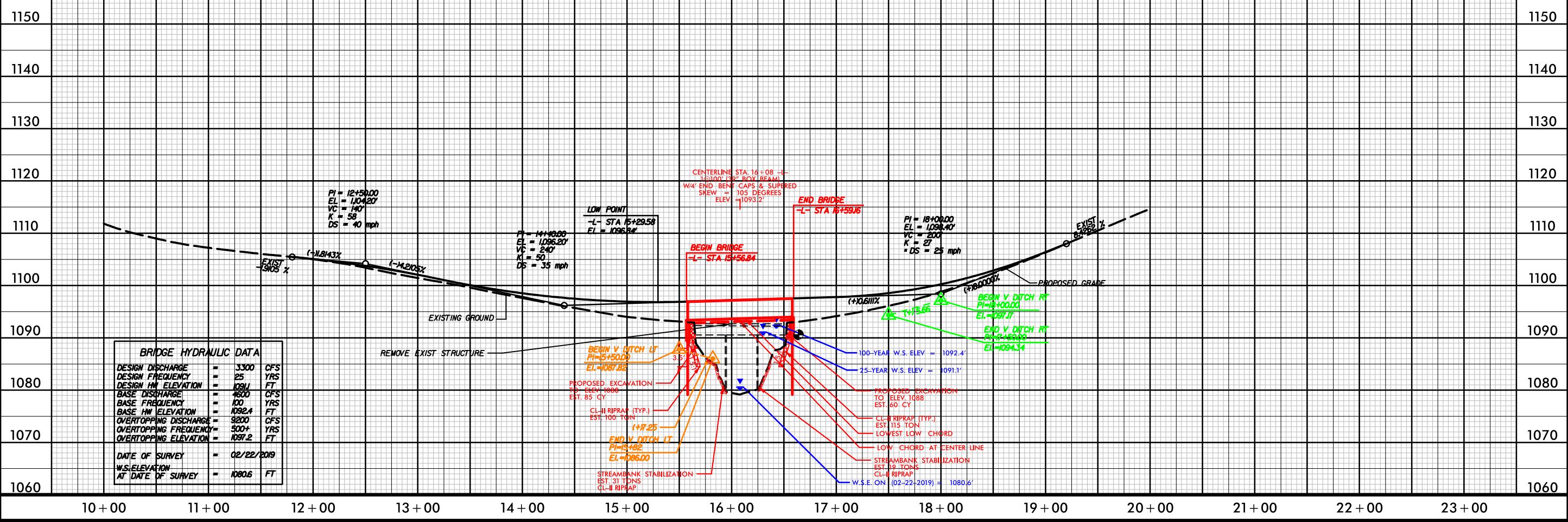
STREAM PERMIT IMPACT

	AREA (AC)	LENGTH (FT)
TEMPORARY SW IMPACTS	< 0.01	3
PERMANENT SW IMPACTS	0.01	61

TEMP. IMPACT LENGTH TOTAL = 64' (61' TAKEN INTO ACCOUNT IN PERM. IMPACTS)

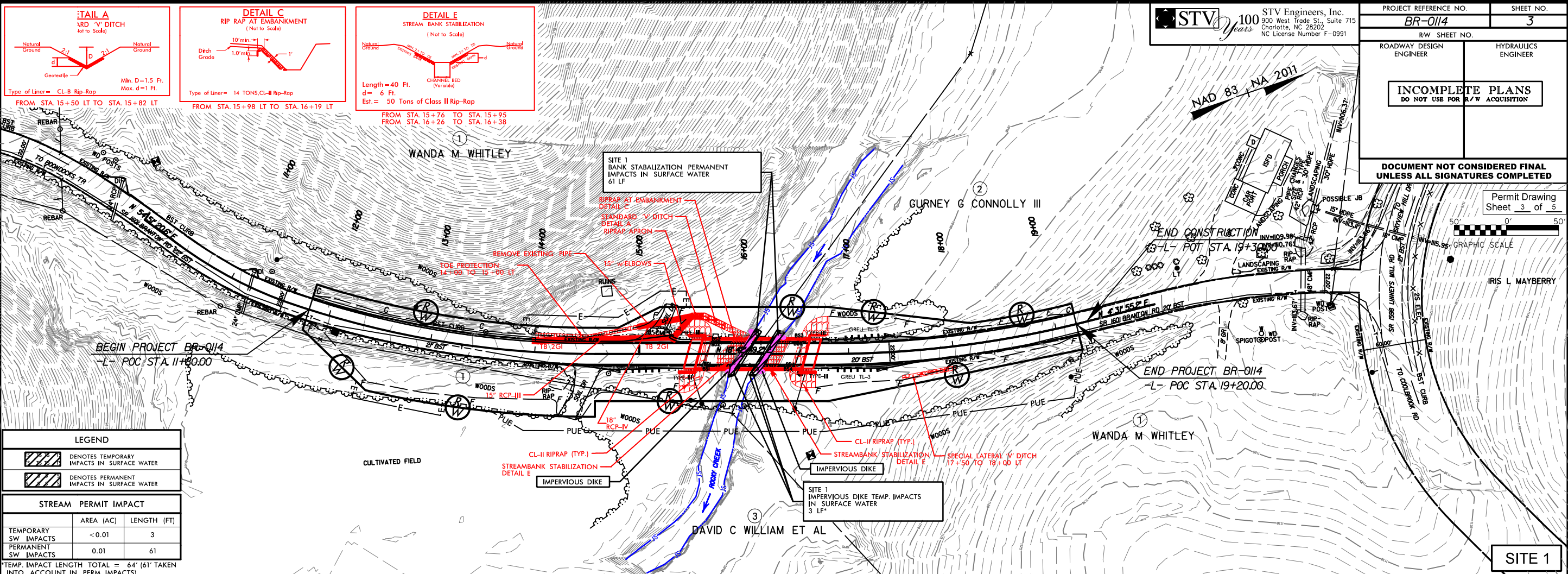
-L- CURVE DATA

PI Sta	PI Sta	PI Sta
11+03.43	13+12.01	18+0478
$\Delta = 17^{\circ} 28' 45.8''$ (LT)	$\Delta = 18^{\circ} 41' 45.8''$ (LT)	$\Delta = 14^{\circ} 10' 54.0''$ (LT)
$D = 14^{\circ} 19' 26.2''$	$D = 6^{\circ} 21' 58.3''$	$D = 5^{\circ} 43' 46.5''$
$L = 121.80'$	$L = 293.68'$	$L = 247.52'$
$R = 61.37'$	$R = 148.18'$	$R = 124.39'$
$R = 400.00'$	$R = 900.00'$	$R = 1000.00'$



I:\16\2020\16-2020\Hydraulics\PERMITS\Environmental\Drawings\PRM_SHT\BR-0114_HYD_PRM_psh02.dgn

8/17/19

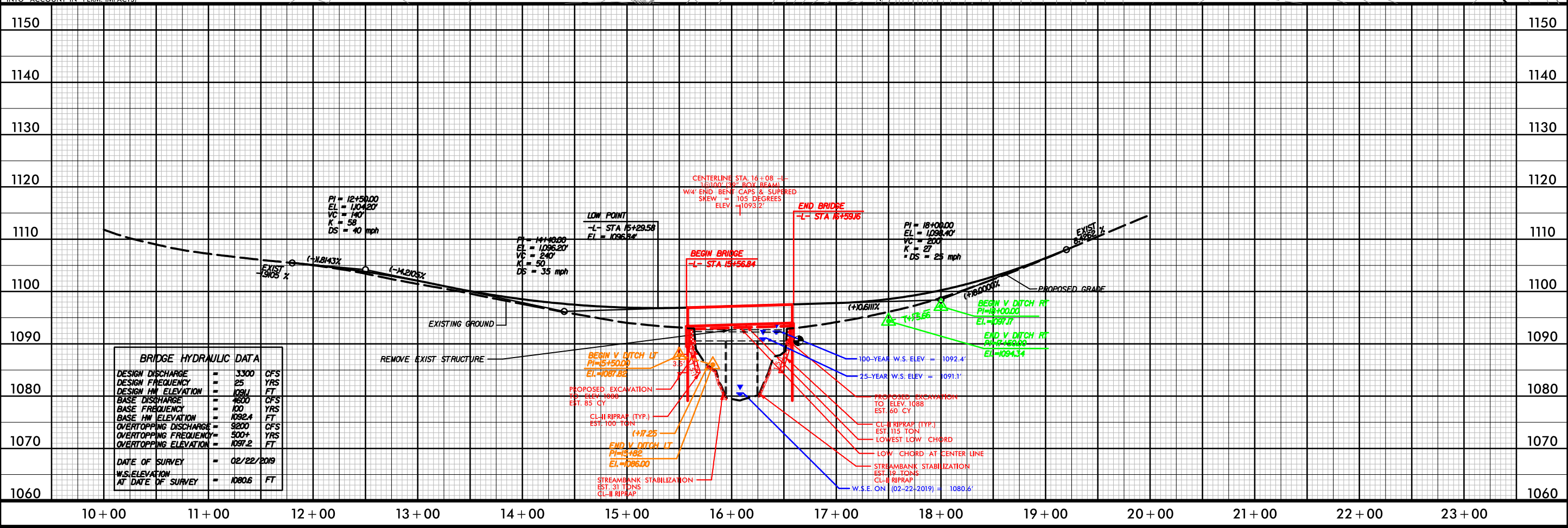


LEGEND

- Denotes Temporary Impacts in Surface Water
- Denotes Permanent Impacts in Surface Water

STREAM PERMIT IMPACT		
	AREA (AC)	LENGTH (FT)
TEMPORARY SW IMPACTS	< 0.01	3
PERMANENT SW IMPACTS	0.01	61

TEMP. IMPACT LENGTH TOTAL = 64' (61' TAKEN INTO ACCOUNT IN PERM. IMPACTS)

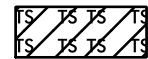


BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 3300	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 1091.1	FT
BASE DISCHARGE	= 4600	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 1092.4	FT
OVERTOPPING DISCHARGE	= 9200	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 1097.2	FT
DATE OF SURVEY	= 02/22/2019	
W.S. ELEVATION AT DATE OF SURVEY	= 1080.6	FT

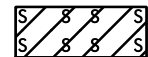
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8/17/99

LEGEND



DENOTES TEMPORARY IMPACTS IN SURFACE WATER



DENOTES PERMANENT IMPACTS IN SURFACE WATER

STREAM PERMIT IMPACT

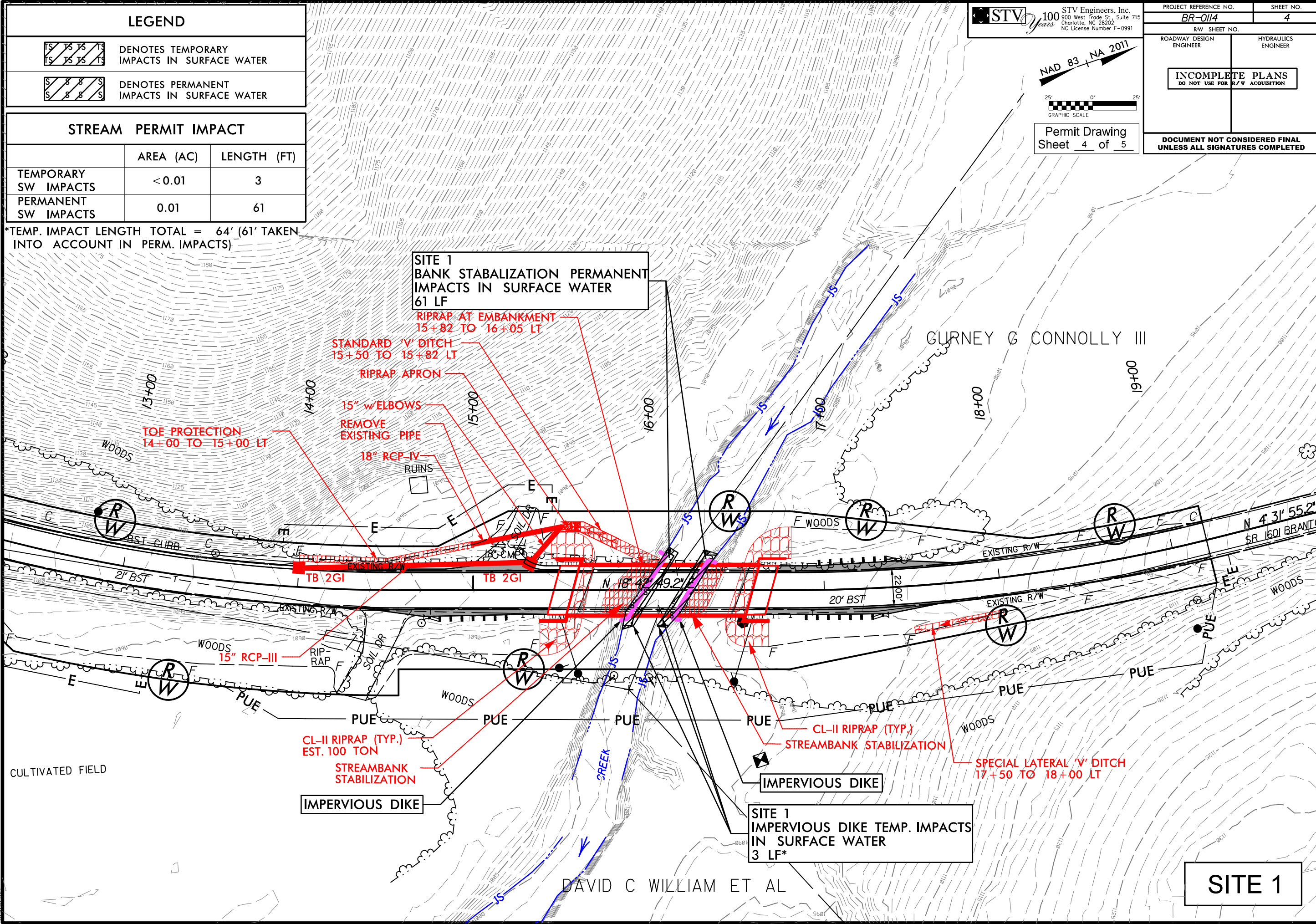
	AREA (AC)	LENGTH (FT)
TEMPORARY SW IMPACTS	< 0.01	3
PERMANENT SW IMPACTS	0.01	61

*TEMP. IMPACT LENGTH TOTAL = 64' (61' TAKEN INTO ACCOUNT IN PERM. IMPACTS)

STV 100 Years
 STV Engineers, Inc.
 900 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

PROJECT REFERENCE NO. BR-0114	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
Permit Drawing Sheet 4 of 5	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NAD 83 NA 2011
 25' 0' 25'
 GRAPHIC SCALE
 Permit Drawing
 Sheet 4 of 5



GURNEY G CONNOLLY III

CULTIVATED FIELD

DAVID C WILLIAM ET AL

SITE 1

I:\6\2020 R:\Hydro\lics\PERMITS_Environmental\Drawings\Perm SHT BR-0114_HYD_PRR_psh04.dgn

WETLAND PERMIT IMPACT 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)	Natural Stream Design (ft)
1	15+84.84 / 16+39.34	BANK STABILIZATION ON BOTH LEFT AND RIGHT BANKS						0.01		61		
1	15+85.29 / 16+38.76	IMPERVIOUS DIKE ON BOTH LEFT AND RIGHT BANKS							<0.01		3*	
TOTALS:								0.01	<0.01	61	3	

*TEMPORARY IMPACT LENGTH TOTAL = 64' (61' TAKEN INTO ACCOUNT IN PERMANENT STREAMBANK STABILIZATION IMPACTS)

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BRIDGE #165 OVER ROCKY CREEK
 ON SR 1601 (BRANTON RD)
 IREDELL COUNTY
 BR-0114
 SHEET 5 of 5 1/16/2020

From: [Ellwanger, Claire](#)
To: [Barrett, William A](#)
Subject: Re: [EXTERNAL] BR-0114 and BR-0115_Iredell_4(d) bat memo distribution
Date: Tuesday, January 7, 2020 7:34:24 AM
Attachments: [image001.png](#)

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to report.spam@nc.gov

Hi Bill - Thanks, happy 2020!

On Mon, Jan 6, 2020 at 2:03 PM Barrett, William A <wabarrett@ncdot.gov> wrote:

Hi Claire,

I hope the new year is treating you well!

Attached are the 4(d) bat memos for **BR-0114** and **BR-0115**, both in Iredell County. Per the attached memos, NCDOT has satisfied the 4(d) requirements for these two projects

Thanks

Bill

William A. Barrett

Environmental Senior Specialist

Environmental Analysis Unit

Environmental Coordination & Permitting

North Carolina Department of Transportation

919 707 6103 office

wabarrett@ncdot.gov

1598 Mail Service Center



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

June 3, 2019

TO: Carla Dagnino, ECAP Group Leader
Environmental Analysis Unit

FROM: Chris Manley, Environmental Program Consultant
Biological Surveys Group, EAU

SUBJECT: Section 7 survey results for the northern long-eared bat (*Myotis septentrionalis*) associated with the replacement of Bridge No. 165 over Rocky Creek on SR 1601 in Iredell County, **TIP No. BR-0114**.

The North Carolina Department of Transportation (NCDOT, Division 12) proposes to replace Bridge No. 165 over Rocky Creek on SR 1601 in Iredell County, TIP No. BR-0114. The existing bridge is a three-span structure with steel beams, and timber deck, guard rails and end walls. The overall length of the structure is 89 feet.

Northern long-eared bat

The project to replace Bridge No. 165 has been reviewed for effects on the northern long-eared bat (NLEB). As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of June 3, 2019, NLEB is listed by USFWS (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html) as "probable/potential" in Iredell County. USFWS also established a final rule under the authority of section 4(d) of the Endangered Species Act that provides measures for the conservation of NLEB. The USFWS has tailored the final 4(d) rule to prohibit the take of NLEB from certain activities within areas where they are in decline. This incidental take protection applies only to known NLEB occupied maternity roost trees and known NLEB hibernacula. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼ mile radius of known NLEB hibernacula; or 2) cuts or destroys known occupied maternity roost trees or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31).

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

Location:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated April 2019, **the nearest NLEB hibernacula record is 45 miles west of the project and no known NLEB roost trees occur within 150 feet of the project area.**

NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation.

For the proposed action, NCDOT has committed to the conservation measures listed below:

- 1) No alterations of a known hibernacula entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25 mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

If you need any additional information, please contact Chris Manley at 919-707-6135.



G W Y A D B F
CHEROKEE NATION[®]
P.O. Box 948 • Tahlequah, OK 74465-0948
918-453-5000 • www.cherokee.org

Office of the Chief

Chuck Hoskin Jr.
Principal Chief

Bryan Warner
Deputy Principal Chief

January 14, 2020

David Stutts
North Carolina Department of Transportation
Structures Management Unit 1581
Mail Service Center
Raleigh, NC 27699

Re: BR-0114, Bridge No. 165 Replacement on S.R. 1601 over Rocky Creek

Mr. David Stutts:

The Cherokee Nation (Nation) is in receipt of your correspondence about **BR-0114, Bridge No. 165 Replacement on S.R. 1601 over Rocky Creek**, and appreciates the opportunity to provide comment upon this project.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found no instances where this project intersects or adjoins such resources. Thus, the Nation does not foresee this project imparting impacts to Cherokee cultural resources at this time.

However, the Nation requests that the North Carolina Department of Transportation (NCDOT) halt all project activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this project.

Additionally, the Nation requests that NCDOT conduct appropriate inquiries with other pertinent Tribal and Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

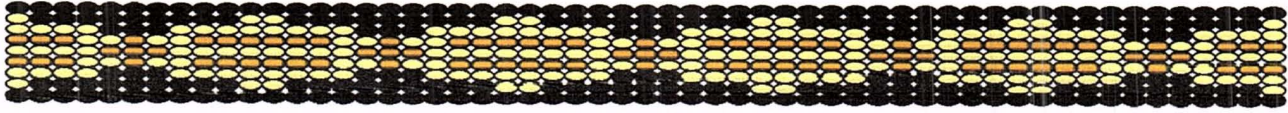
If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791



January 16, 2020

Attention: David Stutts
NC Department of Transportation
1581 Mail Service Center
Raleigh, NC 27699

Re. THPO #	Project #	Project Description
2020-193-88	BR-0114	Replacement of Bridge No. 165 on SR 1601 over Rocky Creek in Iredell County

Dear Mr. Stutts,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail caitlinh@ccppcrafts.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer