STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

December 6, 2019

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

ATTN: Ms. Lori Beckwith, NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit, Section 401 Water Quality Certification** for the Proposed Replacement of Bridge No. 8 on NC 194 over the North Fork New River in Ashe County; TIP BR-0002, Division 11, Debit $240 from WBS Element 67002.1.1

Ms. Beckwith:

The North Carolina Department of Transportation (NCDOT) proposes to replace bridge number 8 on NC 194 over the North Fork New River in Ashe County with a triple span, 280 feet long, 54 inch stressed concrete girder bridge on the current alignment with a staged construction to maintain traffic on site. This action will result in 41 linear feet of permanent impacts from a base ditch, outlet protection, and the installation of a headwall. There will be 0.07 acre of temporary impacts to surface waters from temporary construction and a temporary causeway.

Please see enclosed copies of the Pre-Construction Notification (PCN), DMS Acceptance Letter, Stormwater Management Plan, and Permit Drawings.

This project calls for a letting date of May 19, 2020 and a review date March 31, 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 call Jeff Hemphill at (919) 707-6126.

Sincerely,

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

cc:
NCDOT Permit Application Standard Distribution List

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

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

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:*

Ashe

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-0002

WBS #*

67009.1.1

(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: 14 - Linear transportation

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

[ ] 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

BR-0002 DMS Acceptance Letter.pdf 67.46KB

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

You must submit a copy of the appropriate Wildlife Resource Commission Office.

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:*

jhemphill@ncdot.gov

1c. Primary Contact Phone:*

(xxx)xxx-xxxx

(919)707-6126

1d. Who is applying for the permit?*

[x] 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:*

N/A

2b. Deed book and page no.:

2c. Responsible party:

(for Corporations)

2d. Address*

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

State / Province / Region

NC

Postal / Zip Code

27699-1598

Country

US

2e. Telephone Number:*

(xxx)xxx-xxxx

(919)707-6126

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 040008 on NC 194 over the North Fork New River

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town:*

Warrensville

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: *

36.466428

ex: 34.208504

Longitude: *

-81.511051

-77.796371

3. Surface Waters

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

North Fork New River

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

C; ORW

Surface Water Lookup

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

New

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

050500010106

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: *

Rural residential, undeveloped land, Ashe County Middle School is located on the southwest quadrant of the bridge.

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:

0.03

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

(intermittent and perennial)

1,326

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

The purpose of the proposed project is to replace a deficient bridge. Bridge No. 168 is considered structurally deficient with a sufficiency rating of 44.85 out of 100. Being structurally deficient does not mean that the bridge is unsafe, but does mean the bridge is in need of repair or replacement. As a bridge ages, the cost of repairs and continued maintenance eventually necessitate the need for replacement. The current bridge was constructed in 1954 and is reaching the end of its useful life.

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

Replace Ashe County Bridge No. 8 on NC 194 over the North Fork New River. The new bridge will utilize staged construction. A portion of the new bridge will be built on the eastern side of the existing bridge. Traffic will be shifted into a one-lane two-way pattern on the new portion of the bridge. The old bridge will be removed, and the remainder of the new bridge will be completed. Project will replace existing 6 span bridge with a 3 span 54" pre-stressed concrete girder bridge with 4' deep caps with 1.5:1 spill through abutments. The span arrangement will be 1 @ 85', 1 @ 110' and 1 @ 85'. Proposed bents will be located outside of the stream and the existing bents will be removed from the stream. Deck drains will be placed on the bridge where they do not discharge over water. Typical road building equipment such as trucks, dozers, and cranes will be used to construct the bridge.

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

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

BR0002_hyd_PERMIT DRAWINGS_20191014.pdf 9.56MB

BR-0002 PCN Cover Letter.pdf 190.41KB

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:

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): Jennifer Harrod

Agency/Consultant Company: Calyx/NV 5

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	Base Ditch excavation	Permanent	Excavation	SA - UT to Buffalo Creek	Perennial	Both	1 Average (feet)	22 (linear feet)
S2	Base Ditch excavation	Temporary	Dewatering	SA - UT to Buffalo Creek	Perennial	Both	1 Average (feet)	16 (linear feet)
S3	Outlet Protection	Permanent	Rip Rap Fill	Buffalo Creek	Perennial	Both	40 Average (feet)	18 (linear feet)
S4	Outlet Protection Installation	Temporary	Rip Rap Fill	Buffalo Creek	Perennial	Both	40 Average (feet)	11 (linear feet)
S5	Temporary Causeway	Temporary	Workpad/Causeway	North Fork New River	Perennial	Corps	80 Average (feet)	81 (linear feet)
S6	Headwall	Permanent	Culvert	SD-UT to N. Fork New River	Perennial	Both	2 Average (feet)	1 (linear feet)
S7	Headwall Installation	Temporary	Culvert	SD-UT to N. Fork New River	Perennial	Both	2 Average (feet)	15 (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:

41

3i. Total temporary stream impacts:

123

3i. Total stream and ditch impacts:

164

3j. Comments:

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: *

Existing drainage patterns will be maintained. 2:1 roadway fill slopes are used to minimize footprint of the overall project. Ditches will be vegetated where possible. Riprap pads are used at pipe outlets to dissipate energy and prevent erosion. A retaining wall was included to prevent significant impacts to Buffalo Creek (10-2-20) which is a NCDWQ Trout Stream. Permanent impacts were reduced to 18 feet and limited to bank stabilization. Deck drains will be placed on the bridge where they do not discharge over water. NCDOT will adhere to Design Standards in Sensitive Watersheds.

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

Best Management Practices will be adhered to. A temporary causeway will be used for construction and demolition but will not impede more than 50% of the North Fork New River.

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

2c. If yes, mitigation is required by (check all that apply):

[ ] DWR [x] Corps

2d. If yes, which mitigation option(s) will be used for this project?

[ ] Mitigation bank [x] Payment to in-lieu fee program [ ] Permittee Responsible Mitigation

4. Complete if Making a Payment to In-lieu Fee Program

4a. Approval letter from in-lieu fee program is attached.

(•) Yes ( ) No

4b. Stream mitigation requested:

(linear feet)

41

4c. If using stream mitigation, what is the stream temperature:

cold

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

4d. Buffer mitigation requested (DWR only):

(square feet)

4e. Riparian wetland mitigation requested:

(acres)

4f. Non-riparian wetland mitigation requested:

(acres)

4g. Coastal (tidal) wetland mitigation requested:

(acres)

4h. Comments

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:

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

Comments: *

Minimum Criteria Determination Checklists (MCDCs) are not required to be sent to the State Environmental Review Clearinghouse.

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.

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

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? *

USFWS county list, Bat Memo (attached) A small amount of habitat for this species exists along the confluence of Buffalo Creek and North Fork New River but most of the area is mowed. A survey was conducted by NCDOT biologists on May 24, 2018 with no specimens found.

Consultation Documentation Upload

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

BR-0002 bat memo.pdf 117.25KB

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? *

NCDOT Cultural Resources personnel

7c. Historic or Prehistoric Information Upload

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

Ashe 8 No Survey form.pdf 1.27MB

17-12-0011NoHistProps.pdf 3.36MB

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:

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

FEMA Flood 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: *

Michael Turchy

Signature

Date

12/6/2019

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
TIM BAUMGARTNER
Director

NORTH CAROLINA
Environmental Quality

November 7, 2019

Mr. Philip S. Harris, III, P.E.
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

BR-0002, Replace Bridge 040008 over the North Fork River on NC 194, Ashe County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on October 31, 2019, the impacts are located in CU 05050001 of the New River basin in the Northern Mountains (NM) Eco-Region, and are as follows:

New 05050001 NM	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	41.0	0	0	0	0	0	0	0

*Some of the stream and/or wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

The impacts and associated mitigation needs were under projected by the NCDOT in the 2019 impact data. DMS will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

If you have any questions or need additional information, please contact Beth Harmon at 919-707-8420.

Sincerely,

Beth Harmon

for James B. Stanfill
DMS Asset Management Supervisor

cc: Mr. Monte Matthews, USACE – Raleigh Regulatory Field Office
Ms. Amy Chapman, NCDWR
File: BR-0002

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:	67002.1.1	**TIP Number:**	BR-0002	**Project Type:**	bridge replacement	**Date:**	9/15/2019
NCDOT Contact:	Michelle Berry, PE			**Contractor / Designer:**	Michelle Berry, PE (NCDOT)		
	Address: 1020 Birch Ridge Dr. Raleigh,NC 27610			**Address:**	same		
	Phone: 919-707-6719			**Phone:**	same		
	Email: mgberry@ncdot.gov			**Email:**	same		
City/Town:	Warrensville			**County(ies):**	Ashe		
River Basin(s):	New			**CAMA County?**	no		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	0.322 mi.	**Surrounding Land Use:**	wooded/residential

	Proposed Project	**Existing Site**
Project Built-Upon Area (ac.)	1.6 ac.	1.2 ac.
Typical Cross Section Description:	The proposed cross-section is 2 lane undivided, 12' wide lanes with 8' shoulder (11' in guardrail locations). The clear roadway width of the proposed bridge is 35'.	The clear roadway width is 23', while the existing bridge is 26'. The typical section is 2 lane undivided with grass shoulders.
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 4100 Year: 2040	Existing: 4010 Year: 2020
General Project Narrative: (Description of Minimization of Water Quality Impacts)	Project will replace existing 6 span bridge with a 3 span 54" pre-stressed concrete girder bridge with 4' deep caps with 1.5:1 spill through abutments. The span arrangement will be 1 @ 85', 1 @ 110' and 1 @ 85'. Proposed bents will be located outside of the stream and the existing bents will be removed from the stream. Deck drains will be placed on the bridge where they do not discharge over water. One SR and one driveway will be realigned due to site distances of the proposed bridge. Construction will be staged to maintain traffic on site. Existing drainage patterns will be maintained. 2:1 roadway fill slopes are used to minimize footprint of the overall project. Ditches will be vegetated where possible. Riprap pads are used at pipe outlets to dissipate energy and prevent erosion. A retaining wall was included to prevent significant impacts to Buffalo Creek (10-2-20) which is a NCDWQ Trout Stream. There will be an in-water moratorium for Hellbender from August 15 to Norember 15. No wetland impacts are anticipated.	

Waterbody Information

Surface Water Body (1):	North Fork New River		**NCDWR Stream Index No.:**	10-2-(12)b	
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C		
		Supplemental Classification:	(ORW)		
Other Stream Classification:	None				
Impairments:					
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	**Dissipator 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)					

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 2.08; Released April 2018)

WBS Element:	67002.1.1	TIP No.:	BR-0002	County(ies):	Ashe	Page	2	of	2

Additional Waterbody Information

Surface Water Body (2):	Buffalo Creek		**NCDWR Stream Index No.:**	10-2-20		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Trout Waters (Tr)	(HQW)		
Other Stream Classification:	None					
Impairments:						
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Buffalo Creek			**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?**	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)						

Surface Water Body (3):	UT to Buffalo Creek		**NCDWR Stream Index No.:**	10-2-20		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Trout Waters (Tr)	(HQW)		
Other Stream Classification:	None					
Impairments:	turbidity					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	SA, SB, 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?**	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)						

Surface Water Body (4):	UT/ North Fork New River		**NCDWR Stream Index No.:**	10-2-(12)b		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	(ORW)			
Other Stream Classification:	None					
Impairments:						
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	SD			**Buffer Rules in Effect:**		
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
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)		
(If yes, provide justification in the General Project Narrative)						

09/26/19

TIP PROJECT: BR-0002

CONTRACT: C204482

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ASHE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0002	1	

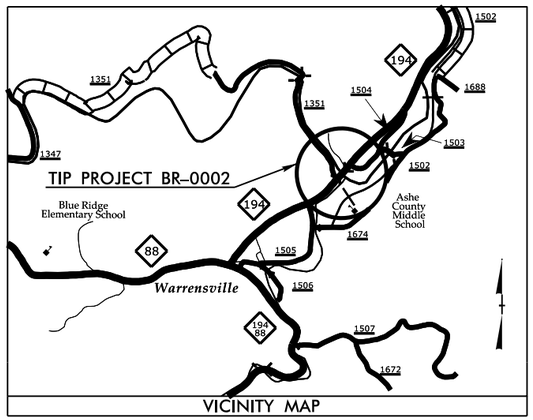
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
67002.1.1		P.E.
67002.2.1		ROW

LOCATION: BRIDGE NO. 8 ON NC 194 OVER NORTH FORK NEW RIVER

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

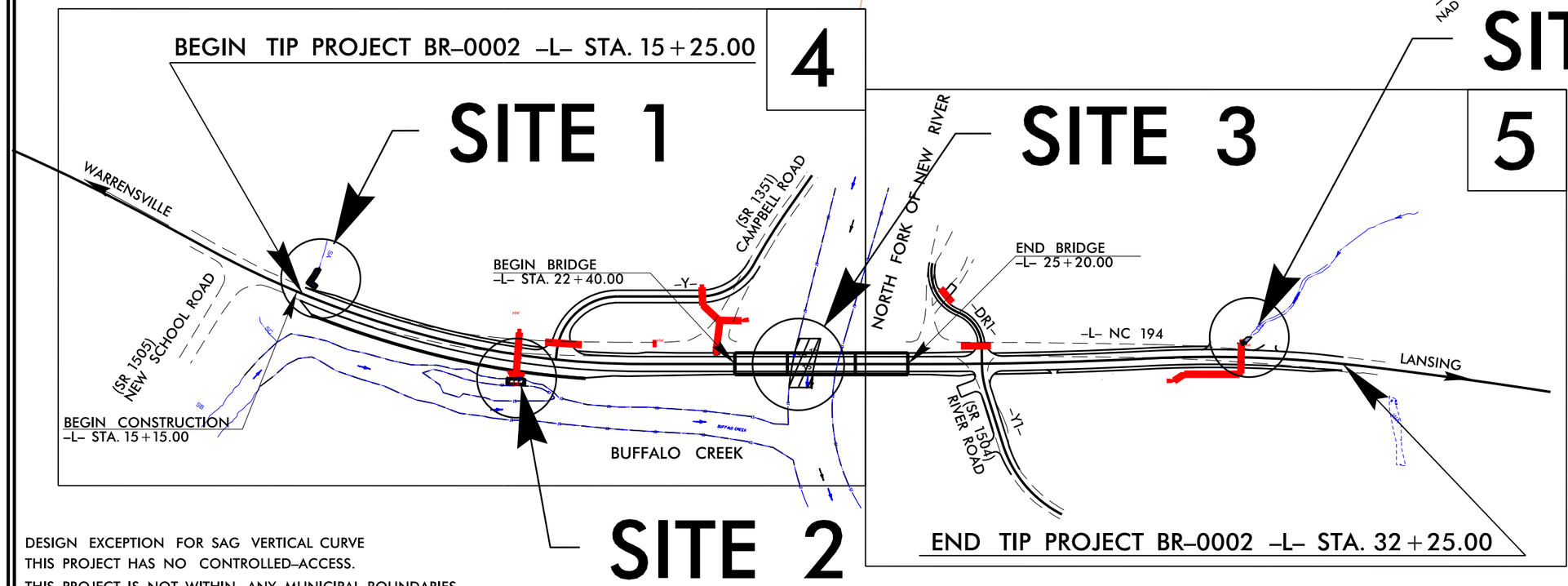
R/W PLANS

PERMIT DRAWING
SHEET 1 OF 7



VICINITY MAP

WETLAND AND SURFACE WATER IMPACTS PERMIT



DESIGN EXCEPTION FOR SAG VERTICAL CURVE
THIS PROJECT HAS NO CONTROLLED-ACCESS.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

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

GRAPHIC SCALES

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

DESIGN DATA

ADT 2020 = 4010
ADT 2040 = 4100
K = 12 %
D = 55 %
T = 7 % *
V = 60 MPH
* TTST =2% DUAL =5%
FUNC CLASS =
MAJOR COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT BR-0002	=	0.269 MI
LENGTH OF STRUCTURE TIP PROJECT BR-0002	=	0.053 MI
TOTAL LENGTH OF TIP PROJECT BR-0002	=	0.322 MI

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: September 20, 2019

LETTING DATE: MAY 19, 2020

TATIA L. WHITE, PE, PLS

PIOTR J. STOJDA
PROJECT TEAM LEAD

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

9/15/2019
mgberry
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PROJECT REFERENCE NO.	SHEET NO.
BR-0002	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

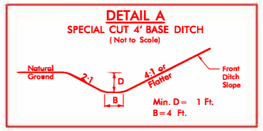
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 2 OF 7

SITE 1
3X

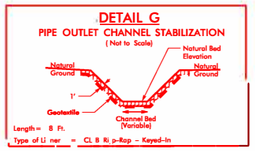
TEMP. IMPACTS IN SURFACE WATER
PROP. R/W
IMPACTS IN SURFACE WATER

DETAIL A
SPECIAL CUT 4' BASE DITCH
(Not to Scale)



–L– FROM STA. 15+25 TO STA. 18+84 LT

DETAIL G
PIPE OUTLET CHANNEL STABILIZATION
(Not to Scale)



–L– STA. 18+98

NAD 83/2011

TEMP. CAUSEWAY & TEMP. IMPACTS IN SURFACE WATER

MARY L. R. HARTSOE
BENNIE L. BARKER
JEANETTE J. BARKER
E. REID CRAIG
KAY G. CRAIG
WEST END WREATHS, LLC
WILLIAM R. JOHNSON
MIKE ELDRETH
DIANNE ELDRETH
CLARICE B. WEAVER ET AL
PHYLLIS A. SUTHERLAND
ASHE COUNTY BOARD OF EDUCATION

–L– PC Sta. 10+00.00
–L– PT Sta. 12+59.52
–L– PC Sta. 13+55.83
–L– PCC Sta. 17+56.38
–L– PT Sta. 15+58.07
–L– POC Sta. 19+50.00=
–Y– POT Sta. 15+70.54
–L– PT Sta. 20+89.14
–Y– POT Sta. 10+00.00
–Y– PC Sta. 10+00.00
–Y– PRC Sta. 11+73.02
–Y– PC Sta. 14+11.30
–Y– PT Sta. 12+79.50

SPECIAL CUT 4' BASE DITCH SEE DETAIL A
PIPE OUTLET CHANNEL STABILIZATION SEE DETAIL G
REMOVE HW & +/- 10' OF 15" CMP
RETAIN SYSTEM
RETAIN
REMOVE
BUFFALO CREEK
NORTH FORK OF NEW RIVER

SITE 2
3X

SITE 3

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

BY2-15

S S DENOTES IMPACTS IN SURFACE WATER

RETAINING WALL
IMPACTS IN SURFACE WATER
TEMP. IMPACTS IN SURFACE WATER

MATCHLINE –L– STA 24+50.00 SEE SHEET 5

WETLAND AND SURFACE WATER IMPACTS PERMIT

FOR –L– PROFILE, SEE SHEET 6
FOR –Y– PROFILE, SEE SHEET 7
DRIVE TURNOUT RADII ARE 10' UNLESS OTHERWISE NOTED

REVISIONS
8/17/99

9/5/2019
mgberry
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PROJECT REFERENCE NO.	SHEET NO.
BR-0002	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 3 OF 7

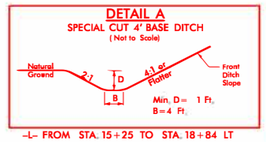
SITE 1
3X

TEMP. IMPACTS IN SURFACE WATER

PROP. R/W

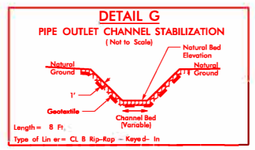
IMPACTS IN SURFACE WATER

DETAIL A
SPECIAL CUT 4' BASE DITCH
(Not to Scale)



-L- FROM STA. 15+25 TO STA. 18+84 LT

DETAIL G
PIPE OUTLET CHANNEL STABILIZATION
(Not to Scale)



-L- STA. 18+90 RT

NAD 83/2011

TEMP. CAUSEWAY & TEMP. IMPACTS IN SURFACE WATER

MARY L. R. HARTSOE

BENNIE L. BARKER
JEANETTE J. BARKER

E. REID CRAIG
KAY G. CRAIG

WEST END WREATHS, LLC

WILLIAM R. JOHNSON

MIKE ELDRETH
DIANNE ELDRETH

CLARICE B. WEAVER ET AL

PHYLLIS A. SUTHERLAND

ASHE COUNTY BOARD OF EDUCATION

-L- PC Sta. 10+00.00

-L- PT Sta. 12+59.52

-L- PC Sta. 13+55.83

-Y- PC Sta. 14+11.30

-Y- PT Sta. 15+58.07

-L- PCC Sta. 17+55.38

-L- POC Sta. 19+50.00=
-Y- POT Sta. 15+70.54

-L- PT Sta. 20+89.14

-Y- POT Sta. 10+00.00

-Y- PC Sta. 10+66.40

-Y- PRC Sta. 11+73.02

-Y- PT Sta. 12+79.50

SPECIAL CUT 4' BASE DITCH SEE DETAIL A

PIPE OUTLET CHANNEL STABILIZATION SEE DETAIL G

RETAIN SYSTEM

REMOVE

REMOVE HW & 10' OF 15" CMP

CLASS II RIP RAP

TYPE B.77

BUFFALO CREEK

NORTH FORK OF NEW RIVER

CONC BASKETBALL/TENNIS COURT

SITE 2
3X

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

BY2-15

S S DENOTES IMPACTS IN SURFACE WATER

RETAINING WALL IMPACTS IN SURFACE WATER

TEMP. IMPACTS IN SURFACE WATER

SITE 3

MATCHLINE -L- STA 24+50.00 SEE SHEET 5

WETLAND AND SURFACE WATER IMPACTS PERMIT

FOR -L- PROFILE, SEE SHEET 6
FOR -Y- PROFILE, SEE SHEET 7
DRIVE TURNOUT RADII ARE 10' UNLESS OTHERWISE NOTED

REVISIONS

8/17/99

9/5/2019
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8/17/99

REVISIONS

SITE 4
3X

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

NAD 83/2011

PROJECT REFERENCE NO.	SHEET NO.
BR-0002	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 4 OF 7

MATCHLINE –L– STA 24+50.00 SEE SHEET 4

TEMP. IMPACTS IN SURFACE WATER

PROP. CONST. EASEMENT

IMPACTS IN SURFACE WATER

BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION

CLARICE B. WEAVER ET AL

BOB POWERS
FLORENCE POWERS

JOSEPH DAVID DENNY

JOHNNEY DENNY
LOUISE DENNY

JOHN DALE DENNY

ALFREDA COX
MELISSA COX
RITA COX

DENNIS BRUCE MILLER
RUTH L. MILLER

WILLIAM D. BARR
JANET H. BARR

PHYLLIS A. SUTHERLAND

ROBERT L. COX

KATHRYN ASHLEY

CHARLIE L. RHODES
ARDEEN B. RHODES

-DRI- PC Sta. 10+00.00

-DRI- PRC Sta. 10+98.28

-DRI- PT Sta. 11+68.84

-L- POC Sta. 26+40.00

-DRI- POT Sta. 11+96.75

-YI- PC Sta. 10+00.00

-L- PRC Sta. 29+08.52

-L- PCC Sta. 32+19.75

-L- PCC Sta. 32+97.45

-L- PT Sta. 35+64.08

-L- PC Sta. 25+55.80

-YI- PT Sta. 10+45.33

-YI- PC Sta. 11+36.00

-YI- PT Sta. 12+87.80

WETLAND AND SURFACE WATER IMPACTS PERMIT

FOR –L– PROFILE, SEE SHEET 6
FOR –YI– PROFILE, SEE SHEET 7
FOR –DRI– PROFILE, SEE SHEET 7
DRIVE TURNOUT RADII ARE 10' UNLESS OTHERWISE NOTED

9/15/2019
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SITE 4
3X

TEMP. IMPACTS IN SURFACE WATER

PROP. CONST. EASEMENT

IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

NAD 83/2011

PROJECT REFERENCE NO.	SHEET NO.
BR-0002	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 5 OF 7

MATCHLINE –L– STA 24+50.00 SEE SHEET 4

BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION

CLARICE B. WEAVER ET AL

BOB POWERS
FLORENCE POWERS

JOSEPH DAVID DENNY

JOHNNEY DENNY
LOUISE DENNY

JOHN DALE DENNY

WILLIAM D. BARR
JANET H. BARR

PHYLLIS A. SUTHERLAND

ROBERT L. COX

ALFREDA COX
MELISSA COX
RITA COX

DENNIS BRUCE MILLER
RUTH L. MILLER

KATHRYN ASHLEY

CHARLIE L. RHODES
ARDEEN B. RHODES

-DRI- PC Sta. 10+00.00

-DRI- PRC Sta. 10+98.28

-DRI- PT Sta. 11+68.84

-L- POC Sta. 26+40.00

-DRI- POT Sta. 11+96.75

-YI- PC Sta. 10+00.00

-L- PRC Sta. 29+08.59

-L- PCC Sta. 32+19.75

-L- PCC Sta. 32+97.45

-L- PT Sta. 35+64.08

-L- PC Sta. 25+55.80

-YI- PT Sta. 10+45.33

-YI- PC Sta. 11+36.00

-YI- PT Sta. 12+87.80

WETLAND AND SURFACE WATER IMPACTS PERMIT

FOR –L– PROFILE, SEE SHEET 6
FOR –YI– PROFILE, SEE SHEET 7
FOR –DRI– PROFILE, SEE SHEET 7
DRIVE TURNOUT RADII ARE 10' UNLESS OTHERWISE NOTED

REVISIONS 8/17/99

9/15/2019
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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
BR-0002	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 6 OF 7

-L-

*DESIGN EXCEPTION FOR SAG VERTICAL CURVE

PIPE HYDRAULIC DATA
24" CSP Sta. 18+89.90

DRAINAGE AREA	= 7.8	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 17.6	CFS
DESIGN HW ELEVATION	= 2681.4	FT
100 YEAR DISCHARGE	= 19.5	CFS
100 YEAR HW ELEVATION	= 2681.4	FT
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING DISCHARGE	= 26	CFS
OVERTOPPING ELEVATION	= 2682.5	FT

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 14800	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 2674.9	FT
BASE DISCHARGE	= 17400	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2676.2	FT
OVERTOPPING DISCHARGE	= 22900+	CFS
OVERTOPPING FREQUENCY	= +500	YRS
OVERTOPPING ELEVATION	= 2681.9	FT
DATE OF SURVEY	= 02/04/2019	
W.S.ELEVATION AT DATE OF SURVEY	= 2660.35	FT

BEGIN PROFILE
-L- STA 15+25.00
ELEV = 2,701.66

PI = 17+20.00
EL = 2,688.87'
VC = 390'
*K = 89
*DS = 45 MPH

PI = 21+10.00
EL = 2,680.34'
VC = 390'
*K = 104
*DS = 50 MPH

BEGIN BRIDGE
-L- STA 22+40.00

OWS 2660.35'

(-)6.5590%
(-)12.1873%
(-)12.1873%
(+)11.5788%

BEG.SPECIAL CUT 4' BASE DITCH LT. STA.15+25.00 EI = 2,699.14

PI =16+50.000 EI = 2691.51

BM"1 RR SPIKE IN BASE TRIPLE 15" SYCAMORE -BL- STA. 17+69.00 65' LT. ELEV. 2663.58' -L- STA 23+59.98 111.78' RT.

PI =18+84.000 EI = 2678.63

24" CSP

END SPECIAL CUT 4' BASE DITCH LT. PI =19+00.00 EI = 2,680.86

BEG.CUT DITCH LT. STA.19+46.00 EI = 2,680.63

PI =21+10.000 EI = 2,677.49

END CUT DITCH LT. PI =21+50.00 EI = 2,679.01

BRIDGE EXCAVATION (STRUCTURE PAY ITEM)

TEMP. CAUSEWAY
EL. 2661.35' – 1' ABOVE OWS
CLASS II RIPRAP WITH 1' OF CLASS I RIPRAP ON TOP
TEMP. CAUSEWAY SHOULD NOT BLOCK MORE THAN 50% OF STREAM AT ANY TIME

-L-

PI = 26+75.00
EL = 2,689.26'
VC = 420'
K = 123
DS = 55 MPH

PI = 30+55.00
EL = 2,708.26'
VC = 340'
K = 136
DS = 55 MPH

END PROFILE
-L- STA 32+25.00
ELEV = 2,712.51

END BRIDGE
-L- STA 25+20.00

(-)2.0000%
(+)11.5788%
(+)5.0000%
(+)5.0000%
(+)2.5000%
(+)1.6864%

BEG.CUT DITCH LT. STA.25+55.00 EI = 2,684.55

END CUT DITCH LT. PI =26+05.00 EI = 2,683.55

BEG.SPECIAL CUT DITCH LT STA.28+32.00 EI = 2,692.10

END SPECIAL CUT DITCH LT. PI =29+50.00 EI = 2,694.09

BM"3 RR SPIKE IN BASE 28" WHITE PINE -BL- STA. 24+16.00 98' LT. ELEV. 2719.60' -L- STA 30+30.20 114.30' RT.

BRIDGE EXCAVATION (STRUCTURE PAY ITEM)

WETLAND AND SURFACE WATER IMPACTS PERMIT

LEFT DITCH - - - —

RIGHT DITCH -------

2740 2730 2720 2710 2700 2690 2680 2670 2660 2650

10 + 00 11 + 00 12 + 00 13 + 00 14 + 00 15 + 00 16 + 00 17 + 00 18 + 00 19 + 00 20 + 00 21 + 00 22 + 00 23 + 00 24 + 00 25 + 00 26 + 00 27 + 00 28 + 00 29 + 00 30 + 00 31 + 00 32 + 00 33 + 00 34 + 00 35 + 00

10/4/2019
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WETLAND PERMIT IMPACT 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	-L- 15+24 LT to	Ditch Excavation						< 0.01	< 0.01	22	16	
	-L- 15+41 LT											
2	-L- 18+77 RT to	Outlet Protection						< 0.01	< 0.01	18	11	
	-L- 19+05 RT											
3	-L- 23+26 to	Temp Causeway							0.07		81	
	-L- 23+79											
4	-L- 30+58 LT to	Replace pipe, add headwall						< 0.01	< 0.01	1	15	
	-L- 30+76 LT											
TOTALS*:								< 0.01	0.07	41	123	0

*Rounded totals are sum of actual impacts

NOTES:
Temporary Causeway should not block more than 50% of stream at any time.

Revised 2013 10 24

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
09/15/2019
Ashe County
BR-0002
67002.1.1
SHEET 7 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

August 28, 2018

TO: Jeff Hemphill, Environmental Senior Specialist
Environmental Coordination & Permitting Group Western, EAU

FROM: Melissa Miller, Environmental Program Consultant
Biological Surveys Group, EAU

SUBJECT: Section 7 survey results for the northern long-eared bat *(Myotis septentrionalis)* and gray bat *(Myotis grisescens)* associated with the replacement of Bridge No. 08 over North Fork New River on NC 194 in Ashe County, **TIP No. BR-0002**.

On June 14, 2018, NCDOT biologists assessed Bridge No. 08 for potential northern long-eared bat and gray bat habitat. Deep vertical unsealed crevices suitable for roosting were present. No evidence (bats, staining, and guano) of bats was observed. No mines or caves were detected in the project area.

Bridge No. 08 is approximately 27 miles to the nearest red HUC.

Final design, tree clearing and percussive activities information will be provided in the permit application.

If you need any additional information, please contact Melissa Miller at 919-707-6127.

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

North Carolina Department of Natural and Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

June 10, 2019

MEMORANDUM

TO: Kate Husband
Office of Human Environment
NCDOT Division of Highways

FROM: Renee Gledhill-Earley
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report, Replace Bridge 8 on NC 194 over North Fork New River, BR-0002, PA 17-12-0011, Ashe County, ER 19-1732

Thank you for your May 16, 2019, memorandum transmitting the above-referenced report. We have read the report and concur that the Thompson-Barr House (AH0372) is not eligible for listing in the National Register of Historic Places for the reasons outlined in the report.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT, mfurr@ncdot.gov

HISTORIC STRUCTURES SURVEY REPORT

Replace Bridge No. 08 over North Fork New River on NC 194, Ashe County
TIP# BR-0002
WBS# 67002.1.1
PA# 17-12-0011

Prepared for:
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699

Prepared by:

CALYX Engineers and Consultants, an NV5 Company
6750 Tryon Road
Cary, North Carolina, 27518

APRIL 2019

HISTORIC STRUCTURES SURVEY REPORT

Replace Bridge No. 08 over North Fork New River on NC 194, Ashe County
TIP# BR-0002
WBS# 67002.1.1
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Prepared for:
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North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699

Prepared by:

CALYX Engineers and Consultants, an NV5 Company
6750 Tryon Road
Cary, North Carolina, 27518

APRIL 2019

Kenneth Joel Zogry, Principal Investigator — 5/13/19 Date

Mary Pope Furr, Supervisor — Date
Historic Architecture Group
North Carolina Department of Transportation

Management Summary

The North Carolina Department of Transportation (NCDOT) proposes to Replace Bridge No. 08 over North Fork New River in Ashe County. The project's Area of Potential Effects (APE), as defined by NCDOT, is illustrated in Figure 2.

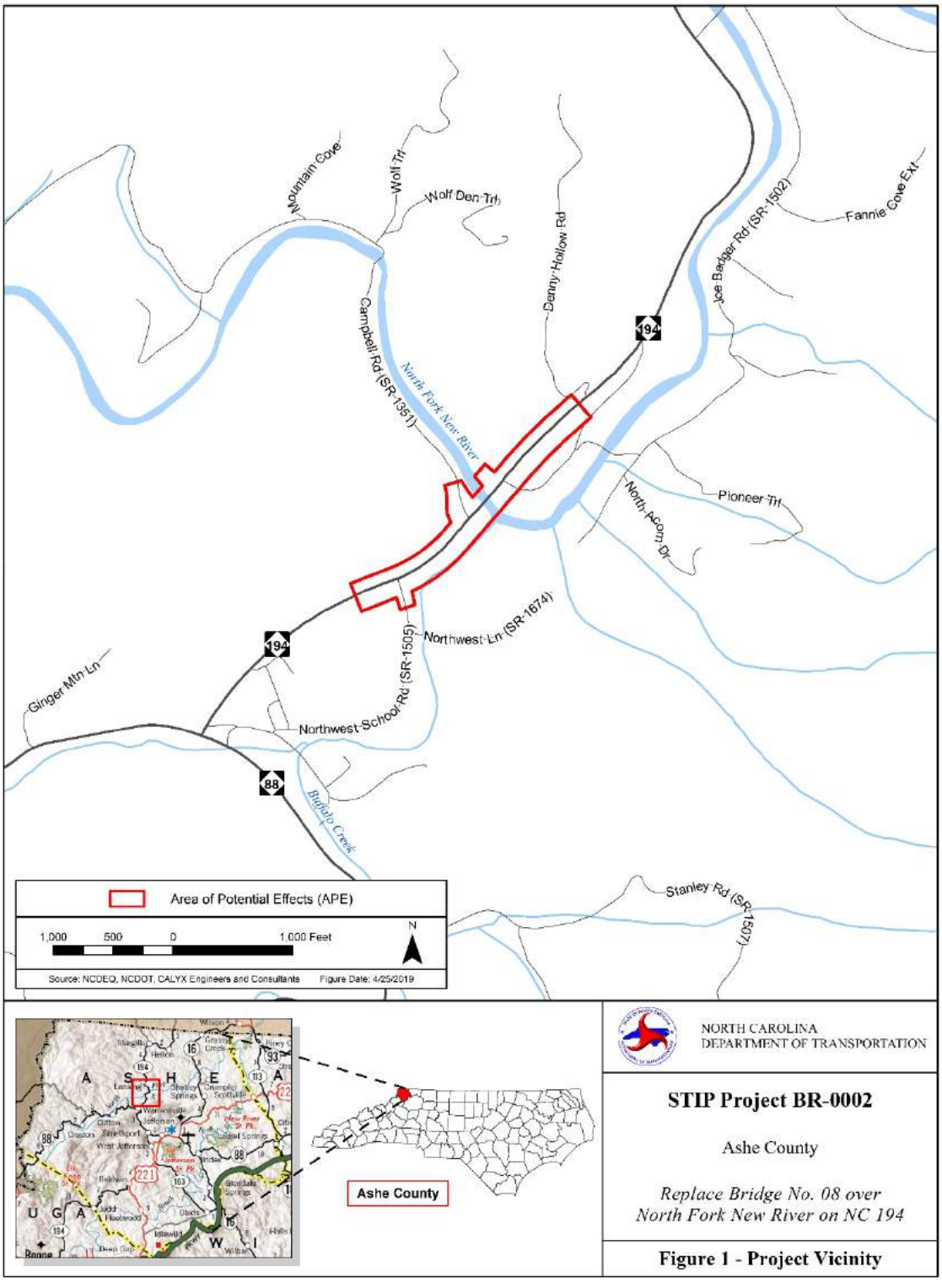
The project is subject to review under the Section 106 Programmatic Agreement for Minor Transportation Projects (NCDOT/NCHPO/FHWA/USFS 2015). NCDOT architectural historians conducted preliminary documentary research and a site visit to identify and assess all resources of approximately fifty years of age or more within the APE. One resource within the APE warranted further evaluation for potential National Register of Historic Places (NRHP) eligibility and is the subject of this report. NCDOT architectural historians determined that all other properties are not worthy of further study and evaluation due to lack of historical significance and/or integrity.

Ashe County was previously surveyed for the North Carolina State Historic Preservation Office in 2005. The evaluated property, the Thompson-Barr House (AH0372) at 6256 NC Highway 194 in North Warrensville, was documented at that time, although it was not identified by a historical name.

In March 2019, NCDOT requested that CALYX Engineers and Consultants (CALYX) complete documentary research, an intensive-level historic resources field survey, and an NRHP evaluation for this single property. The result of that evaluation is as follows:

Property Name	NCHPO Survey Site Number	Eligibility Determination	Criteria
Thompson-Barr House	AH0372	Not Eligible	N/A

Contents


Mountain Cove
Wolf Trl
Wolf Den Trl
Denny Hollow Rd
Joe Badger Rd (SR-1502)
Fannie Cove Ext
Campbell Rd (SR-1351)
North Fork New River
194
Pioneer Trl
North Acorn Dr
Northwest Ln (SR-1674)
Northwest School Rd (SR-1505)
Ginger Mtn Ln
88
Buffalo Creek
Stanley Rd (SR-1507)
Area of Potential Effects (APE)
1,000 500 0 1,000 Feet
N
Source: NCDEQ, NCDOT, CALYX Engineers and Consultants Figure Date: 4/25/2019
Ashe County
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
STIP Project BR-0002
Ashe County
Replace Bridge No. 08 over
North Fork New River on NC 194
Figure 1 - Project Vicinity

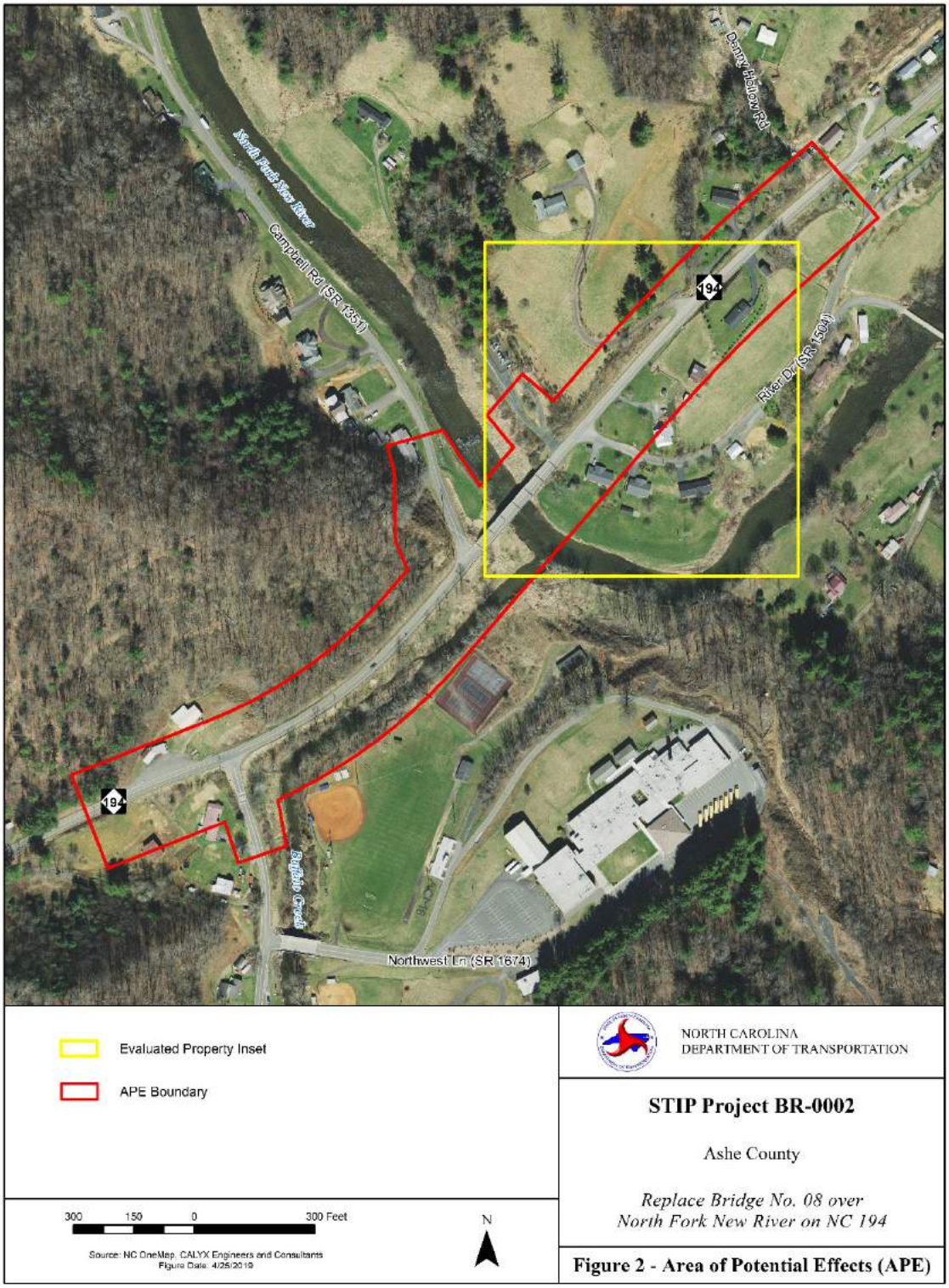
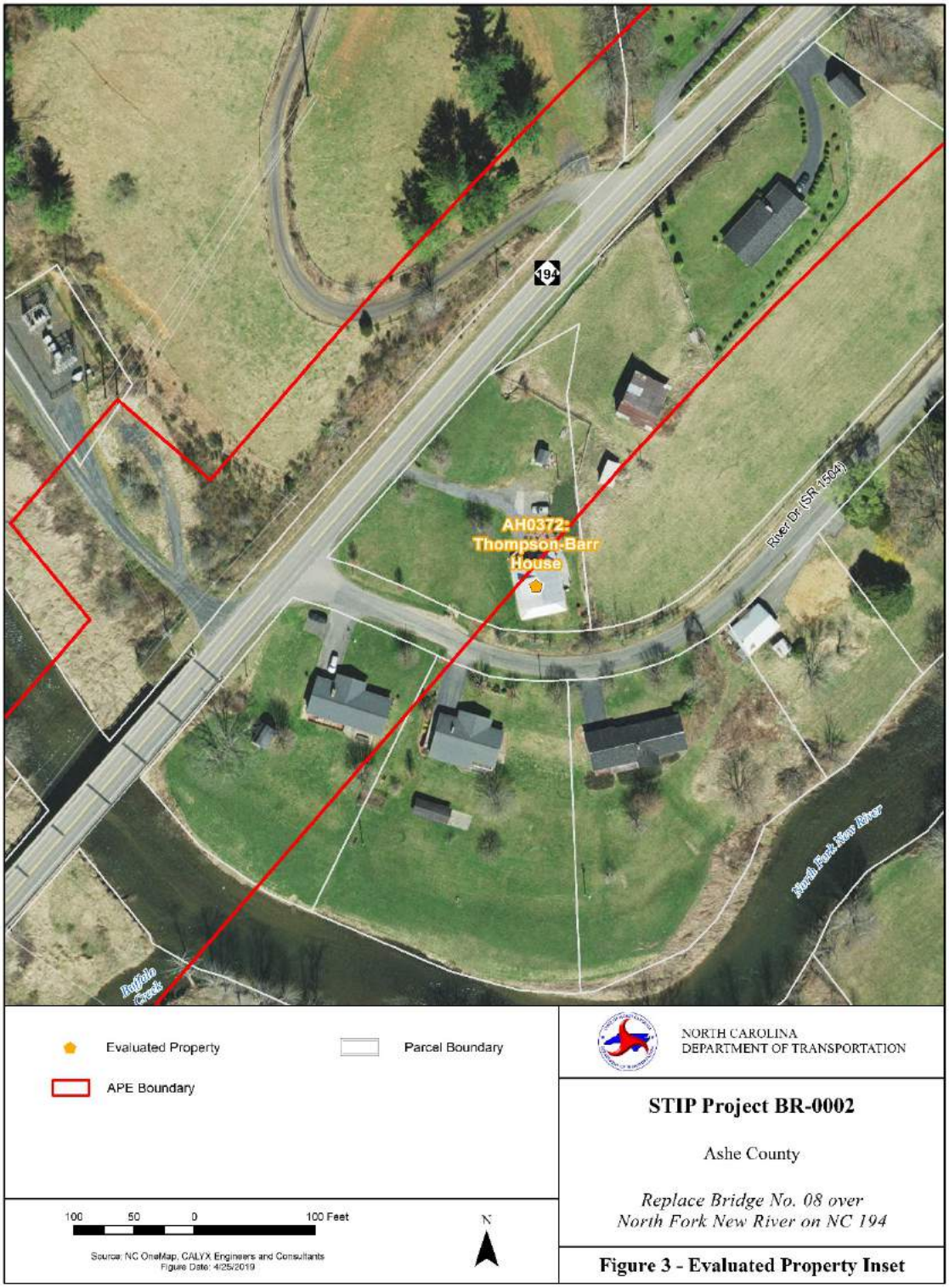


Figure 2 - Area of Potential Effects (APE)


194
AH0372: Thompson-Barr House
River Dr (SR 1504)
North Fork New River
Buffalo Creek
Evaluated Property
Parcel Boundary
APE Boundary
100 50 0 100 Feet
N
Source: NC OneMap, CALYX Engineers and Consultants
Figure Date: 4/25/2019
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
STIP Project BR-0002
Ashe County
Replace Bridge No. 08 over
North Fork New River on NC 194
Figure 3 - Evaluated Property Inset

Methodology

On March 28, 2019, CALYX Architectural Historian Kenneth Zogry visited Ashe County, surveyed and photographed the study property, interviewed the property owner, and drove through the area to locate comparable building types. Dr. Zogry undertook further research via telephone interviews with several long-time local residents with knowledge of the property, and in the files of the North Carolina Historic Preservation Office (HPO). A variety of online research tools and resources were also utilized, including Ashe County Tax Records, Ashe County Register of Deeds Records, U.S. Federal Census Records, and North Carolina Death Certificates (the latter two sources via Ancestry.com).

CALYX conducted all fieldwork, research, and evaluations to meet the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800, as well as NCDOT's *Guidelines for the Survey Reports for Historic Architectural Resources*.

Evaluation: Thompson-Barr House

Resource Name	Thompson-Barr House
HPO Survey Site Number	AH0372
Street Address	6256 NC HWY 194, N. Warrensville
PIN	02219033
Construction Dates	ca. 1930
NRHP Recommendation	Not Eligible

Description

The Thompson-Barr House sits on a hillside just north of the New River at the intersection of NC Highway 194 and River Road (SR 1504) in North Warrensville, an unincorporated township in Ashe County. The area is mountainous with forested hillsides and valley fields, and the location of the property affords views to the surrounding hilly terrain and the New River to the south.

The overall form is a Craftsman style side-gable one-and-one-half story bungalow with a shed dormer on the front (south) façade. The porch roof on the front façade is fully engaged with the main roof, and the porch roof on the eastern elevation is hipped. Exposed rafter tails are present under the eaves of both porch roofs, and the along the south facing eave of the shed dormer. Five knee braces are placed under the eaves of each side gable. The standing seam metal roofs on all portions of the house are believed to be original. A brick central chimney stack rises from the center of the house and exits along the central ridgeline. The house is sheathed in German siding, painted white, which is believed to be original.

The south façade is accessed by a replacement, central single leaf door. Two pairs of bungalow style double-hung sash windows, with a three-over-one design, flank the door. Three smaller bungalow windows, of the same design, are present in the shed dormer. The porch ceiling and floor are wooden plank. The narrow wooden posts are constructed of vertical plank and are capped by a quarter-round molding at the base and top. The porch balustrade is constructed of simple vertical posts held in place by top and bottom railings, and the house's foundation is covered by wooden lattice.

On the east elevation, one bungalow style window is present on the first floor's south end, and a pair of similar, smaller windows are located on the second floor under the gable. The hipped roof porch on this elevation terminates at a one-room addition on the north end. At some point, a door was cut into the one-room addition to access the porch and was subsequently later removed and the opening sealed with siding.

The north, or rear, elevation has asymmetrical fenestration. A total of seven bungalow style windows are present and of various sizes and placement. The land rises sharply at the rear of the house.

The west elevation's gable end features a single bungalow style window on the first floor's south side, and another similar single window centered in the gable on the second floor. A small addition, sheathed in weatherboard rather than German siding, extends from the northern end of this elevation. The addition is accessed via a single-leaf door with a diamond pane pattern on the upper half. A white-painted cinderblock exhaust stack rises from between this addition and the main house.

One modern shed is located within the parcel boundary and west of the house. However, two ca. 1930-1940 wooden tobacco barns historically associated with the property are extant just northwest of the existing parcel boundary.

The interior first floor of the house was examined. The floorplan is basically a modified foursquare arrangement, though the central placement of the chimney stack, which provides back-to-back fireplaces in both front rooms, is somewhat atypical and allows space for only a very small entry. The placement of the staircase is also unusual, along the north rear wall of the front western room (likely either the original living room or dining room). Originally a door leading past the foot of the enclosed staircase provided access to the rear interior kitchen. Later remodeling makes an understanding of the original use of the rooms difficult to discern. Currently the 1970s kitchen and dining room are located directly behind the two front rooms, but at least one wall has been removed. The first-floor full bathroom, under the shed roof of the eastern porch, is accessed from the current dining room. In all, there are four rooms and a bath on the first floor, and three rooms and a later bath on the second floor.

Figure 1: Detail Map

Figure 2: Looking northeast. Two original barns historically associated with the property to the northwest behind the house are extant, though now located on a subdivided adjacent parcel.

Figure 3: South (front) elevation

Figure 4: East elevation

Figure 5: Looking north on the front porch. An area of patched siding can be seen on the far wall where a door was once present.

Figure 6: North (rear) elevation

Figure 7: West elevation

Figure 8: Interior fireplace surround, first-floor west room (identical surround in east room)

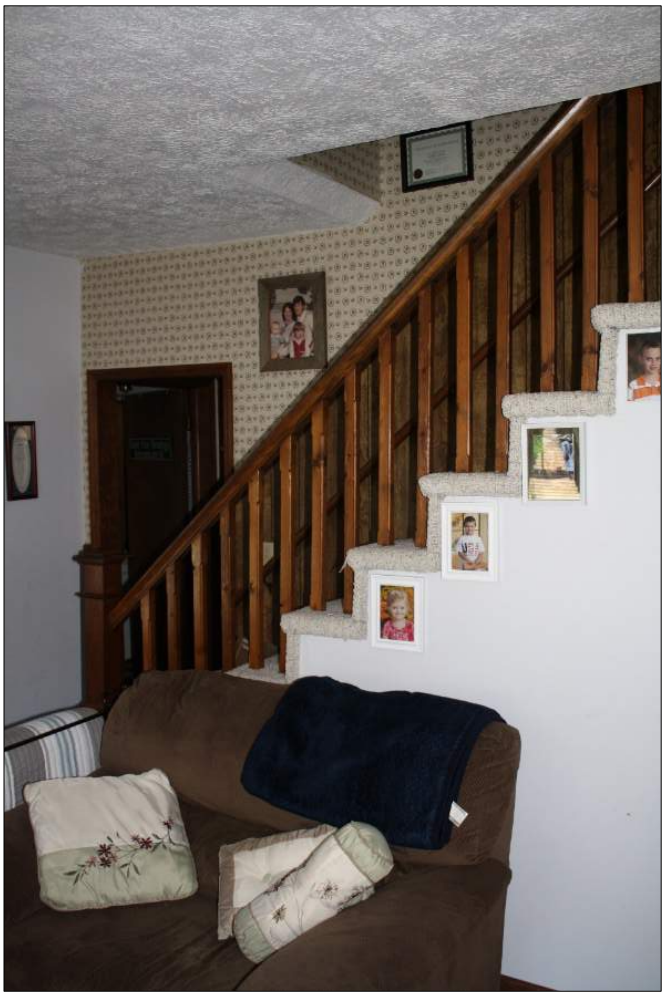


Figure 9: Exposed interior stairs (replacement) in first-floor west room

Figure 10: Two original outbuildings, now on adjacent subdivided parcel, looking southwest

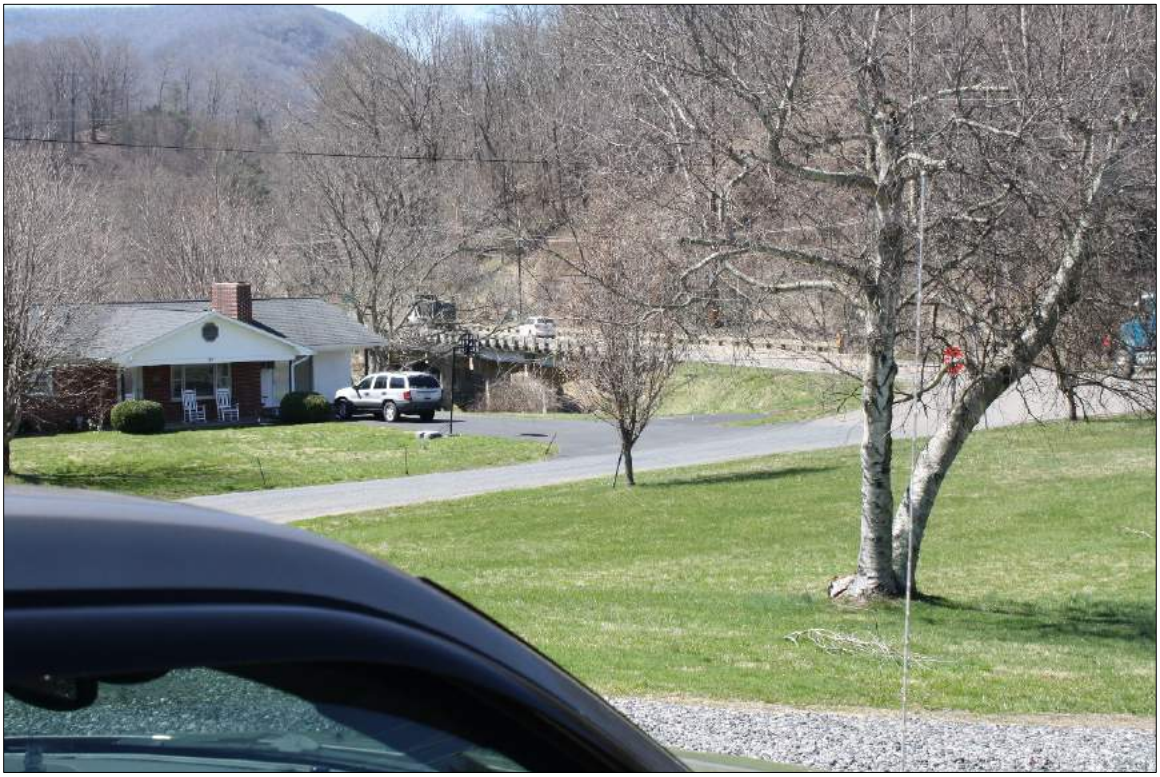


Figure 11: Looking southwest from the driveway toward the New River and Bridge No. 08

Figure 12: Looking southeast across NC HWY 194 (foreground) and River Road (SR 1504); showing ca. 1960 modern brick ranch houses. The New River is just beyond these houses to the south.

Figure 13: Looking south along NC HWY 194 across North Fork New River Bridge. The Thompson-Barr House is due east of the photographer's location.

Figure 14: Looking west from the front porch across NC HWY 194

History and Architectural Context

Ashe County is rugged, rural, and sparsely populated; with just under 27,000 residents, it is one of least populated counties in North Carolina. The area is known for small family farms, cheese production, and Christmas tree production. Warrensville, the area in which the study property is located, is an unincorporated community within the township of West Jefferson.[1]

The early history of this property is unclear, and the county records are incomplete. Several local residents state that the house was built by a member of the extended Johnson family about 1930 (the Ashe County Tax Records list 1931 as year built) but disagree on the exact individual. The Johnsons were farmers, growing subsistence crops and some burley tobacco (as opposed to bright-leaf, grown to the east) as a cash crop. At least one of the extant barns just north of the current property line was originally constructed for tobacco. Family members were also blacksmiths and small-scale merchants.[2]

In 1948 the property was purchased by Virgil (1878–1964) and Bessie Thompson. In the 1940 Census, Virgil Thompson's occupation was recorded as farming. According to area residents, the Thompsons had a child with special needs, and the exterior door to the small room at the eastern side porch's

[1] "Ashe County," NCpedia.com.
[2] Author's interview with Janet Barr, March 28, 2019; Author's interview with Sam Shumate, April 18, 2019; Author's interview with Billy Bob Johnson, April 18, 2019; Ashe County Tax Records, accessed online.

northern end was enclosed to create a first-floor bathroom. The adjoining room, now used as a dining room, was apparently a first-floor bedroom for the child.[3]

No other significant remodeling was done before the house was sold to David and Janet Barr, the current owners, in 1977. The Barr's undertook a major interior renovation, gutting and replacing the kitchen and first floor bath, adding a second-floor bath, replacing the original enclosed stairs, and painting and updating other elements of the original interior. As a result of this remodeling, the only significant interior architectural elements that remain are two fireplace surrounds and some of the flooring.[4]

Despite the extensive interior remodeling, little of the exterior was disturbed, with the exception of removing a small "springhouse" attached to the mud room off the kitchen and adding lattice skirting around the foundation. The house retains its original siding (in most locations), bungalow style windows, and standing seam metal roof.

"Bungalows suited North Carolina's needs and habits," architectural historian Catherine Bishir writes in *North Carolina Architecture.* "They were cheaply and easily built. They ranged in size and elaboration to accommodate all economic levels, and they communicated a message of simplicity, unpretentious coziness, and modernity." Bungalows were equally at home in town or on the farm, and stylistically they often displayed elements of the Craftsman movement, which sought to strip away excess Victorian ornament in architecture and decorative arts. Architecturally this meant revealing the "purity" and hand crafting of construction in details such as exposed rafter tails, knee braces under eaves, and even, where possible, exaggerating joinery methods (such as extended through-tenons on mortise-and-tenon joints). In North Carolina, bungalows of various styles were built from the early twentieth century well into the 1930s.[5]

[3] Barr interview; Shumate interview; Ashe County Register of Deeds Records, accessed online; 1940 United States Census for Ashe County and North Carolina Death Certificates, 1909-1976, accessed via Ancestry.com.
[4] Barr interview.
[5] Catherine W. Bishir, *North Carolina Architecture* (UNC Press: 1990), p. 426.

Comparable Examples

Despite the county's sparse population, comparable buildings to the Thompson-Barr House were relatively easily located within a three-mile radius of the study property.

The earliest example (Figure 18), is a ca. 1915 rural interpretation of a side-gable bungalow, with an unusual clipped gable roof and truncated semi-engaged shed porch roof.

Very near the Thompson-Barr House is a more sophisticated side-gable bungalow (Figure 19), ca. 1925, with a slopping engaged porch roofline, wide shed dormer with four double-hung sash windows set in two pairs, and brick end and interior chimney stacks. The porch balustrade is of the same design as the study property. At some point, this house was clad in vinyl siding.

Two other examples on Highway 88 (Figures 20 and 21) are likely the latest chronologically, ca. 1930, and present a simplified, sturdy, aesthetically simple appearance similar to the Thompson-Barr House. Both of these examples feature triple windows in the shed dormer, though one is under a shed roof, and the other under a gable.

While the bungalow style was ubiquitous across the United States in both rural and urban settings during the first third of the twentieth century, there are occasionally regional variations. An interesting feature shared by the Thompson-Barr House and all four comparable examples are the slim, somewhat spindle-like porch posts, whether on brick piers (as in three of these), or full posts that extend to the porch floor. Typically, bungalow porch posts are known for being much larger, usually in a trapezoidal form.

Figure 15: Bungalow, ca. 1915, 5257 NC HWY 88, Warrensville

Figure 16: Bungalow, ca. 1925, 139 Northwest School Road (SR 1505), N. Warrensville

Figure 17: Bungalow, ca. 1930, 2556 NC HWY 88, W. Jefferson

Figure 18: Bungalow, ca. 1930, 1799 NC HWY 88, W. Jefferson

National Register Evaluation

Integrity

The Thompson-Barr House retains integrity of location, and to a lesser extent integrity of setting and association. It remains on its original site, which is largely rural and mountainous in character. However, the property was subdivided about 1960, and the house ceased functioning as the center of an active farm. Two barns originally associated with the property remain but are now on an adjacent parcel. Further, while the view south and downhill to the New River remains, a row of mid-twentieth-century ranch houses now occupies the opposite side of River Drive (SR 1504) which curves around the southern and eastern sides of the property.

The Thompson-Barr House retains a high level of integrity regarding its exterior design, original materials, and workmanship. The Craftsman bungalow form is intact, as are many exterior features including much of the siding, windows, and the standing seam metal roof. Far less integrity remains on the interior. Two original locally made pine fireplaces surrounds, of simple design, survive, and some of the original flooring. However, an extensive remodeling in the late 1970s completely removed the original staircase, kitchen, bathroom, and other interior elements.

Criteria Evaluations

The Thompson-Barr House is not eligible for the National Register of Historic Places under Criterion A for an association with an event or broad pattern of history. The house is not associated with any specific significant historical event and is no longer at the center of a functioning farm typical of the area about 1930 when it was built.

The Thompson-Barr House is not eligible for the National Register of Historic Places under Criterion B. No one associated with the house was a significant figure in history.

The Thompson-Barr House is not eligible for the National Register of Historic Places under Criterion C. While the exterior is largely intact and it is an example of a later Craftsman-style bungalow, it is not an outstanding example of this common type, and most of the original interior features (aside from two mantelpieces and some flooring) have been removed.

The Thompson-Barr House is not eligible for the National Register of Historic Places under Criterion D because it has not yet yielded nor is likely to yield information important to history or prehistory.

Works and Sources Cited

"Ashe County." NCpedia.com.

Ashe County Tax Records

Ashe County Register of Deeds Records

Barr, Janet. Author's interview, March 27, 2019.

Bishir, Catherine W. *North Carolina Architecture*. Chapel Hill: UNC Press, 1990.

Johnson, Billy Bob. Author's interview, April 18, 2019

North Carolina Death Certificates, 1909-1976. Accessed via Ancestry.com.

Shumate, Sam. Author's interview, April 18, 2019.

United States Census for Ashe County, 1930. Accessed via Ancestry.com.

United States Census for Ashe County, 1940. Accessed via Ancestry.com.

NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES PRESENT FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

PROJECT INFORMATION

Project No:	BR-0002	*County:*	Ashe
WBS No:	67002	*Document:*	State Minimum Criteria Checklist
F.A. No:		*Funding:*	☒ State ☐ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* USACE

Project Description:
Replace Bridge 8 on NC 194 over the North Fork New River in Ashe County. The Area of Potential Effects (A.P.E.) is approximately 700 meters (2,272 ft.) long and 91 meters (300 ft.) wide. The A.P.E. includes the area within 350 meters (1,148 ft.) from each end of the bridge and 46 meters (150 ft.) from centerline on each side of the road. No design plans provided.

NOTE: An Archaeological Survey Required form for this project was submitted on 1/16/2018. The recommendation was changed to no survey required based on a visual inspection of the project, and a No Archaeological Survey Required form was submitted on 3/12/2018. The A.P.E. for this project was expanded in November 2018 from 235 meters (771 ft.) long and 46 meters (150 ft.) wide to 700 meters (2,272 ft.) long and 91 meters (300 ft.) wide. The recommendation has been changed back to archaeological survey required based on the larger A.P.E. An Archaeological Survey Required form was submitted on 1/3/2019.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

The North Carolina Department of Transportation (NCDOT) Archaeology Group reviewed the subject project and determined:

- ☐ There are no National Register listed ARCHAEOLOGICAL SITES within the project's area of potential effects. (Attach any notes or documents as needed.)
- ☐ No subsurface archaeological investigations were required for this project.
- ☒ Subsurface investigations did not reveal the presence of any archaeological resources.
- ☐ Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- ☐ All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

Brief description of review activities, results of review, and conclusions:

The initial review included an examination of a topographic map, the Ashe County web soil survey, an aerial photograph, and listings of previously recorded sites, previous archaeological surveys, and previous environmental reviews at the Office of State Archaeology (O.S.A.). The bridge is oriented northeast to southwest, but is considered north-south for this review. An archaeological survey of the A.P.E. was recommended on 1/16/2018. An archaeological reconnaissance of the original (smaller) A.P.E. was conducted by NCDOT archaeologist Caleb Smith on 3/9/2018. The reconnaissance showed that the landforms wihin the A.P.E. had a low potential for archaeological sites. A No Archaeological Survey Required form was submitted on 3/12/2018.

The A.P.E. was expanded in November 2018. The expanded A.P.E. included a larger section of the level floodplain in the northeast quadrant, and the recommendation was changed to archaeological survey required. The Archaeological Survey Required form submitted on 1/3/2019 recommended survey of the floodplain in the northeast quadrant, only.

The landform in the northeast quadrant is a narrow floodplain from the river north for approximately 30 meters (100 ft.), then a slope up to the intersection of NC 194 and SR 1504 (River Rd.), and then a gently-sloped ridge. The floodplain is currently a grass field and/or maintained residential yard. The landuse on the ridge is maintained residential yards, also. In general, maintained residential yards have a low to moderate potential for intact archaeological sites. The original A.P.E. for the project included only a narrow strip (within 15 meters [50 ft.] of the bridge) of the floodplain. The expanded A.P.E. included a wider strip of the floodplain, so it was decided to excavate shovel tests in that area.

The archaeological survey of the A.P.E. was conducted by NCDOT archaeologists Shane Petersen and Caleb Smith on 2/18/2019. The survey consisted of the excavation of three shovel tests (STs) in the northeast quadrant. None contained any artifacts. The landform is a narrow strip of level floodplain along the north bank of the North Fork New River. There is a house and shed on the ridge to the north.

ST 1 was placed approximately 20 meters (66 ft.) east of the bridge and 5 meters (16 ft.) north of the North Fork New River. The soils consisted of 80 centimeters (31 in.) of dark brown silty loam (with no rocks). There were several small pieces of rusted metal in the soil. The excavation stopped at a layer of poorly-drained "gley". ST 2 was placed approximately 15 meters (50 ft.) east of ST 1 and 5 meters (16 ft.) north of the river. The soil consisted of 73 centimeters (29 in.) of dark brown silty loam (with no rocks). ST 3 was placed approximately 10 meters (33 ft.) north of ST 2, at the north edge of the floodplain along the base of the ridge. The soil consisted of disturbed fill dirt and gravel. This may be the former location of a farm road.

Since no artifacts were recovered from any of the shovel tests, no additional work is recommdended for the project. If the project area expands to include more of the floodplain then additional shovel tests should be excavated.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info ☒ Photos ☐ Correspondence

Other:

Signed:

CALEB SMITH	**4/8/2019**
NCDOT ARCHAEOLOGIST	Date

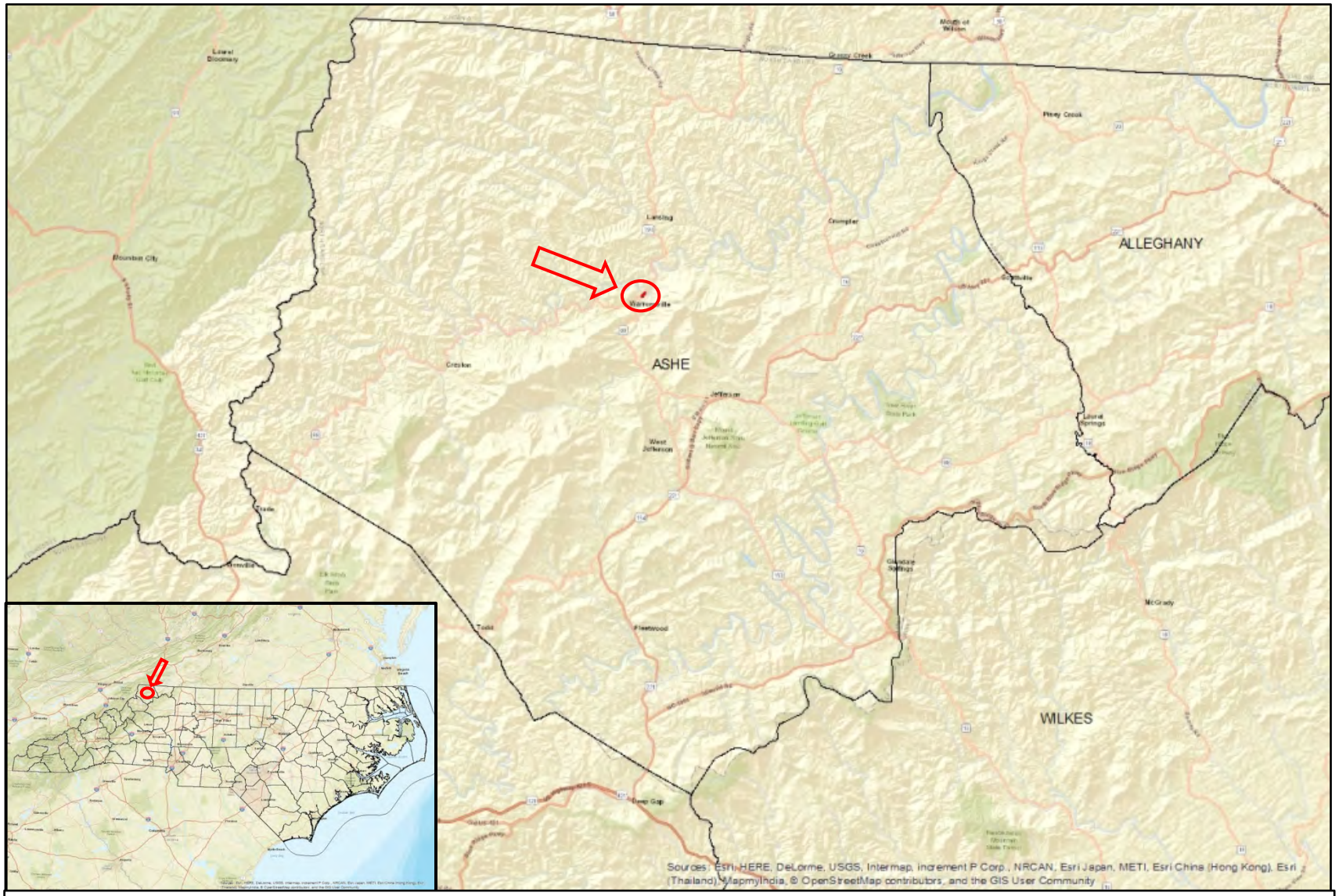


Figure 1: Location of Bridge 8 in Ashe County.

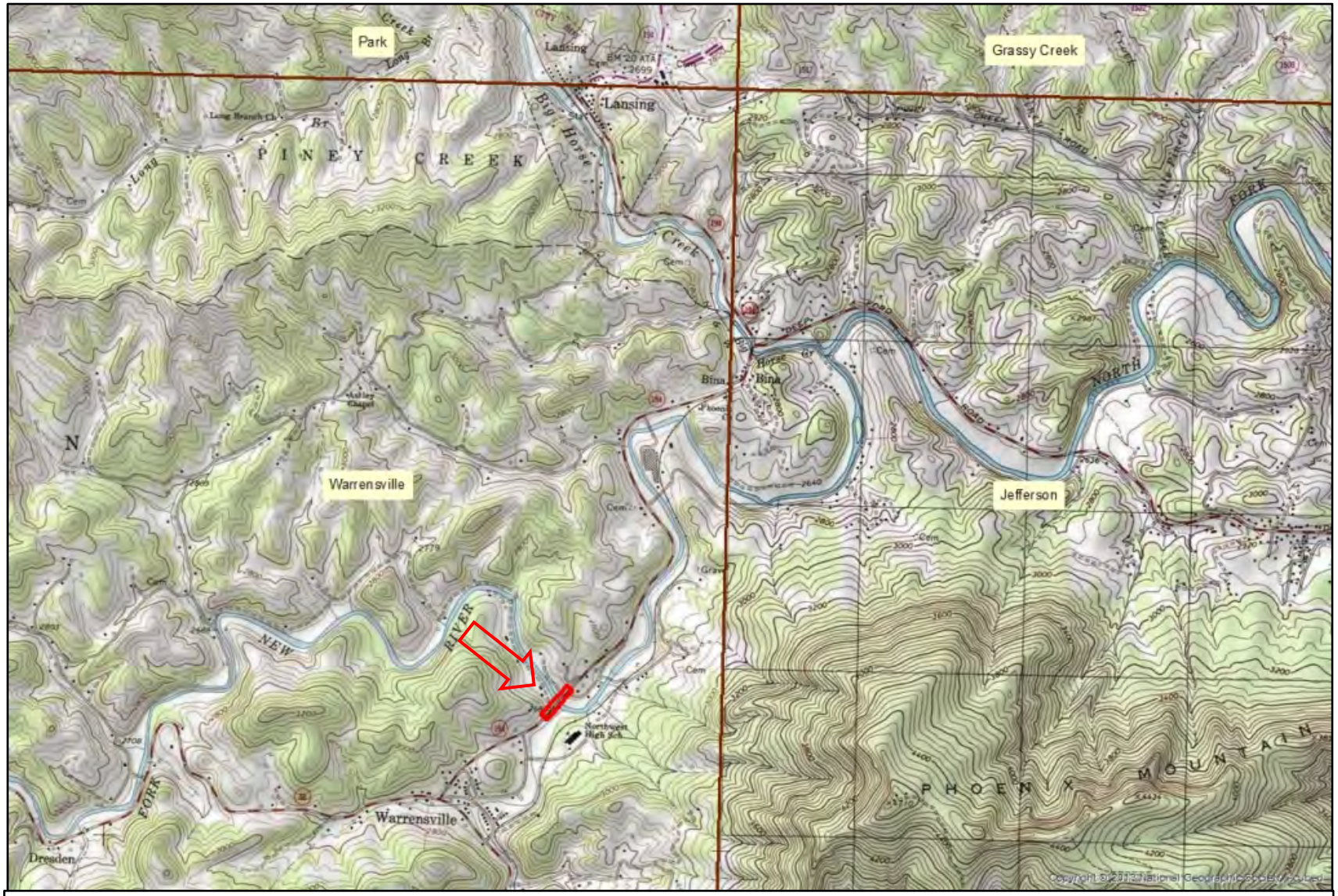


Figure 2: Location of Bridge 8 in Ashe County on the *Warrensville, N.C.* topographic map.

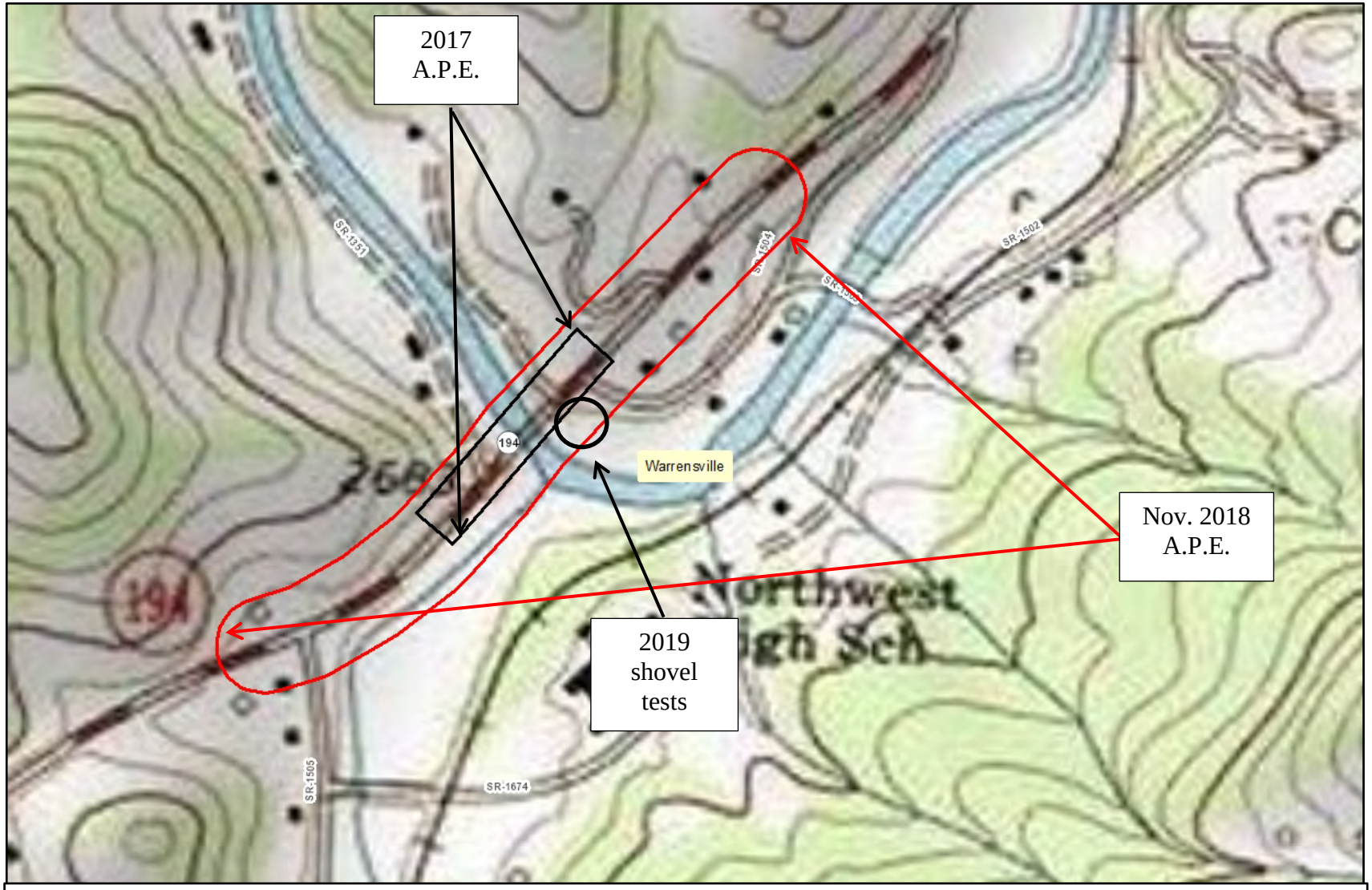


Figure 3: Topographic map of the Area of Potential Effects.

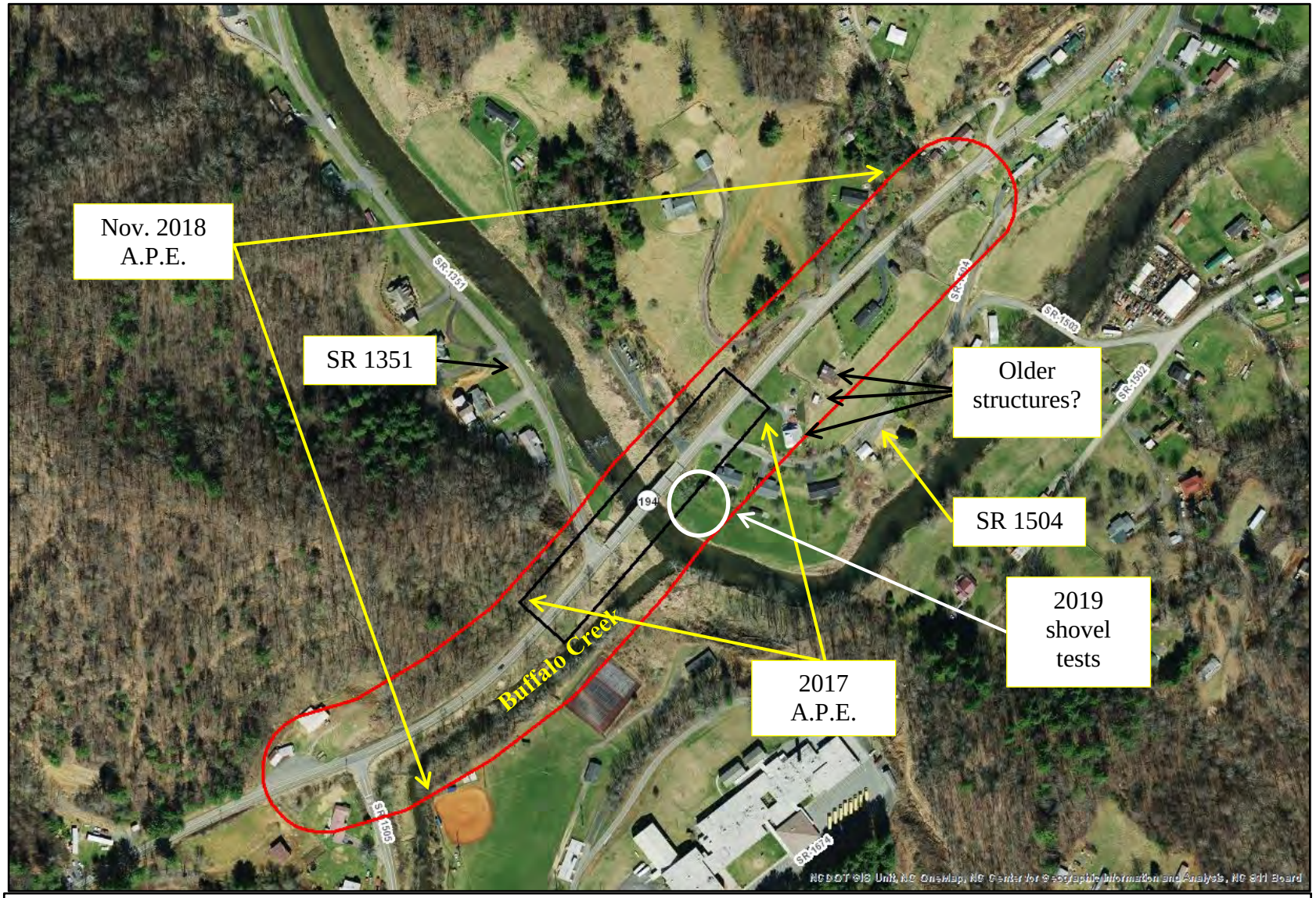


Figure 4: Aerial photograph of the Area of Potential Effects.

Figure 5: Aerial photograph of the northeast quadrant showing shovel test locations.

Figure 6: Northwest view of the northeast quadrant.

Figure 7: Northeast view of the northeast quadrant.

Figure 8: Northeast view of the ridgetop in the northeast quadrant.