Pre-Construction Notification

Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits

(along with corresponding Water Quality Certifications)

December 4, 2023 Ver 4.3

*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/DocView.aspx?dbid=0&id=2196924

A. Processing Information

If this is a courtesy copy, please fill in this with the submission date.

Does this project involve maintenance dredging funded by the Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund, electric generation projects located at an existing or former electric generating facility, or involve the distribution or transmission of energy or fuel, including natural gas, diesel, petroleum, or electricity? *

○ Yes ◉ No

Is this application for a project associated with emergency response/repairs from Hurricane Helene impacts to your project or property?

○ Yes ◉ No

Is this project connected with ARPA funding or S.L. 2023-134 (earmark)? *

○ ARPA ○ S.L. 2023-134 (earmark) ◉ No

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

Gaston

Is this a NCDMS Project *

○ Yes ◉ No

Click Yes, only if NCDMS is the applicant or co-applicant.

DO NOT CHECK YES, UNLESS YOU ARE DMS OR CO-APPLICANT.

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-0019

WBS # *

67019.1.1

(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)

Has this PCN previously been submitted? *

○ Yes

◉ No

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

☐ Nationwide Permit (NWP)

☑ Regional General Permit (RGP)

☐ Standard (IP)

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

○ Yes ◉ No

Regional General Permit (RGP) Number:	201902350 - Work associated with bridge construction, widening, replacement, and interchanges

RGP Numbers (for multiple RGPS):

List all RGP 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
- [ ] 401 Water Quality Certification - Express
- [ ] Non-404 Jurisdictional General Permit
- [ ] Riparian Buffer Authorization
- [ ] Individual 401 Water Quality Certification

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

*

For the record only for DWR 401 Certification: ◉ Yes ○ No

For the record only for Corps Permit: ○ Yes ◉ No

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

○ Yes ◉ No

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

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

○ Yes ◉ No

Acceptance Letter Attachment

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

FILE TYPE MUST BE PDF

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

○ Yes ◉ No

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

○ Yes ◉ No

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

B. Applicant Information

1a. Who is the Primary Contact? *

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
- [x] Applicant (other than owner)

(Check all that apply)

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

○ Yes ◉ No

2. Owner Information

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

NCDOT

2b. Deed book and page no.:

2c. Contact Person:

(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)707-6103

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address: *

ekcheely@ncdot.gov

3. Applicant Information (if different from owner)

3a. Name: *

William A. Barrett

3b. Business Name:

(if applicable)

3c. Address *

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

State / Province / Region

NC

Postal / Zip Code

27699-1598

Country

US

3d. Telephone Number: *

(919)707-6103

(xxx)xxx-xxxx

3e. Fax Number:

(xxx)xxx-xxxx

3f. Email Address: *

wabarrett@ncdot.gov

C. Project Information and Prior Project History

1. Project Information

1a. Name of project: *

BR-0019 - Bridge 56 on NC 275 over South Fork Catawba River

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Dallas, NC

2. Project Identification

2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

State / Province / Region

Postal / Zip Code

Country

2d. Site coordinates in decimal degrees

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

Latitude: *

35.330316

ex: 34.208504

Longitude: *

-81.132608

-77.796371

3. Surface Waters

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

South Fork Catawba River

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

WS-IV; CA

Surface Water Lookup

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

Catawba

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

030501020604

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: *

Bridge Project: Existing Condition: 2-lane highway with 12-foot lanes and 4-foot paved shoulders, crossing South Fork Catawba River.

General land use: Low density residential, commercial, and agriculture; woods along floodplain.

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

○ Yes ◉ No ○ Unknown

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)

1,827

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

Bridge No. 56 was built in 1953 and is 70 years old. With both a superstructure and substructure rating of 4 out of 9, the bridge has become structurally deficient and warrants replacement.

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

The North Carolina Department of Transportation (NCDOT) has proposed to replace Gaston County Bridge #350056 on NC 275 over the South Fork Catawba River. The existing structure is an 8-span, 370' bridge (2@35', 3@65', 3@35'), consisting of a reinforced concrete (RC) deck on I-beams, with RC caps on RC piers (channel) or H-piles (overbank). The existing structure will be removed and replaced with a 400' bridge consisting of 5 80' spans. The proposed bridge will utilize 45" girders on 4' caps and will feature a 3.5' concrete barrier rail and sloped (spill-through) abutments.

A detour bridge will be required due to the high volume of traffic and the length of an offsite detour. The detour bridge and fill will be removed after construction and will be seeded with a natural riparian vegetative seed mix. Temporary work pads in the stream are to be staged to avoid exceeding 50% blockage of the stream flow area at any one time.

Standard road and bridge building equipment such as trucks, dozers, and cranes will be used.

5. Jurisdictional Determinations

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

◉ Yes ○ No ○ Unknown

Comments:

No wetlands. South Fork Catawba River and one UT present.

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): Matt Martin and Pete Stafford

Agency/Consultant Company: Rummel Klepper and Kahl, LLP

Other:

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 ☑ 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	Site 1A - Detour and Standard Base Ditch	Temporary	Other	South Fork Catawba River	Perennial	Both	135 Average (feet)	35 (linear feet)
S2	Site 1B - Temporary work Pads	Temporary	Workpad/Causeway	South Fork Catawba	Perennial	Both	135 Average (feet)	141 (linear feet)
S3	Site 1C - Standard Base Ditch	Temporary	Other	South Fork Catawba River	Perennial	Both	135 Average (feet)	0 (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:

0

3i. Total temporary stream impacts:

176

3i. Total stream and ditch impacts:

176

3j. Comments:

Temporary linear impacts at Site S3 (Site 1C) of 31.7 linear feet are fully overlapped by Site S2 (Site 1B) impacts; therefore, reported as "0" in Stream Impact Table above.
See NOTES at bottom of "Wetland and Surface Water Impacts Summary Sheet" included with Permit Drawings.

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: *

Open shoulder sections were maximized to promote sheet flow from roadway; there will be no deck drains on the bridge, thus eliminating direct discharge into the stream; bridge stormwater will be picked up by drop inlets at each end of bridge and discharged onto a rip rap pad; ditches have been designed to produce velocities below the permissible maximum of 3.5 fps (based on presence of Congaree Loam soils) at all proposed outfalls to the South Fork Catawba River.

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

Skimmer basins are provided at both proposed ditch outfalls to South Fork Catawba River during both Erosion Control phases. These basins will treat the majority of the project area runoff with regards to sediment prior to discharge to South Fork Catawba River; floating turbidity curtain is to be used in conjunction with temporary work pads to limit release of sediment during removal of existing interior bents and installation of proposed interior bents; Design Standards in Sensitive Watersheds will be implemented for this project.

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:

All impacts are temporary impacts, and do not constitute a loss of waters.

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:

The location of this project on the South Fork Catawba River is not located within any of the NC Riparian Buffer Protection areas.

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

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 the bridge replacement, this project will no stimulate growth but may influence nearby land use.

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

What Federal Agency is involved?

FHWA

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

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

USFWS Information for Planning and Consultation (IPaC), and field surveys.

Per IPaC 7/10/25 - only bog turtle and Schweinitz's sunflower are listed within the project area (as well as the Proposed monarch butterfly). No biological conclusion is required for the bog turtle and monarch butterfly. Surveys for Schweinitz's sunflower were conducted on 8/25/18, 10/18/21, and 9/21/23, and no individuals were found during any of these surveys. The biological conclusion for Scwheinitz's sunflower remains No Effect.

(Dwarf-flowered heartleaf used to be in range for this project per IPaC, but is no longer in-range as of 2025.)

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? *

review of online mapping sources.

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? *

Archaeological: see the "NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE or LISTED ARCHAEOLOGICAL SITES PRESENT FORM", an attachment to this ePCN.

Historic Structures: see "HISTORIC ARCHITECTURE AND LANDSCAPES ASSESSMENT FORM", an attachment to this ePCN.

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:

This project meets the FEMA requirements by obtaining State Floodplain Compliance (SFC) approval through the Hydraulics Unit's Highway Floodplain Program.

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

FEMA Floodmaps

Miscellaneous

Comments

Please use the space below to attach all required documentation or any additional information you feel is helpful for application review. Documents should be combined into one file when possible, with a Cover Letter, Table of Contents, and a Cover Sheet for each Section preferred.

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

BR-0019 Gaston July 10 2025.pdf 27.08MB

File must be PDF or KMZ

Signature

*

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

- The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief'; and
- The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- 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: *

Erin K. Cheely

Signature *

Date

7/10/2025

Permit Drawings

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

WBS Element: 67019.1.1 **TIP/Proj No:** BR-0019 **County(ies):** Gaston

General Project Information

WBS Element:	67019.1.1	**TIP Number:**	BR-0019	**Project Type:**	Bridge Replacement	**Date:**	8/22/2023
NCDOT Contact:	David Stutts, PE			**Contractor / Designer:**	Seth Jones, EI - RK&K		
	Address: Structures Management Unit 1581 Mail Service Center Raleigh, NC 27699-1581			**Address:**	Forum I 8601 Six Forks Road, Suite 700 Raleigh, NC		
	Phone: 919-707-6442			**Phone:**	984-238-7216		
	Email: dstutts@ncdot.gov			**Email:**	sjones@rkk.com		
City/Town:	Dallas			**County(ies):**	Gaston		
River Basin(s):	Catawba			**CAMA County?**	No		
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles):	0.38	**Surrounding Land Use:**	Low density residential, commercial, and agricultural; woods along floodplain				
	Proposed Project			**Existing Site**			
Project Built-Upon Area (ac.)	1.9	ac.		1.4	ac.		
Typical Cross Section Description:	2 lane highway with 12' lanes and 4' paved shoulders. Detour: 2 lane highway with 12' lanes and 2' paved shoulders.			2 lane highway with 12' lanes and no paved shoulders.			
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	11,500	Year: 2045	Existing:	9,400 / 8,700	Year:	2018 / 2020

General Project Narrative: (Description of Minimization of Water Quality Impacts)

The North Carolina Department of Transportation (NCDOT) has proposed to replace Gaston County Bridge #350056 on NC 275 over the South Fork Catawba River. The existing structure is an 8-span, 370' bridge (2@35', 3@65', 3@35'), consisting of a reinforced concrete (RC) deck on I-beams, with RC caps on RC piers (channel) or H-piles (overbank). The existing structure will be removed and replaced with a 400' bridge consisting of 5 80' spans. The proposed bridge will utilize 45" girders on 4' caps and will feature a 3.5' concrete barrier rail and sloped (spill-through) abutments. There will be no deck drains on the bridge, thus eliminating direct discharge into the stream. Bridge stormwater will be picked up by drop inlets at each end of bridge and discharged onto a rip rap pad. Ditches have been designed to produce velocities below the permissible maximum of 3.5 fps (based on presence of Congaree Loam soils) at all proposed outfalls to the South Fork Catawba River.

Design mitigations (Avoidance/Minimization) for streams include:
1. Open shoulder sections were maximized to promote sheet flow from roadway.
2. Skimmer basins are provided at both proposed ditch outfalls to South Fork Catawba River during both Erosion Control phases. These basins will treat the majority of the project area runoff with regards to sediment prior to discharge to South Fork Catawba River.
3. Floating turbidity curtain is to be used in conjunction with temporary work pads to limit release of sediment during removal of existing interior bents and installation of proposed interior bents.

A detour bridge will be required due to the high volume of traffic and the length of an offsite detour. The detour bridge and fill will be removed after construction and will be seeded with a natural riparian vegetative seed mix. Temporary work pads in the stream are to be staged to avoid exceeding 50% blockage of the stream flow area at any one time.

NOTE: *Design Standards in Sensitive Watersheds* are to be implemented for this project.

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

WBS Element:	67019.1.1	TIP/Proj No.:	BR-0019	County(ies):	Gaston	Page	2	of	2

General Project Information

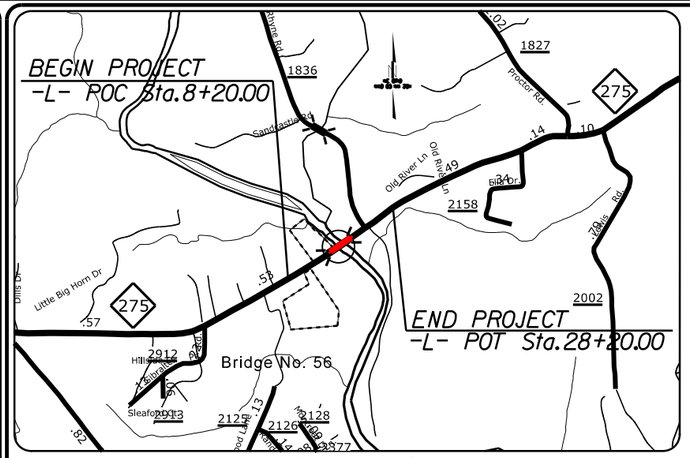
Waterbody Information

Surface Water Body (1):	South Fork Catawba River		**NCDWR Stream Index No.:**	11-129-(14.5)		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply IV (WS-IV)			
		Supplemental Classification:	None			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	S. Fork Catawba River			**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)						

PROJECT: BR-0019

CONTRACT NO:

$$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$
$$$$$$USERNAME$$$$$



VICINITY MAP
(NOT TO SCALE)

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GASTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0019	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
67019.1.1		P.E.
67019.2.1		R/W AND UTIL.

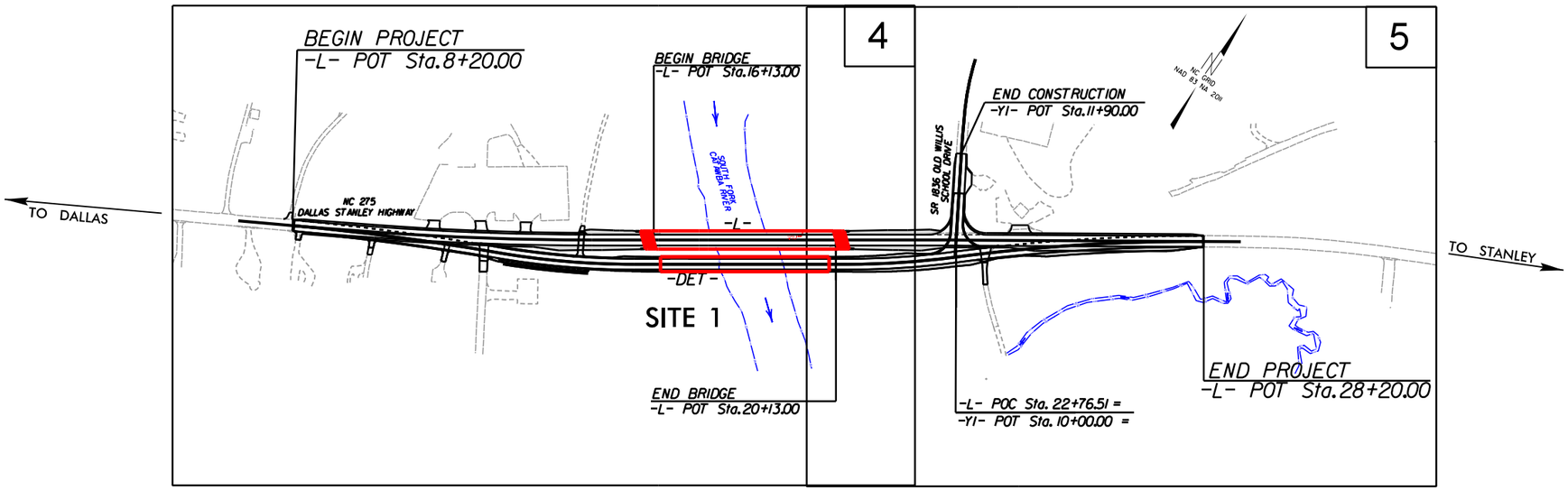
LOCATION: BRIDGE NO. 350056 ON NC 275 OVER S. FORK CATAWBA RIVER

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

WETLAND AND SURFACE WATER IMPACTS PERMIT

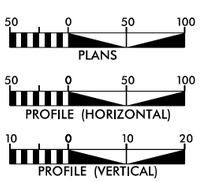
ENGLISH

PERMIT DRAWING
SHEET 1 OF 9



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

GRAPHIC SCALES



DESIGN DATA

ADT 2018 = 9,400
ADT 2045 = 11,500
DHV = 10%
DIR = 60%
T = 6%*
V = 50 MPH
* TTST = 1% DUAL 5%

FUNC CLASS = MINOR ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0019 = 0.303 mi
LENGTH STRUCTURE TIP PROJECT BR-0019 = 0.076 mi
TOTAL LENGTH TIP PROJECT BR-0019 = 0.379 mi

RUMMEL, KLEPPER & KAHL, LLP
8601 SIX FORKS ROAD, FORUM 1 SUITE 700
RALEIGH, NORTH CAROLINA 27615-3960
NC LICENSE NO. F-0112
1-888-521-4455 OR 919-878-9560

FOR
DIVISION OF HIGHWAYS

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
March 15, 2023

LETTING DATE:
April 16, 2024

Scott D. Blevins, P.E.
PROJECT ENGINEER

Carter Mull, P.E.
PROJECT DESIGN ENGINEER

David Stutts, P.E.
NCDOT CONTACT

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
BR-0019	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 2 OF 9

ENGLISH

NC GRID NAD 83 NA 2011

50 25 0 50 100 SCALE

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

MATCHLINE –L– STA. 21+00.00 SEE SHEET 5

BEGIN CONSTRUCTION –L– POT Sta.7+53.97

MICHAEL & MELISSA McGINNIS

CLYDE & MELODY MITCHELL

J & E PROPERTY MANAGEMENT INC.

TOWN OF DALLAS

REBECCA HOVIS & OTHERS

SITE 1

TREJO MARTIN OCAMPO & OTHERS

TREJO MARTIN OCAMPO & OTHERS

HERMAN HOLBROOKS LIFE EST.

LAKHVINDER SINGH & KULWANT KAUR

TOWN OF DALLAS

KELLY INVESTMENT COMPANY

LEWIS MOTORS INC

LP –L– STA. 15+43.78 3.31% 0.34%

HP –L– STA. 16+97.13 0.34% 0.32%

LOW WIRE = 662.08'

15+00

115+00

SOUTH FORK CATAWBA RIVER

DRAINS TO RIVER

WATER TREATMENT PLANT DRAIN LINE

8"PVC

30' EASEMENT

LIMIT OF EXCAVATION AREA TO BE GRADED FOR FUTURE PATH

STANDARD BASE DITCH W/CLASS I RIP RAP SEE DETAIL E

LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL F

STANDARD BASE DITCH W/CLASS B RIP RAP SEE DETAIL C

STANDARD BASE DITCH W/CLASS I RIP RAP SEE DETAIL D

LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL B

TOE PROTECTION W/CLASS B RIP RAP SEE DETAIL I

SPECIAL LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL I

SPECIAL CUT DITCH SEE DETAIL A

SPECIAL CUT DITCH SEE DETAIL K

GRADE TO DRAIN

CLASS I RIP RAP

CLASS II RIP RAP

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 4:1, D, 4:1, Front Ditch Slope

Min. D=1.0 Ft.

FROM STA. 8+50 TO STA. 12+00 –L– RT
FROM STA. 23+20 TO STA. 23+80 –L– LT
FROM STA. 10+40 TO STA. 11+00 –Y1– RT

DETAIL B
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, GEOTEXTILE, B

Min. D=1.5 Ft.
Max. d=1.0 Ft.
B=2.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner= Class B Rip-Rap

FROM STA. 12+75 TO STA. 16+43 –L– RT

DETAIL C
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, Natural Ground, Geotextile, B

Min. D=1.5 Ft.
Max. d=1.0 Ft.
B=4.0 Ft.

*When B is < 6.0'

Type of Liner= Class B Rip-Rap

FROM STA. 16+43 TO STA. 17+00 –L– RT
BEGIN ELEV=648.0', END ELEV=643.1', L= 63', S=7.7%

DETAIL D
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, Natural Ground, Geotextile, B

Min. D=1.0 Ft.
Max. d=1.0 Ft.
B=4.0 Ft.

*When B is < 6.0'

Type of Liner= Class I Rip-Rap

FROM STA. 17+00 TO STA. 17+50 –L– RT
BEGIN ELEV=643.1', END ELEV=636.4', L= 56', S=12.0%
FROM STA. 17+50 TO STA. 17+55 –L– RT
BEGIN ELEV=636.4', END ELEV=636.0', L= 6', S=7.5%

DETAIL E
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, Natural Ground, Geotextile, B

Min. D=1.5 Ft.
Max. d=1.0 Ft.
B=6.0 Ft.

*When B is < 6.0'

Type of Liner= Class I Rip-Rap

FROM STA. 18+46 TO STA. 18+75 –L– LT
BEGIN ELEV=636.0', END ELEV=636.8', L= 29', S=2.7%
FROM STA. 18+75 TO STA. 19+75 –L– LT
BEGIN ELEV=636.8', END ELEV=644.0', L= 100', S=7.2%

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 2:1 Flatter, D, 4:1, Front Ditch Slope

Min. D=1.0 Ft.

FROM STA. 10+10 TO STA. 12+00 –L– RT (DET)
FROM STA. 24+50 TO STA. 25+00 –L– LT

DETAIL F
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, GEOTEXTILE, B

Min. D=1.5 Ft.
Max. d=1.0 Ft.
B=4.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner= Class B Rip-Rap

FROM STA. 19+75 TO STA. 22+25 –L– LT
FROM STA. 10+65 TO STA. 11+50 –Y1– LT

DETAIL I
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1 or Flatter, Fill Slope, Geotextile, B

Min. D=1.5 Ft.
Max. d=1 Ft.
B=2 Ft.

Type of Liner= Class B Rip-Rap

FROM STA. 10+50 TO STA. 11+10 –L– LT

DETAIL J
TOE PROTECTION
(Not to Scale)

NATURAL GROUND, d, 2:1 OR FLATTER, FILL SLOPE, GEOTEXTILE

d=1.0 Ft.

Type of Liner= Class B Rip-Rap

FROM STA. 8+40 TO STA. 10+50 –L– LT
FROM STA. 11+50 TO STA. 12+15 –L– LT
FROM STA. 12+50 TO STA. 13+10 –L– LT

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$$$$USERNAME$$$$ $$$$DATE$$$$ $$$$TIME$$$$

8/17/99

PERMIT DRAWING
SHEET 3 OF 9

SCALE 25 0 25 50

PROJECT REFERENCE NO.	SHEET NO.
BR-0019	4A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ENGLISH

1
TOWN OF DALLAS
DB 1828 PG 714

6
REBECCA HOVIS & OTHERS
DB 4864 PG 1029

10
LEWIS MOTORS INC

-L- PT Sta. 14+78.34

LP
-L- STA. 15+43.78
3.31% 0.34%

BEGIN APPROACH SLAB
-L- POT Sta. 15+88.86

BEGIN BRIDGE
-L- POT Sta. 16+13.00

HP
-L- STA. 16+97.13
0.34% 0.32%

END APPROACH SLAB
-L- POT Sta. 20+37.14

END BRIDGE
-L- POT Sta. 20+13.00

LP
-L- STA. 21+21.73
0.32% 0.38%

LOW WIRE = 662.08'

SOUTH FORK CATAWBA RIVER

UPSTREAM LIMIT OF SITE 1B LINEAR STREAM IMPACTS

LIMIT OF EXCAVATION AREA TO BE GRADED FOR FUTURE PATH

STREAM C/L

SITE 1B

SITE 1C

SITE 1A

TS

SITE 1C FALLS FULLY WITHIN LIMITS OF SITE 1B LINEAR IMPACTS. NO LINEAR IMPACTS ATTRIBUTED TO SITE 1C.

STANDARD BASE DITCH W/CLASS I RIP RAP SEE DETAIL E

LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL F

LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL B

STANDARD BASE DITCH W/CLASS B RIP RAP SEE DETAIL C

DOWNSTREAM LIMIT OF SITE 1B LINEAR STREAM IMPACTS

STANDARD BASE DITCH W/CLASS I RIP RAP SEE DETAIL D

DOWNSTREAM LIMIT OF SITE 1A LINEAR STREAM IMPACTS

TOP=648.79
INV IN=640.13
INV OUT=639.70

CLASS II RIP RAP

CLASS I RIP RAP

GRADE TO DRAIN

8" PVC DRAINS TO RIVER WATER TREATMENT PLANT DRAIN LINE

TYPE B-77

PROP. SBG

WOODS

SITE 1A FALLS PARTIALLY WITHIN LIMITS OF SITE 1B LINEAR IMPACTS. AN OVERLAPPING LENGTH OF 41.6' WAS EXCLUDED FROM SITE 1A LINEAR IMPACTS.

S/S SURFACE WATER IMPACTS

TS/TS TEMPORARY SURFACE WATER IMPACTS

-L- PC Sta. 22

-L- POC Sta.

-Y1- POT Sta.

-L- P

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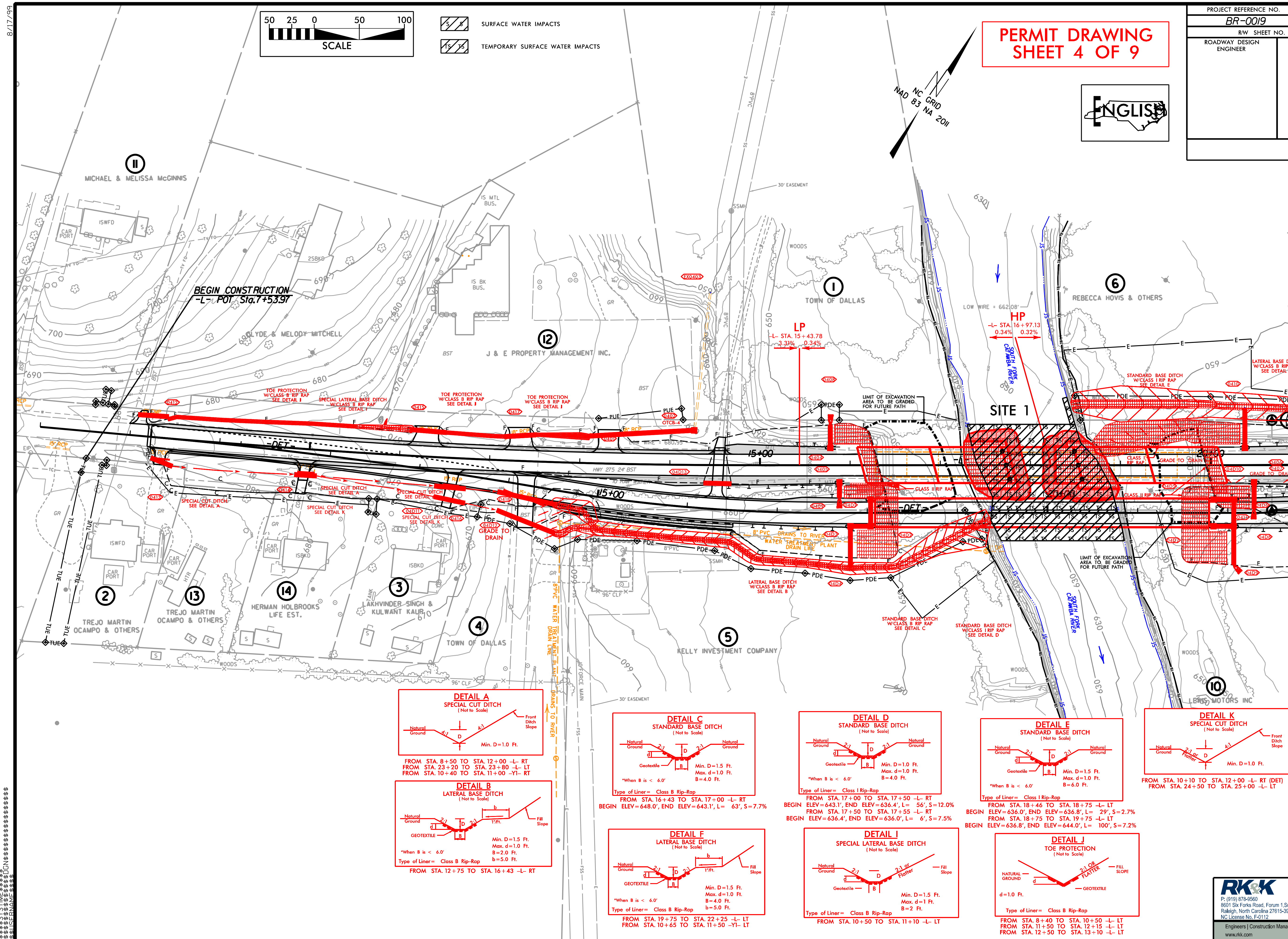

PROJECT REFERENCE NO.	SHEET NO.
BR-0019	4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

MATCHLINE -L- STA. 21+00.00 SEE SHEET 5

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$$$$$$SYSTIME$$$$ $$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

8/17/99

PERMIT DRAWING
SHEET 5 OF 9

SCALE 25 0 25 50

PROJECT REFERENCE NO.	SHEET NO.
BR-0019	4A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ENGLISH

1
TOWN OF DALLAS
DB 1828 PG 714

6
REBECCA HOVIS & OTHERS
DB 4864 PG 1029

10
LEWIS MOTORS INC

-L- PT Sta. 14+78.34

LP
-L- STA. 15+43.78
3.31% 0.34%

BEGIN APPROACH SLAB
-L- POT Sta.15+88.86

BEGIN BRIDGE
-L- POT Sta.16+13.00

HP
-L- STA. 16+97.13
0.34% 0.32%

END APPROACH SLAB
-L- POT Sta.20+37.14

END BRIDGE
-L- POT Sta.20+13.00

LP
-L- STA. 21+21.73
0.32% 0.38%

LOW WIRE = 662.08'

SOUTH FORK CATAWBA RIVER

UPSTREAM LIMIT OF SITE 1B LINEAR STREAM IMPACTS

LIMIT OF EXCAVATION AREA TO BE GRADED FOR FUTURE PATH

STREAM C/L

SITE 1B

SITE 1C

SITE 1A

SITE 1C FALLS FULLY WITHIN LIMITS OF SITE 1B LINEAR IMPACTS. NO LINEAR IMPACTS ATTRIBUTED TO SITE 1C.

STANDARD BASE DITCH W/CLASS I RIP RAP SEE DETAIL E

LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL F

LATERAL BASE DITCH W/CLASS B RIP RAP SEE DETAIL B

STANDARD BASE DITCH W/CLASS B RIP RAP SEE DETAIL C

DOWNSTREAM LIMIT OF SITE 1B LINEAR STREAM IMPACTS

TOP=648.79
INV IN=640.13
INV OUT=639.70
STANDARD BASE DITCH W/CLASS I RIP RAP SEE DETAIL D

DOWNSTREAM LIMIT OF SITE 1A LINEAR STREAM IMPACTS

SITE 1A FALLS PARTIALLY WITHIN LIMITS OF SITE 1B LINEAR IMPACTS. AN OVERLAPPING LENGTH OF 41.6' WAS EXCLUDED FROM SITE 1A LINEAR IMPACTS.

CLASS I RIP RAP
CLASS II RIP RAP
GRADE TO DRAIN
8" PVC DRAINS TO RIVER WATER TREATMENT PLANT DRAIN LINE

PROP. SBG
TYPE B-77
PDE
TS
E
WOODS
22.5' TYP.

S/S SURFACE WATER IMPACTS

TS/TS TEMPORARY SURFACE WATER IMPACTS

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PROJECT REFERENCE NO.	SHEET NO.
BR-0019	2B-3

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

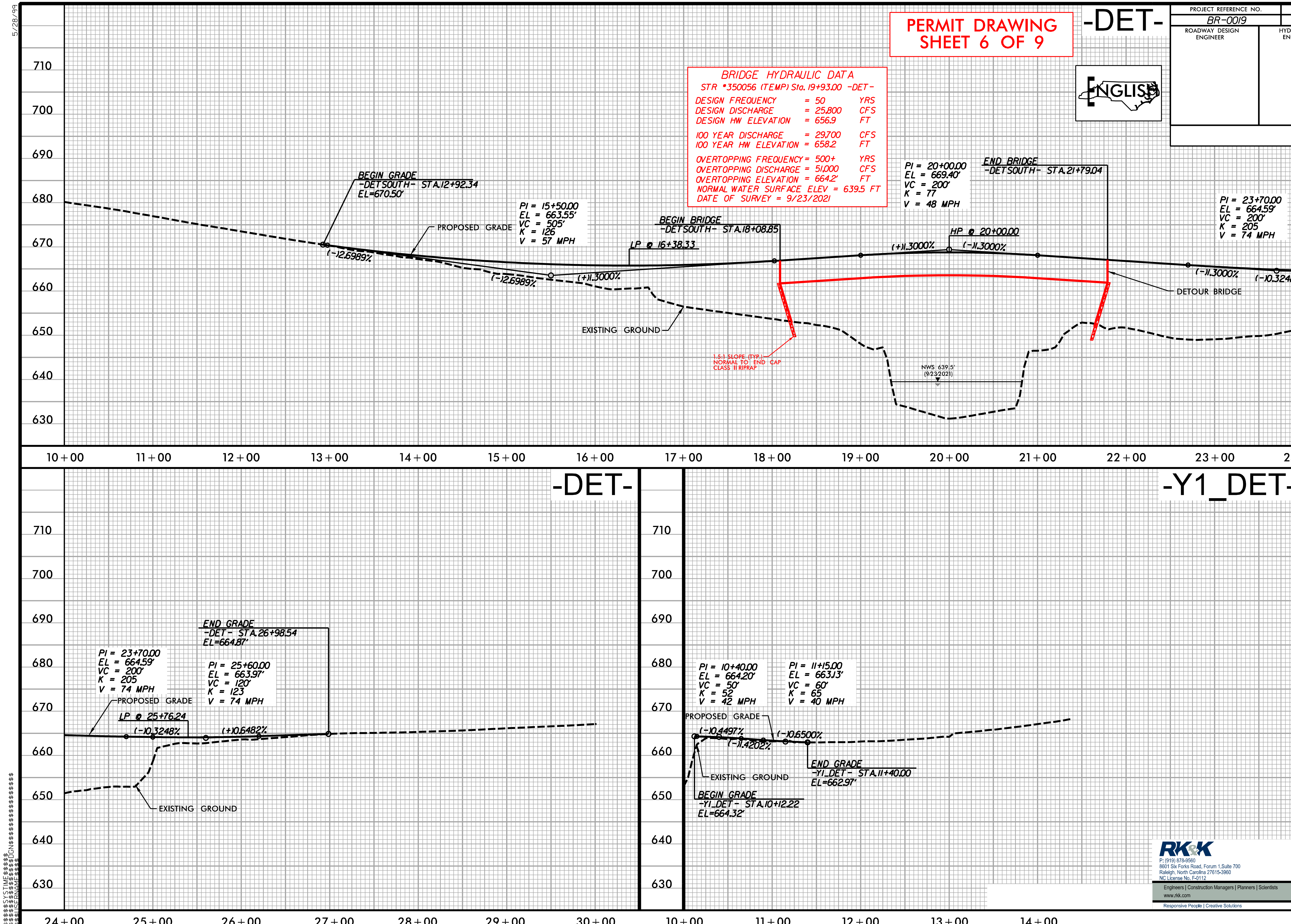
PERMIT DRAWING
SHEET 6 OF 9

ENGLISH

BRIDGE HYDRAULIC DATA

STR #350056 (TEMP) Sta. 19+93.00 -DET-

DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	25,800	CFS
DESIGN HW ELEVATION	=	656.9	FT
100 YEAR DISCHARGE	=	29,700	CFS
100 YEAR HW ELEVATION	=	658.2	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	51,000	CFS
OVERTOPPING ELEVATION	=	664.2'	FT
NORMAL WATER SURFACE ELEV	=	639.5	FT
DATE OF SURVEY	=	9/23/2021	



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5/28/99

$$$$SYSTIME$$$$ $$$$$DGN$$$$$ $$$$USERNAME$$$$

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
BR-0019	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

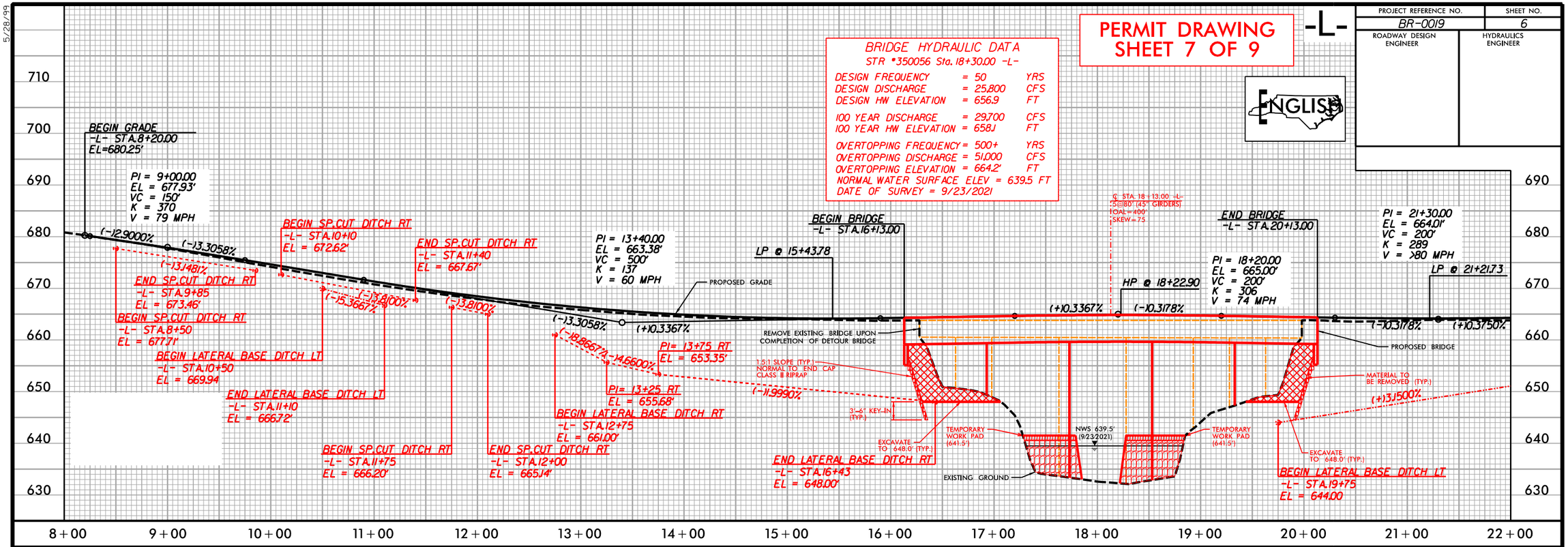
PERMIT DRAWING SHEET 7 OF 9

-L-

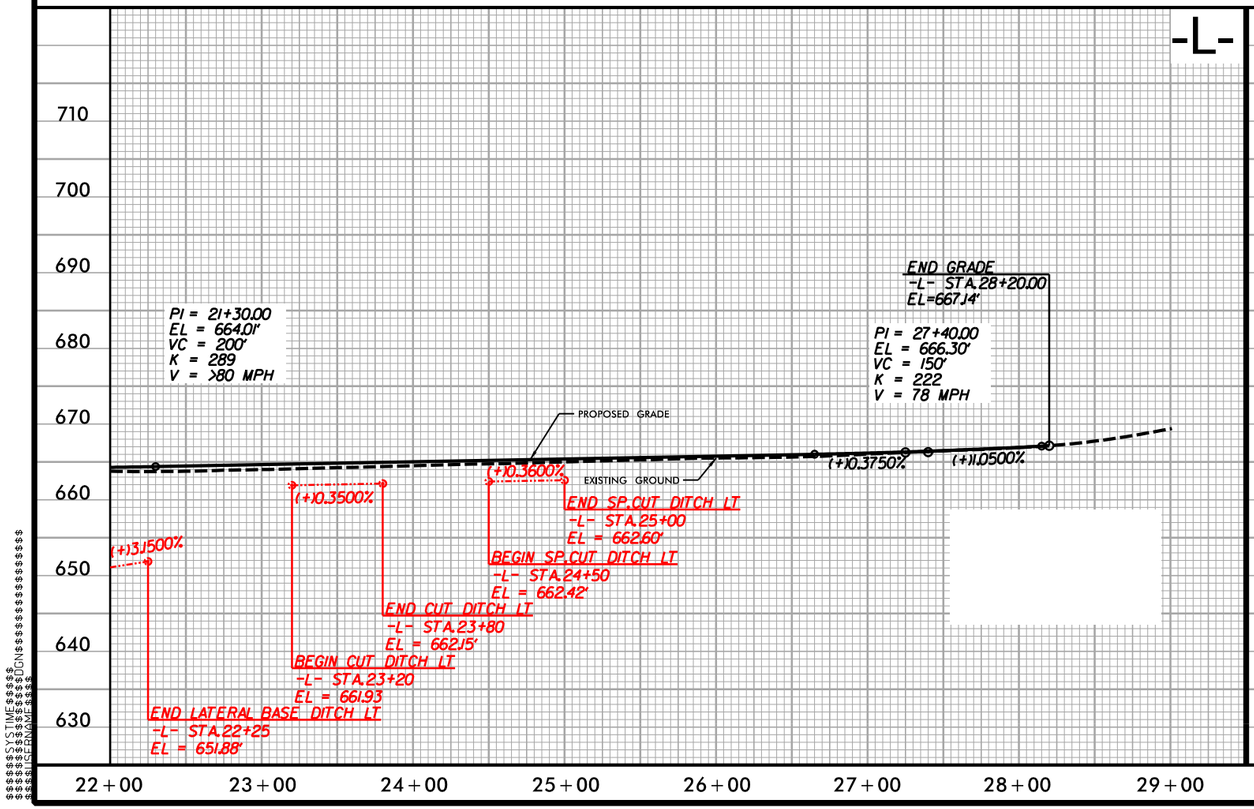
ENGLISH

BRIDGE HYDRAULIC DATA
STR #350056 Sta. 18+30.00 -L-

DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 25,800	CFS
DESIGN HW ELEVATION	= 656.9	FT
100 YEAR DISCHARGE	= 29,700	CFS
100 YEAR HW ELEVATION	= 658.1	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 51,000	CFS
OVERTOPPING ELEVATION	= 664.2'	FT
NORMAL WATER SURFACE ELEV	= 639.5	FT
DATE OF SURVEY	= 9/23/2021	



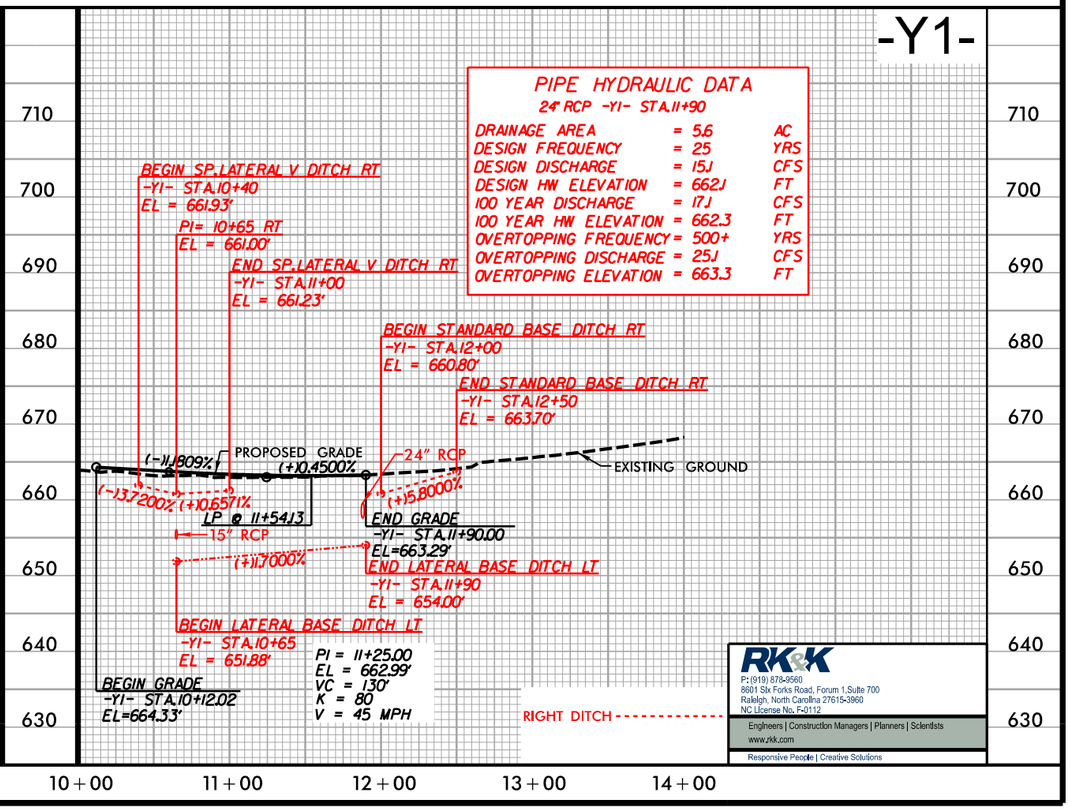
-L-



-Y1-

PIPE HYDRAULIC DATA
24" RCP -Y1- STA.11+90

DRAINAGE AREA	= 5.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 15.1	CFS
DESIGN HW ELEVATION	= 662.1	FT
100 YEAR DISCHARGE	= 17.1	CFS
100 YEAR HW ELEVATION	= 662.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 25.1	CFS
OVERTOPPING ELEVATION	= 663.3	FT



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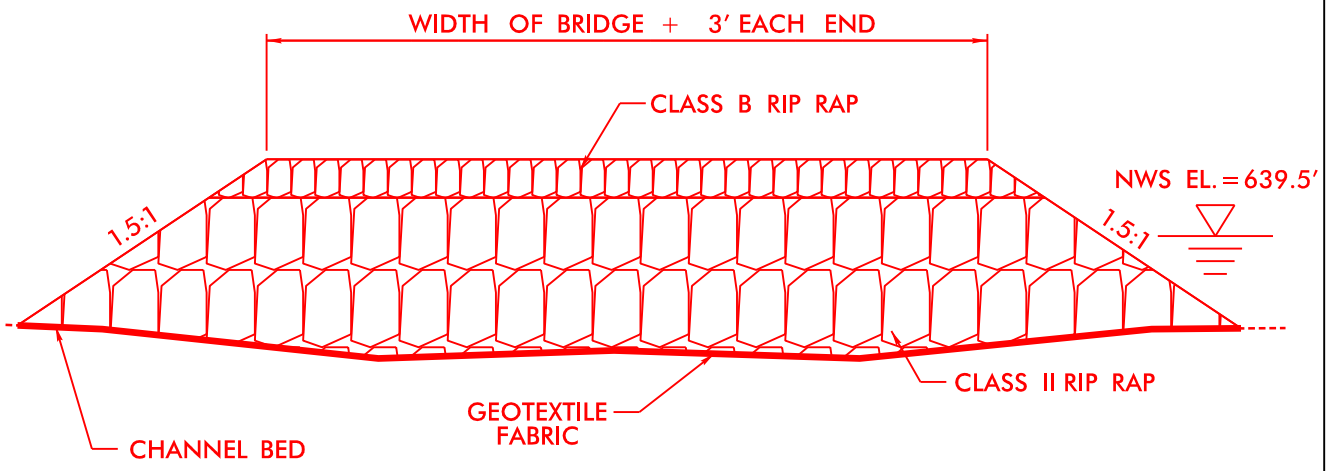
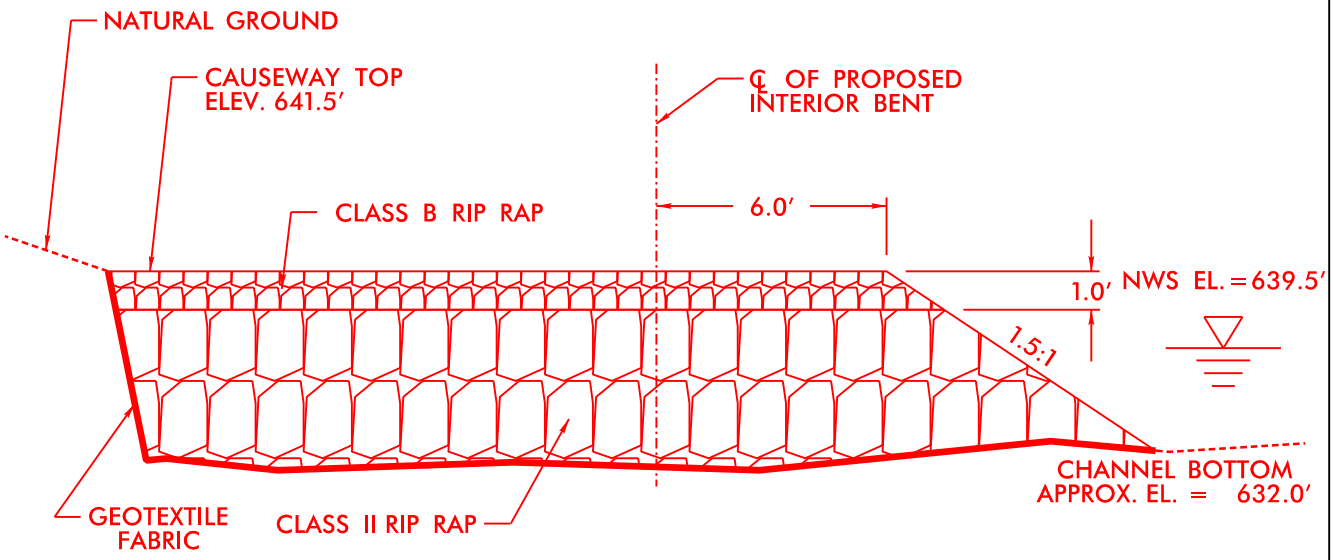
TEMPORARY WORK PAD DETAIL

NOT TO SCALE





PERMIT DRAWING
SHEET 8 OF 9

NCDOT

DIVISION OF HIGHWAYS
GASTON COUNTY
PROJECT: BR-0019
BRIDGE NO. 56 OVER
SOUTH FORK CATAWBA RIVER
ON DALLAS STANLEY HIGHWAY
(NC 275)

8 / 22 / 2023

WETLAND AND SURFACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1A	-L- 17+56 - 19+04 RT	Detour & Standard Base Ditch							0.11		35	
1B	-L- 17+30 - 18+96	Temporary Work Pads Prop Bridge: 5@80'; 48" Girder							0.28		141	
1C	-L- 18+36 - 18+49 LT	Standard Base Ditch							< 0.01			
TOTALS*:									0.40	0	176	0

*Rounded totals are sum of actual impacts

NOTES:

- Site 1A linear temporary impacts partially overlap Site 1B. Only 34.8' of linear impacts that fall ouside of Site 1B, as measured along the stream centerline, were quantified for Site 1A in the impact table. An overlap of 41.6' was excluded from Site 1A linear temporary impacts.
- Site 1B permanent impacts from 6 piers of 4' diameter, for a total of 75.4 sf.
- Begin bridge and end bridge temporary work pads cover an area within Site 1B of 0.087 ac and 0.101 ac, respectively.
- Temporary work pads are to be staged to avoid blocking >50% of channel flow area at any one time.
- Site 1C linear temporary impacts of 31.7' fully overlap Site 1B. Only Site 1B impact lengths quantified in the impact table.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
8/22/2023
GASTON COUNTY
BR-0019
67019.1.1

Protected Species/ Section 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

DATE: October 11, 2023

TO: William Barrett
Environmental Program Consultant
Environmental Coordination & Permitting Group

FROM: Anne Burroughs
Environmental Scientist II
Biological Surveys Group

SUBJECT: Schweinitz's Sunflower (*Helianthus schweinitzii*) Survey Memorandum for TIP No. BR-0019, WBS No. 67019.1.1 in Gaston County, North Carolina.

The North Carolina Department of Transportation (NCDOT) is proposing to replace Bridge No. 56 carrying NC 275 over the South Fork of the Catawba River in Dallas, Gaston County, North Carolina. The project vicinity map is shown in the attached Figure 1, from the Natural Resources Technical Report (NRTR). A review of the Information for Planning and Consultation database (IPaC) conducted on October 2, 2023, confirmed the Federally Endangered Schweinitz's Sunflower could occur in the project study area.

NCDOT biologists Jared Gray, Matt Haney, and Anne Burroughs and Transportation Engineering Associates Chris Arnette and Mohammad Haidari visited the BR-0019 study area on September 21, 2023, to update the protected species survey for Schweinitz's Sunflower.

Some marginal habitats for Schweinitz's Sunflower exist within the project study area. These potential habitats are a sliver of dry upland habitat along both sides of NC 275 at the river crossing and the edges between maintained and mesic mixed hardwood communities. These areas can be observed in the attached Figure 4 from the NRTR Terrestrial Communities Map. Although the whole project was reviewed from vehicles, potential habitats were surveyed on foot. *Helianthus microcephalus* was found in the northeast and southwest quadrants of upland habitat along the river. However, no Schweitnitz's Sunflower was found in the study area. A review of the North Carolina Natural Heritage Program (NCNHP) July 2023 dataset conducted on October 2, 2023, indicates that no known Schweinitz's Sunflower occurrences are located within one mile of the project study area.

Due to the negative survey results of this survey and no known occurrences within one mile, the Biological Conclusion rendered for Schweinitz's Sunflower is "No Effect."

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

*Telephone:*919-707-6000
Fax: 919-250-4224
Customer Service: 1-877-368-4968

Website: ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

The previously completed Schweinitz's Sunflower survey was conducted by Three Oaks Engineering Inc. on October 18, 2021, and had the same biological conclusion.

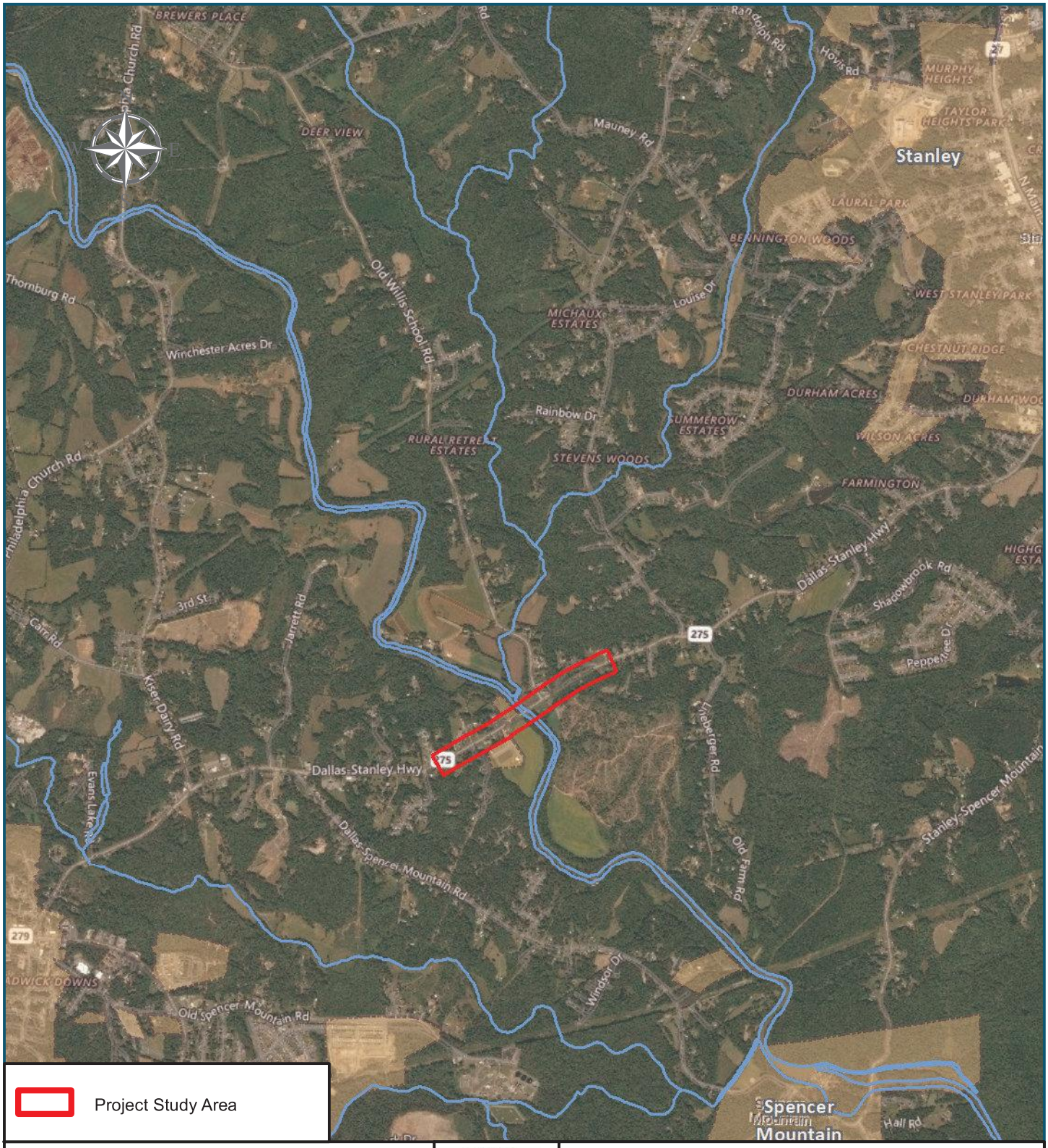
Please let me know if you have any questions or require any additional information.

Anne Burroughs

Attached Maps from:

Natural Resources Technical Report, Proposed Bridge Replacement on NC 275 over South Fork Catawba River Gaston County, North Carolina STIP BR-0019. The North Carolina Department of Transportation Division 12, June 2019.

Figure 1. Vicinity Map
Figure 4. Terrestrial Communities Map

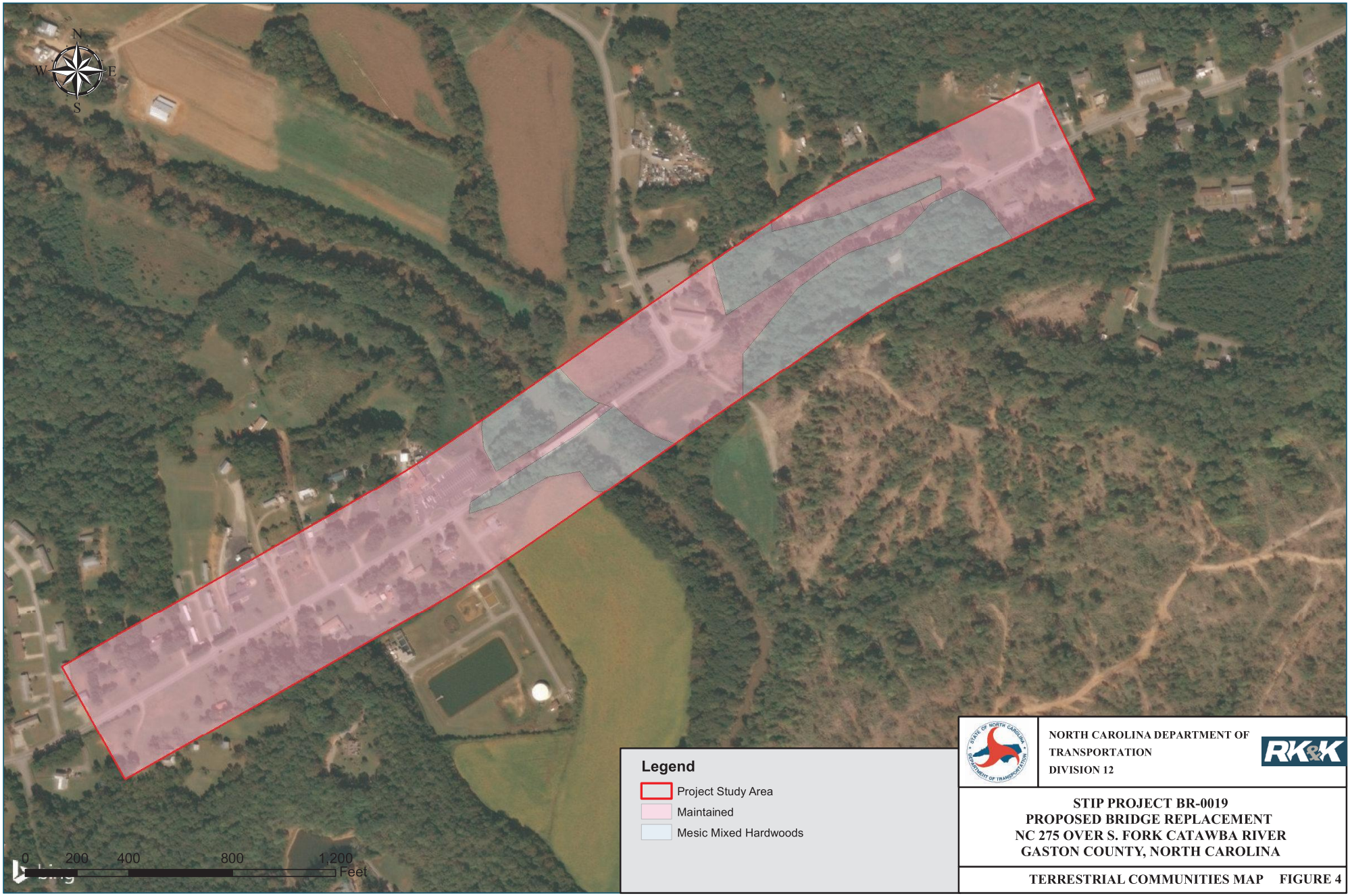


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 12

RK&K

STIP PROJECT BR-0019
PROPOSED BRIDGE REPLACEMENT
NC 275 OVER S. FORK CATAWBA RIVER
GASTON COUNTY, NORTH CAROLINA

VICINITY MAP FIGURE 1



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 12

RK&K

STIP PROJECT BR-0019
PROPOSED BRIDGE REPLACEMENT
NC 275 OVER S. FORK CATAWBA RIVER
GASTON COUNTY, NORTH CAROLINA

TERRESTRIAL COMMUNITIES MAP FIGURE 4

Note: DFHL used to be in-range for this project, but is no longer listed in IPaC for this area.

Post-NRTR Protected Species Survey Form

Project	
TIP/Project ID	BR-0019

Species		
☐ American chaffseed [May-Aug]	☐ Canby's dropwort [Jul-Sep]	☐ Cooley's meadowrue [Jun-Jul]
◆ Dwarf flowered heartleaf [Mar-May]	☐ Golden sedge [Apr-Jun]	☐ Green pitcher plant [Apr-Oct]
☐ Harperella [Jul-Sep]	☐ Mtn Sweet Pitcher Plant [May-Jun]	☐ Michaux's sumac [May-Oct]
☐ Pondberry [Feb-Mar/Sep-Oct]	☐ Rough-leaved loosestrife [May-Sep]	☐ Schweinitz's sunflower [Sep-Oct]
☐ Seabeach amaranth [Jul-Oct]	☐ Sensitive joint-vetch [Jul-Oct]	☐ Small-anthered bittercress [Apr-May]
☐ Small whorled pogonia [May-Jun]	☐ Smooth coneflower [May-Oct]	☐ Swamp pink [Apr-May]
☐ Virginia spiraea [May-Jul]	☐ White irisette [May-Jul]	
☐ Other:		

Survey Date Time Information	
Date(s) of Survey	3/28/2024
Survey Duration	2 hours
Surveyors	Hayley Wood and Adrienne Lambert
Habitat Present	Some habitat present; a few north-facing slopes. Best habitat east of the River.
Remarks	Per the request of NCDOT, Three Oaks completed a survey for dwarf flowered heartleaf (DFHL), which is listed for the project per the USFWS IPaC site. All available habitat in the requested survey area was assessed (see attached map). There were a couple of north facing slopes, one in the wooded area SE of Dallas Stanley Hwy, the other in a wooded area that was on the NE side of the road. All habitat was throughly surveyed and No DFHL were identified during the survey. There was one Hexastylis plant (not DFHL) that was found on one of the north facing slopes; it was confirmed by other field staff as not being DFHL. A review of the NCNHP data explorer on 8/20/2024 did not identify any known occurrences of DFHL with a mile of the survey areas. Based on the lack of individuals and known occurrences within a mile, a Biological Conclusion of No Effect has been rendered for this species.

◆ Included graphic/drawing of survey limits and habitat.

Reference Population(s) Visited *(optional/encouraged)*	
Locations/ Date	
In-flower	
Remarks	None visited

THREE OAKS ENGINEERING

Prepared For:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

Replacement of Bridge No. 350056 on NC 275 over S. Fork Catawba River (BR-0019)

Protected Species Potential Habitat

Gaston County, North Carolina

Date:	March 2024
Scale:	0 100 200 Feet
Job No.:	21-625
Drawn By:	KEMS
Checked By:	JSM

Figure

1

Three Oaks Engineering, Inc.
324 Blackwell Street, Suite 1200
Durham, NC 27701
(919) 732-1300

May 17, 2022

North Carolina Department of Transportation
ATTN: Michael Turchy
ECAP Western Regional Team Lead
Mailing Address:
1598 Mail Service Center
Raleigh, NC 27699-1598
Physical Address:
Century Center, Building A
1000 Birch Ridge Drive
Raleigh, NC 27610

SUBJECT: Dwarf-flowered Heartleaf (*Hexastylis naniflora*) Survey Report for STIP No. BR-0019, Gaston County, North Carolina

Mr. Turchy:

Below is the dwarf-flowered heartleaf (*Hexastylis naniflora*) (DFHL) species survey report for STIP No. BR-0019 in Gaston County, North Carolina.

Project Description and Survey Methodology

The North Carolina Department of Transportation (NCDOT) plans to replace Bridge No. 350056 on N.C. 275 (Dallas Stanley Highway) over the South Fork of the Catawba River in Gaston County, North Carolina. Three Oaks Engineering, Inc. (Three Oaks) was contracted by NCDOT to perform protected species surveys for DFHL in suitable habitat within the approximately 5.2-acre project study area (PSA) (Figure 1). The purpose of these surveys was to survey for presence of DFHL within the PSA and the following survey report will be used to support environmental documentation for the project and environmental permitting, if the latter is required.

Species Morphology and Habitat Description

Dwarf-flowered Heartleaf (DFHL)

U.S. Fish and Wildlife Service (USFWS) Optimal Survey Window: March – May

Dwarf-flowered heartleaf is endemic to the western Piedmont and foothills of North and South Carolina. This herbaceous evergreen is found in moist to rather dry forests along bluffs; boggy areas next to streams and creek heads; and adjacent hillsides, slopes, and ravines. Requiring acidic, sandy loam soils, the species

is found in soil series such as Pacolet, Madison, and Musella, among others. Occurrences are generally found on a north facing slope. Undisturbed natural communities such as Piedmont/Coastal Plain Heath Bluff, Dry-Mesic Oak Hickory Forest, and Mesic Mixed Hardwood Forest hold the most viable occurrences. However, less viable remnant occurrences are found in disturbed habitats, including logged, grazed, mown, and residential/commercial developed lands; areas converted to pasture, orchards, and tree plantations; roadside rights-of-way; and on upland slopes surrounding manmade ponds or lakes.

Survey Results

On April 13, 2022, Three Oaks staff members Byron Levan and Trevor Hall conducted a plant-by-plant survey for DFHL within the PSA. Suitable habitat for DFHL was present within the PSA in mesic mixed hardwood forest. However, no individuals were present. A review of the North Carolina Natural Heritage Program (NCNHP) April 2022 dataset revealed no known DFHL occurrences within the PSA or within one mile of the PSA. Due to the negative survey results of this survey and the lack of known occurrences within one mile of the project, the Biological Conclusion rendered for the species is "**No Effect**."

Please let me know if you have any questions or require any additional information.

Sincerely,

Electronically signed by:

James Mason
Senior Environmental Scientist
Three Oaks Engineering, Inc.
james.mason@threeoaksengineering.com
Office: (919) 732-1300
Mobile: (704) 604-8358

Appendix A
Figure

THREE OAKS ENGINEERING

Prepared For:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

Replace Bridge No. 350056 on N.C. 275 (Dallas Stanley Highway) over South Fork Catawba River STIP No. BR-0019

Project Study Area Map/Habitat Map

Gaston County, North Carolina

Date:	May 2022
Scale:	0 80 160 320 Feet
Job No.:	BR-0019 DFHL Surveys
Drawn By:	BL
Checked By:	JM

Figure 1

Archaeology

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-00119 (STRUCTURE 350056)**	*County:*	**Gaston**
WBS No:	**67019.1.1**	*Document:*	**State MCC**
F.A. No:	**N/A**	*Funding:*	☒ State ☐ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **USACE (not specified)**

Project Description: NCDOT's Division 12 proposes to replace Bridge No. 56 on NC 275 (Dallas-Stanley Highway) over the South Fork of the Catawba River near the Town of Dallas in Gaston County. Bridge No. 56 was constructed in 1953 and is considered to be structurally deficient; therefore, it has been scheduled to be replaced. Since Preliminary Design Plans have not been developed yet, a Study Area for the project has been generated in order to facilitate environmental planning purposes at this stage. The Study Area will be centered on the bridge and measure about 500 feet wide and about 2,000 feet from either end of the bridge along NC 275. Overall, the Study Area encompasses about 50.6 acres, inclusive of the existing roadway, structure to be replaced, and any modern development.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

INTRODUCTION

On behalf of NCDOT, Louis Berger completed an intensive archaeological survey and evaluation in association with the proposed replacement of Bridge No. 56 on NC 275 (Dallas-Stanley Highway) over the South Fork of the Catawba River near the Town of Dallas in Gaston County (Figure 1). Bridge No. 56 was constructed in 1953 and is considered to be structurally deficient; therefore, it has been scheduled for replacement. The purpose of this archaeological investigation was to identify and evaluate the eligibility of all archaeological sites in the Study Area for inclusion in the NRHP through the application of 36 CFR Part 60.4 criterion {a-d}. Evaluation of archaeological sites typically consists of establishing site integrity; integrity is defined by the National Park Service (NPS) as "The ability of a property to convey its significance" (Little et al. 2000; Shrimpton and Andrus 1991). In the case of archaeological resources evaluated under 36 CFR Part 60.4 criterion {a-d}, characteristics that convey significance include location, design, materials, and association.

For the purposes of this survey, the Study Area was considered to be the Area of Potential Effects (APE). It centered on the bridge and measured about 500 feet wide and extended about 2,000 feet from either end of the bridge along NC 275. Overall, the Study Area encompassed about 50.6 acres, inclusive of the existing roadway, structure to be replaced, and any modern development. (Figure 2). Within the APE, six (6) discrete survey areas (4a through 4f) were delineated based on results of historic mapping, topography and soil types, visual inspection, previous surveys, and locations of recent development/construction (Figure 3).

The APE consisted of residential and commercial properties, undeveloped areas, and agricultural fields within an upland-like setting overlooking the floodplain of the South Fork of the Catawba River. Despite

eroded soil conditions (e.g. Madison sandy clay loam, 2-8% slopes, eroded [MaB2]), historic occupation on either side of the river has been well documented with the presence of the Hoyle Family Homestead (Site 31GS244), which is Gaston County's oldest home and dates to the late eighteenth and early nineteenth centuries. In addition, prehistoric archaeological material has been recovered in various locations (Sites 31GS153, 31GS206, and 31GS248) within the floodplain of the South Fork of the Catawba River despite the occasionally flooded but well-drained soils (i.e. Congaree loam, occasionally flooded [Co]).

Most of the APE was considered to have moderate to low archaeological probability due to disturbance from residential construction and commercial development. Slope and soil types not favorable for the preservation of intact archaeological deposits were also a consideration. The archaeological survey focused on areas of well-drained soils on level to near-level land that have not been disturbed by development or subjected to previous archaeological survey.

A total of 9.13 acres was tested through the excavation of 48 shovel test pits (STPs). Fourteen (14) backhoe trenches were dug in Survey Areas 4b through 4d. The results of the trenching are available in the attached geomorphology report. A total of 41.47 acres was not tested due to recent construction/disturbances, steep slope, or saturated soils and/or standing water. A small area of Site 31GS244, associated with the Hoyle Homestead (GS0022), was investigated, one new historic site (Site 31GS388) was identified in the area of the non-extant Oates-Rhyne Log House (GS0213), and a small historic scatter was identified near the river (Site 31GS389).

BACKGROUND RESEARCH

NCDOT archaeologist Paul Mohler conducted a map review and site file search at the North Carolina Office of State Archeology (OSA) on January 25, 2018. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the Study Area. Additional review of land deeds, parcel searches, and historic maps was conducted by a Louis Berger SOI qualified archaeologist. The following background combines the results of both the Louis Berger and NCDOT records reviews.

No previous archaeological surveys have been conducted within the Study Area. However, several projects have been reviewed within the vicinity of the Study Area for environmental compliance, focusing primarily on water/sewer improvements (ERs 86-0591, 97-9008, 08-2083, 09-2763, and 12-1415). OSA stated that these project areas had a low probability for intact and significant archaeological sites; therefore, an archaeological survey was not required for most of those projects, but they did note that "an examination of the area reveals that much of the area along the Catawba River…would be high probability for sites…only high probability areas are recommended for survey." Within five (5) miles of the Study Area, NCDOT's Archaeology Group has reviewed at least eight (8) transportation-related projects for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO), one of which was located within one (1) mile of the Study Area. Archaeological surveys were recommended and conducted for three (3) of those projects based on the presence of previously recorded archaeological sites and high probability locations in both upland and floodplain settings. One of those surveys occurred at Bridge No. 176 on SR 1836 (Old Willis School Road) over Hoyle's Creek, which is located just up the road (0.3 mile) from the Study Area. As a result of those surveys, eight (8) archaeological sites were documented, yet none was recommended eligible for the NRHP. Three of those sites were located in the floodplain of the South Fork of the Catawba River whereas a portion of Site 31GS244 is located on a ridgetop within the current Study Area and is associated with the ca. nine-acre Hoyle Family Homestead (GS0022).

Review of the North Carolina State Historic Preservation Office HPOWEB GIS Service (http://gis.ncdcr.gov/hpoweb/) indicated there are four (4) historic properties located within or adjacent to the Study Area. The Hoyle House (GS0022) itself, listed on the NRHP in 1993, is located just outside the Study Area; however, a small section of the listed property located along NC 275 falls within the Study Area (corresponding to the limits for Site 31GS244). The Hoylesville Post Office (GS0214) was once situated on the Hoyle Homestead property but is no longer extant. The Eli Hoyle House (GS0110), listed on the NRHP in 1998, is situated about 900 feet west of GS0022, on the north side of NC 275 just beyond the western terminus of the Study Area. The Oates-Rhyne Log House (GS0213), which is no longer standing, was located just outside the eastern terminus of the Study Area.

The first documented inhabitants of what is today Gaston County were the Catawba and Cherokee. By the 1750s, Europeans of primarily German and Scotch-Irish descent began settling the area. The Town of Dallas was officially incorporated in 1863 and it was the seat of Gaston County from 1846 to 1911. During that time, it was a center for county business. It was largely agricultural but also participated in the southern textile industry of the mid-to-late nineteenth and early twentieth centuries. When the railroad bypassed Dallas at the end of the nineteenth century and the county seat was moved to Gastonia, Dallas became a bedroom community of Gastonia and Charlotte.

Prior to 1930, the crossing of the South Fork of the Catawba River was on a different alignment. In the early 1950s, around when the bridge was constructed, this portion of what is now called NC 275 (Dallas-Stanly Highway) was straightened on the east side of the bridge. Old River Lane, located on the north side of NC 275, east of the river, is a remnant of the original road alignment.

RESULTS OF THE FIELD INVESTIGATION

A. Visual Reconnaissance Survey

A visual reconnaissance showed that the Study Area, on both sides of the river, consisted of a 5 to 10 percent slope down to the floodplain of the South Fork of the Catawba River. Within the Study Area, there has been extensive disturbance from roadside ditching, utilities installation, and manicured lawns. Residential and some commercial structures line both sides of the roadway, intermittently broken up by small grassy areas.

B. Results of the Phase I Archaeological Testing

Six discrete survey areas were tested within the Study Area (4a to 4f; Figure 3). This was part of a larger survey project which consisted of four locales in Gaston, Catawba, and Iredell counties. As such, the project area for Bridge No. 56 was recorded as Survey Area 4.

Deep trenching was conducted in Survey Areas 4b through 4e, which were located on the floodplain and low terraces of the South Fork of the Catawba River. Based on soil types, topographic landforms, and the presence of previously recorded sites along southern Piedmont streams, the geomorphologist indicated a moderate to high probability for buried cultural horizons within the current Study Area. However, a lack of any evidence of cultural deposits (with the exception of one historic sherd) or features identified during the testing indicated there is little probability for buried cultural resources at the NC 275 crossing of the South Fork of the Catawba River.

1. Survey Area 4a/ Site 31GS388

Survey Area 4a was situated on the south side of NC 275, at the northeastern end of the APE (Figure 4). Shovel testing in the area was inhibited by the presence of a house built in 1942, a light pole behind the house, and large piles of trash (Photo 1) that extended into the woods at the south and southeastern extents

of the APE. In addition to the house built in 1942, an abandoned house is also situated just outside the northeastern edge of the survey area.

Shovel testing in Survey Area 4a focused on locating remnants of the Oates-Rhyne Log House (GS0213), which is mapped by HPOWEB as being on the land currently occupied by the abandoned house. The 1909 Soil Survey Map for Gaston County as well as the 1916 Gastonia topo map depict a structure in or near this location. A deed dating to 1899 describes the sale of the land from the widow Mary Oates to a C. P. K. Rhyne (Book 41, Page 112). Whether a house was located on the land at that time cannot be determined and its presence on the 1909 soil map only indicates that it is was built prior to 1909. In the early 1920s, the Rhyne Family sold the property to the Shelton Family. Unfortunately, only the deed inventory was available for those records; the deeds themselves could not be found. Historic mapping, however, corroborates the Sheltons purchased the property from the Rhynes; the 1931 *Industrial and Farm Map of Gaston County* depicts the Shelton Family farm at this location.

The house currently standing on the land was built in 1942; a large rear shed was then added in 1985. Conversations with extended family members (the Abernethy and Rhyne families) provided some information about the log house. No one actually knew when the log house was built but they did say it was a two-story structure. When the current (now abandoned) house was built, the log house was picked up and moved to the back yard. The kids were warned to stay away from it because it was haunted. About 15 or 20 years ago, a man from Ohio bought the log house. It now (as best as they could remember) sits on a golf course in Ohio.

The field supervisor conducted a pedestrian survey of the area around the abandoned house to see if there were any remains of the log house or associated artifacts. Just beyond the corner of the Study Area was a linear pile of concrete and brick rubble covering an area of about 20 feet (roughly north-south) by five feet (east-west). The rubble was situated on the edge of a terrace before it dropped into a swale. Aerial images showed a small ancillary structure there as recently as March 2018. At the time of the Louis Berger survey, the structure was no longer standing and is probably now represented only by the architectural debris scatter. Modern trash was also noted throughout the area.

A total of nine (9) shovel tests (inclusive of radials) was excavated in Survey Area 4a. Stratigraphy generally consisted of a reddish brown silt loam to silty clay loam topsoil (Ap-horizon) that ranged from 14 to 30 cm deep above a yellowish red clay loam subsoil (Bt-horizon). Twenty-seven historic artifacts and one prehistoric artifact were found during the testing and recorded as Site 31GS388 (Photo 2). The prehistoric artifact was a quartz biface reduction flake. Historic artifacts included one whiteware sherd, one molded lead object (possibly the spout of a tea pot), and 25 glass bottle and jar fragments of various colors. Eighteen of the glass fragments and the quartz flake were found in a single shovel test (STP B-1). The remaining nine historic artifacts were recovered from three radial tests on the north and south sides of STP B-1. No artifacts were found in radials east and west of STP B-1.

The historic assemblage dates to after 1820, with production of many of the artifact types continuing into the twentieth century. In addition, pieces of modern plastic, glass, and rubber were mixed in with the historic artifacts, and were noted and discarded. All of the artifacts were found in the Ap-horizon. The location of the finds was in a small, cleared utility corridor with overhead lines. Between radial B-1 N7.5m and the road, subsoil was observed at the surface.

The locale was assigned state site number 31GS388. Given the low density of finds and the disturbance to the area resulting from construction (domestic and utility), Louis Berger recommends that additional work would not yield further useful information that could not be otherwise gained through oral history and records searches.

Table 1. Artifacts from Site 31GS388					
	STP				
	B-1	B-1 N7.5	B-1 S15	B-1 S7.5	Total
Lithics					**1**
Biface Reduction Flake	1				1
Glass					**25**
Jar	1			1	2
Unidentified Bottle/Jar	15				15
Unidentified Curved/Vessel Glass	2	2	1	3	8
Historic Ceramic					**1**
Whiteware		1			1
Small Finds				**1**	**1**
Molded lead fragment, possible spout				1	1
Total	**19**	**3**	**1**	**5**	**28**

2. Survey Area 4b/ Site 31GS389

Survey Area 4b was located west of the river and north of NC 275 (Figure 5). Historic maps show this area as an agricultural field going back to at least 1969. In 1987, the Town of Dallas acquired the parcel on which this survey area is located. Aerial utility lines run over this parcel and a gravel road leading to a utility hub for phone/internet can be found along the western edge of the survey area that then rises in elevation to a parking lot. East/northeast of the gravel road, the ground slopes down to the riverine terrace.

Five shovel tests and four backhoe trenches were excavated in Survey Area 4b. The trenches measured approximately 1 meter x 3 meters in size. Soil profiles were extremely varied throughout both the shovel tests and the trenches. STPs F-1 and F-2 and Trenches 1 and 2 were dug on the southeast side of the survey area (Photo 3). STP F-1 had a shallow (9-cm) dark brown clay loam topsoil (A-horizon) above a disturbed/mixed dark brown and red sandy clay. A compact strong brown sandy clay subsoil was then encountered. The area may have been disturbed by construction of the gravel road and NC 275. STP F-2 consisted of 48 cm of historic alluvium above a mottled dark brown and red sandy loam stratum overlying a reddish brown clay subsoil. STP F-1 N15m was placed next to Trench 2, where a buried cultural layer (Ab-horizon) was identified at about 75 cm below surface. The Ab-horizon did not show up in the STP until a meter had been reached. The shovel test was dug to 130 cm below surface.

STPs E-1 and E-2 and Trenches 3 and 4 were dug on the northwest side of the survey area, in or adjacent to, the transmission corridor (Photo 4). STP E-1 had five strata of alternating brown and red soils, indicating a high degree of disturbance, probably from the construction of the nearby gravel road. STP E-2 consisted of 52 cm of historic alluvium above an 11-cm thick buried cultural layer (Ab-horizon), overlying a yellowish brown fine sandy loam subsoil. Trenches 3 and 4 were dug to the north and south of STP E-2, respectively. No Ab-horizon was present in Trench 3; however, an Ab-horizon was detected at about 38 cm below surface in Trench 4.

Four (4) historic artifacts were found during the survey and recorded as Site 31GS389 (Table 2). Shovel test E-2 produced one pearlware sherd from the buried cultural horizon (about 55 cm bgs). A single sherd of pearlware was also found in the Ab-horizon in nearby Trench 3 at about 48 cm below surface (Photo 5). Two sherds of whiteware were recovered from a buried cultural horizon in STP F-1 N15m from between 120 and 130 cm below ground surface. No other shovel tests or trenches encountered an Ab-horizon or produced artifacts. Given the extreme unknowns and diversity of the soil profiles, the time required to dig one-meter deep STPs, the sparse number of finds, and the disturbed nature of the survey area, radial tests were not excavated.

Table 2. Artifacts from Site 31GS389				
	Trench 3	**E2**	**F-1 N15**	**Total**
Historic Ceramic				**4**
Pearlware (ca. 1775-1840)	1			1
Pearlware - Underglaze Handpainted – Blue		1		1
Whiteware 1820-2000			2	2
Total	**1**	**1**	**2**	**4**

No structures are depicted in the survey area on historic maps, but one is shown about one mile west on the 1909 soil survey map. The 1931 Industrial and Farm Map of Gaston County shows the Stroup Family had farms on both sides of the roadway but no structures are shown in the vicinity of the survey area. It is probable that the artifacts recovered were field scatter associated with early (nineteenth century) farming at the location. As such, Louis Berger recommends that Site 31GS389 is not eligible for listing in the NRHP.

3. Survey Area 4c

Survey Area 4c was located west of the South Fork of the Catawba River and south of NC 275 in an agricultural field (Figure 5). A sewage treatment pump station is on the west/southwest side of the survey area and a manhole was located on the north side of the survey area (Photo 6). No structures are depicted at the location on historic maps.

Eight (8) shovel tests and four (4) deep backhoe trenches were dug in the survey area. Shovel tests G-1 and G-2 each had a deep fill of red clay with asphalt and gravel. Trench 5 was dug just east of STP G-2 and the same deep fill was encountered to below a meter. This is likely disturbance related to construction of the sewage line. That part of the field was absent of harvested corn suggesting that the soil is not good for planting. STPs G-3, G-4, H-3, and H-4 consisted of strong brown sandy loam historic alluvial deposits to below a meter. Trench 6, which was dug on the west side of STP H-4, exposed a deep alluvial layer to 130 cm below surface. STPs H-1 and H-2 consisted of reddish brown to yellowish red alluvium to 64 cm and 57 cm below surface, respectively. STP H-1 had a reddish yellow sandy clay subsoil and STP H-2 had a brown fine sandy loam subsoil. Trench 7, placed just north of STP H-2, encountered a buried horizon (2Ab) at almost 90 cm below surface. No artifacts were found during the testing.

4. Survey Area 4d

Survey Area 4d was located east of the river and south of NC 275. At the time of the survey, it was a near-level harvested corn field with a wooded area between the field and the river (Figure 6). The west side of the area was bounded by slope up to NC 275, by the edge of the APE to the east, slope up to a dirt road to the north, and the river to the south. Two large pits, possibly mined for sand, were noted on a levee remnant on the east side of the survey area just above the river.

Nine (9) shovel tests and five (5) backhoe trenches were dug in the survey area. The remains of what appears to have been an old in-filled roadbed were found in Trench 12 and STP I-2 (Photo 7). Approximately three feet (one meter) of fill was encountered above subsoil. It is possible that this is disturbance related to the earlier road alignment and bridge over the river. No farm roads are depicted here on any historic or later maps and it seems unlikely this was a traditional farm road. No corn has grown along its alignment.

On the north side of the old road, STP I-1 encountered a buried level (Ab-horizon) at almost one meter below surface. Stratigraphy consisted of a 10-cm deep brown sandy loam topsoil (A-horizon) above a 6-cm deep mottled brown and strong brown sandy loam horizon, likely the result of disturbance from road

construction, overlying a dark yellowish brown sandy loam horizon, possibly a buried cultural level (Ab-horizon). Due to the depth, the entirety of the possible Ab-horizon could not be excavated.

Trench 9, placed on the terrace above the river, and Trench 10, which was situated approximately 45 feet farther back on the terrace from the river, were placed on an old levee (Photo 8). STP I-4 was situated on the west side of Trench 9. Stratigraphy consisted of historic alluvium to 21 cm below surface above a yellowish red sandy clay that contained fragments of burnt wood and asphalt. At 48 cm below surface, a rock impasse was encountered. The stratigraphy suggested disturbance related to the old road alignment.

The old levee stratum was also noted in Trench 10 at about 95 cm below surface overlying sand parent material. Shovel test J-1 was placed about two feet west of Trench 10, between the trench and the river, to look for artifacts in the levee soils. A deep yellowish brown alluvial sand sat above the buried levee (2Ab-horizon), which was found at 97 cm below surface in the STP.

The remainder of shovel tests in the field contained deep layers of historic alluvium. In Trench 13 and STP K-2 a gleyed layer was encountered below alluvium and water began seeping into the trench at about 90 cm below surface. No artifacts were encountered during the testing in this survey area.

5. Survey Area 4e

Survey Area 4e was located northeast of the river and northwest of NC 275 in an agricultural field (see Figure 6). It was bounded by the river to the west/southwest, the slope up to NC 275 to the south/southeast, the edge of the APE to the northwest, and the slope up to SR 1836 (Old Willis School Road) to the northeast. Overhead utility lines run parallel to NC 275 along the northwest side of the APE. No structures are depicted at this location on historic maps.

Eight (8) shovel tests and one (1) deep trench were excavated in the survey area. Stratigraphy generally consisted of a reddish brown to brown fine sandy clay loam plowzone/alluvium (Ap-horizon), which ranged from 16 to 28 cm deep, above a brown to strong brown fine sandy loam historic alluvium (B/C-horizon), overlying a brown sand (C-horizon). However, a dark yellowish brown buried stratum (2Ab-horizon) was encountered in Trench 14 and STP L-1 (Photo 9). Shovel test L-4 was dug on the levee above the river and had a thick (ca. 67-cm) brown fine sand alluvium above a mottled brown sand alluvium to over a meter. Shovel test M-1 contained a deep (past 90 cm) stratum that contained mixed soils of those typically found across the site. This STP was placed near the northeast corner of the survey area near the intersection of NC 275 and Old Willis School Road, suggesting a level of disturbance brought about by road construction.

6. Survey Area 4f/ Site 31GS244

Survey Area 4f was situated on the south side of NC 275, within the NRHP boundary of the Hoyle House (GS0022) property, at the western extent of the overall APE (Figure 7). This survey area sloped down from west to east and from south to north towards the roadway. Therefore, the northeast quarter was the lowest-lying area. The entry road off NC 275 cuts through the west side of the survey area, and the historic house and yard are surrounded by a chain link fence. Site 31GS244 is associated with the Hoyle House property. It was first identified as a prehistoric locus located outside the current APE to the southeast.

Eight (8) shovel tests were dug in the survey area. Stratigraphy was varied across the site but generally consisted of a strong brown silt loam plowzone (Ap-horizon) above a yellowish red clay loam subsoil (Bt-horizon). STP C-1, closest to the roadway, had a shallow (7-cm deep) plowzone and STP C-4 had a deeper (ca. 20-cm thick) plowzone. STP C-3 had red subsoil exposed at the surface. STP D-1 contained five disturbed strata, which may relate to the removal/destruction of the Hoylesville Post Office (GS0214), the location for which is mapped by HPOWEB about 50 feet to the north. However, no artifacts were recovered to make a definitive correlation. Water was encountered in STP D-4 at about 75 cm below surface.

Feature 1 was found during the excavation of STP C-2. The STP was located on the west side of the driveway, on the south side of a pile containing architectural debris (a piece of concrete slab and possible mortar). The debris pile measured approximately four (4) meters east-west by three (3) meters north-south. The upper stratum of STP C-2 had an 8-cm deep level of strong brown silt loam topsoil that sat above a mixed strong brown and yellowish red disturbed layer to 20 cm below surface. Feature 1 was identified as a possible pit below (and possibly cut by) the overlying mixed stratum. The feature was 20 cm deep. Below that was a very compact yellowish red clay loam subsoil.

Since the shovel test essentially bisected Feature 1, the shovel test was extended to the north in order to attempt to come down on top of the feature to get a plan view. However, the feature was amorphous and difficult to delineate. Given the disturbance in the immediate area (including the debris pile and the disturbed upper soil strata, this is likely not an intact structural feature. Looking at it in profile, the feature could be a filled in depression (Photo 10), possibly related to the removal of the Hoylesville Post Office (built ca. 1810) that once stood roughly 150 feet southwest of Feature 1 (as mapped by HPOWEB).

Feature 2 was located in STP D-2. It appears to be a mixed multi-layer, multi-period deposit from which a small number of late nineteenth to mid-twentieth century artifacts were collected (Photo 11). It looks like a depression that may have been filled in with structural debris and artifacts that post-date the earliest period of the Hoyle occupation. Modern material like sand mortar, asphalt shingle pieces, and a cut stone were also noted in the shovel test but were not kept. All of the material has clearly been redeposited.

A total of 34 historic artifacts was collected during the testing (Table 3) and has been recorded as an additional component to previously identified Site 31GS244.

Table 3. Artifacts from Site 31GS244

	STP						
	C-2	**C-4**	**D-1**	**D-2**	**D-3**	**D-4**	**Total**
Glass							**10**
Lamp Chimney				1			1
Unidentified Glass	1		1	5	1	1	9
Historic Ceramic							**4**
Pearlware		1					1
Stoneware - Alkaline Glazed						1	1
Whiteware	2						2
Personal							**1**
Jewelry Bead				1			1
Architectural							**17**
Machine Cut Nail	1			1			2
Window Glass				9		1	10
Wire Nail				5			5
Other							**2**
Unidentified Plastic				2			2
Total	**4**	**1**	**1**	**24**	**1**	**3**	**34**

A single piece of whiteware and a glass shard were collected from the topsoil in STP C-2, and a whiteware sherd and a cut nail were found in the Feature 1 fill. No other artifacts were encountered in the STP or Feature 1 fill. Feature 2 had a mixed-period assemblage of window glass, vessel glass, and a plastic bead from child's necklace in a stratum between 6 and 14 cm below surface. Wire nails, a cut nail, window glass, and glassware were found in a series of disturbed soils between 14 and 43 cm below surface. Asphalt roofing and sand mortar were found between 31 and 71 cm below surface. Although one sherd of pearlware, likely related to the early Hoyle occupation, was found in STP C-4, its location is not considered to be a

primary cultural deposit, most likely displaced or removed from its original context to be located about 200 feet downslope from the house.

Given the disturbed contexts of Features 1 and 2 and the limited number of finds within the survey area, Louis Berger recommends that the portion of Site 31GS244 located within the APE is not eligible for listing in the NRHP. Remains of the Hoylesville Post Office (GS0214), in particular its foundation or builder's trench, may yet be found within the limits of Site 31GS244; however, it is possible that the post office was originally located slightly farther west (and outside the Study Area) than is currently mapped.

DISCUSSION

As a result of the survey, two newly identified archaeological sites were documented within the Study Area. Consisting of a light early 20th-century artifact scatter, Site 31GS388 is located on an upland terrace in the vicinity of where the Oates-Rhyne Log House (GS0213) once stood. Consisting of a small collection of 19th to early 20th century ceramic sherds, Site 31GS389 is located on the north bank of the South Fork of the Catawba River. Louis Berger recommends both sites as not eligible for listing in the NRHP under Criteria A through D. A portion of Site 31GS244 (associated with the Hoyle Homestead property [GS0022]) was revisited as part of this survey. Although historic artifacts were present within the portion of the site overlapped by the proposed Study Area, all artifacts were found within disturbed contexts, suggesting an overall lack of archaeological integrity on the north side of the homestead as one approaches NC 275. Therefore, Louis Berger recommends that portion of the site as not eligible for listing in the NRHP.

A total of 9.13 acres was tested through the excavation of 48 shovel test pits (STPs). Fourteen (14) backhoe trenches were dug in Survey Areas 4b through 4e. The results of the trenching are attached at the end of this document. A total of 41.47 acres was not tested due to recent construction/disturbance, steep slope, or saturated soils and/or standing water.

Based on the results of this survey, no additional archaeological work is recommended in conjunction with the proposed bridge project. If the project scope changes to include areas beyond the Study Area or if design plans change prior to construction, further archaeological investigation will be necessary.

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

☒ There are no National Register listed or eligible ARCHAEOLOGICAL SITES present 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 Louis Berger Group conducted these investigations on behalf of NCDOT's Archaeology Group under the guidelines of the department's Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). As a result of these investigations, two newly identified archaeological sites (31GS388 and 31GS389) and one revisited site (31GS244) were documented within the limits of the project's proposed Study Area. Site 31GS388 consists of a sparse early 20th-century artifact scatter and is located on an upland terrace in the vicinity of where the Oates-Rhyne Log House (GS0213) once stood. Site 31GS389 consists of a small collection of 19th to early 20th century ceramic sherds and is located along the southwest bank of the South Fork of the Catawba River. Louis Berger recommends both sites as not eligible for listing in the NRHP under Criteria A through D. A portion of Site 31GS244 (associated with the Hoyle Homestead property [GS0022]) was revisited as part of this survey. Although historic artifacts were present within the portion of the site overlapped by the proposed Study Area, all artifacts were found within disturbed contexts, suggesting an overall lack of archaeological integrity on the north

side of the homestead as one approaches NC 275. Therefore, Louis Berger recommends that portion of the site as not eligible for listing in the NRHP. This does not preclude there being archaeological deposits in more sensitive areas within the NRHP boundary of the Hoyle House Property (i.e., around the house and any outbuildings and throughout the surrounding 9 acres to the south and east).

I concur with these findings. It is recommended that the proposed project be allowed to proceed without concern for impacts to significant archaeological resources. Additional fieldwork within the Study Area is unlikely to provide any significant or substantial amounts of archaeological data. Therefore, it is recommended that additional archaeological work should not be required. Based on the recommendation put forth (see above), a finding of "No NRHP-Eligible or -Listed Archaeological Sites Present" is considered appropriate for the proposed project. However, should the description of this project or designs plans change prior to construction, then additional consultation regarding archaeology may be required. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

To understand the reasoning for the timeframe between when survey occurred and the completion of this form, please know that in order to complete this project (and, thus, the form), a review of preliminary design plans was necessary given the presence of the Hoyle House Property within the Study Area. The Hoyle House Property was listed on the NRHP in 1993. While preliminary design plans were being developed, this project was then placed internally on the Suspension List. Work on this project is just now being restarted in January 2020. At this time, four (4) alternatives have been developed for this project, with the closest being 400 feet east of the Hoyle House Property. Based on the results presented above, there are no archaeological concerns regarding that portion of the Hoyle House Property within the Study Area.

**This project falls within a North Carolina County in which the following federally recognized Tribe(s) has expressed an interest: 1) Cherokee Nation of Oklahoma, 2) Eastern Band of Cherokee Indians, 3) United Keetoowah Band of Cherokee Indians, and 4) Catawba Indian Nation. It is recommended that you contact each federal agency involved with your project, if applicable, to determine their Section 106 Tribal consultation requirements. Please know that no State-recognized tribes have expressed interest in activities within this county.

SUPPORT DOCUMENTATION

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

Paul J. Mohler

January 21, 2020

NCDOT ARCHAEOLOGIST **Date**

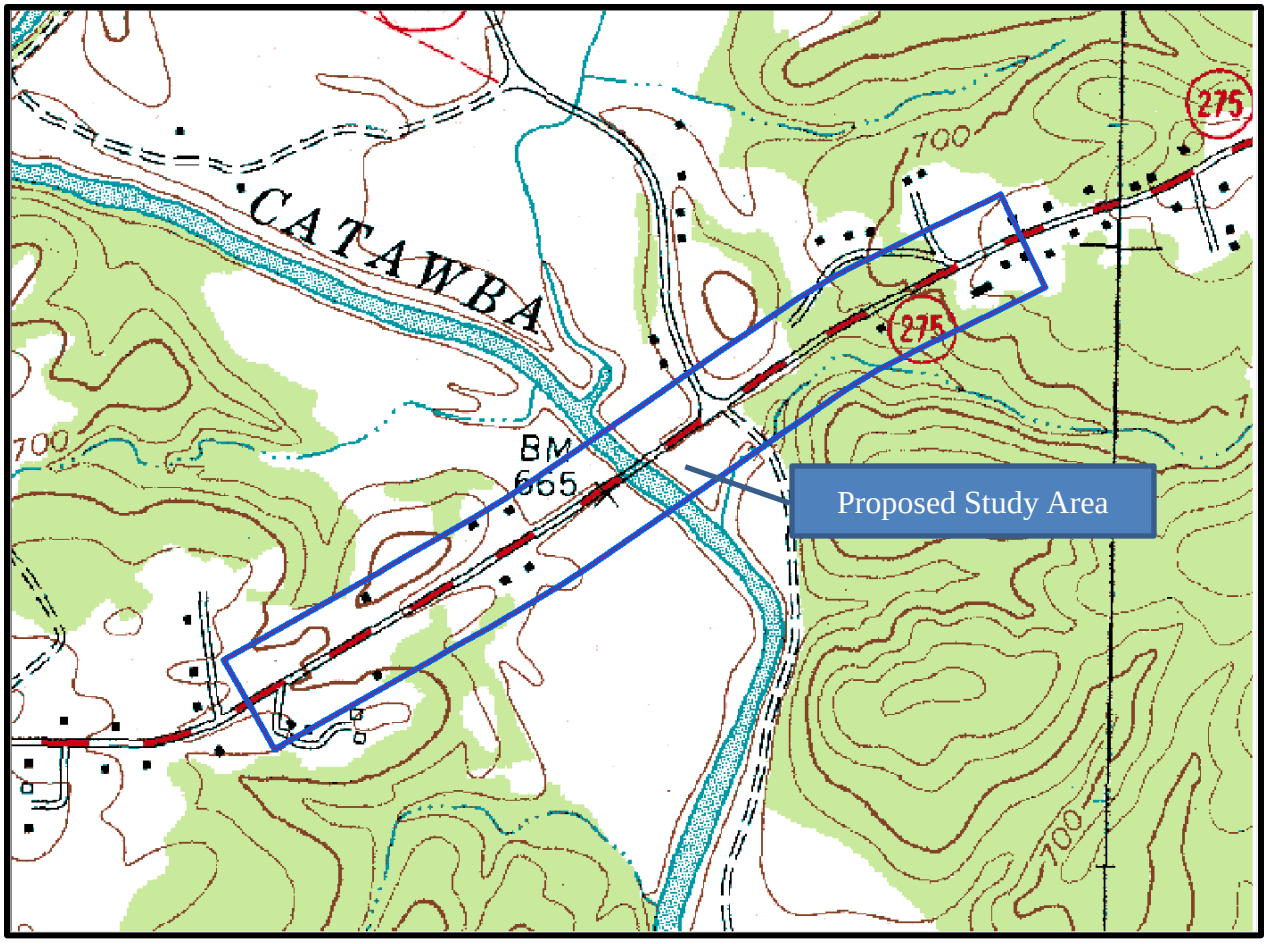

Figure 1: Gastonia North, NC (USGS 1970).

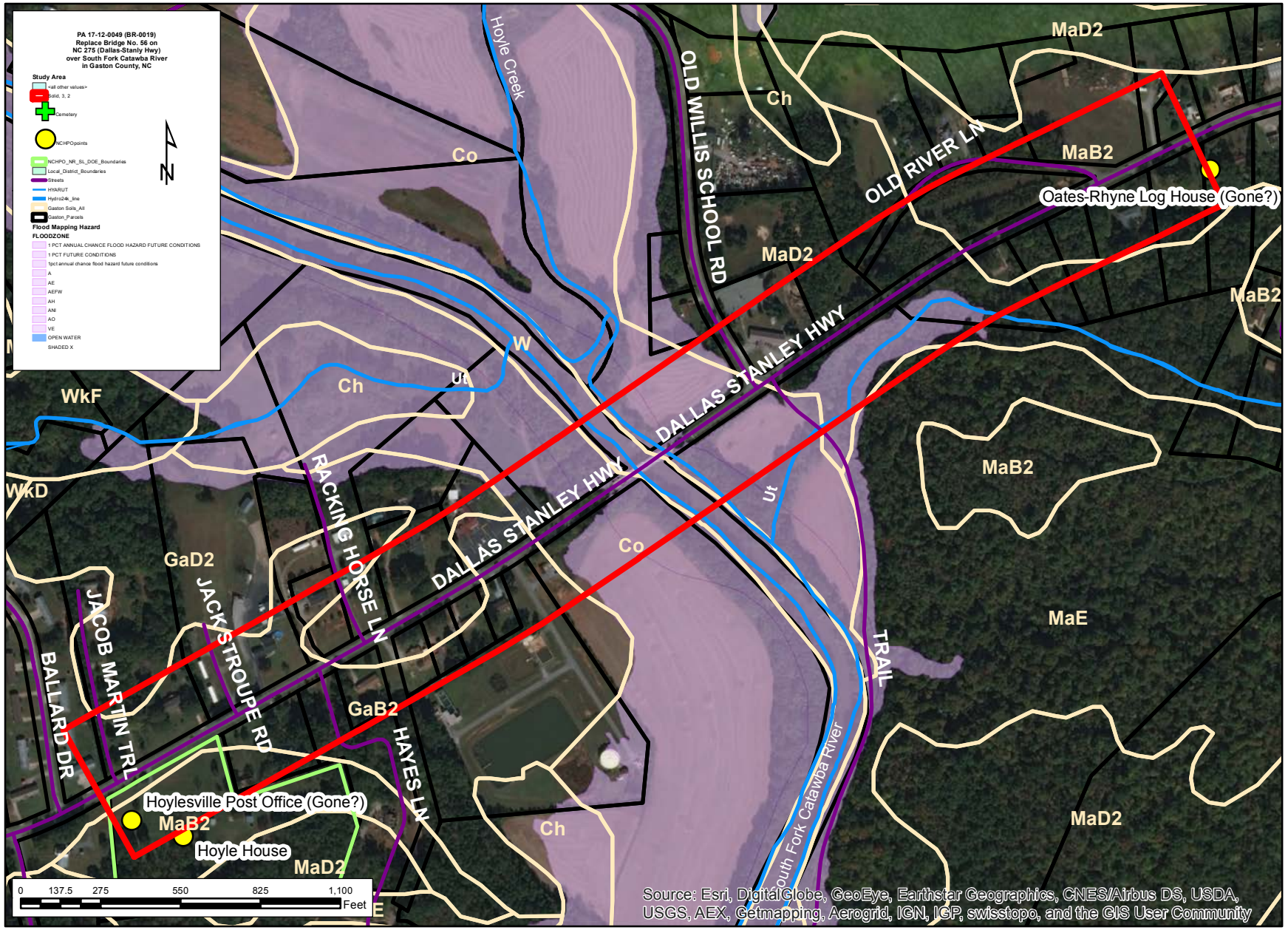

Figure 2. BR-0019 Survey Area Location.

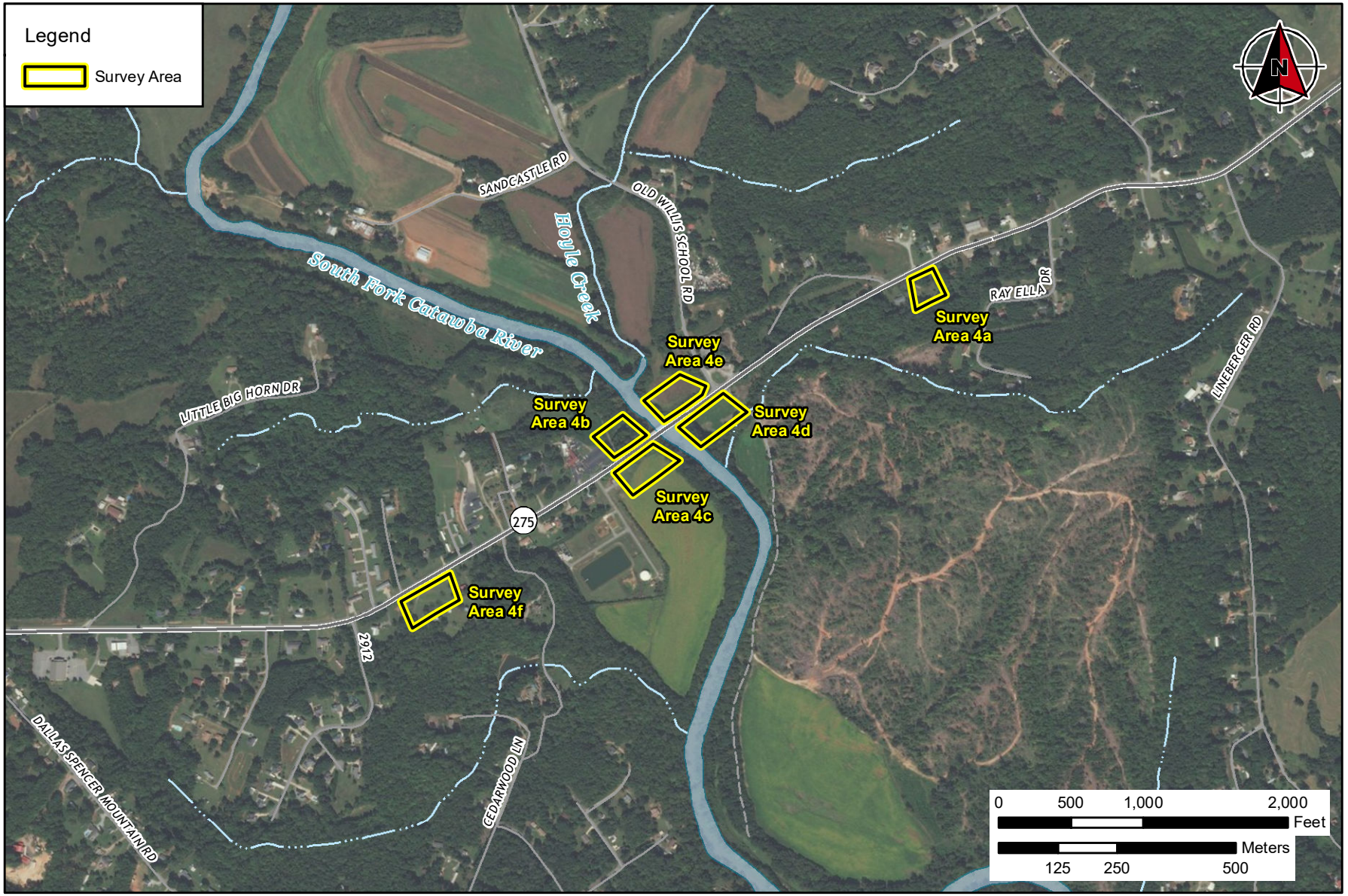

Figure 3: Survey Area 4 (ESRI World Imagery 2017, USGS Gastonia North 2016b, USGS Mount Holly 2016d).

Figure 4: Survey Area 4a and Site 31GS388 (ESRI World Imagery 2017).

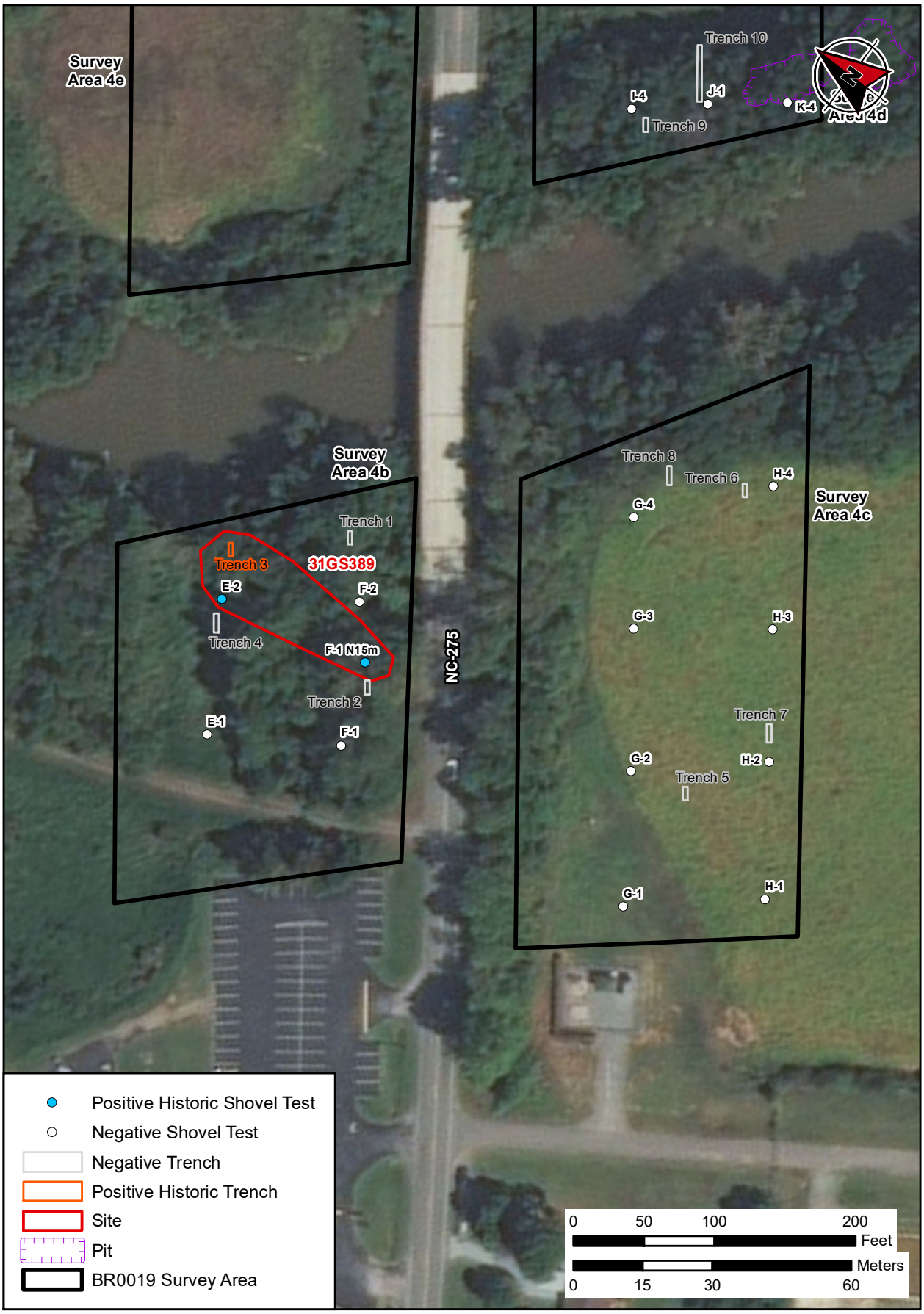

Figure 5: Survey Areas 4b and 4c and Site 31GS389 (ESRI World Imagery 2017).

Figure 6: Survey Areas 4d and 4e (ESRI World Imagery 2017).

Figure 7: Survey Area 4f and Site 31GS224 (ESRI World Imagery 2017).

Photo 1. Modern house, trash, and light pole in Survey Area 4a, facing northwest.

Photo 2. Location of Site 31GS388 in Survey Area 4a, facing north.

Photo 3. Digging STP F-1 in Survey Area 4b, facing northwest.

Photo 4. Digging STP E-1 in Survey Area 4b, facing northeast.

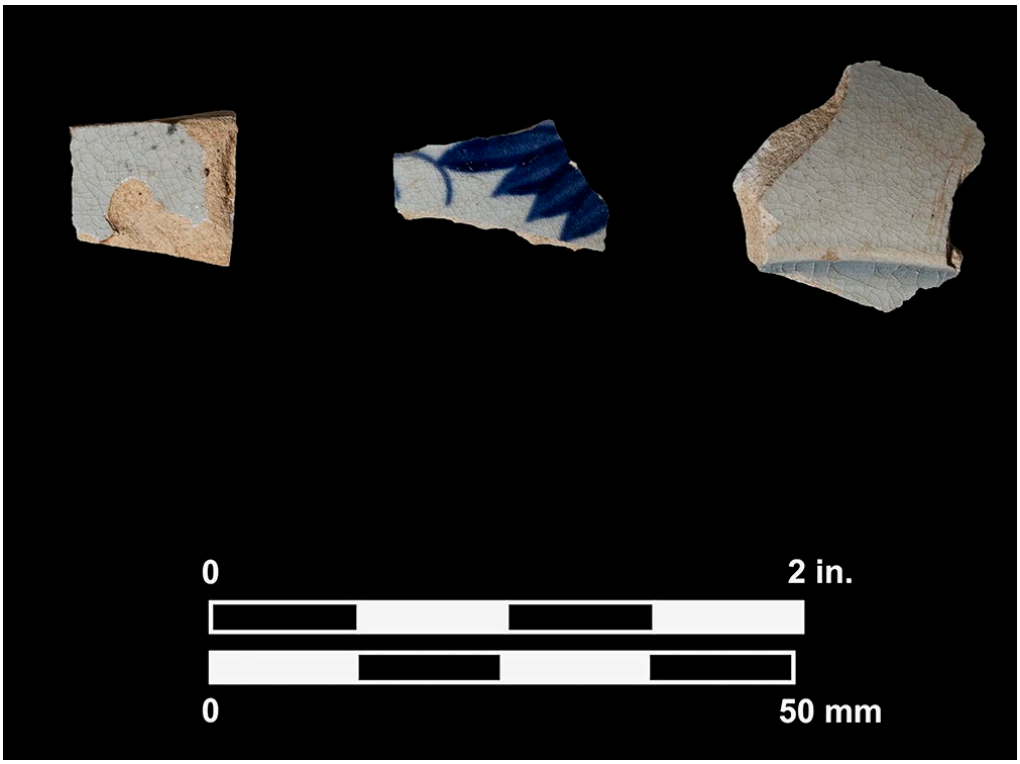

Photo 5. Pearlware sherds from Site 31GS389 (FN 303.1; 401.1; 403.1).

Photo 6. Overview of Survey Area 4c, facing northeast.

Photo 7. Fill of old road alignment in Survey Area 4d, Trench 12, facing east.

Photo 8. Levee soils in Trench 10, Survey Area 4d, facing south.

Photo 9. Buried soils in Trench 14, Survey Area 4e, facing northwest.

Photo 10. STP C-2/ Feature 1 closing, facing east.

Photo 11. STP D-2/ Feature 2 closing, facing west.

Deep Testing for Buried Cultural Deposits at Bridge No. 56,
NC 275 (Dallas-Stanley Highway) over the South Fork of the Catawba River
Gaston County, NC

Prepared for:

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Louis Berger Group
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Raleigh, NC 27605

Prepared by:

Seramur and Associates, PC
165 Knoll Drive
Boone, NC 28607

February 14, 2019

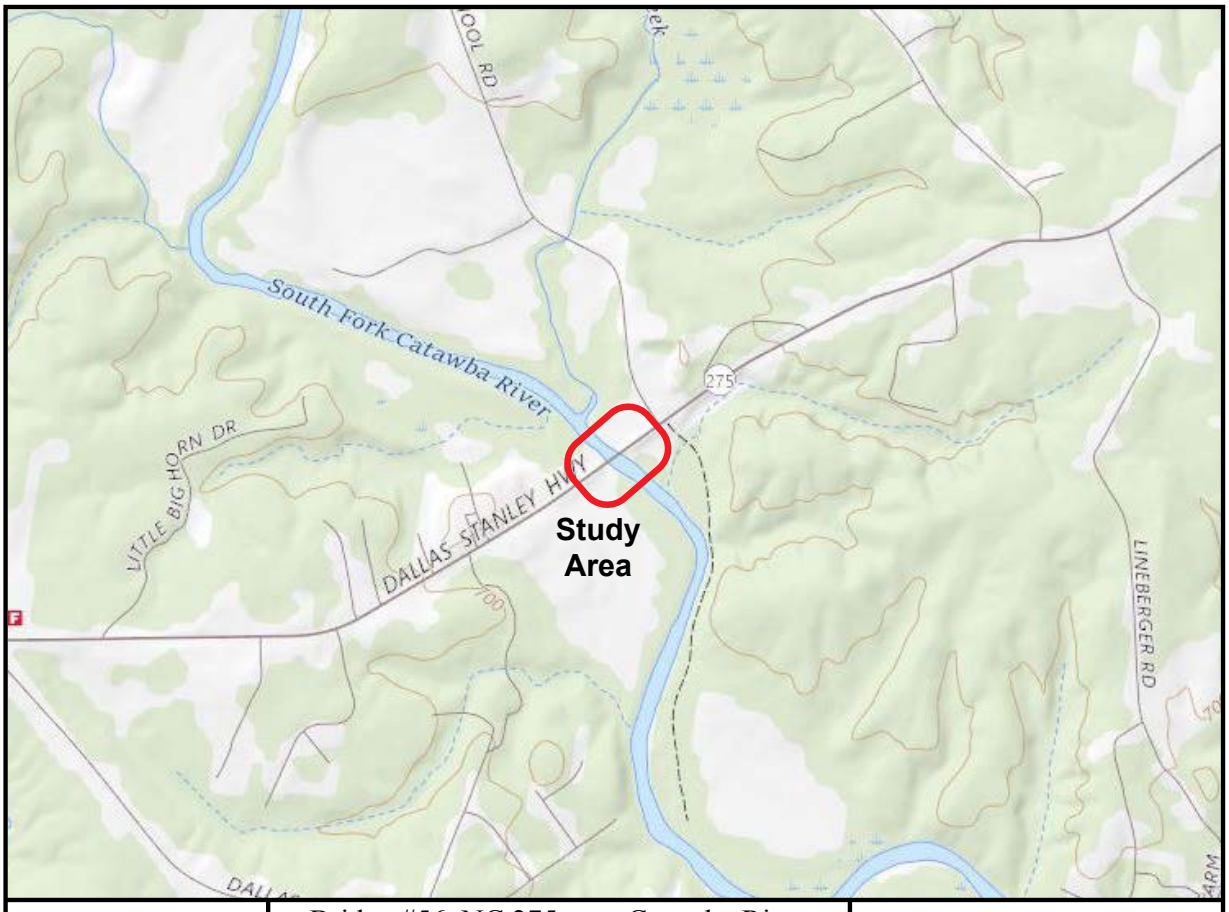

Figure 1 Site Location Map Source: U.S.G.S. The National Map	Bridge #56, NC 275 over Catawba River Gaston County, NC Seramur & Associates, PC Boone, NC	0 300 600 Meters N

Phone: 828.264.0289 seramur@icloud.com Cell: 828-773-0499

Introduction

Seramur and Associates, PC was contracted by Louis Berger Group to complete a geomorphology investigation on the T1 terrace of the South Fork of the Catawba River at Bridge 65, NC 275 (Dallas-Stanley Highway) in Gaston County, NC (Figure 1). The purpose of this investigation was to excavate backhoe trenches and describe geomorphology and soil profiles at this bridge crossing. Deep testing and soil descriptions were used to look for buried soils and cultural deposits in the Catawba River alluvium.

Methods

Geomorphology of the area is described from a topographic map, soil survey map, trenching and the field reconnaissance. Soil profiles can provide evidence of sediment deposition, periods of soil formation and historic erosion. Soil profiles were described for fourteen backhoe trenches. Each soil profile was described following standard soil taxonomy (Birkeland, 1999; and Schoeneberger et al., 1998).

Geologic Setting

The study area is located on the Piedmont in the Kings Mountain Geologic Belt, which is underlain by igneous and metamorphosed bedrock. The North Carolina Geologic Map (NCGS, 1985) shows bedrock mapped at the bridge crossing as the High Shoals Granite (Figure 2).

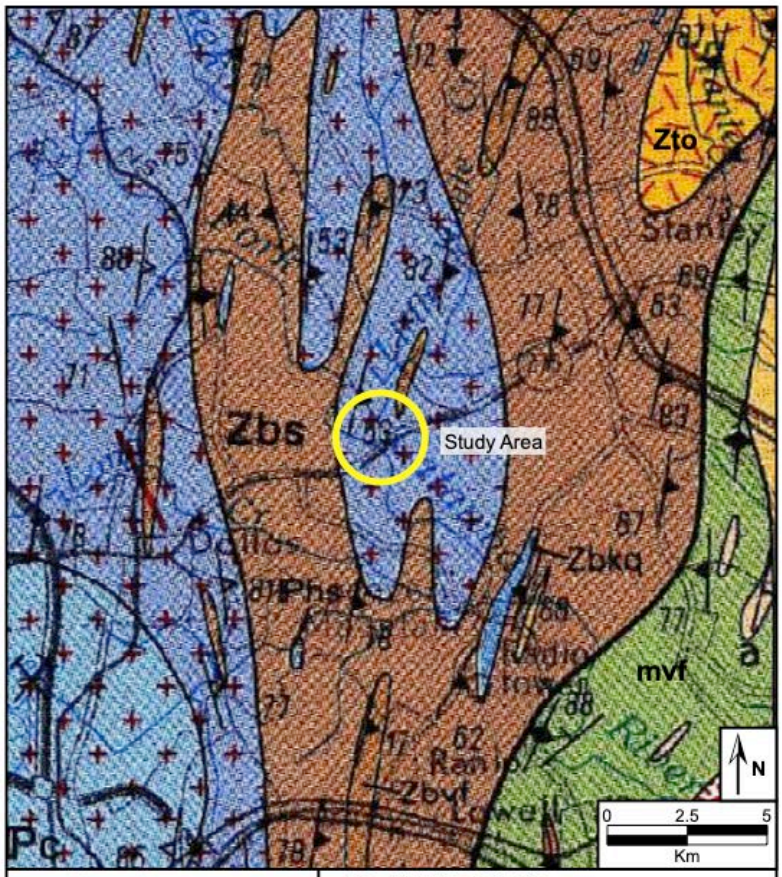

Figure 2 Geology Map
Source: U.S.G.S. The National Map

Bridge #56, NC 275 over Catawba River, Gaston County, NC

Seramur & Associates, PC
Boone, NC

Phs - High Shoals Granite
Zbs - Battleground Formation - Quartz-sericite Schist
PPc - Churchland Plutonic Suite
mvf - Charlotte Belt - felsic metavolcanics
Zbvf - Battleground Formation - felsic metavolcanics
Zbkq - Battleground Formation - kyanite quartzite
Zto - Metatonalite

The study area is located on a T1 terrace of the South Fork of the Catawba River (Figures 3, 4 and 5). The river channel flows along a series of linear stream segments in the vicinity of the project area (Figure 1). Linear stream segments indicate that the stream channel is following bedrock fractures and that the stream channel is limited to a fairly narrow valley. The T1 terrace ranges from 100 to 150 meters wide on each side of the river (Figure 3). The T1 terrace on the north side of NC 275 and west of the river appears to have been filled in for a restaurant parking lot.

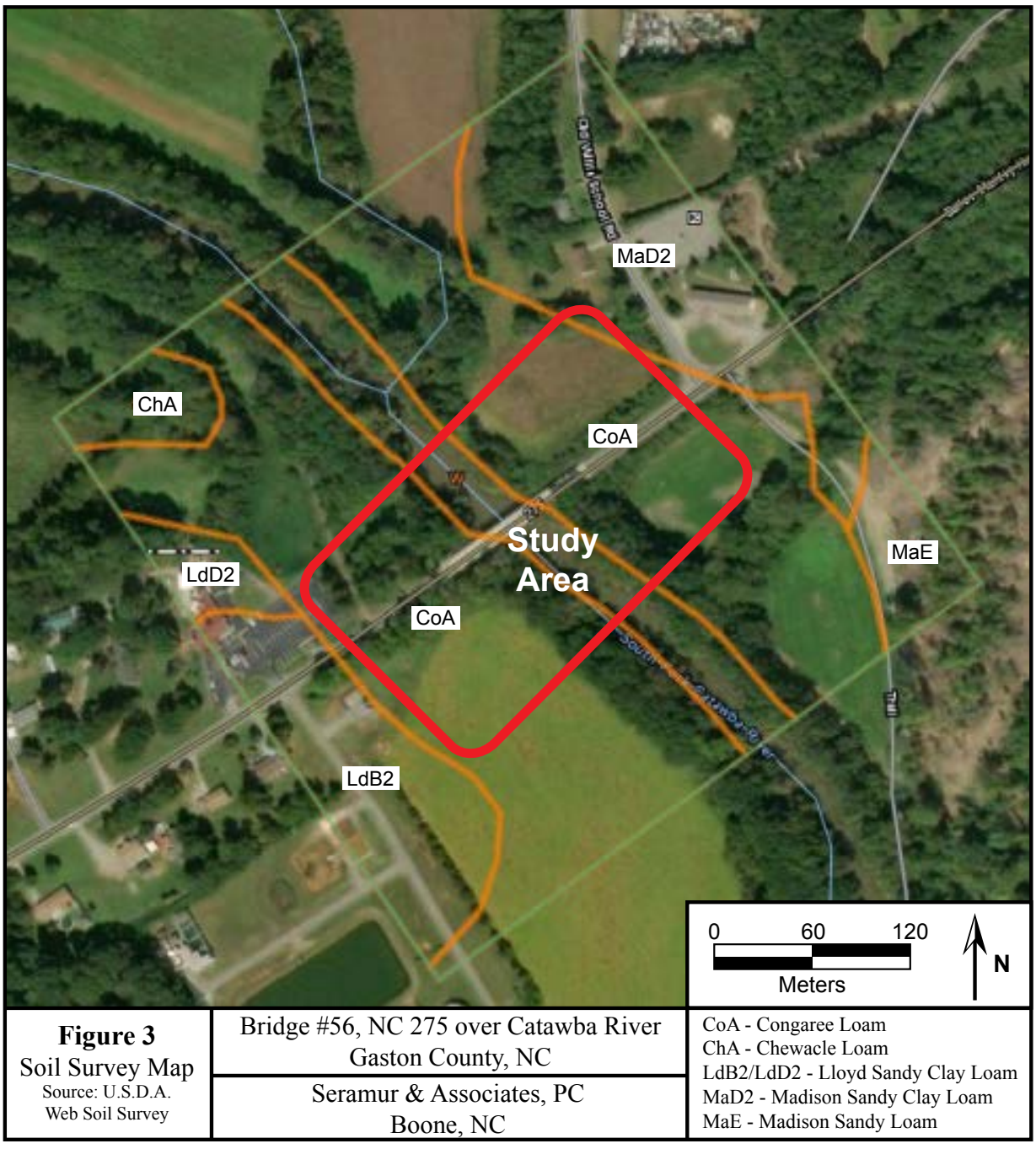

Figure 3
Soil Survey Map
Source: U.S.D.A. Web Soil Survey

Bridge #56, NC 275 over Catawba River
Gaston County, NC

Seramur & Associates, PC
Boone, NC

CoA - Congaree Loam
ChA - Chewacle Loam
LdB2/LdD2 - Lloyd Sandy Clay Loam
MaD2 - Madison Sandy Clay Loam
MaE - Madison Sandy Loam

Soils at the site are mapped as the Congaree Loam and the parent material is described as "loamy alluvium derived from igneous and metamorphic rock" (U.S.D.A., 2019) (Figure 3). The soil survey describes a typical soil profile of the Congaree Loam as being an Ap-horizon (plow zone) over a C-horizon (alluvial parent material).

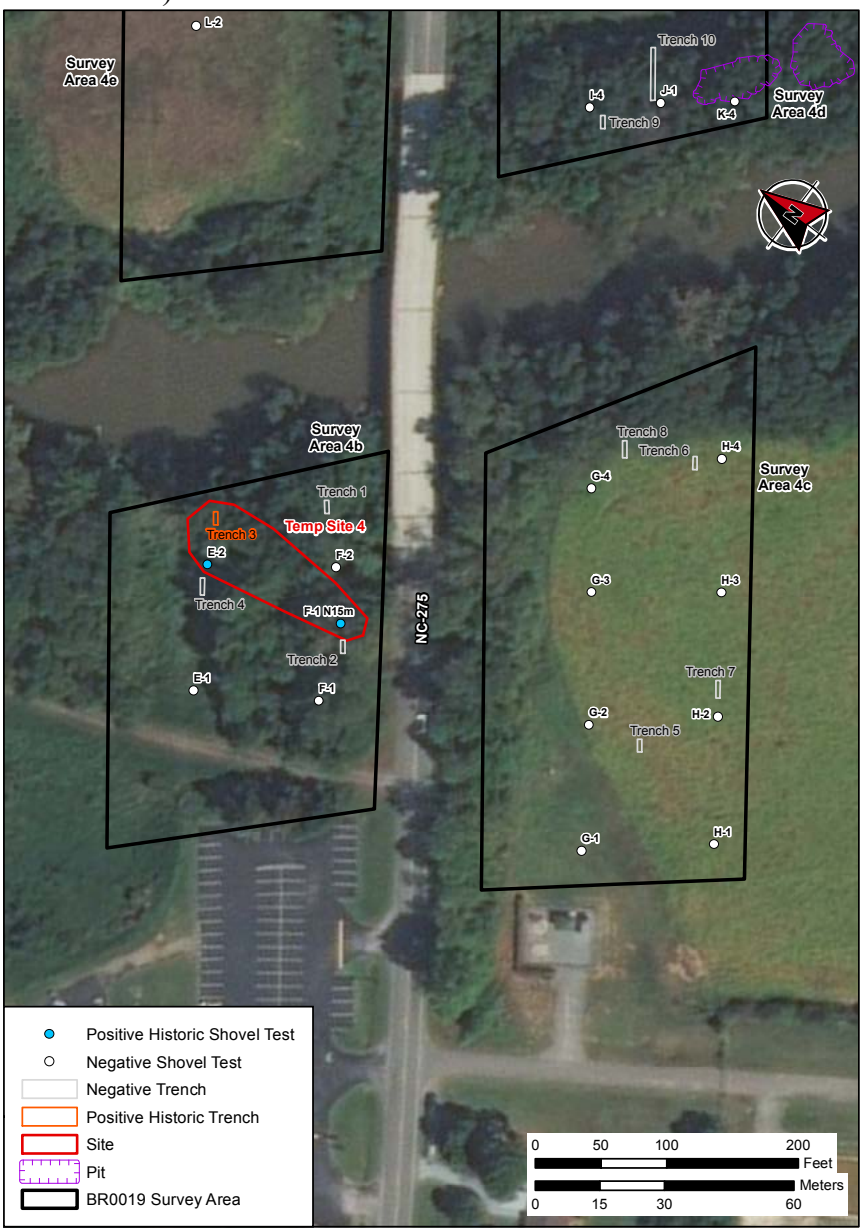

Figure 4. Trench locations on southwest side of river.
(Image provided by Louis Berger (ESRI World Imagery 2017))

The A-horizon is a mixture of organics and mineral grains. The root mat along the top of the A-horizon is often labeled an Ao-horizon. An E-horizon is an eluvial zone or zone of leaching. Silt and clay move down through the soil profile from the E-horizon into the B-horizon through the process of translocation. The B-horizon is a zone of illuviation where silt and clay particles accumulate by adhering to the surfaces of sand grains. The clay particles in the B-horizons have negatively charged surfaces. Ions of Fe^{+2} precipitate out onto the surface of these clay particles giving the B-horizon a reddish hue.

Figure 5. Trench locations on northeast side of river.
(Image provided by Louis Berger (ESRI World Imagery 2017))

Results

The trench profiles described in the study area consisted of historic alluvium deposited above a buried soil profile. Eight trenches were excavated into the T1 terrace on the southwest side of the South Fork of the Catawba River (Figure 4).

Trenches 1-4 were excavated north of NC 275. Trench 1 was excavated into the levee. This soil profile consisted of 50 cm of historic alluvium over a disturbed 2A/Cb-horizon (Figure 6). Soil development in the base of the trench included a leached 2Eb-horizon over a 2Bwb-horizon. Trench 2 was excavated southwest of Trench 1, further from the river channel (Figure 4). Historic sediment in Trench 2 extended to a depth of 75 cm. The buried soil profile consisted of a 2Ab-horizon over a 2Eb-horizon (Figure 6). Trench 3 was excavated into the back of the levee northwest of Trench 1 (Figure 4). Historic sediment

was only 23 cm thick at this location. The buried soil consisted of a 2Eb-horizon over a 2Bwb-horizon (Figure 6). Trench 4 was excavated southwest of Trench 3, further from the river channel. Soil consisted of 38 cm of historic alluvium over a thick 2Ab-horizon (Figure 6). Soil development in the base of the trench included a leached 2Eb-horizon over a 2Bwb-horizon. An area of stained soil in the base of the trench was attributed to tree root disturbance.

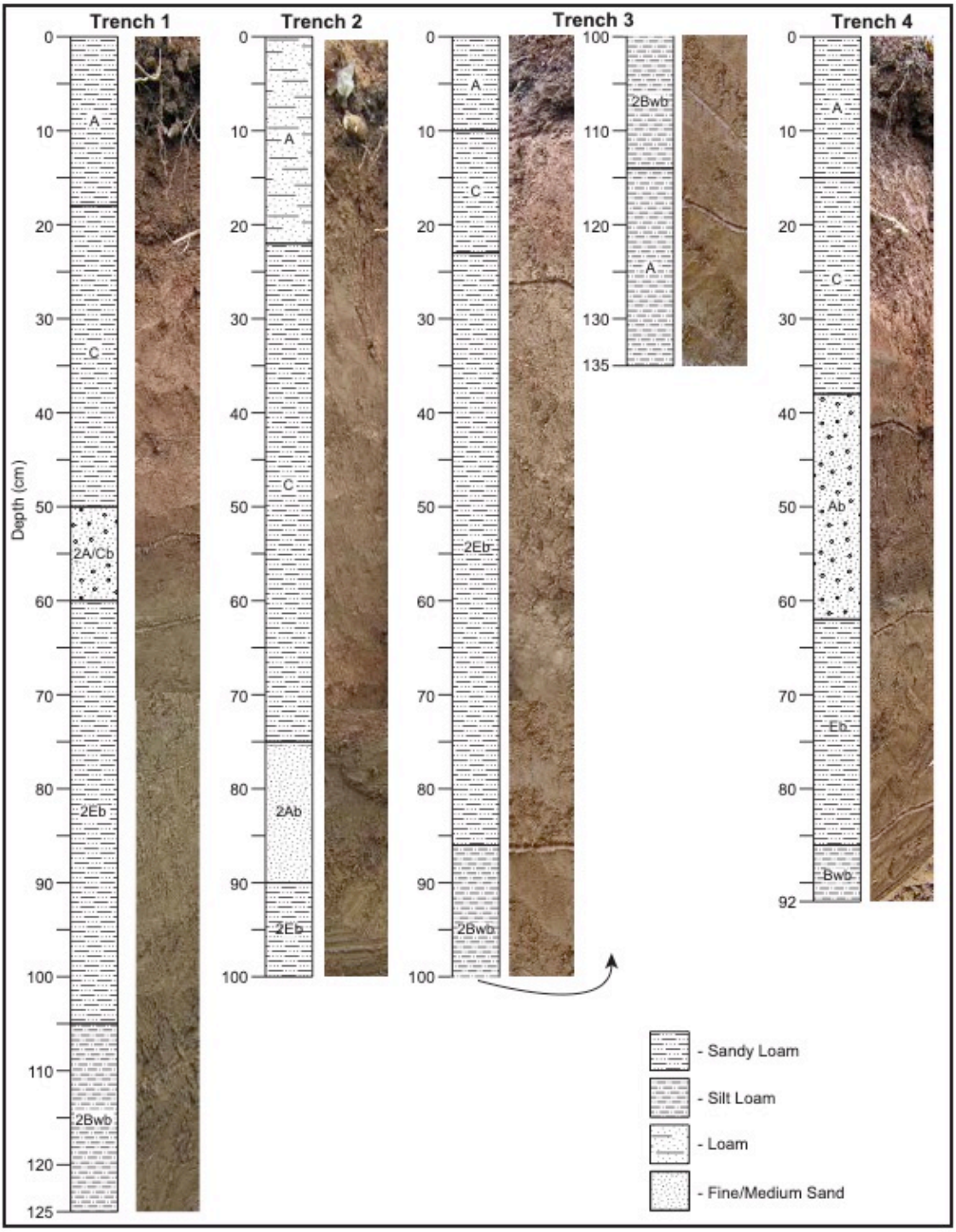

Figure 6. Field logs for Trenches 1-4.

Trenches 5-8 were excavated south of NC 275 (Figure 4). Trench 5 was excavated into 125 cm of fill material (Figure 7). Trench 6 was excavated into the back of the levee and historic alluvium extended to a depth of 130 cm. The buried soil profile at this location included a mixed 2A/C-horizon over a 2Ab-horizon (Figure 7). A transitional 2A/B- horizon was recorded in the base of the trench. Trench 7 was excavated into the toe of the slope that extends up onto the southwest side of the river valley (Figure 4). The upper portion of this trench profile consisted of 33 cm of fill material over historic alluvium that extended to a depth of 69 cm. A mixed 2A/C-horizon, 2Ab-horizon and 2Eb-horizon were recorded in the lower soil profile (Figure 7). Trench 8 was excavated into the top of the levee (Figure 4). The historic alluvium in this trench extended to a depth of 120 cm. The buried soil profile below this included a 2Ab-horizon over a 2Eb-horizon (Figure 7).

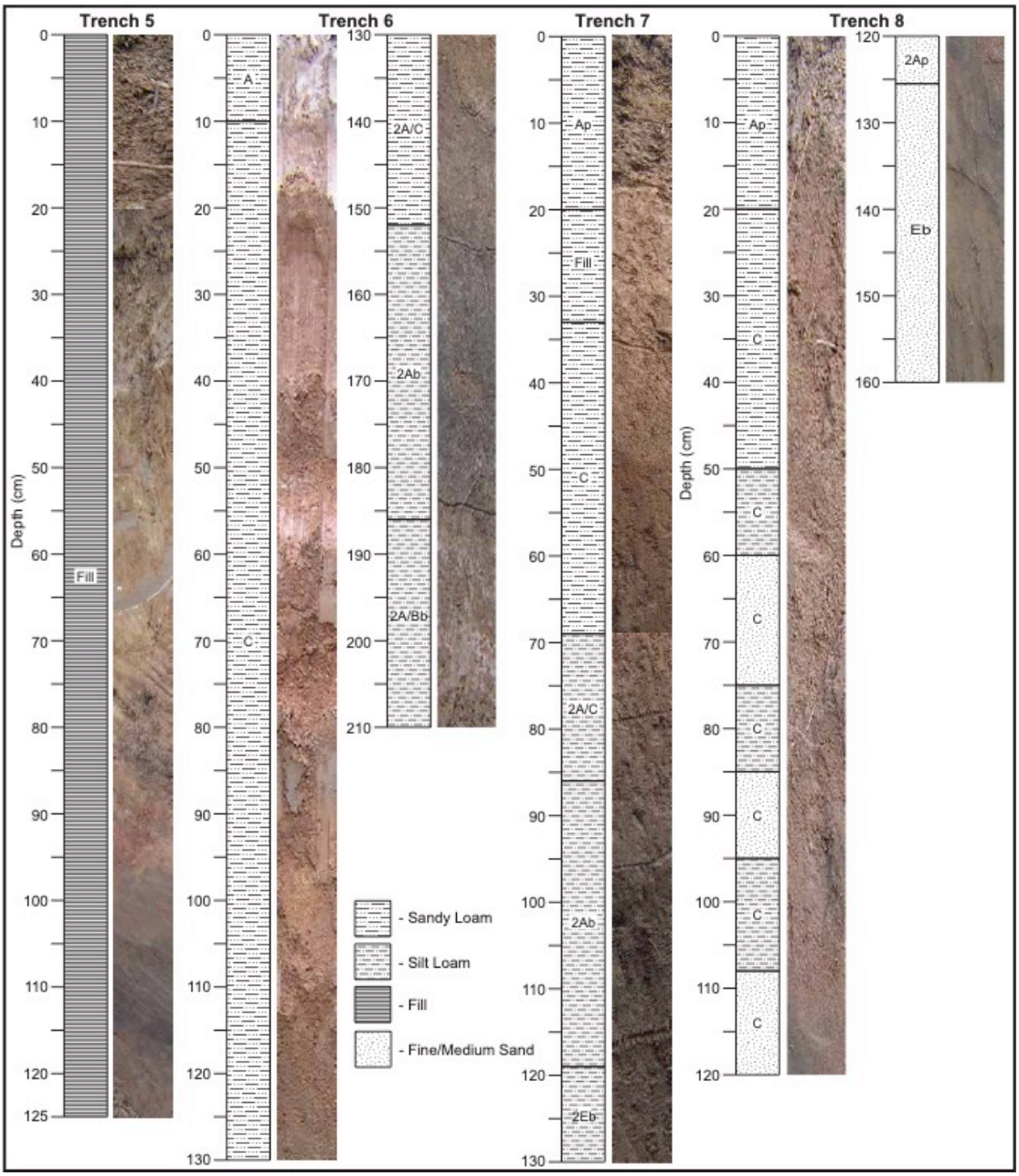

Figure 7. Field logs for Trenches 5-8.

Trenches 9 though 14 were excavated into the T1 terrace on the northeast side of the river (Figure 5). Trench 9 was excavated into the top of the levee. Historic alluvial sand extended to a depth of over a meter at this location (Figure 8).

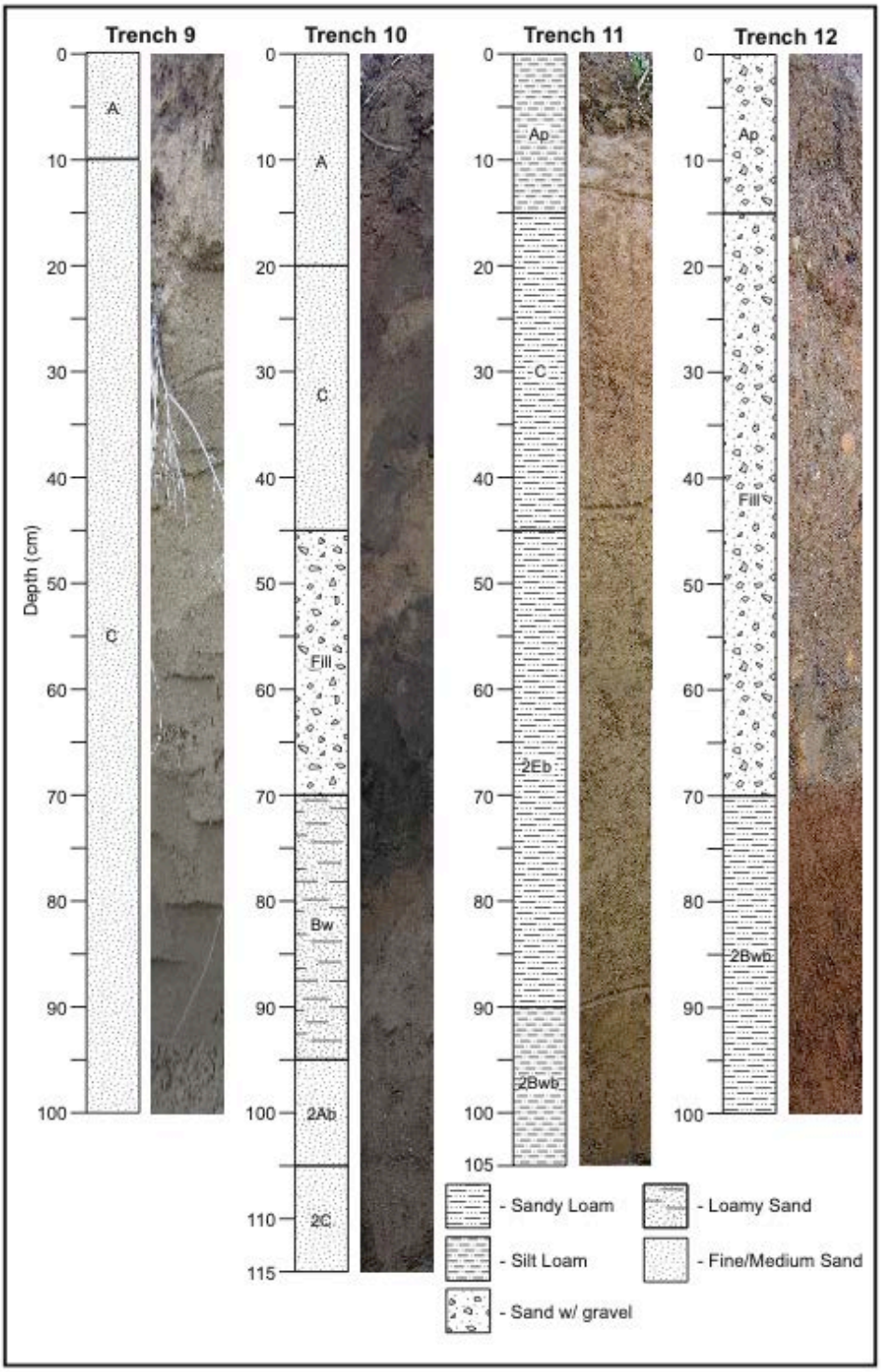

Figure 8. Field logs for Trenches 9-12.

Trench 10 was 12 m long and excavated across the top of the levee, extending back into the flood chute on the northeast side of the levee (Figure 5). Historic alluvium extended to a depth of 70 cm in this soil profile. Some of the alluvium was sand and gravel. The buried soil profile in Trench 10 included a 2Ab-horizon over alluvial parent material (C-horizon) (Figure 8). The buried 2Ab-horizon dipped up toward the ground surface on the southwest end of the trench (Figure 9). This indicates the location of the levee prior to the deposition of historic alluvium on the terrace.

Figure 9. Photograph of Trench 10 (left). Buried 2Ab-horizon sloping up to top of paleo-levee (right).

Trench 11 was excavated into a rise in the center of the T1 terrace (Figure 5). Historic alluvium extends to a depth of 45 cm at the top of the buried soil profile. A 2Eb-horizon and 2Bwb- horizon were recorded in this buried soil (Figure 8). It appears that the former 2Ab-horizon has been eroded off of this landform. Trench 12 was excavated about 25 m south of NC 275 (Figure 5). This trench consisted of 70 cm of fill material over the 2Bwb-horizon of the buried soil profile (Figure 8). It appears that Trench 12 was excavated into an old roadbed, perhaps the former location of the Dallas-Stanley Highway. Trench 13 was excavated northeast of Trench 11 (Figure 5). This soil profile consisted of 65 cm of historic alluvium over a gleyed 2Bgb-horizon (Figure 10). Groundwater seeped into the base of this trench.

Trench 14 was excavated north of NC 275 on the east side of the terrace (Figure 5). Historic alluvium extended to a depth of 65 cm at this location. The 2A/C-horizon below the historic sediment is disturbed. A 2Ab-horizon and 2Eb-horizon were recorded in the base of the trench (Figure 10).

Discussion

The study area is located on a T1 terrace of the South Fork of the Catawba River (Figure 1). Historic alluvial deposits range from 23 cm to over a meter in thickness. This sediment has buried an earlier soil profile that probably dates to the time of European settlement. The buried 2Bw-horizon is a weakly developed illuvial horizon, which indicates that it is most likely a soil profile that has formed since the mid-Holocene. The thickness of historic alluvium will impede the effectiveness of shovel testing on the T1 terrace.

The geomorphology of the T1 terrace has been modified by the deposition of this historic alluvium. The 2Ab-horizon, where present, represents the land surface at the time of European settlement. The edge of

the paleo-levee was observed in the end of Trench 10. The terrace along the south side of NC 275 has been disturbed by the installation of utility lines and possibly the location of a former roadbed.

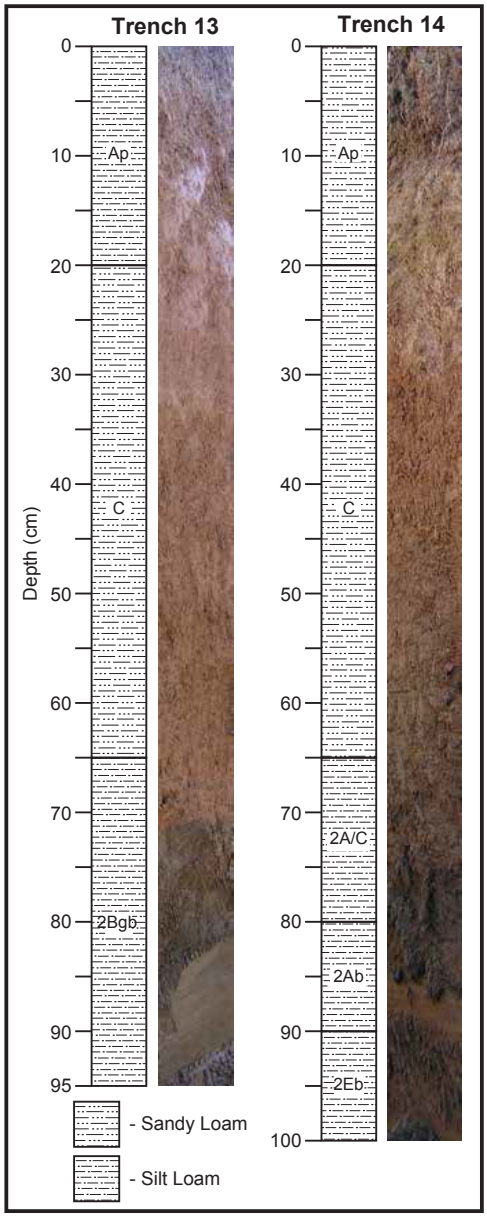

Figure 10. Field logs for Trenches 13-14.

The trench walls were scraped and observed for artifacts and other cultural features. One historic ceramic sherd was located in the 2Ab-horizon of Trench 4. No other artifacts were recorded in any of the trenches. There was also no evidence of buried cultural features.

Previous work along Piedmont streams has found that cultural deposits tend to be located along certain stream segments (Seramur, 2007). These include areas where there are fords in the river, pool and riffles where there is abundant aquatic resources and near lithic resources. Deep testing in these areas yields abundant artifacts in almost every trench. Deep testing in other reaches of Piedmont streams record little or no evidence of buried cultural deposits.

The lack of any evidence of cultural deposits (other than one historic sherd) in the deep testing trenches recorded during this investigation indicates that there is little probability for buried cultural resources at the NC 275 crossing of the South Fork of the Catawba River.

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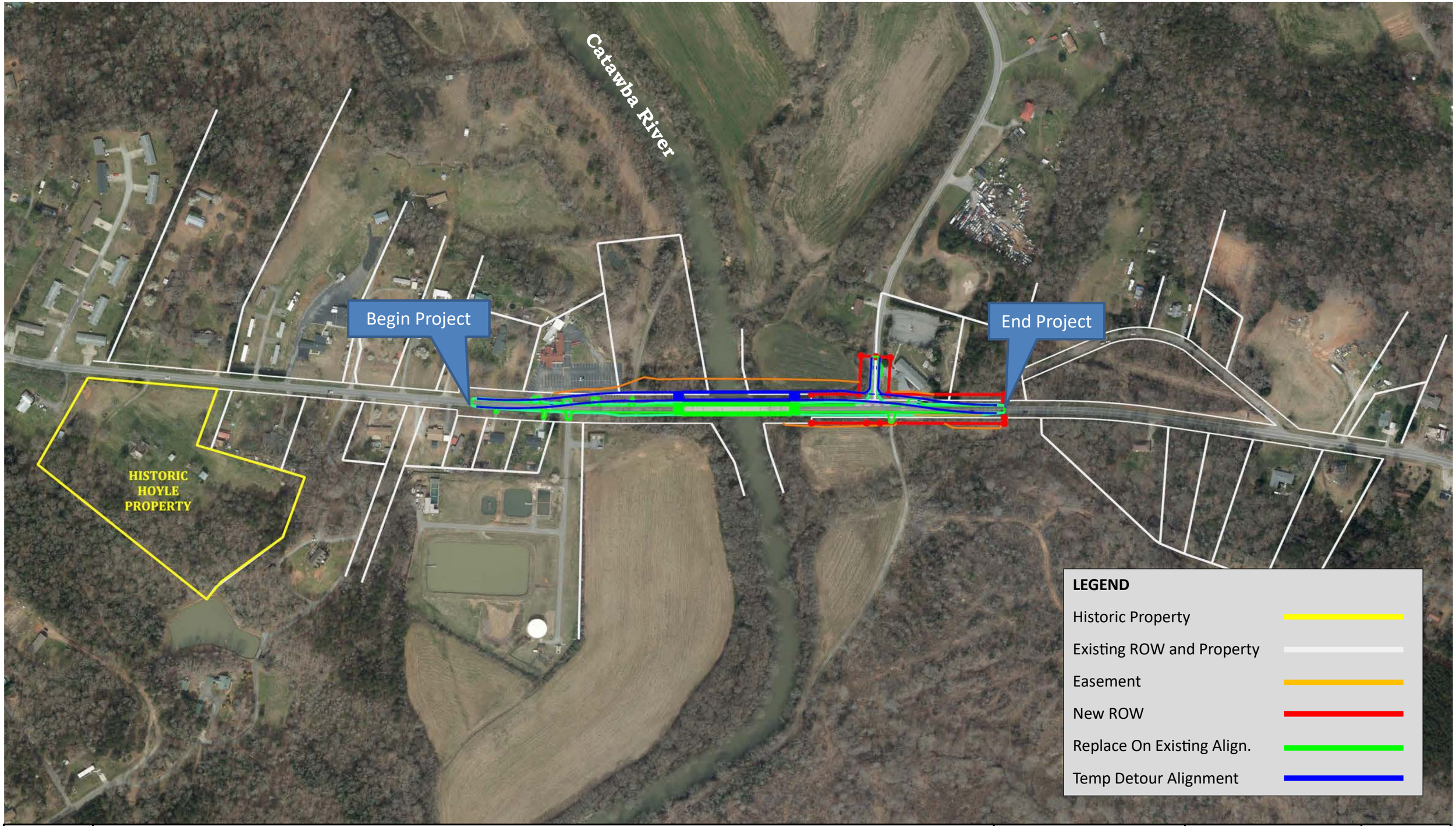
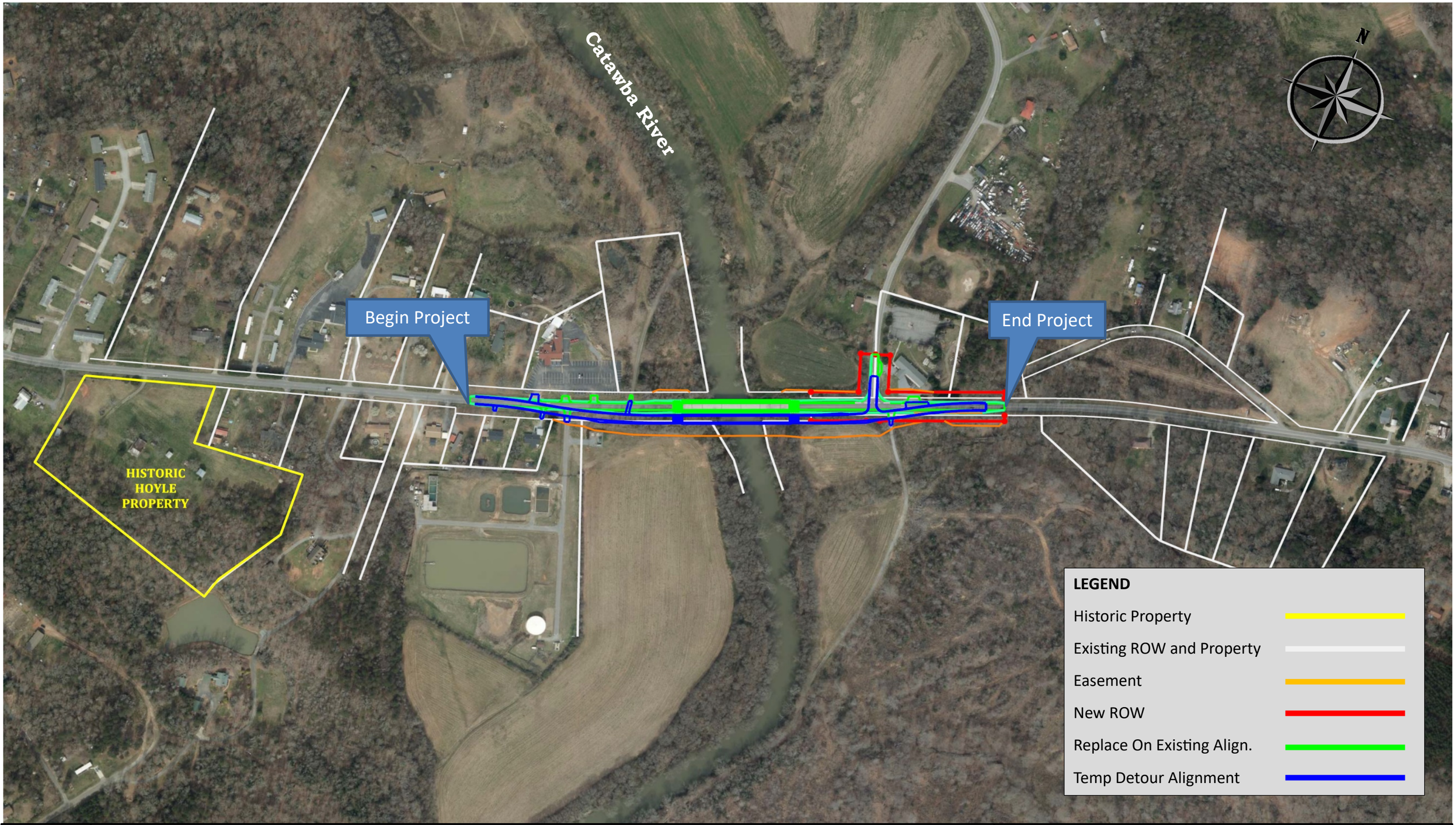
2019, Custom Soil Resource Report for Gaston County, NC. Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov



BR-0019, Build Temporary Detour Bridge on North Side, Then Replace on Existing Location

0 feet 200 feet 400

Alt 1



BR-0019, Build Temporary Detour on South Side, Then Replace on Existing Location

0 feet 200 feet 400

Alt 2

Catawba River

N

Begin Project

End Project

HISTORIC
HOYLE
PROPERTY

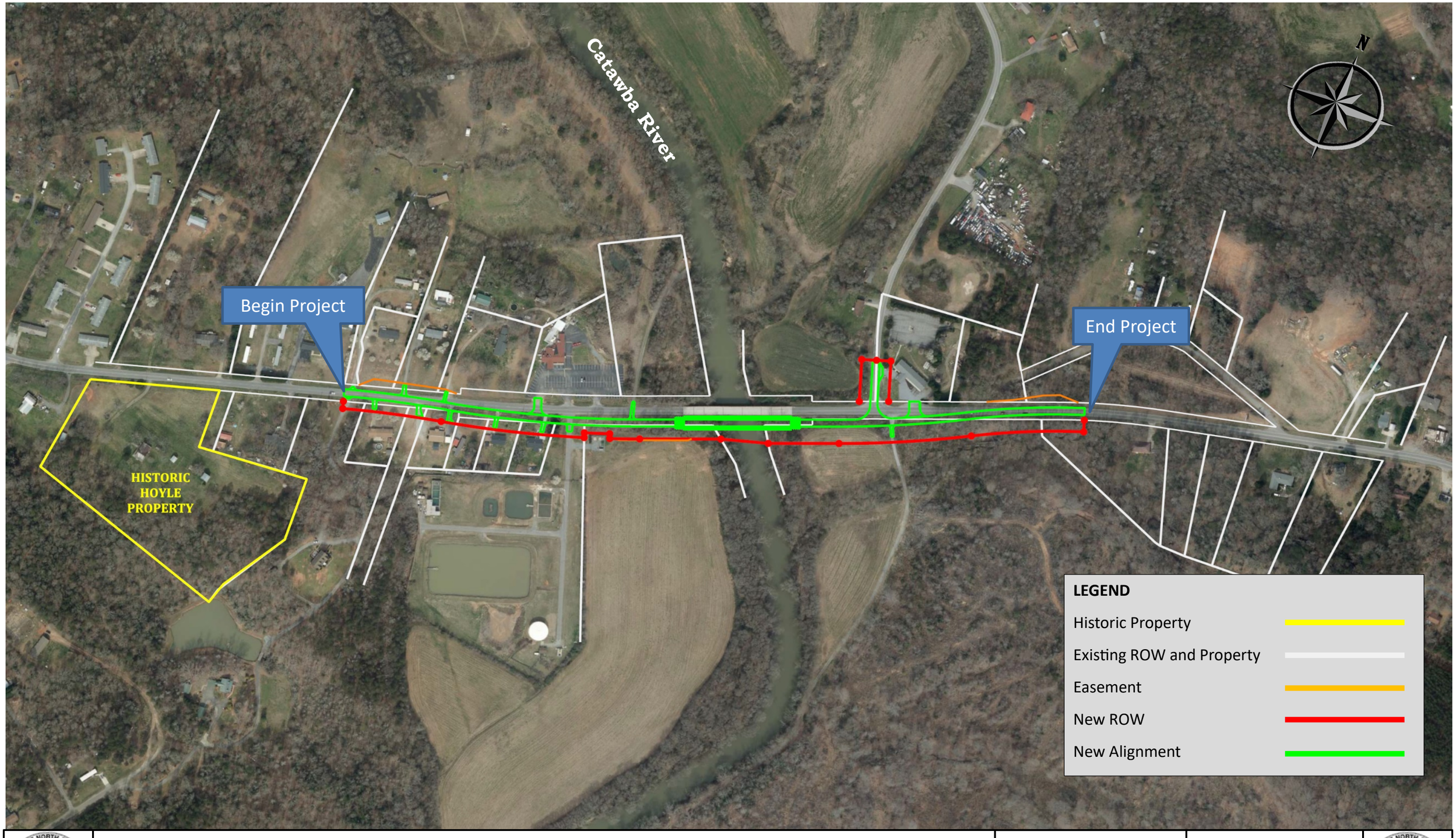
LEGEND

- Historic Property
- Existing ROW and Property
- Easement
- New ROW
- New Alignment

BR-0019, Build New Alignment to North side, Maintain Traffic on Existing Bridge During Construction

0 feet 200 feet 400

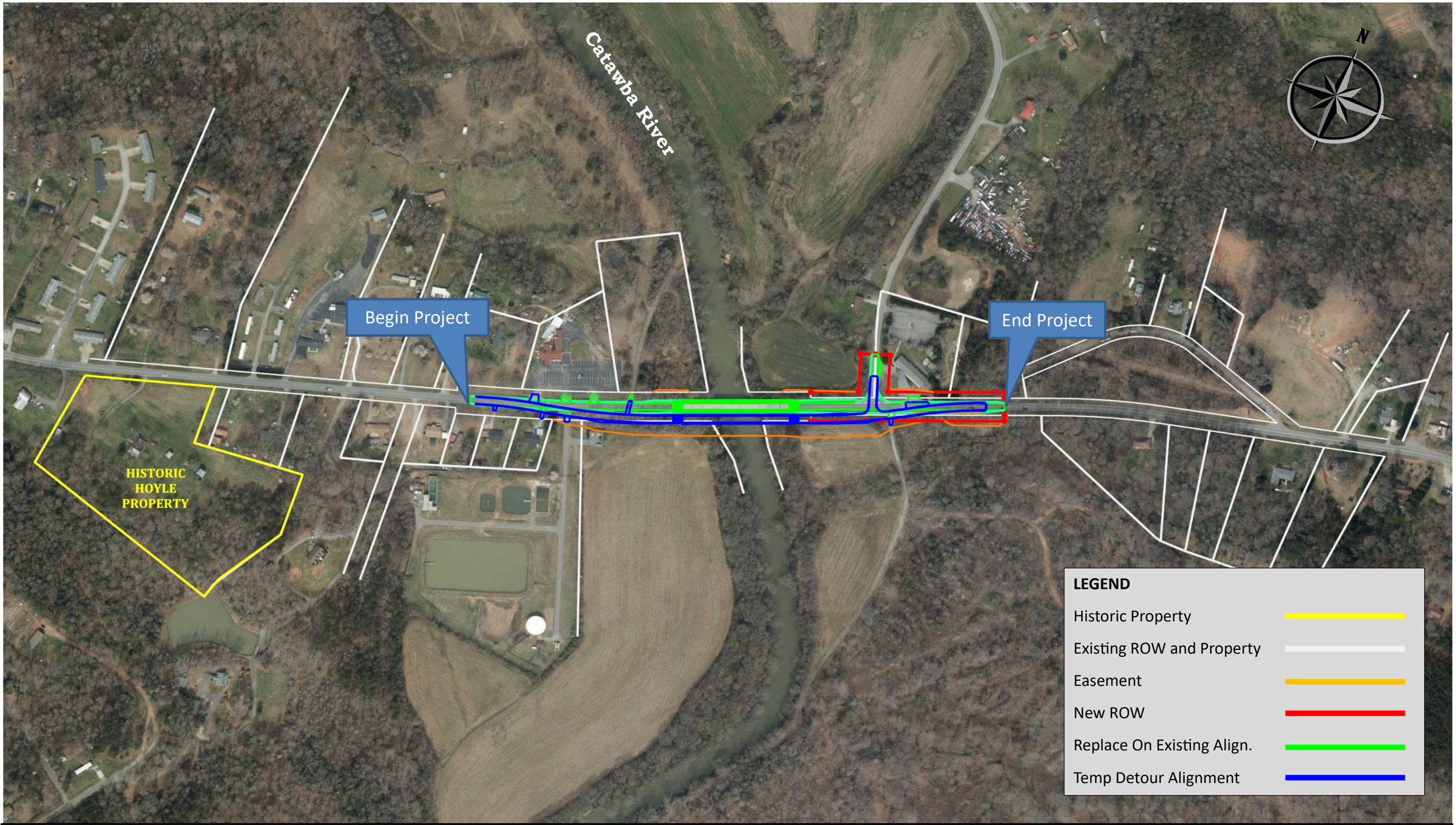
Alt 3



BR-0019, Build New Alignment to South Side, Maintain Traffic On Existing Bridge During Construction

0 feet 200 feet 400

Alt 4



BR-0019, Build Temporary Detour on South Side, Then Replace on Existing Location

0 feet 200 feet 400

Alt 2

Historic Architecture and Landscapes

Project Tracking No. (Internal Use)

17-12-0049

HISTORIC ARCHICTECTURE AND LANDSCAPES ASSESSMENT OF EFFECTS FORM

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

PROJECT INFORMATION

Project No:	BR-0019	***County***:	Gaston
WBS No.:	67019.1.1	***Document Type:***	MCC
Fed. Aid No:		***Funding***:	☒ State ☐ Federal
Federal Permit(s):	☒ Yes ☐ No	***Permit Type(s)***:	USACE
Project Description: Replace Bridge No 56 on NC 275 over Catawba River			

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:
On January 22, 2018 a search of NC HPOWEB GIS Service map reveal that the Area of Potential Effects intersects with National Register listed property known as the Hoyle House (GS0022).

ASSESSMENT OF EFFECTS

Property Name:	Hoyle House	***Status***:	NR
Survey Site No.:	GS0022	***PIN***:	

Effects
☒ No Effect ☐ No Adverse Effect ☐ Adverse Effect

Effects Determination
The project limits of all 4 Alternatives are never closer than 400 feet from the northeast corner of the NR boundary of the Hoyle House.

List of Environmental Commitments:

SUPPORT DOCUMENTATION

☒Map(s) ☐Previous Survey Info. ☒Photos ☐Correspondence ☒Design Plans

FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE

Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

Shelby Reap — 1/28/2020

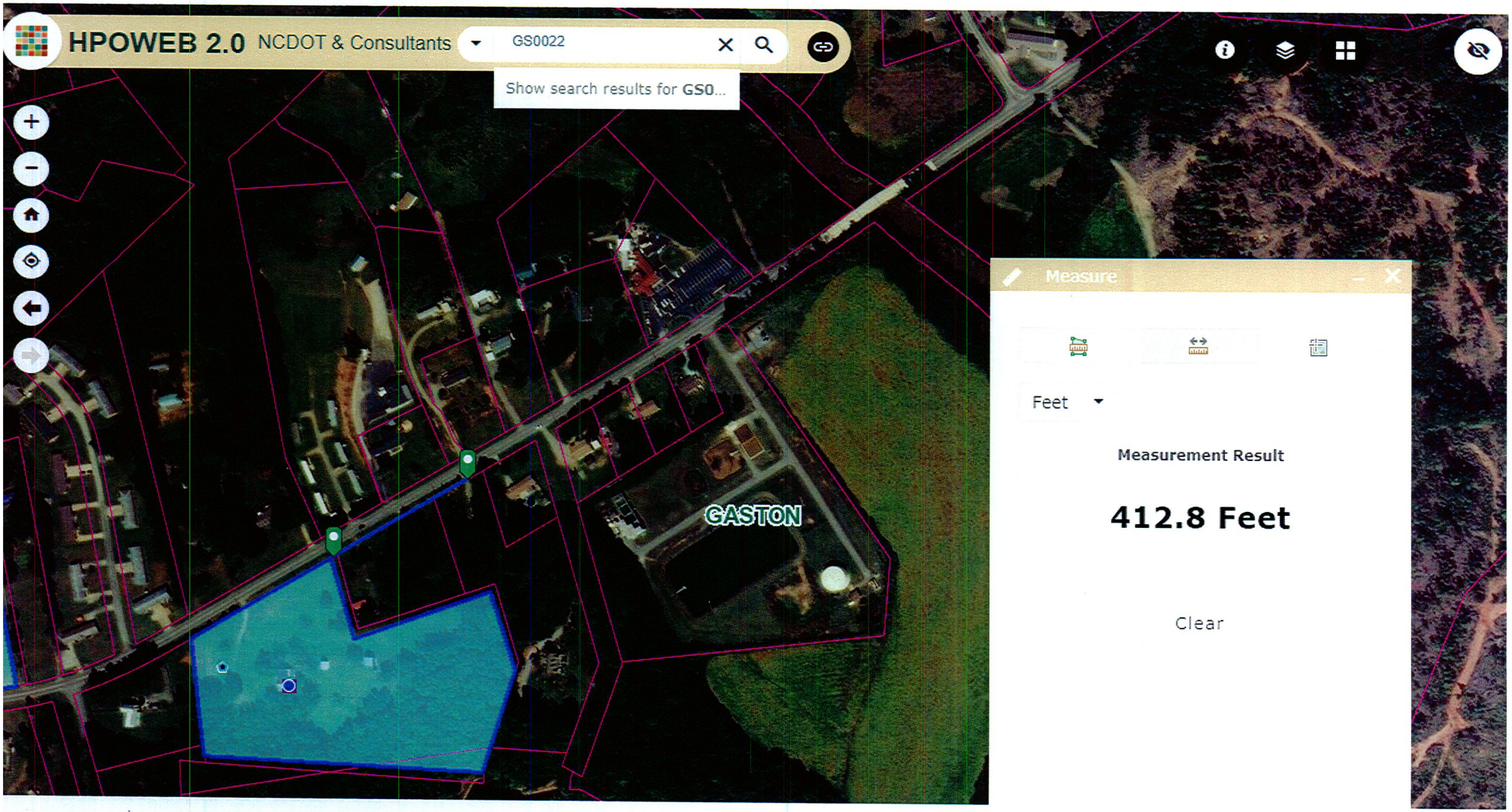
NCDOT Architectural Historian — Date

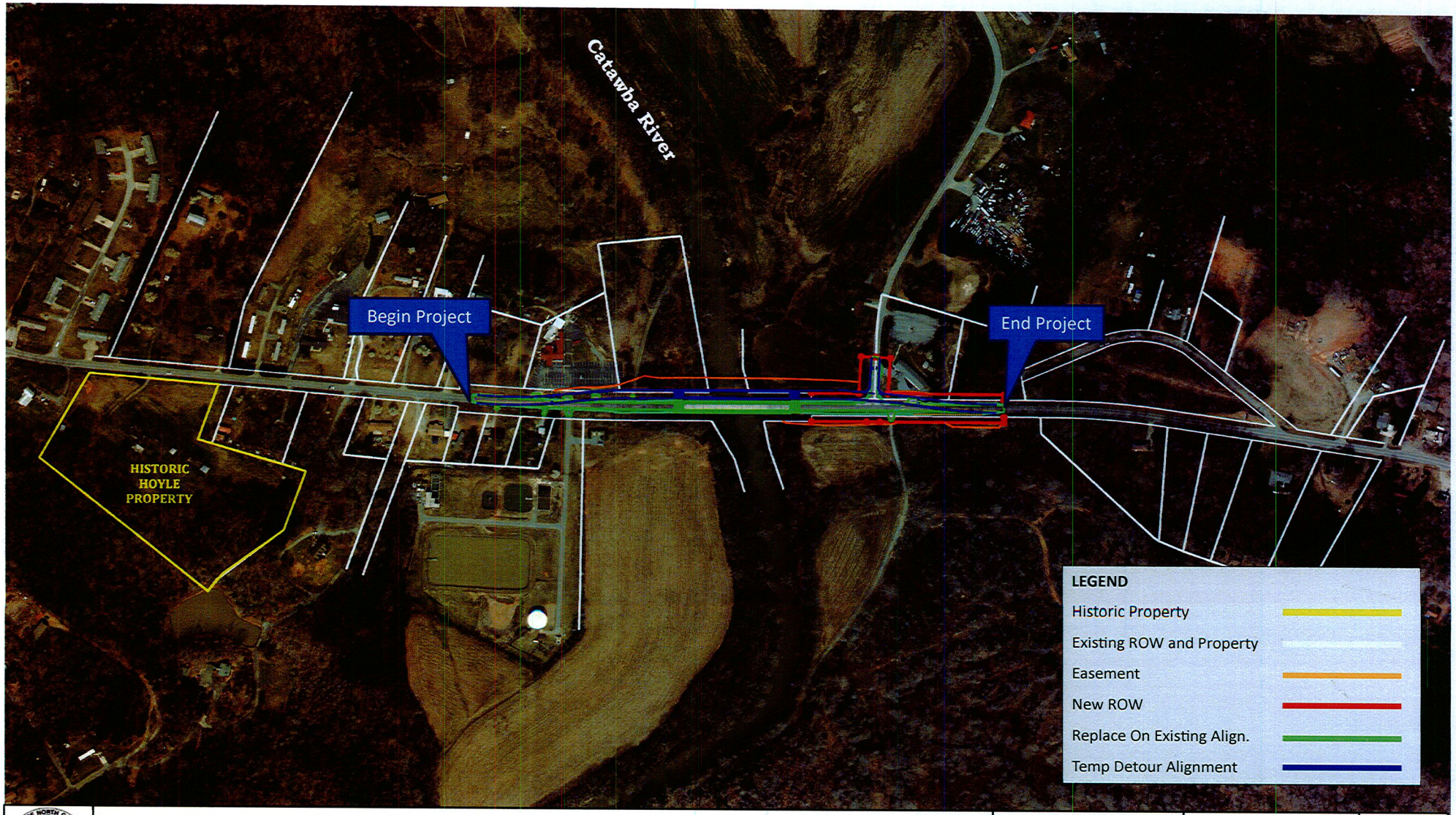
Renee Gledhill-Earley — 1/28/2020

State Historic Preservation Office Representative — Date

Representative, Federal Agency — Date

FHWA Intends to use the NC-HPO's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):

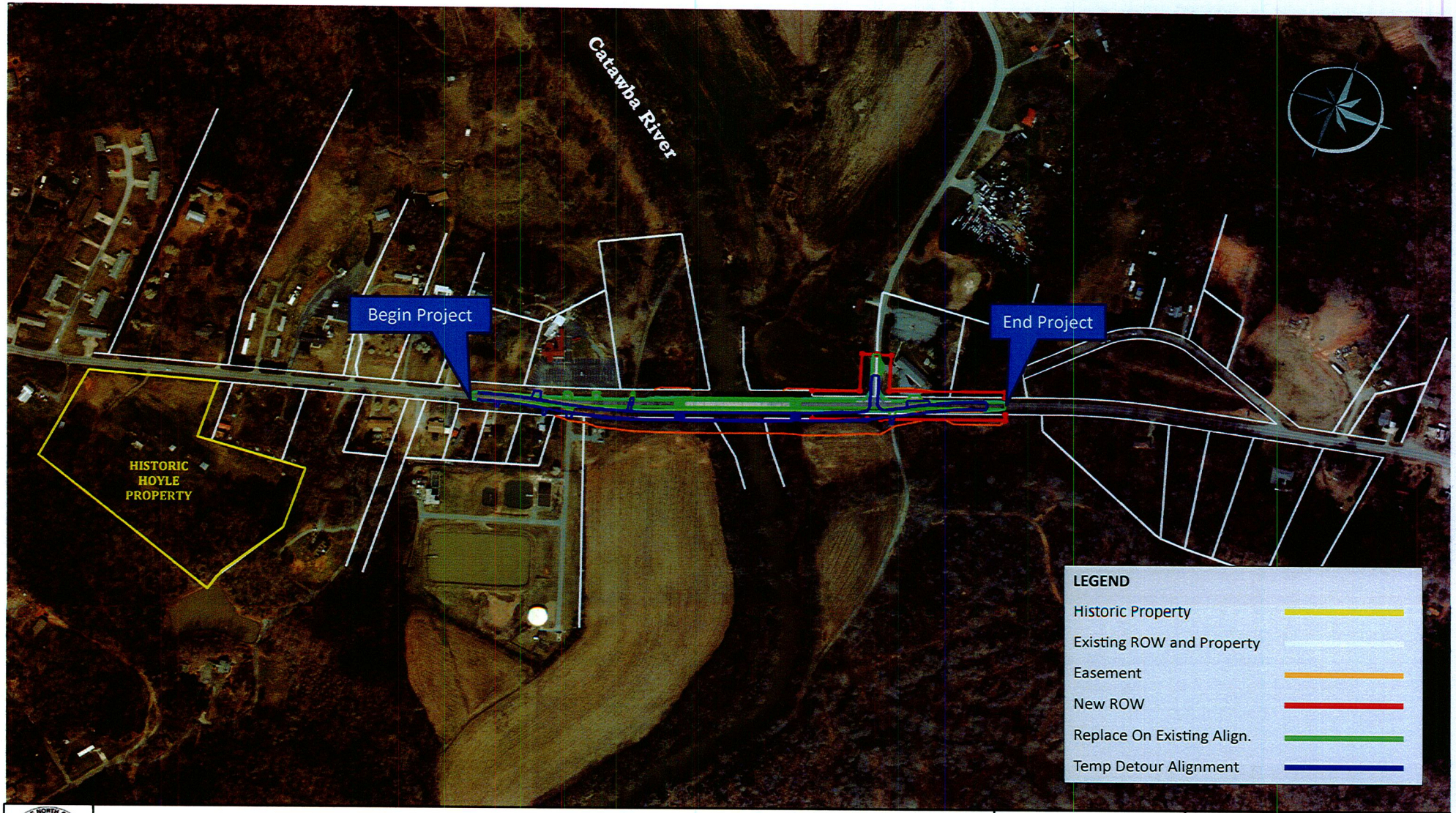

HPOWEB 2.0
NCDOT & Consultants
GS0022
Show search results for GS0...
GASTON
Measure
Feet
Measurement Result
412.8 Feet
Clear



BR-0019, Build Temporary Detour Bridge on North Side, Then Replace on Existing Location

0 feet 200 feet 400

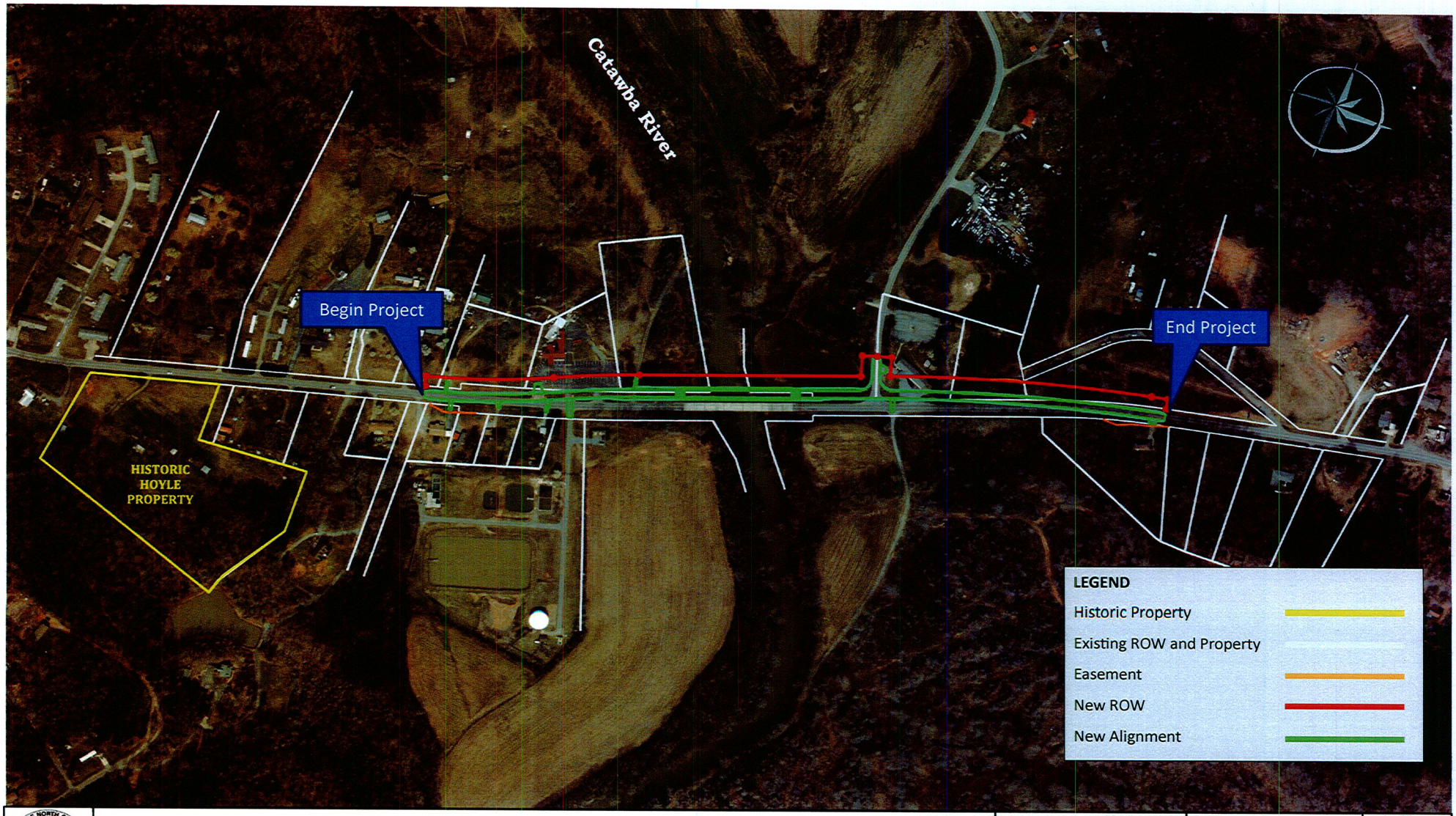
Alt 1



BR-0019, Build Temporary Detour on South Side, Then Replace on Existing Location

0 feet 200 feet 400

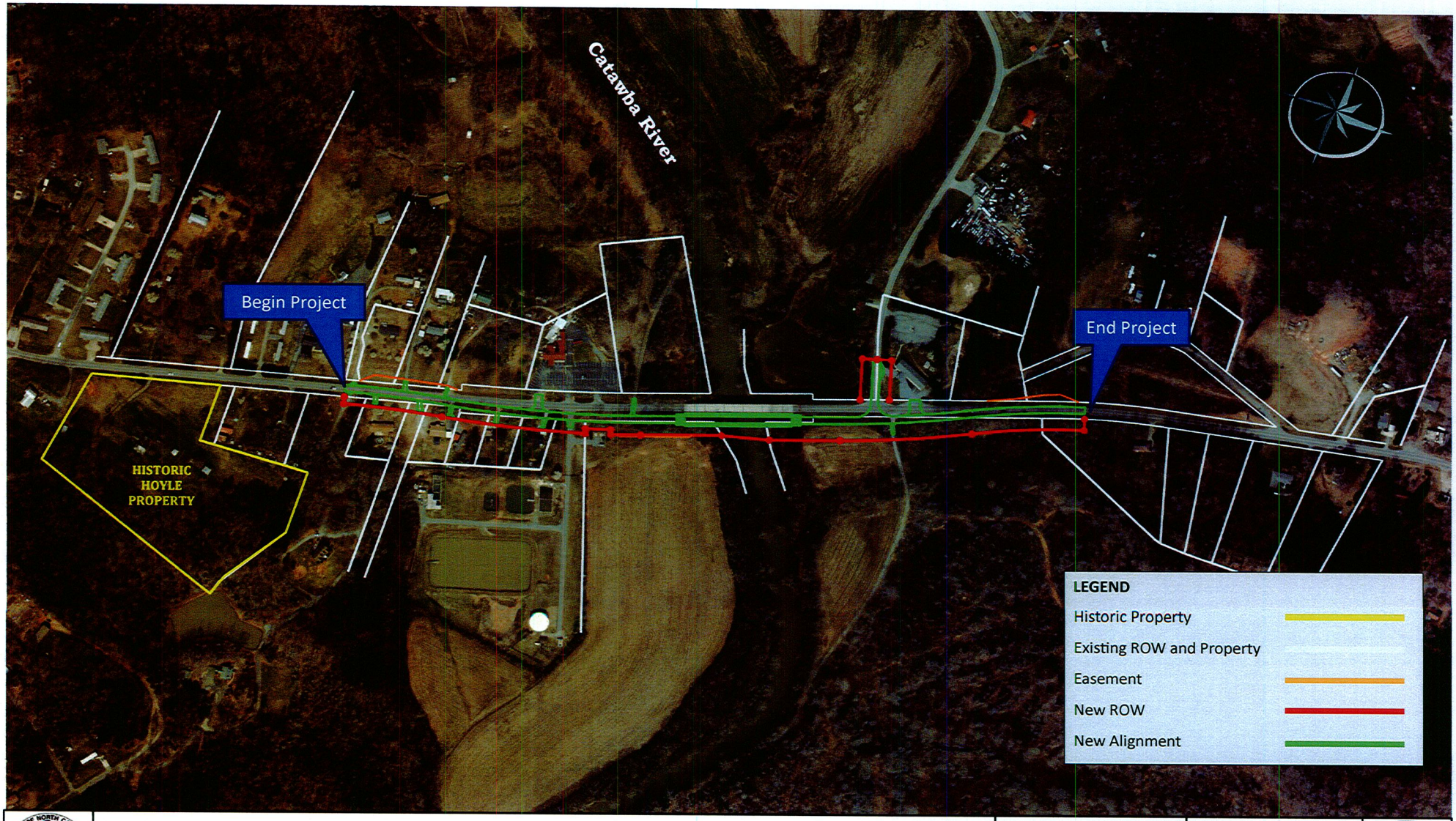
Alt 2



BR-0019, Build New Alignment to North side,
Maintain Traffic on Existing Bridge During Construction

0 feet 200 feet 400

Alt 3



BR-0019, Build New Alignment to South Side, Maintain Traffic On Existing Bridge During Construction

0 200 400 feet feet

Alt 4

Tribal Coordination

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 29, 2021

Dr. Wenonah Haire
Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730

Dear Dr. Haire,

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies for the replacement of Gaston County Bridge No. 56 on NC 275 over Catawba River, NCDOT Project **BR-0019**.

The US Army Corps of Engineers (USACE) is the lead federal agency and a Permit is anticipated under the Section 404 Process with the USACE.

The project vicinity map is attached.

We would appreciate any information you might have that would be helpful in evaluating potential environmental impacts of the project including recommendation of alternates to be studied. Your comments may be used in the preparation of a NEPA/SEPA Environmental Document, in accordance with the State and/or National Environmental Policy Act.

Please respond by February 21st so that your comments can be used in the scoping of this project. If you have any questions concerning this project, or would like any additional information, please contact me at dstutts@ncdot.gov or (919) 707-6442.

Thank you,

DocuSigned by:
David Stutts
A4A2999A8BC64F2...

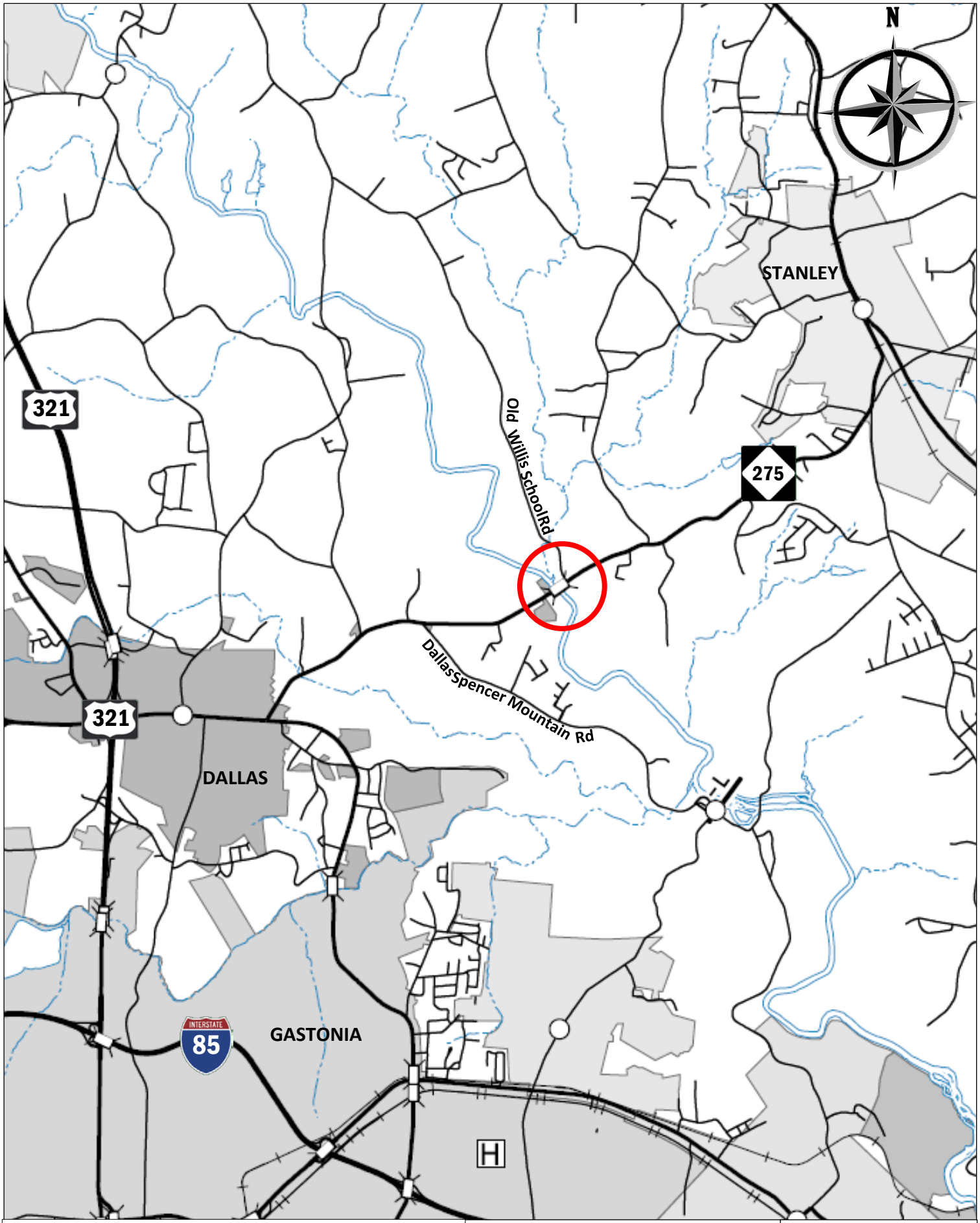
David Stutts, P.E.
NCDOT Project Engineer – PEF/Program Management

cc: Matt Wilkerson, NCDOT Archaeology Team Leader
USACE Project Manager, Nicholle Braspennickx

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
STRUCTURES MANAGEMENT UNIT
1581 MAIL SERVICE CENTER
RALEIGH NC 27699

Telephone: (919) 707-6400
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610



0 0.5 1.0 miles

Replace Gaston Bridge No. 56
on NC 275
over Catawba River

BR-0019
VICINITY MAP

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 29, 2021

Elizabeth Toombs
Tribal Historic Preservation Officer
PO BOX 948
Tahlequah OK, 74465

Dear Ms. Toombs,

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies for the replacement of Gaston County Bridge No. 56 on NC 275 over Catawba River, NCDOT Project **BR-0019**.

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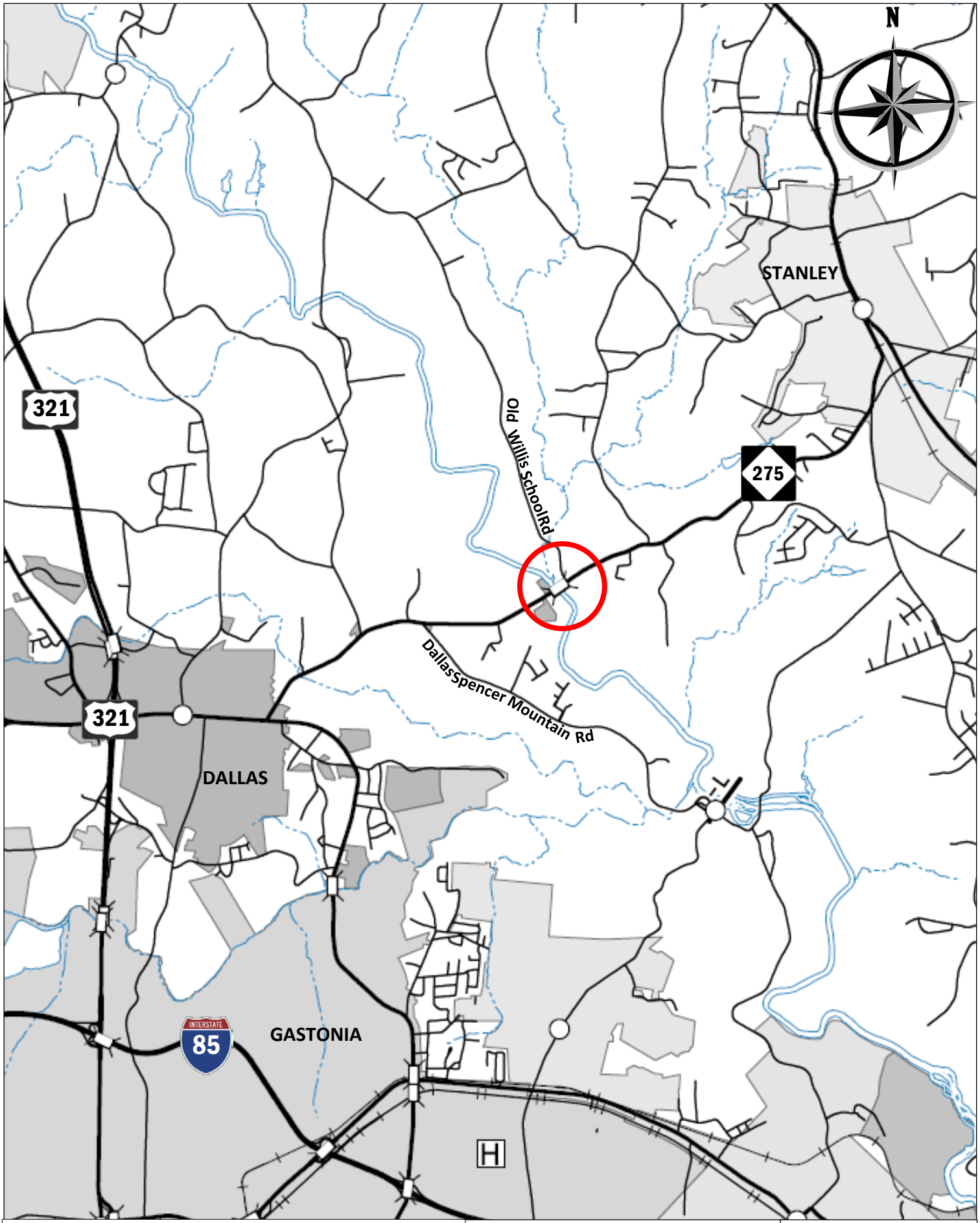

0 0.5 1.0 miles

Replace Gaston Bridge No. 56
on NC 275
over Catawba River

BR-0019
VICINITY MAP

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 29, 2021

Russell Townsend
Tribal Historic Preservation Officer
2077 Governors Island Road
Bryson City NC 28713

Dear Mr. Townsend,

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies for the replacement of Gaston County Bridge No. 56 on NC 275 over Catawba River, NCDOT Project **BR-0019**.

The US Army Corps of Engineers (USACE) is the lead federal agency and a Permit is anticipated under the Section 404 Process with the USACE.

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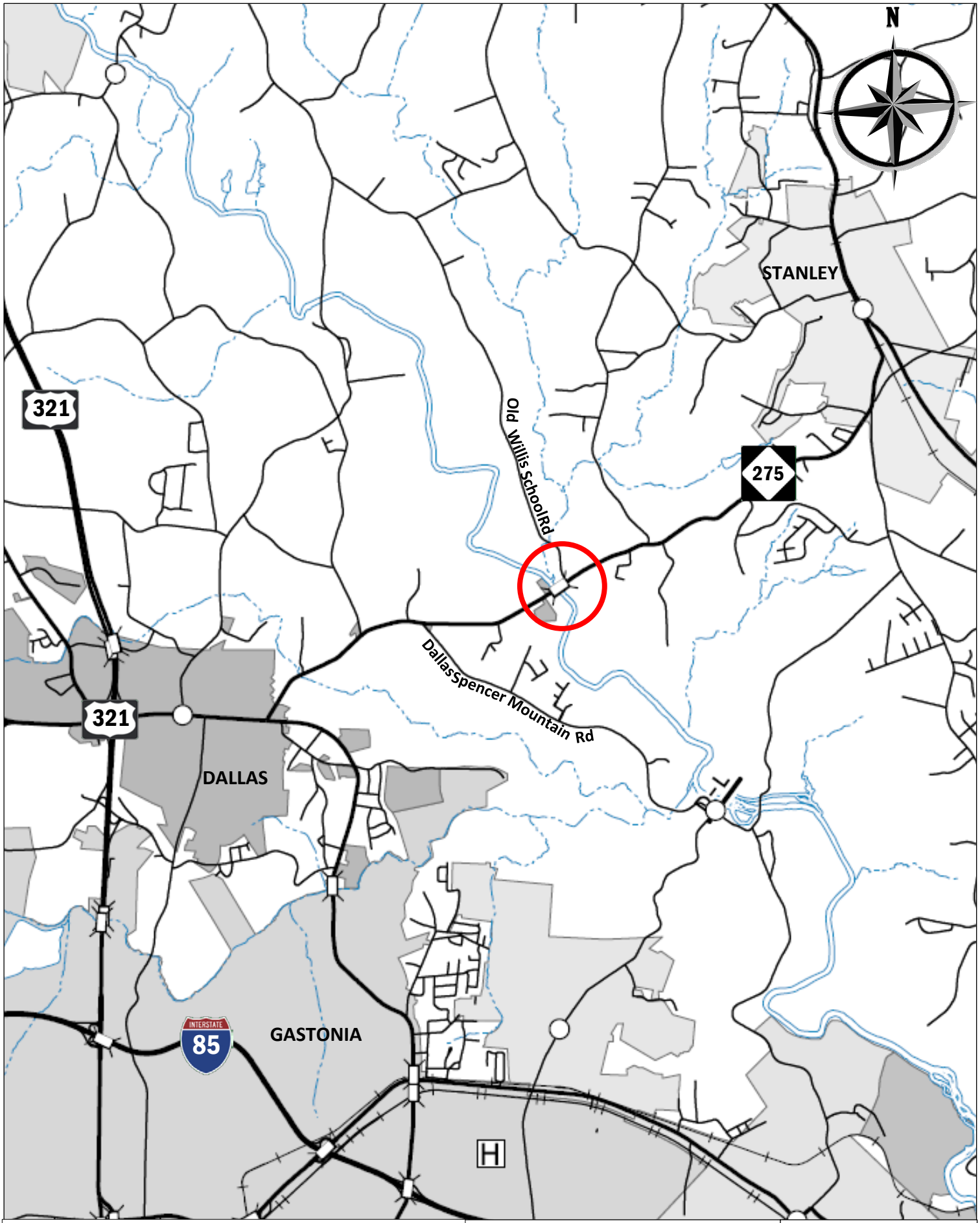

0 0.5 1.0 miles

Replace Gaston Bridge No. 56
on NC 275
over Catawba River

BR-0019
VICINITY MAP

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 29, 2021

Whitney Warrior
Tribal Historic Preservation Officer
PO Box 1245
Tahlequah OK, 74465

Dear Officer Warrior,

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies for the replacement of Gaston County Bridge No. 56 on NC 275 over Catawba River, NCDOT Project **BR-0019**.

The US Army Corps of Engineers (USACE) is the lead federal agency and a Permit is anticipated under the Section 404 Process with the USACE.

The project vicinity map is attached.

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Please respond by February 21st so that your comments can be used in the scoping of this project. If you have any questions concerning this project, or would like any additional information, please contact me at dstutts@ncdot.gov or (919) 707-6442.

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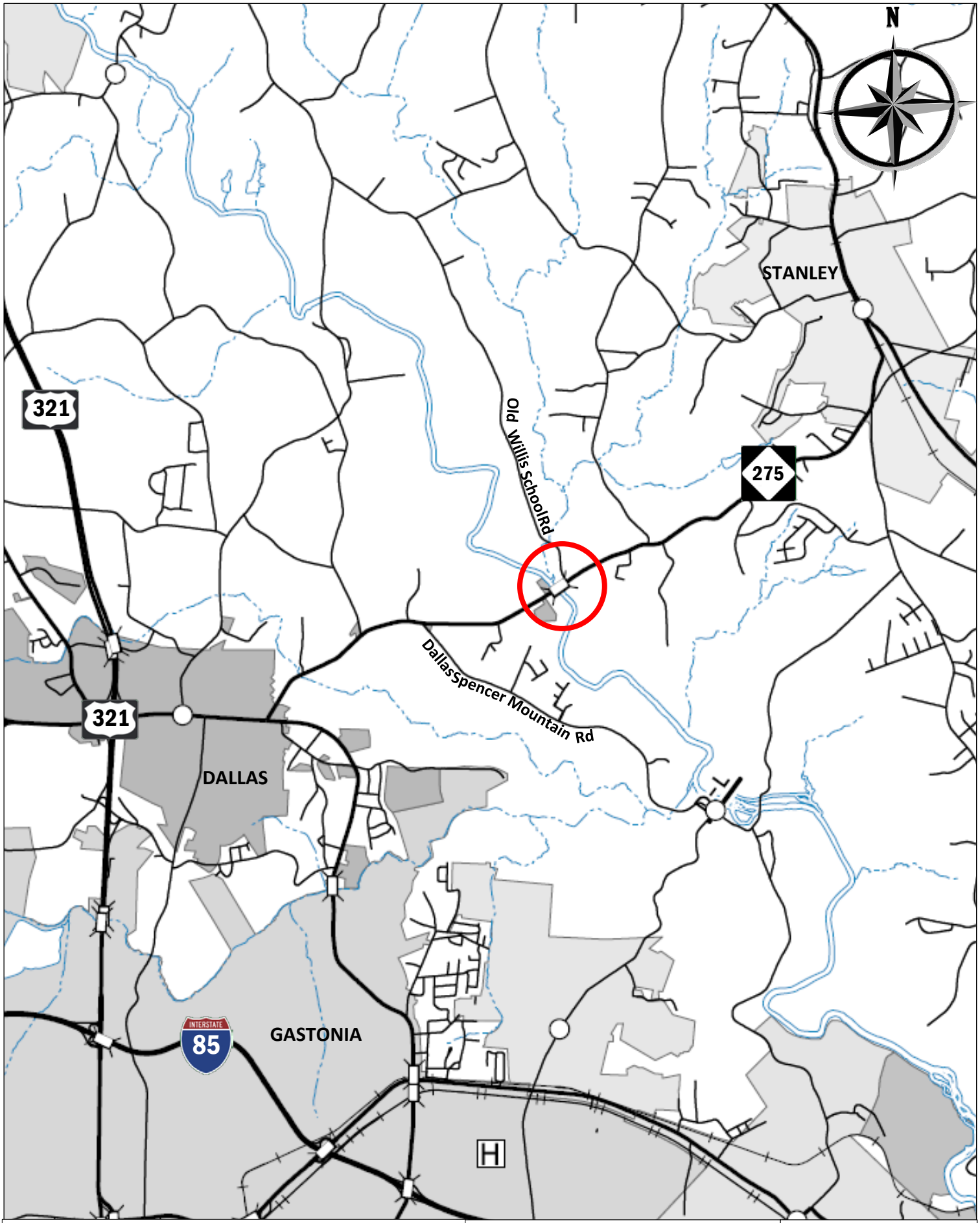


0 0.5 1.0 miles

Replace Gaston Bridge No. 56
on NC 275
over Catawba River

BR-0019
VICINITY MAP

NEPA/SEPA Document

Type I or II Categorical Exclusion Action Classification Form

TIP Project No.	**BR-0019**
WBS Element	**67019.1.1**
Federal Project No.	**N/A**

A. Project Description:

Structures Management Unit (SMU) Bridge Program Project BR-0019 proposes to replace Bridge No. 56 on NC 275 over South Fork Catawba River near the Town of Dallas in Gaston County, NC (see Figure1). This is a State-funded project but utilizing a Federal CE.

The project will remove the existing bridge and replace it with a new bridge in its existing location. The replacement structure will be approximately 370 feet long with a 40-foot clear deck width. The bridge will include two 12-foot vehicular lanes and 8-foot shoulders on each side. The length of the improvement project, including approaches, is approximately 1,800 feet. The approaches will be widened to provide two 12-foot vehicular lanes and 10-foot shoulders on both sides (including 4-foot paved shoulders). The roadway will be designed as a Minor Arterial with a 60-mph design speed.

B. Description of Need and Purpose:

Bridge No. 56 was built in 1953 and is 69 years old. With both a superstructure and substructure rating of 4 out of 9, the bridge has become structurally deficient and warrants replacement.

C. Categorical Exclusion Action Classification:

Type I(A) - Ground Disturbing Action

D. Proposed Improvements:

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

E. Special Project Information:

Public Involvement
On April 28, 2020, a newsletter was sent to all property owners in the project study area in addition to officials from the Town of Dallas. One comment was received from the owner of the property where Riverside House of Prayer operates; they had no concerns but wanted to verify that they properly understood the potential impacts to the property.

Alternative Selection
No Build – The No Build alternative would eventually result in closing NC 275 which is unacceptable given the volume of traffic served by the road (AADT 11,000 [2019]).

Build Alternatives – Four build alternatives were considered:
Alternative 1 - Onsite Detour North,
Alternative 2 - Onsite Detour South,
Alternative 3 - New Alignment North, and
Alternative 4 - New Alignment South.

Table 1. Cost Estimates for Build Alternatives

Build Alternative	Right of Way Estimate	Construction Estimate	Total Estimate
Alt 1	$ 238,965	$ 5,800,000	$ 6,038,965
Alt 2	$ 248,863	$ 5,900,000	$ 6,148,863
Alt 3	$ 738,314	$ 4,800,000	$ 5,538,314
Alt 4	$ 566,162	$ 5,200,000	$ 5,766,162

Note: These estimates above are based on 25% plans. There is a more recent 65% estimate (3/11/22) but it only updates the construction costs on the preferred Alternate 2 ($7,700,000).

NCDOT held an alternative selection meeting on February 28, 2020, to discuss the four build alternatives. NCDOT selected Alternative 2 based on maintaining the straight alignment, no relocatees and limited right-of-way impact. While Alternative 2 is the most expensive alternative, it costs only 11% more than the least expensive alternative (Alt. 3).

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)			
PROJECT IMPACT THRESHOLDS (FHWA signature required if any of the questions 1-7 are marked "Yes".)		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)? Source: In September 2022, the USFWS updated the range for the NLEB. This project is no longer included in the range for this project. Previous considerations and conclusions are no longer required.	☐	☑
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)? Source: NRTR	☐	☑
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement? Source: One inquiry resulted from distribution of Newsletters in April 2020. (No substantial concerns.)	☐	☑
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations? Source: Direct and Indirect Screening Tool	☐	☑
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition? Source: Roadway Design Plans – No relocations are anticipated with Alt 2-Onsite Detour South.	☐	☑
6	Does the project require an Individual Section 4(f) approval? N/A –This project is not federally funded; no 4(f) properties are affected by the design.	☐	☑
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)? Source: Archaeology and Historic Architecture Forms (forms attached)	☐	☑
If any question 8-31 is checked "Yes" then additional information will be required for those questions in Section G.			
Other Considerations		Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or is the project covered by a Programmatic Agreement under Section 7?	☐	☑

9	Is the project located in anadromous fish spawning waters?	☐	☑
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)? Source: NRTR – This segment of the river is classified as Water Supply Watershed Critical Area.	☑	☐
11	Does the project impact Waters of the United States in any of the designated mountain trout streams? Project is not located in a designated mountain trout county.	☐	☑
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit? Source: NRTR	☐	☑
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility? Spencer Mountain Dam is two miles south of the project	☐	☑

Other Considerations for Type I and II Ground Disturbing Actions (continued)		Yes	No
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains? Source: Section 106 No Effect forms (attached)	☐	☑
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.? Source: GeoEnvironmental Report	☐	☑
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A? State Floodplain Compliance Type B is anticipated per HEC-RAS Analysis.	☐	☑
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)? Project is not located in a CAMA county.	☐	☑
18	Does the project require a U.S. Coast Guard (USCG) permit? No Permit Required.	☐	☑
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area? Project is not located in a county containing Wild and Scenic Rivers.	☐	☑
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources? Project is not located in a CBRA county.	☐	☑
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands? Source: Coordination with Tribes – Letters were sent 1/29/21. Only the Catawba Tribe responded and had no concerns but noted they are to be notified if Native American Artifacts or human remains are located during ground disturbance phase of project.	☐	☑
22	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate? There was no control of access originally and no control of access is anticipated.	☐	☑
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness? Source: Direct and Indirect Screening Tool	☐	☑
24	Will maintenance of traffic cause substantial disruption? All alternatives considered include maintenance of traffic onsite.	☐	☑

25	Is the project inconsistent with the STIP, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)? N/A – This project is funded through the bridge program, not the STIP.	☐	☑
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property? Source: Final Surveys – There is only one public property, the Dallas pump station, located in the SE corner of the bridge. The design avoids impacts to the property.	☐	☑
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)? Source: Final Surveys – There are no affected public properties purchased with FEMA resources.	☐	☑
28	Does the project include a *de minimis* or programmatic Section 4(f)? Source: Final Surveys – There are no affected public properties and the historic properties have been avoided.	☐	☑
29	Is the project considered a Type I under the NCDOT Noise Policy? This project is state funded, so a noise analysis is not required. If funding changes, a future noise analysis may be needed.	☐	☑
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)? Source: NRCS Farmland Conversion Impact Rating Form AD-1006, Part VI; FPPA does not apply since this is a state funded project; however, the NRCS form was completed. Results are provided below.	☑	☐
31	Are there other issues that arose during the project development process that affected the project decision?	☐	☑

Additional Documentation as Required from Section F (ONLY for questions marked 'Yes'):

Question 10: Water Supply Watershed

The project will also incorporate Design Standards for Sensitive Watersheds.

Question 30: Prime or Important Farmland Soil

The proposed project will require right of way from areas with prime and important farmland soils. A preliminary screening of farmland conversion impacts in the project area was completed (Natural Resources Conservation Service [NRCS] Farmland Conversion Impact Rating Form AD-1006, Part VI only) and a score of 54 out of 160 points was calculated for the project site. Because the total site assessment score does not exceed the 60-point threshold established by NRCS, farmland conversion impacts may be anticipated, but are not considered notable.

G. Project Commitments:

NCDOT PROJECT COMMITMENTS

Gaston County
TIP Project No. **BR-0019**
Replace Bridge 56 on NC 275 over South Fork Catawba River
Federal Aid Project No. N/A
WBS Element 67019.1.1

NCDOT Division 12 Construction, NCDOT Roadside Environmental Unit
Design Standards in Sensitive Watersheds

Since the Best Usage Classification for this section of the South Fork Catawba River is Water-Supply IV Critical Area (WS-IV; CA), sedimentation and erosion control measures will adhere to the Design Standards in Sensitive Watersheds.

Hydraulic Unit – FEMA Coordination

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

Division Construction-FEMA

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

NCDOT Structure Management Unit
Bicycle Safe Rails

This project will include bicycle safe rails as part of the bridge design.

NCDOT Structure Management Unit, NCDOT Division 12
Carolina Thread Trail Accommodation

Based on coordination between NCDOT and NC Thread Trials, the design and construction of this project includes a graded 10-foot wide path for a future Carolina Thread Trail under either end of the new bridge.

H. Categorical Exclusion Approval:

TIP Project No.	**BR-0019**
WBS Element	67019.1.1
Federal Project No.	N/A

Prepared By:

10/26/2022 — DocuSigned by: John Williams — 1BD47CF8FC3E644B...

Date

John Williams, P.E., Project Manager
RK&K

Prepared For: NCDOT Structure Management Unit

Reviewed By:

11/13/2022 — DocuSigned by: John Jamison — CA084B4A6412432...

Date

John Jamison, Unit Head
NCDOT Environmental Policy Unit

☑ **Approved**

- If NO grey boxes are checked in Section F (pages 2 and 3), NCDOT approves the Type I or Type II Categorical Exclusion.

☐ **Certified**

- If ANY grey boxes are checked in Section F (pages 2 and 3), NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.
- If classified as Type III Categorical Exclusion.

11/14/2022 — DocuSigned by: Kevin Fischer — ED19A18D98EC496...

Date

Kevin Fischer, P.E., Assistant State Structures Engineer
North Carolina Department of Transportation

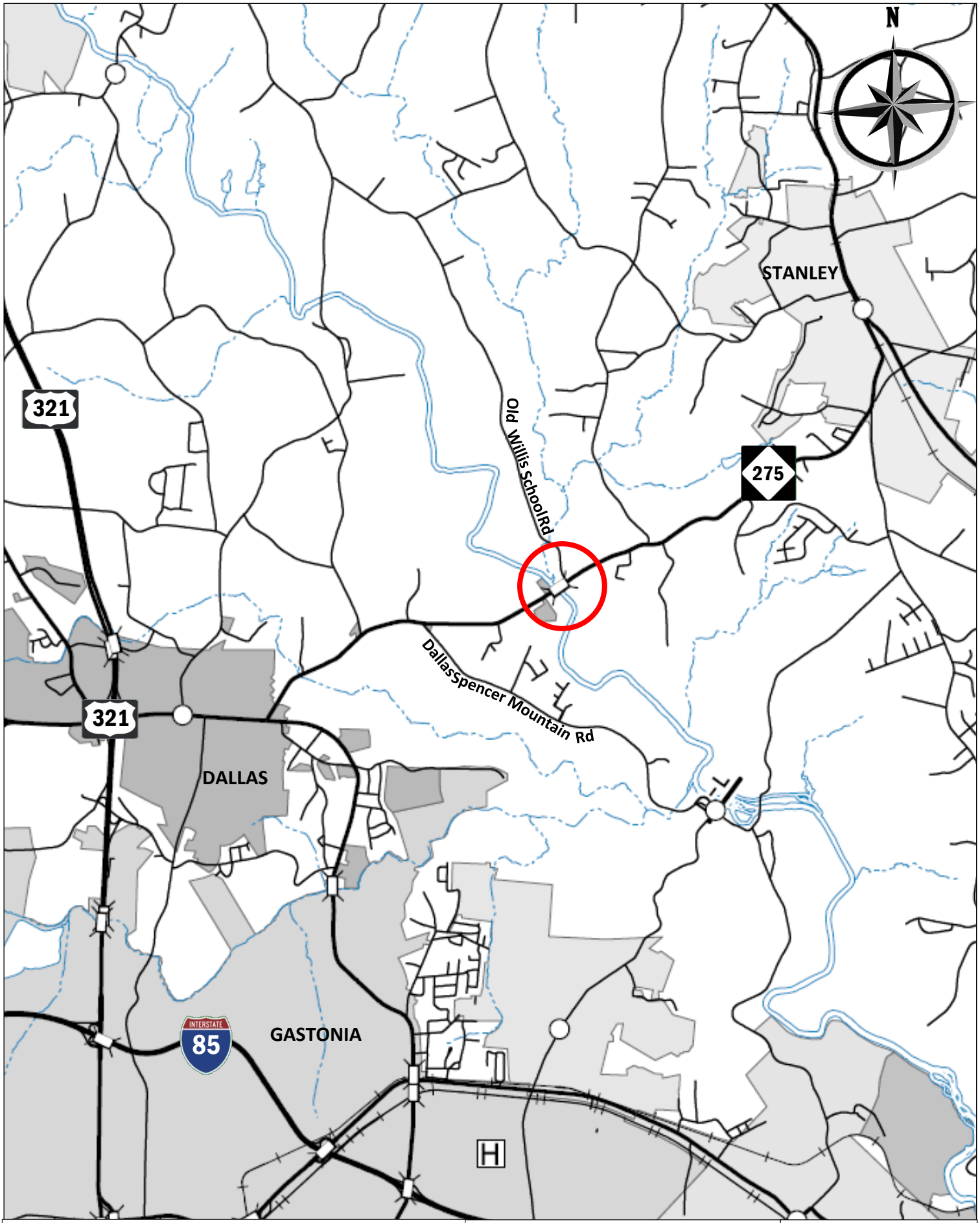
FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Not Applicable

Date

for John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

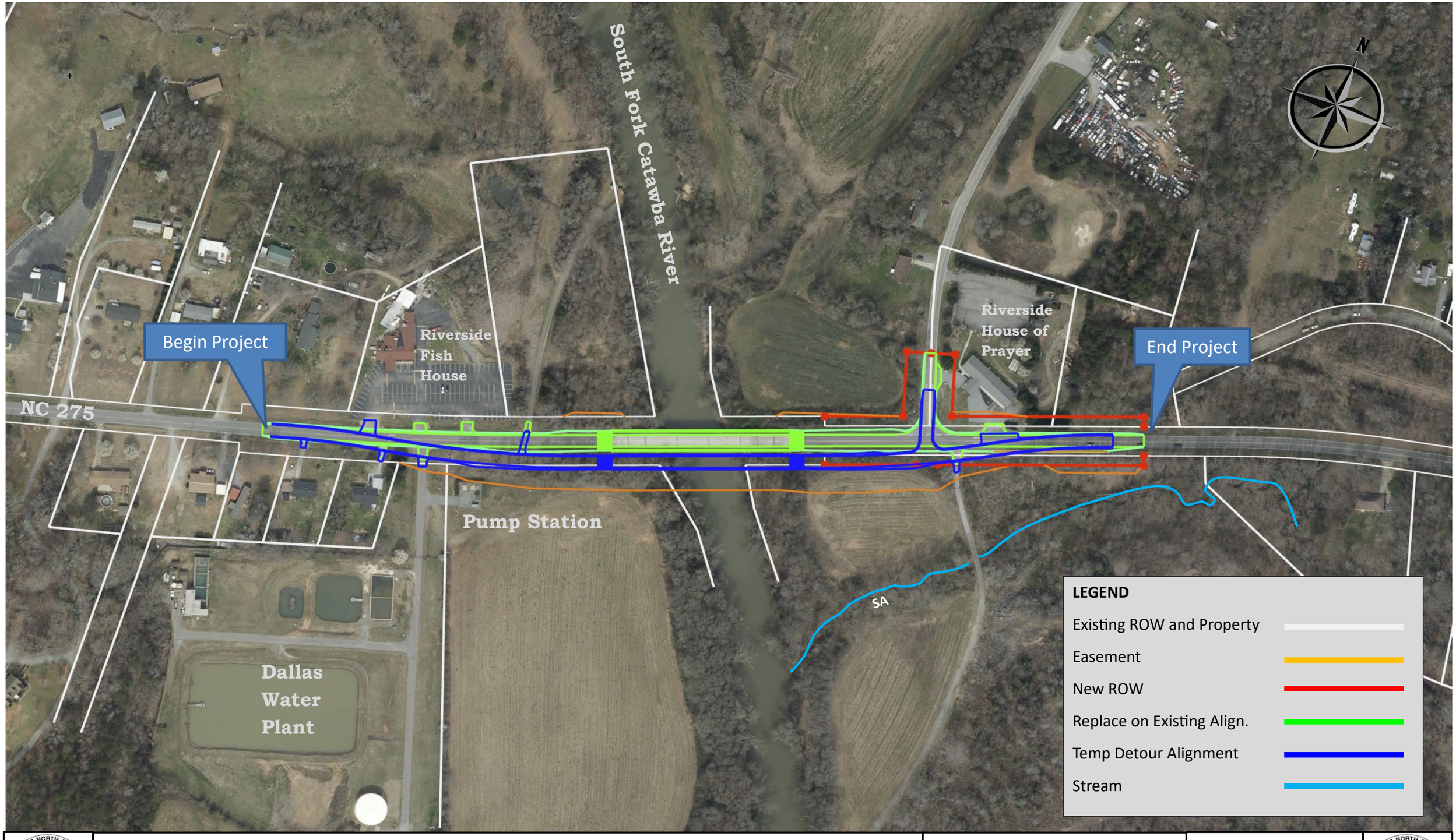
Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VII of the NCDOT-FHWA CE Programmatic Agreement for more details).



0 0.5 1.0 miles

Replace Gaston Bridge No. 56
on NC 275
over South Fork Catawba River

BR-0019
VICINITY MAP



BR-0019, Build Temporary Detour on South Side, Then Replace on Existing Location

0 200 400 feet feet

Alt 2

Project Tracking No. (Internal Use)

17-12-0049

HISTORIC ARCHICTECTURE AND LANDSCAPES ASSESSMENT OF EFFECTS FORM

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

PROJECT INFORMATION

Project No:	BR-0019	***County***:	Gaston
WBS No.:	67019.1.1	***Document Type:***	MCC
Fed. Aid No:		***Funding***:	☒ State ☐ Federal
Federal Permit(s):	☒ Yes ☐ No	***Permit Type(s)***:	USACE
Project Description: Replace Bridge No 56 on NC 275 over Catawba River			

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:
On January 22, 2018 a search of NC HPOWEB GIS Service map reveal that the Area of Potential Effects intersects with National Register listed property known as the Hoyle House (GS0022).

ASSESSMENT OF EFFECTS

Property Name:	Hoyle House	***Status***:	NR
Survey Site No.:	GS0022	***PIN***:	

Effects
☒ No Effect ☐ No Adverse Effect ☐ Adverse Effect

Effects Determination
The project limits of all 4 Alternatives are never closer than 400 feet from the northeast corner of the NR boundary of the Hoyle House.

List of Environmental Commitments:

SUPPORT DOCUMENTATION

☒Map(s) ☐Previous Survey Info. ☒Photos ☐Correspondence ☒Design Plans

FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE

Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

Shelby Reap — 1/28/2020

NCDOT Architectural Historian — Date

Renee Gledhill-Earley — 1/28/2020

State Historic Preservation Office Representative — Date

Representative, Federal Agency — Date

FHWA Intends to use the NC-HPO's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):

Pages 1 and 11 of this form are included here to demonstrate No Sites Present outcome and signature. Remainder of form can be found on NCDOTConnect

Project Tracking No.:
17-12-0049

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-00119 (STRUCTURE 350056)**	*County:*	**Gaston**
WBS No:	**67019.1.1**	*Document:*	**State MCC**
F.A. No:	**N/A**	*Funding:*	☒ State ☐ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **USACE (not specified)**

Project Description: NCDOT's Division 12 proposes to replace Bridge No. 56 on NC 275 (Dallas-Stanley Highway) over the South Fork of the Catawba River near the Town of Dallas in Gaston County. Bridge No. 56 was constructed in 1953 and is considered to be structurally deficient; therefore, it has been scheduled to be replaced. Since Preliminary Design Plans have not been developed yet, a Study Area for the project has been generated in order to facilitate environmental planning purposes at this stage. The Study Area will be centered on the bridge and measure about 500 feet wide and about 2,000 feet from either end of the bridge along NC 275. Overall, the Study Area encompasses about 50.6 acres, inclusive of the existing roadway, structure to be replaced, and any modern development.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

INTRODUCTION

On behalf of NCDOT, Louis Berger completed an intensive archaeological survey and evaluation in association with the proposed replacement of Bridge No. 56 on NC 275 (Dallas-Stanley Highway) over the South Fork of the Catawba River near the Town of Dallas in Gaston County (Figure 1). Bridge No. 56 was constructed in 1953 and is considered to be structurally deficient; therefore, it has been scheduled for replacement. The purpose of this archaeological investigation was to identify and evaluate the eligibility of all archaeological sites in the Study Area for inclusion in the NRHP through the application of 36 CFR Part 60.4 criterion {a-d}. Evaluation of archaeological sites typically consists of establishing site integrity; integrity is defined by the National Park Service (NPS) as "The ability of a property to convey its significance" (Little et al. 2000; Shrimpton and Andrus 1991). In the case of archaeological resources evaluated under 36 CFR Part 60.4 criterion {a-d}, characteristics that convey significance include location, design, materials, and association.

For the purposes of this survey, the Study Area was considered to be the Area of Potential Effects (APE). It centered on the bridge and measured about 500 feet wide and extended about 2,000 feet from either end of the bridge along NC 275. Overall, the Study Area encompassed about 50.6 acres, inclusive of the existing roadway, structure to be replaced, and any modern development. (Figure 2). Within the APE, six (6) discrete survey areas (4a through 4f) were delineated based on results of historic mapping, topography and soil types, visual inspection, previous surveys, and locations of recent development/construction (Figure 3).

The APE consisted of residential and commercial properties, undeveloped areas, and agricultural fields within an upland-like setting overlooking the floodplain of the South Fork of the Catawba River. Despite

side of the homestead as one approaches NC 275. Therefore, Louis Berger recommends that portion of the site as not eligible for listing in the NRHP. This does not preclude there being archaeological deposits in more sensitive areas within the NRHP boundary of the Hoyle House Property (i.e., around the house and any outbuildings and throughout the surrounding 9 acres to the south and east).

I concur with these findings. It is recommended that the proposed project be allowed to proceed without concern for impacts to significant archaeological resources. Additional fieldwork within the Study Area is unlikely to provide any significant or substantial amounts of archaeological data. Therefore, it is recommended that additional archaeological work should not be required. Based on the recommendation put forth (see above), a finding of "No NRHP-Eligible or -Listed Archaeological Sites Present" is considered appropriate for the proposed project. However, should the description of this project or designs plans change prior to construction, then additional consultation regarding archaeology may be required. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

To understand the reasoning for the timeframe between when survey occurred and the completion of this form, please know that in order to complete this project (and, thus, the form), a review of preliminary design plans was necessary given the presence of the Hoyle House Property within the Study Area. The Hoyle House Property was listed on the NRHP in 1993. While preliminary design plans were being developed, this project was then placed internally on the Suspension List. Work on this project is just now being restarted in January 2020. At this time, four (4) alternatives have been developed for this project, with the closest being 400 feet east of the Hoyle House Property. Based on the results presented above, there are no archaeological concerns regarding that portion of the Hoyle House Property within the Study Area.

**This project falls within a North Carolina County in which the following federally recognized Tribe(s) has expressed an interest: 1) Cherokee Nation of Oklahoma, 2) Eastern Band of Cherokee Indians, 3) United Keetoowah Band of Cherokee Indians, and 4) Catawba Indian Nation. It is recommended that you contact each federal agency involved with your project, if applicable, to determine their Section 106 Tribal consultation requirements. Please know that no State-recognized tribes have expressed interest in activities within this county.

SUPPORT DOCUMENTATION

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

Paul J. Mohler — January 21, 2020

NCDOT ARCHAEOLOGIST **Date**

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

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

March 15, 2021

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

Re. THPO #	TCNS #	Project Description
2021-193-55		Replacement of Gaston County Bridge No. 56 on NC 275 over Catawba River BR-0019

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 area. **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 Caitlin.Rogers@catawba.com.

Sincerely,

Caitlin Rogers for

Wenonah G. Haire
Tribal Historic Preservation Officer