



South Carolina Department of Transportation
On Behalf of the Federal Highway Administration - South Carolina Division Office



PROCESSING FORM FOR PROGRAMMATIC CATEGORICAL EXCLUSIONS
NON MAJOR FEDERAL ACTIONS

Project ID P041234

Route US 176 (Whitmire Highway)

County Union

Part 1 - Project Description

Include the Project Name/Description

US 176 (Whitmire Highway) Bridge Replacement over Padgetts Creek

SCDOT proposes to replace the US 176 (Whitmire Highway) Bridge over Padgetts Creek in Union County. The purpose of this project is to correct the load restriction placed on it as well as restore all bridge components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition. The bridge is currently open to traffic and would remain open to traffic during construction.

NEPA studies revealed no significant impacts or effects to resources within the project study area.

It is anticipated that minor amounts of right of way will be required for the replacement of this structure. The minor amount of right of way needed will include temporary and/or permanent strips. Existing right of way is approximately 75' along the roadway and 150' in the area of the bridge. Given the rural location, new acquisitions are not anticipated to have negative effects to resources or landowners and will be within the existing project study area.

Part 2 - PCE Type

Select the appropriate Categorical Exclusion from 23 CFR Part 771.117 that best fits the entire project from the drop-down menu. **Reference Appendix A of the PCE Agreement for a more detailed description of each CE contained in 23 CFR 771.117.**

23 CFR 771.117(c) Bridge rehabilitation, reconstruction, or replacement or railroad crossing improvements

23 CFR 771.117(d)



Part 3 - Thresholds

To be processed as a Programmatic Categorical Exclusion (PCE) the following conditions must be met in addition to the General Criteria (as outlined in the PCE Agreement between FHWA-SC and SCDOT). Place a "X" in the appropriate box below. If the answer is "Yes" to any of the below criteria, SCDOT will consult with FHWA-SC to determine the appropriate level of NEPA documentation required and forward to FHWA-SC for approval. ***Reference Part 4 of the Processing form or Section IV of the PCE Agreement for more details and definitions regarding each threshold.**

1.	Involves any unusual circumstances as described in <u>*23 CFR Part 771.117(b)</u>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
2.	The acquisition of more than <u>*minor amounts</u> of temporary or permanent strips of right-of-way	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3.	Involves acquisitions that result in residential or non-residential displacements	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4.	Involves any adverse impacts to EJ populations	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Part 3 - Thresholds Continued

5.	Results in capacity expansion of a roadway by adding through lanes	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6.	Involves construction that would result in <u>*major traffic disruptions</u>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7.	Involves <u>*changes in access control</u> requiring FHWA approval	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8.	An adverse effect determination under Section 106 of the National Historic Preservation Act.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
9.	Use of Section 4(f) property that cannot be documented with a FHWA <i>de minimis</i> determination or a programmatic Section 4(f) other than the programmatic evaluation for the use of historic bridges	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
10.	Any use of a Section 6(f) property	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
11.	Requires an Individual USACE 404 Permit	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
12.	Requires an Individual U.S. Coast Guard Permit.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
13.	Work encroaching in a regulatory floodway, adversely affecting the base floodplain (100 yr.) pursuant to E.O. 11988 and 23 CFR Part 650 Subpart A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
14.	Construction in, across, or adjacent to a river designated as a National Wild and Scenic River	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
15.	Involves an increase of 15 dBA or greater on any noise receptor or abatement measures are found to be feasible and reasonable due to noise impacts	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
16.	May affect and is likely to adversely affect a Federally listed species or designated critical habitat or projects with impacts subject to the BGEPA	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
17.	Involves acquisition of land for hardship, protective purposes, or early acquisition	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
18.	Does not meet the latest Conformity Determination for air quality non-attainment areas (if applicable).	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
19.	Any known or potential <u>major</u> hazardous waste sites within the right-of-way.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
20.	Is not included in or is inconsistent with the STIP and/or TIP	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Part 3 Continued - Additional criteria to be completed for disposal of excess right-of-way PCE

1. Is the parcel part of a SCDOT environmental mitigation effort or could it be used for environmental mitigation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. Is there a formal plan to use this parcel for a future transportation project (is it part of an approved LRTP)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Part 4 - Threshold Definitions

Unusual Circumstances (23 CFR Part 771.117) - Unusual circumstances are defined as:

- a. Significant environmental impacts;
- b. Substantial controversy on environmental grounds;
- c. Significant impact on properties protected by Section 4(f) of the DOT ACT or Section 106 of the National Historic Preservation Act; or
- d. Inconsistencies with any Federal, State, or local law, requirement, or administrative determination relating to the environmental aspects of the action.

Minor Amount of Right-of-Way (ROW):

A minor amount of ROW is defined as less than 3 acres per linear mile for linear projects or less than 10 acres of impacts for non-linear projects (eg: intersections, bridges), and no removal of major property improvements. Examples of major improvements include residential and business structures, or the removal of other features which would change the functional utility of the property. Removal of minor improvements, such as fencing, landscaping, sprinkler systems, and mailboxes would be allowed.

Major Traffic Disruptions:

A major traffic disruption is defined as an action that would result in: a) adverse effects to through-traffic businesses or schools, b) substantial change in environmental impacts, or c) public controversy associated with the use of the temporary road, detour, or ramp closure.

Changes in Access Control:

Requires approval from FHWA for changes in access control on the Interstate system (eg: Interchange Modification Reports or Interchange Justification Reports).

Environmental Commitments: (Check all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> USTs/Hazardous Materials | <input checked="" type="checkbox"/> General Permit | <input type="checkbox"/> Right of Way |
| <input checked="" type="checkbox"/> Water Quality | <input type="checkbox"/> Individual Permit | <input checked="" type="checkbox"/> Floodplains |
| <input checked="" type="checkbox"/> Migratory Bird Treaty Act | <input type="checkbox"/> Essential Fish Habitat | <input type="checkbox"/> Lead Based Paint |
| <input checked="" type="checkbox"/> Stormwater | <input checked="" type="checkbox"/> Cultural Resources | |
| <input type="checkbox"/> Coast Guard Permit Exclusion | <input type="checkbox"/> Noise | <input type="checkbox"/> Non-Standard Commitment (see below) |

Part of CLRB 2022-1 Package 17

Impacts to jurisdictional waters will be less than thresholds outlined in the USACE approved GP for SCDOT projects.

Relevant field studies and environmental reviews have been completed to determine that the project meets the criteria set forth in the Programmatic Categorical Exclusion Agreement signed by FHWA-SC and SCDOT. It is understood that any additions/deletions to the project may void environmentally processing the project as presently classified; consequently, any engineering changes must be brought to the attention of SCDOT Environmental Services Office immediately. A copy of this form is included in the project file and one (1) copy has been provided to FHWA.

Approved By:

Date

5/12/23

Primavera:

☒ Yes

☐ No

NEPA Start Date:

Feb 28, 2023

Does the project contain additional commitments?: (if Yes attach to form) ☒ Yes

☐ No

Date: 02/28/2023

SCDOT
NEPA ENVIRONMENTAL COMMITMENTS FORM



Project ID : P041234 County : Union District : District 4 Doc Type: PCE Total # of Commitments: 6

Project Name: US 176 (Whitmire Highway) Bridge Replacement over Padgetts Creek

The Environmental Commitment **Contractor Responsible** measures listed below **are to be included in the contract and must be implemented**. It is the responsibility of the Program Manager to make sure the Environmental Commitment **SCDOT Responsible** measures are adhered to. If there are questions regarding the commitments listed please contact:

CONTACT NAME: Michael Pitts

PHONE #: (803)-737-2566

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Water Quality

NEPA Doc Ref:

Responsibility:

CONTRACTOR

The contractor will be required to minimize possible water quality impacts through implementation of BMPs, reflecting policies contained in 23 CFR 650B and the Department's Supplemental Specification on Erosion Control Measures (latest edition) and Supplemental Technical Specifications on Seeding (latest edition). Other measures including seeding, silt fences, sediment basins, etc. as appropriate will be implemented during construction to minimize impacts to water quality.

☐ Special Provision

Migratory Bird Treaty Act

NEPA Doc Ref:

Responsibility:

CONTRACTOR

The federal Migratory Bird Treaty Act, 16 USC § 703-711, states that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The South Carolina Department of Transportation (SCDOT) will comply with the Migratory Bird Treaty Act of 1918 in regard to the avoidance of taking of individual migratory birds and the destruction of their active nests.

The contractor shall notify the Resident Construction Engineer (RCE) at least four (4) weeks prior to construction/demolition/maintenance of bridges and box culverts. The RCE will coordinate with SCDOT Environmental Services Office (ESO), Compliance Division, to determine if there are any active birds using the structure. After this coordination, it will be determined when construction/demolition/maintenance can begin. If a nest is observed that was not discovered after construction/demolition/maintenance has begun, the contractor will cease work and immediately notify the RCE, who will notify the ESO Compliance Division. The ESO Compliance Division will determine the next course of action.

The use of any deterrents by the contractor designed to prevent birds from nesting, shall be approved by the RCE with coordination from the ESO Compliance Division. The cost for any contractor provided deterrents will be provided at no additional cost to SCDOT.

☐ Special Provision

Stormwater


NEPA Doc Ref:

Responsibility:

CONTRACTOR

Stormwater control measures, both during construction and post-construction, are required for SCDOT projects with land disturbance and/or constructed in the vicinity of 303(d), TMDL, ORW, tidal, and other sensitive waters in accordance with the SCDOT's MS4 Permit. The selected contractor would be required to minimize potential stormwater impacts through implementation of construction best management practices, reflecting policies contained in 23 CFR 650 B and SCDOT's Supplemental Specifications on Seed and Erosion Control Measures (latest edition).

☐ Special Provision

Project ID : <input type="text" value="P041234"/>	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	
ENVIRONMENTAL COMMITMENTS FOR THE PROJECT		

General Permit	NEPA Doc Ref: <input type="text"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>Impacts to jurisdictional waters will be permitted under a Department of the Army Section 404 permit from the U.S. Army Corps of Engineers. Based on preliminary design, it is anticipated that the proposed project would be permitted under SCDOT's General Permit (GP). The required mitigation for this project will be determined through consultation with the USACE and other resource agencies.</p>		
<input type="checkbox"/> Special Provision		

Cultural Resources	NEPA Doc Ref: <input type="text"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>The contractor and subcontractors must notify their workers to watch for the presence of any prehistoric or historic remains, including but not limited to arrowheads, pottery, ceramics, flakes, bones, graves, gravestones, or brick concentrations during the construction phase of the project, if any such remains are encountered, the Resident Construction Engineer (RCE) will be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Archaeologist directs otherwise.</p>		
<input type="checkbox"/> Special Provision		

Floodplains	NEPA Doc Ref: <input type="text"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>The Engineer of Record will send a set of final plans and request for floodplain management compliance to the local County Floodplain Administrator.</p>		
<input type="checkbox"/> Special Provision		

Attachment A – Cultural Resources Short Form

Attachment B – Natural Resources Tech Memo

Attachment C – Bridge Replacement Scoping Risk Assessment Form

Attachment D – Floodplain Checklist

Attachment A – Cultural Resources Short Form



South Carolina
Department of Transportation

March 29, 2023

Ms. Elizabeth Johnson
Director, Historical Services, D-SHPO
State Historic Preservation Office
SC Department of Archives & History
8301 Parklane Road
Columbia, SC 29223

***RE: Cultural Resources Survey of the US 176 (Whitmire Highway) over Padgett's Creek
Bridge Replacement Project, Union County, South Carolina***

Dear Ms. Johnson:

Please find attached a copy of the above referenced report that describes cultural resources investigations conducted for the replacement of the US 176 bridge over Padgett's Creek in Union County, South Carolina.

The South Carolina Department of Transportation (SCDOT) proposes to replace the US 176 (Whitmire Highway) bridge over Padgett's Creek. The project area extends 100 feet from either side of the road centerline (200 feet wide total) and 1,500 feet from either end of the bridge. The Area of Potential Effects (APE) consists of the project area and a 300-foot viewshed beyond the project area. The archaeological survey examined the project area, while the architectural survey examined the entire APE.

The entirety of the project area falls within United States Forest Service (USFS) property. All work on these lands was conducted under an Archaeological Resources Protection Act (ARPA) permit issued on December 6, 2022 issued by the USFS Francis Marion/Sumter National Forest Office in Edgefield, South Carolina (Authorization ID: EN2301TMP).

No new archaeological resources were identified in the survey. One new aboveground resource, SHPO Site No 1439, was identified during the architectural survey. SHPO Site No 1439 is the 4-span concrete Tee beam bridge carrying US 176 over Padgett's Creek. It was originally built in 1922 and reconstructed (widened) in 1955. This resource was assessed as **not eligible** for the National Register of Historic Places (NRHP).

Based on the results of the background research and field investigations, the SCDOT has determined that there will be **no historic properties affected** by the proposed undertaking.

Per the terms of the Section 106 Programmatic Agreement executed on October 6, 2017, the Department is providing this information on behalf of the Federal Highway Administration. It is requested that you review the enclosed material, and, if appropriate, indicate your concurrence in the Department's findings. Please respond within 30 days if you have any objections or if you have need of additional information.



Sincerely,



Rebecca Shepherd
Chief Archaeologist

RES:res

Enclosures: Cultural resources survey report

I ~~(do not)~~ concur in the above determination.

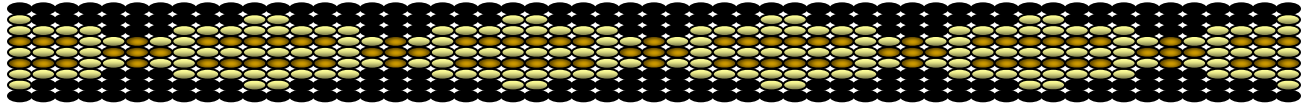
Signed:  Date: 4/26/2023

cc: Shane Belcher, FHWA
Russell Townsend, Eastern Band of Cherokee Indians
Stephen J. Yerka, Eastern Band of Cherokee Indians
Elizabeth Toombs, Cherokee Nation
LeeAnne Wendt, Muscogee (Creek) Nation
Acee Watt, United Keetoowah
Whitney Warrior, United Keetoowah

cc: Wenonah G. Haire, Catawba Nation
Keith Derting, SCIAA

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

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



May 1, 2023

Attention: Rebecca Shepherd
SCDOT
P.O. Box 191
Columbia, SC 29202-0191

Re. THPO #	TCNS #	Project Description
2023-66-16		Cultural Resources Survey of the US 176 (Whitmire Highway) over Padgetts Creek Bridge Replacement Project, Union Co., SC

Dear Ms. Shepherd,

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

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

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer

ARCHAEOLOGICAL FIELD REPORT
SCDOT ENVIRONMENTAL SECTION
SCDOT

TITLE: Cultural Resources Survey of the US 176 (Whitmire Highway) over Padgetts Creek Bridge Replacement Project, Union County, South Carolina

CONSULTANT: HDR

DATE OF RESEARCH: 2023

ARCHAEOLOGISTS: Joshua N. Fletcher and Michael Inman

ARCHITECTURAL HISTORIAN: Jessica Forbes

COUNTY: Union

PROJECT: US 176 (Whitmire Highway) over Padgetts Creek Bridge Replacement Project

SCDOT PIN: P041234

USFS REPORT: 2023-08

DESCRIPTION: The South Carolina Department of Transportation (SCDOT) proposes to replace the U.S. Route (US) 176 (Whitmire Highway) Bridge over Padgetts Creek in Union County, South Carolina. The purpose of this project is to replace the bridge to correct the load restriction placed on it as well as restore all bridge components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition. The bridge is currently open to traffic and would remain open during construction. It is anticipated that minor amounts of right-of-way (ROW) will be required for the replacement of this structure. The minor amount of ROW needed will include temporary and/or permanent strips. Existing ROW is approximately 75 feet along the roadway and 150 feet within the bridge area. The archaeological area of potential effect (APE) is 100 feet from either side of the road centerline (200 feet wide total) and 1,500 feet from either end of the bridge. The architectural APE extends 300 feet outside the archaeological APE. Figure 1 presents the project location on the U.S. Geological Survey (USGS) 1970 *Whitmire North, SC*, quadrangle.

An Archaeological Resources Protection Act (ARPA) permit was acquired on December 6, 2022. This permit (Authorization ID: EN2301TMP) was required in order to investigate the project area, all of which is within USFS property. The permit was obtained through the USFS Francis Marion/Sumter National Forest Office in Edgefield, South Carolina and was facilitated by Krista Shelton of the USFS. A copy of the ARPA permit is in Attachment 1.

LOCATION: The project is located on US 176, northeast of Whitmire, South Carolina.

USGS QUADRANGLE: *Whitmire North, SC*

DATE: 1970 **SCALE:** 7.5' **UTM:** **ZONE:** 17 **DATUM:** NAD27

PROJECT CENTERPOINT: **EASTING:** 444545 **NORTHING:** 3822963

ENVIRONMENTAL SETTING: The project is located to the east and west of US 176. This road passes through moderately sloping topography, with lands sloping down toward Padgetts Creek within the center of the project area. Land use within the project vicinity includes forested upland areas with a bottomland hardwood forest riparian corridor.

NEAREST RIVER/STREAM AND DISTANCE: Padgetts Creek, at the center of the study area

SOIL TYPES: Cataula sandy loam (2 to 6 percent slopes, moderately eroded), Enon sandy loam (6 to 10 percent slopes), Enon sandy loam (15 to 25 percent slopes), Madison sandy loam (2 to 6 percent slopes), Madison sandy loam (6 to 10 percent slopes), Wehadkee-Chewacla complex

REFERENCE FOR SOILS INFORMATION: Natural Resources Conservation Service (NRCS). 2023. Soils Surveys for Union County, SC. (<https://websoilsurvey.nrcs.usda.gov/app/>). Accessed February 2023.

GROUND SURFACE VISIBILITY: 0% ☐ 1-25% ☒ 26-50% ☐ 51-75% ☐ 76-100% ☐

CURRENT VEGETATION: Habitat types within the project corridor consist of bottomland forested wetlands dominated by large canopy tree species, such as water oak and sycamore, with an understory dominated by herbaceous species such as switchcane. The forested upland areas consist primarily of a dense mixed pine forest dominated by loblolly pine and sweetgum. In addition to the roadway embankment, a maintained powerline parallels US 176 to the east.

INVESTIGATION: On January 18, 2023, the project archaeologist (Josh Fletcher) consulted the ArchSite program to determine if previously identified archaeological sites are located within 0.5 mile of the project area. Fifteen archaeological sites are located within 0.5 mile of the project area. These sites are summarized in Table 1 and shown on Figure 1. Two previous cultural resources surveys have occurred within 0.5 mile of the project area (Harmon 2006; Sipes and Dunn 2011). The majority of the southeastern quadrant of the archaeological APE was previously surveyed (Sipes and Dunn 2011); no cultural resources were identified within the current archaeological APE during this previous survey. Also on January 18, 2023, Mr. Fletcher searched the National Register of Historic Places (NRHP) files of the South Carolina Department of Archives and History (SCDAH) using the ArchSite program to identify previous investigations and previously identified resources. No historic architectural resources are located near the project area. No NRHP-eligible archaeological sites or architectural resources are located within 0.5 mile of the project area.

Table 1. Previously identified archaeological sites within 0.5 mile of the project.

Site	Site Type	NRHP Eligibility
38UN870	Twentieth century scatter	Not eligible
38UN871	Nondiagnostic lithic scatter; late nineteenth to early twentieth century homesite	Not eligible
38UN872	Nondiagnostic lithic scatter; twentieth century scatter	Not eligible
38UN873	Late nineteenth to early twentieth century homesite	Not eligible
38UN874	Nondiagnostic lithic scatter	Not eligible
38UN875	Nondiagnostic lithic scatter; twentieth century scatter	Not eligible
38UN876	N/A	N/A
38UN890	Nondiagnostic lithic scatter	Not eligible
38UN892	Unidentified Archaic lithic scatter; twentieth century isolated nail	Not eligible
38UN895	Middle Woodland lithic scatter	Not eligible
38UN897	Nondiagnostic lithic scatter	Not eligible
38UN899	Unidentified Archaic lithic scatter	Not eligible
38UN1357	Nondiagnostic lithic scatter	Not eligible
38UN1448	Nondiagnostic isolated flake; late nineteenth to early twentieth century prospecting pit	Not eligible
38UN1449	Nondiagnostic lithic scatter	Not eligible

Note: N/A = not applicable

ARCHAEOLOGICAL SURVEY: Investigators conducted an intensive archaeological survey on February 7, 2023. The archaeological survey consisted of intensive shovel testing in upland areas. No shovel tests were excavated within areas with steep slopes (15 percent or greater), wetland areas, or previously surveyed areas (majority of the southeastern quadrant). All shovel test locations were visited, and visual inspection was conducted within areas that displayed good ground surface visibility. Figure 2 presents the locations of the project and shovel tests on a modern aerial photograph. Figures 3 and 4 present typical views of the project area.

Investigators traversed a total of four shovel test transects, one in each of the four quadrants surrounding the bridge. The transects were placed approximately 75 feet from the road centerline. Shovel tests were excavated at 100-foot intervals along each transect, where possible. Investigators excavated a total of 41 shovel tests. The shovel tests were excavated to an average depth of 20 centimeters below surface (cmbs) and ranged from 15 to 30 cmbs deep. In nearly all shovel tests, compact subsoil was encountered by approximately 10 cmbs, if not at the ground surface. Shovel tests generally exposed a 10R3/4 dusky red clay loam from 0 to 10 cmbs, over a compact 10R4/8 red clay subsoil at 10 to 30+ cmbs. The fill from these tests was sifted through ¼-inch mesh hardware cloth. Investigators recovered no cultural materials from the shovel tests.

ARCHITECTURAL SURVEY: Investigators conducted the architectural resources survey on February 15, 2023 and recorded one historic-age (50 years of age or older; constructed in 1973 or before) architectural resource (State

Historic Preservation Office [SHPO] Survey Site Number 1439; Figures 5 through 8). Data from the Union County Assessor was consulted prior to the architectural resources survey to help identify historic-age architectural resources within the architectural APE. A Statewide Survey of Historic Properties survey form was completed for the newly recorded architectural resource (Attachment 2). This newly recorded resource, a transportation resource (highway bridge) originally built in 1922, is recommended not eligible for listing in the NRHP due to a lack of historic and/or engineering significance under Criteria A through D. No other historic-age architectural resources were present within the architectural APE.

Site Number 1439

The bridge carrying US 176 over Padgett's Creek (SCDOT Structure Number 0004420017600200) was built in 1922 and reconstructed (widened) in 1955. The four-span concrete Tee beam bridge measures 88 feet long (22 feet per span). The original 1922 structure was widened in 1955 using a cast-in-place concrete deck. The modified structure, which carries two lanes, has a width between the curbs of 28 feet. The original 1922 structure is supported by cast-in-place concrete piers, each comprising two "mushroom head" columns with concrete caps. When the structure was widened in 1955, the piers supporting the new portions of the concrete slab (on the eastern and western sides of the 1922 structure) included concrete caps on steel I-beams with cast concrete footings.

Though the bridge has components built in 1955, the original 1922 structure was not removed when alterations were made in 1955. Therefore, the bridge does not qualify for streamlined review under the Federal Highway Administration's Post-1945 Bridges Program Comment because a portion of the bridge predates the 1945 cutoff. According to a nationwide road bridge context, cast-in-place, reinforced concrete Tee beam bridges are "ubiquitous to America's highways and byways," with thousands constructed from the first decade of the twentieth century until the 1960s (Parsons Brinkerhoff 2005:3-85). The Tee beam was one of the earliest forms to be standardized by state highway departments, and character-defining features include the slab with integrated longitudinal beams; parapet or railing when integrated; and abutments, wingwalls, or piers (in some cases) (Parsons Brinkerhoff 2005:3-85).

While the bridge is a part of South Carolina's highway infrastructure, as an individual resource, the US 176 bridge over Padgett's Creek is not found to have made a significant contribution to the history of transportation within Union County or the state of South Carolina; therefore, it is not significant under Criterion A. The bridge is not known to have been associated with individuals that were historically significant; therefore, it is not significant under Criterion B. The concrete slab bridge is not significant under Criterion C for its design or construction due to the use of common construction materials and building techniques. The bridge is of a common type. The widening of the bridge in 1955—though completed with in-kind materials (concrete)—altered the original, pre-1955 appearance. As an example of a concrete Tee beam bridge modified in the 1950s, its design is spare. The bridge does not display exemplary engineering traits, nor does it solve a unique engineering problem. It is not considered the work of a master, nor are its engineering traits specific to the region or exemplary in any way. The bridge's common construction is unlikely to yield new information, nor answer important research questions about local, state, or national history; therefore, it does not have significance under Criterion D. Therefore, Site Number 1439 is not found to have significance under Criteria A through D and is recommended not eligible for listing in the NRHP.

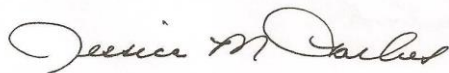
REMARKS AND RECOMMENDATIONS: HDR identified no archaeological resources and one historic-age architectural resource (SHPO Survey Site Number 1439) during the survey. Site Number 1439 is recommended not eligible for listing in the NRHP. No previously recorded historic properties are within the project area. Therefore, the project, as currently planned, will not affect any historic properties. If current proposed plans change, additional survey may be necessary.

SIGNATURE:



DATE: March 29, 2023

SIGNATURE:



DATE: March 29, 2023

REFERENCES CITED

- Harmon, Mike. 2006. *New Office Construction, Second Alternative, Enoree Ranger District, Sumter National Forest*. Prepared by the U.S. Forest Service.
- Natural Resources Conservation Service (NRCS). 2023. *Soils Surveys for Union County, SC*. <https://websoilsurvey.nrcs.usda.gov/app/>, accessed February 2023.
- Parsons Brinckerhoff and Engineering and Industrial Heritage. 2005. *A Context for Common Historic Bridge Types*. NCHRP Project 25-25, Task 15. Prepared for the National Cooperative Highway Research Program, administer by the Transportation Research Board of the National Research Council, Washington, D.C.
- Sipes, Eric, and Misty Dunn. 2011. *Cultural Resources Survey of the Lower Enoree First Thinnings Project, Compartments 9, 63, and 150-155, Enoree Ranger District, Sumter National Forest, Chester, Union, and Newberry Counties, South Carolina*. USFS Report 2011-05. Report submitted to USDA Forest Service, Francis Marion and Sumter National Forests, Enoree District Office. Report prepared by Southern Research, Historic Preservation Consultants, Inc.

LIST OF FIGURES

- Figure 1. The location of the US 176 (Whitmire Highway) over Padgetts Creek Bridge Replacement Project, and previously and newly recorded cultural resources.
- Figure 2. Aerial photograph showing shovel test locations and newly recorded architectural resource.
- Figure 3. View of the northeastern quadrant of the archaeological APE, looking south
- Figure 4. View of the southwestern quadrant of the archaeological APE, looking south
- Figure 5. Site Number 1439, facing southeast.
- Figure 6. Site Number 1439, facing southeast.
- Figure 7. Site Number 1439, facing northwest.
- Figure 8. Site Number 1439, facing southeast.

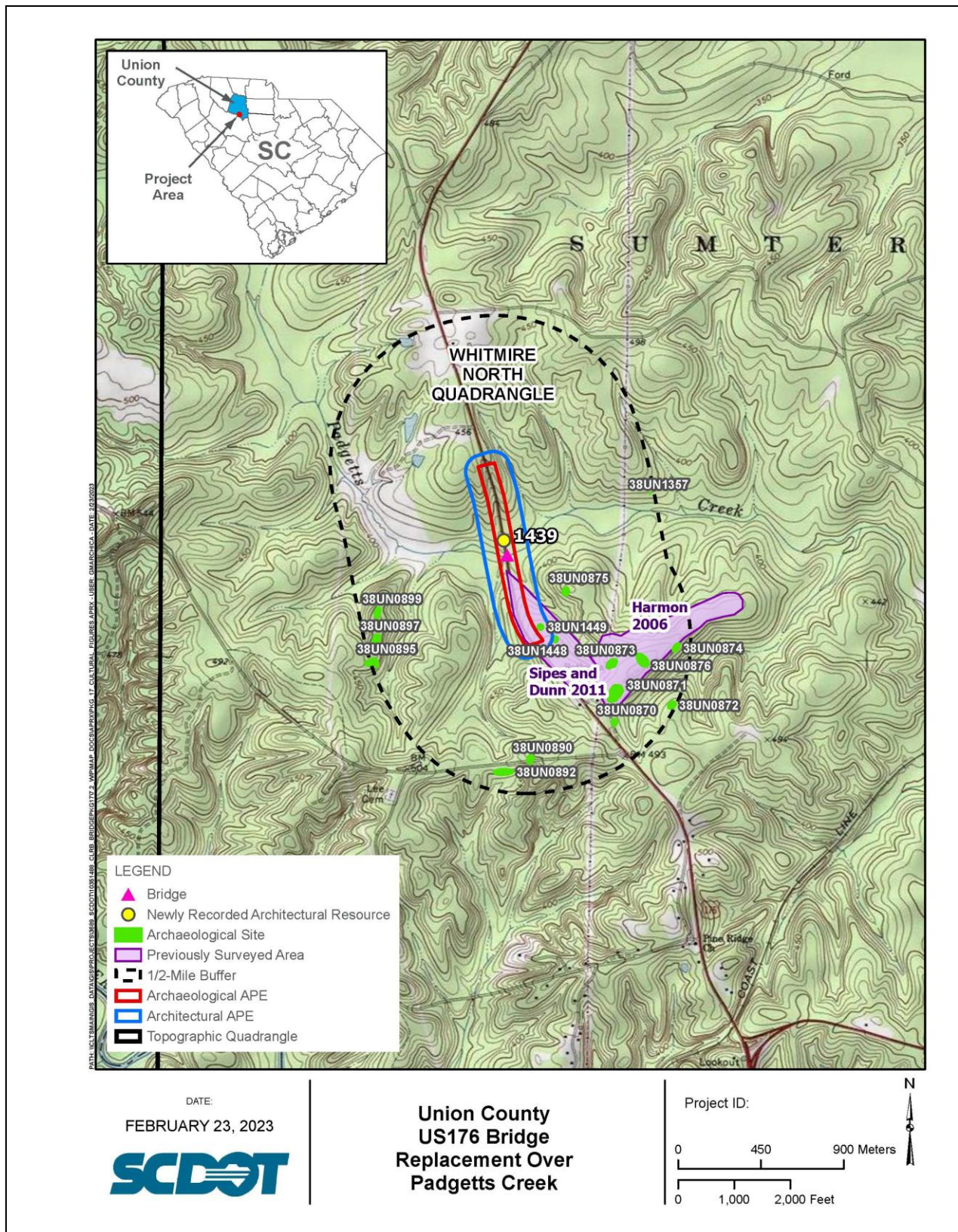


Figure 1. The location of the US 176 (Whitmire Highway) over Padgett's Creek Bridge Replacement Project, and previously and newly recorded cultural resources.

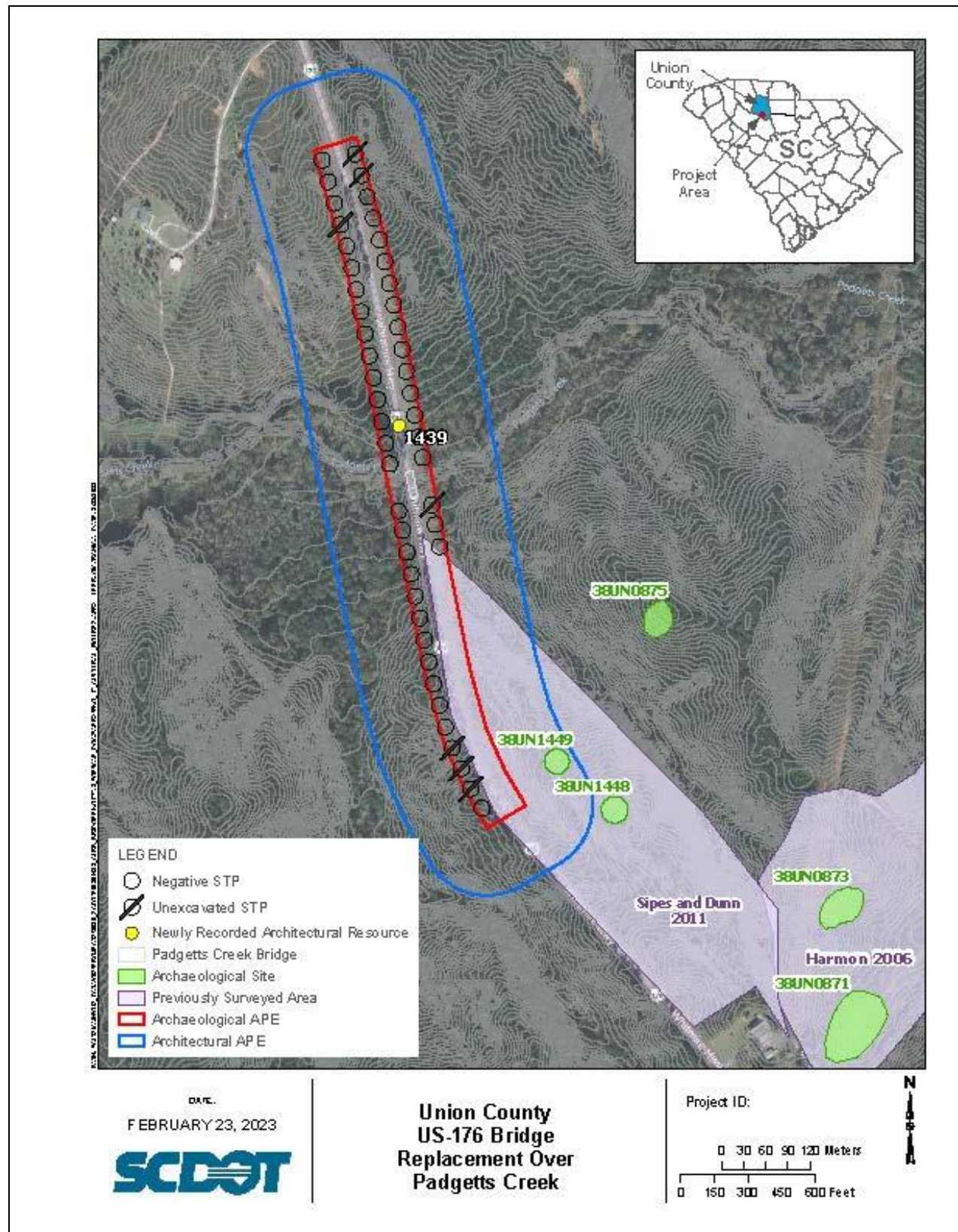


Figure 2. Aerial photograph showing shovel test locations and newly recorded architectural resource.



Figure 3. View of the northeastern quadrant of the archaeological APE, looking south.



Figure 4. View of the southwestern quadrant of the archaeological APE, looking south.



Figure 5. Site Number 1439, facing southeast.



Figure 6. Site Number 1439, facing southeast.



Figure 7. Site Number 1439, facing northwest.



Figure 8. Site Number 1439, facing southeast.

ATTACHMENT 1

Authorization ID: EN2301TMP
Contact ID: 912499010602
Expiration Date: 12/30/2023

FS-2700-32 (V.07/2012)
OMB No. 0596-0082

**U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE**

PERMIT FOR ARCHAEOLOGICAL INVESTIGATIONS

AUTHORITY

The Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-mm

The Organic Act of 1897, 16 U.S.C. 551

1. Holder Josh Fletcher-HDR	2. Date of corresponding application 11/17/2022
3. Address HDR 4400 Leeds Avenue Suite 450 North Charleston, SC 29405	4. Telephone numbers 843-729-2551
	5. Email addresses Joshua.fletcher@hdrinc.com
6. Name of authorized officer: Krista Shelton, Acting District Ranger Telephone numbers : 803-321-2961 Email address : krista.shelton@usda.gov District Archaeologist: Jim Bates Telephone number (803) 637-5396 Email addresses James.Bates@usda.gov	7. Name of principal investigators Josh Fletcher 843-729-2551 Email addresses Joshua.fletcher@hdrinc.com
8. Name of field directors authorized to carry out field projects Josh Fletcher	Telephone numbers 843-729-2551 Email address Joshua.fletcher@hdrinc.com
9. Activities authorized • Non-ground-disturbing activities that include limited testing (e.g., shovel tests or scrapes)	

- Ground-disturbing activities (e.g., excavation or collection) involving archaeological resources more than 100 years old.
- Ground-disturbing activities (e.g., excavation or collection) involving archaeological resources 100 years old or less.

10. Description of National Forest System lands authorized for use (hereinafter referred to as "the permit area")

This project will take place in Union County, SC and consists of a bridge replacement along US 176 (Whitmire Highway) over Padgetts Creek. Land to both sides of the road is owned by the USFS and is part of Sumter National Forest. The central UTM coordinates for the proposed work are East 444535 North 3822956.

11. Permit term

From: January 1, 2023

To: March 6, 2023

12. Name and address of the curatorial facility in which collections, records, data, photographs, and other documents resulting from activities conducted under this permit shall be deposited for permanent preservation on behalf of the United States Government.

The South Carolina Institute of Anthropology and Archaeology
1321 Pendleton street
Columbia, SC 29208
Attn: Sharon Pekarul

TERMS AND CONDITIONS

I. GENERAL TERMS

A. AUTHORITY. This permit is issued pursuant to , 36 CFR Part 251, Subpart B, 36 CFR Part 296, the Uniform Rules and Regulations of the Antiquities Act of 1906, 43 CFR Part 3, and applicable Forest Service policies and procedures and is subject to their provisions.

B. AUTHORIZED OFFICER. The authorized officer for this permit is the Forest Supervisor or a subordinate officer with delegated authority.

C. ANNUAL REVIEW. If this permit is issued for more than one year, it shall be reviewed annually by the authorized officer.

D. RENEWAL AND EXTENSION. This permit is not renewable. The holder may request an extension of this permit for a limited, specified period to complete activities authorized under this permit. Requests for an extension must be submitted in writing at least one month before expiration of this permit.

E. AMENDMENT. This permit may be amended in whole or in part by the Forest Service when, at the discretion of the authorized officer, such action is deemed necessary or desirable to incorporate new terms that may be required by law, regulation, the applicable land management plan, or projects and activities implementing a land management plan pursuant to 36 CFR Part 215. Any amendments to individuals named in or activities authorized by this permit that are needed by the holder must be approved by the authorized officer in writing.

F. COMPLIANCE WITH LAWS, REGULATIONS, AND OTHER LEGAL REQUIREMENTS. In exercising the privileges granted by this permit, the holder shall comply with all present and future federal laws and regulations and all present and future state, county, and municipal laws, regulations, and other legal requirements that apply to the permit area, to the extent they do not conflict with federal law, regulations, or policy. The Forest Service assumes no responsibility for enforcing laws, regulations, and other legal requirements that fall under the jurisdiction of other governmental entities.

G. NON-EXCLUSIVE USE. The use and occupancy authorized by this permit are not exclusive. The Forest Service reserves the right of access to the permit area, including a continuing right of physical entry to the permit area for inspection, monitoring, or any other purpose consistent with any right or obligation of the United States under any law or regulation. The holder shall allow the authorized officer or the authorized officer's representative full access to the permit area at any time the holder is in the field for purposes of examining the permit area and any recovered materials and related records. The Forest Service reserves the right to allow others to use the permit area in any way that is not inconsistent with the holder's rights and privileges under this permit, after consultation with all parties involved.

H. ASSIGNABILITY. This permit is not assignable or transferable.

II. OPERATIONS

A. OPERATING PLAN. The application corresponding to this permit is incorporated as the operating plan for this permit and is attached as Appendix A. The authorized officer may supplement the information contained in the application as appropriate or necessary.

B. REQUIRED PERMITS. The holder shall obtain all other permits required for conducting the activities authorized by this permit.

C. QUALIFIED INDIVIDUALS. Archaeological project design, literature review, development of regional historical contexts, site evaluation, conservation and protection measures, and recommendations for subsequent investigations shall be developed with direct involvement of an individual who meets the Secretary of the Interior's Standards for Archaeology and Historic Preservation. Fieldwork shall be overseen by an individual who meets the Secretary of the Interior's Standards for Archaeology and Historic Preservation.

D. CONDITION OF OPERATIONS. The holder shall maintain the authorized improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer and consistent with other provisions of this permit. Standards are subject to periodic change by the authorized officer.

E. PROHIBITION ON USE OF MECHANIZED EQUIPMENT IN WILDERNESS AREAS. The holder shall not use mechanized equipment in wilderness areas and shall not use mechanized equipment in proposed or potential wilderness areas without prior written approval from the authorized officer.

F. PROHIBITION ON FLINT KNAPPING AND LITHIC REPLICATION EXPERIMENTS. The holder shall not conduct any flint knapping or lithic replication experiments at any archaeological site, aboriginal quarry source, or non-archaeological site that might be mistaken for an archaeological site as a result of such experiments.

G. PROHIBITION ON IMPEDING OR INTERFERING WITH OTHER USES. The holder shall perform the activities authorized by this permit so as not to impede or interfere with administrative or other authorized uses of National Forest System lands.

H. RESTRICTION ON MOTOR VEHICLE USE. The holder shall restrict motor vehicle use to designated roads, trails, and areas, unless specifically provided otherwise in the operating plan.

I. MINIMIZING GROUND DISTURBANCE. The holder shall keep ground disturbance to a minimum consistent with the nature and purpose of the authorized fieldwork.

J. RESOURCE PROTECTION. The holder shall conduct all activities so as to prevent or minimize scarring, erosion, littering, and pollution of National Forest System lands, water pollution, and damage to watersheds. In addition, the holder shall take precautions at all times to prevent wildfire. The holder may not burn debris without prior written approval from the authorized officer.

K. PREVENTION OF INJURY. The holder shall take precautions to protect livestock, wildlife, the public, and other users of National Forest System lands from accidental injury at any excavation site.

L. DESTRUCTION AND REMOVAL OF TREES. The holder shall not destroy or remove any trees on National Forest System lands without prior written approval from the authorized officer.

M. RESOURCE MANAGEMENT FACILITIES. The holder shall not disturb resource management facilities, such as fences, reservoirs, and other improvements, within the permit area without prior written approval from the authorized officer. Where disturbance of a resource management facility is necessary, the holder shall return it to its prior location and condition.

N. BACKFILLING. The holder shall backfill all subsurface test and excavation sites as soon as possible after recording the results and shall restore subsurface test and excavation sites as closely as possible to their original contour.

O. REMOVAL OF STAKES AND FLAGGING. The holder shall remove temporary stakes and flagging installed by the holder upon completion of fieldwork.

P. SITE RESTORATION. The holder shall restore all camp and work areas to their original condition before vacating the permit area. Refuse shall be carried out and deposited in disposal areas approved by the authorized officer.

Q. TITLE TO ARTIFACTS AND ASSOCIATED DOCUMENTATION. Archaeological and historical artifacts excavated or removed from National Forest System lands and any associated documentation shall remain the property of the United States.

R. NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION (NAGPRA). In accordance with 25 U.S.C. 3002 (d) and 43 CFR 10.4, if the holder inadvertently discovers human remains, funerary objects, sacred objects, or objects of cultural patrimony on National Forest System lands, the holder shall immediately cease work in the area of the discovery and shall make a reasonable effort to protect and secure the items. The holder shall immediately notify the authorized officer by telephone of the discovery and shall follow up with written confirmation of the discovery. The activity that resulted in the inadvertent discovery may not resume until 30 days after the authorized officer certifies receipt of the written confirmation, if resumption of the activity is otherwise lawful, or at any time if a binding written agreement has been executed between the Forest Service and the affiliated Indian tribes that adopts a recovery plan for the human remains and objects.

S. ADDITIONAL REQUIREMENTS. Prior to beginning any fieldwork under the authority of this permit, the holder shall contact the authorized officer responsible for administering the lands involved to obtain further instructions regarding current land and resource conditions.

III. REPORTING REQUIREMENTS

A. PRELIMINARY REPORT. The holder shall submit a preliminary report to the authorized officer within 14 days of completion of the first stage of fieldwork. The preliminary report shall enumerate what was done during the first stage of fieldwork, how it was done, by whom, where, and with what results, including maps, global positioning satellite data, an approved site form for each newly recorded archaeological site, and the holder's professional recommendations regarding resource significance, as appropriate. Depending on the scope, duration, and nature of the work, the authorized officer may require progress reports periodically for the duration of the authorized activities.

B. DRAFT FINAL REPORT. Within 30 day of completion of fieldwork, the holder shall submit an edited draft final report to the authorized officer for review to ensure conformance with applicable laws, regulations, policies, and procedures and the terms and conditions of this permit.

C. FINAL REPORT. The holder shall submit the original final report and at least two copies to the authorized officer within 60 days after completion of fieldwork.

D. BLANKET SURVEY CONSULTING PERMIT. If this is a multi-year survey consulting permit, at the end of each calendar year, the holder shall submit to the authorized officer a report enumerating all activities conducted under this permit.

E. DEPOSIT OF MATERIALS AND DOCUMENTS WITH A CURATORIAL FACILITY. Within 90 days of the date the final report is submitted to the authorized officer, the holder shall deposit all artifacts, samples, and collections and original or clear copies of all records, data, photographs, and other documents resulting from activities authorized by this permit with the curatorial facility named in block 12.

F. CATALOGUE AND EVALUATION OF DEPOSITED MATERIALS. The holder shall provide the authorized officer with a catalogue and evaluation of all materials deposited with the curatorial facility named in block 12, including the facility's accession or catalogue numbers, and confirmation, signed by an authorized curatorial facility official, that artifacts, samples, and collections were deposited with the approved curatorial facility. The confirmation shall include the date the materials were deposited and the type, number, and condition of the deposited materials.

G. CONFIDENTIALITY OF SENSITIVE RESOURCES. The holder agrees to keep the specific location of sensitive resources confidential. Sensitive resources include but are not limited to threatened, endangered, and rare species; archaeological sites; caves; fossil sites; minerals; commercially valuable resources; and traditional cultural properties.

H. CONFIDENTIALITY OF INFORMATION IDENTIFYING ARCHAEOLOGICAL SITES. Without the authorized officer's prior written approval, the holder shall not publish any locational or other information identifying archaeological sites that could compromise their protection and management by the federal government.

I. IDENTIFICATION OF FOREST SERVICE PERMIT. Any published article, paper, or book containing results of work conducted under this permit shall specify that the work was performed in the Francis Marion National Forest under a Forest Service permit.

J. SUBMISSION OF WRITTEN MATERIALS. The holder shall submit a copy of any published or unpublished report, article, paper, or book resulting from the authorized activities (other than reports required by clauses III.A, B, and C) to the authorized officer and the appropriate official of the curatorial facility named in block 12. The holder shall submit tabular and spatial data to the authorized officer in the format specified in Appendix A.

IV. RIGHTS AND LIABILITIES

A. LEGAL EFFECT OF THE PERMIT. This permit, which is revocable and terminable, is not a contract or a lease, but rather a federal license. The benefits and requirements conferred by this authorization are reviewable solely under the procedures set forth in 36 CFR Part 251, Subpart C, and 5 U.S.C. 704. This permit does not constitute a contract for purposes of the Contract Disputes Act, 41 U.S.C. 601. The permit is not real property, does not convey any interest in real property, and may not be used as collateral for a loan.

B. VALID OUTSTANDING RIGHTS. This permit is subject to all valid outstanding rights. Valid outstanding rights include those derived from mining and mineral leasing laws of the United States. The United States is not liable to the holder for the exercise of any such right.

C. ABSENCE OF THIRD-PARTY BENEFICIARY RIGHTS. The signatories of this permit do not intend to confer any rights on any third party as a beneficiary under this permit.

D. DAMAGE TO UNITED STATES PROPERTY. The holder has an affirmative duty to protect from damage the land, property, and other interests of the United States. Damage includes but is not limited to fire suppression costs, and all costs and damages associated with or resulting from the release or threatened release of a hazardous material occurring during or as a result of activities of the holder or the holder's heirs, assigns, agents, employees, contractors, or lessees on, or related to, the lands, property, and other interests covered by this permit. For purposes of clause IV.F, "hazardous material" shall mean any hazardous substance, pollutant, contaminant, hazardous waste, oil, and/or petroleum product, as those terms are defined under any federal, state, or local laws or regulations.

E. INDEMNIFICATION. The holder shall indemnify, defend, and hold harmless the United States for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the holder in connection with the use and occupancy authorized by this permit. This indemnification and hold harmless provision includes but is not limited to acts and omissions of the holder or the holder's family, guests, invitees, heirs, assignees, agents, employees, contractors, or lessees in connection with the use and occupancy authorized by this permit which result in (1) violations of any laws and regulations which are now or which may become applicable; (2) judgments, claims, demands, penalties, or fees assessed against the United States; (3) costs, expenses, and damages incurred by the United States; or (4) the release or threatened release of any solid waste, hazardous waste, hazardous materials, pollutant, contaminant, oil in any form, or petroleum product into the environment. The authorized officer may prescribe terms that allow the holder to replace, repair, restore, or otherwise undertake necessary curative actions to mitigate damages in addition to or as an alternative to monetary indemnification.

F. CONTINUATION OF LIABILITY BEYOND EXPIRATION. The holder shall not be released from requirements of this permit until all outstanding obligations have been satisfied, regardless of whether the permit has expired.

V. LAND USE FEE. The land use fee for this permit is waived pursuant to 36 CFR 251.57(b)(2).

VI. REVOCATION, SUSPENSION, AND TERMINATION

A. REVOCATION AND SUSPENSION. The authorized officer may revoke or suspend this permit in whole or in part:

1. For noncompliance with federal, state or local law.
2. For noncompliance with the terms and conditions of this permit.
3. For abandonment or other failure of the holder to exercise the privileges granted.
4. With the consent of the holder.
5. For specific and compelling reasons in the public interest.

Prior to revocation or suspension, other than immediate suspension under clause C, the authorized officer shall give the holder written notice of the grounds for revocation or suspension. In the case of revocation or suspension based on clause VI.A.1, 2, or 3, the authorized officer shall give the holder a reasonable period, not to exceed 90 days, to cure any noncompliance.

B. RELINQUISHMENT OF ARTIFACTS AND DOCUMENTS. Within 30 days of revocation or suspension of this permit, the holder shall deliver to the Forest Service all artifacts and originals of all photographs, negatives, catalogues, field notes, analysis sheets, reports in any stage of preparation, computer files, and any other records resulting from any activity conducted under this permit.

C. IMMEDIATE SUSPENSION. The authorized officer may immediately suspend this permit in whole or in part when necessary to protect public health or safety or the environment. The suspension decision shall be in writing. The holder may request an on-site review with the authorized officer's supervisor of the adverse conditions prompting the suspension. The authorized officer's supervisor shall grant this request within 48 hours. Following the on-site review, the authorized officer's supervisor shall promptly affirm, modify, or cancel the suspension.

D. APPEALS AND REMEDIES. Written decisions made by the authorized officer relating to administration of this permit are subject to appeal pursuant to 36 CFR Part 214. Revocation or suspension of this permit shall not give rise to any claim for damages by the holder against the Forest Service.

E. TERMINATION. This permit shall terminate when by its terms a fixed or agreed upon condition, event, or time occurs without any action by the authorized officer. Examples include but are not limited to expiration of the permit by its terms on a specified date. Termination of this permit is not subject to administrative appeal and shall not give rise to any claim for damages by the holder against the Forest Service.

VII. MISCELLANEOUS PROVISIONS

A. MEMBERS OF CONGRESS. No member of or delegate to Congress or Resident Commissioner shall benefit from this permit either directly or indirectly, except to the extent the authorized use provides a general benefit to a corporation.

B. SUPERIOR CLAUSES. If there is any conflict between any of the preceding clauses and any subsequent clauses or appendices, the preceding clauses shall control.

THIS PERMIT IS ACCEPTED SUBJECT TO ALL ITS TERMS AND CONDITIONS.

BEFORE ANY PERMIT IS ISSUED TO AN ENTITY, DOCUMENTATION MUST BE PROVIDED TO THE AUTHORIZED OFFICER OF THE AUTHORITY OF THE SIGNATORY FOR THE ENTITY TO BIND IT TO THE TERMS AND CONDITIONS OF THE PERMIT.

ACCEPTED:

HDR

Josh Fletcher



11/29/22

JOSH FLETCHER, MA, RPA

SIGNATURE

DATE

APPROVED:

KRISTA SHELTON
ACTING DISTRICT RANGER

12/06/2022

NAME AND TITLE OF AUTHORIZED OFFICER

SIGNATURE

DATE

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond, to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and, where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

APPENDIX A

APPLICATION AND SCOPE OF WORK



Scope of Work

US 176 (Whitmire Highway) over Padgetts Creek Bridge Replacement Union County, South Carolina SCDOT Project # P041234

The South Carolina Department of Transportation (SCDOT) is proposing to replace the US 176 (Whitmire Highway) bridge over Padgetts Creek in Union County, SC (**Figure 1**). The present bridge is a two-lane structure that has become functionally obsolete. The bridge will be replaced in kind and in the same location, but a small amount of additional right-of-way (ROW) is anticipated to be required in order to accommodate the new bridge structure, and to facilitate future maintenance (**Figure 2**). A total of approximately 2.48 acres of new ROW is anticipated to be acquired for the project. All new ROW is on land owned by the United States Forest Service (USFS). The project area is the 2.48 acres that comprises the Area of Direct Effect (ADE) proposed for archaeological survey under this Scope of Work.

The goals of the archaeological investigations will be to identify any archaeological sites on the property, and to make preliminary determinations of site significance and provide recommendations for future archaeological work, if applicable. Specific tasks germane to these goals will include Field Investigations, Artifact Analysis, and Report Preparation.

Background Research

Prior to fieldwork, a background investigation will be undertaken to better understand the history of the project area as well as determine if any previously recorded cultural resources are located within or in the vicinity of the project area. This investigation will include a review of ArchSite, the online GIS database of archaeological, historic, and architectural resources recorded within the state and maintained and updated by the South Carolina Institute of Archaeology and Anthropology (SCIAA) and the South Carolina Historic Preservation Office (SHPO). Historic maps and aerial photographs will also be examined to determine if any no longer extant resources should be expected within the project area. **Figure 1** shows the previously recorded resources in the vicinity of the ADE.

Field Investigations

Following issuance of a Permit for Archaeological Investigations (Permit) under the Archaeological Resources Protection Act (ARPA), HDR would undertake an investigation of the 2.48-acre ADE. Supervisory project personnel for the survey would meet the qualifications for professional archaeologists as listed in the Secretary of the Interior's Professional Qualification Standards. The investigation would follow the guidance outlined in the South Carolina Standards and Guidelines for Archaeological Investigations (2013). Survey methods would consist of a surface inspection of the entire ADE, with a particular emphasis on any patches of exposed ground surface that may be present. The goals of the surface inspection would be to locate any historic period or Pre-Contact artifacts visible on the surface, as well as any above-ground or ground-level archaeological features such as wells, house foundations, or rock alignments. **Figure 3** is an aerial photograph showing the location of the archaeological Area of Potential Effect (APE). Subsequent to the surface inspection, shovel test pits (STP) spaced at 30-meter intervals would be excavated within

the ADE. It is anticipated that a total of 124 STPs, excavated along eight shovel test transects (two shovel test transects per quadrant), would be required to provide adequate coverage of the ADE. However, conditions on the ground would dictate the exact number and placement of STPs. Shovel test pits would not be excavated in areas that are excessively sloped, poorly drained, or are the locus of substantial previous disturbance.

Shovel test pits would measure approximately 30-40 centimeters in diameter and would be excavated to one meter in depth unless sterile subsoil, the water table, bedrock, or an impenetrable obstacle was encountered. Soils in the South Carolina Piedmont, where the project area is located, are typically highly deflated; therefore, it is anticipated that most shovel tests would be less than one meter in depth. All excavated soils would be screened through 0.25-inch hardware cloth to ensure systematic artifact recovery. Any artifacts recovered during the investigation would be placed in bags and marked with provenience information (e.g., STP designation and location), depth of the recovered artifact(s), and other relevant information. Soil color and texture would be recorded in a notebook carried by the field crew. The locations of shovel test pits, site boundaries, and cultural and topographic features found within the APE would be recorded with a Trimble GeoXT GPS Unit.

Archaeological site boundaries would be established by bracketing all positive STPs with two negative STPs excavated at 15-meter intervals in each cardinal direction, and by the absence of any artifacts or archaeological features visible on the ground surface in the vicinity of the negative shovel tests. However, no shovel tests would be excavated outside of the ADE. A National Register of Historic Places (NRHP) eligibility recommendation would be made for any sites documented during the investigation. NRHP recommendations would be based on guidelines listed in National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation (1997) and other relevant publications, and through consultation with the USFS and SC SHPO, as appropriate. Sites for which exact boundaries could not be determined because they extended outside the ADE, or due to other factors would be recorded as unevaluated. The USFS would be consulted regarding the necessity for and type of any additional work that might be necessary on such sites.

In the unlikely event that unmarked human burials or human skeletal remains were encountered during this investigation, HDR archaeologists would immediately cease work in the vicinity of the remains and would contact both the USFS and the proper authorities. South Carolina Code 16-17-600 prohibits the destruction of graves and graveyards and a 1989 amendment to the law made the destruction or desecration of human remains a felony. All excavation in the vicinity of human burials would be halted until proper authority to continue was issued.

Analysis and Reporting

Once fieldwork is completed any artifacts recovered will be taken to HDR's office in North Charleston, South Carolina to be cleaned, cataloged, and analyzed. GPS data will be post-processed to ensure maximum accuracy, and maps will be made using ArcGIS showing the locations of STPs, site boundaries, surface finds, project limits, topographic features, and other relevant information. All site boundaries (polygons) will be made into GIS shapefiles to be added to the USFS GIS files. Field notes will be copied

and scanned for curation; permanent archaeological site numbers will be obtained from SCIAA for any sites documented during the survey, and standard South Carolina archaeological site forms will be prepared for each site recorded. The USFS will review draft site forms prior to submission to SCIAA for Smithsonian numbers. Any newly recorded archaeological sites will be given assigned temporary USFS site numbers. Both digital and paper copies of new or revisit site forms will be provided to the USFS. All artifacts and survey documentation will be temporarily housed in HDR's North Charleston office until all project reporting was completed. Artifacts and survey documentation will be curated and will remain federal property; the South Carolina Institute of Archaeology and Anthropology (SCIAA) will be the curation facility.

Once the fieldwork and analysis are completed, a report will be prepared detailing the results of the cultural resources investigation. The report will be number 2023-08 in the USFS report series. The SCDOT currently has a programmatic agreement with the Federal Highway Administration (FHWA) and SC SHPO that allows for Section 106-related projects to be reported via a screening form, internal memorandum, or a standardized short form report depending on the type and number of cultural resources identified, and other factors. It is anticipated that for the current project a standardized short form report format will be utilized. A copy of this report template is attached to this application. The SCDOT will supply copies of the report along with site forms (if applicable) to the USFS, SC SHPO, and SCIAA for review and comment. The USFS will review the draft report prior to SHPO/THPO consultation. Native American tribes with an established interest in Union County will be afforded an opportunity to comment on the report. The SCDOT will be responsible for all SHPO and THPO consultation.

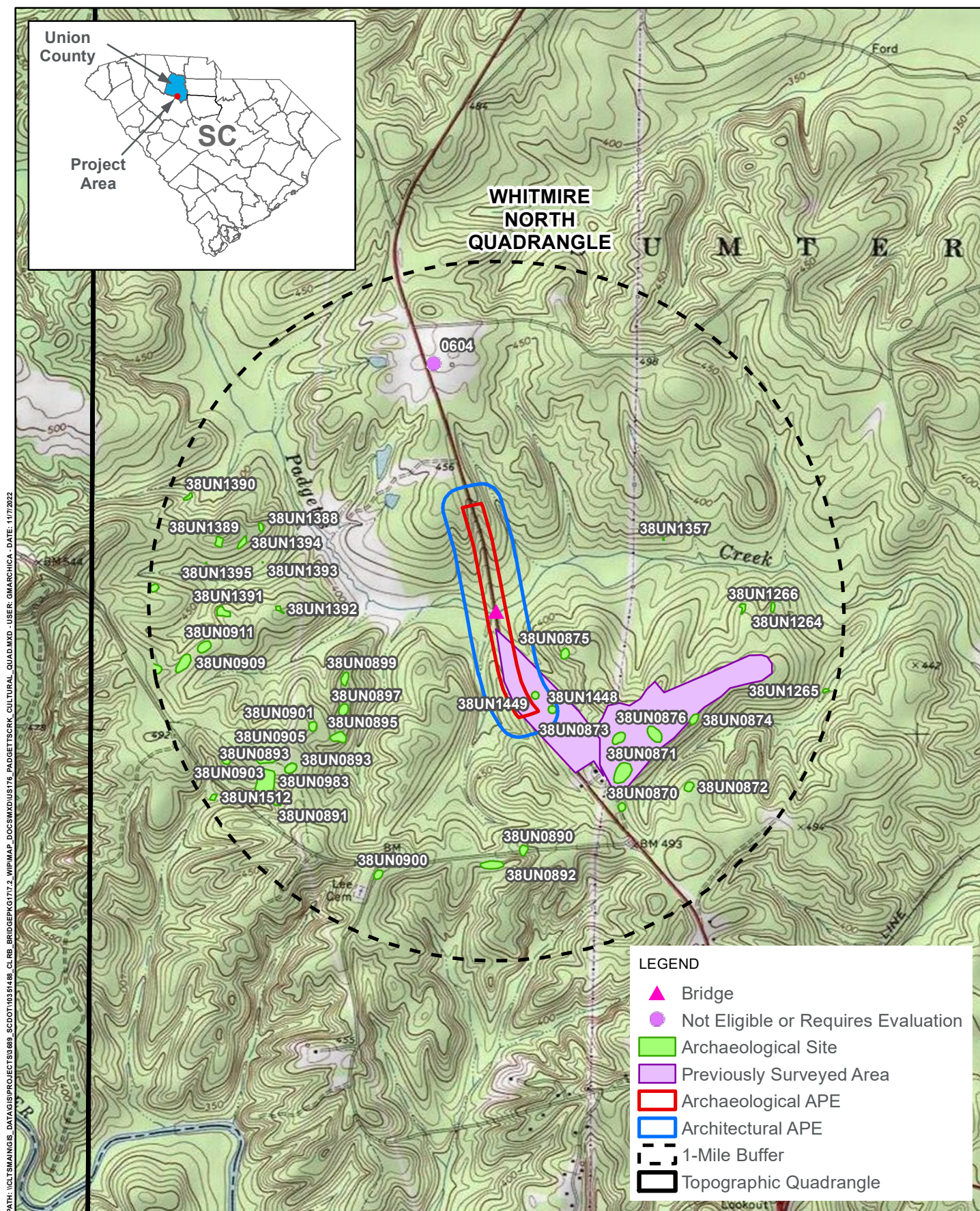
Schedule

This project would commence with the issuance of the Permit from NPS. Fieldwork would begin, weather permitting, within **twenty (20) business days** after the ARPA permit is finalized. Fieldwork is expected to take **four (4) days** to complete. A draft report and any relevant associated documentation will be submitted to the USFS, SC SHPO, and SCIAA for preliminary review within four weeks following completion of fieldwork, with final draft submission to follow as soon as practicable thereafter, with the exact timing dependent on the scope and scale of any revisions required to the preliminary draft.

Sincerely,
HDR

A handwritten signature in black ink, appearing to read "Josh Fletcher". The signature is fluid and cursive, with the first name "Josh" being more prominent than the last name "Fletcher".

Josh Fletcher
Senior Archaeologist



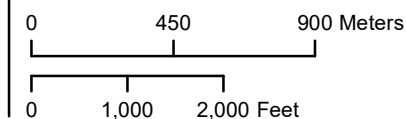
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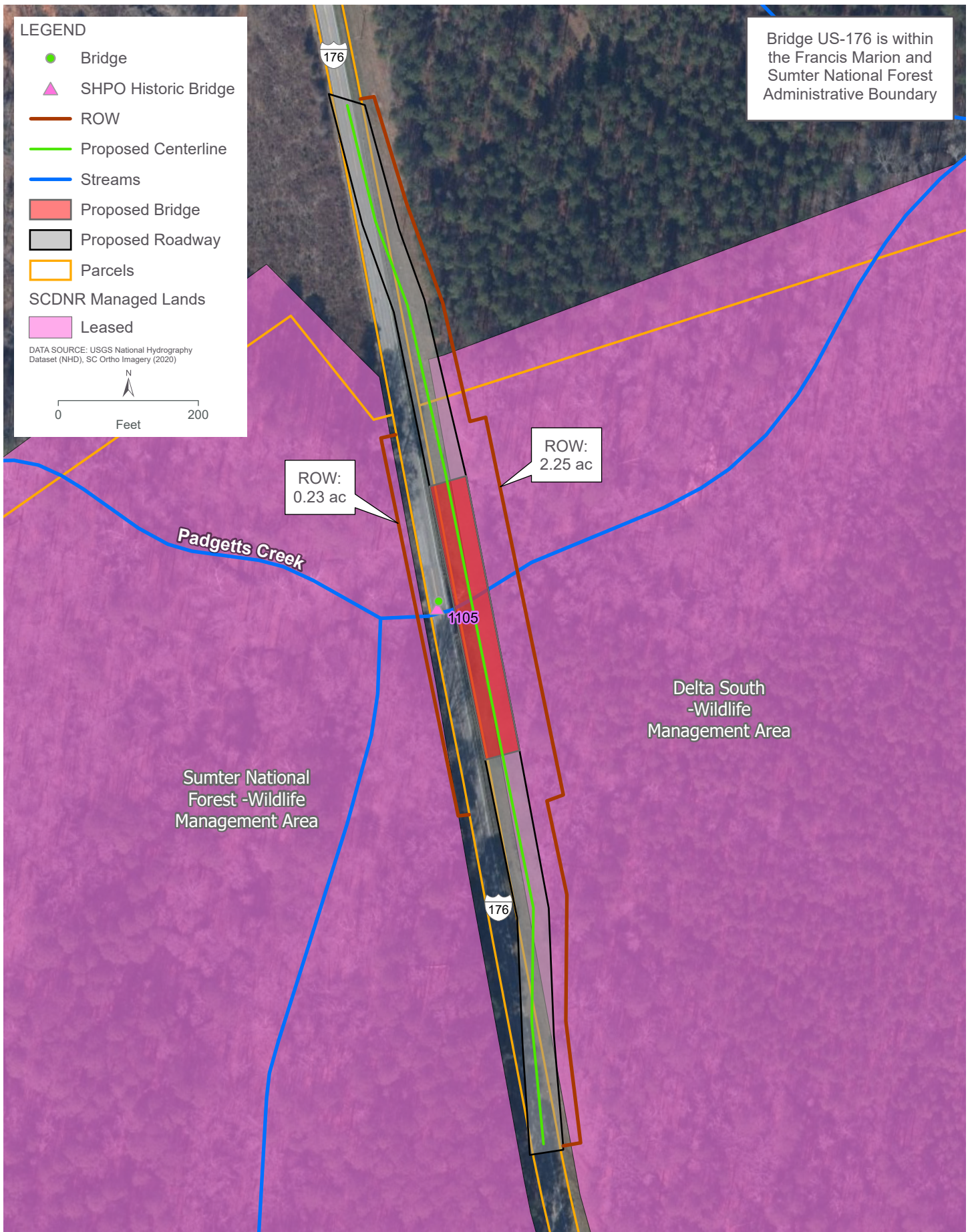
NOVEMBER 4, 2022

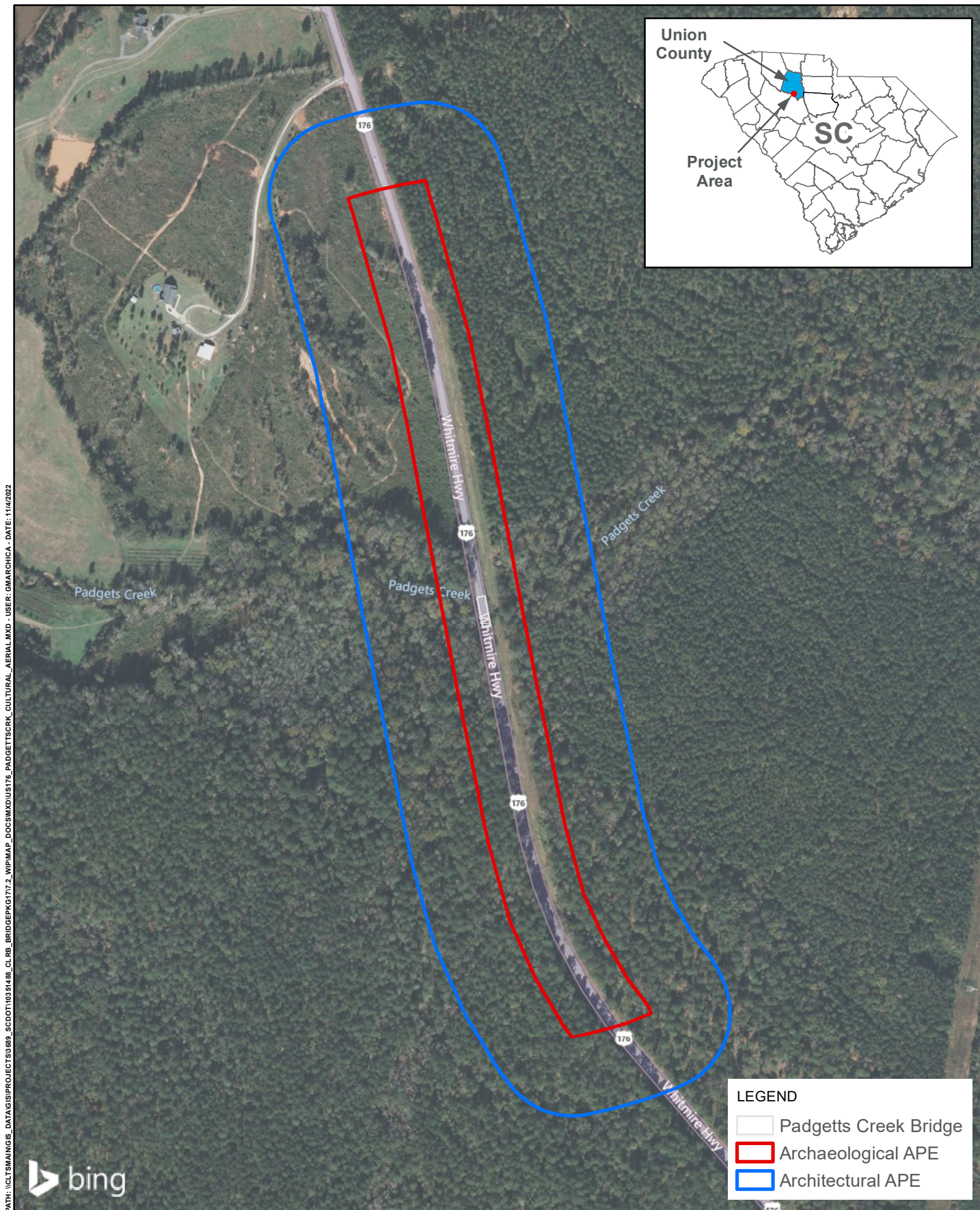


Figure 1
Union County
US176 Bridge
Replacement Over
Padgett's Creek

Project ID:







DATE:

NOVEMBER 4, 2022



Figure 3
Union County
US176 Bridge
Replacement Over
Padgett's Creek

Project ID:



Use Code: Click here to enter text.

**U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE**

Authorization ID: Click here to enter text.

**APPLICATION FOR PERMIT FOR ARCHAEOLOGICAL
INVESTIGATIONS**

Contact ID: Click here to enter text.

Select all authorities that apply

Authority:

**Archaeological Resources Protection Act of 1979, 16
U.S.C. 470aa-mm**

Antiquities Act of 1906, 16 U.S.C. 431-433

Organic Act of 1897, 16 U.S.C. 551

Instructions: Complete and return two copies of this application form and required attachments to the appropriate Forest Service administrative unit. All information requested must be completed before the application will be considered. Use separate pages if more space is needed to complete a section.

1. Name of applicant (individual, institution, corporation, partnership, or other entity)

Josh Fletcher - HDR

2. Mailing address

HDR
4400 Leeds Avenue
Suite 450
North Charleston, SC 29405

3. Telephone numbers

843-729-2551

4. Email addresses

Joshua.fletcher@hdrinc.com

5. Nature of archaeological work proposed

- ☒ Survey and recordation
- ☐ Limited testing (shovel tests, scrapes, probes)
- ☐ Formal testing and/or surface collection (project- specific)
- ☐ Excavation and/or removal (project-specific)
- ☐ Conservation and protection, e.g., ruin stabilization, restoration, rock art conservation, ARPA damage assessments (project-specific)

6. Location of proposed work (attach additional sheets)

a. Description of federal lands involved. Specification of state, county, and Forest Service administrative unit where work is to occur, using best available data, e.g., global positioning satellite coordinates, Universal Transverse Mercator coordinates, township, range and section (cadastral) subdivisions, or metes and bounds. Readable copy of map at appropriate scale showing specific areas for which permit is desired.

This project will take place in Union County, SC and consists of a bridge replacement along US 176 (Whitmire Highway) over Padgetts Creek. Land to both sides of the road is owned by the USFS and is part of Sumter National Forest. The central UTM coordinates for the proposed work are East 444535 North 3822956.

b. Identification of archaeological or other cultural resources involved.

Please see the attached map showing previously recorded cultural resources within and in the vicinity of the proposed project area.

7. Duration of proposed work

Duration of entire project: From: Click here to enter a date. To: Click here to enter a date.

Duration of fieldwork: From: 1/2/2023 To: 3/6/2023

<p>8. Principal investigators Name of individuals responsible for planning and overseeing field projects, including supervision of staff and responsibility for the professional quality of resource evaluations and recommendations.</p> <p>Josh Fletcher</p>	<p>Principal investigator contact information</p> <p>Telephone numbers: 843-729-2551</p> <p>Email addresses: Joshua.fletcher@hdrinc.com</p>
<p>Click here to enter text.</p>	<p>Click here to enter text.</p>
<p>9. Field Director Name of individuals responsible for carrying out field projects, for technical quality of fieldwork through direct on-the-ground supervision of all aspects of fieldwork and data gathering, for proposing resource evaluations and recommendations for further treatment, and for preparing field records and descriptive reports.</p> <p>Josh Fletcher</p>	<p>Field Director contact information</p> <p>Telephone numbers: 843-729-2551</p> <p>Email addresses: Joshua.fletcher@hdrinc.com</p>
<p>10. Permit holder Name of individual who will be responsible for fulfilling the terms and conditions of the permit or who has authority to bind the entity applying for the permit to its terms and conditions.</p> <p>Josh Fletcher</p>	<p>Permit holder contact information</p> <p>Telephone numbers: 843-729-2551</p> <p>Email addresses: Joshua.fletcher@hdrinc.com</p>
<p>11. The applicant must attach the following to the application form:</p> <ul style="list-style-type: none"> a. A description of the purpose, nature, and extent of the work proposed, including how and why it is proposed to be conducted (include research design, methods, and curation). b. A summary of support capabilities, including the location and a description of necessary facilities and equipment, the personnel to be involved in the proposed work, and, in the case of an applicant that is an entity, its organizational structure and staffing. c. A summary of the applicant's experience in completing the kind of work proposed, including similar projects and government contracts and federal permits that were previously held, that are currently in force, with their effective dates, and that are pending or planned, by agency and region or state, reports or publications resulting from similar work, and any other pertinent experience. d. For each individual named in blocks 8 and 9, a resume including education, training, and experience in the kind of work proposed and in the role proposed. e. A written certification, signed by an authorized official of the proposed curatorial facility, attesting to the facility's capability and willingness to accept any collections, records, data, photographs, and other documents generated during the proposed permit term and to assume permanent curatorial responsibility for those materials on behalf of the United States Government pursuant to 36 CFR Part 79. Archaeological and historical artifacts excavated or removed from National Forest System lands and their associated documentation shall remain the property of the United States. Custody of any Native American human remains or cultural items subject to the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3001-3013, that are removed from National Forest System lands shall be determined in accordance with NAGPRA and its implementing regulations at 43 CFR Part 10. 	
<p>12. Proposed publications for results of work conducted under the permit</p> <p>SCDOT in-house archaeological survey report</p>	

13. Signature of individual named in block 10 	14. Date signed 11/8/2022
---	-------------------------------------

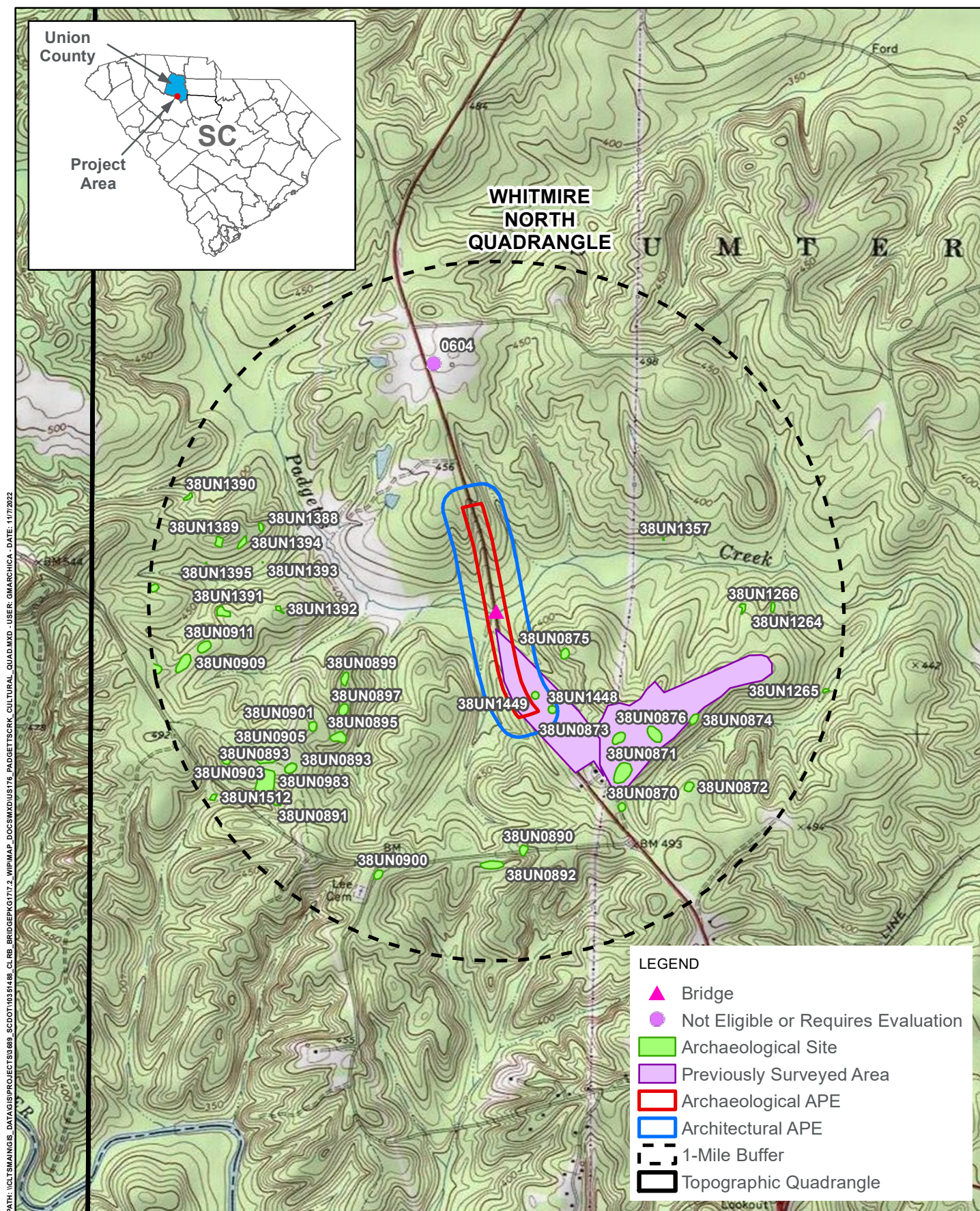
Authorization ID: [Click here to enter text.](#)

Burden and Non-Discrimination Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer. The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.



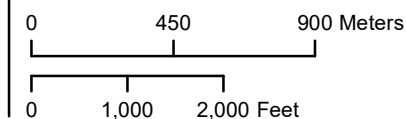
DATE:

NOVEMBER 4, 2022



Figure 1
Union County
US176 Bridge
Replacement Over
Padgett's Creek

Project ID:





Josh Fletcher, RPA

Archaeologist

Josh Fletcher has 25 years of experience, including 23 years of providing contributions to NEPA documents and project management. Before joining HDR, Josh was a longtime archaeologist and senior project manager for Brockington and Associates and worked with HDR on a large number of transportation and energy projects. During his time with Brockington and Associates, Josh led several archaeological surveys in the Francis Marion National Forest and the Sumter National Forest. His experience includes all phases of archaeological investigations, community outreach, extensive cultural resources management, consultation, mitigation efforts, and coordination with SHPO and THPO offices.

EDUCATION

MA, Archaeology, University of South Carolina, 2001

BS, Architectural Design, Clemson University, 1993

OFFICE LOCATION

North Charleston, SC

INDUSTRY TENURE

25 years

HDR TENURE

5+ years

PAPERS

2010. This Grand House--R. T. Wilson, Jr.'s Palmetto Bluff. Paper presented at Forty-Third Annual Meeting of the Society for Historical Archaeology Conference, Amelia Island, Florida.

PROFESSIONAL MEMBERSHIPS

Council of South Carolina Professional Archaeologists

Register of Professional Archaeologists

National Association of Environmental Professionals

RELEVANT EXPERIENCE

SCDOT, 20 Statewide Bridge Replacement Projects, South Carolina. *Senior Archaeologist/Report Author*. The SCDOT proposes to replace 20 bridges in several counties across South Carolina. Josh is currently conducting archaeological surveys of the study area for each of the bridges, including one within USFS property. These investigations include background research, field investigations, a report for each, and consultation with the SCDOT and USFS.

Silicon Ranch Corporation, Russellville Solar Environmental and NEPA Services, Logan County, Kentucky. *Cultural Resources Subject Matter Expert*. This investigation analyzes environmental effects of the proposed Russellville Solar facility in Logan County, Kentucky, and summarizes findings in technical reports and an Environmental Assessment (EA) led by TVA. Responsibilities include coordinating with subconsultants and providing cultural resources subject matter expertise to QC the technical reports and contribute to the writing of the EA.

Silicon Ranch Corporation, SR Lambert Project, Georgetown County, South Carolina. *Archaeologist and Cultural Resources Subject Matter Expert*. Silicon Ranch is exploring development of a solar facility on a 2,082-acre tract in Georgetown County, South Carolina. Josh conducted a cultural resources assessment of the property, which included background research, limited field investigations, a report, and consultation with the SC SHPO. Based on these investigations, HDR recommended that no additional archaeological survey of the property was necessary, and the SC SHPO concurred with this recommendation.

Duke Energy Carolinas, Rocky Creek Transmission Line Rebuild and Rocky Creek Retail Substation and Tap Line Project, Chester and Fairfield County, South Carolina. *Senior Archaeologist / Report Co-author.* This NHPA cultural resources survey identified and evaluated archaeological and historical architectural resources for National Register eligibility. Responsibilities included conducting background research on area history, leading the archaeological field investigations, associating known cultural resources in the project area to features on historical maps and aerial photographs, coauthoring the report, and consulting with the SC SHPO and area Native American tribes.

SCDOT and Horry County, US 701 Improvements North of Loris, Horry County, SC. *Senior Archaeologist / Report Co-author.* HDR conducted a cultural resources survey of the proposed US 701 Improvements Project. The project corridor included improvements to a number of intersecting side streets. The cultural resources survey included intensive archaeological and architectural surveys. The archaeological and architectural areas APE were developed in consultation with SCDOT staff. In total, 26 architectural resources in the architectural APE were newly recorded and were evaluated for NRHP eligibility. Josh acted as the cultural resources lead and archaeologist.

SCDOT, SC 160/I-77 Interchange Reconfiguration Project, York County, SC. *Senior Archaeologist / Report Co-author.* HDR conducted a cultural resources survey of the proposed SC 160/I-77 Interchange Reconfiguration Project. The cultural resources survey included intensive archaeological and architectural surveys. The archaeological and architectural APEs were developed in consultation with SCDOT and SHPO staff. In total, three architectural and archaeological resources in the APEs were newly recorded and were evaluated for NRHP eligibility. Josh was the archaeologist and lead author on the cultural resources report and is also led the development of the Categorical Exclusion environmental document.

SCDOT, Repair of Washout on S-14-76 Old River Road, Clarendon County, SC. *Senior Archaeologist / Report Co-author.* HDR conducted a cultural resources survey of the proposed Repair of Washout on S-14-76 Old River Road Project in Clarendon County, South Carolina. The road has been closed to through traffic since a destructive flooding event in October 2016. The cultural resources survey included intensive archaeological and architectural surveys. The project included extensive historical research on the project area, including multiple interviews with the landowner, in order to gain a better understanding of the area's rich history. The project led to the creation of an historic district, which will not be adversely affected by the road and bridge repairs. Josh acted as the cultural resources lead and archaeologist.

ARCHAEOLOGICAL FIELD REPORT
SCDOT ENVIRONMENTAL SECTION



TITLE

DATE OF RESEARCH:

COUNTY:

PIN:

DESCRIPTION:

ARCHAEOLOGIST:

ARCHITECTURAL HISTORIAN:

PROJECT:

LOCATION:

USGS QUADRANGLE:

DATE:

SCALE:

UTM:

EASTING:

ZONE:

NORTHING:

ENVIRONMENTAL SETTING:

NEAREST RIVER/STREAM AND DISTANCE:

SOIL TYPE:

REFERENCE FOR SOILS INFORMATION:

GROUND SURFACE VISIBILITY: 1-25% ____ 26-50% ____ 51-75% ____ 76-100% ____

CURRENT VEGETATION:

BACKGROUND INVESTIGATION:

.

ARCHAEOLOGICAL SURVEY:

ARCHAEOLOGICAL SURVEY RESULTS:

ARCHITECTURAL SURVEY:

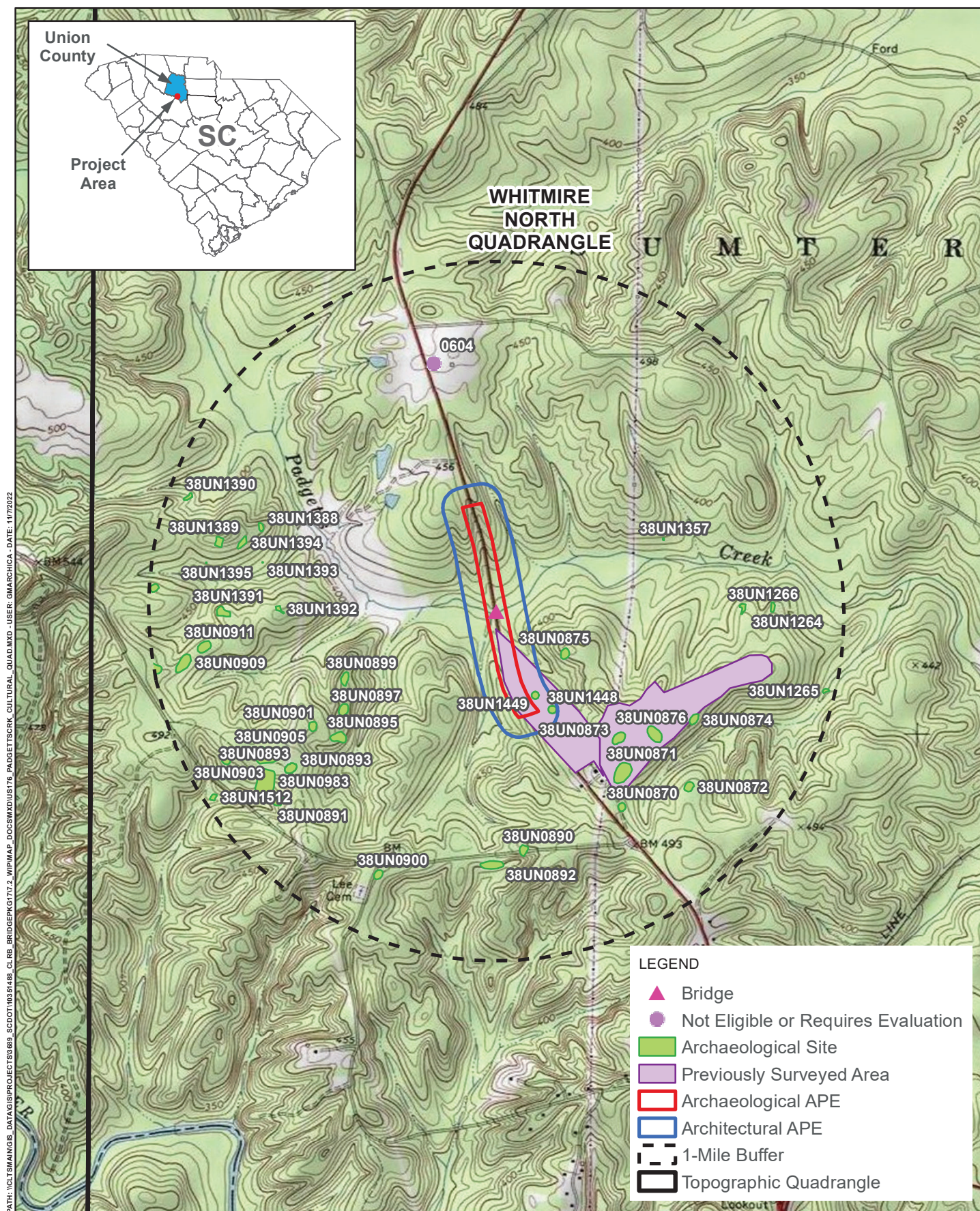
ARCHITECTURAL SURVEY RESULTS:

REMARKS AND RECOMMENDATIONS:

SIGNATURE: _____ DATE: _____

APPENDIX B

AREA OF POTENTIAL EFFECT MAPS



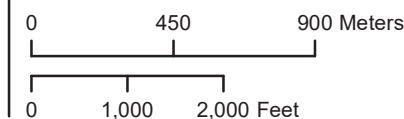
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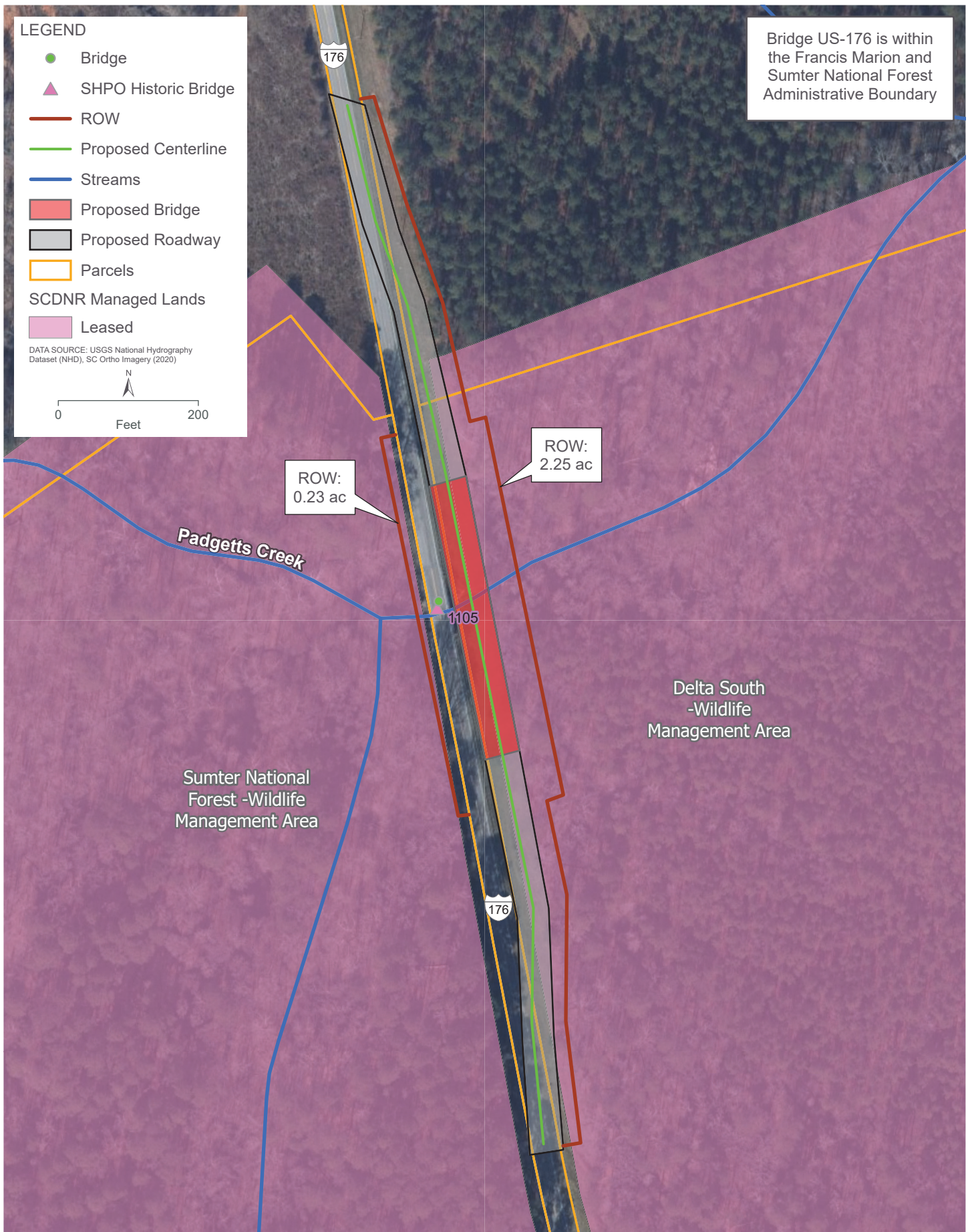
NOVEMBER 4, 2022

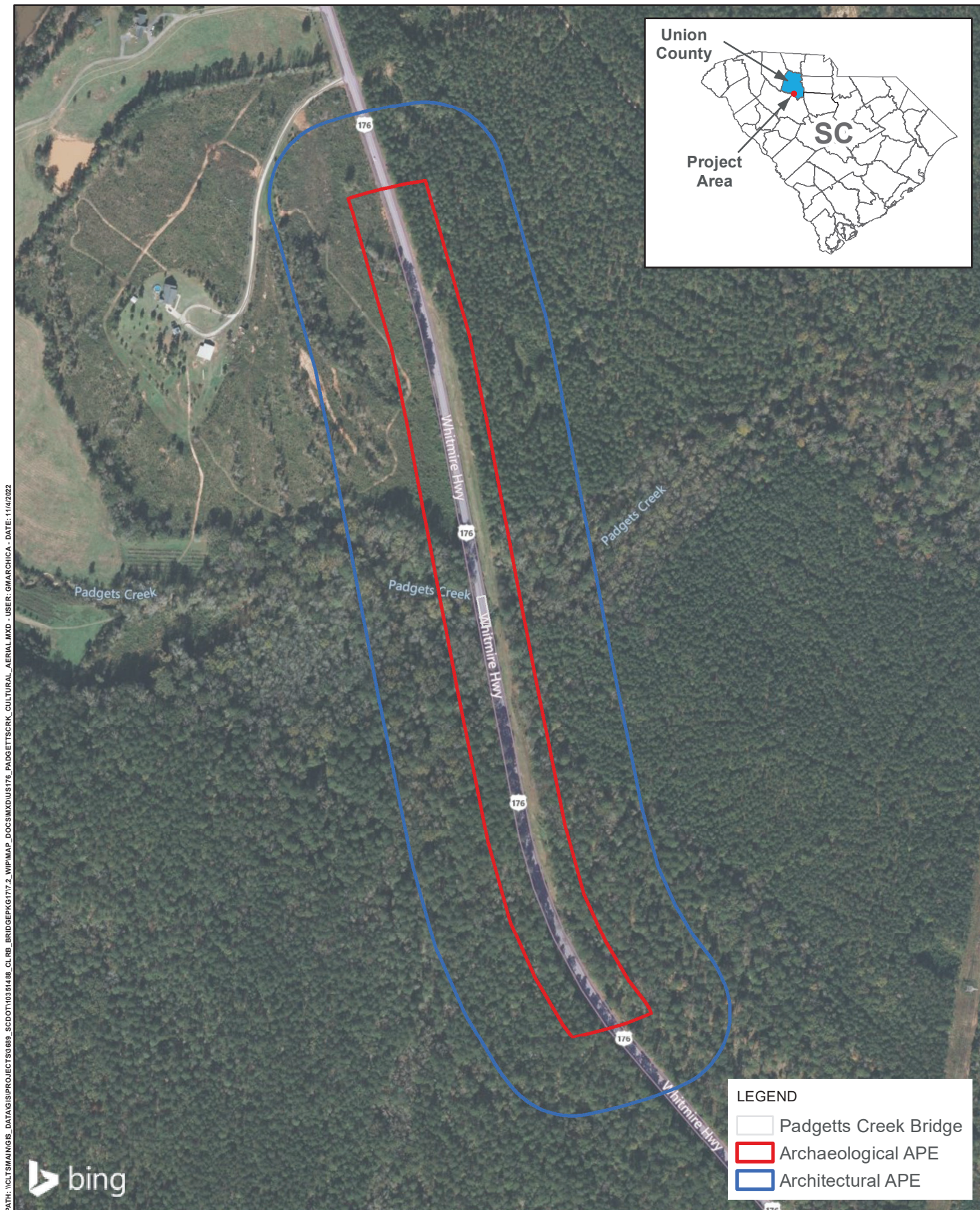


Figure 1
Union County
US176 Bridge
Replacement Over
Padgett's Creek

Project ID:





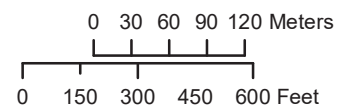


DATE:
NOVEMBER 4, 2022



Figure 3
Union County
US176 Bridge
Replacement Over
Padgett's Creek

Project ID:



ATTACHMENT 2

Statewide Survey of Historic Properties

State Historic Preservation Office
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29223-4905 (803) 896-6100

Site No. 1439 Status U Revisit
Quadrangle Name: Whitmire North
Tax Map No. N/A

SURVEY FORM

Identification

Historic Name:

Common Name: US 176 at Padgetts Creek Bridge

Address/Location: US 176 at Padgetts Creek

City: Whitmire Vicinity of County: Union

Ownership: State Category: Structure Other:

Historical Use: Transportation

Current Use: Transportation

SHPO National Register
Determination of Eligibility: Not Eligible

Property Description

Construction Date: 1922/1955	Construction: Other	Other: Tee beam
Historic Core Shape: Rectangular	Exterior Walls:	
Other:	Foundation: Other	CIP Concrete
Commercial Form:	Roof Shape:	
Other:	Roof Material:	
Stories:	Porch Shape:	
Other:	Porch Width:	

Description/Significant Features:

The 4-span concrete Tee beam bridge measures 88 feet in length (22 feet per span). The original 1922 structure was widened in 1955 on both sides using a cast-in-place concrete deck. The modified structure, which carries two lanes, has a width between the curbs of 28 feet. Though the bridge has components built in 1955, the original 1922 structure was not removed when alterations were made in 1955. The 1922 structure is supported by CIP concrete piers, each comprising two "mushroom head" columns with caps. The piers supporting the 1955 spans include concrete caps on steel H-beams with CIP concrete footings.

Alterations (include date(s), if known):

Bridge widened in 1955.

Architect(s)/Builder(s):

South Carolina State Highway Department

Historical Information

Historical Information:

The original portion of the concrete Tee beam bridge was built in 1922 and widened in 1955. According to a nationwide road bridge context, the Tee beam was one of the earliest bridge forms to be standardized by state highway departments. Thousands of cast-in-place, reinforced concrete Tee beam bridges were constructed throughout the country from the first decade of the twentieth century until the 1960s

Source(s) of Information:

Parsons Brinckerhoff and Engineering and Industrial Heritage, A Context for Common Historic Bridge Types, 2005; "Cultural Resources Survey of the US 176 (Whitmire Highway) over Padgetts Creek Bridge Replacement Project"

Digital Photo ID(s)

File Name:

01439001

01439002

01439003

01439004

01439005

01439006

01439007

View:

Facing Northwest

Facing Southeast

Facing Northeast

Facing North

Facing Southeast

Facing Southwest

Facing Southeast

Other:

Program Management

Recorded by:

Jessica Forbes

Organization:

HDR

Date Recorded:

02/15/2023

Attachment B – Natural Resources Technical Memo



Memo

Date: April 7, 2023

Project: US-176 Bridge Replacement over Padgett's Creek
SCDOT PIN # P041234

To: Will McGoldrick – SCDOT

From: Paul Bright – HDR
Michael Inman – HDR

Subject: **Natural Resources Survey Technical Memorandum**

HDR conducted a natural resources survey for the South Carolina Department of Transportation (SCDOT) US-176 (Whitmire Highway) Bridge Replacement over Padgett's Creek (Project) on January 31, 2023. The Project will involve the replacement of the US-176 Bridge over Padgett's Creek to improve structural integrity, capacity, and/or safety concerns.

The Study Area is 100 feet from the road centerline (200 feet total) and extends 1,500 feet from either end of the bridge along US-176. The Study Area encompasses approximately 14 acres and primarily consists of undeveloped forested lands and transmission rights-of-way with existing road rights-of-way along US-176 in Union County, South Carolina (Attachment 1, Figures 1 through 3). This technical memorandum provides a summary of HDR's methods and findings from a desktop analysis and on-site natural resources survey. Attached to this memorandum are supporting figures, an SCDOT Permit Determination Form and South Carolina Department of Health and Environmental Control (SCDHEC) Watershed and Water Quality Information Report, HDR's biological assessment, and a U.S. Fish and Wildlife Service (USFWS) Consistency Letter.

Desktop Analysis Methods

A desktop analysis was completed as part of an initial Study Area evaluation to identify key environmental resources to be considered for permitting and/or design. The potential resources identified in the desktop evaluation were field-verified by HDR to ensure that critical regulatory items will not adversely impact the Project. The following resources were consulted during the desktop analysis:

- Federal Emergency Management Agency (FEMA) Map Service Center (<https://msc.fema.gov/portal>)
- South Carolina Department of Natural Resources (SCDNR) and South Carolina Natural Heritage Program (SCNHP) (<https://schportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>)
- USFWS Environmental Conservation Online System (ECOS) (<https://ecos.fws.gov/ecp/>)
- USFWS Information for Planning and Consultation (IPaC) (<https://ecos.fws.gov/ipac/>)

- USFWS National Wetland Inventory (NWI) (<http://www.fws.gov/wetlands>)
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (<http://nhd.usgs.gov/>)
- USGS Topographic Quadrangle Maps (1:24,000-scale) Whitmire North Quadrangle

Wetlands and Jurisdictional Waters of U.S.

On-site reconnaissance activities identified three streams within the Study Area (Attachment 1, Figure 4). A summary of jurisdictional waters of the U.S. is provided in Table 1.

Table 1. Summary of Delineated Waters of the U.S. within the Study Area

Feature Name	Coordinates (Decimal Degrees)	Type of Aquatic Resource	Cowardin et al. (1979) Classification ¹	Estimated Amount of Aquatic Resource in Study Area
Streams				
Stream 1 Padgett's Creek	34.546883 -81.604511	non-section 10 - non-wetland	R3UB2	Length: 240 lf Average Width: 25 ft
Stream 2 Tributary to Padgett's Creek	34.546824 -81.604879	non-section 10 - non-wetland	R5UB1/2	Length: 10 lf Average Width: 4 ft
Stream 3 Tributary to Padgett's Creek	34.546664 -81.604221	non-section 10 - non-wetland	R4SB4	Length: 140 lf Average Width: 4 ft
Total Streams:				Length: 390 lf

¹ R3UB2: Riverine, upper perennial, unconsolidated bottom, with a sand bottom

R4SB4: Riverine, intermittent, streambed, with a sand bottom

R5UB1/2: Riverine, unknown perennial, unconsolidated bottom, with a cobble-gravel and sand bottom

Based on the preliminary bridge design, impacts to jurisdictional waters may occur during construction but remain below USACE General Permit limitations. An SCDOT Permit Determination Form has been completed and is provided as Attachment 2, in addition to an SCDHEC Watershed and Water Quality Information Report.

A field survey was also conducted within the Study Area pursuant to Section 7 of the Endangered Species Act. Results are provided in HDR's biological assessment (Attachment 3). The USFWS IPaC and county species list were used to determine what potential federally protected species could occur on site.

Attachments

- Attachment 1 – Figures
- Attachment 2 – SCDOT Permit Determination Form and SCDHEC Watershed and Water Quality Information Report
- Attachment 3 – Biological Assessment
- Attachment 4 – USFWS NLEB Range Map
- Attachment 5 – SCDNR South Carolina Rare, Threatened and Endangered Species Inventory for Union County

References

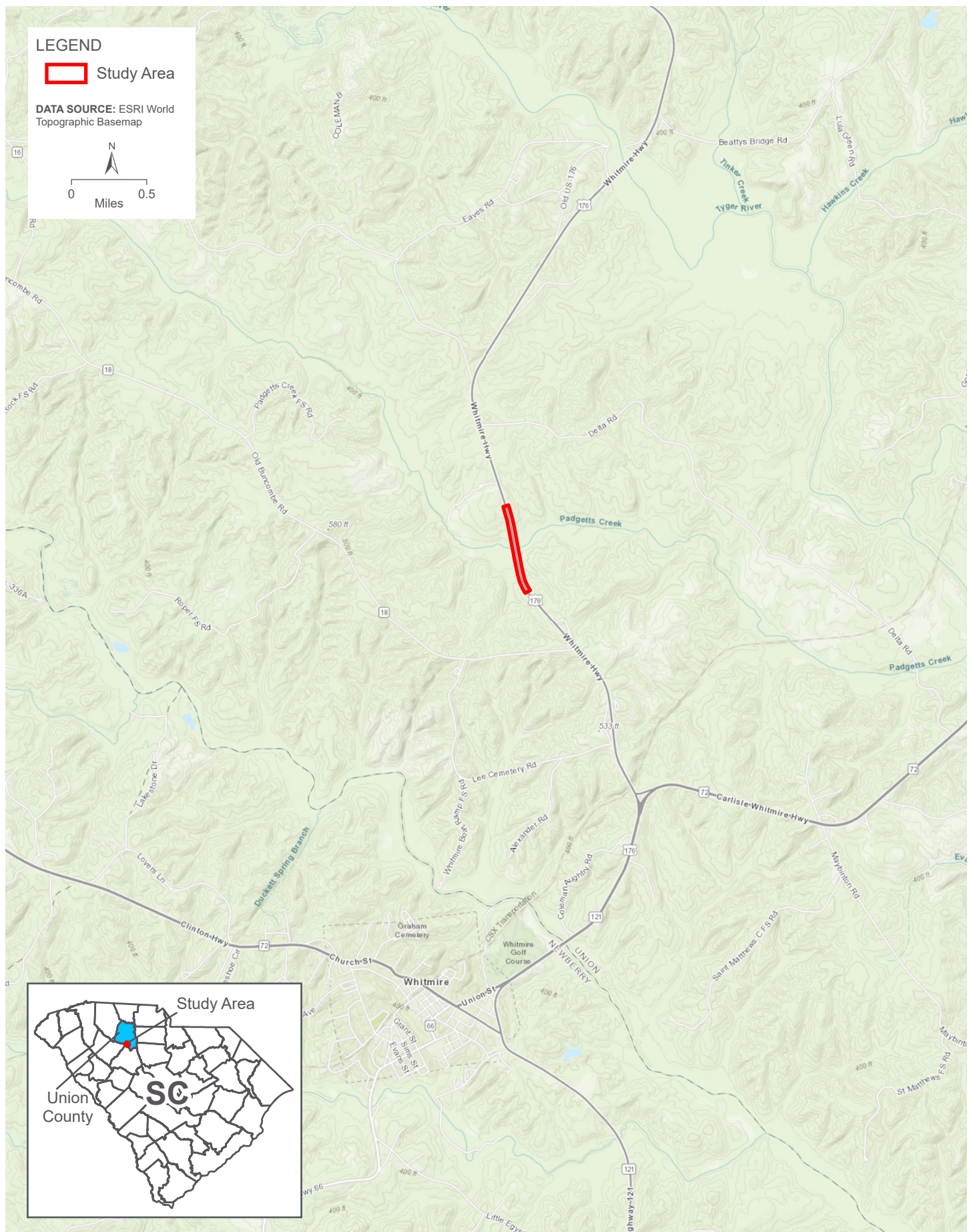
- Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C.
- Federal Emergency Management Agency (FEMA). 2020. Special Flood Hazard Area Definition/Description. [Online] URL: <http://www.fema.gov/special-flood-hazard-area>. (Accessed January 2023).
- South Carolina Natural Heritage Program (SCNHP). 2022. Data Explorer database. [Online] URL: <https://schportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>. (Accessed January 2023).



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Figures

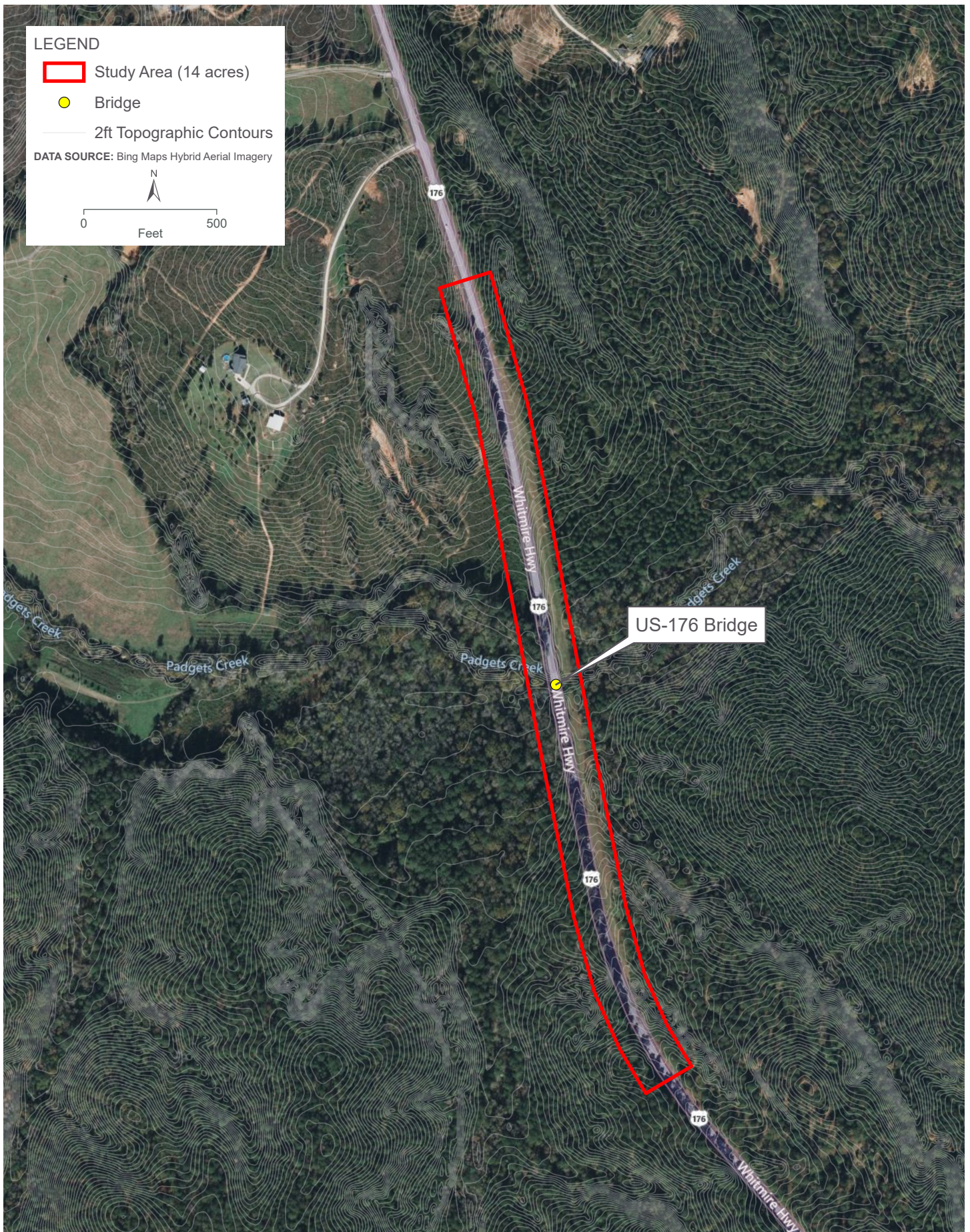




US-176 BRIDGE REPLACEMENT OVER PADGETTS CREEK

PROJECT VICINITY

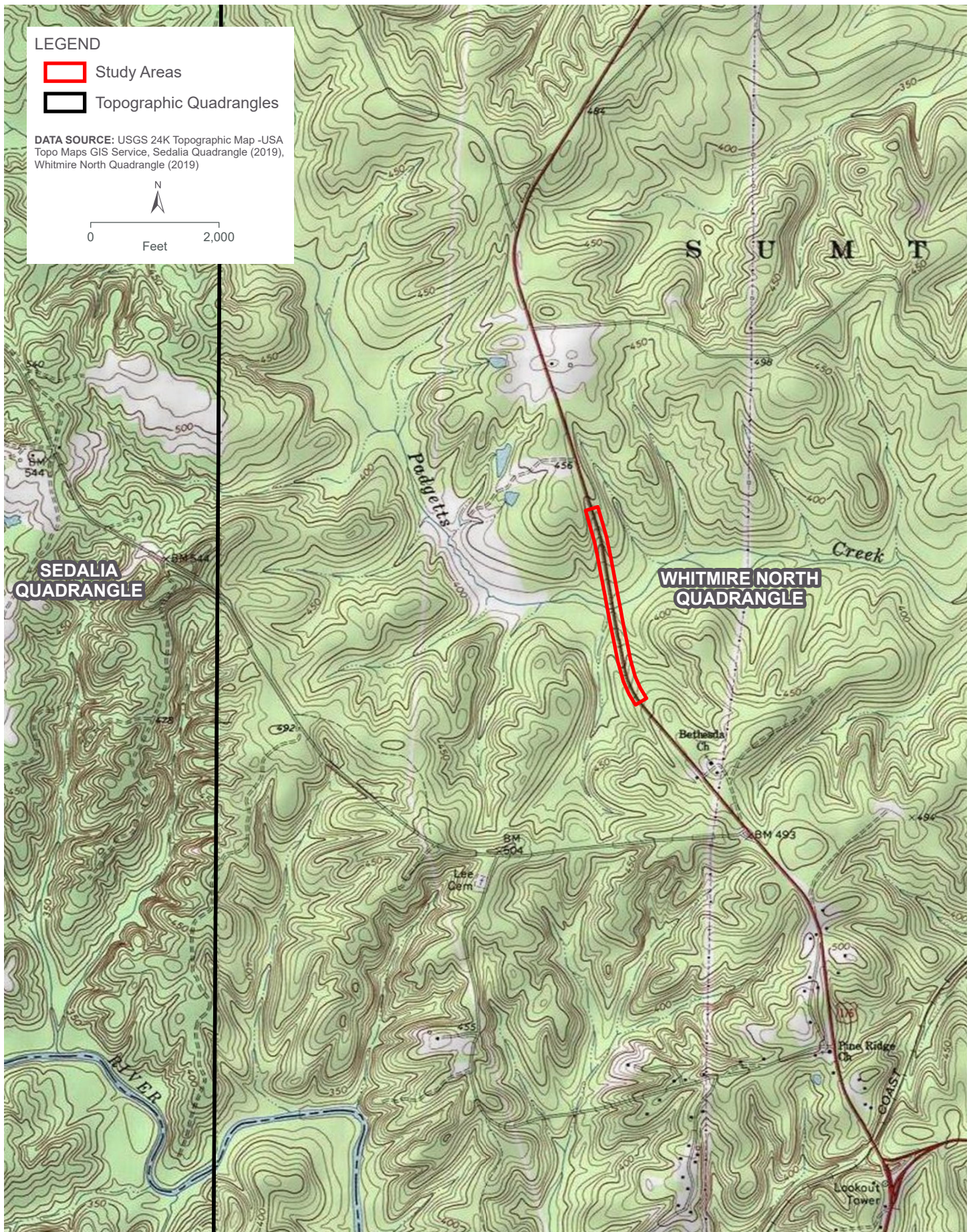
Figure 1



US-176 BRIDGE REPLACEMENT OVER PADGETTS CREEK

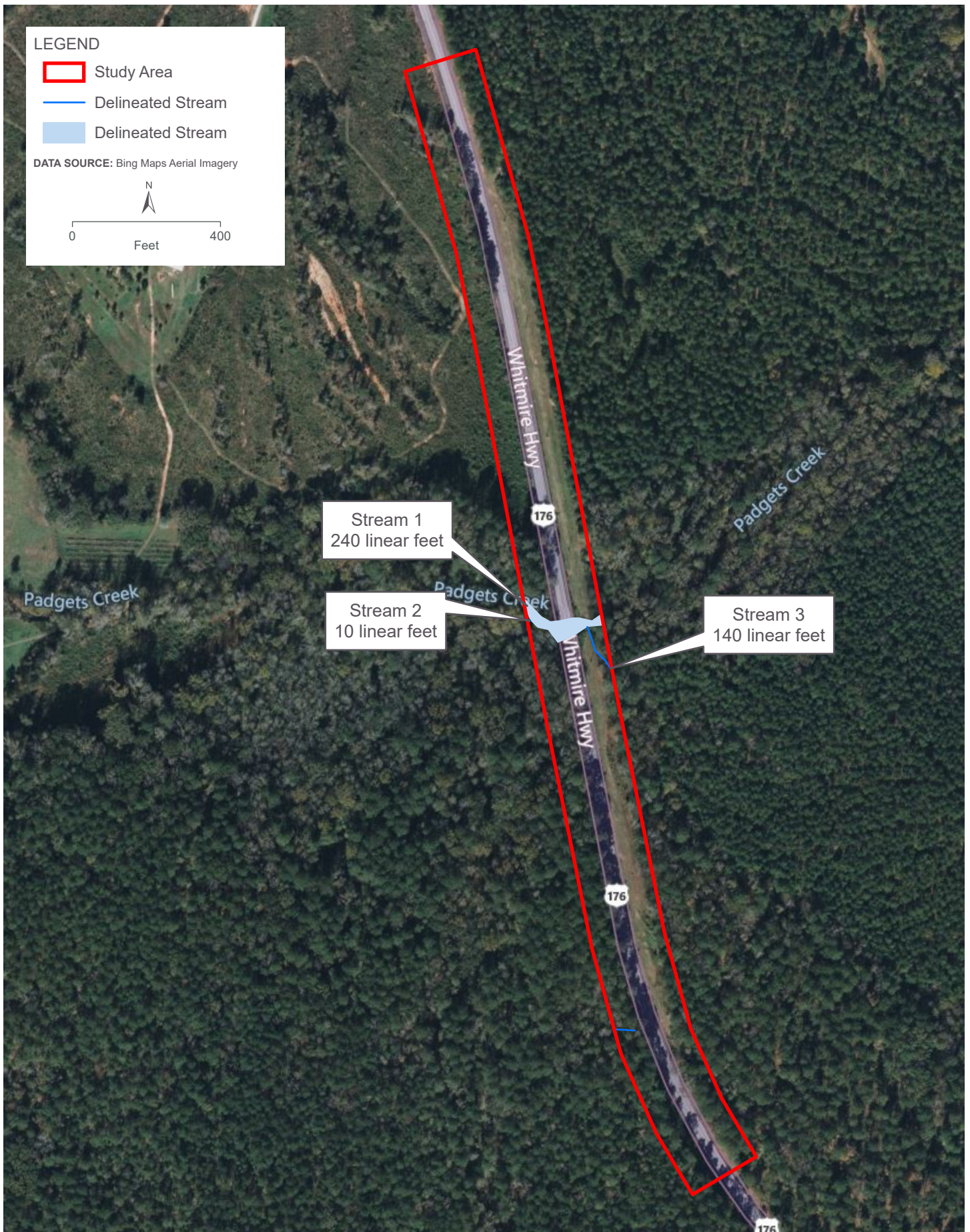
PROJECT AERIAL

Figure 2



US-176 BRIDGE REPLACEMENT OVER PADGETTS CREEK **USGS TOPOGRAPHIC QUADRANGLES**

Figure 3



US-176 BRIDGE REPLACEMENT OVER PADGETTS CREEK APPROXIMATE BOUNDARIES OF WATERS OF THE U.S.

Figure 4

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2

SCDOT Permit Determination Form and SCDHEC Watershed and Water Quality Information Report

Date: _____

PERMIT DETERMINATION

FROM _____ COMPANY _____

CONTACT INFO (phone and/or email) _____

SCDOT PROJECT ENGINEER _____

TO _____

Project Description _____

Route or Road No. _____ County _____

CONST. PIN _____ OTHER PINS or STRUCTURE # _____

RESPONSE:

☐ It has been determined that no permits are required because:

☐ The following permit(s) is/are necessary:

(Please check which type(s) of permit the project will need)

USACE Permit ☐ GP ☐ IP ☐ 401 ☐ JD

OCRM Permit ☐ CAP ☐ CZC

Navigable ☐ SCDHEC NAVGP — if checked a USCG and/or USACE navigable permit may also be required, but will be determined during the NEPA and Permitting stages.

Other _____

Water Classification: _____ *Print and attach the SCDHEC water quality report*

303(d) listed ☐ no ☐ yes, for * _____

TMDL developed ☐ no ☐ yes, for * _____

*List all that apply using the SCDHEC abbreviations

Comments: _____

The determination above was based on the most recently available information at the time. This is a preliminary determination and is subject to change if the design of the project is modified.

Biologist, SCDOT/Consultant

Date



Watershed and Water Quality Information

General Information

Applicant Name: SCDOT

Permit Type: Construction

Address: 5603 WHITMIRE HWY,
WHITMIRE, SC, 29178

Latitude/Longitude: 34.546910 / -81.604463

MS4 Designation: Not in designated area

Monitoring Station: B-051

Within Coastal Critical Area: No

Water Classification (Provisional): FW

Waterbody Name: PADGETTS CREEK

Entered Waterbody Name:

Parameter Description

NH3N	Ammonia	CD	Cadmium	CR	Chromium
CU	Copper	HG	Mercury	NI	Nickel
PB	Lead	ZN	Zinc	DO	Dissolved Oxygen
PH	pH	TURBIDITY	Turbidity	ECOLI	Escherichia coli (Freshwaters)
FC	Fecal Coliform (Shellfish)	BIO	Macroinvertebrates (Bio)	TP	(Lakes) Phosphorus
TN	(Lakes) Nitrogen	CHLA	(Lakes) Chlorophyll a	ENTERO	Enterococcus (Coastal Waters)
HGF	Mercury (Fish Tissue)	PCB	PCB (Fish)		

Impaired Status (downstream sites)

Station	NH3N	CD	CR	CU	HG	NI	PB	ZN	DO	PH	TURBIDITY	ECOLI	FC	BIO	TP	TN	CHLA	ENTERO	HGF	PCB
B-051	X	X	X	X	X	X	X	X	X	X	X	InTF	X	F	X	X	X	X	X	X

F = Standards full supported
N = Standards not supported

A = Assessed at upstream station
X = Parameter not assessed at station

WnTN = Within TMDL, parameter not supported
InTN = In TMDL, parameter not supported

WnTF = Within TMDL, parameter full supported
InTF = In TMDL, parameter full supported

Parameters to be addressed (those not supporting standards)

ECOLI - Escherichia coli (Freshwaters)

Fish Consumption Advisory

Waters of Concern (WOC)

TMDL Information - TMDL Parameters to be addressed

In TMDL Watershed: Yes

TMDL Site: B-051

TMDL Report No: 021-04

TMDL Parameter: Fecal

TMDL Document Link: https://www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/tmdl_tyger_fc.pdf

Report Date: January 26, 2023

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3

Biological Assessment

Biological Assessment of the
US-176 Bridge Replacement over Padgetts Creek
Union County, SC
SCDOT PIN # P041234
February 23, 2023

Pursuant to Section 7 of the Endangered Species Act, a field survey was conducted within the Study Area. The following list of federally protected species was obtained from the U.S. Fish and Wildlife Service (USFWS), and the South Carolina Rare, Threatened and Endangered Species Inventory for Union County. This includes bat species for which federal guidance is currently being updated:

Mammals

Northern long-eared bat (*Myotis septentrionalis*) – E

Tricolored bat (*Perimyotis subflavus*) – Proposed Endangered

Insects

Monarch butterfly (*Danaus plexippus*) – C (candidate)

Methods

The Study Area was examined by GIS and field reconnaissance methods on January 31, 2023. Habitats surveyed were determined by the species' ecological requirements.

Results

The Project consists of replacing a bridge and associated road work on US-176 over Padgetts Creek in Union County, South Carolina. Land use in the vicinity of the Project includes residential and forested upland areas with a bottomland hardwood forest riparian corridor. Habitat types within the Study Area consist of bottomland forested wetlands dominated by large canopy tree species such as American elm (*Ulmus americana*), water oak (*Quercus nigra*), and sycamore (*Platanus occidentalis*) with an understory dominated by herbaceous species such as switchcane (*Arundinaria tecta*) and various species of sedges (*Carex* spp.).

Bottomland hardwoods are typically found on floodplains of rivers and streams, and can occur in the Piedmont as well as the Coastal Plain. Typical tree species found in bottomland hardwood communities include sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus taeda*), hackberry (*Celtis laevigata*), overcup oak (*Quercus lyrata*), water oak, willow oak (*Q. phellos*), laurel oak (*Q. laurifolia*), swamp chestnut oak (*Q. michauxii*), cherrybark oak (*Q. falcata* var. *pagodafolia*), white ash (*Fraxinus americana*), sycamore, American holly (*Ilex opaca*), and American elm. Typically, there is a subcanopy of young canopy species and many tall shrubs including southern arrowwood (*Viburnum dentatum*) and blackhaw (*V. prunifolium*). Vine species are typically common and can include poison ivy (*Toxicodendron radicans*), summer grape (*Vitis aestivalis*), and crossvine (*Bignonia capreolata*). The herb layer contains false nettle (*Boehmeria cylindrica*), cardinal flower (*Lobelia cardinalis*), royal fern (*Osmunda regalis*), and eastern marsh fern (*Thelypteris palustris*).

The forested upland areas consist primarily of a dense mixed pine forest dominated by loblolly pine, sweetgum, and tulip tree (*Liriodendron tulipifera*). In addition to the roadway embankment, there is a maintained powerline that parallels US-176 to the east.

Padgetts Creek is classified as a perennial, unconsolidated bottom, riverine system. The creek is somewhat incised with areas of minor bank erosion, and it appears that it occasionally leaves its banks during heavy rain events. Large depositional bars were observed under and directly upstream and downstream of the bridge; however, no vegetation was growing in the channel.

According to the South Carolina Department of Natural Resources (SCDNR) Heritage Trust database of endangered, threatened, and rare species, there are no occurrences of any federally listed species in the vicinity of the Project. The open grass areas, and road and transmission rights-of-way offer a variety of flowering plants for nectar, which could include plants from the milkweed genus (*Asclepias* spp.). Potential habitat for the monarch butterfly was identified within the Study Area for migrating and breeding adults; however, neither Section 7 of the Endangered Species Act nor the implementing regulations for Section 7 contain requirements for federal agencies in relation to candidate species. No individuals of monarch butterflies were observed within the Study Area during the field survey. Tricolored bat and northern long eared bat habitat was surveyed and identified within the forested areas on site as well as under the US-176 bridge; however, there was no evidence of bat use. A formal survey for tricolored bat and northern long eared bat was not conducted.

According to the SCDNR Rare, Threatened and Endangered Species Inventory, there are no records of federally listed species occurring in Union County, South Carolina. While this inventory list does include northern long-eared bat, the current range for northern long-eared bat does not extend into Union County. A map of the northern long-eared bat range in South Carolina (USFWS 2023) is attached to this report.

Based on the lack of suitable habitat and/or no observations of the listed species in the vicinity of the Project, results of the threatened and endangered species study indicate that the proposed action will not affect any threatened or endangered species or critical habitats currently listed by the USFWS.

Submitted by:



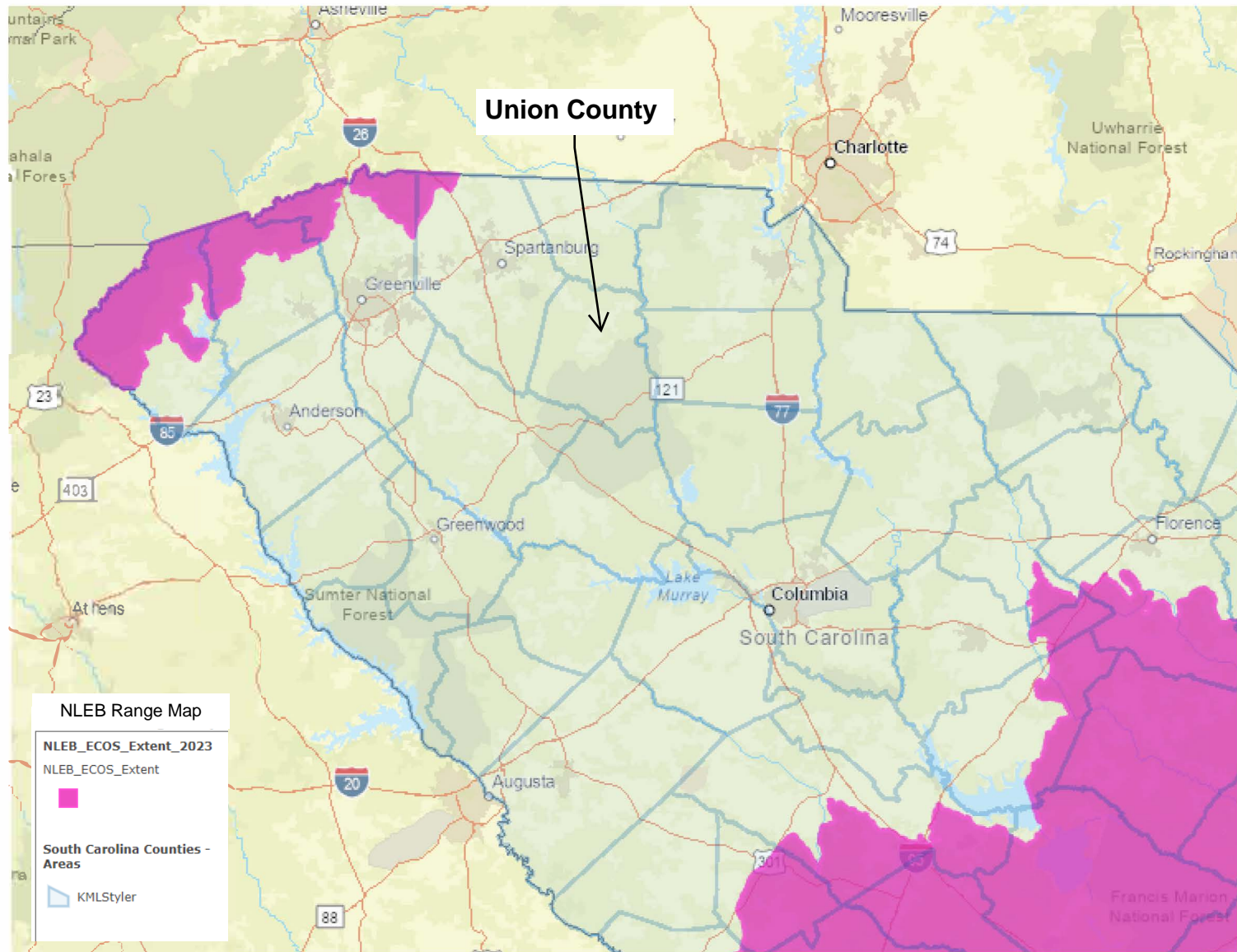
Paul Bright
HDR Environmental Scientist
4/7/2023

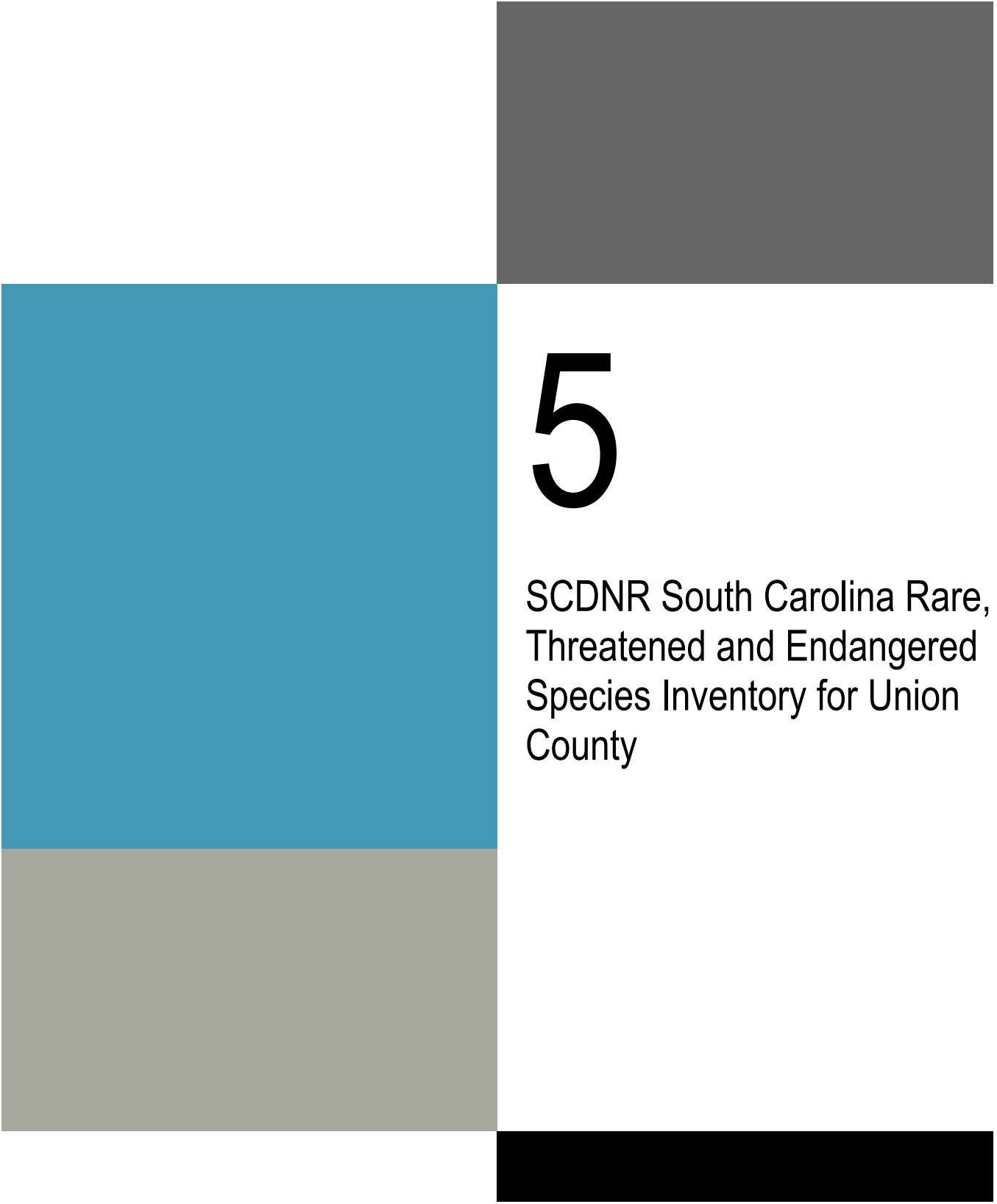


4

USFWS NLEB Range Map

NLEB Range Map



The page features a large blue rectangle on the left side, a grey rectangle at the top right, and a black rectangle at the bottom right. The number '5' is positioned to the right of the blue rectangle.

5

SCDNR South Carolina Rare, Threatened and Endangered Species Inventory for Union County

UNION COUNTY

CATEGORY	COMMON NAME/STATUS	SCIENTIFIC NAME	SURVEY WINDOW/ TIME PERIOD	COMMENTS
Fish	Robust redhorse (ARS)	<i>Moxostoma robustum</i>	Late April-early May	Temperature dependent: 16-24°C
Insect	Monarch butterfly (C)	<i>Danaus plexippus</i>	August-December	Overwinter population departs; March-April
Mammal	Northern long-eared bat (T)	<i>Myotis septentrionalis</i>	Year round	Winter surveys not as successful
Mammal	Tri-colored bat (ARS)	<i>Perimyotis subflavus</i>	Year round	Found in mines and caves in the winter
Plant	Georgia aster (ARS*)	<i>Symphyotrichum georgianum</i>	Early October-mid November	

Note: There are no federally protected species found in this county in the amphibian, bird, crustacean, mollusk, and reptile family categories.

Attachment C – Bridge Replacement Scoping Risk Assessment Form

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

COUNTY: _____

DATE: _____

ROAD #: _____

STREAM CROSSING: _____

Purpose & Need for the Project:

I. FEMA Acknowledgement

Is this project located in a regulated FEMA Floodway? ☐ Yes ☐ No

Panel Number: _____ Effective Date: _____ (See Attached)

II. FEMA Floodmap Investigation

FEMA Flood Profile Sheet Number _____ illustrates the existing 100 year flood:

- ☐ Passes under the existing low chord elevation.
- ☐ Is in contact with the existing low chord elevation.
- ☐ Overtops the existing bridge finished grade elevation.

III. No Rise/CLOMR Preliminary Determination

- ☐ Preliminary assessment indicates this project may be constructed to meet the "No-Rise" requirements. A detailed hydraulic analysis will be performed to verify this assessment.

Justification:

- ☐ Preliminary assessment indicates this project may require a CLOMR/LOMR. Impacts will be determined by a detailed hydraulic analysis.

Justification:

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

IV. Preliminary Bridge Assessment

A. Locate Existing Plans

a. Bridge Plans ☐ Yes File No. _____ Sheet No. _____ (See Attached)
☐ No

b. Road Plans ☐ Yes File No. _____ Sheet No. _____ (See Attached)
☐ No

B. Historical Highwater Data

a. USGS Gage ☐ Yes Gage No. _____ Results: _____
☐ No

b. SCDOT/USGS Documented Highwater Elevations
☐ Yes Results: _____
☐ No

c. Existing Plans ☐ Yes See Above
☐ No

V. Field Review

A. Existing Bridge

Length: _____ ft. Width: _____ ft. Max. span Length: _____ ft.

Alignment: ☐ Tangent ☐ Curved

Bridge Skewed: ☐ Yes ☐ No Angle: _____

End Abutment Type: _____

Riprap on End Fills: ☐ Yes ☐ No Condition: _____

Superstructure Type: _____

Substructure Type: _____

Utilities Present: ☐ Yes ☐ No

Describe:

Debris Accumulation on Bridge: Percent Blocked Horizontally: _____ %
Percent Blocked Vertically: _____ %

Hydraulic Problems: ☐ Yes ☐ No

Describe:

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

V. Field Review (cont.)

B. Hydraulic Features

a. Scour Present: ☐ Yes ☐ No Location: _____

b. Distance from F.G. to Normal Water Elevation: _____ ft.

c. Distance from Low Steel to Normal Water Elev.: _____ ft.

d. Distance from F.G. to High Water Elevation: _____ ft.

e. Distance from Low Steel to High Water Elev.: _____ ft.

f. Channel Banks Stable: ☐ Yes ☐ No

Describe:

g. Soil Type: _____

h. Exposed Rock: ☐ Yes ☐ No Location: _____

i. Give Description and Location of any structures or other property that could be damaged due to additional backwater.

C. Existing Roadway Geometry

a. Can the existing roadway be closed for an On-Alignment Bridge Replacement

☐ Yes ☐ No

Describe:

If "yes", does the existing vertical and horizontal curves meet the proposed design speed criteria?

If "No", will the proposed bridge be:

☐ Staged Constructed

☐ Replaced on New Alignment

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

VI. Field Review (cont.)

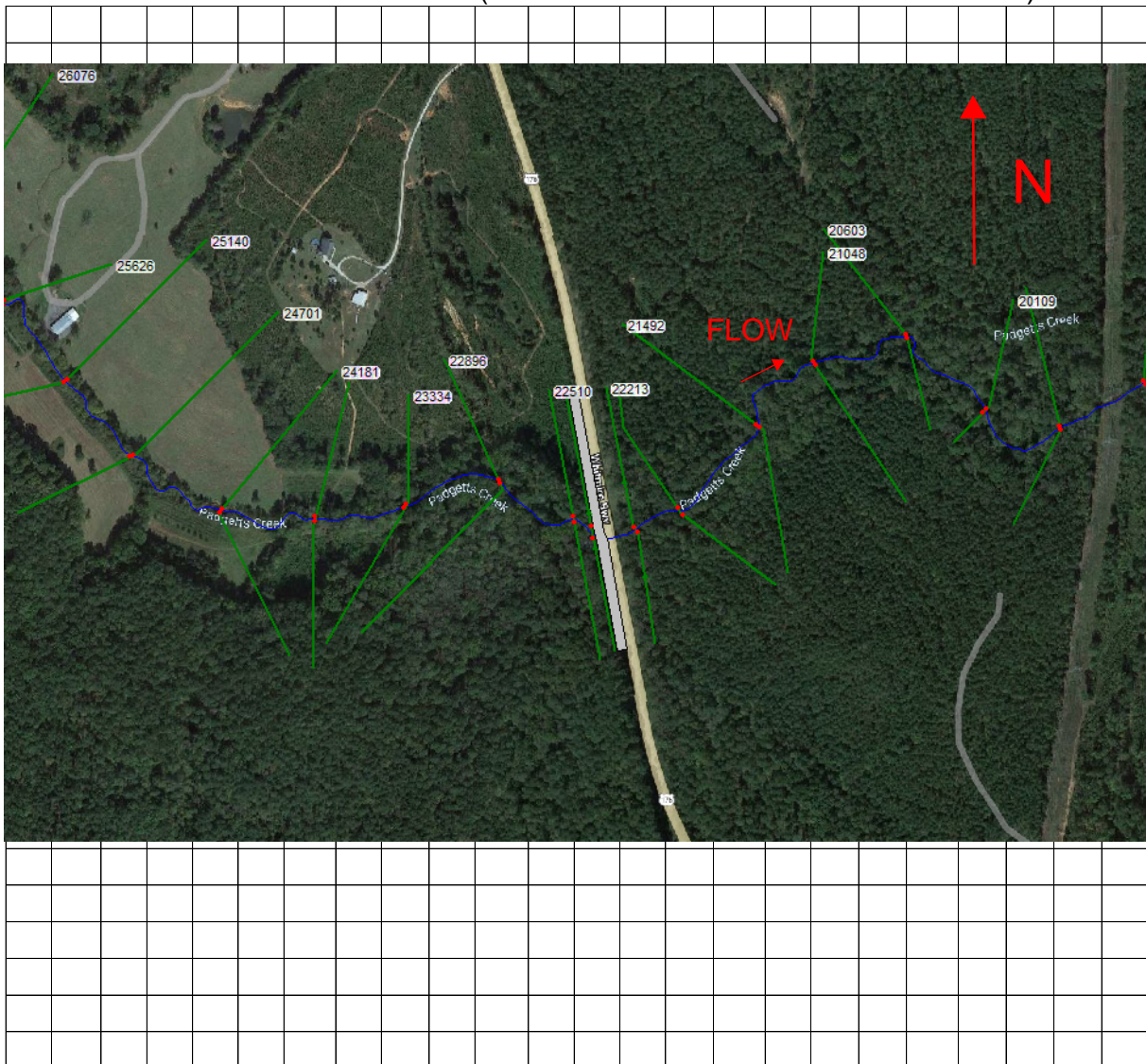
A. Proposed Bridge Recommendation:

Length: _____ ft. Width: _____ ft. Elevation: _____ ft.

Span Arrangement: _____

Notes: _____

BRIDGE SITE DIAGRAM: (Show North Arrow and Direction of Flow)



Performed By: _____

Title: _____

Attachment D – Floodplain Checklist

**South Carolina Department of Transportation
Location and Hydraulic Design of Encroachments on Floodplains Checklist**

23 CFR 650, this regulation shall apply to all encroachments and to all actions which affect base floodplains, except for repairs made with emergency funds. Note: These studies shall be summarized in the environmental review documents prepared pursuant to 23 CFR 771.

I. PROJECT DESCRIPTION

The South Carolina Department of Transportation (SCDOT) proposes to replace the load restricted bridge crossing of Padgetts Creek along U.S. Route 176 (Whitmire Hwy) in Union County.

The proposed improvement would replace the bridge and include associated roadway improvements to accommodate the proposed bridge.

A. Narrative Describing Purpose and Need for Project

- a. Relevant Project History:
- b. General Project Description and Nature of Work (attach Location and Project Map):
- c. Major Issues and Concerns:

The primary purpose of the project is to replace the bridge to correct the load restriction placed on it and restore all bridge components to good condition. Roadway improvements are limited to those associated with accommodating the new structure.

The project crosses Padgetts Creek which is shown on the Flood Insurance Rate Map (FIRM) Panel 45087C0325D. Padgetts Creek is designated as a Special Flood Hazard Area Zone A in the vicinity of the project. The project is not expected to be a significant or longitudinal encroachment as defined under 23 CFR 650A, nor is it expected to have an appreciable environmental impact on the base flood elevation. In addition, the project would be developed to comply with all appropriate floodplain regulations and guidelines.

B. Are there any floodplain(s) regulated by FEMA located in the project area?

Yes ☒

No ☐

C. Will the placing of fill occur within a 100-year floodplain?

Yes ☒

No ☐

D. Will the existing profile grade be raised within the floodplain?

The roadway grade will be raised to accommodate the larger bridge structure.

E. If applicable, please discuss the practicability of alternatives to any longitudinal encroachments.

Multiple alternatives including staged construction and full realignment upstream and downstream of the existing structure were studied. Impacts from realignments include stream impacts as well as impacts to adjacent roadways. Staged construction does not result in elimination of impacts. Full realignment upstream of the existing bridge significantly reduces stream impacts and minor longitudinal encroachments are expected based on the revised roadway profile.

F. Please include a discussion of the following: commensurate with the significance of the risk or environmental impact for all alternatives containing encroachments and those actions which would support base floodplain development:

a. What are the risks associated with implementation of the action?

Risks are minimal; the project will replace the existing bridge with larger bridge opening. The increased opening will have a negligible impact on the BFE's along the floodplain.

b. What are the impacts on the natural and beneficial floodplain values?

The project is not expected to impact the floodplain values, as the hydraulics will be retained/improved.

c. What measures were used to minimize floodplain impacts associated with the action?

A similar bridge size will be used. A single span bridge is proposed to reduce obstructions within the floodplain.

- d. Were any measures used to restore and preserve the natural and beneficial floodplain values impacted by the action?

Not applicable.

- G. Please discuss the practicability of alternatives to any significant encroachments or any support of incompatible floodplain development.

The impacts are not considered significant encroachments and would not support incompatible floodplain development. The proposed project will have no significant impact to base flood elevations along the stream and will not impact the potential for development within the floodplain.

- H. Were local, state, and federal water resources and floodplain management agencies consulted to determine if the proposed highway action is consistent with existing watershed and floodplain management programs and to obtain current information on development and proposed actions in the affected? Please include agency documentation.

All analysis for the project was performed in accordance with SCDOT, FEMA, and local regulations.

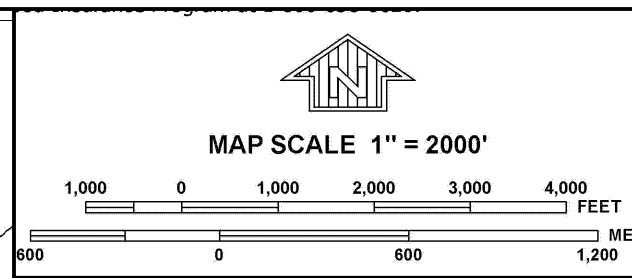
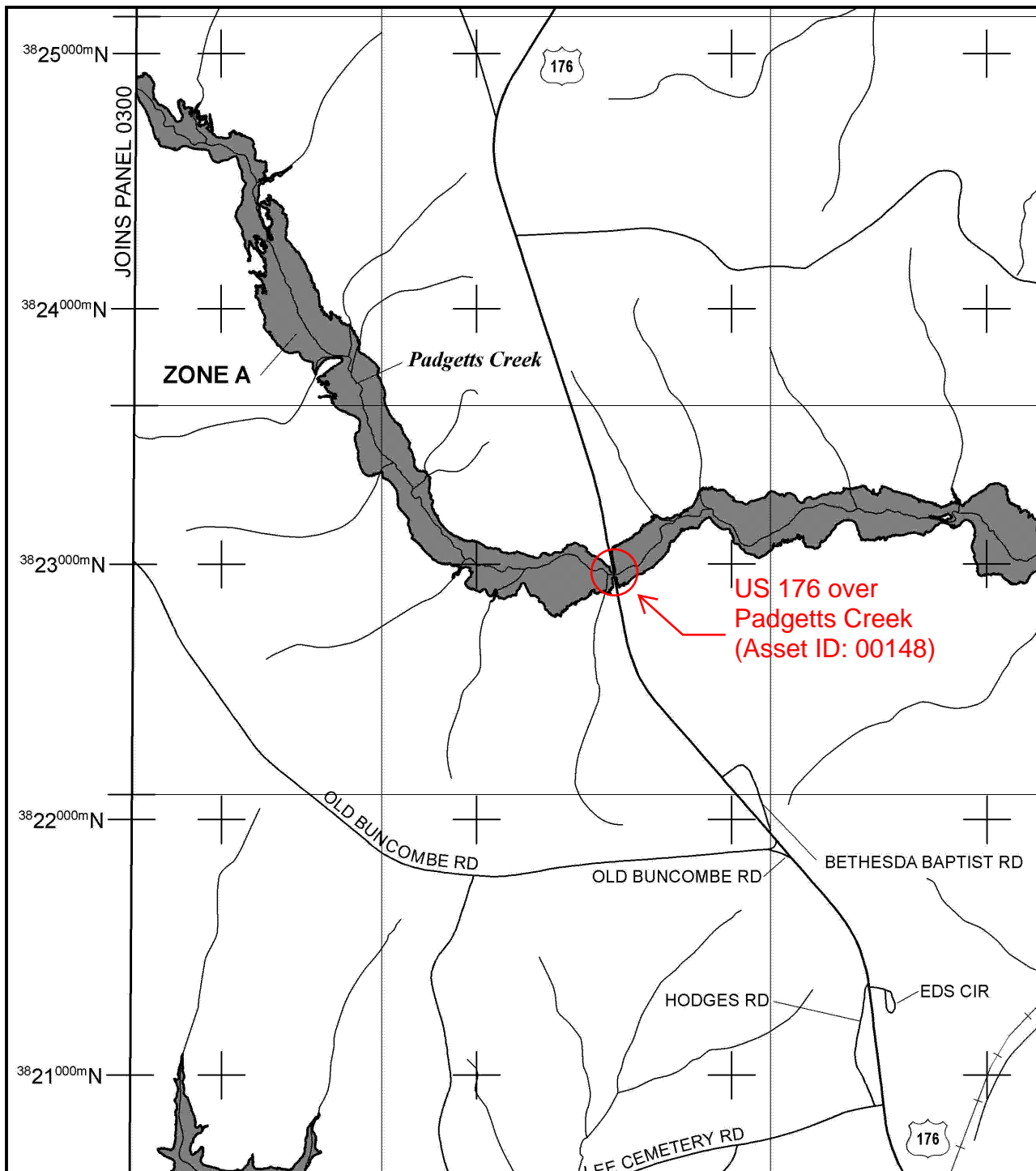
As the project progresses to final construction plans, the hydraulic modeling will be updated based on the final bridge layout.

____Thomas Miller____

SCDOT Hydraulic Engineer

____3-3-2022____

Date



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0325D

FIRM

FLOOD INSURANCE RATE MAP
UNION COUNTY,
SOUTH CAROLINA
AND INCORPORATED AREAS

PANEL 325 OF 400

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
UNION COUNTY	450185	0325	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
45087C0325D

EFFECTIVE DATE
AUGUST 2, 2011

Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.