

Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	<u>B-6017</u>
WBS Element	<u>48207.1.1</u>
Federal Project No.	<u>BRZ-1341 (004)</u>

- A. Project Description: (Include project scope and location, including Municipality and County. Refer to the attached project location map and photos.)

Bridge Replacement for Bridge 560222 over Back Branch on SR 1151 (Baltimore Branch), Madison County, NC.

- B. Description of Need and Purpose:

The project is needed to replace a structurally deficient bridge.

- C. Categorical Exclusion Action Classification: (Check one)

TYPE I

TYPE II

- D. Proposed Improvements –

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

- E. Special Project Information: (Provide a description of relevant project information, which may include: vicinity map, costs, alternative analysis (if any), traffic control and staging, and resource agency/public involvement).

During construction, traffic will use a one lane temporary detour with signals downstream of the existing bridge.

F. Project Impact Criteria Checklists:

<u>Type I & II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Does the project impact anadromous fish?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

8. The Northern Long-eared Bat (NLEB) is listed as a threatened species on the current U.S. Fish and Wildlife Service (USFWS) list of protected species in Madison County. However, the project study area is not located within a county or watershed known to contain NLEB hibernation or maternity roost sites. Therefore, the project has met the criteria required for the USFWS 4(d) Rule, and any associated take is exempt. Due to the exemption under the 4(d)

ruling, it has been determined that the proposed project “May Affect, Not Likely to Adversely Affect” the NLEB.

The Gray bat is listed as endangered on the USFWS list of proposed species for Madison County. The bridge was surveyed for signs of bat presence/usage and no evidence of either was found. Due to the stream size, structure type (steel beams), no evidenced of bat usage, and distance from the French Broad River, the project will have “No Effect” on the gray bat.

11. Back Branch is within a Corps Designated Trout Watershed and is Class C by NC DEQ. Since the project is bridge to bridge, stream impacts will be limited to bank stabilization, if necessary.

14. An effects assessment for Historic Architecture will be conducted during the design phase.

H. Project Commitments

**Madison County
Bridge 560222
Federal Project No. BRZ-1341(004)
WBS No. 48207.1.1
TIP No. B-6017**

The project is not likely to affect any properties or archaeological sites listed or eligible for listing on the National Register of Historic Places. An effects assessment for historic architecture will be conducted during bridge design. NCDOT will complete Section 106 Tribal consultation following completion of the design.

All activities will follow NCDOT best management practices for erosion control.

Categorical Exclusion Approval

STIP Project No. B-6017
WBS Element 48207.1.1
Federal Project No. BRZ-1341 (004)

Prepared By:

3/18/2019

Date

DocuSigned by:

Roger D. Bryan

Roger D. Bryan
Division Environmental Officer

Prepared For:

Division 13
North Carolina Department of Transportation

Reviewed By:

3/18/2019

Date

DocuSigned by:

Christopher D. Medlin

Christopher D. Medlin, P.E.
Division Bridge Program Manager



Approved

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



Certified

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

3/18/2019

Date

DocuSigned by:

Steve Cannon

Steve Cannon, P.E.
Project Development Engineer

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

Date

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

18-09-0015



HISTORIC ARCHITECTURE AND LANDSCAPES
****EFFECTS ASSESSMENT REQUIRED FORM****

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

PROJECT INFORMATION

Project No:	B-6017	County:	Madison
WBS No.:	48212.1.1	Document Type:	CE
Fed. Aid No:	BRZ-1151(013)	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
Project Description: Replace Bridge No. 222 on SR 1151 (Big Pine Rd) over Back Branch			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on October 10, 2018. There are no NR, DE, SL, LL or SS properties in the study area. One house in the APE was evaluated for National Register eligibility and recommend ELIGIBLE; the Ruth Jane and Rueben Burton Caldwell Farm. In a letter dated January 28, 2019, HPO concurred with that recommendation.

An Assessment of Effects will be required for this property.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

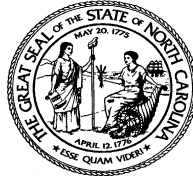
Historic Architecture and Landscapes -- ****EFFECTS ASSESSMENT REQUIRED****

Shelby Reap

July 12, 2018

NCDOT Architectural Historian

Date



North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

January 28, 2019

MEMORANDUM

TO: Shelby Reap
Office of Human Environment
NCDOT Division of Highways

FROM: Renee Gledhill-Earley 
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report, Replace Bridge 222 on Big Pine Road over Back Branch,
PA 18-09-0015, B-6017, Madison County, ER 18-4254

Thank you for your December 18, 2018, letter transmitting the report for the above-referenced undertaking. We have reviewed the report and concur that the Ruth Jane and Reuben Burton Caldwell Farm (MD0302) is eligible for listing in the National Register of Historic Places under Criterion A for its association with rural agricultural practices and under Criterion C as an excellent and intact collection of rural agricultural buildings in Madison County.

We do not agree with the proposed boundary depicted on page 21. Rather than drawing the boundary along the tax parcel lines, I recommend that the proposed boundary for the eligible resource be drawn at the edge of pavement along Big Pine Road and Back Branch Road. It is our opinion that the rural character of the property does not stop at the parcel line, but rather extends into the right-of-way with the continuance of greenspace between the parcel line and these rural two-lane roads. This difference between the parcel line and the edge of pavement is particularly critical in the area around the house and outbuildings.

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

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

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



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



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

PROJECT INFORMATION

Project No: **B-6017** County: **Madison**
 WBS No: 48212.1.1 Document: **CE**
 F.A. No: **BRZ-1151(013)** Funding: State Federal
 Federal Permit Required? Yes No Permit Type: **USACE**

Project Description:

The project calls for the replacement of Bridge No. 222 on SR 1151 (Big Pine Road) over Back Branch in Madison County (TIP B-6017). The archaeological Area of Potential Effects (APE) for the project is defined as an approximately 600-foot (182.88 m) long corridor running 300 feet (91.44 m) northeast and southwest from the center of the bridge. The corridor is approximately 100 feet (30.48 m) wide extending 50 feet (15.24 m) from either side of the centerline.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

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

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

SUMMARY OF CULTURAL RESOURCES REVIEW

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

NC DOT has conducted an archaeological investigation for the proposed replacement of Bridge No. 222 in Madison County, North Carolina. The project area is located west of Marshall in the southwestern portion of the county and plotted near the center of the Spring Creek USGS 7.5' topographic quadrangle (Figure 1).

Background Research

A site files search was conducted by Casey Kirby at the Office of State Archaeology (OSA) on September 13, 2018. No known archaeological sites are identified within the APE, and no previous investigations or reviews have been carried out within the project area. In addition, no known sites are reported within a mile of the bridge. This is due to a lack of archaeological investigation in the region.

According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2018), there are no known historic architectural resources within the APE that may yield intact archaeological deposits.

County and regional maps prior to the 20th century that were inspected provide only general details concerning the region illustrating just major roads and settlements. The 1901 USGS Asheville topographic map is one of the first to provide a reliable location for the project (Figure 2). This map depicts a road similar to the current road with a crossing at or near the bridge. Structures are also plotted to the north and south. The southern structure is likely outside of the APE, while the northern structure appears to correspond to existing structures to the northwest. The 1936 *Soil Map for Madison County* provides a clearer picture of structure placement (Hearn et al. 1936) (Figure 3). The southern structure is well south and east of the road and will not be affected by the project. The northern structure does appear to correspond with one of the existing building. It is unclear which building it is, but it is insignificant for archaeology.

The USDA soil survey map for Madison County shows two soil types within the project limits (USDA NRCS 2018) (Figure 4). The Toecone-Tusquitee complex (TsD) and the Tusquitee-Toecane complex (Tud) are strongly sloping colluvial soils found next to drainageways. Although well drained, slope is reported at 15 to 30 percent. However, the contour image and field survey found that slope is more gradual than what is reported in the northwest and southeast quadrants. The northwest quadrant is a high terrace with slope around 10 percent, while the southeast quadrant is a fairly level stream terrace. The soils also contain an abundance of stones and boulders. The reported soils typically have a low probability for significant archaeological resources, since it is not favorable for settlement activities with a slope of 15 percent or more. But with a more gradual slope and minimal disturbance, the probability for evidence of early occupations increases. Therefore, an archaeological survey was recommended.

Fieldwork Results

The archaeological field reconnaissance and survey for the replacement of Bridge No. 222 was carried out on October 3, 2018. This included systematic shovel testing at 30-meter (ca. 98.43 feet) intervals when possible on the high terrace in the northwest quadrant and the stream terrace in the southeast. Discussions with a property owner to the south determined that closer interval shovel tests were not necessary. He claimed that a drainage once ran alongside the road in the southeast quadrant. This ditch was filled-in by his grandfather many years ago, and Big Pine Creek was channelized and shifted to the east. However, the terrace still floods regularly. He also stated that no precontact artifacts have ever been collected from either the northwest or southeast quadrants when they were under cultivation. A current surface inspection could not confirm this as vegetation now covers both quadrants. No shovel testing occurred in areas with obvious

disturbance consisting of grading or fill, along steep slope of 15 percent or more, in areas covered by impervious surfaces such as gravel drives or pull-offs, or where soils are wet. A total of five shovel tests (STs) were excavated of which none yielded cultural material (see Figure 4).

Bridge No. 222 and Big Pine Road run basically northeast to southwest over the Back Branch, which flows to the east into Big Pine Creek (see Figure 5). The confluence is approximately 150 feet (45.72 m) away from the bridge. These waterways are part of the French Broad drainage basin. The APE is situated on hillsides and sloping high and low stream terraces. The hillsides are steeply sloped to the southwest and northeast. The southwest slope is partially graded for a mobile home and a small garden (Figure 5), while Big Pine Creek runs between the road and the slope in the northeast. The northwest high terrace has a gradual slope with an abandon house and farm on the property (Figure 6). A gravel drive and pull-off lead up to the property from the bridge. The former field, behind the house, is lightly disturbed from plowing and soil erosion. The low stream terrace to the southeast is mostly level and grassed over (Figure 7). As previously mentioned, the terrace has been disturbed by earth moving activities, but they were not apparent in the shovel tests which were excavated. The roads (Big Pine Road and Back Branch Road) have also been cut into the hillside with fill pushed to the east. Their intersection is just south of the bridge. Soils near the confluence are wet with dense secondary growth along the waterways.

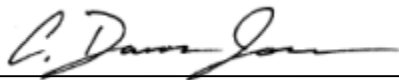
The soil stratigraphy consists of two layers. In the lower stream terrace, the upper is approximately 30 cm (ca. 12 in) thick. It is a dark yellowish brown (10YR 4/4) or brown (10YR 4/3) sandy loam. This is followed by subsoil, which is a brown (10YR 5/3) sandy clay mottled with light yellowish brown (10YR 6/4). It contains a heavy concentration of cobbles that prevented further excavations past 50 cm (ca. 20 in) below the surface. On the high terrace, the surface layer is a dark yellowish brown (10YR 4/4) loam that extends to 40 cm (ca. 16 in) below the surface. Subsoil is a strong brown (7.5 YR 5/6) clay that reaches at least 50 cm (ca. 20 in) below the surface.

Summary and Recommendations

The archeological investigations for the proposed replacement of Bridge No. 222 in Madison County identified no archaeological resources within the APE. Although 20th century material is in the area, it is modern and related to the abandon house and farm to the northwest. No further archaeological work is recommended for this bridge replacement project. However, if design plans change to impact areas outside of the APE, then further archaeological work will be required.

SUPPORT DOCUMENTATION

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



C. Damon Jones
NCDOT ARCHAEOLOGIST

11/28/18

Date

REFERENCES CITED

Hearn, Edward, Eugene Goldston, William Davis, C. Croom, and Samuel Davidson
1920 *Soil Map for Madison County, North Carolina*. U.S. Department of Agriculture,
Government Printing Office, Washington D.C. On file at North Carolina Collections,
University of North Carolina, Chapel Hill.

HPOWEB

2018 North Carolina State Historic Preservation Office GIS Web Service.
<http://gisNCDRCR.gov/hpoweb/>. Accessed September 25, 2018.

**United States Department of Agriculture Natural Resources Conservation Services (USDA
NRCS)**

2018 Madison County Soil Survey. Available online at
<http://webosilsurvey.nrcs.usda.gov/app/>. Accessed September 25, 2018.

United States Geological Survey (USGS)

1901 Asheville, North Carolina-Tennessee 30 minute quadrangle map. Reprinted in 1907.
2013 Spring Creek, North Carolina 7.5 minute quadrangle map.

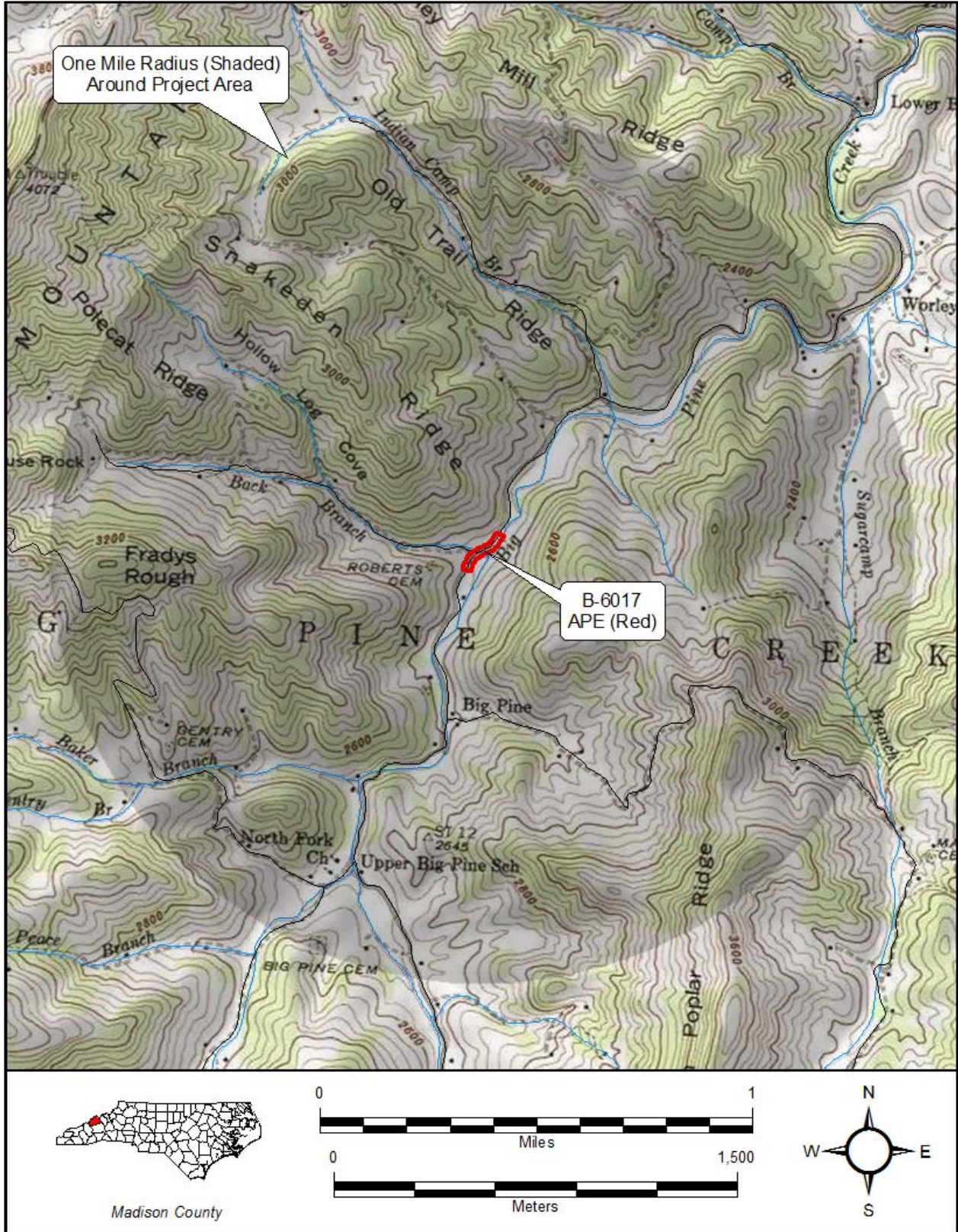


Figure 1. Topographic Setting of the Project Area, Spring Creek (2013), NC, USGS 7.5' Topographic Quadrangle.



Figure 2. The 1901 Asheville USGS topographic map showing the location of the project area.

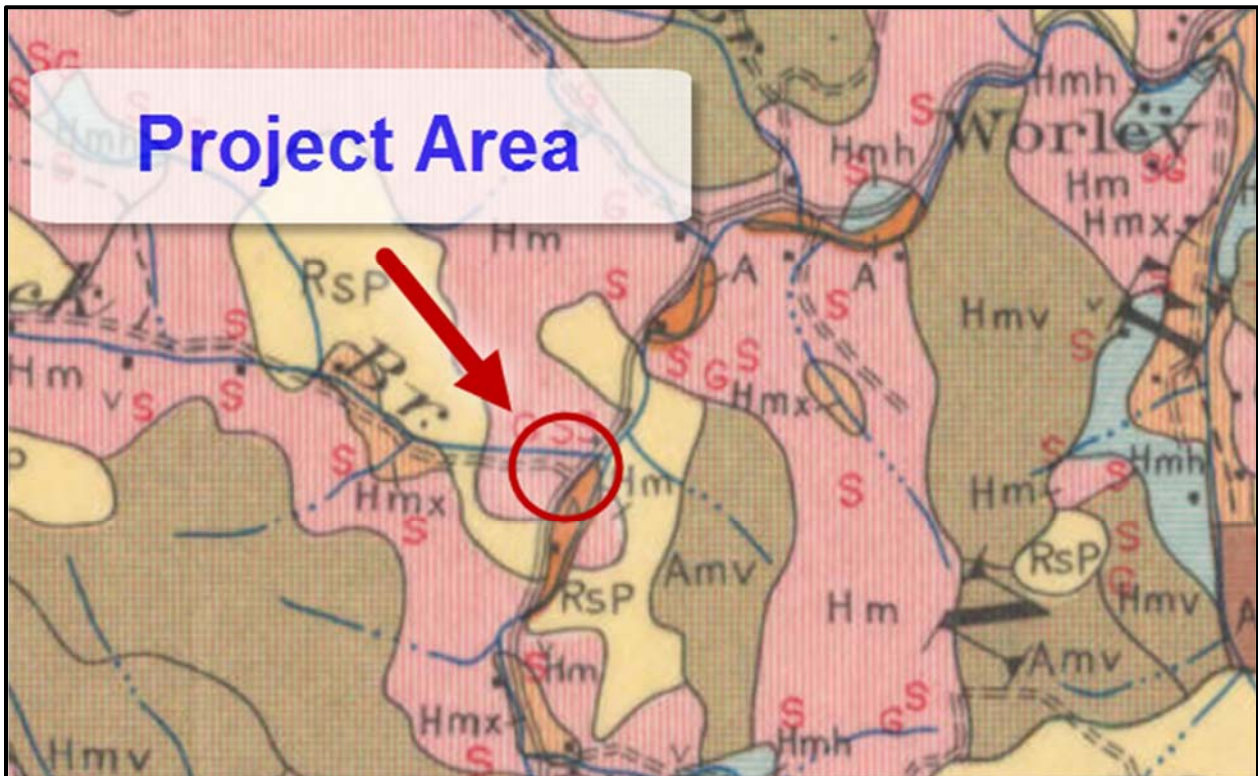


Figure 3. The 1936 Soil Map for Madison County showing the location of the project area.



Figure 4. Aerial View of the project area showing soils, contours, development, and ST placement.



Figure 5. View of the mobile home on the graded hillside in the southwest quadrant, looking southwest.



Figure 6. View of the abandon house and farm in the northwest quadrant, looking north.



Figure 7. View of the stream terrace and grassy field in the southeast quadrant, looking southwest.