

ARCHAEOLOGICAL FIELD REPORT
SCDOT ENVIRONMENTAL SECTION



TITLE: Cultural Resources Survey for US 278 at SC 3 and SC 300 Intersection Improvements

DATE OF RESEARCH: May 22, 2018

COUNTY: Barnwell

PIN: P028052

ARCHAEOLOGIST: Tracy Martin, Bill Jurgelski

ARCHITECTURAL HISTORIAN: David Kelly

PROJECT: US 278 at SC 3 and SC 300 Intersection Improvements

DESCRIPTION: The Department proposes improvements to the intersections of US 278 with SC 3 and SC 300 in Barnwell County (**Figure 1**). The proposed plan will change the SC 3 and SC 300 intersections to make them perpendicular to US 278 (**Figure 2**). A small amount of new right of way will be required to complete the project. The APE (Area of Potential Effect) for archaeological resources for the project consists of land that will be acquired as new right of way as well as those areas within the existing right of way that might be affected by the undertaking. The APE for architectural resources consists of a 300 foot buffer around the archaeological APE (**Figure 3**).

LOCATION: The project area is located in the southeast portion of Barnwell County, approximately 2.5 miles south of Barnwell.

USGS QUADRANGLE: Barnwell

DATE: 1979

SCALE: 7.5'

APE Centroid:

UTM: WGS 84

ZONE: 17

EASTING: 466927.94

NORTHING: 3673707.35

ENVIRONMENTAL SETTING: The project area is located in the Upper Coastal Plain. The lands within the project APE consist of disturbed ROW, paved surfaces, disturbed graded surfaces for lawn, as well as fairly intact wooded hilltops and side slopes. Ground disturbances in the project area consist of buried and above ground utility lines, cut banks, and roadside ditches. **Figures 4 – 5** show the APE as it looked at the time of survey.

NEAREST RIVER/STREAM AND DISTANCE: The closest water source to the project area is Pen Branch, approximately 60 feet from the northern edge of the project area.

SOIL TYPE: Five soil types are present within the APE. The two most abundant are Blanton sand, 0 – 6 percent slopes and 6 – 10 percent slopes, which make up 26.7 percent and 30.9 percent of the total project area, respectively. Both soil types are formed by loamy marine deposits. Blanton sand with 0 – 6 percent slopes is moderately well drained, while Blanton sand with 6 – 10 percent slopes is somewhat excessively drained. Wagram sand, 0 -2 percent slopes, comprises 21.8 percent of the project area. This soil is well drained and formed from loamy marine deposits. Johnston soils make up 14.2 percent of the project area. This soil type is frequently flooded, very poorly drained, and formed from loamy alluvium. Ailey sand, 6 – 10 percent slopes, is makes up 6.4 percent of the project area. This well drained soil is formed from loamy marine deposits.

REFERENCE FOR SOILS INFORMATION: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.sc.egov.usda.gov/>. Accessed [6/1/2018].

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

CURRENT VEGETATION: Vegetation within the project area consists of medium-aged hardwood and pine forest, disturbed grassy lawns, and grassy areas of right of way.

BACKGROUND INVESTIGATION: Prior to the field investigation the online GIS database (ArchSite) was examined to determine if any previously identified archaeological sites, standing structures or National Register of Historic Places (NRHP) sites were present within a quarter mile of the project area. The background investigation indicated that a previous survey line was partially within the project area and five historic structures had been

recorded within a quarter mile. Four of the resources are houses (0445 – 0448) dating to c. 1955, c. 1945, c. 1925, and c. 1940. The fifth is the Salkehatchie River Bridge (0449) built in 1941. All of the resources are listed as not eligible for the NRHP (**Figure 6**).

In addition, historical maps and aerial photos dating to between 1820 and 1974 were examined to determine if any historical structures or architectural features could be identified within the project area (Mills and Boykin 1825, SCSHD 1939, USAAA 1938 and 1943, USGS 1919, 1943, and 1961). The earliest map showing structures in the area is the 1919 Allendale Quadrangle (**Figure 7**). This map shows three structures in the vicinity of the project area. The 1939 SCDOT Barnwell County Highway Map shows several structures in the vicinity of the project area (**Figure 8**) as does the 1943 topographic map of the area (**Figure 9**). The earliest aerial imagery examined was from 1938 (**Figure 10**). There is very little development around the two intersections at this time. The 1943 and 1961 aerials show several standing structures in the vicinity of the project area (**Figures 11 and 12**).

ARCHAEOLOGICAL SURVEY: An archaeological survey of the project area was conducted on May 30, 2018. Field methods consisted of a pedestrian reconnaissance augmented with shovel testing in high site probability areas where there was limited surface visibility.

ARCHAEOLOGICAL SURVEY RESULTS: There were two areas within the project area where new right-of-way completely left the original alignment and needed to be tested. The two areas of new right-of-way were shovel tested at 30 meter intervals while the rest of the project area was walked over and investigated with judgmental shovel test pits. Seven shovel test pits (STP) were excavated at the northern intersection improvement and four at the southern intersection improvement. Two additional shovel tests were excavated along the west side of US 278. Most of this area allowed for surface inspection because of the large amount of surface visibility. Transect shovel test pits are shown on **Figure 13**. Three transect shovel tests contained prehistoric material.

Soils throughout the project area were generally found to consist of about 20 to 30 centimeters of olive brown (2.5Y 4/3), gray (10YR 5/1), to dark gray (10YR 4/1) loamy sandy followed by a second stratum of brownish-yellow (10YR 6/8), pale brown (10YR 6/3), or brown (10YR 4/3) sand to between 55 to 80 centimeters below surface (cmbs). A third stratum was periodically visible between 55 and 75 cmbs consisting of strong brown (7.5YR 5/8), dark yellowish-brown (10YR 4/4), or yellowish-red (5YR 5/8) sandy clay.

Much of the project area was found to exhibit significant disturbance from road construction, roadside ditches, road cuts, and buried and above ground utilities. **Figures 14 and 15** show the ground disturbance, buried utilities, and exposed ground surface within the project area.

One archaeological site was identified during the archaeological survey.

38BR1427

Site 38BR1427 consists of a light scatter of prehistoric debitage along the west side of SC 3 (**see Figure 1**). The site overlooks marsh associated with Pen Branch to the west. It is situated on a northwest facing gentle ridge slope and was originally identified by three positive transect shovel test pits. The site was delineated at 15 meter intervals. It is bound to the north by a negative shovel test and disturbed slope, to the west by slope and wetland, and to the east and south by highway right-of-way and ground disturbance (**Figure 16**). Vegetation on the site consists of pine and hardwood with a light understory of saplings and briers. Disturbance to the site consists of highway right-of-way and erosion. Judging by the topography it is likely that the site originally extended to the east beyond what was documented in the current survey. This hypothesis was bolstered by a conversation with a local landowner who recalled finding numerous prehistoric artifacts behind (south) of the gas station located on the east side of SC 3 opposite the site. The landowner did not have access to the artifacts he reported finding and was not able to give a detailed description of the artifacts. **Figure 17** shows the site at the time of investigation.

Three types of soil are present at site 38BR1427. The predominant type is Blanton sand, 6 – 10 percent slopes, which comprises about 72 percent of the site area in the central and northern portions of the site. Ailey sand, 6 – 10 percent slopes makes up the southern tip of the site, or approximately 19 percent. Frequently flooded Johnson soils make up 9 percent of the site in the northwestern corner. Soil profiles observed in shovel test pits were similar to what has been described in the previous section; a Stratum I of about 20 to 30 centimeters of olive brown (2.5Y 4/3),

gray (10YR 5/1), to dark gray (10YR 4/1) loamy sandy followed by a second stratum of brownish-yellow (10YR 6/8), pale brown (10YR 6/3), or brown (10YR 4/3) sand to between 55 to 80 centimeters below surface (cmbs). A third stratum was periodically visible between 55 and 75 cmbs consisting of strong brown (7.5YR 5/8), dark yellowish-brown (10YR 4/4), or yellowish-red (5YR 5/8) sandy clay.

A total of 58 artifacts were recovered at 38BR1427. These include 56 chert flakes and flake fragments, one chert biface fragment, and one wire nail. The majority of artifacts were recovered within the second stratum (n=50). At the fringes of the site, in STP N500 E455, six pieces of debitage and the wire nail were recovered in Stratum I, while in STP N350 E500 one flake was found in Stratum I. It is likely that these artifacts are the result of erosional deposition.

Site 38BR1427 is a moderate sized non-diagnostic prehistoric site consisting of a light scatter of debitage. Because of the limited size of the site, the lack of diagnostic artifacts, and because it has been heavily disturbed by erosion and construction and development, it is unlikely that additional work at the site will yield important information about the prehistory of the surrounding region. The site is recommended as not eligible for the NRHP and no further work is recommended.

ARCHITECTURAL SURVEY: A historical resources survey of the project area was conducted on May 30, 2018. Site survey methods consisted of a visual examination of all buildings within the Architectural APE. Two (2) resources within the Architectural APE were evaluated to be survey-eligible. **Figure 18** shows the location of the two newly recorded architectural resources.

ARCHITECTURAL SURVEY RESULTS: Two (2) newly-identified structures (site #s 0494 & 0495) were identified within the Architectural APE. Site # 0494 is a circa 1940 store building (**Figure 19a**). Site # 0495 is a circa 1960 residence (**Figure 19b**). After consideration under all the criteria of the National Register of Historic Places (NRHP) neither site is recommended eligible for the NRHP.

REMARKS AND RECOMMENDATIONS: The cultural resources survey for the proposed improvements to the intersections of US 278 with SC 3 and SC 300 in Barnwell County resulted in the identification of one new archaeological site, 38BR1427. Site 38BR1427 is a light density non-diagnostic prehistoric lithic scatter. It has been disturbed from erosion, construction related to SC 3, and most likely construction and grading for the structures east of the SC 3. No further work is recommended on the site. Two (2) new architectural resources were documented during the project investigations. Both of the architectural resources are ineligible for the NRHP. No historic properties will be affected by the proposed undertaking. No additional cultural resources investigations are recommended.

SIGNATURE: _____ **DATE:** _____

References Cited

Mills, Robert and J. Boykin

- 1825 Barnwell District, South Carolina. [1820] Map. Retrieved from the Library of Congress, <<https://www.loc.gov/resource/g3913b.cws00130/>>.

South Carolina State Highway Department (SCSHD)

- 1939 General Highway and Transportation Map of Barnwell County, South Carolina. Retrieved from University of South Carolina University Libraries, Maps Department, Digital Collections <<http://digital.tcl.sc.edu/cdm/singleitem/collection/scrm/id/17/rec/1>>.

United States Agricultural Adjustment Administration (USAAA)

- 1938 Aerial Photograph Index, Barnwell County (S.C.), 1938. Aerial Photograph, Sheet 5 of 13. Retrieved from University of South Carolina University Libraries, Digital Collections, South Carolina Aerial Photograph Index, 1937-1939. <<http://digital.tcl.sc.edu/cdm/compoundobject/collection/scai/id/327/rec/1>>.

- 1943 Aerial Photograph Index, Barnwell County (S.C.), 1943. Aerial Photograph, Sheet 4 of 4. Retrieved from University of South Carolina University Libraries, Digital Collections, South Carolina Aerial Photograph Index, 1937-1939. <<http://digital.tcl.sc.edu/cdm/compoundobject/collection/scai/id/240/rec/2>>.

United States Geological Survey (USGS)

- 1919 1919 Allendale 1:62,500 Scale Topographic Quadrangle. Retrieved from USGS Historical Topographic Map Explorer <<http://historicalmaps.arcgis.com/usgs/>>.
- 1943 1943 Allendale 1:62,500 Scale Topographic Quadrangle. Retrieved from USGS Historical Topographic Map Explorer <<http://historicalmaps.arcgis.com/usgs/>>.
- 1961 1961 Aerial Photo Single Frames. Entity ID ARCVAP2A0060683, Project VAP2A, Roll 000006, Frame 683, Scale 60,000, Retrieved from USGS Earth Explorer <<https://earthexplorer.usgs.gov/>>.
- 1979 1979 Barnwell 1:24,000 Scale Topographic Quadrangle. Retrieved from USGS Historical Topographic Map Explorer <<http://historicalmaps.arcgis.com/usgs/>>.

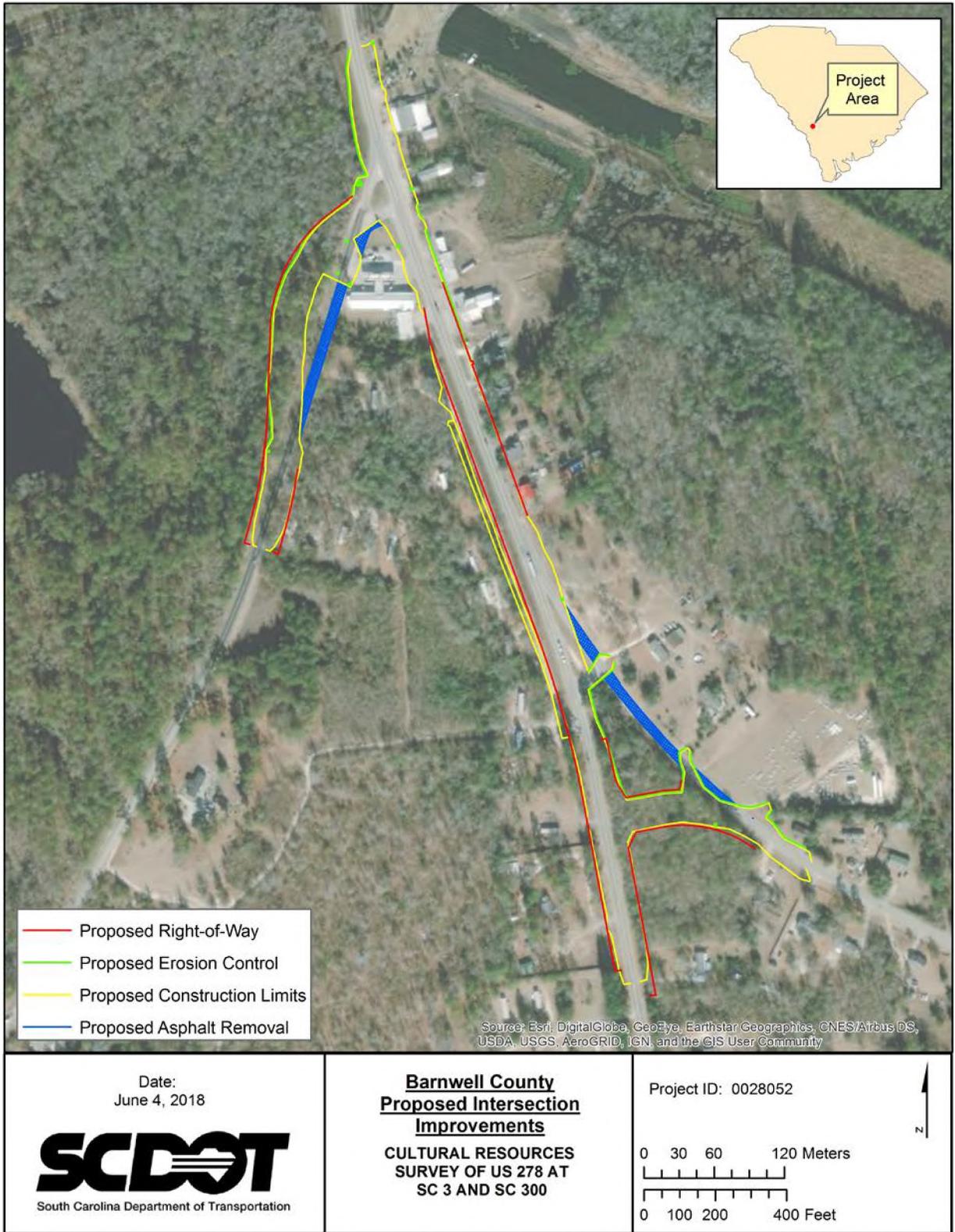


Figure 2. Intersection Improvement Plans for US 278 at SC 3 and SC 300.

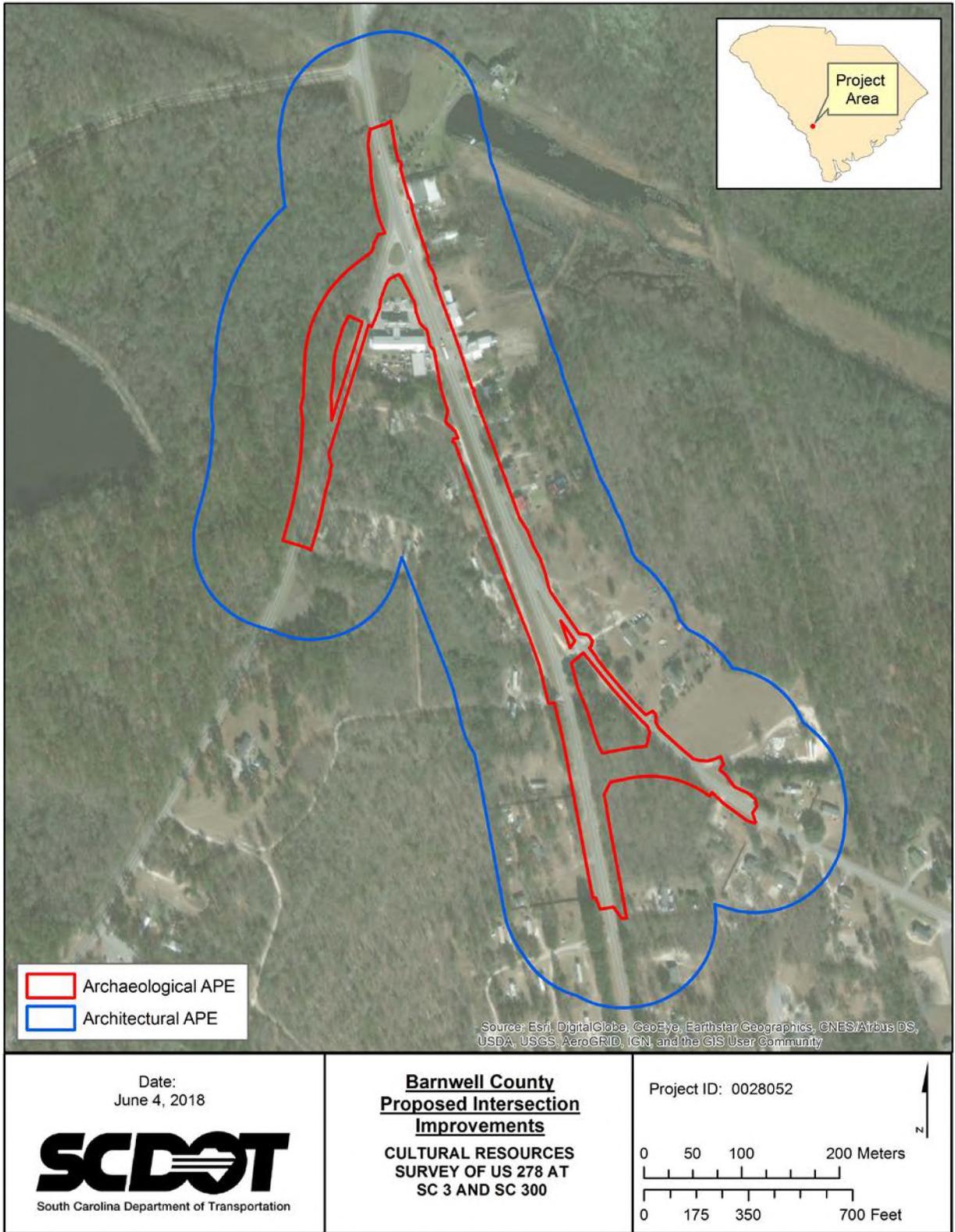


Figure 3. Archaeological and Architectural APEs.



Figure 4a. General View of APE Facing South along US 278 Showing Intersection with SC 3.



Figure 4b. General View of APE Along SC 300 Facing South.



Figure 5a. General View of APE Facing North Towards Intersection of US 278 and SC 300.



Figure 5b. General View of APE Facing North From South End of Project Area Along US 278.

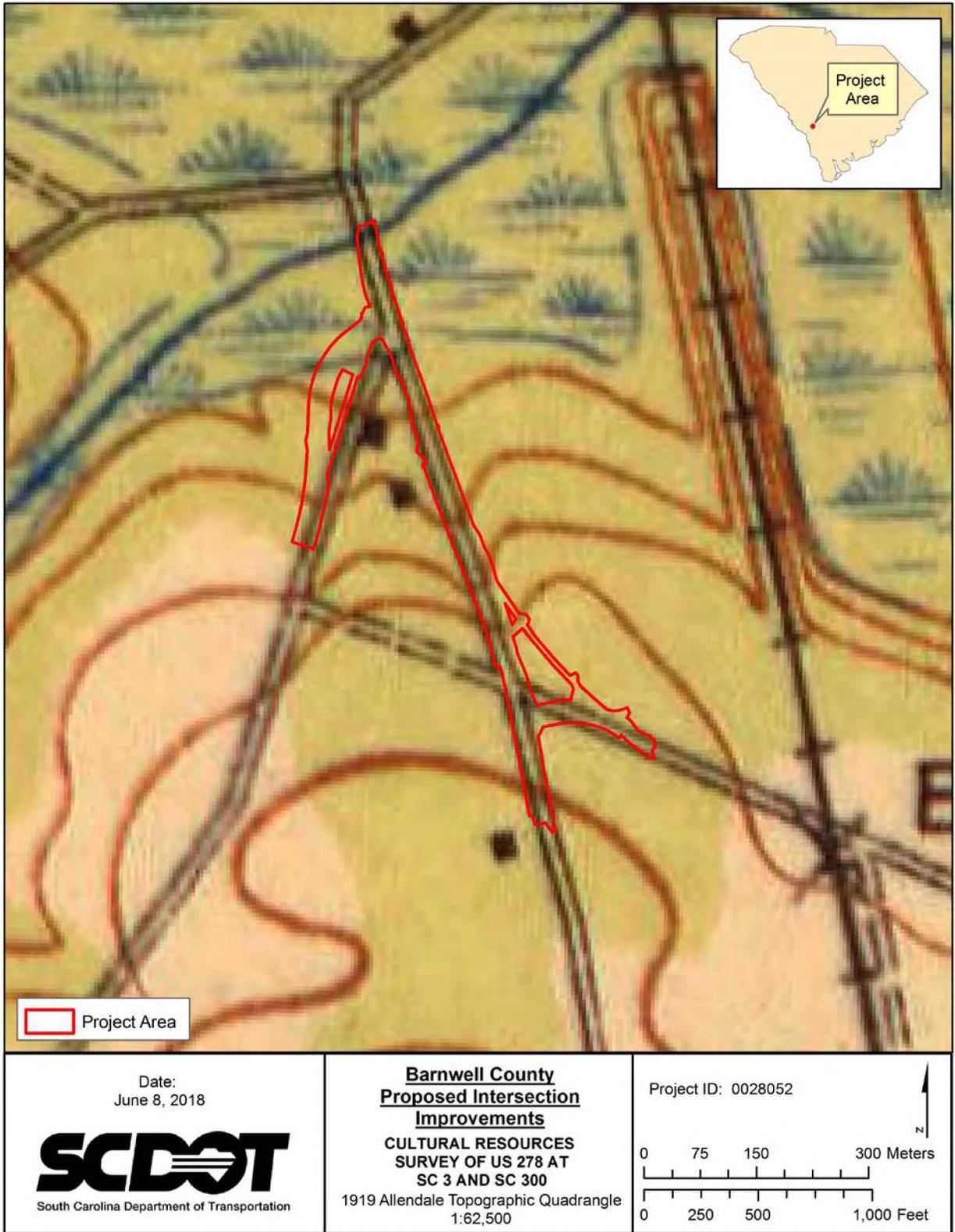


Figure 7. 1919 Allendale Topographic Quadrangle (USGS 1919).

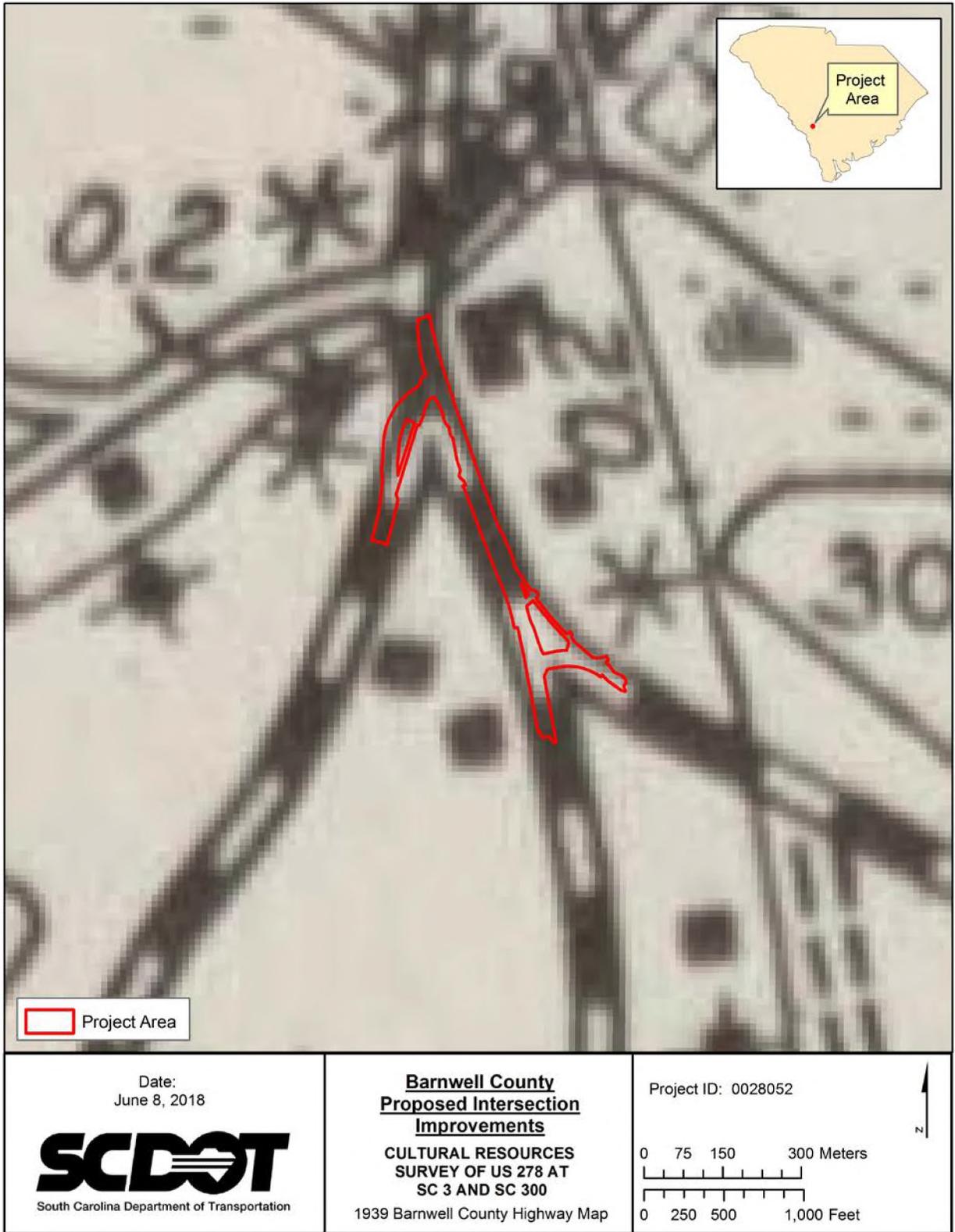


Figure 8. 1939 Barnwell County Highway Map (SCSHD 1939).

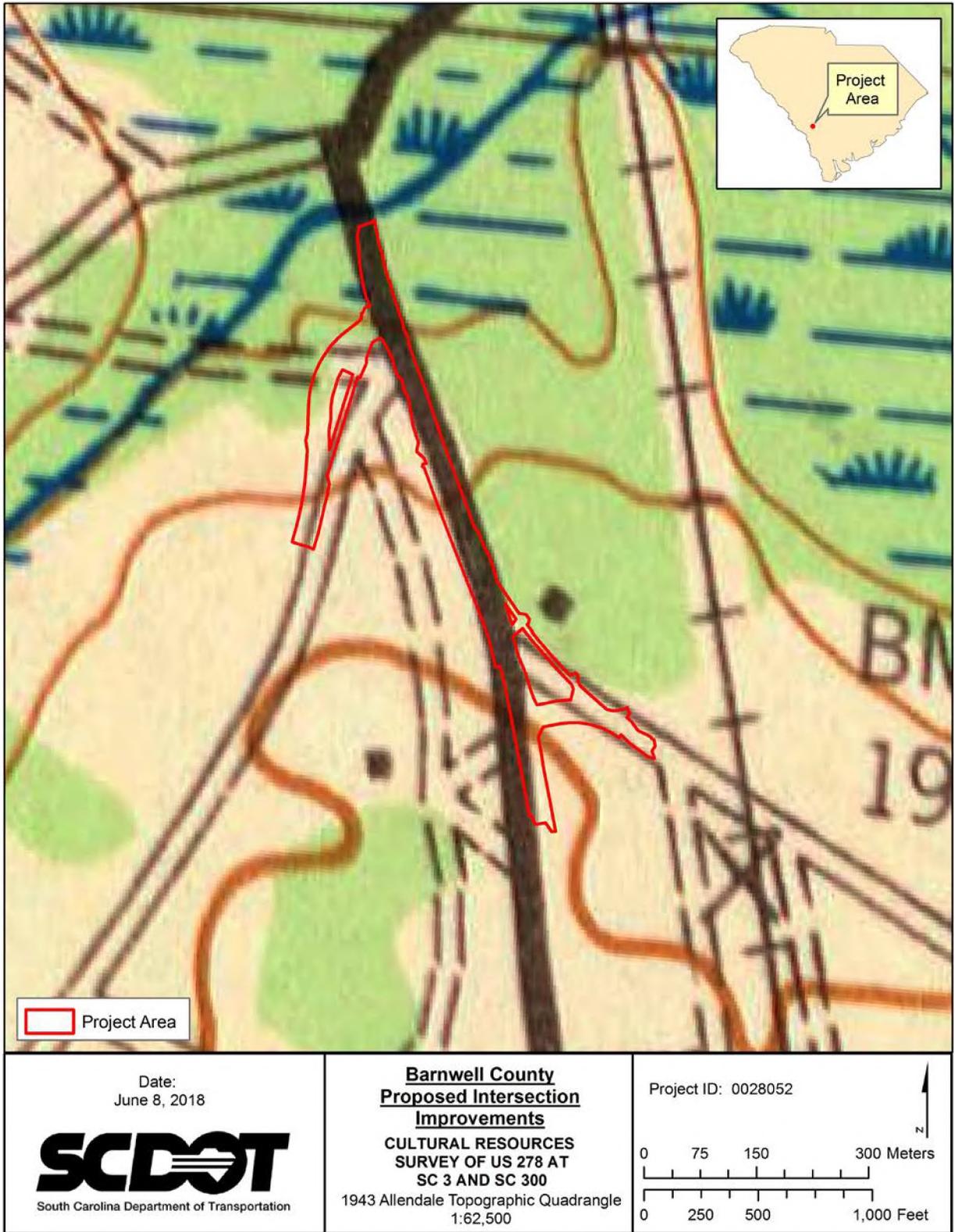


Figure 9. 1943 Allendale Topographic Quadrangle (USGS 1943).

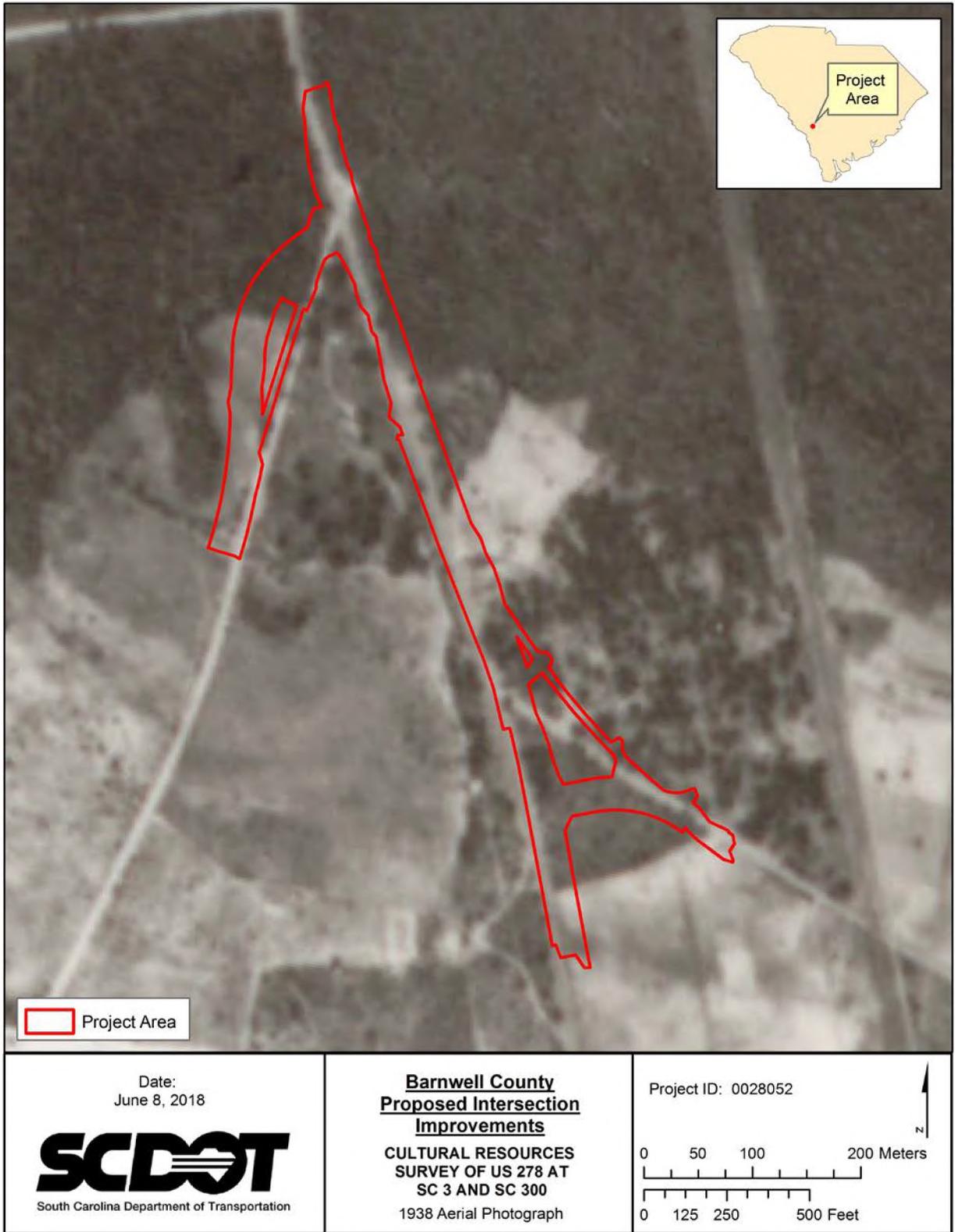


Figure 10. 1938 Aerial Photograph (USAAA 1938).

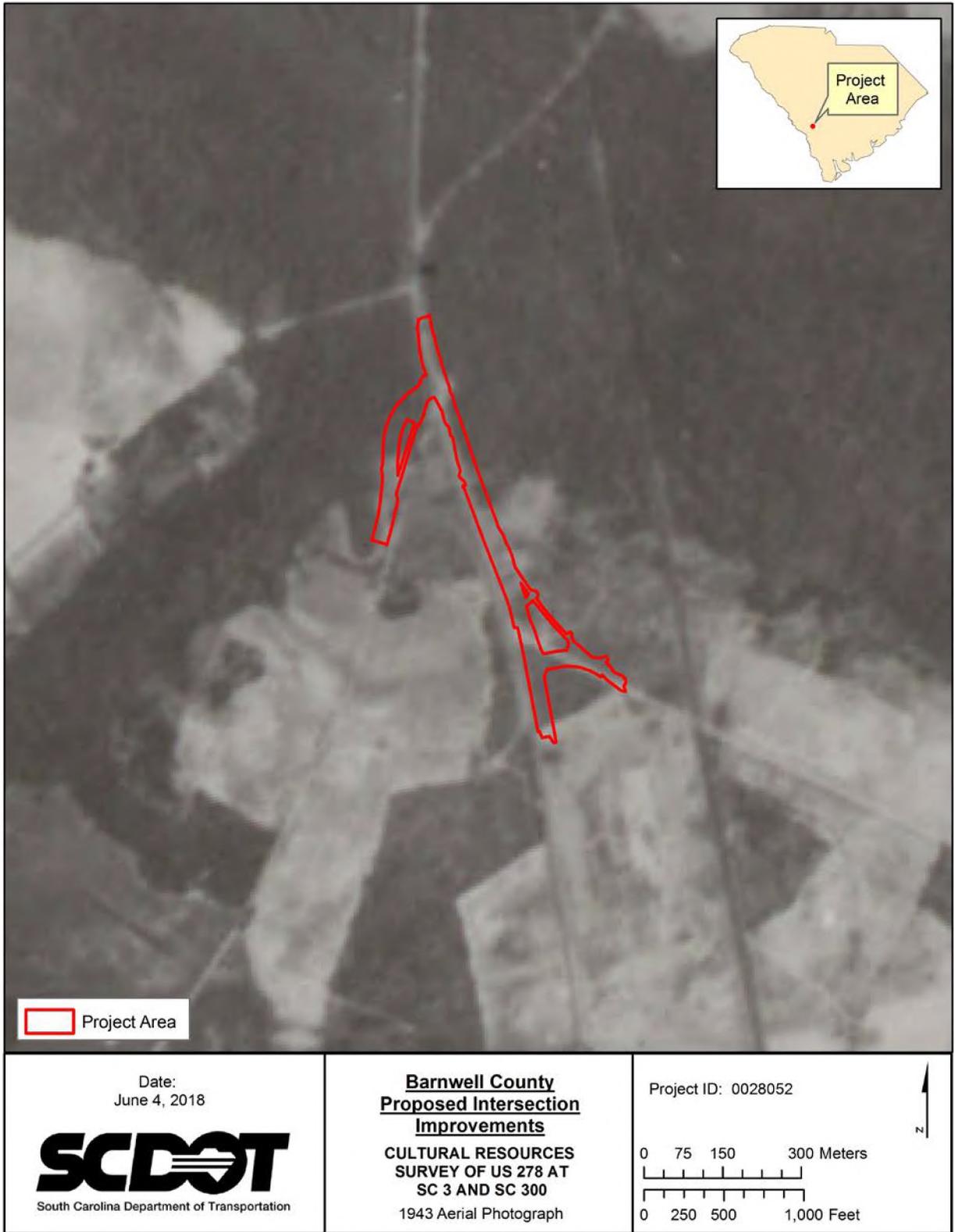


Figure 11. 1943 Aerial Photograph (USAAA 1943).

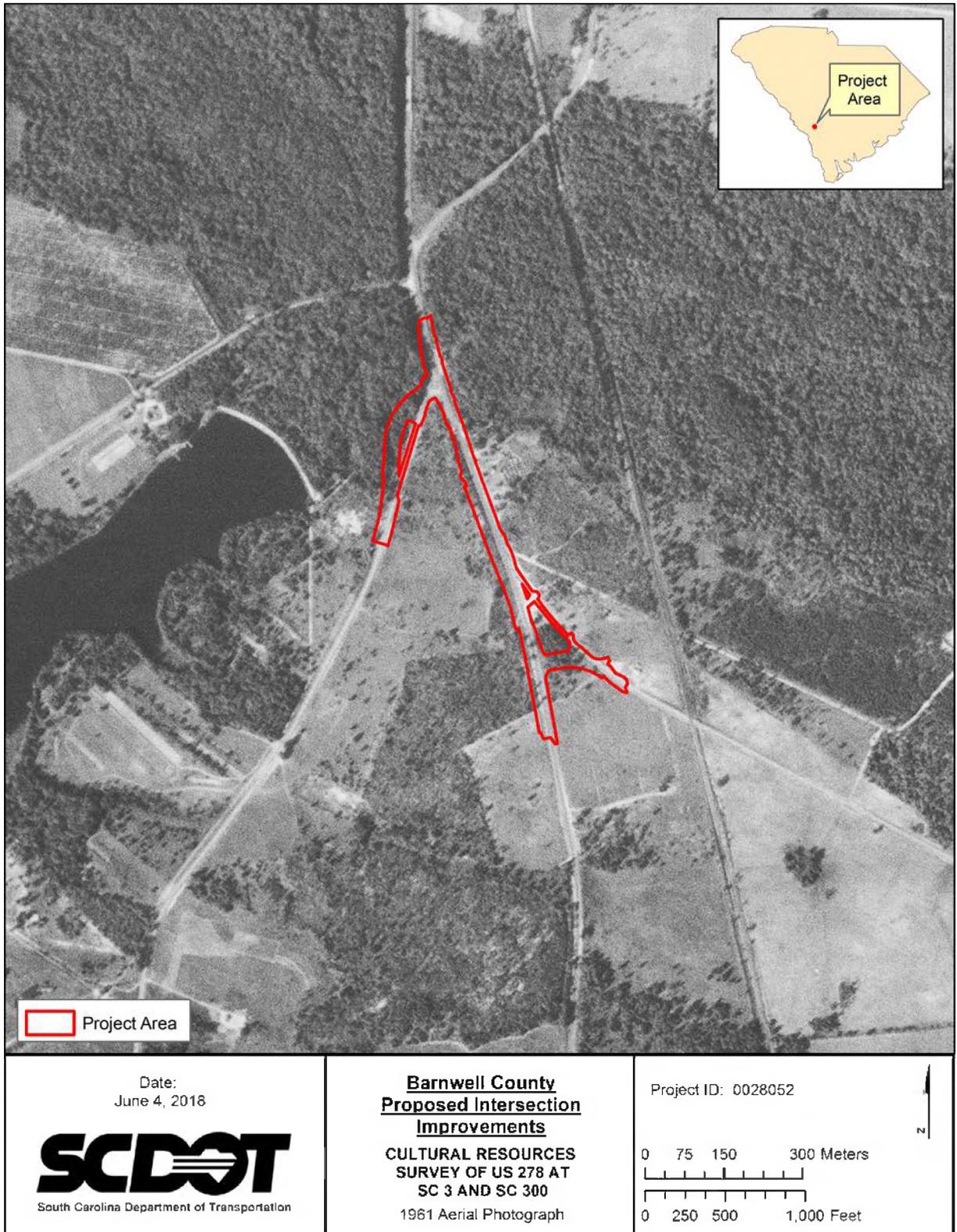


Figure 12. 1961 Aerial Photograph (USGS 1961).

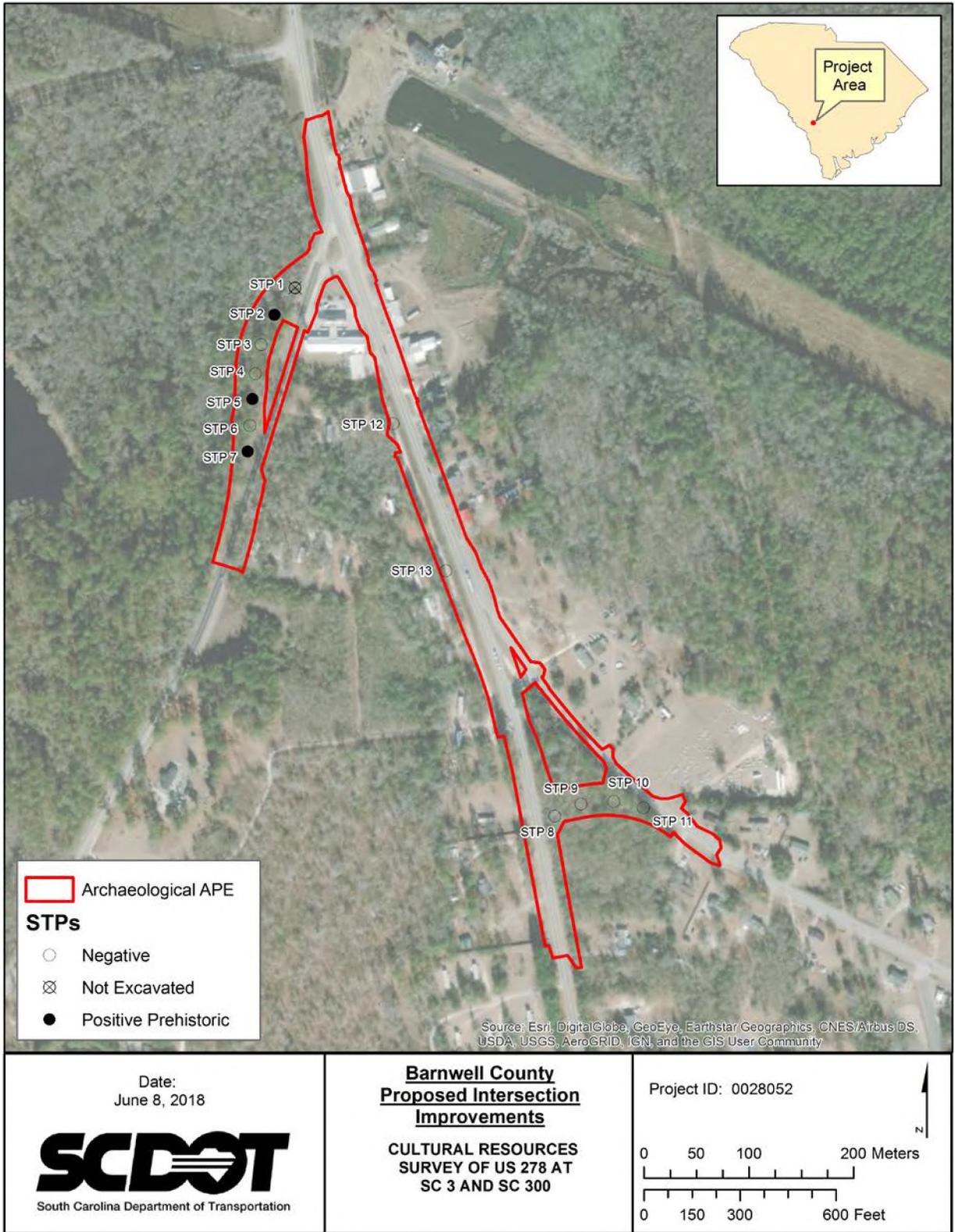


Figure 13. Transect Shovel Tests Within the APE.



Figure 14a. Paved and Graveled Disturbance Facing South Along US 278 at North End of APE.



Figure 14b. Cut Bank and Exposed Ground Surface on West Side of US 278, Facing South.



Figure 15a. View of Project Area Showing Cut Bank and Buried Utilities, Facing Northeast.



Figure 15b. View of Road Berm and Buried Utilities Disturbance Within Project Area, Facing South Along US 278.

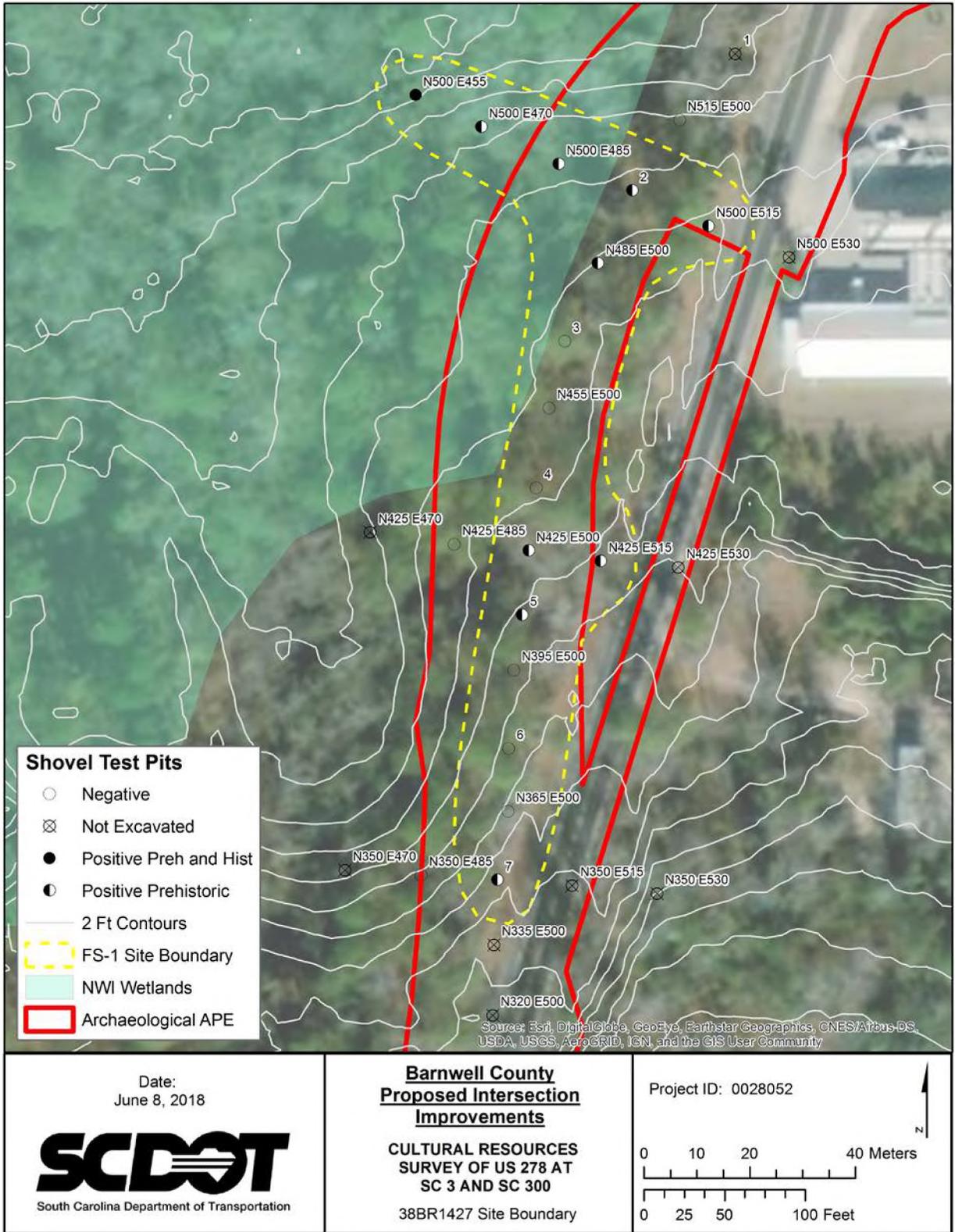


Figure 16. Map of Site 38BR1427.



Figure 17a. General View of Site at Time of Investigation.

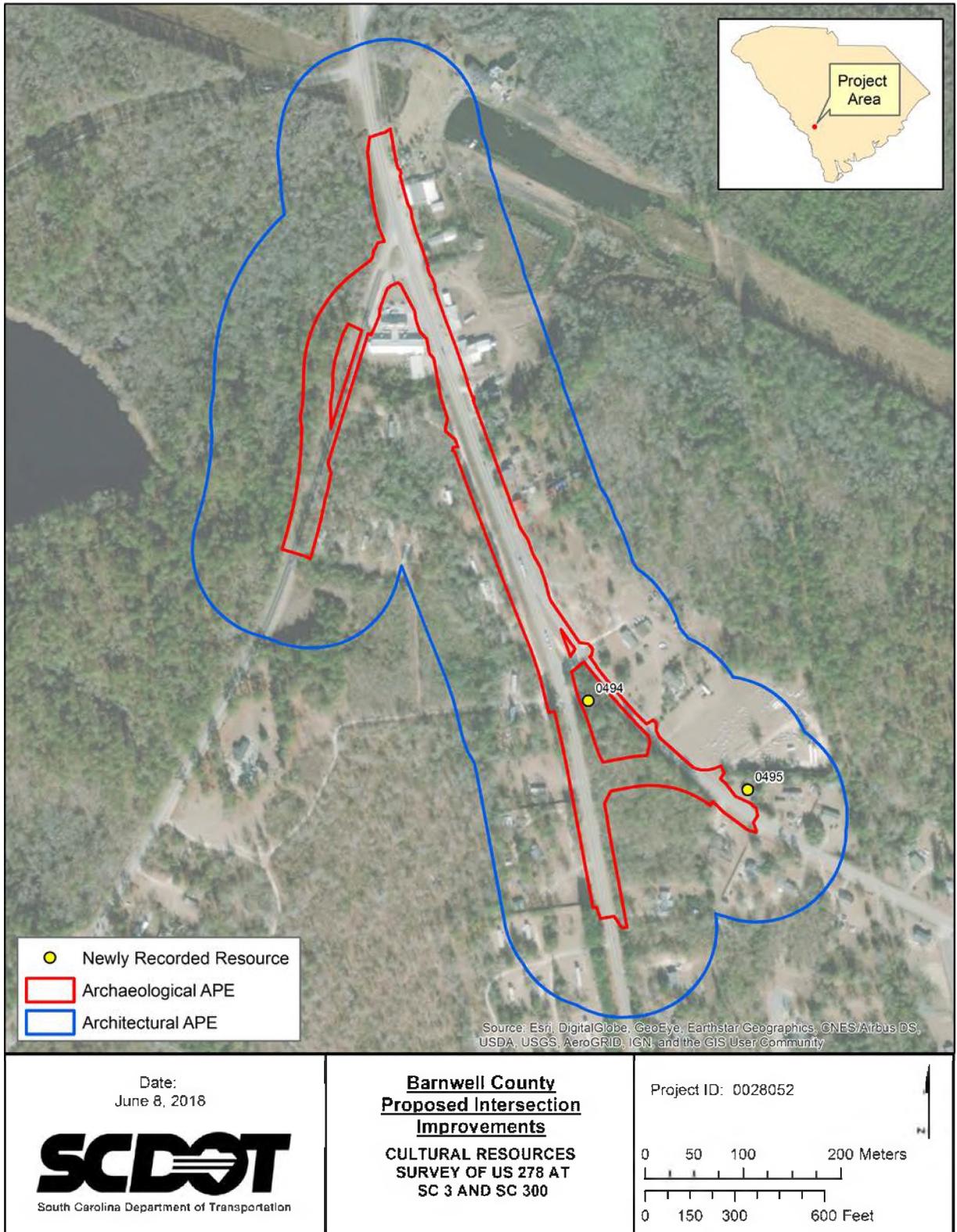


Figure 18. Newly Recorded Architectural Resources.



Figure 19a. View of Site No 0494, Facing Northeast From US 278.



Figure 19b. View of Site No 0495, Facing Southeast From SC 300.