



April 27, 2021

Josh Adams, Senior Associate  
Stantec  
10509 Timberwood Circle, Suite 100  
Louisville, Kentucky 40223

RE: An Archaeological Reconnaissance for the  
Mercer County Solar Project,  
Mercer County, Kentucky  
CRA Project No.: K20S006  
Contract Publication Series: 20-397

Dear Mr. Adams,

On September 9, 2020, Cultural Resource Analysts, Inc. (CRA), archaeologist Caitlin Nichols, RPA 17357, conducted an inspection of the proposed Mercer County Solar Project in Mercer County, Kentucky. The purpose of the inspection was to identify locations that had a high probability for archaeological materials, including areas with mapped structures on historic maps, areas with previously recorded sites, and a previously unmapped cemetery. These areas were subjected to limited pedestrian survey; shovel testing was beyond the scope of the current investigation. Prior to the pedestrian survey, Office of State Archaeology (OSA) Geographic Information Systems (GIS) data were requested to review previous archaeological surveys and sites directly adjacent to or within the current proposed Mercer County Solar Project (project area). The project area consists of approximately 696.7 ha (1,721.6 acres) of open agricultural fields approximately 4.13 km (2.57 mi) northwest of Harrodsburg, Kentucky. The project area is located directly west of US 127 (extending in a general north–south direction), directly east of the Norfolk Southern Railroad (extending in a general north–south direction), approximately 0.87 km (0.54 mi) south of KY 1160 (extending in a general west–east direction), and directly north of KY 390 (extending in a general west–east direction). Jackson Pike runs through the central portion of the project area and separates the northern and southern halves (Figures 1 and 2).

In the current study, one previously recorded archaeological site (15Me49) was revisited during the pedestrian survey. In addition, eight historic maps were inspected for any mapped structures present within the project area. Twenty-nine mapped structure locations were noted and visited during the pedestrian survey to assess whether there was any potential for associated historic archaeological sites. The following sections discuss previously recorded archaeological sites and surveys documented near the project area and the results of the pedestrian survey.

## Previous Archaeological Surveys

OSA records that were returned revealed that four previous professional archaeological surveys have been conducted within or directly adjacent to the project area (Fiegel 2001; Hopwood and Herndon 2012; Schock 1997; Venter 2007). Two surveys whose records have not yet been entered in the OSA GIS data were conducted in this area as well (O'Malley 1987; Webb and Funkhouser 1932).

Corporate Headquarters

151 Walton Avenue

Lexington, KY 40508

office 859.252.4737

fax 859.254.3747

www.crai-ky.com

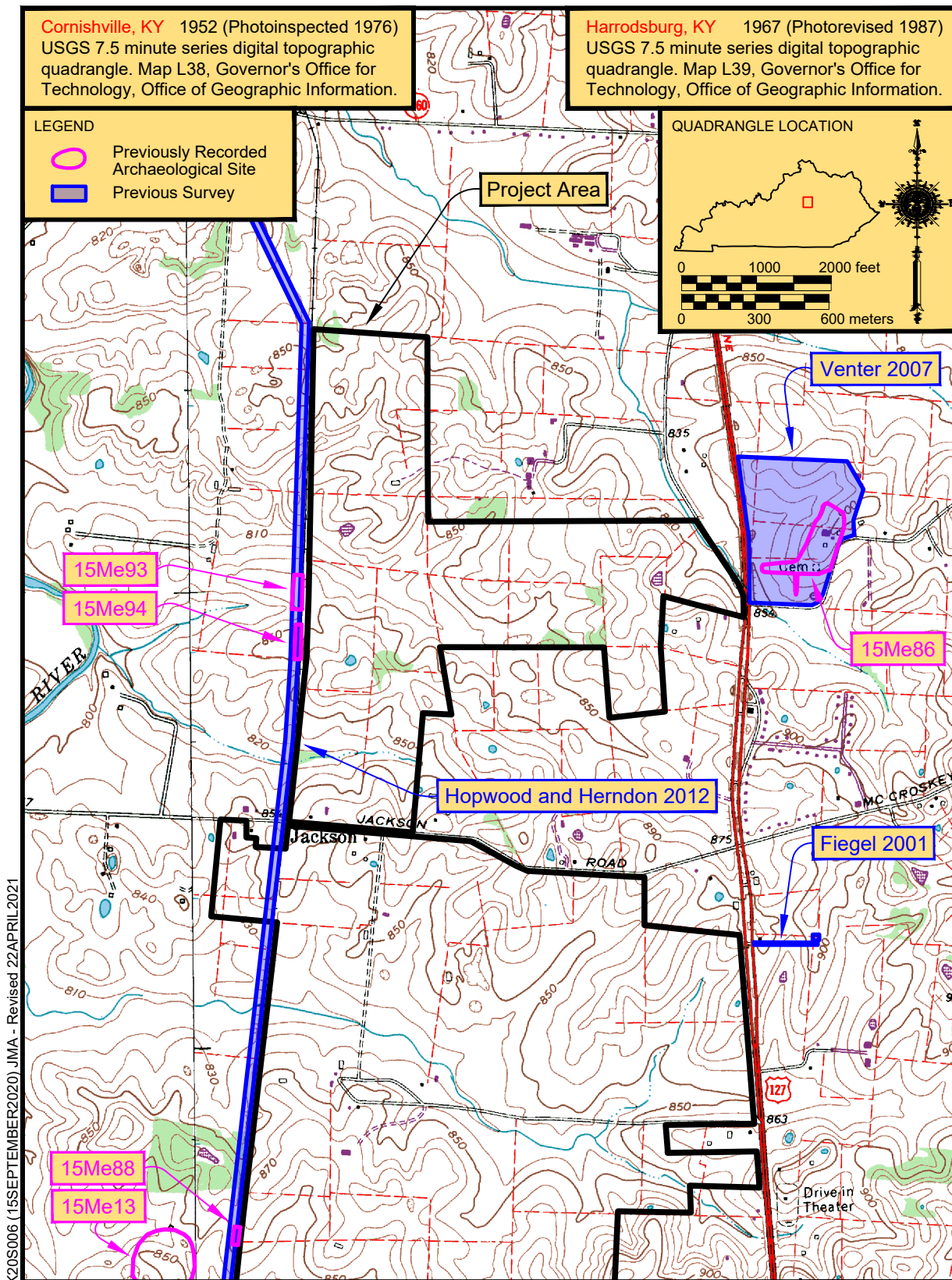


Figure 1. Topographic map depicting the location of the northern half of the project area (USGS 1952 [photoinspected 1976], 1967 [photorevised 1987]).



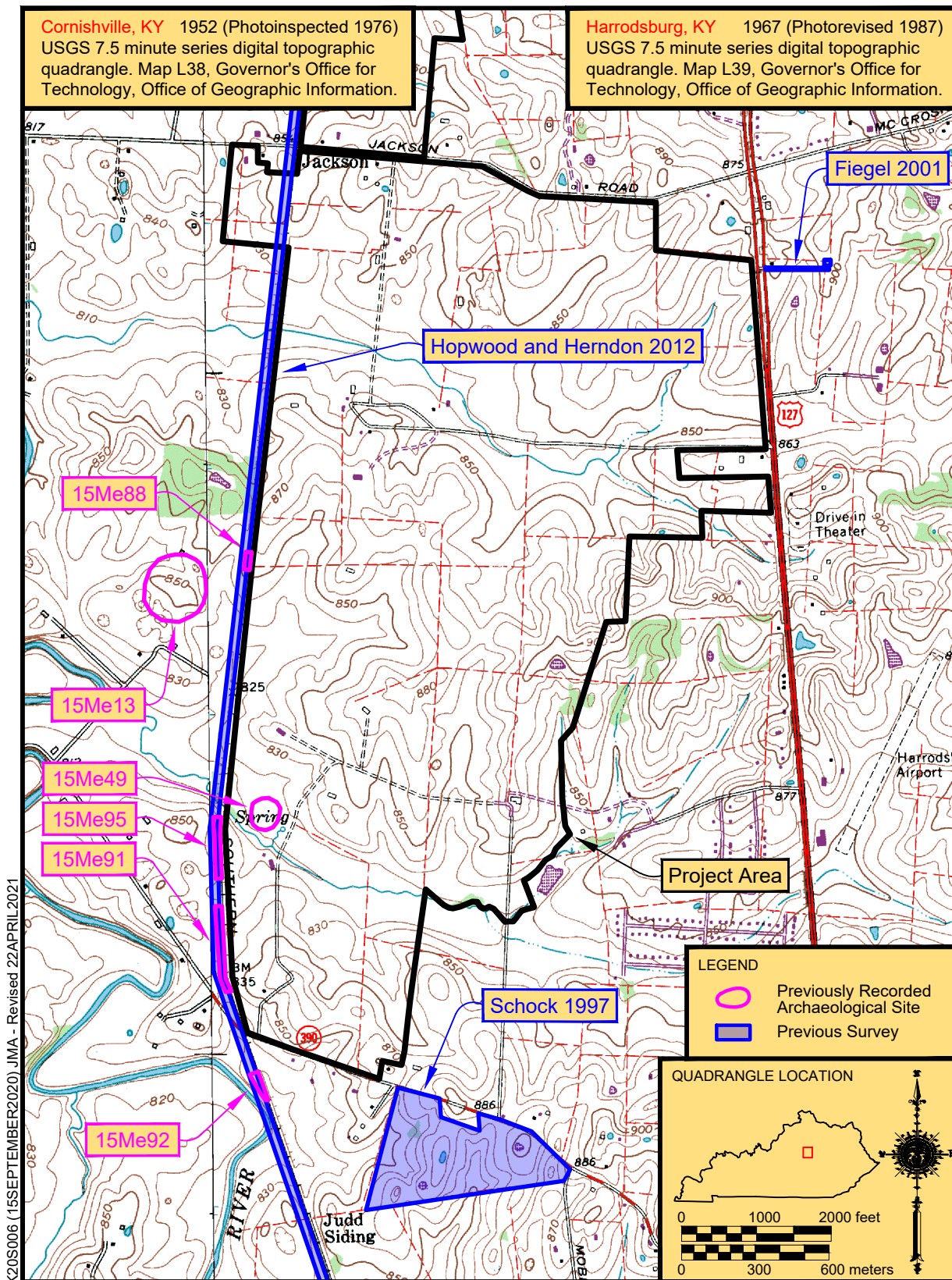


Figure 2. Topographic map depicting the location of the southern half of the project area (USGS 1952 [photoinspected 1976], 1967 [photorevised 1987]).

Additionally, nine archaeological sites have been recorded within or directly adjacent to the current project area. One of these sites falls within the boundaries of the current project area (15Me49), and two of the surveys intersect with the current project area (Hopwood and Herndon 2012; O'Malley 1987). A search of the National Register of Historic Places (NRHP) records indicated that no archaeological sites listed in the NRHP were situated within the current project area or within a 2.0 km (1.2 mi) radius of the project area (file search area) (United States Department of the Interior, National Park Service 2020). The records returned from the OSA database may include discrepancies; these discrepancies are typically identified and documented during research visits to the OSA library. Due to the COVID-19 pandemic, however, the OSA library closed on March 17, 2020, and reopened on June 22, 2020. Upon reopening, public access has been limited, and additional information about the records returned is by digital request. As a result, research for the current study is limited by these health and safety restrictions.

The records search revealed that five of the nine sites in the file search area (15Me91–15Me95) are prehistoric open habitation sites. One site (15Me88) is a historic farm/residence, and another (15Me49) is a historic pioneer station site. One site is a prehistoric earth mound (15Me13). The remaining site is a multicomponent prehistoric and historic scatter (15Me86). The project area included areas within the Harrodsburg, Kentucky, quadrangle (United States Geological Survey [USGS] 1952, 1967 [photorevised 1987]).

In 1931, archaeologists from the University of Kentucky (UK) compiled a list of known archaeological sites in 68 Kentucky counties (Webb and Funkhouser 1932). During this documentation, Site 15Me13 was recorded as an earth mound site. Webb and Funkhouser state that they used the Proctor Survey geological maps, created by J.B. Hoening between 1880 and 1892, to record the site location (1932:286). NRHP status was not assessed for this site.

In 1984, Nancy O'Malley (1987) recorded and evaluated 150 pioneer stations (circa 1770–1800) in the Inner Bluegrass Region of Kentucky. Site 15Me49 was documented as part of this study. Site 15Me49 is within the boundaries of the current project area. It is called Isaac Hite's Station and was originally known as Fountainebleau (Fountain Blue) for its pure water spring. Historic documents reveal that Isaac Hite built a tub mill (horizontal water wheel) on the branch connecting the spring to a tributary of Salt River. However, it seems that the site was not a stockaded station, but a single family settlement that worked the mill. It was also known locally as an American Indian site. Pedestrian survey during the O'Malley (1987) investigation of the area did not recover any historic artifacts, but did locate a prehistoric site northwest of the spring (Site 15Me95). This site (15Me95) is 300 m (984 ft) west of Site 15Me49 on the other side of the tributary; the sites are likely not related.

On July 16, 1997, Arrow Enterprises, Inc., conducted an archaeological investigation of 24 ha (60 acres) for the proposed Bay West Paper expansion (Schock 1997). The survey was requested by Craig McAnaly of the Bluegrass Area Development District (BGADD). The area was investigated by pedestrian survey and shovel testing. No sites were identified during the survey, and no further work was recommended.

On August 18, 2001, Kurt Fiegel conducted an archaeological survey of the proposed Jackson-A cell tower site (Fiegel 2001). At the request of Michael E. Graham of Terracon, an area of 84 sq m (900 sq ft) and an access road 305 m (1,000 ft) long were investigated by screened shovel tests. No archaeological sites were found, and no further work was recommended.

Between August 1 and 3, 2007, UK's Program for Archaeological Research personnel conducted an archaeological survey for the proposed Kentucky Agricultural Heritage Center (Venter 2007). Approximately 20.53 ha (50.73 acres) were investigated by surface reconnaissance and screened shovel testing. One previously unreported site, 15Me86, was identified. Site 15Me86, located adjacent to the current project area, is an extensive, moderate-density scatter of prehistoric and historic artifacts. The site area also includes residential/farm structures that have been occupied and



used from the early nineteenth century to the present. Finally, the site includes an inactive family cemetery that was used between the 1830s and the 1890s. Due to the presence of cultural material in intact contexts, the possible presence of a structural foundation, the high potential for features, the presence of a historic family cemetery, and the probable presence of an early nineteenth-century historic occupation, 15Me86 is considered potentially eligible for listing in the NRHP. Additional work including more detailed documentary research and archaeological fieldwork was recommended (Venter 2007).

Between May 29 and June 12, 2012, CRA personnel completed an archaeological survey of the proposed Mercer County Industrial Park-Van Arsdell 69 kilovolt electric transmission line project in Mercer County, Kentucky (Hopwood and Herndon 2012). The survey was conducted at the request of Josh Young on behalf of East Kentucky Power Cooperative, Inc. The proposed transmission line was to be approximately 13.4 km (8.3 mi) in length and generally aligned south to north between the existing substations. The project corridor was 30 m (98 ft) wide, and the total area for the original scope was approximately 40 ha (99 acres). An alternate route requested by a landowner was also surveyed. The additional 1.5 km (0.9 mi) of corridor brought the total area surveyed to 44.5 ha (110.0 acres). The field investigation consisted of intensive pedestrian survey supplemented by screened shovel tests. Nine archaeological sites (15Me87–15Me95) were discovered and documented during the survey. Six of these sites are adjacent to the current project area (15Me88 and 15Me91–15Me95) (see Figure 2). Of the newly recorded archaeological sites, five sites were prehistoric (15Me91–15Me95), and one site was historic (15Me88). The prehistoric sites included low-density lithic scatters that likely represent prehistoric open habitations or tool production areas. The historic site consisted of a late nineteenth- to early twentieth-century domestic artifact scatter that was associated with a structure found on a 1905 historic map. Two of these sites (15Me93 and 15Me94) (see Figure 2) were recommended for avoidance as their NRHP eligibility could not be assessed at the time of the survey. Sites 15Me93 and 15Me94 are likely late Middle Woodland prehistoric lithic and ceramic scatters that showed evidence of possible intact subsurface deposits. The other sites were not considered eligible for NRHP listing, and no further work was recommended (Hopwood and Herndon 2012).

## Map Data

Prior to the site visit, CRA conducted a review of historic maps to determine if any of the maps showed mapped structures (MS) within the project area. The following maps were reviewed.

- 1876 Map of Boyle and Mercer Counties (D.G. Beers and Company)
- 1905 Harrodsburg, Kentucky, 30-minute topographic quadrangle (USGS)
- 1941 General Highway Map of Mercer County (Kentucky Department of Highways [KDOH])
- 1952 (photoinspected 1976) Cornishville, Kentucky, 7.5-minute topographic quadrangle (USGS)
- 1952 Harrodsburg, Kentucky, 7.5-minute topographic quadrangle (USGS)
- 1953 General Highway Map of Mercer County (Kentucky State Highway Department [KSHD])
- 1960 General Highway Map of Mercer County (KDOH)
- 1967 (photorevised 1987) Harrodsburg, Kentucky, 7.5-minute topographic quadrangle (USGS)

All of these maps showed mapped structures except for the 1952 Cornishville, Kentucky, map (USGS 1952 [photoinspected 1976]). The total mapped structure count on all of the maps was 29 (Figure 3). Due to their smaller scale, the highway maps (KDOH 1941, 1960; KSHD 1953) were only used to confirm or deny the presence of mapped structures in the area.

MS 1–MS 7 were originally identified on the 1876 map of Mercer County (Figure 4) (D.G. Beers and Company). Each of these was a dwelling structure. MS 1–MS 6 also have names attached to them, including G.N Davis (MS 1), G&H Woods (MS 2), J.M. Forsythe Sr. (MS 3), J.G.H. Dean (MS 4), M.H. Cecil (MS 5), and H.C. Willis (MS 6).

MS 1–MS 6 also were present on the 1905 Harrodsburg quadrangle; however, MS 7 was no longer present (Figure 5) (USGS). Four additional mapped structures (MS 8–MS 11) were also first identified on the 1905 Harrodsburg quadrangle (USGS). As with the 1876 map, the structures present on the 1905 map seem to be singular dwellings with no other adjacent structures.

On the 1952 Harrodsburg map, MS 1–MS 4, MS 6, and MS 9–MS 11 were still present; however, MS 5 and MS 8 were not (Figures 6 and 7) (USGS 1952). MS 1, MS 6, MS 10, and MS 11 were no longer present within the project area; this is likely due to inaccuracy with the 1905 Harrodsburg map (USGS). Additionally, MS 12–MS 28 were first identified on the 1952 Harrodsburg map (USGS 1952). At this point, some of these structures appear to be singular dwellings, singular barns, or dwellings with one or more adjacent barn structures. MS 1–MS 4, MS 6, MS 9, MS 10, MS 13, MS 14, and MS 28 are all dwellings with one or more barn structures adjacent to them. MS 11, MS 19, and MS 20 are all singular dwellings with no adjacent structures. Lastly, MS 12, MS 15–MS 18, and MS 21–MS 27 were all singular barn structures.

Lastly, MS 1–MS 4, MS 6, and MS 9–MS 28 were also present on the 1967 (photorevised 1987) Harrodsburg map (Figures 8 and 9) (USGS). The last mapped structure, MS 29, was identified on this map as well. MS 29 appears to be a singular barn structure. Since this structure was not directly adjacent to MS 19, it is unknown if this structure was associated with MS 19; therefore, it was given a different MS number.

In addition to observing historic maps, LiDAR data of the area were observed to look for any possibility of American Indian mound structures. No anomalies were present that would suggest a mound structure at this time. As a result, no additional areas were visited beyond where mapped structures were located and Site 15Me49.

## Observations and Results

Locations within the project area that were considered high probability areas for archaeological materials were investigated. This included areas that had mapped structures, the area with the previously recorded archaeological site, and the previously unmapped cemetery. Shovel testing was not utilized during the current investigation, so the presence of subsurface archaeological materials at these locations is currently unknown.

As previously discussed, the locations of MS 1, MS 6, MS 10, and MS 11 were actually outside of the project area on later historic maps. This was likely due to inaccuracy with the earlier 1876 (D.G. Beers and Company) and 1905 (USGS) maps. As a result, these areas were not investigated during the current study. MS 4, MS 5, MS 7, MS 8, MS 15, MS 18, MS 20–MS 24, MS 26, and MS 29 were not present in their mapped locations within the project area. These areas were covered in either soybeans, corn, or other wild vegetation (Figures 10–12) so it is likely that these structures were previously razed. Only a singular barn or multiple barns were present in the mapped locations for MS 2, MS 3, MS 9, MS 12–MS 14, MS 16, MS 17, and MS 27 (Figures 13 and 14). As previously discussed, MS 12, MS 16, MS 17, and MS 27 were only singular barns on the historic maps, meaning no dwellings would have been present in these areas. In the mapped location of MS 25, a silo was present, but a barn was not (Figure 15). Lastly, only dwellings were present in the mapped locations of MS 19 and MS 28 (Figures 16 and 17). MS 19 on the historic maps did not have adjacent barn structures; however, one barn structure was present on the maps for MS 28. The barn structure was not present during the investigation, and a dwelling structure in the mapped location of MS 28 was actually outside of the project area. No surficial archaeological materials were observed in any of these locations.



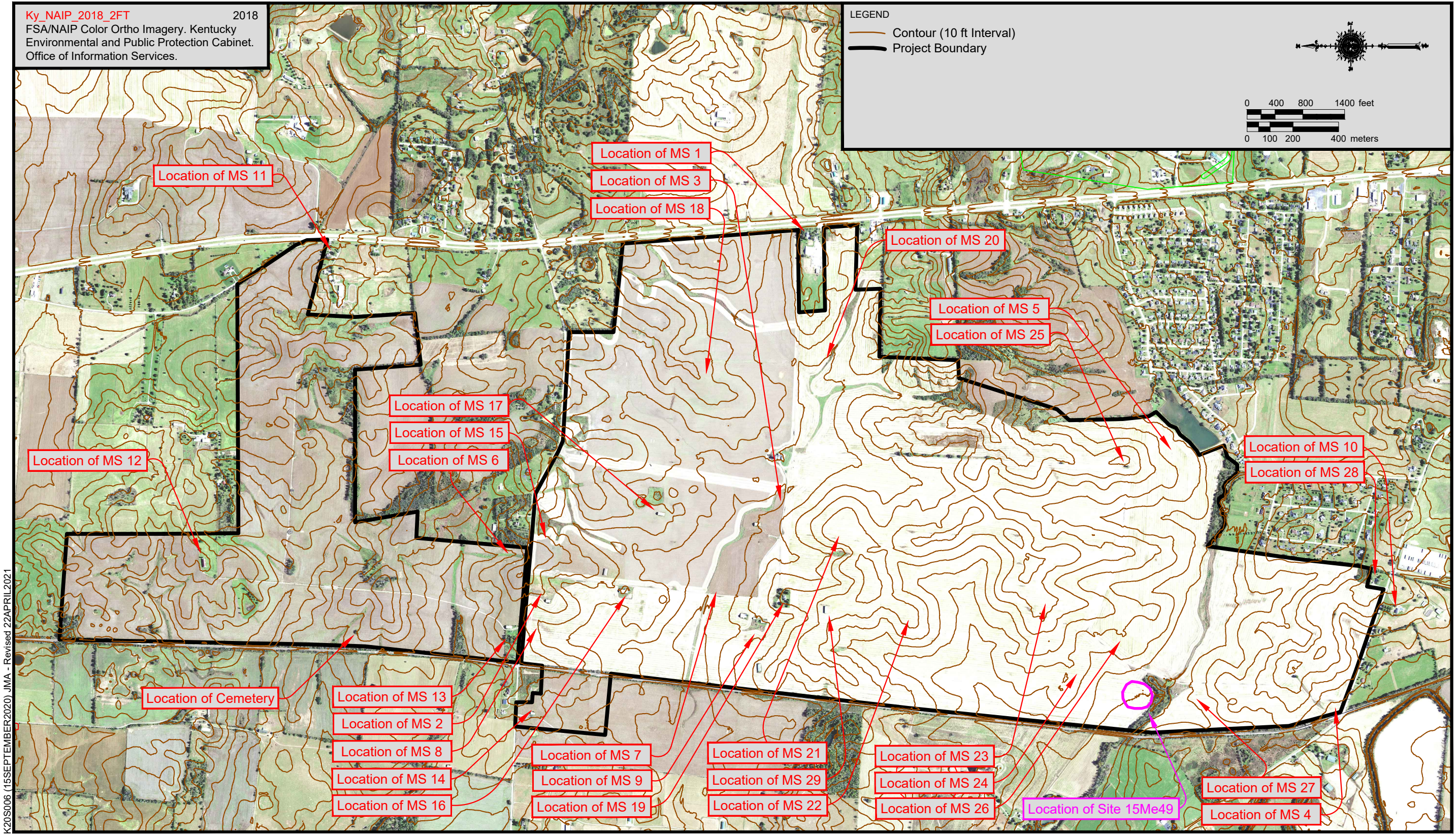


Figure 3. Aerial photograph depicting the location of the project area, showing the locations of mapped structures, Site 15Me49, and the unmapped cemetery.



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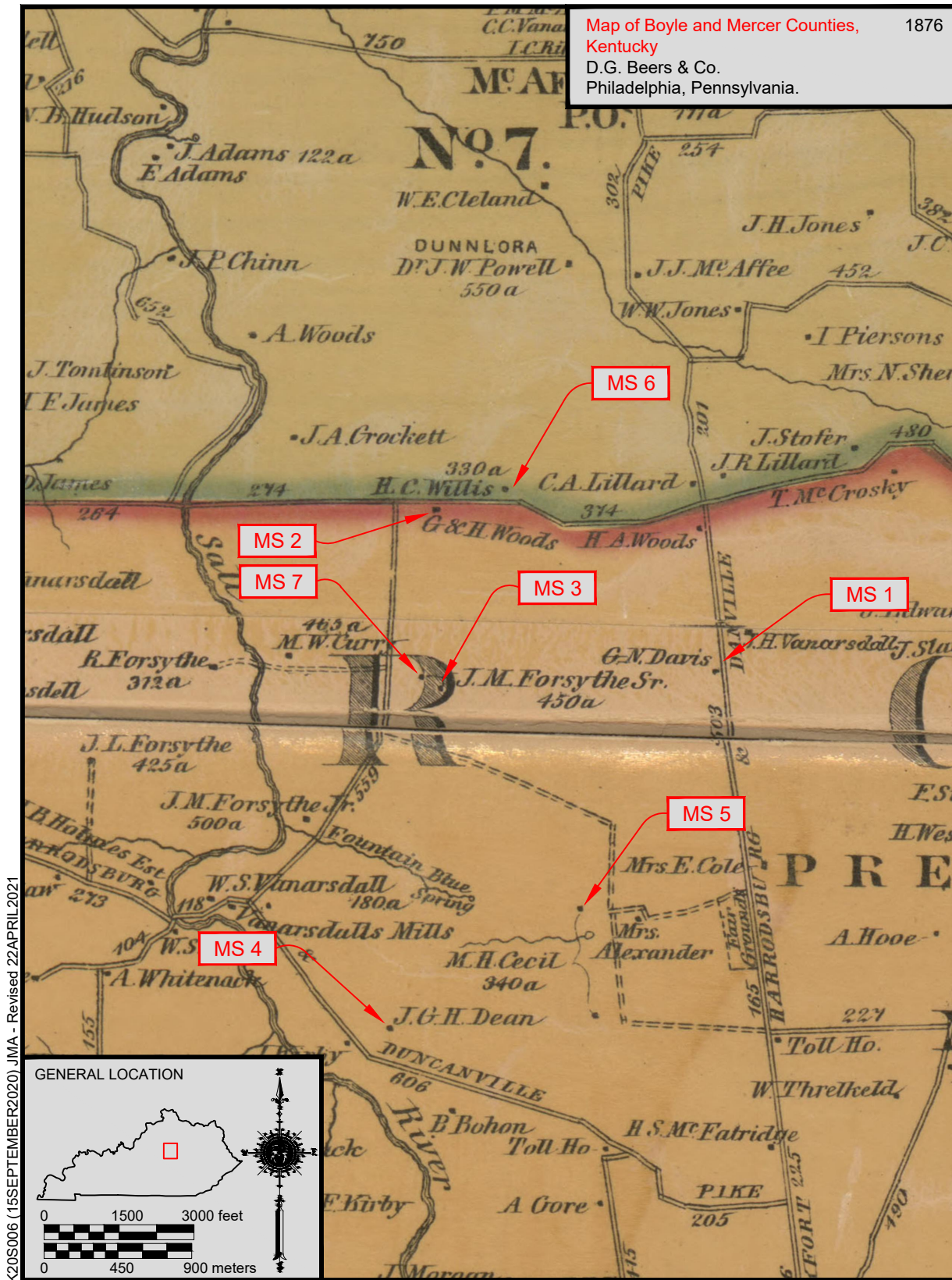


Figure 4. 1876 map of Mercer County depicting the locations of MS 1–7 (D.G. Beers and Company).



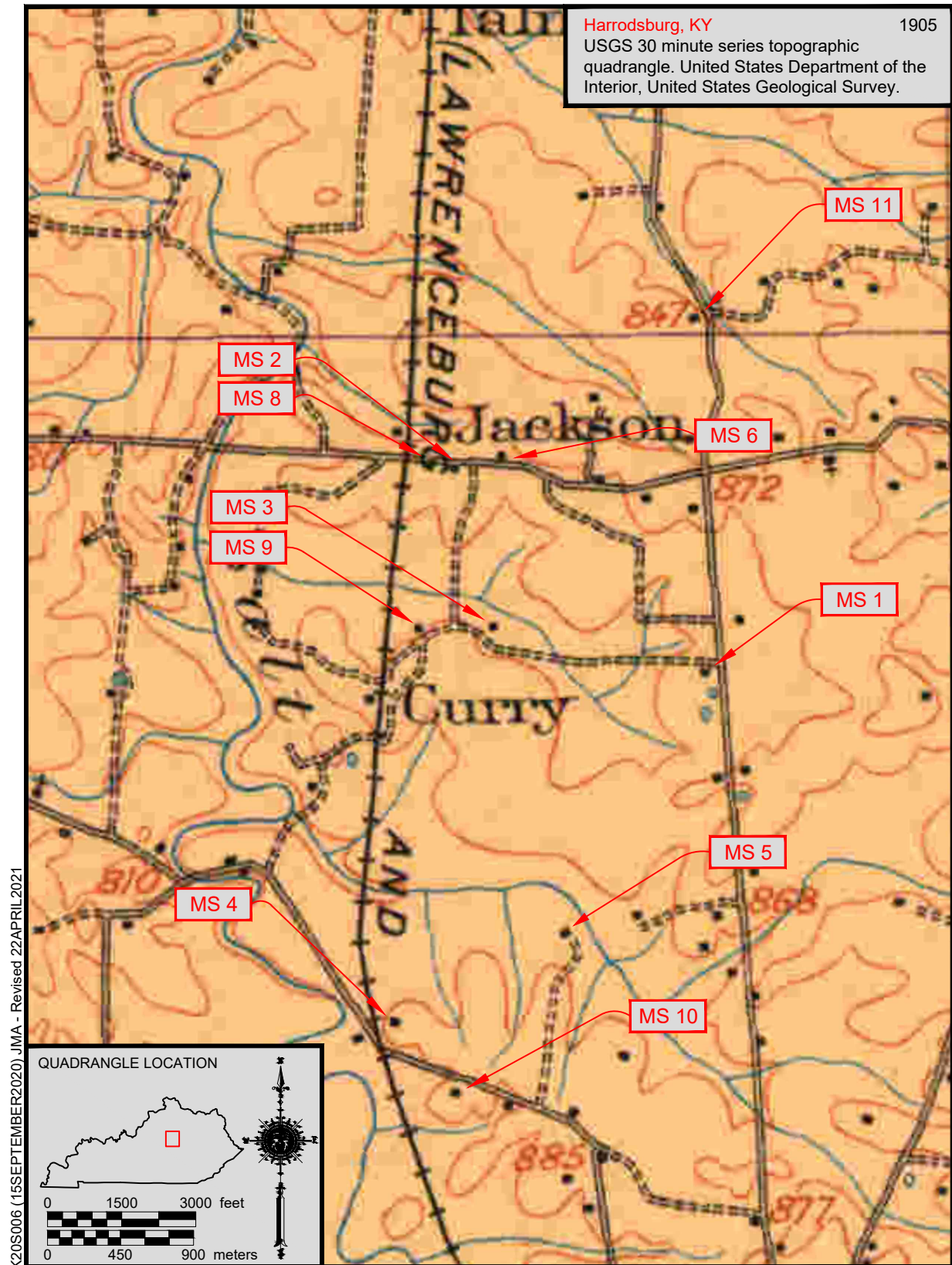


Figure 5. 1905 Harrodsburg topographic quadrangle depicting the locations of MS 1–MS 6 and MS 8–MS 11 (USGS).



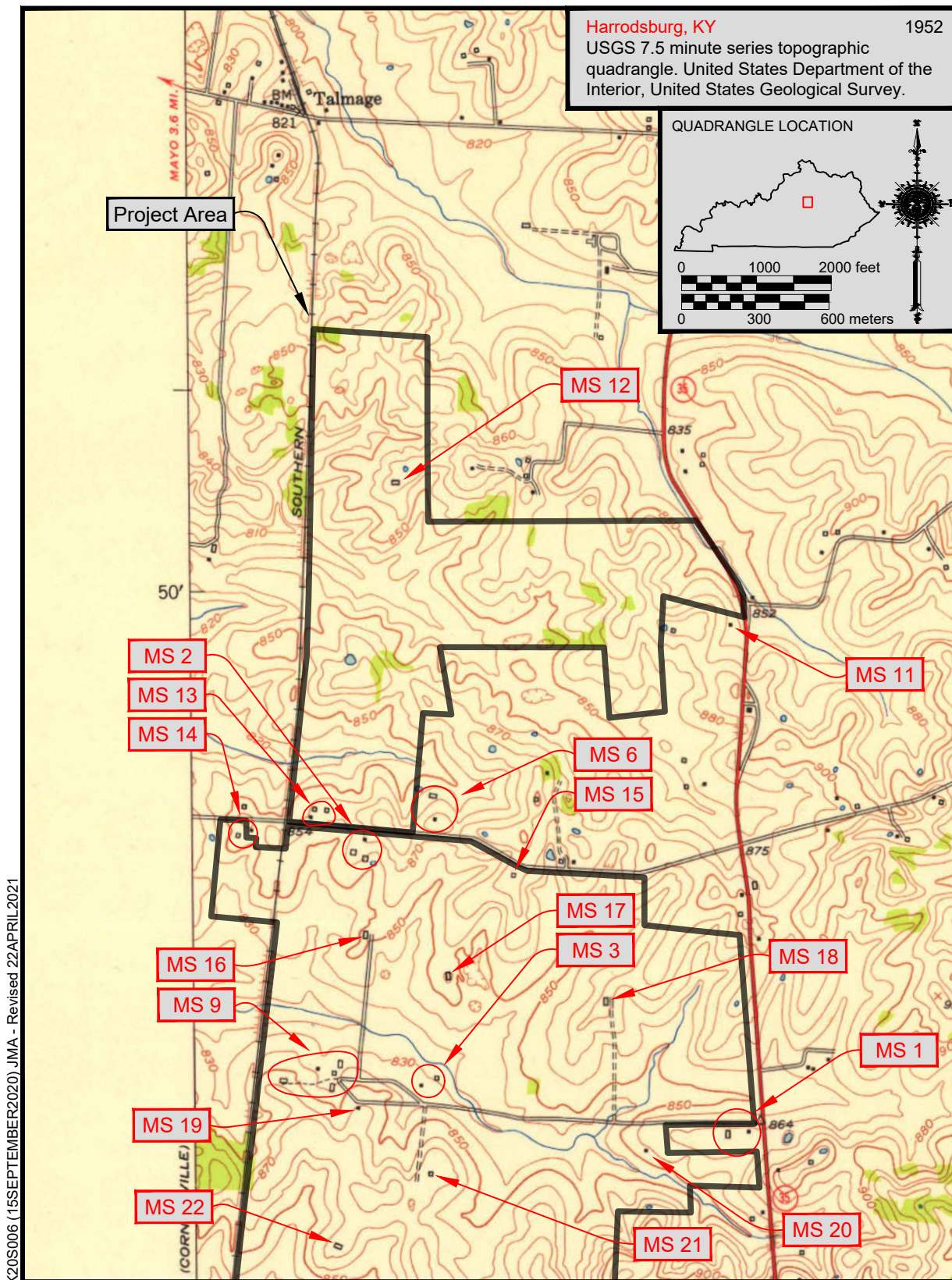


Figure 6. 1952 Harrodsburg topographic quadrangle depicting MS 1–MS 3, MS 6, MS 9, and MS 11–MS 22 within the northern half of the project area (USGS 1952).



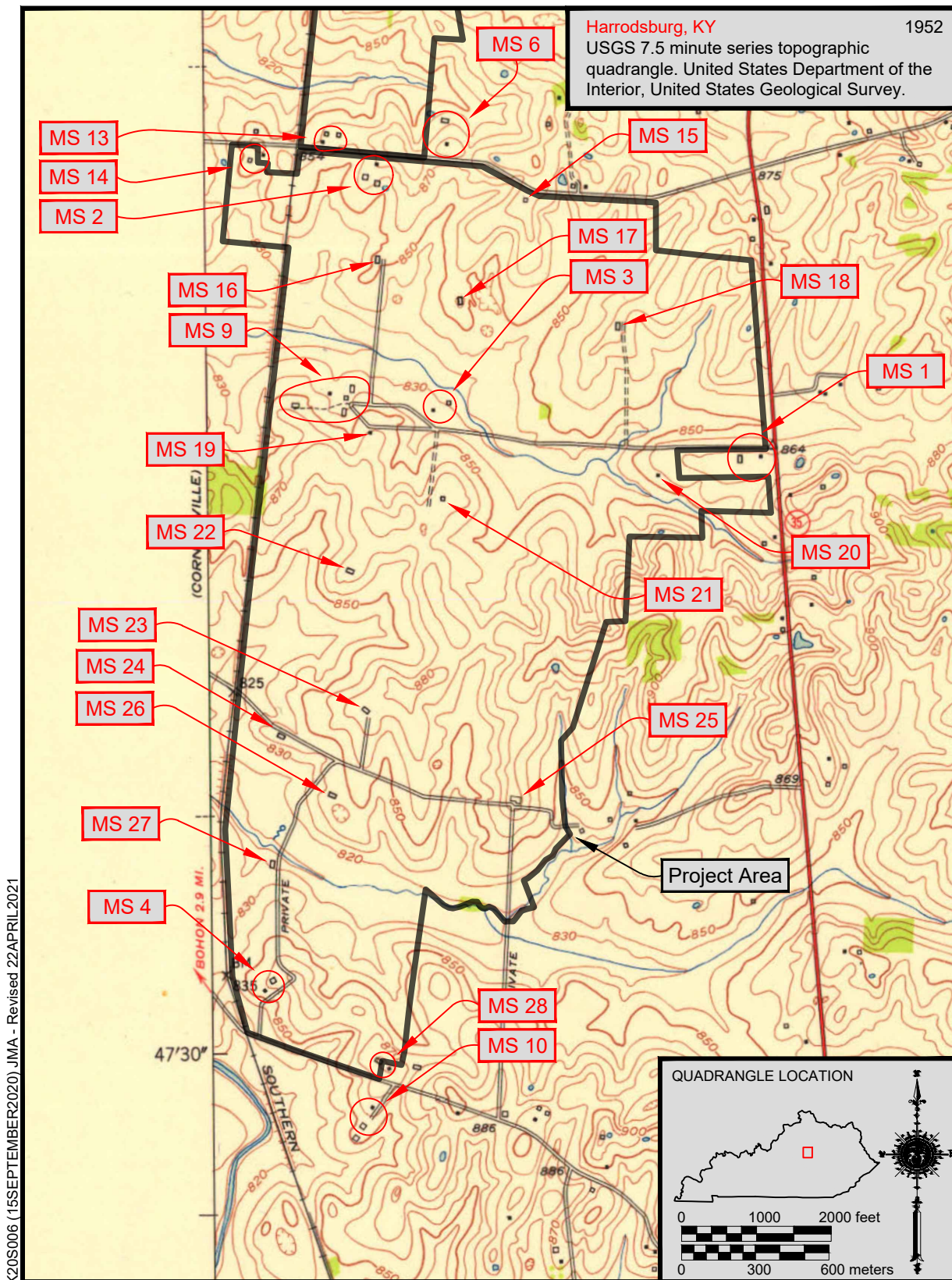
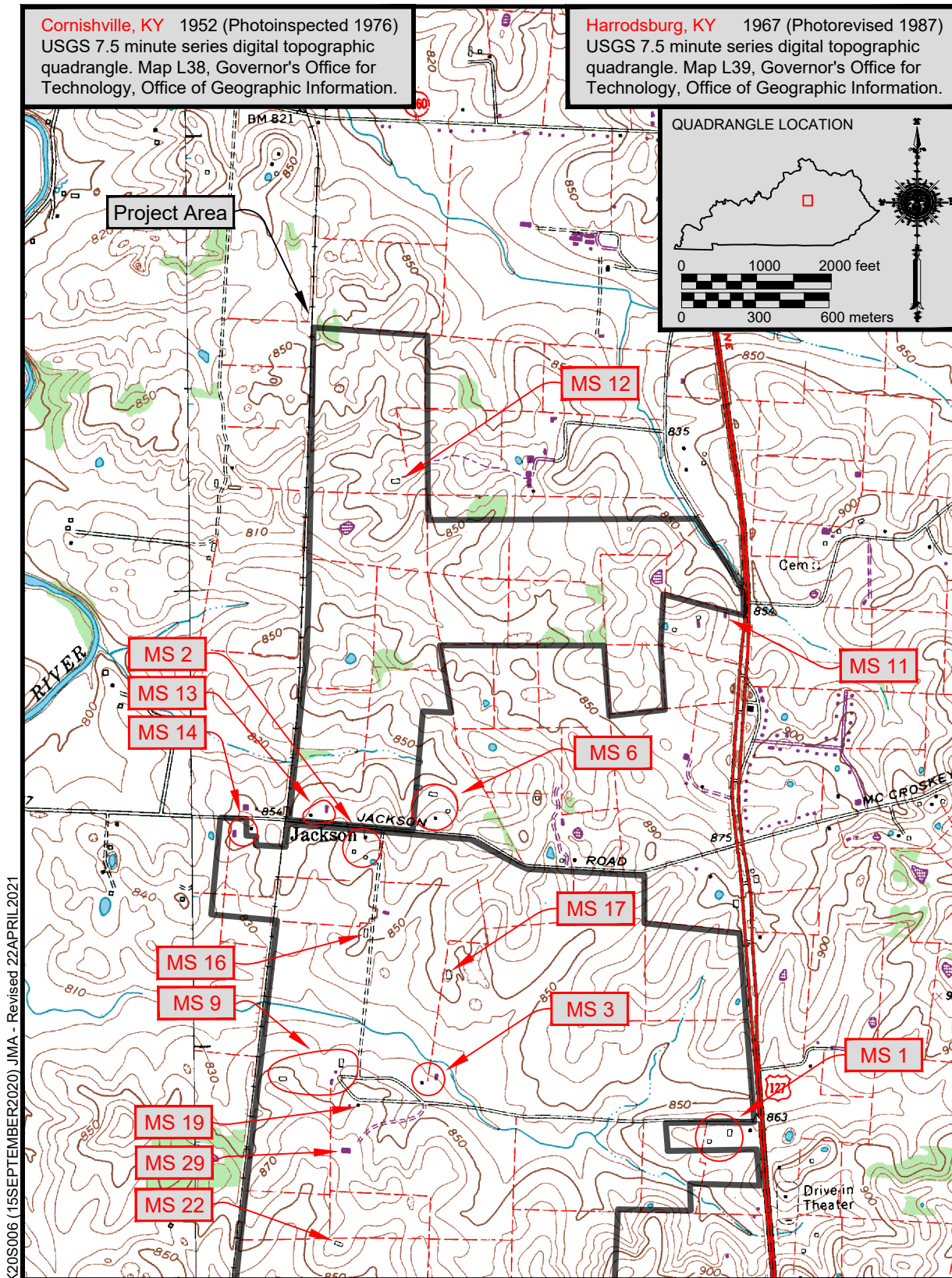


Figure 7. 1952 Harrodsburg topographic quadrangle depicting MS 1–MS 4, MS 6, MS 9–MS 11, and MS 13–MS 28 within the southern half of the project area (USGS 1952)





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Figure 8. 1967 (photorevised 1987) Harrodsburg topographic quadrangle depicting MS 1–MS 3, MS 6, MS 9, MS 11–MS 14, MS 16, MS 17, MS 19, MS 22, and MS 29 within the northern half of the project area (USGS).



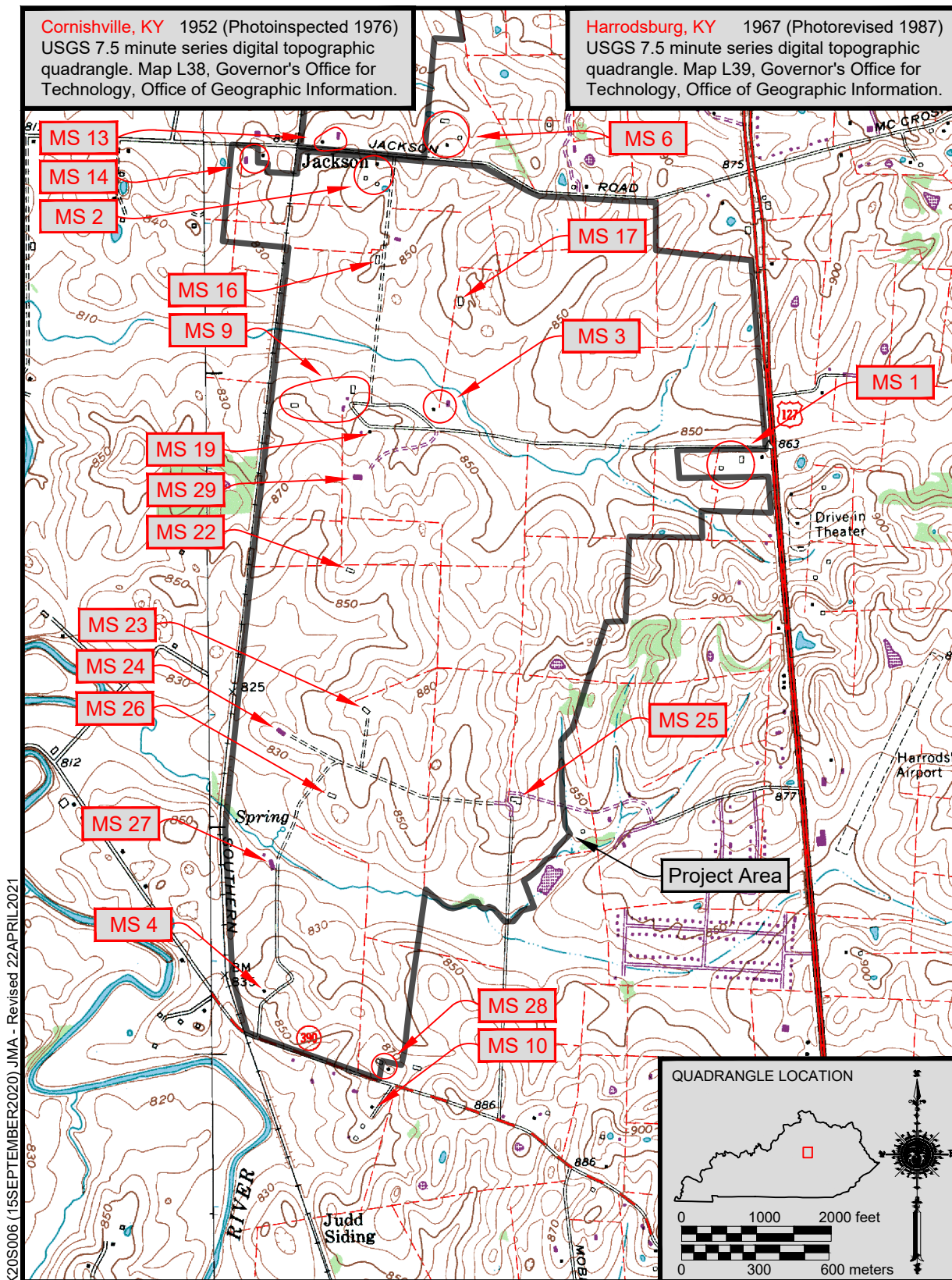


Figure 9. 1967 (photorevised 1987) Harrodsburg topographic quadrangle depicting MS 1–MS 4, MS 6, MS 9, MS 10, MS 13, MS 14, MS 16, MS 17, MS 19, and MS 22–MS 29 within the southern half of the project area (USGS).



**Figure 10. Soybeans in the mapped location of MS 18, facing north.**



**Figure 11. Corn in the mapped location of MS 21, facing south.**





Figure 12. Wild vegetation in the mapped location of MS 15, facing south.



Figure 13. Multiple barns in the location of MS 9, facing northeast.





Figure 14. Singular barn in the location of MS 3, facing northeast.



Figure 15. Silo in the location of MS 25, facing northeast.





Figure 16. Dwelling structure in the location of MS 19, facing southwest.



Figure 17. Dwelling structure in the location of MS 28, facing north.



Only one previously recorded site, Site 15Me49, was present within the project area (Figure 18). No archaeological materials were observed on the ground surface within the boundaries of this site; ground surface visibility at this time was poor due to the presence of corn chaff. It is possible that subsurface artifacts still exist in this area; however, shovel testing was beyond the scope of this investigation. Sites 15Me93 and 15Me94 were previously recommended for further work; since they were directly adjacent to the project area, they may extend into it. The areas where these sites would have been located were not visited during the current study since visibility was poor due to the presence of soybeans that hadn't been harvested yet (Figure 19). Additionally, while Site 15Me86 is near the current project area and was previously recommended for further work, it was not directly adjacent to the current project area. Based on mapped structures and roads placed in the same area of Site 15Me86 (Beers 1876; USGS 1905), CRA personnel judged that Site 15Me86 will not extend into the project area.

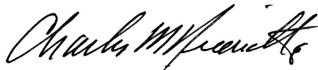
CRA personnel were able to locate the previously unmapped cemetery (see Figure 3; Figure 20). Most of the grave markers were blank; therefore, family names and interment dates were not available. Only one grave marker was legible, that belonging to a John Lillard that was interred in the cemetery in 1801 (Figure 21). The grave marker also said that John Lillard was a Revolutionary War veteran. Given this information, this cemetery appears to roughly date to at least as early as the turn of the nineteenth century, if not earlier. At present, Stantec has agreed to avoid this cemetery by using this area as a greenspace. This greenspace would have to include a 30 m buffer around the perimeter of the cemetery to properly avoid any intact deposits.

## Implications

No archaeological materials were present on the ground surface of any locations considered to have high probability for the presence of archaeological sites within the current project area, specifically where mapped structures, a previously recorded archaeological site, and a previously unmapped cemetery were located. Ground surface visibility overall was poor within the project area at this time. As noted, it was beyond the scope of this investigation to shovel test for subsurface archaeological materials within any of the project area. Therefore, at present it is unknown whether any of the high probability areas or any of the project area contains subsurface archaeological materials.

At this time, it is understood that an archaeological survey of the project area is not required. Nevertheless, if this project becomes federally funded, or requires any type of federal permit, such federal involvement would be considered an undertaking subject to Section 106 of the National Historic Preservation Act and require compliance with 36 CFR Part 800.

Sincerely,



Charles M. Niquette, RPA 10710  
President



Figure 18. Overview of Site 15Me49, facing southwest.



Figure 19. Unharvested soybeans in the project area where Sites 15Me93 and 15Me94 may extend, facing northwest.





Figure 20. Overview of the unmapped cemetery, facing west.



Figure 21. Grave marker of John Lillard, facing northwest.

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