2024 Investigation of Camp Security, a Revolutionary War Prison Camp in Springettsbury Township, York County, Pennsylvania

Prepared for:
Friends of Camp Security
PO Box 20008
York, PA 17402

Prepared by:
John T. Crawmer
Jane C. Skinner
Connor Winslow

Goldfinch Archaeology
Cultural Resource Management Study No. 4

September 2024

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36Yo46

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Acknowledgements

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Above all, we express gratitude to the 41 volunteers who registered to assist with this year's investigation. 992 hours were donated to survey, excavation, and lab work. The group was supplemented by several enthusiastic Penn State York students under the direction of Dr. Joy Giguere. Volunteers conducted all tasks to the utmost of professional archaeological standards, and we sincerely thank them for their extraordinary effort, good company, and a job well done.

The success of this project would not have been possible without the Indiana University of Pennsylvania's Archaeological Services Center, particularly Dr. William Chadwick, who generously provided ground penetrating radar equipment. Their support was invaluable.

Kinsley Construction, Inc. once again kindly donated a spacious tool storage trailer for the duration of the project. We recognize their continued support.

Finally, we thank Springettsbury Township for permitting this research to be conducted in the Camp Security Preservation Area and backfilling excavated trenches at the close of the project. We also acknowledge Township Supervisors for agreeing to submit the present artifact collection and associated field records to The State Museum of Pennsylvania for long-term curation. All collections from previous investigations in the Preservation Area are housed at the museum, where they are available upon written request.

Though many have contributed to the project's success, we assume full responsibility for any errors which may appear in graphics, text, or interpretations offered herein.

John T. Crawmer
Jane C. Skinner
Connor A. Winslow

September 27, 2024

Introduction

The 2024 season marked the ninth effort to uncover the site of Camp Security, a Revolutionary War era prison camp in Springettsbury Township, York County, Pennsylvania. The Camp Security Preservation Area (530 Locust Grove Rd, York, PA) is located at the southwest corner of Camp Security Park and Locust Grove Road (Figure 1). The area is owned by Springettsbury Township and maintained by a tenant farmer. It consists of 160 acres of farmland divided into four fields. The Shultz House, constructed from 1752 to 1754, is the only historic structure in the Preservation Area and is privately owned (York History Center 2010).

Archaeological excavations were undertaken by Goldfinch Archaeology in partnership with the Friends of Camp Security (FOCS) from May 6 through June 13, 2024. The investigations were prompted by Springettsbury Township's desire to define the boundaries of cultural resources and better facilitate public use of the property. Volunteers worked across a 0.8-acre area to gather ground penetrating radar data and test promising archaeological locations.

The purpose of this report is to review site history and previous archaeological research; define research questions; examine the rationale for project area selection; discuss investigation strategies, methods, and findings; and provide interpretations and recommendations based on collected information. With only minor changes, the review of site history is adapted from the 2016 project report (Warfel 2016). This information is included in every report so each can be read and appreciated independently. An inventory of artifacts recovered and submitted to The State Museum of Pennsylvania for curation is provided in Appendix 3.

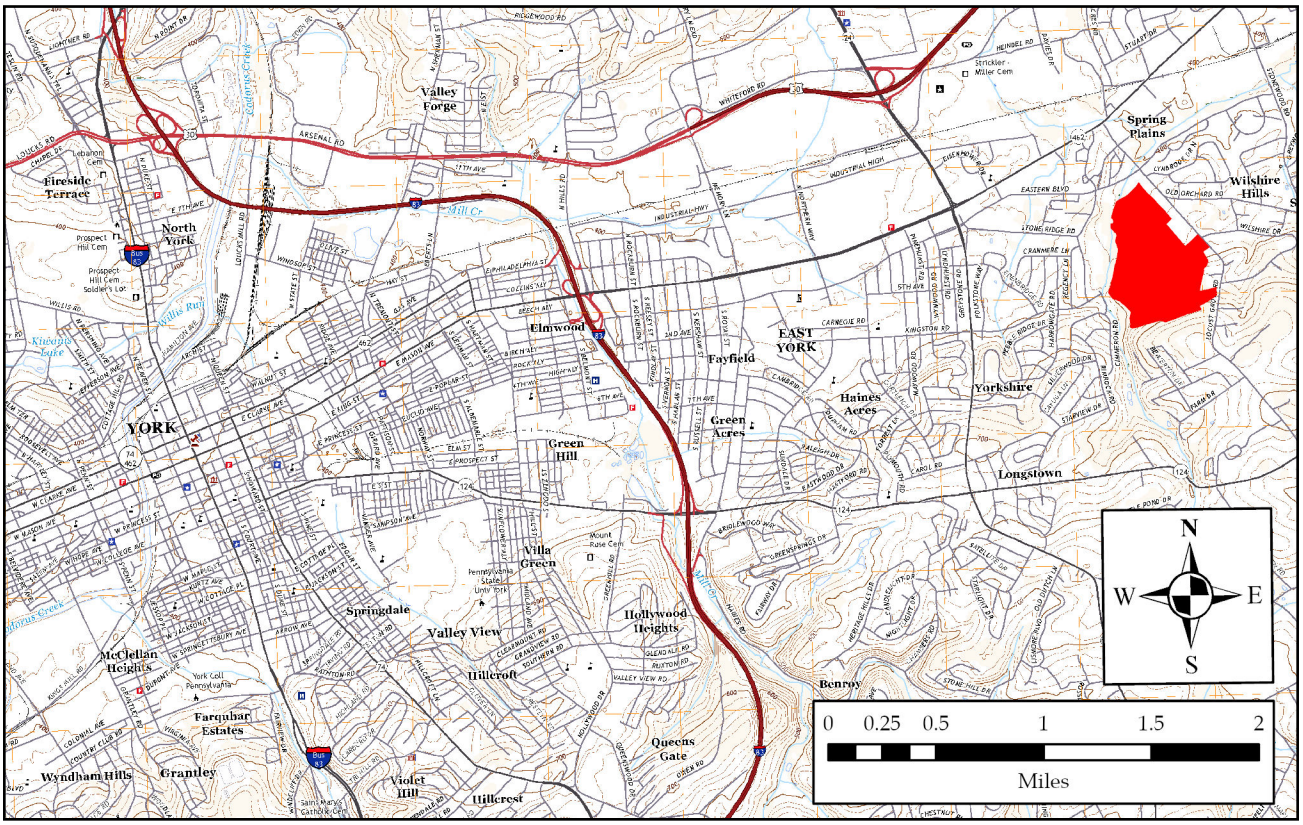

Figure 1: USGS map showing location of the Camp Security Preservation Area (marked in red)

Background

Environmental Context

The Camp Security Preservation Area consists of 160 acres of farmland on a sloping plain from a small forest of oak, walnut, and pine trees to the south and Camp Security Park to the north. Stony Brook, a small stream running south–north, bounds the western edge of the parcel with Locust Grove Road bounding its eastern limits. A dense tree line of oak, walnut, and pine trees segment the property into four fields. These are the Rowe Lower Field in the northeast, the Rowe Upper Field in the southeast, the Wiest Lower Field in the northwest, and Wiest Upper Field in the southwest. A large spring is situated at the intersection of these fields with spring run-off flowing north along the boundary between the Wiest and Rowe Lower Fields. This run-off flows into two acres of wetland situated in the northwest of the property, immediately north of the Wiest Lower Field (Figure 2).

The surrounding region is characterized by a mosaic of rolling hills and valleys that are bisected to the east by the Susquehanna River. Hills between 500 and 800 ft. in elevation are the primary landform to the south and Mount Zion, with an elevation of 800 ft., is located to the north. York City is tucked in the valley between these landforms. Vegetation in the valley is dominated by temperate oak and pine forest.

Soils along Stony Brook consist of Lindside silt loam (0%–3% slopes). The Lindside series is characterized by silt loam (0 to 10 in.) over silty clay loam (10 to 50 in.)

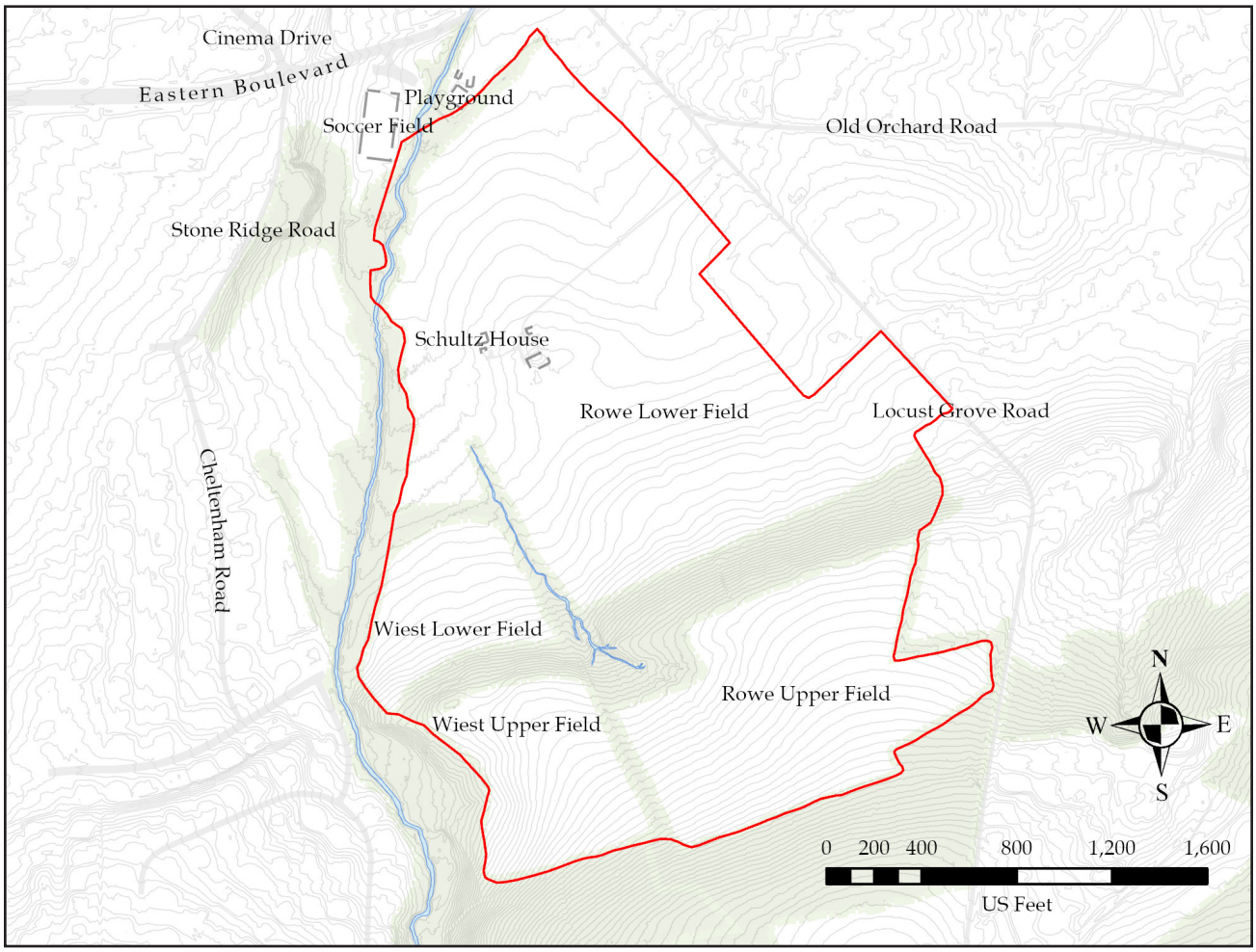

Figure 2: Map of Camp Security Preservation Area (boundaries marked in red)

over a stratified gravelly sandy loam to silt clay loam (50 to 60 in.). This occurs along footslope and toeslope terrain. Such soils are over 6 ft. deep and are moderately well drained, occurring on flood plains, valleys, and drainageways (Natural Resources Conservation Service [NRCS] 2022). The Wiest and Rowe Lower Fields consist of Conestoga silt loam with 3%–8% slopes. This soil features silt loam (0 to 10 in.) over silty clay loam (10 to 38 in.) over channery loam (38 to 75 in.). The Conestoga series occurs along the shoulder of hillsides, are over 6 ft. in depth, and are well drained (NRCS 2022). The Wiest and Rowe Upper Fields consist of Mt. Airy and Manor silt loam with 8%–15% slopes. This soil is characterized as channery silt loam (0 to 8 in.) over very channery silt loam (8 to 32 in.). The Mt. Airy and Manor series occur along the shoulder of hillslopes, are over 3 ft. in depth, and are somewhat excessively drained (NRCS 2022).

Pre-contact Context

Numerous finds of pre-contact cultural materials have been made by local collectors and archaeologists throughout York County. Four pre-contact archaeological sites are within a 1 mi. radius of the Preservation Area (Table 1). These sites are north of the Preservation Area, along the tributaries of Kreutz Creek. Most lithic materials are quartz with some chert flakes identified at 36Yo355. Diagnostic artifacts include a Late Archaic Period (ca. 4,300 to 6,000 years ago) Koens Crispin/Savannah River quartz point from 36Yo375 and a Late Woodland to Mississippian Period (ca. 300 to 1,100 years ago) Madison point at 36Yo471 (Crawmer and Zeitlin 2020:4, 18–21).

Previous investigations in the Camp Security Preservation Area (36Yo46 and 36Yo415) identified Native American occupation as early as the Late Archaic Period (ca. 4,300 to 6,000 years ago) continuing into the Woodland Period (ca. 1,000 to 2,000 years ago) (Warfel 2015:23–27). Artifact types include points, scrapers, hammerstones, drills, celts, net weights, and chipping debris. Spear points dating to the Late Archaic Period are more numerous than other types, therefore it is believed the area was used intensively during that time. Local quartz was favored for the manufacture of stone tools. This is consistent with other Late Archaic Period sites in the Lower Susquehanna Valley where local mineral sources were commonly used for knapping (Carr and Moeller 2015:73). During this period, Native peoples lived in small groups of 15 to 20 individuals (Carr and Moeller 2015:87). These groups moved seasonally to take advantage of food resources. They were nomadic and well-adapted to a wooded environment. The types of artifacts found in the region suggest they produced and sharpened tools, hunted, processed hides, crafted wood, and fished in the area. Pre-contact artifacts in the Camp Security

Site Number	Site Type	Description	NRHP Status
36Yo286	Open Pre-Contact Site, Unknown Function	Lithic scatter	N/A
36Yo335	Historic and Pre-Contact	Lithic scatter and historic foundation	Listed
36Yo375	Open Pre-Contact Site, Unknown Function	Lithic scatter	Not Eligible
36Yo471	Open Pre-Contact Site, Unknown Function	Lithic scatter	N/A

Table 1: Summary of pre-contact sites within 1 mi. radius of the Preservation Area

Preservation Area are localized to the Wiest Lower Field (36Yo46) with some additional scatter in the Rowe Lower Field (36Yo415) (Crawmer 2019:35).

Historic Context

During the fall of 1775, American forces captured 700 British troops just south of Montreal (Miller 2012:565). This early victory raised hopes for the revolutionary cause but posed a serious new issue for the Continental Congress. How can a revolutionary government, lacking any coherent policy or institutions, effectively manage prisoners of war? Congress chose to treat their captives as "prisoners of war, but with humanity" to bolster Americans' status as formal combatants and seize a moral high ground (Dixon 1977:4, 16). Any neglect could discredit the American resistance and alienate potential allies.

The burden of prisoner management fell on the citizenry. Lancaster (PA) was recognized as a convenient place to house POWs since it featured an empty barracks from the French and Indian War (Dixion 1977:123). Lancaster residents preferred to confine prisoners to their barracks, but Congress pushed a policy of intermingling between prisoners and locals to cultivate sympathy for the revolutionary cause. Instead, mistrust grew between captors and captives (Dixion 1977:125; Miller 2012:601). A Lancaster committee chairman in 1775 remarked that the kind treatment given to prisoners "meets with very improper and indecent return . . . they often express themselves in most disrespectful and offensive terms, and openly threaten revenge whenever opportunity shall present" (Miller 2012:528). George Ross wrote to Congress stressing the "dangerous situation of the town," which stood "exposed to the fury and ravages of near four hundred" prisoners who roamed at will because of the "open state of the barracks" Miller

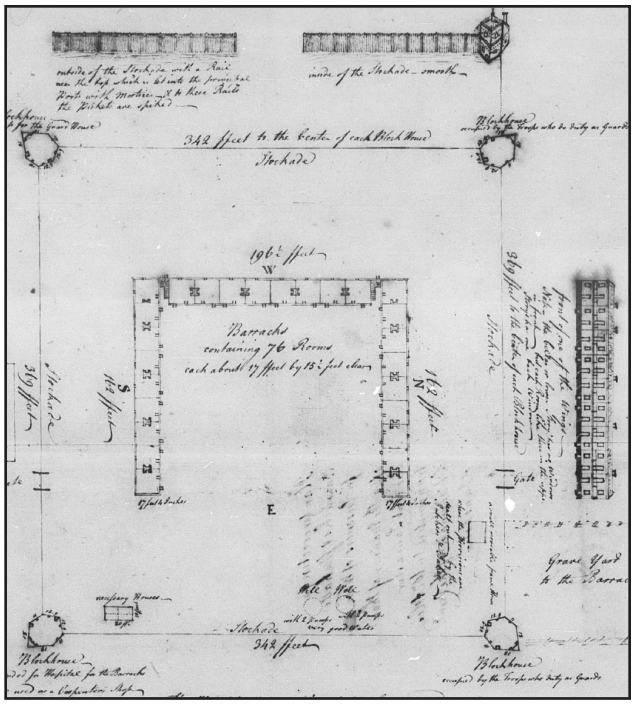

Figure 3: 1777 map of Lancaster Barracks (PCC 1777:60.451)

2012:589). From the British perspective, parolees in York protested their "ill treatment" and cursed Carlisle's "greasy committee of worsted stocking knaves" (Miller 2012:583). After Cumberland County residents received word of their troops being killed and captured in Canada, British officers were "pelted and reviled in the streets." One reported that he was, "invited to smell a brandished hatchet and reminded of its agreeable effects on the skull" (Miller 2012:597).

Worsening relations and a series of escapes forced Congress to approve stockade construction around the Lancaster Barracks in 1777 (Dixion 1977:109). William Atlee drafted a plan of the completed prison which detailed the stockade's design, dimensions, and construction methods (Figure 3) (Papers of the Continental Congress [PCC] 1777:60.450–458 [item.page]). This plan was approved by Congress to be the model from which future detention facilities were born (Miller 2012:589). In 1781, an influx of prisoners into South Central

Pennsylvania led to the construction of "Camp Security" approximately 4.5 mi. east of York.

"Camp Security" was a complex of two Revolutionary War prison camps, known to those who were incarcerated there as Camps Security and Indulgence (Houlding and Yates 1990:34–35). The camps were built on land owned by Lancaster County resident David Brubaker. A portion of Brubaker's 280-acre tract was farmed by a tenant and included 100 acres of cleared land and structures. A significant acreage was in woodlot. Brubaker made claims for the losses he incurred due to the camp's construction. These claims demonstrate that the camps were located on the Brubaker tract and provide some clues as to the camp's structure. In his 1781 claim he states:

> *"That above 100 Acres thereof being already cleared, the persons employed constructing the Stockade & Huts for the Prisoners & Guards have made use of large quantities of wood growing on the said Plantation, & have already cleared 30 Acres of wood land thereon, so that the Plantation aforesaid is considerably impaired in value. That the Guards have used & destroyed almost all the Rails on the Plantation, utterly depriving the Tenant of the Indian Corn thereon, & the benefit of the Pasturage of his Meadow"* (Brubaker 1896).

The initial camp, built and opened in July 1781, housed a portion of the nearly five thousand British and German troops captured at the Battle of Saratoga in 1777. This Convention Army—so-named for the surrender agreement which was called the Convention of Saratoga—was previously interned in Cambridge (MA), Rutland (MA), and Charlottesville (VA) (Hagist 2004:vii–ix, 55–57; Miller 2014:156–158). When the British Army made significant advances in Virginia in 1781, detainees were moved north to Winchester (VA), Frederick (MD), and eventually Lancaster (PA) to prevent their release and reintegration into the main army. Upon arrival in Pennsylvania, the Convention Army was divided. British commissioned officers were incarcerated in Lancaster, regular soldiers and noncommissioned officers were sent to York, and German soldiers were sent to Reading. Historian Jonathan Stayer estimates that the York contingent numbered approximately 800 to 1,000 men, women, and children (Jonathan Stayer 2014, pers. comm.).

Pension records of the York County militia who guarded prisoners at Camp Security indicate that not all Convention Army prisoners lived inside the stockade. John Stewart, a guard in 1781, notes:

> *"They kept the single men in a stockade under guard and the married men, after they had been there awhile, were permitted to remain outside the stockade. A great sickness set among the prisoners and the married were then permitted to build huts on the hill outside of the stockade…"* (Lloyd 2014a).

More than 6,000 British and German troops were captured following the Battle of Yorktown in October 1781. The new prisoners were placed in established detention camps in Virginia and Maryland (Miller 2014:158), but were eventually moved to York and Lancaster, Pennsylvania (Miller 2014:159). Approximately 800 British soldiers, women, and children, swelled the population of the York camp in January 1782 (Jonathan Stayer 2014, pers. comm.).

More hostile and a greater escape risk, these Yorktown troops were placed in the stockaded compound originally

constructed for Convention Army prisoners. Captain Samuel Graham, a member of the Yorktown army, noted that they were kept in huts "newly constructed ... surrounded by a high stockade and ... strictly guarded" (Graham 1862:73). Presumably, the Convention Army detainees were moved out of the stockade. Sergeant Roger Lamb was captured at the Battle of Saratoga but escaped on his way to Charlottesville and returned to British military service. He was recaptured at the Battle of Yorktown and entered the York camp in January 1782 (Hagist 2004:100). He was permitted to stay with his former comrades and clearly notes the primary difference between the two camps when he writes: "... a small village had been built by the remains of General Burgoyne's army, who were allowed very great privileges with respect to their liberty in the country ... while the soldiers of Lord Cornwallis's army were closely confined in their pen" (Hagist 2004:100).

According to Lamb, the space enclosed by the stockade was, "a little more limited" than the two-to-three-acre enclosure in which he and Convention Army prisoners were confined during their stay in Rutland, Massachusetts (Hagist 2004:57, 100). "About two hundred yards" separated Camps Security and Indulgence (Hagist 2004:100). Captain Samuel Graham further notes that Camp Indulgence was located "upon a rising ground" (Graham 1862:73).

It is likely that defined areas near one or both camps were set aside for kitchens and latrines. The nature of camp industry was described by Lamb, "Men, women, and even the children were employed making lace, buckles, spoons and exercising other mechanical trades which they had learned during their captivity" (Hagist 2004:100). For his part, Sergeant Lamb tried to organize an escape with his comrades at Camp Indulgence but was met with indifference. "I strove by every argument to rouse them from their lethargy…but all my efforts proved ineffectual" (Hagist 2004:100). He had better luck with the prisoners at Camp Security, aiding seven men to scale the stockade and escape to New York.

The detention complex was composed of more than just Camps Security and Indulgence. Construction of a hospital began in 1781, however, Benjamin Shield, a Surgeon's Mate in Burgoyne's Canada Army, reported it was not completed due to an outbreak of disease and death that affected camp inhabitants.

> *"…they having in about five weeks Buried upwards of forty Men, women, and children ... having no hospital ... is an unusual trouble ... the Men had laid the foundation for an Hospital but falling Sick so fast there was not Men enough to attend the Sick ..."* (Sellers 1895).

A cemetery was required for burial of the dead. In 1781 Corporal James Fox, a Convention Army prisoner, noted that "after the huts were builded we sunk wells and made a graveyard [a quarter mile] from the camp..." (Houlding and Yates 1990:34–35). Anecdotal evidence places the camp cemetery in a residential neighborhood outside of the Camp Security Preservation Area. It is uncertain if this unmarked hallowed ground survived land modification associated with subdivision development.

Although the Treaty of Paris, the agreement ending the Revolutionary War, was not signed until September 1783, the Continental Congress declared a formal cessation of hostilities on April 11, 1783 (Miller 2014:181). Historian Ken Miller notes that General George Washington, Commander of the Continental Army, instructed prisoners of war to be "conducted from their places of detention ... in incremental detachments of five hundred" (Miller

2014:181). Camps Security and Indulgence were vacated by early May 1783 (Jonathan Stayer 2014, pers. comm.).

In summary, the Camp Security complex consisted of two residential camps, huts for guards, activity areas, a cemetery located about one-quarter mile from the camps, and possibly a hospital. Camp Security was enclosed by a closely guarded stockade; whereas Camp Indulgence was a village of huts located on "rising ground" about two hundred yards from the stockade. It was neither guarded nor enclosed. Built in July 1781, the detention facility was inhabited for twenty-two months. Prisoners were released and returned to England in May 1783. No contemporary documents have been found which pinpoint camp locations on the Brubaker tract.

Previous Excavations

Limited archaeological excavations were conducted in the Wiest Upper Field in 1979 by the Pennsylvania Historical and Museum Commission (PHMC) in partnership with Springettsbury Township and Historic York, Inc. (Figure 4). The project uncovered several refuse-filled pits dating to the camp-period (Hunter 1979). Although investigators interpreted the area to be the site of Camp Security, re-examination of artifacts and the lack of below-ground structural evidence suggest the site is affiliated with Camp Indulgence. A large

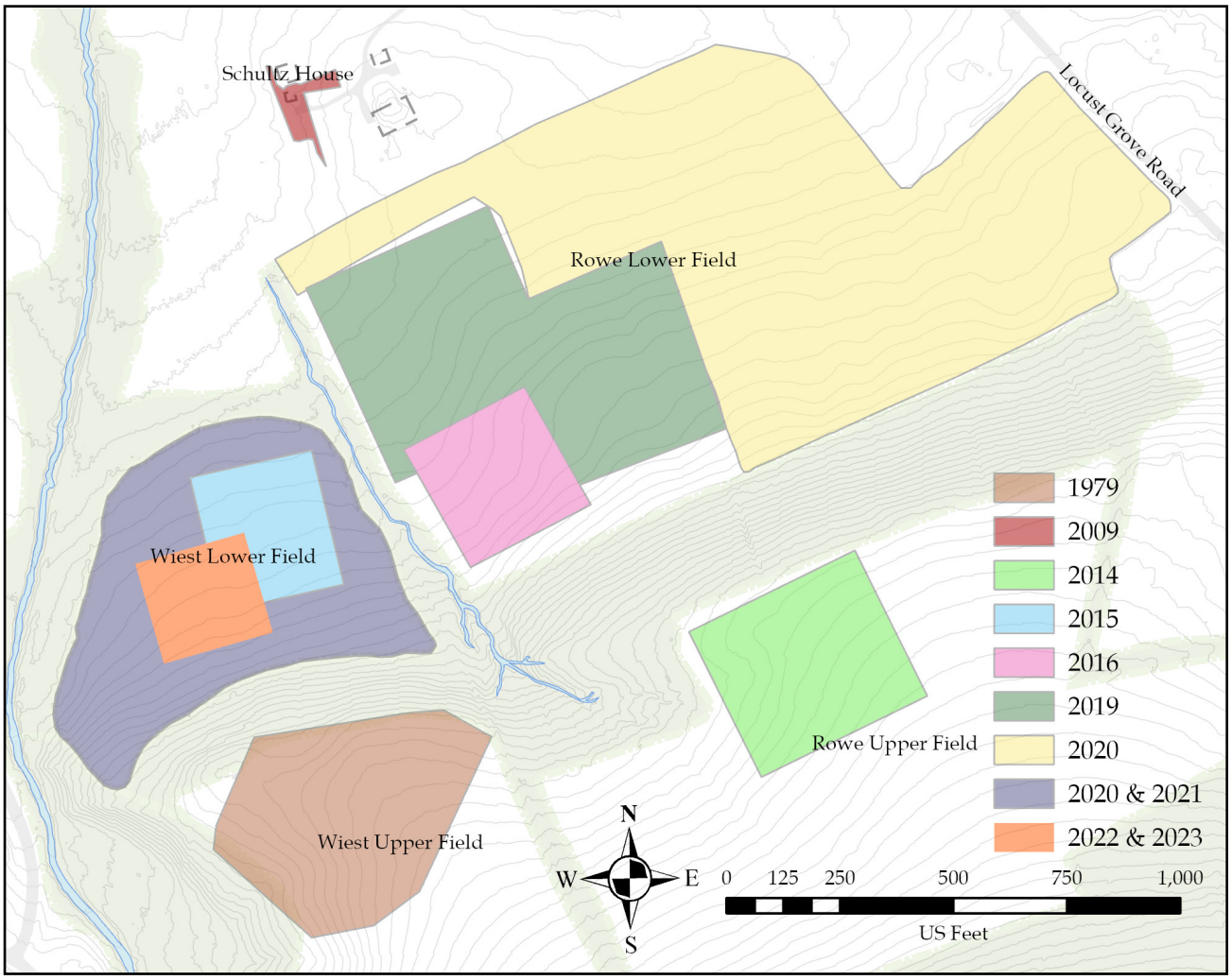

Figure 4: Map of previous excavation areas (Photo number 2024_A_1039)

quantity of brass straight pins suggests the location was a work area affiliated with the residential compound (Baumgardt [2000]:6–7).

In May 2000, an archaeological survey evaluated the Wiest Upper and Lower fields to assess the impacts of a proposed housing subdivision on cultural resources associated with Camp Security (Catts and Roberts 2000). Surface collection and shovel test pits found additional camp-period artifacts and identified features with potential association to camp activities. Although not explicitly stated, Catts and Roberts (2000:14–15) suggest Camp Indulgence lies in the Wiest Upper Field, while Camp Security is located immediately to the north. Investigators also noted a series of man-made terraces within the tree line separating the Wiest Upper and Lower Fields. Catts and Roberts (2000:10) observed four separate terraces extending 200 to 250 ft. parallel to the face of the slope. Portions of the terraces appear to have been stone-faced or lined. They likened these features to a British military hut camp at the Dyckman Farm in Manhattan, NY.

Historic York, Inc. sponsored an excavation around the Schultz House from August to September 2009 (Warfel 2010). The mid-18th-century structure was the principal house on the Brubaker tract when the camps were built. Oral tradition and local histories have long held that the building was used as a headquarters for camp guards (Stayer 1981:22), despite Brubaker's 1781 claim that huts were built for guards near the camp. Seventy-nine close-interval shovel test pits discovered only a handful of 18th-century artifacts, none of which are associated with military activity. Hence, investigations were unable to verify that the house was used by camp guards.

The Friends of Camp Security (FOCS) sponsored an investigation in the Rowe Upper Field from August to October 2014. Excavation was informed by a gradiometer survey that located promising anomalies in the area (Quick 2013). One hundred sixty-six circular test pits were excavated, but only an erosion gully filled with 1930s glass bottles was found (Warfel 2014).

A buried pipeline was installed along the northern edge of the Rowe Lower Field in 2015. The pipeline disturbance is approximately 4,550 linear ft. and 30 ft. wide. It extends from the northeastern corner of Camp Security Park, runs south-southwest along the northern edge of the Rowe Lower Field, and follows Stony Brook south to the Beaverson Pumping Station. A survey was conducted in the pipeline's area of disturbance from September to October 2014. One hundred thirty-three shovel test pits were excavated recovering one redware, four whiteware, and two brick fragments. All artifacts were recovered from plowzone contexts and date from the late-19th to early-20th centuries. No pre-contact artifacts were identified by the 2014 survey (Kodlick 2014).

Between May and July 2015, the FOCS continued their efforts to find the stockaded camp. A 2-acre plot in the eastern half of the Wiest Lower Field was selected because it satisfied documentary, geographic, and remote sensing criteria (Warfel 2015). Surface collection, metal detecting, and excavation produced nine camp-period objects, but no subsurface features could be assigned to the camp. The most significant finding was a concentration of pre-contact artifacts dating from the Late Archaic Period (ca. 4,300 to 6,000 years ago) to the Woodland Period (ca. 1,000 to 2,000 years ago) (Warfel 2015:23–27). The FOCS also investigated the southwestern corner of the Rowe Lower Field from May to June 2016. Surface collection, metal detecting, and excavation produced 58 camp-period objects, but no camp features were identified (Warfel 2016).

Figure 5: Button foil stamped with "33", catalog number 36Yo46/396.3 (Photo number 2020_E_402)

The FOCS partnered with Shippensburg University for a ground penetrating radar (GPR) survey in 2018 (Cornell et al. 2018). Several unusual disturbances with a high potential of being a structural feature, such as a stockade trench, were located. Subsequent excavations in 2019 produced 53 camp-period objects but found the GPR anomalies to be geologic (Crawmer 2019).

Research continued in 2020 to identify high probability areas based on artifact distributions. Surface collection, metal detecting, and excavation over 27.4 acres yielded 69 camp-period artifacts including a button foil stamped with a "33" (Figure 5). This object is attributed to the British 33rd Regiment who were captured at Yorktown and detained at Camp Security. Limited excavation uncovered a historic post hole and large hand-dug pit in the Wiest Lower Field. This field was determined to present the highest probability of containing camp features, such as a stockade (Crawmer et al. 2021:34).

A shovel test pit survey was completed in 2021 within the tree line between the Wiest Upper and Lower fields. The terraces, first observed by Catts and Roberts (2000:10), contained a mix of 18th-century and modern artifacts. The terraces are visible in a 1947 aerial photograph but are not seen in a similar 1937 photograph. Paired with the archaeological results, these images prove the terraces were constructed sometime between 1937 and 1947 (Crawmer et al. 2022:13–17). Nine exploratory trenches in the Wiest Lower Field found nine post holes, two wells, and a burnt trash pit. Objects in the trash pit date to the early-20th century and the wells and post holes were devoid of artifacts. The post hole distribution was random, so structures in the Wiest Lower Field could not be recognized at the conclusion of the 2021 season (Crawmer et al. 2022:17–22).

In 2022, a follow-up excavation uncovered an additional 78 post holes, 4 pits, a fire feature, and a trench (Crawmer and Skinner 2023a:16). Post hole patterning highlighted a large wall formation made up of eastern, western, and central walls, an "internal structure" set within them, a possible fence line, and a historic stockade. The stockade features a closely spaced arrangement of 24 posts set within a continuous trench (Crawmer and Skinner 2023a:18). This mirrors the construction of French and Indian War forts in Pennsylvania, such as

Fort Loudoun, Fort Halifax, Fort Augusta, Fort Necessity, and Fort Ligonier (Warfel 2013). Based on physical and historical evidence, it is inferred that the stockade discovered in the Weist Lower Field in 2022 is associated with Camp Security (Crawmer and Skinner 2023a:19–21).

Excavation in 2023 aimed to further clarify the stockade feature. Twenty-four test units, placed in and around suspected stockade locations, revealed an additional 85 historic post holes, three pits, two fire features, and 40 ft. of continuous stockade trench (Figure 6). Post hole patterns indicated the presence of a historic structure (Structure B), with a shallow pit along its southern wall and two associated fire pits. The dimensions of this structure match those of the "internal structure" (Structure A) found in 2022 (Crawmer and Skinner 2023b:14–17). While the 2023 excavation provided additional confirmation of the stockade feature, broader questions regarding the organization of space remain unresolved.

Previous archaeological investigations discovered camp-period artifacts and below-ground features in the Wiest Upper Field in 1979 and the Wiest Lower Field in 2022 and 2023. Insufficient evidence exists to clearly delineate camp boundaries or define space inside and outside the camp stockade. Archaeological testing around the Schultz House and Rowe Upper and Lower Fields found relatively few artifacts and no below-ground soil disturbances that can be directly attributed to camp activities. Pre-contact artifacts primarily reside in the Wiest Lower Field and date from the Late Archaic Period (ca. 4,300 to 6,000 years ago) through the Woodland Period (ca. 1,000 to 2,000 years ago).

Research and Field Methodology

The investigation sought to answer specific questions about the nature, extent, and significance of archaeological deposits in the project area.

Our research questions include:

1. Can the stockade feature, identified in the Weist Lower Field, be observed by ground penetrating

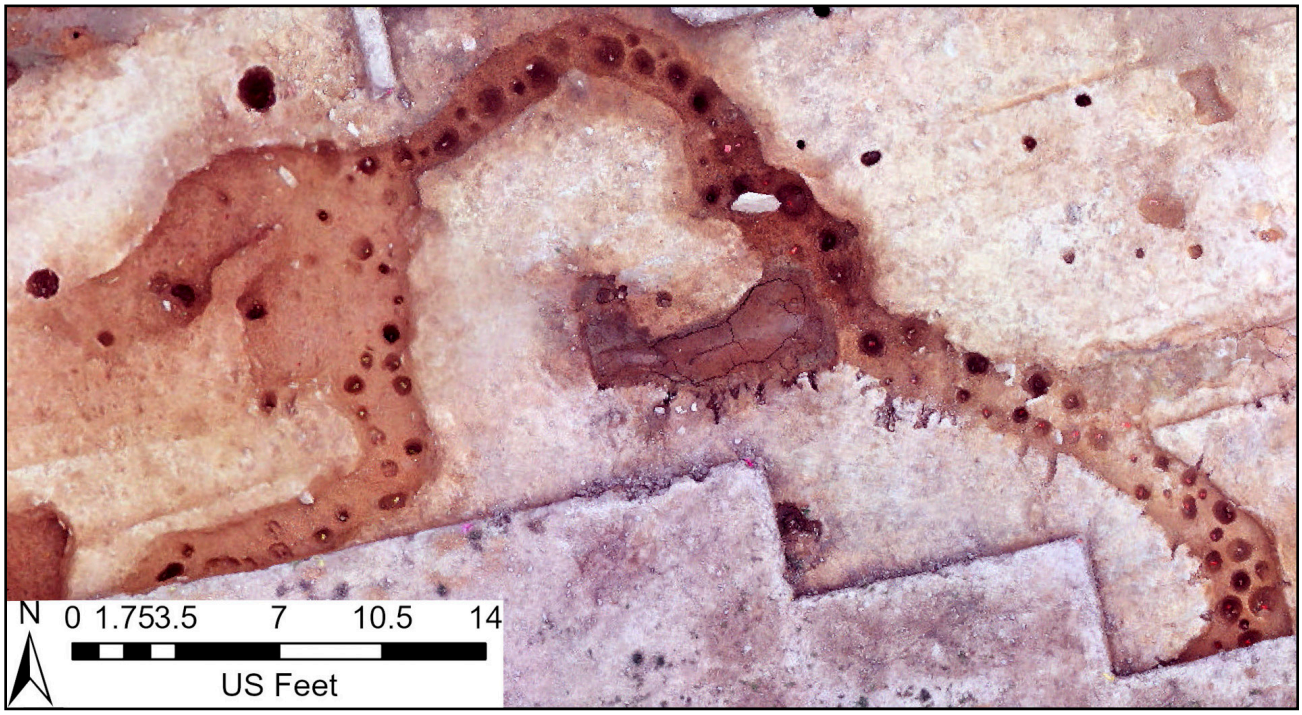

Figure 6: Orthophoto of excavated stockade feature (Feature 143) (Photo number 2023_B_034)

radar?

2. What is the orientation of the stockade footprint, and which spaces are within the structure?
3. Are other features associated with Camp Security, such as trash pits or privies, within the project area?

The scope of the project was to locate areas with high archaeological potential, determine the archaeological integrity of features, and assess the time periods and activities represented. All field activities were conducted by local volunteers in partnership with the Friends of Camp Security (FOCS). Community archaeology has been a feature of FOCS excavations since 2014. York County residents are major stakeholders in the historic site, as many are descendants of Camp Security guards. This project continued the FOCS tradition of providing individuals with an opportunity to connect with their personal histories through direct participation in the archaeological process. All volunteer work was supervised by professional archaeologists to ensure data integrity.

A small portion of the Wiest Lower Field (0.8 acres) was selected for investigation (Figure 7). This project area encompasses the stockade (Feature 143) discovered in 2022 and expanded upon in 2023. An 0.8-acre area was chosen since historic accounts describe the stockade as, "a little more limited" than the two-to-three-acre enclosure at Rutland, Massachusetts (Hagist 2004:57, 100). A significant portion of the stockade was expected to be within the project area. It was also assumed that the stockade footprint continues south of the 2022 and 2023 excavations, so the project area was placed to accommodate.

Project design included a ground penetrating radar (GPR) survey, photogrammetry survey, and block excavation. Unlike previous excavations, systematic surface and metal detector surveys were not employed. The project area had been surveyed four times between 2015 and 2022. We believe this is sufficient to consider the sampling of the plowzone complete. The project area was not plowed but was

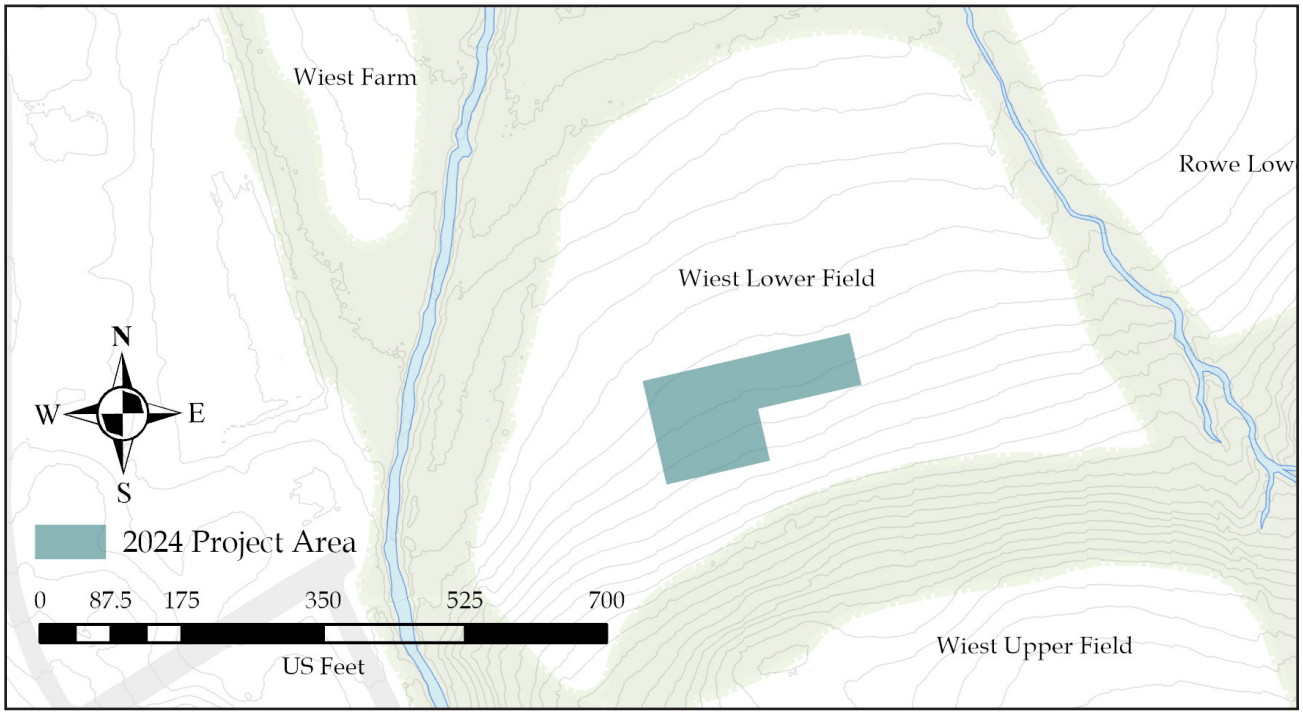

Figure 7: Map of 2024 investigation area (Photo number 2024_A_1040)

Figure 8: Connor A. Winslow operating GPR machine, facing southeast (Photo number 2024_A_0004)

Figure 9: Volunteer excavating Feature 263 in TU 108, facing east (Photo number 2024_A_0365)

mowed prior to the GPR survey. This was done to ensure smooth operation of the GPR equipment. A Carlson BRx7 GPS was used to achieve spatial control of artifacts and excavation locations. Photogrammetry provided additional control, recording the ground surface within a <1 in. resolution. Measurements below the ground surface were taken by hand and noted on field forms.

A ground-penetrating radar (GPR) survey was conducted between May 8 and 11 (Figure 8). Six 20 × 20 m grids were surveyed in total. The first two grids were surveyed south of the 2023 excavation with a 5 m overlap to identify a stockade continuation. Subsequent grids were surveyed based on the stockade's inferred direction as indicated by GPR data. The survey utilized a GSSI SIR 4000 equipped with a 400 MHz antenna mounted on a three-wheel cart with a distance encoder. Survey data was collected on 25 cm interval transects for a total of 81 transects per grid. All grids were surveyed in a west–east direction from the northwest corner, except for Grid 6, which was surveyed north-to-south due to the slope of the terrain. Collected survey data was processed after each field day using GSSI's Radan 7.0 to identify anomalies of interest.

Nineteen test units (EUs 1 to 5 and TUs 106 to 119) were positioned to examine areas in and around the stockade feature or to ground truth anomalies observed by the GPR. Some of these units were connected to form a large excavation block. Excavation involved cutting unit edges with sod shovels and removing the plowzone (Figure 9). This soil was discarded without sifting to quickly expose the subsoil and examine potential features. This presents a risk of losing artifacts that could otherwise be collected by sifting, but the loss was mitigated by the 2015, 2020, 2021, and 2022 surface collection and metal detecting surveys (Crawmer et al. 2021:36). While plowzone soils were not screened, all observed artifacts were collected. Excavated soil was removed from the area with wheelbarrows

into a large back dirt pile. Test unit excavation was complete when the subsoil surface was scraped clean with shovels and sharpened mason's trowels. Features, defined by dark soil stains, were photographed, and drawn before and after their excavation. All feature soils were sifted through ¼ in. hardware mesh. Artifacts were placed in labeled bags bearing the site number, unit number, soil layer, and feature number from which they were recovered. Each test unit was photographed, and plan-view drawn. The soil layer elevations of each test unit corner were recorded in project field notes. The entire ground surface was recorded by photogrammetry, so this data, paired with the field measurements, can be used to reconstruct accurate profiles. The soil coloration of the plowzone (Level 1A and 1B), subsoil (Level 2), and features were determined by comparison of samples with a Munsell Soil Color Chart (2009 revision). Soil texture determinations were made by project archaeologists, relying on prior training and experience. Excavated features were backfilled by archaeologists and volunteers. All test units were backfilled by Springettsbury Township at the conclusion of fieldwork.

An aerial survey was conducted on June 13 to document excavation locations and field conditions post-excavation. Ground control points, marked with orange painted bio-degradable paper plates, were placed around the Wiest Lower Field, and measured with a Carlson BRx7 GPS to sub-inch horizontal and vertical accuracy. A DJI Mavic 2 Pro drone was used to photograph the area. These photographs were analyzed by Agisoft Metashape software to produce spatially accurate orthophotos and digital elevation models.

Once excavations were complete, artifacts were processed by the Lead Archaeologist. Glass, ceramic, lithics, and stable bone artifacts were washed; fragile bone and metals were dry brushed. Artifacts were then cataloged into a Microsoft Access database and curated per the State Museum of Pennsylvania's guidelines.

Project Results

The results of ground penetrating radar, photogrammetry, and excavation highlight three major occupation periods of the Wiest Lower Field. These include a pre-contact occupation from the Late Archaic to Late Woodland periods, an 18th-century military encampment, and 19th–to-20th-century farming. The reliability of data generated from the project is high. In some cases, time and weather constraints hindered the complete excavation of exposed features.

Ground Penetrating Radar Survey

All six processed grid images were spliced together to analyze the project area in full (Figure 10). A continuous anomaly was detected stretching from the westernmost point of the 2023 stockade excavation. This was identified in Grids 1, 3, and 5. It travels 55 ft. southwest from TU 101, turns south for 30 ft., southeast for 35 ft., north for 40 ft., northeast for 25 ft., and finally turns north outside of the project area. A second linear anomaly was identified traveling east from the eastern limit of the stockade in TU 88, but this was less discernable than its western counterpart. Several square anomalies were identified in Grids 1, 3, and 4, but these were not tested in 2024. Other anomalies of interest include a linear and circular anomaly in the northwest corner of Grid 1.

Excavation

Nineteen test units (EUs 1 to 5 and TUs 106 to 119) were excavated from May 13 to June 13 (Figure 11). Units placed by Conner Winslow as part of the ground truthing component of his master's thesis research are labeled as "Excavation Units"

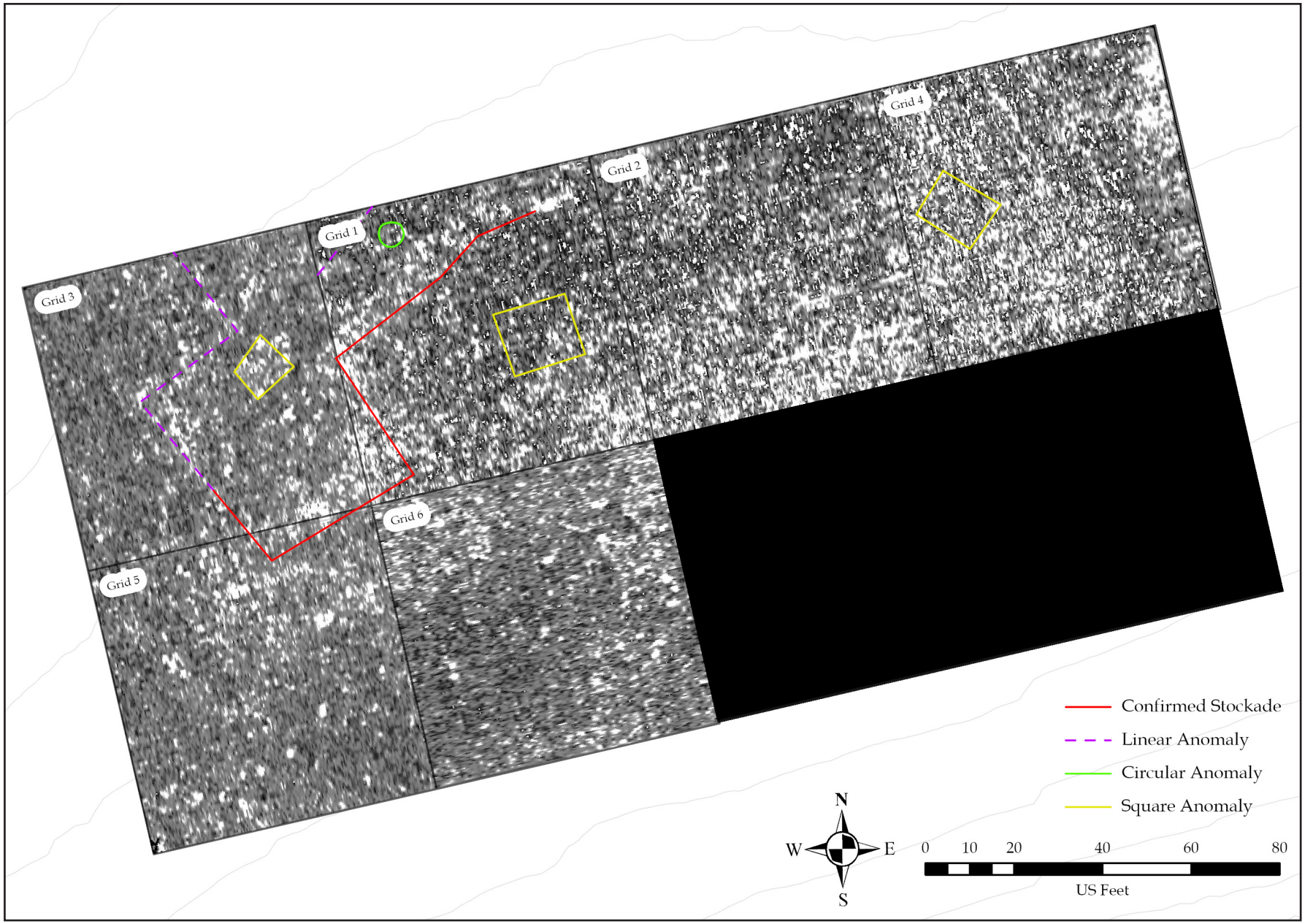

Figure 10: GPR imagery with anomalies marked (2024_A_1041)

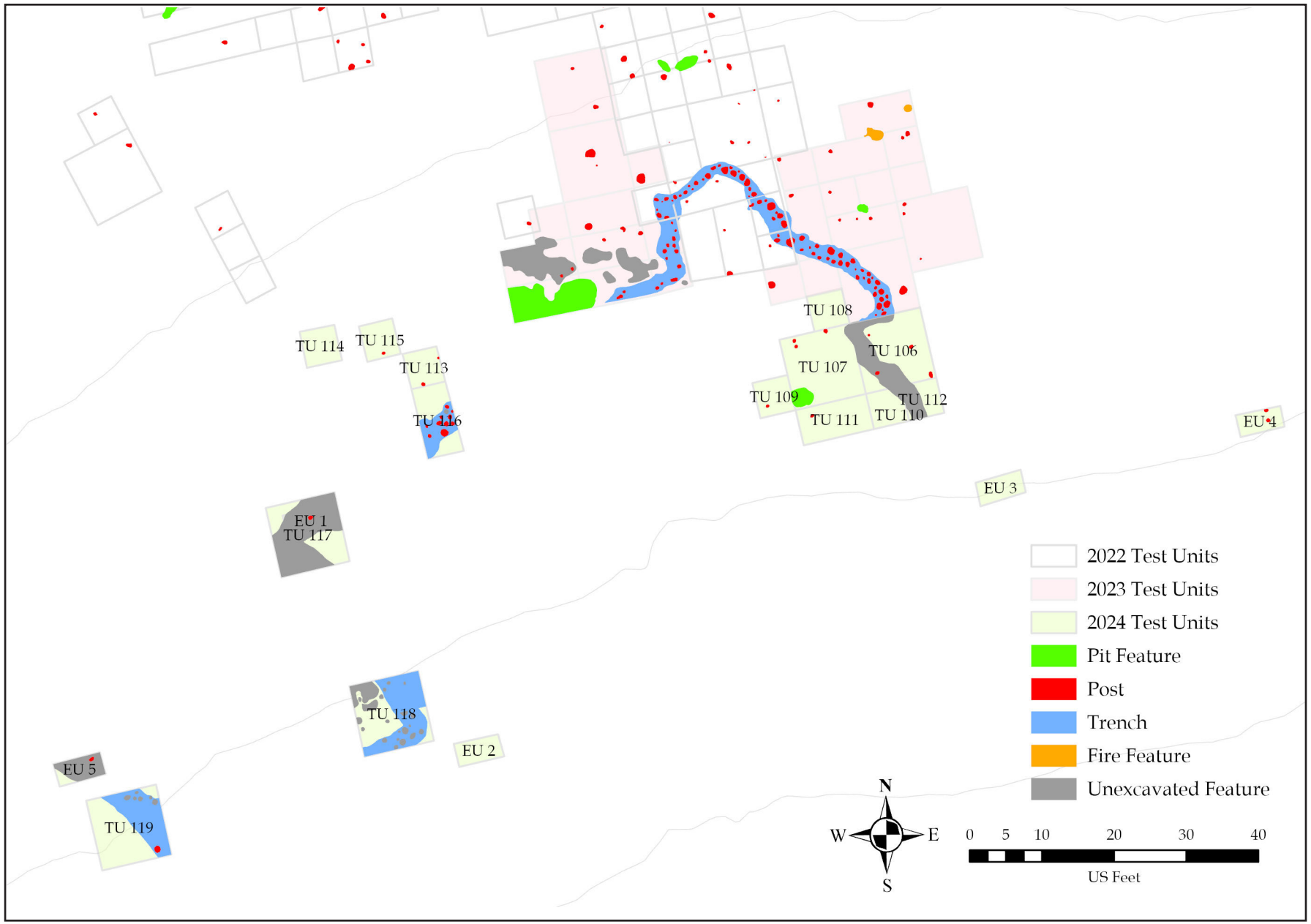

Figure 11: Map of test units and features (Photo number 2024_A_1042)

and are 1 × 2 m in size. The metric system was used to maintain consistency between the GPR survey data and these ground truthing units (EU 1 to 5). Units unrelated to Winslow's research are labeled as "Test Units" and continue the same numbering and measurement system used in all previous FOCS projects at Camp Security. These test units vary in size with areas with unknown feature density being explored using 10 × 10 ft. units (TUs 106, 107, and 117 to 119). Adjoining 5 × 5 ft. units (TUs 108 to 110 and 112 to 115) were used to elaborate on findings and odd-shaped 5 × 10 ft. units (TUs 111 and 116) examined spaces between test units (see Appendix 1 for summary of test units). Increased spatial control from the GPS and photogrammetry surveys facilitated variation in unit sizes.

Test units were used in one of two ways; either to examine the area surrounding known stockade trench locations or to ground truth anomalies seen in the GPR results. Units that examine areas surrounding the stockade join together to form a large excavation block in the same manner as the 2022 and 2023 excavations (Crawmer and Skinner 2023a:11,15, 2023b:10, 13). These units include TUs 106 to 112. Units testing GPR results were comparatively more isolated, examining a specific space with few to no extensions. These units include EUs 1 to 5 and TUs 113 to 119.

Stratigraphy was consistent across test units with a loose dark yellowish brown (10YR 4/4) silt loam with grass clump inclusions (Level 1A), a compacted dark yellowish brown (10YR 4/6) silt loam (Level 1B), and a yellowish brown (10YR 5/8) or brownish yellow (10YR 6/6) silt clay loam subsoil (Level 2). Rodent disturbances and plowscars are common, with thin triangular grooves from chisel plowing forming continuous east–west oriented scars between adjoining test units.

Although plowzone soils were not screened, hand excavation still allowed for artifacts to be observed and collected. Fourteen artifacts were recovered from test and excavation units including five redware fragments, two window glass fragments, two quartz flakes, two jasper flakes, a chert flake, charcoal fragment, and possible horse bridal fragment. Artifact locations are random, consistent with the pattern observed in previous surface collection and metal detecting surveys (Crawmer et al. 2021:16–17, 2022:12–14).

Eighty-three features were identified. Twenty (24.1%) were non-cultural, a result of rodent disturbances or plowing. Twenty-six (31.3%) are post holes, four (4.8%) are trenches, and one (1.2%) is a shallow pit (see Appendix 2 for summary of features). Thirty-two features were not excavated due to time constraints. Feature contexts yielded one fragment of wood charcoal in Feature 287 and one quartz flake in Feature 290.

Post holes are circular stains of yellowish brown (10YR 5/6) silt loam with charcoal flecking contrasted by the yellowish brown (10YR 5/8) silt clay loam subsoil. No "post molds" are present. This suggests the posts were not in place for an extended period. Some show evidence of disturbance near their edges, possibly due to post removal. It is believed that the wood used in the construction of Camp Security was salvaged and reused shortly after the camp's closure in 1783. However, structures related to farming, such as barns, lean-tos, fence lines, and corrals, could have been constructed and dismantled in the Wiest Lower Field. Post holes by themselves do not confirm the presence of the historic camp.

Most post holes were found in the excavation block comprising of Test Units 106 to 112 (Figure 12). This area contains 9 circular posts, ranging from 0.3 to 0.7 ft wide, with pointed conical bases. While a definitive pattern is not obvious, four (Features 264,

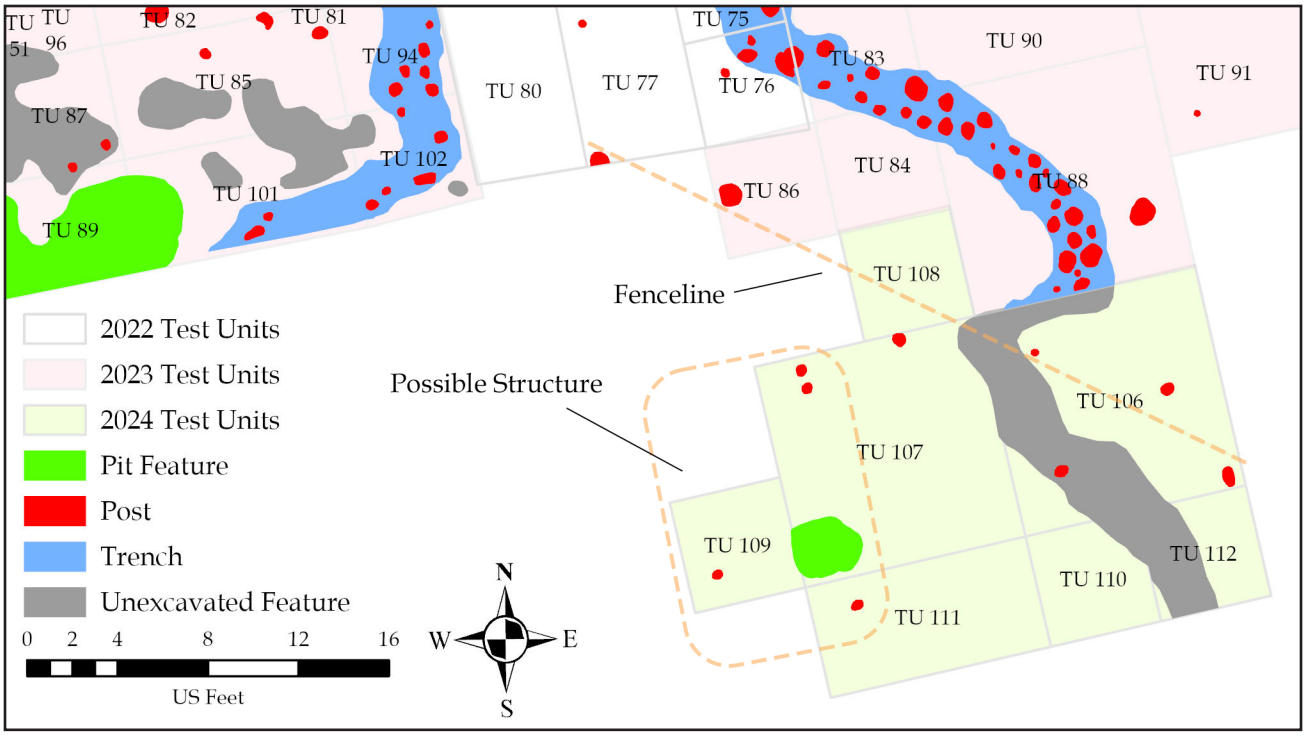

Figure 12: Map of features in excavation block (Photo number 2024_A_1043)

252, 254, and 256) align with a pair of northwest–southeast oriented posts (Features 170 and 189) found in previous excavations (Crawmer and Skinner 2023a, 2023b). They may represent a historic fence line, but it's uncertain whether this is associated with Camp Security or 19th-century farming activity.

The western third of the area yielded a pair of similarly sized posts (Features 277 and 278) and a large, 3 ft. wide shallow pit (Feature 270). This combination mirrors the pattern observed in Structures A and B, and, like those previous finds, the pit is devoid of cultural material. Additional posts framing a third structure may be located to the west given the association of large shallow pit and "double post" formations with Structures A and B. Further excavation is needed to prove this hypothesis.

The subsurface immediately east of the pit was notably rocky with numerous small to medium-sized angular stones. Two concentrations of stone were excavated in the north and south of the area and both were found to be non-cultural. There is no indication that these stones were deliberately placed, so their arrangement is the result of natural processes.

The historic stockade (Feature 143) was not excavated in the excavation block, so it's path could not be confirmed in 2024. The stockade's southward continuation from TU 88 through TUs 106 and 112 was inferred by excavators based on differences in soil color and texture. The GPR data in the area was unclear, but it is conceivable to interpret that the stockade turns eastward upon entering TU 106. The soil along this route was relatively loose with scattered charcoal fragments.

Uncertainty of the stockade's path introduces challenges in understanding the possible historic fence line that runs through the area. The fence line is unrelated to the stockade if, as excavators interpret, the stockade extends southward and intersects with the fence's path. It could be related if, as interpreted by GPR, the stockade turns east. The excavator's interpretation is

considered more reliable for the purposes of this report, so the northwest–southeast running fence line is likely the result of 19th-century farming.

Twelve test units (EU 1 to 5 and TU 113 to 119) were strategically positioned east and west of the excavation block to verify the GPR data and identify continuations of the Camp Security stockade. Excavation Units 4 and 5 were the only units placed east of the excavation block, with EU 5 11 ft. southeast of TU 112 and EU 4 31 ft. west of EU 5. Both were placed to test a possible extension of the stockade trench (Feature 143) observed in the GPR.

While EU 5 yielded no cultural features, EU 4 successfully identified a pair of post holes (Features 266 and 267) and a soil layer containing a large amount of charcoal with small to medium-sized angular stones (Feature 280). The soil in EU 4 was significantly disturbed by plowing and the unit's smaller size hindered the ability to draw broader conclusions about its features. Despite its limitations, the unit identified a new space for future research due to the exceptional concentration of charcoal compared to other areas in the Weist Lower Field.

Most units used to verify the GPR data were located west of the excavation block, where the GPR results were most pronounced (Figure 13). Test Unit 113 is positioned 12 ft. west of TU 89 (excavated in 2023). TU 115 sits diagonally northwest of TU 113, with TU 114 3 ft. to its west. The linear and circular GPR anomalies in Grid 1's northwestern corner were investigated using TUs 114 and 115 respectfully, but they yielded only a single small post hole (Feature 291). Test Unit 113 was placed to examine the northern edge of a large northeast–southwest running linear GPR

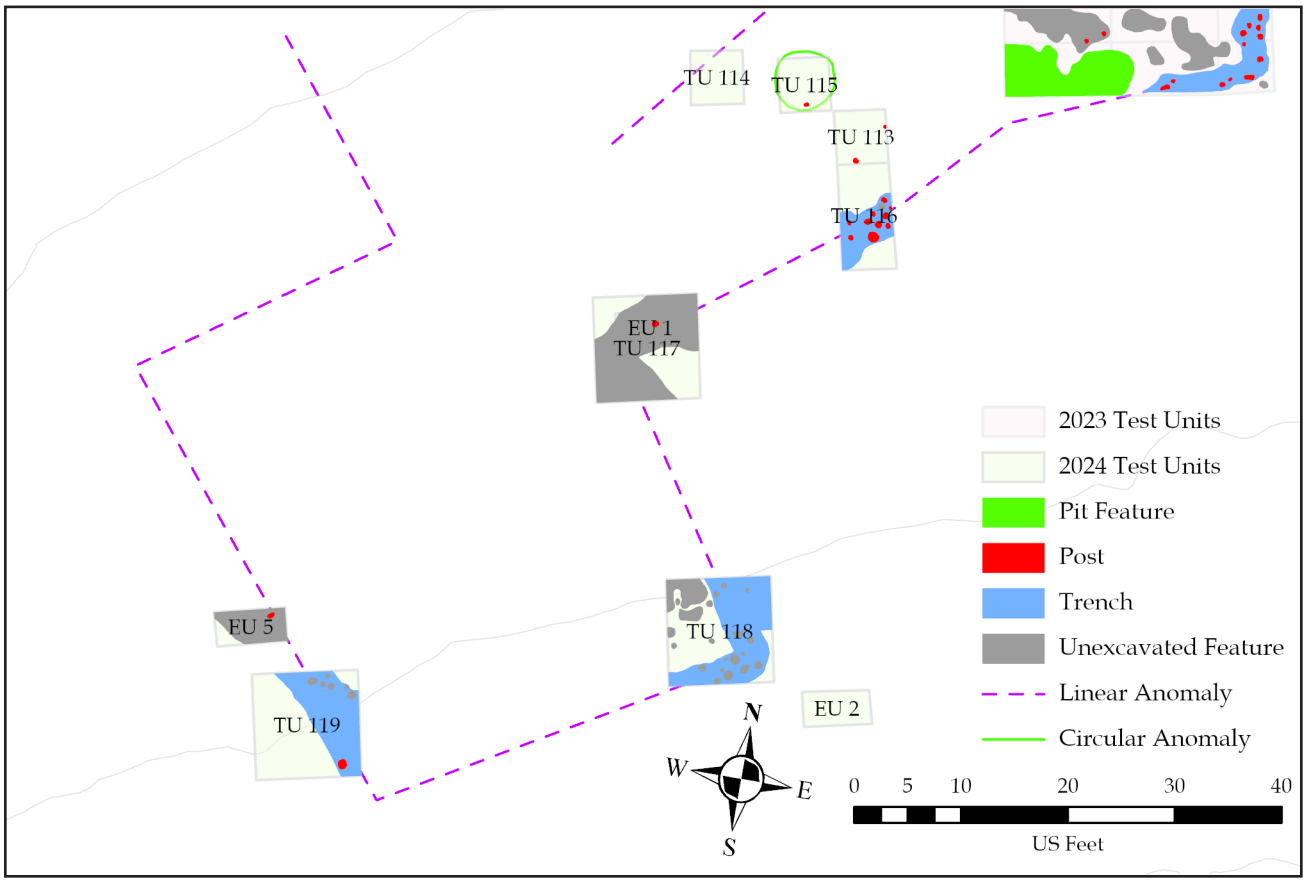

Figure 13: Map of GPR anomalies and features west of the excavation block (Photo number 2024_A_1044)

anomaly. While it yielded two post holes (Features 283 and 285), no features were found that could explain the anomaly. Therefore, TU 116 was placed as a southern extension to continue the investigation.

Test Unit 116 successfully intersected a 4 ft. wide linear feature (Feature 290) that followed the same orientation as the anomaly. It was excavated to a depth of 1 ft. until circular concentrations of soft, charcoal-rich soil were discovered. These were subsequently excavated and identified as a series of post holes (Features 290.1 to 290.10) situated within the linear feature (Figure 14). This phenomenon is consistent with the stockade trench (Feature 143), located 27.5 ft. to the northeast. Given a remarkable similarity in soils and the GPR results clearly connecting Features 143 and 290, it is almost certain that they are sections of the same historic stockade. Test Units 117 to 119 were strategically placed at the corners of the linear GPR anomaly to further verify its path and confirm that it is representative of the stockade footprint.

Excavation of TU 117 revealed another linear feature (Feature 294) similar in size and soil composition as Feature 290. This feature aligns with the GPR imagery as it enters the unit, traveling northeast–southwest before turning 90° southward. Its most distinguishing characteristic are the numerous tumbled angular stones on its surface (Figure 15). It became clear that Feature 294 was a continuation of the same feature identified 13.5 ft. northeast in TU 116 (Feature 290), but it was decided not to excavate Feature 294 due to time constraints. Notably, EU 1 was excavated prior to TU 117 to investigate the same linear GPR anomaly, but it failed to identify Feature 294. Only after opening TU 117 around EU 1 and recognizing the size of Feature 294 did the picture come into focus. EU 1 was placed within the feature itself, making it impossible to recognize Feature 294 from inside its limited scope. This same limitation is suspected to be at play east of the excavation block in EU 4.

Test Unit 118 was situated 16.5 ft. south of TU 117, and EU 3 was placed 2.5 feet southeast of TU 118. There was uncertainty whether the GPR anomaly turned east or west in the area, so EU 3 tested the east while TU 118 investigated the west. Excavation Unit 3 did not identify any cultural features. Test Unit 118 uncovered 24 features, but only four could be excavated due to time constraints. This included a linear feature (Feature 309) that runs northwest–southeast before turning 90° westward. It was bisected along an east–west line, with the southern half being excavated (Figure 16). Excavation was restricted to a depth of 5 in. and identified several potential post hole disturbances (Features 309.1 to 309.9). None of these could be excavated due to time constraints. However, their presence, along with Feature 309's alignment with the GPR results and consistent soil composition with Features 290 and 294, strongly suggests that Feature 309 is part of the same stockade feature identified in TUs 116 and 117. Beyond Feature 309, there are some disturbances in TU 118 that were not excavated in 2024 that could be of interest to future projects. Soil probes of Features 301 and 304 were found to be deep and both have large tumbled angular stones visible on their surfaces. They are reminiscent of the large amorphous pits (Features 242, 243, 245, 249, and 250) observed in TUs 85, 87, 89, and 101 during the 2023 excavation (Crawmer and Skinner 2023b:15–16).

Test Unit 119, located 29 ft. west of TU 118, uncovered a linear disturbance (Feature 310) running southeast–northwest that shares a similar soil composition with the other identified sections of the Camp Security stockade (Features 143, 290, 294, and 309). The same excavation strategy employed for Feature 309 in TU 118 was

Figure 14: Photo of Feature 290 closing, facing southwest (Photo number 2024_A_1003)

Figure 15: Photo of Feature 294 opening, facing southwest (Photo number 2024_A_0587)

Figure 16: Photo of Feature 309 bisection; facing south (Photo number 2024_A_0940)

Figure 17: Photo of Feature 310 bisection, facing east (Photo number 2024_A_0896)

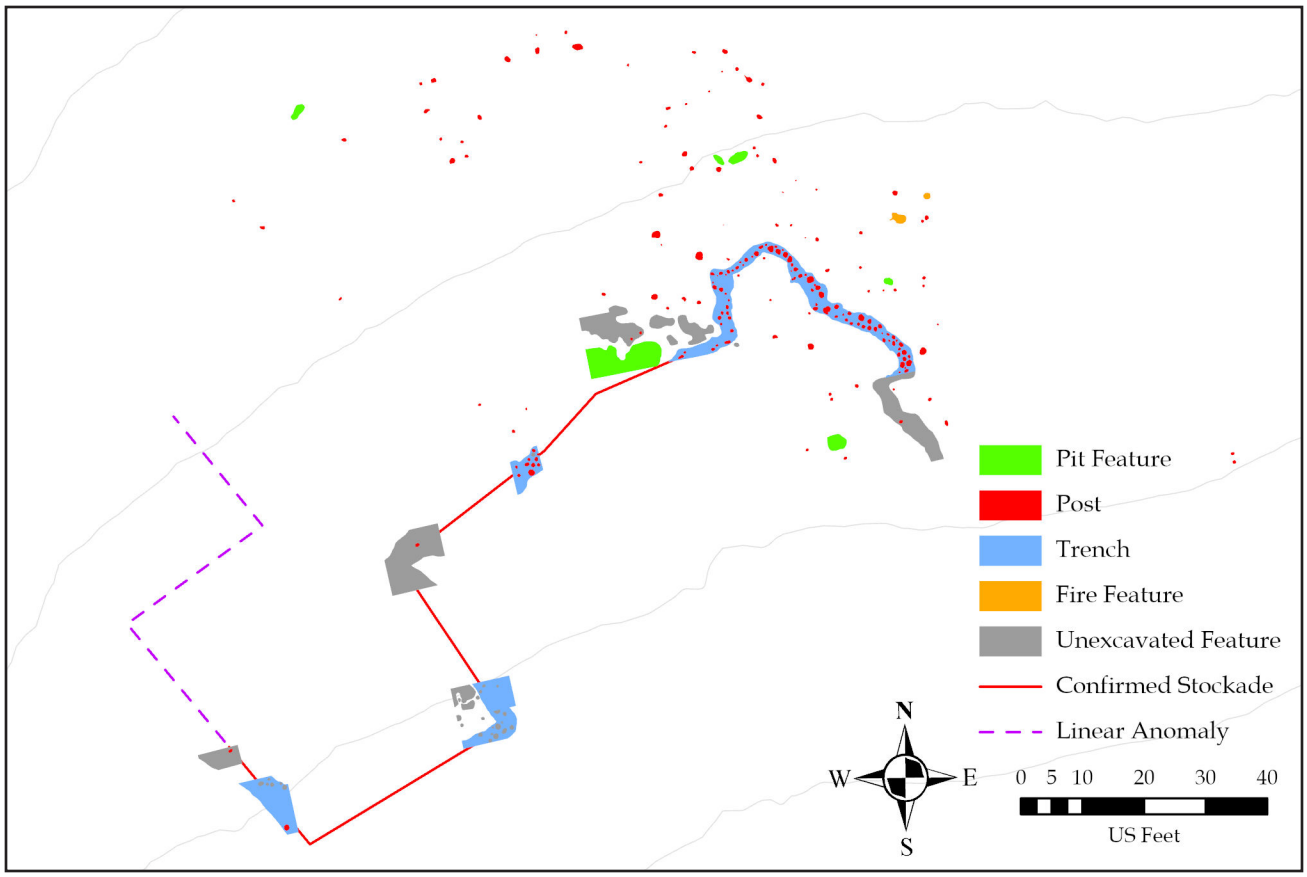

Figure 18: Map of confirmed stockade and surrounding features (Photo number 2024_A_1045)

applied to Feature 310, with the northern half of the feature being excavated (Figure 17). This revealed six potential post hole disturbances (Features 310.1 to 310.6), none of which were excavated due to time constraints. Feature 310 was confirmed to be a continuation of the Camp Security stockade due to its soil composition being consistent with previously sampled portions, its alignment with the GPR anomaly, and the likely presence of internal post holes. Unlike Features 294 and 309, the stockade's corner was not definitively identified in TU 119. Excavation Unit 2, located immediately north of TU 119, also captured a small portion of Feature 310. Like EU 1, EU 2 was excavated prior to TU 119 to investigate the same linear GPR anomaly but failed to identify it. Only after identifying Feature 310 in TU 119 could its continuation in EU 2 (Feature 316) be recognized. Feature 316 was not excavated in EU 2 due to time constraints.

The Camp Security stockade trench consists of Features 143, 290, 309, 310, and 316. Segments of the GPR anomaly confirmed to be the stockade are those with positive test or excavation units between them. This includes the 145 ft. long portion of the anomaly extending from the 2023 excavation area (TU 101) to TU 116, 117, 118, 119, and EU 2 (Figure 18). Portions north of EU 2 are likely to be a continuation of the stockade feature, but additional testing, particularly where the anomaly appears to turn, is necessary to confirm this.

Photogrammetry

The 2024 investigation was the sixth year a drone photographed the Preservation Area. A DJI Mavic 2 Pro controlled by a smart controller and operated by Jane C. Skinner, FAA Small UAS Registration Number FA3KHLWCKC, was used for the

Figure 19: Photogrammetry orthophotos of Weist Lower Field (top) and 2024 project area (bottom) (Photo numbers 2024_A_1036 & 2024_A_1037)

aerial survey. Two models were created for the project: one of the 2024 project area and another of the entire Wiest Lower Field (Figure 19). The larger model included 181 photos taken at an altitude of 350 ft. with the camera at 90°. This model puts excavation units within greater context and records environmental changes in the Preservation Area, such as the gradual drying of the marshy area north of the Wiest Lower Field. The internal GPS of the drone was used to rectify this model. The model of the 2024 project area used 112 photos taken at four altitude intervals below 200 ft. at 90° and 45°. Photo variation grants better three-dimensional aspects, allowing for field documentation to be checked against the orthophotos, models, or digital elevation models. This model was rectified to the NAD 2011 Pennsylvania South State Plane coordinate system.

Material Culture

Not implementing surface collection, metal detecting, or sifting led to a lower artifact count relative to previous investigations. Twenty-two artifacts, ranging from pre-contact lithics to modern framing equipment, were collected from the investigation area. Twelve objects (54.5%) could not be accurately dated. These include redware fragments and wood charcoal. Seven artifacts (31.8%) are pre-contact, including chipping debris and a stone point. Three (13.6%) are modern and include window glass fragments and farming equipment. No artifacts could be confidently dated to the 18th century in 2024.

Pre-contact Material

Six fragments of chipping debris were recovered in 2024, with three being quartz, two jasper, and one chert, bringing the total number of flakes recovered in the Weist Lower Field since 2015 to 311 (Warfel 2015; Crawmer et al. 2021, 2022; Crawmer and Skinner 2023a, 2023b). Two hundred eighty-nine (92.9%) of which are quartz, thirteen are jasper (4.2%), four are rhyolite (1.3%), four are chert (1.3%), and one is chalcedony (0.3%). Flakes are the byproduct of shaping, thinning, or sharpening stone tools (Warfel 2015:23–27). They are commonly considered waste material but can be repurposed as tools themselves.

A single Bare Island projectile point was recovered and suggests when Native Americans inhabited the site. Dating is based on similar style points having been found at other sites in South Central Pennsylvania and the Mid-Atlantic Region. Because similar points were discovered in association with carbonized plant or animal remains, radiocarbon dates derived from those remains are used to estimate when the points were in use (Carr and Moeller 2015:9–13).

The Bare Island point (36Yo46/419.9) dates to the Late Archaic Period (ca. 4,300 to 6,000 years ago) and features a straight stem and convex base (Figure 20). It is commonly found in the Susquehanna River Valley. Eighteen diagnostic projectile points

Figure 20: Quartz Bare Island point, catalog number 36Yo46/419.9 (Photo number 2024_A_1038)

have been recovered from the Wiest Lower Field since 2015 (Warfel 2015; Crawmer et al. 2021, 2022; Crawmer and Skinner 2023a, 2023b). Eleven (61.1%) are within the Archaic period and seven (38.9%) date to the Woodland period. This reinforces pre-contact occupation ranging from the Archaic to the Woodland period but suggests that the area was more consistently used between periods than previously thought (Warfel 2015:23–27). Artifacts recovered in 2024 continue to suggest that Native peoples made and sharpened tools, hunted, processed hides, crafted wood and/or bone, and fished in the area as early as the Late Archaic Period (ca. 4,300 to 6,000 years ago).

Historic Material

While no 18th-century artifacts were recovered from the Wiest Lower Field in 2024, a comparison of the 18th-century assemblages from Camps Security and Indulgence remains valuable. There are major contextual differences between the collections. The Camp Security assemblage is made up of artifacts recovered from the plowzone of the Weist Lower Field and paints a broad picture of the site. The Camp Indulgence assemblage is more specific, being made up of artifacts recovered from refuse pits in the Weist Upper Field.

Artifacts were organized into groups based on their functional use to better characterize the assemblages (Table 2). Functional groups include activities, such as pins and needles; architectural, such as wrought nails and window glass; clothing/adornment, such as buttons and buckles; kitchen/household, such as ceramics and utensils; and personal, made up of small items like musket balls and coins (Crawmer et al. 2021:31).

The two sites exhibit stark material differences based on the frequency of functional groups. Eighty-seven percent of the Camp Indulgence collection is made up of artifacts related to activities and architectural remains, with nearly a quarter of all objects being window glass. Window glass was an expensive commodity in the 18th century, particularly for prisoners of war, and signals a clear financial investment by the prisoners into their huts. Activity artifacts are almost entirely related to sewing. Six hundred-five straight pins, three needles, and a thimble account for 40% of the total assemblage, indicating significant female labor at Camp Indulgence.

Approximately one third of Camp Security's occupants were women and children (Jonathan Stayer 2014, pers. comm.). Camp families were frequently excluded from daily rationing since suppliers didn't recognize them as prisoners and rations could be hard to come by (Miller 2012:571–572).

	Camp Indulgence (Weist Upper Field)		Camp Security (Weist Lower Field)	
Functional Group	*n*	*%*	*n*	*%*
Activities	612	40.2	1	0.9
Architectural	717	47.1	9	7.9
Clothing/Adornment	37	2.4	40	35.1
Kitchen/Household	139	9.1	39	34.2
Personal	18	1.2	25	21.9
Total	**1523**	**100**	**114**	**100**

Table 2: Functional artifact groups at Camps Security and Indulgence (Hunter 1979; Warfel 2015; Crawmer et al. 2021, 2022; Crawmer and Skinner 2023a, 2023b)

Andrew Anderson, a camp guard, recounted that for a time there was nothing to eat but flour (Lloyd 2014b). Female labor likely played a major role in gaining a degree of independence from the irregularity of military rationing.

The Camp Indulgence collection speaks towards a highly independent and self-sufficient community in which prisoner families leveraged their relative freedom to invest in their homes. It's reasonable to imagine that these prisoners, as Roger Lamb described, "had lost the animation, which ought to possess the breast of the soldier" (Hagist 2004:100). They would have been hard pressed to find the proposition of escape and a return to battle attractive after laboring to improve their material conditions.

The Camp Security collection is remarkably sparse in comparison. Of the 114 18th-century artifacts found, 57% are objects of clothing/adornment and personal items, like buttons, buckles or coinage. Only 8.8% of the Camp Security collection is related to activities and architecture, a major contrast to the 87.3% at Camp Indulgence. There's no indication of the industry or investments observed at Camp Indulgence. Instead, the collection is largely composed of objects "lost in place" and is suggestive of a group with very little, materially divorced from their counterparts just 200 yards away.

Discussion

Addressing Project Research Questions

1. Can the stockade feature, identified in the Weist Lower Field, be observed by ground penetrating radar?

A ground penetrating radar survey successfully recognized the stockade feature. The survey identified a northeast–southwest running linear anomaly extending from the southwestern extent of the stockade feature (Feature 143) exposed in 2023 (Crawmer and Skinner 2023b). It travels 55 ft. southwest, turns south 30 ft., southeast for 35 ft., north for 40 ft., northeast for 25 ft., and finally turns north traveling outside of the project area. Twelve test units (EU 1 to 5 and TU 113 to 119) were strategically positioned to verify the GPR data. Six (TUs 116, 117, 118, 119, EU 1, and EU 2) were successful in identifying the stockade feature. Based on these results, ground penetrating radar, following the methodology described in this report, was proven to be a reliable method of locating the Camp Security stockade.

2. What is the orientation of the stockade footprint, and which spaces are within the structure?

The full extent and shape of the stockade remains unknown, however, the 2024 project greatly elucidated on the structure's shape and orientation. Ground penetrating radar (GPR) and excavation revealed an additional 145 ft. of stockade, bringing its total confirmed length to 205 ft. Approximately 25 ft. of the linear GPR anomaly remains uninvestigated. The stockade was likely oriented 45° to true north based on the 2024 results. It seems that its southern wall and southwestern corner have been the focus of archaeological investigation since 2021, with the space north being internal to the structure. Structures A and B, as well as the significant wall structures identified in 2022, appear to be within the confines of the stockade (Crawmer and Skinner 2023a:16–17, 2023b:14–15). Furthermore, portions of the stockade captured between TUs 117, 118, 119, and EU 2 outline a square shaped corner that resembles the stockade design detailed in William Atlee's 1777 map of the Lancaster Barracks (PCC 1777:60.451).

Although the full picture of the Camp Security stockade is incomplete, comparisons between the archaeological reality in York and the idealized plans from

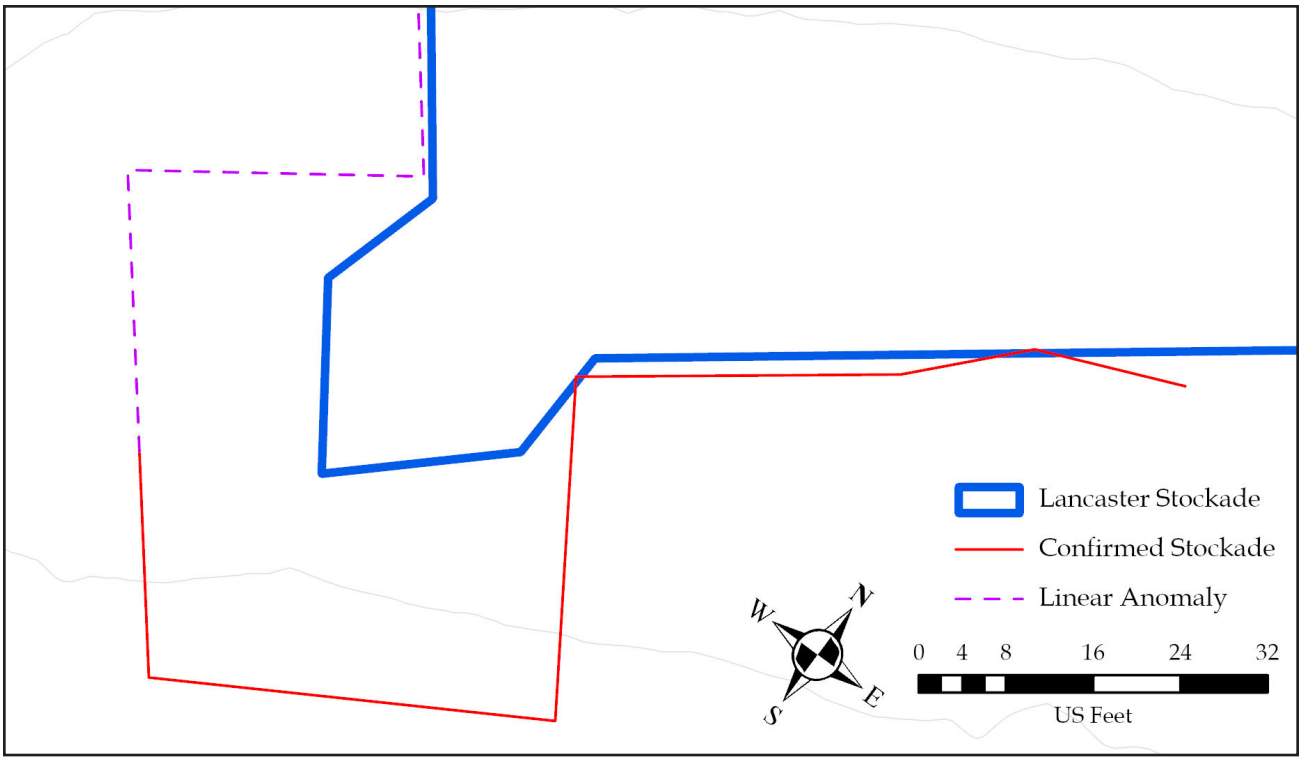

Figure 21: Lancaster stockade overlayed with confirmed stockade footprint (Photo number 2024_A_1046)

Lancaster can be made. William Atlee's 1777 map describes a 15 ft. tall stockade situated 4 ft. into the ground with large white oak posts spaced every 10 ft. This enclosed a rectangular 369 × 342 ft. area with the prisoner barracks at its center (PCC 1777:60.451). Each corner of this rectangle features a hexagonal "blockhouse" similar in design to the bastions seen in Pennsylvania's French and Indian War forts (Warfel 2013). "Built of stout logs squared and laid on a stone foundation. They are five story high with a chimney above and below and may be made very comfortable" (PCC 1777:60.451). These blockhouses could serve as living quarters for guards, a hospital, or carpentry shop.

The Camp Security stockade is similar but is more rectangular and nearly four times the size of the Lancaster stockade (Figure 21). The blockhouses at Lancaster covered 420 sqft. and the possible blockhouse at Camp Security covers 1,650 sqft. It's not known if this difference in scale is consistent for the entirety of the stockade. There's no indication that a blockhouse at Camp Security could have supported a five-story tall structure and the placement of its posts do not reflect the organized precision described by Atlee (PCC 1777:60.451). It seems that equally large posts were placed sporadically with smaller posts used to line any gaps. Lining posts were typically placed along the interior of 18th-century fortifications to present a smooth, hard to climb, exterior surface to potential enemies (Warfel 2013:163–164). The inverse was recommended by Atlee to prevent prisoners from climbing out of their pen (PCC 1777:60.451). Neither rule seems to have been followed at Camp Security. This could explain how Sergeant Lamb's compatriots were able to scale the stockade from its interior (Hagist 2004:100).

Deviations between Camp Security and the Lancaster Barracks speak to the hurried construction of the camp and the improvisational choices made to complete it. While

further excavation is needed to solidify this interpretation, the 2024 excavation has significantly enhanced our understanding of historical space.

3. Are other features associated with Camp Security, such as trash pits or privies, within the project area?

The 2024 excavation did not reveal artifact-rich features, such as trash pits or privies, that could be conclusively recognized as contemporaneous with Camp Security. While the excavation block comprising of TUs 106 to 112 yielded several cultural features, such as post holes and a shallow pit, there was no associated artifactual evidence found that could confidently date them. The large shallow pit (Feature 270) and pair of closely laid post holes (Features 277 and 278) found in the western third of the excavation block seem to mirror the pattern observed in Structures A and B. While this could suggest the presence of a third structure, further excavation is necessary to confirm. Additionally, a line of northwest–southeast running post holes in the area appear to represent 19th-century farming activity as they may conflict with the stockade's (Feature 143) path.

National Register Considerations

The Camp Security Preservation Area is within the historic limits of the 1781 property of David Brubaker. Brubaker made claims for the losses he incurred due to the construction of Camps Security and Indulgence. The claims demonstrate that the camps were located on the Brubaker tract and provide some clues as to the initial camp structure. In his 1781 claim he states:

> *"That above 100 Acres thereof being already cleared, the persons employed constructing the Stockade & Huts for the Prisoners & Guards have made use of large quantities of wood growing on the said Plantation, & have already cleared 30 Acres of wood land thereon, so that the Plantation aforesaid is considerably impaired in value. That the Guards have used & destroyed almost all the Rails on the Plantation, utterly depriving the Tenant of the Indian Corn thereon, & the benefit of the Pasturage of his Meadow"* (Brubaker 1896).

The presence of a stockade in the Wiest Lower Field confirms the exact location of Camp Security, but its layout remains a mystery. Important questions related to the structure and daily life of Revolutionary War prison camps can be addressed with future archaeological research. These include potential studies of vernacular architecture and material culture. Specifically, does the camp structure reflect a unique local identity or are standard military construction practices being used? To what extent are prisoners producing goods? What freedoms were afforded to prisoners and how does this relate to other prison camps?

The area meets the qualifications of National Register Criteria A and D. The site is the location of a significant event in the history of the United States, and thus is significant to the study of the American War for Independence and the history and development of York County. The site retains several of the aspects or qualities of integrity crucial in determining National Register eligibility, including location, setting, association, workmanship, design, and materials, and has yielded data important in American history (Catts and Roberts 2000:15). National Register Criteria A and D are satisfied by the 1979 PHMC archaeological excavations, historic documents placing the camps within the Brubaker tract, and the discovery of a stockade feature. The results of the 2022,

2023, and 2024 investigations have strongly supported the Camp Security Preservation Area's National Register qualification by locating a principal feature of the historic camp's structure. Further excavation is likely to add to these qualifications.

Conclusion and Recommendations

The 2024 archaeological excavation aimed to assess the effectiveness of ground penetrating radar (GPR) to recognize the Camp Security stockade and investigate potential associations between the stockade and surrounding features. The investigation involved GPR survey and subsequent excavation in a project area of 0.8 acres. This resulted in the recovery of 20 artifacts, none belonging to the 18th century. Nineteen test units, placed in and around suspected stockade locations, revealed 25 historic post holes, four trenches, and a shallow pit. Post hole patterns near this pit suggest the presence of a structure, but additional excavation is required to confirm. Additionally, a fence line was found in potential conflict with the stockade's path and is likely related to 19th-century farming.

The GPR survey proved to be a reliable method of locating new segments of the Camp Security stockade. GPR imagery showed a linear anomaly extending from the stockade's 2023 southwestern limit, turning in various directions, and ultimately exiting the project area. Six test units (EUs 1 to 2 and TUs 116 to 119) were placed directly on this anomaly with each identifying portions of the stockade feature. This method discovered an additional 145 ft. of stockade, bringing its total confirmed length to 205 ft, and showed that the structure is likely oriented 45° from true north. Space north of where the stockade was first found in 2022 appears to be internal, which implies Structures A and B were occupied by prisoners rather than guards. In addition, the 2024 investigation located a possible southwestern blockhouse reminiscent of the 1777 Lancaster Barracks (PCC 1777:60.451). Additional work is needed to confirm the shape of the stockade in this area and whether this suspected blockhouse functioned in the same manner as those in Lancaster.

Future research should prioritize mapping the stockade in the Wiest Lower Field by leveraging the GPR methodology described in this report. It's recommended that the entirety of the Weist Lower Field (8 acres), outside of the 2024 project area, be surveyed with GPR. The resulting data can be combined with the 2024 results to create a comprehensive map of the Wiest Lower Field. Subsequent ground truthing should be performed to test the results and confirm the stockade's path. This methodology represents the quickest and most reliable method for mapping the stockade. For example, the 2022 and 2023 excavations uncovered 60 ft. of stockade in 88 days for a rate of 0.7 ft. of stockade per day. The 2024 project mapped 145 ft. in 37 days or 4 ft. of stockade per day, nearly 6 times faster than previous methods. A second advantage of this approach is that it minimizes the portions of stockade exposed to excavation, thereby preserving it for future generations.

The sensitivity of the area necessitates the continued systematic removal of the plowzone by hand. Large 5 × 5 ft. or 10 × 10 ft. test units should be used for ground truthing since smaller units, as seen in EUs 1 to 5, fail to fully capture the stockade. It is also advisable to continue avoiding sifting the plowzone soil since it has been thoroughly sampled in previous surface collections and metal detecting surveys.

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Appendix 1: Summary of Excavated Test Units

Coordinates represent the southwest corner of the test unit and are in the NAD 2011 Pennsylvania South State Plane in feet.

TU No.	Features	Dimensions	Longitude (X)	Latitude (Y)
106	143, 252, 253, 254, 255, 256, 257, 258, 268, 269	10 x 10 ft.	2277804.45	235068.07
107	143, 263, 270, 271, 272, 273, 274, 275, 276, 277, 278	10 x 10 ft.	2277794.71	235065.82
108	264	5 x 5 ft.	2277797.32	235076.69
109	314, 315	5 x 5 ft.	2277789.84	235064.69
110	143, 279	5 x 5 ft.	2277805.58	235063.20
111	281	5 x 10 ft.	2277795.83	235060.95
112	143	5 x 5 ft.	2277810.45	235064.33
113	282, 283, 284, 285	5 x 5 ft.	2277741.49	235068.72
114		5 x 5 ft.	2277726.99	235071.68
115	291, 292	5 x 5 ft.	2277735.37	235072.50
116	286, 287, 288, 289, 290, 290.1, 290.2, 290.3, 290.4, 290.5, 290.6, 290.7, 290.8, 290.9, 290.10	5 x 10 ft.	2277743.77	235059.10
117	261, 293, 294	10 x 10 ft.	2277723.46	235042.66
118	295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 309.1, 309.2, 309.3, 390.4, 390.5, 390.6, 390.7, 390.8, 390.9	10 x 10 ft.	2277734.99	235017.84
119	310, 310.1, 310.2, 310.3, 310.4, 310.5, 310.6, 311, 312, 313	10 x 10 ft.	2277698.64	235002.10
EU 1	259, 260, 261, 262	1 x 2m	2277724.35	235048.02
EU 2	316	1 x 2m	2277748.11	235016.44
EU 3		1 x 2m	2277820.32	235052.51
EU 4	265, 266, 267, 280	1 x 2m	2277856.37	235062.08
EU 5	263	1 x 2m	2277692.75	235013.71

Appendix 2: Summary of Excavated Features

Feature No.	TU No.	Type	Comments
143	106, 107, 110, 112	Trench	continuation of historic stockade trench identified in 2022 and 2023; identified but unexcavated in 2024
252	106	Posthole	small circular post with pointed conical base
253	106	Rock pull	
254	106	Posthole	medium circular post with rounded base
255	106	Soil lens	possible lens within Feature 143 (historic stockade trench)
256	106	Posthole	medium circular post with pointed base; angled towards the south with upper portion showing signs of pulling distubance
257	106	Posthole	medium circular post with pointed base
258	106	Soil lens	
259	EU 1	Soil lens	
260	EU 1	Soil lens	
261	EU 1	Posthole	
262	EU 1	Soil lens	
263	EU 5	Posthole	small circular post with rounded base
264	108	Posthole	medium post with pointed base
265	EU 4	Rodent burrow	
266	EU 4	Posthole	
267	EU 4	Posthole	
268	106	Rock pull	
269	106	Soil lens	possible lens within Feature 143 (historic stockade trench)
270	107	Pit	shallow pit with charcoal and angular stone, basin-shaped base with rodent intrustion along northern edge
271	107	Unexcavated	amorphous stain in TU 107's western wall
272	107	Rock cluster	cluster of small-medium stones with subsoil directly underneath; no clear cultural signifance
273	107	Rodent burrow	
274	107	Rodent burrow	
275	107	Rock cluster	cluster of small-medium stones with subsoil directly underneath; no clear cultural signifance
276	107	Unexcavated	small circular stain in TU 107's northwestern corner
277	107	Posthole	small circular post with pointed base
278	107	Posthole	small circular post with pointed base
279	110	Rodent burrow	
280	EU 4	Rocky Area	
281	111	Posthole	circular post with pointed base
282	113	Rodent burrow	
283	113	Posthole	medium circular post with pointed base; rodent intrusion along southern edge
284	113	Soil lens	

Feature No.	TU No.	Type	Comments
285	113	Posthole	small post with pointed base; partially sectioned by TU 113's eastern wall
286	116	Rodent burrow	
287	116	Posthole	large deep post with rounded base; sits within Feature 290
288	116	Soil lens	lens within Feature 290
289	116	Soil lens	shallow lens within Feature 290
290	116	Trench	four foot wide linear trench running northeast to southwest, observed in GPR data, continuation of Features 143, 294, 309, and 310 (historic stockade trench)
290.1	116	Posthole	small circular post set within Feature 290
290.2	116	Posthole	small circular post set within Feature 290
290.3	116	Posthole	small circular post set within Feature 290
290.4	116	Unexcavated	small circular stain set within Feature 290; possible posthole
290.5	116	Posthole	small circular stain set within Feature 290; possible posthole
290.6	116	Posthole	small circular stain set within Feature 290; possible posthole
290.7	116	Posthole	small circular post with rounded base set within Feature 290
290.8	116	Posthole	medium circular post with rounded base set within Feature 290
290.9	116	Posthole	small circular post with rounded base set within Feature 290
290.10	116	Posthole	small circular post with rounded base set within Feature 290
291	115	Posthole	small circular post with a pointed base
292	115	Rodent burrow	
293	117	Unexcavated	small circular stain set within Feature 294; possible posthole
294	117	Unexcavated	four foot wide linear feature with large tumbled angular stone; observed in GPR data; likely continuation of Features 143, 290, 309, and 310 (historic stockade trench)
295	118	Soil lens	lens within Feature 309
296	118	Posthole	small post with rounded conical base set within Feature 290
297	118	Posthole	small post with rounded conical base set within Feature 290
298	118	Unexcavated	small circular stain set within Feature 309; possible posthole
299	118	Unexcavated	small circular stain set within Feature 309; possible posthole
300	118	Unexcavated	medium circular stain set within Feature 309; possible posthole
301	118	Unexcavated	amorphous stain with angular stone visible on it's surface
302	118	Unexcavated	small circular stain; possible posthole
303	118	Unexcavated	small circular stain; possible posthole
304	118	Unexcavated	large amorphous stain with angular stone visible on it's surface in TU 118's northwestern corner
305	118	Unexcavated	small circular stain set within Feature 309; possible posthole
306	118	Unexcavated	small circular stain set within Feature 309; possible posthole
307	118	Unexcavated	small circular stain sectioned by TU 118's eastern wall; possible posthole set within Feature 309
308	118	Unexcavated	small circular stain sectioned by TU 118's eastern wall; possible posthole set within Feature 309

Feature No.	TU No.	Type	Comments
309	118	Trench	four foot wide linear trench running north to south; observed in GPR data; likely continuation of Features 143, 290, 294, and 310 (historic stockade trench)
309.1	118	Unexcavated	small circular stain set within Feature 309; found along Feature 309 bisection; possible posthole
309.2	118	Unexcavated	small circular stain set within Feature 309; possible posthole
309.3	118	Unexcavated	small circular stain set within Feature 309; possible posthole
309.4	118	Unexcavated	medium circular stain set within Feature 309; possible posthole
309.5	118	Unexcavated	small circular stain set within Feature 309; possible posthole
309.6	118	Unexcavated	medium circular stain set within Feature 309; possible posthole
309.7	118	Unexcavated	small circular stain set within Feature 309; possible posthole
309.8	118	Unexcavated	small circular stain set within Feature 309; possible posthole
309.9	118	Unexcavated	small circular stain set within Feature 309; possible posthole
310	119	Trench	five foot wide linear trench running south to north; observed in GPR data; likely continuation of Features 143, 294, 290, and 309 (historic stockade trench)
310.1	119	Unexcavated	small circular stain set within Feature 310; possible posthole
310.2	119	Unexcavated	small circular stain set within Feature 310; possible posthole
310.3	119	Unexcavated	small circular stain set within Feature 310; possible posthole
310.4	119	Unexcavated	small circular stain set within Feature 310; possible posthole
310.5	119	Unexcavated	small circular stain set within Feature 310; possible posthole
310.6	119	Unexcavated	small circular stain set within Feature 310; possible posthole
311	119	Posthole	large post with pointed conical base; set within Feature 310
312	119	Rodent burrow	
313	119	Rodent burrow	
314	109	Posthole	medium circular posthole with rounded base
315	109	Rock pull	
316	EU 2	Unexcavated	linear feature running south to north; observed in GPR data; likely continuation of Feature 310 (historic stockade trench)

Appendix 3: Inventory of Artifacts Submitted for Curation

County	Site No.	Cat. No.	Spec. No.	Excavation Unit	Site Level	Feat. No.	Artifact Description	Traits	Quantity	Quantity Discarded	Comments
Yo	46	74			general surface		Quartz chipping debris		1	0	possible shatter
Yo	46	74			general surface		Plain/glazed redware	body and rim sherds	6	0	black glaze
Yo	46	571		EU 5	1B		Plain/glazed redware	body sherd	1	0	light brown glaze
Yo	46	576		TU 119	1B		Plain/glazed redware	body sherd	1	0	unglazed
Yo	46	576		TU 119	1B		Plain/glazed redware	body sherd	1	0	black glaze
Yo	46	572		TU 111	1A		Farm equipment/machinery	ferrous metal	1	1	possible horse bridal
Yo	46	574		TU 116	2	290	Quartz chipping debris		1	0	possible shatter
Yo	46	575		TU 118	1B		Quartz chipping debris		1	0	possible shatter
Yo	46	572		TU 111	1A		Window glass	fragment	1	1	colorless
Yo	46	573		TU 116	2	287	Historic wood charcoal	fragment	1	0	charcoal fragments
Yo	46	576		TU 119	1B		Window glass	fragment	1	0	colorless
Yo	46	576		TU 119	1B		Chert chipping debris		1	0	primary flake
Yo	46	570		EU 2	1A		Jasper chipping debris		1	0	secondary flake
Yo	46	577		EU 1	1A		Jasper chipping debris		1	0	secondary flake
Yo	46	419	9		surface/plowzone		Straight stem point	quartz	1	0	missing tip; possible Bare Island point
Yo	46	577		EU 1	1A		Plain/glazed redware	rim sherds	2	0	unglazed and light brown glaze