



**SUMMARY REPORT ON THE 2014
ARCHAEOLOGICAL INVESTIGATION OF THE
CARTER HILL COTTON GIN AREA**

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**Submitted to Franklin's Charge
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I. Introduction

The Nashville office of the TRC Environmental Corporation (TRC) carried out archaeological investigations in the general location of the Carter Hill Cotton Gin from September 8 through 19, 2014 (Figures 1 and 2). The work was done under contract to Franklin's Charge, with support from the State of Tennessee Wars Commission.

This short report is intended as a general summary of the 2014 investigation, prepared for both project sponsors and as a guide for the next stage of the investigation. In particular, it provides a list of TRC's recommendations for these further investigations. Additional details on the results of the 2014 work will be included in the TRC report to be produced following the next phase of field investigations, scheduled for the next few weeks.

The project was a continuation of investigations carried out at the site in 2009. At that time, TRC employed ground penetrating radar and backhoe trenching in an initial search for both remains of the cotton gin and any evidence of the Federal defensive lines known to have crossed this area. Although traces of these features were not found in 2009, the work did discover well preserved stone foundations associated with the Mooney School, a predecessor of the still flourishing Battle Ground Academy (see McKee 2010).

The specific goals of the 2014 archaeological investigation:

- 1) a search for the bases of the four stone pillars known to have formed the corners of the Carter Cotton Gin (Figure 3);
- 2) a search for the large base stone of the Carter cotton press, known from drawings of the site to be to the west of the cotton gin.
- 3) a search for, and if found, excavation of a portion of the Federal fortification lines expected to be south of the cotton gin.

The project had mixed results in fulfilling these goals. The work found no remains that could be clearly related to the gin and the press. The excavation did discover additional structural remains of the Mooney School. The school remains cover the western part of the area where the gin and press were expected to be, per locational clues from the well-known late 19th century Moscow Carter map of the area (Figures 4 and 5).

The work did fulfill the goal of the locating and excavating well-preserved remains of the Federal defensive works, in the form of exposure of a nearly 100 foot long segment of a filled ditch line (Figure 6). Limited testing of the feature showed it to have depths varying from 25 cm (about ten inches) to 60 cm (about two feet) along the exposed stretch. Artifacts found in the three trenches excavated across the ditch line include a light scatter of dropped and fired ammunition and other military artifacts. TRC interprets this feature as the exterior ditch of the defensive line, on the south side (facing the direction of attack) of a raised earthwork or parapet.

This newly discovered remnant of the defensive line is slightly further north from where the Moscow Carter map places it. Based on this, the ginning facilities may be further

north than expected, and thus not under (and possibly obliterated by) the Mooney School remains. This new information on the possible location of the cotton gin will guide future archaeological investigation of the area.

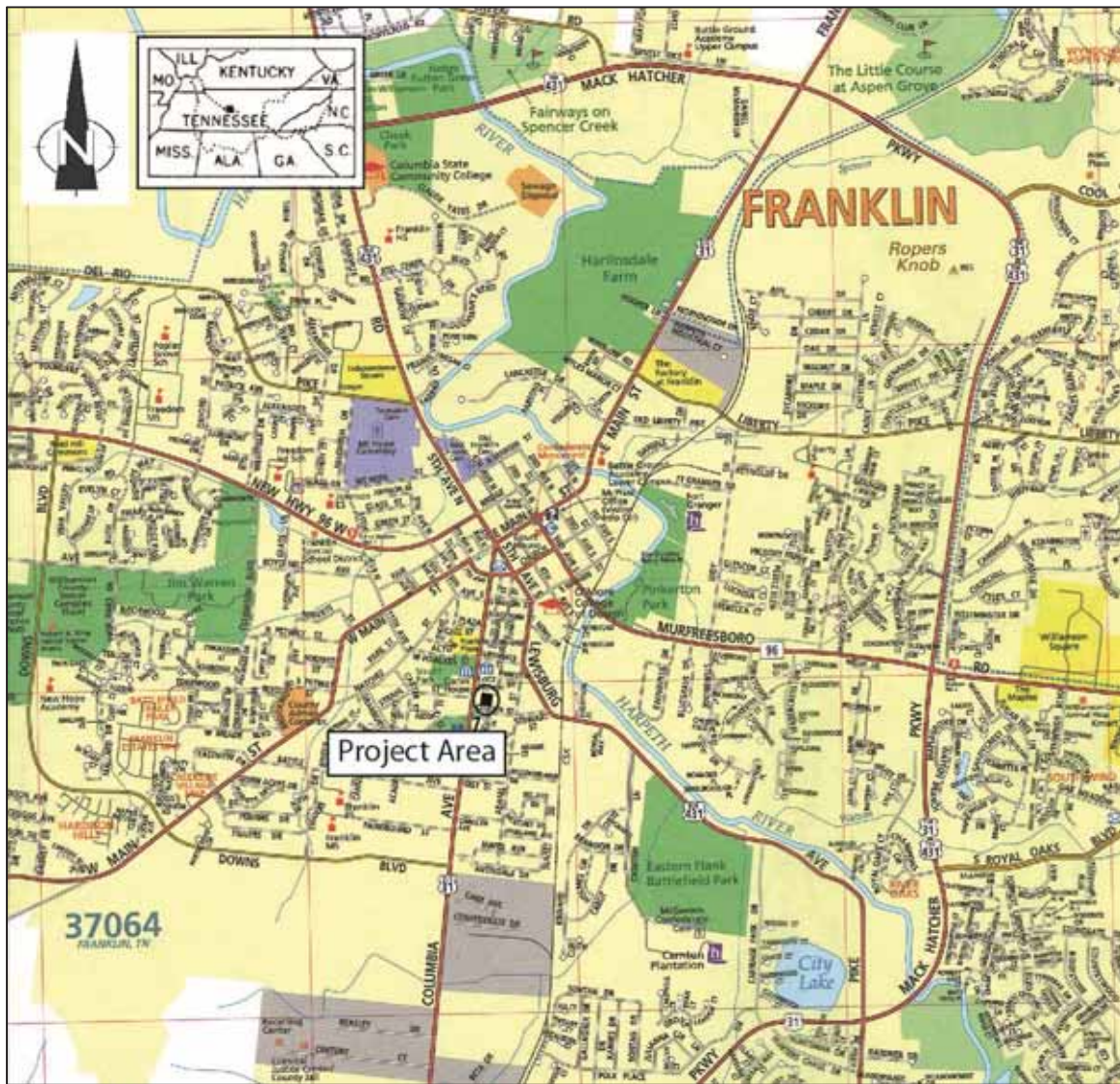


Figure 1. Project area on current map of Franklin.



Figure 2. Project area on aerial photograph, dating to before removal of Blue House and strip mall to the west.

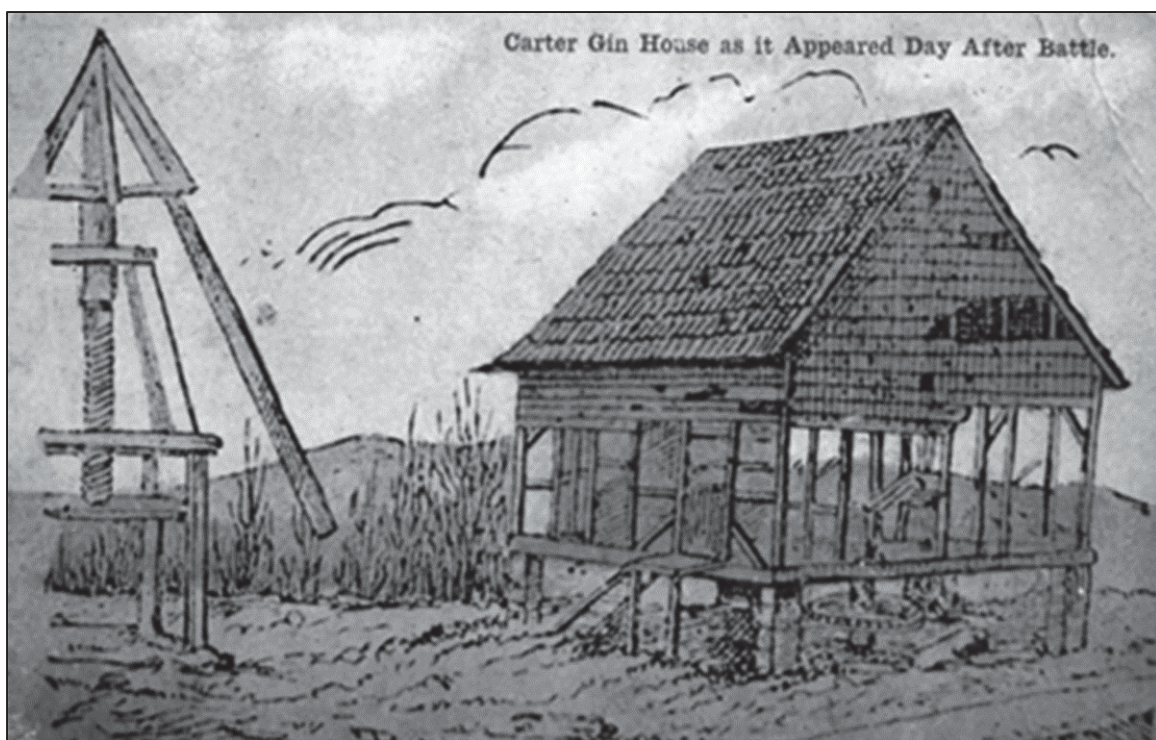


Figure 3. Drawing of the cotton gin and press “as it appeared day after battle”.

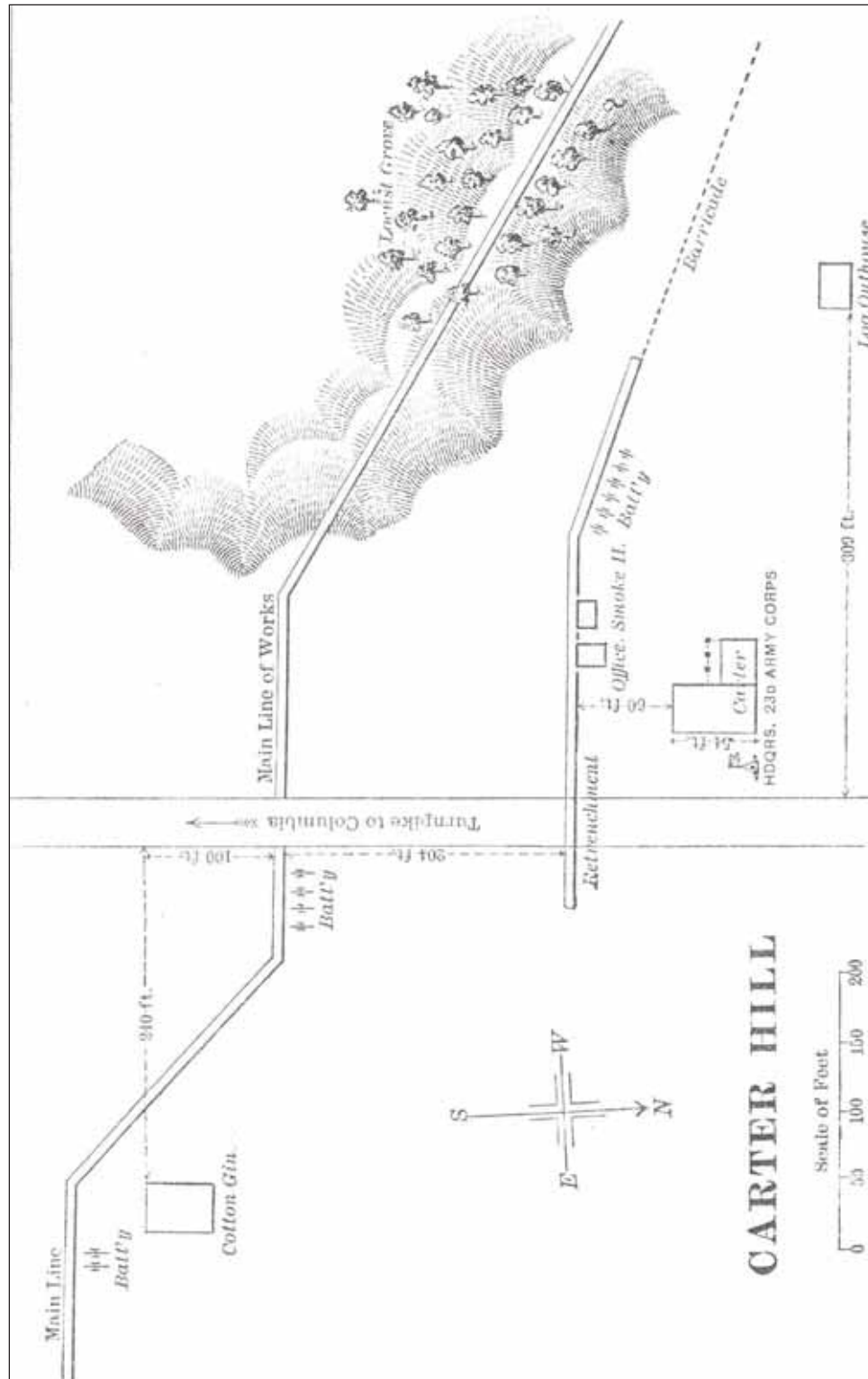


Figure 4. Moscow Carter's map of fortifications near the Carter House.



Figure 5. Moscow Carter's map of fortifications near the Carter House, overlain on contemporary aerial photograph of project area.

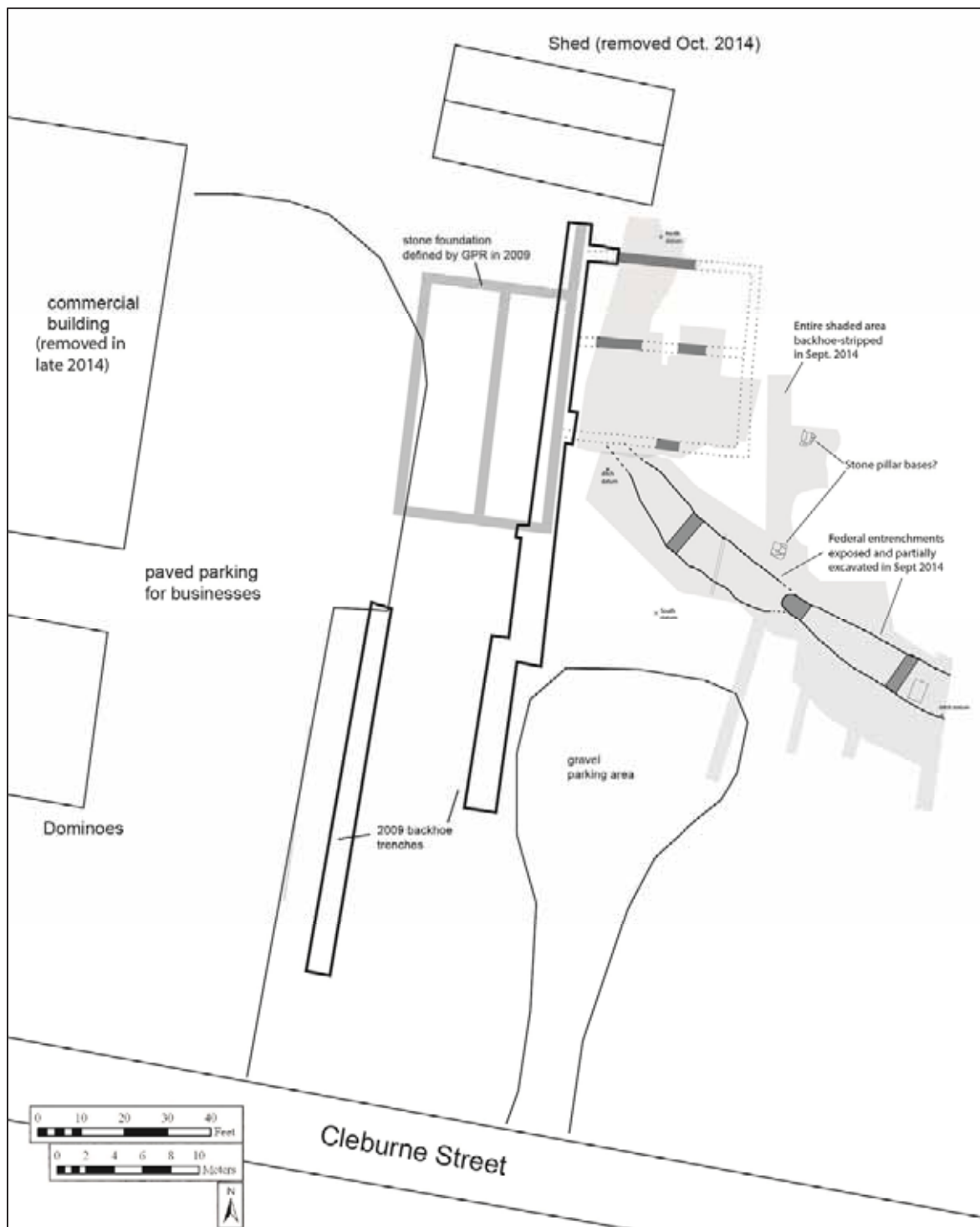


Figure 6. Plan view of project area showing discoveries made during the 2014 field investigations.

II. BACKGROUND RESEARCH

In terms of background research on the project, TRC has depended on recent published studies of Civil War action in Franklin and on consultations with local experts on the Carter Hill cotton gin and the nearby Federal fortifications. In terms of publications, the report by staff at the State of Tennessee Division of Archaeology on several excavation projects around the Carter House (Smith and Nance 2010) proved particularly informative on Civil War activity in this part of Franklin. Two recently published volumes with a focus of the Battle of Franklin (Jacobson and Rupp 2007 and 2011) provide some in-depth details on this area of the battlefield. A review of the history of the Carter Hill property and its association with the Battle of Franklin is available in the report on the 2009 archaeological investigations (McKee 2010). This is summarized below.

The area of investigation was a part of the Carter Hill plantation at the time of the Battle of Franklin. This was the home plantation of the Carter family, and their main residence, the Carter House, built in 1830, is still standing and open to the public. The size of Carter Hill plantation reached nearly 300 acres at the height of its operation, covering property on both sides of Columbia Pike on the southern outskirts of the core of the City of Franklin. During the Battle of Franklin, the house served as a Federal command post, and its location on Columbia Pike put it near the center point of the Confederate assault during the battle.

The TRC search for remnants of the cotton gin began with some broad expectations about its location and nature but with little in the way of precise information on the feature. General information on the size and structural elements of the Carter Hill cotton gin is available from descriptions and images of it as well as from general knowledge of the construction and working of cotton gins, a common facility on southern cotton plantations. Expectations were that its location was likely at least partially covered by the residential structure known as the Blue House on the lot, removed in the summer of 2014. It seemed likely that at least some elements of its subsurface stone foundation would still be in place, ready to be discovered and exposed by the archaeological investigation.

Expectations about the fortification lines known to have been south of the cotton was mainly based on the 2009 TRC excavation of a section of the line on the west side of Columbia Pike (McKee 2010) and on other archaeological and documentary research. No images or clear descriptions of the fortifications survive from the Civil War period. Smith and Nance's 2010 publication on archaeological work at the Carter House provide a thorough summary of what is known about the lines:

General [Jacob] Cox [the Federal field commander during the battle] ... said he determined the best location for the earthworks ... He does not mention any pre-existing works. After breakfast on November 30, the men were issued entrenching tools and put in their places in the defensive line. Each regiment was ordered to cover its front with earthworks. Much of the line had inner and outer ditches because there was not enough wood for proper revetments (Cox 1897:48 and 51-53; Sword 1992:163 ...). Lieutenant-Colonel Edward

Baker of the 65th Indiana Infantry wrote in 1891 ... [that] the Federals “had during the forenoon thrown up breastworks of earth some ten feet thick and five feet high” (Ridley 1906:417-418).

Jacob Cox’s report on the battle says by noon of November 30, a “tolerably good line of breastworks” had been completed along the defensive line ... [Smith and Nance 2010:16-17]

The accounts of the battle preparations make it clear that there were intensive efforts on the morning of November 30 to erect some kind of linear earthworks on either side of Columbia Pike just south of the Carter House. Cox, whose headquarters were at the Carter House, apparently recognized the defensive advantages of the hill crest running generally east-west across Columbia Pike just south of the house, and chose this as “the best location” for the line. The available contemporary documentation is unclear in terms of how successful, given the short time frame, each regiment was in constructing a fully realized, formal defensive work along its assigned section of the line. Accounts of the battle leave no doubt that there was some kind of a raised linear earthwork forming a clear defensive line for some undefined distance on either side of Columbia Pike, and that much of the back and forth action during the battle focused on these fortifications.

Documents also shed some light on what happened after the battle to the earthworks making up the Federal fortification line. A recent study of the Battle of Franklin describes how Moscow Carter cleared the works in the spring of 1865, in order to get the area ready for planting and to “return some sense of normalcy to the family’s property” (Jacobson 2007:438).

TRC and our local research partners expected that archaeological investigation would reveal clearly visible subsurface traces of the fortification line. This was based on the idea that the works would have required deep disturbance to the natural ground surface in generating enough dirt for the raised linear berm or parapet, the essential feature of the fortifications. At some point following the battle, the parapets would have been leveled, thus refilling the excavated area with obvious disturbed soil deposits easily visible in the course of careful archaeological excavation.

The well-known Moscow Carter map proved particularly valuable in the search for the fortification lines and cotton gin. The map focuses on the location of the defensive lines (Figures 4 and 5). Moscow was a paroled Confederate officer living at his family’s home at the time of the battle. He was trained as a land surveyor, adding confidence in the accuracy of the map. The map was included in a history of the battle authored by Jacob Cox and published in 1897.

The publication date of the Moscow Carter map, 1897, calls into question how much of it was based on actual features of the 1864 landscape still visible some decades later and how much of it was based on the memories of its draftsman. It is also possible that Carter had already produced some version of the map decades before the publication, when memory and traces of the battle would have been fresher. Using mapping software, a TRC Geographic Information Systems (GIS) specialist was able to lay the map over a

high resolution aerial photograph of the present day area. The accuracy of this overlay was assured by matching up the extant nineteenth century features on the photographic view (the Carter House, the route of Columbia Pike, etc) with the locations shown on Moscow Carter's map. As shown in Figure 4, the overlay seems to attest to the accuracy of Carter's depiction of these features. Also supporting the map's accuracy is the fact that the intact portion of the fortification line found by TRC in 2009 near the Carter House closely matches the location shown on the map. This "ground truthing" of the map also raised confidence in its ability to guide the 2014 excavations in search of the cotton gin and other segments of the defensive line.

III. PROCEDURES AND FINDINGS

Methods

TRC followed standard archaeological procedures in carrying out the 2014 investigations at the cotton gin site. The crew was also guided by the methods and findings of the 2009 work in the area. TRC used hand excavation of test units and backhoe trenching and stripping in searching for the cotton gin foundations and fortification line. Once the backhoe exposed features of interest, such as the stone foundation lines and initial traces of the fortification ditch, the crew took over with hand tools to further define the discoveries.

Following the top exposure of the defensive ditch feature, the TRC crew excavated three test trenches across it using hand tools. Most of the work was done with trowels, with careful shovel work in deeper areas of the ditch fill. As with the 2009 work, the crew recovered artifacts in the course of the trowel and shovel work rather than through screening. An effort was made to leave artifacts in place on the floor of the ditch, as with the 2009 work, in order to document any patterning related to the fighting along this line.

The crew carried out limited metal detecting across the project area. In particular, it was used as an aid in prospecting for artifacts during shoveling of deeper fill zones in the test trenches across the ditch feature and to get an informal sense of broader artifact distribution across the area. Metal detecting provided little useful information outside of the ditch feature work, largely due to the prevalence of recent debris across the area linked to the last century of residential occupation here.

Cotton Gin and the Mooney School Foundation

The initial focus of the TRC archaeological investigation in September of 2014 was on trying to locate any structural remains of the cotton gin and press. The work was guided by 19th century illustrations, photographs, and maps of the area, in particular the Moscow Carter map. This document, published in 1897, shows the Carter's plantation facilities in relation to the Federal defensive lines associated with the Battle of Franklin. Based on alignments of his map to current aerial views of the property (Figure 5), TRC expected the cotton gin to be located under the back portion of the residential structure known as

the Blue House. The removal of the structure in 2014 allowed the TRC excavation crew to have full access to the area.

The 2014 search for the cotton gin began with placement of three excavation units dug by hand over the expected location of the structure. The work immediately uncovered brick and stone rubble and segments of intact stone foundation lines (Figures 6-8). These deposits and structural remains are elements of the eastern, back portion of the Mooney School, constructed here in the early 1890s and destroyed by fire in 1902. A layer of burned material found over the area includes ash, charcoal, and partially melted metal items including school desk frames.

Following the initial hand excavation over the school remains and expected cotton gin location, TRC monitored a backhoe provided by the City of Franklin in broader stripping across the area. The work uncovered additional foundation features of the school, consisting of three east-west stone foundation lines spaced 20 feet apart and running for 40 feet between two north-south lines. The foundation line along the west edge of this area was originally exposed by TRC in 2009, and its stone blocks had largely been robbed out. Much of the stone had also been robbed out from the foundation lines exposed during the 2014 excavation, probably as a salvage effort to use the stones in other building projects (Figures 9 and 10).

The excavation also uncovered a heavy deposit of unburned coal in the southeastern quadrant of the newly exposed foundations. This covers a 20 x 20 foot area, with the coal up to a foot deep along the eastern edge of the area (Figure 11). This presumably represents the coal storage bin for the school's heating stoves. It is not a true cellar, in that its base would have not been more than two feet below the ground surface in the area. The bin was probably designed to fill what would have been the crawl space below the building's ground floor.

Following the backhoe stripping of the area, the TRC crew cleared and did limited excavation by hand across the structural remains to explore, expose, and document the surviving building features. The work found no interior basements or cellars (other than the shallow coal bin), and we found no distinct artifact concentrations related to the school. Excavators quickly reached undisturbed subsoil during this work, with no sign of underlying archaeological features or deposits possibly related to the Carter period of occupation and activity at the site. A few isolated glass and ceramic artifacts possibly dating to the period before the school construction were present, but not in any meaningful concentrations or contexts. The work across the school foundation recovered no artifacts that could be associated with military activity.

Surviving photos of the Mooney School building show it to have been a complicated structure, with numerous bays and projecting wings centered on a relatively narrow central module (Figure 12 and 13). It is not immediately obvious how to match the foundation elements found in the 2009 and 2014 excavations with these various elements of the standing building, especially since no clear images of the rear of the structure are available. The set of foundations found in 2014, covering a 40 x 40 foot area, probably

represent a rear wing off the back, east side of the main block of the building, perhaps dedicated to service and utility activities. There are likely additional elements of the foundations still surviving beneath the ground to the north, west, and southwest of the thus-far documented structural remains of the school.

The investigation of this part of the site concluded on September 11. The stripped area was backfilled, with the exception of two intact stretches of the east-west stone foundation lines. These were left exposed per consultation with Franklin's Charge representatives as a visual representation of the former presence of the Mooney School at this location.



Figure 7. Hand excavation of test unit over expected location of cotton gin remains prior to backhoe stripping. View looking south-southwest.



Figure 8. Hand excavation of test unit, top exposure of coal deposit associated with school remains. View looking northwest.



Figure 9. Exposure of school foundation during backhoe stripping, view looking south.



Figure 10. Hand excavation across stripped area. Portion of fallen brick wall exposed to left of excavator. View looking west.



Figure 11. Exposure of coal deposit (dark material to center right) adjacent to robbed-out east foundation wall of school defined by line of stone rubble. View is looking south.



Figure 12. Photo of Mooney School, view looking northeast. Note white stone monument to Patrick Cleburne to right of building.

Squared Stone Features

The investigation uncovered two clusters of large and medium sized limestone rocks each forming a flat-topped arrangement roughly square and about two feet on a side (Figures 13 and 14). Although the clusters are not perfectly square and both are made up of untrimmed stones, these appear to have been purposefully constructed rather than just representing random jumbles. The two are aligned on a roughly north-south axis, and are about 24 feet apart.

TRC does not believe these stone features are related to the cotton gin. Given the location of each, these may have been part of the underpinnings for the residence known as the Blue House, present at this location until its removal in 2014.



Figure 13. Top exposure of southern stone “square”, view looking southeast.



Figure 14. Northern stone alignment, with southern stone feature visible near excavators. View looking south.

Newly Discovered Segments of the Federal Fortification Line

During the September 2014 investigations, backhoe trenching and subsequent hand excavation uncovered an approximate 100 foot (30.5 m) long segment of a filled ditch. This feature runs roughly east-southeast to west-northwest across the project area, with an average width of about 10 feet (3 m) (Figure 15). The ditch roughly coincides with the segment of the mapped route of the Federal fortification line near the cotton gin location. Given this, and the Civil War artifacts recovered from three test trenches across it, it leaves no doubt that this is an element of the main line of defense manned by Union troops during the Battle of Franklin.

The location, directional orientation, and angling of the routing of the newly discovered ditch line all vary in notable but not extreme fashion from its representation on the Moscow Carter map. In the vicinity of the mapped location of the cotton gin, the filled ditch line is about eight to ten feet north of the location of the line shown on Moscow's map (Figure 16). As it runs to the west, the filled ditch feature generally trends more toward the northwest in comparison to the line shown on Moscow's map. The routes of the mapped line and the filled ditch feature cross one another within the investigated area, to the northeast of the north end of the gravel parking area off of Cleburne Street.

Another variation is that Moscow's map shows a sharply angled change of direction for the line toward the northwest at a point just north of the gravel parking area, while the ditch line found by TRC has a much more gentle but definite curve to the northwest in this same area. As Eric Jacobson pointed out to us during the field work, the curving of the line seems to coincide with its representation on several Federal maps of the entire Federal fortifications during the Battle of Franklin (Figure 17).

The variations between the Moscow Carter map representation of the line and its actual location and route are of particular interest in terms of the cotton gin location. Moscow's map shows the southwest corner of the cotton gin about 45 feet north of the point where he shows the fortifications sharply angling to the northwest. As discussed in a previous section of this report, if this was accurate it would put a substantial portion of the gin footprint within the area stripped in September 2014. This work, which revealed structural remains of the Mooney School, turned up no evidence of structural remains for the cotton gin. Although the actual ditch line lacks the sharp angle change shown on Moscow's map, measuring 45 feet north of the area where its arc to the northwest begins puts the southwest corner of the cotton gin outside and slightly east of the stripped area.

The September 2014 investigation exposed approximately 100 feet of the filled ditch line. The line continues to the east for an unknown distance, beyond the boundary of the investigation. At the west end of the exposed ditch line, it intersects with the Mooney School remains near the southwest corner of the area of 2014 backhoe stripping. The excavation crew spotted no sign of an undisturbed continuation of the trench within the school footprint, although some remnant of it may remain beneath the jumble of burned rubble across this area. Projecting its route to the northwest suggests remnants of the line may be present beyond the school footprint on the next lot to the north.

The top exposure and partial excavation of the filled ditch feature revealed some sharp differences in depth between the eastern and western halves of the approximate 100 foot long segment exposed in September of 2014. Also, near the midpoint the exposure, the visibility of the portion of the trench coming in from the east tails off, becoming diffuse and harder to define. As shown in Figure 18, TRC excavated three trenches across the ditch feature, one at this midpoint area, and the other two within the eastern and western segments of the line. The test trench near the middle of the ditch feature exposure, Test Unit (TU) 1, showed the ditch here to have been about 4.6 feet (1.4 meters) wide with its base at most 8 inches (20 cm) below its top exposure level and becoming shallower and shallower to the west (Figure 19). TU 2, in the western half of the exposed segment of the ditch line, shows the width of the feature to be about 10.5 feet (3.2 m) here with the depth of fill about 10.4 inches (26 cm) (Figure 20). The eastern test trench (TU 3) revealed the ditch here to be about 9.8 feet (3 m) wide, with the depth of fill up to 27.6 inches (70 cm) (Figure 21). Discussion of how this ditch feature may have fit in to the overall structure of the Federal defenses is presented in a later section of this report.

Contemporary sources mention that individual Federal army units created the fortifications along their assigned position on the defensive line. The apparent shift in the

specific dimensions and depths of the ditch occurring near the midpoint of its 2014 exposure may define a boundary for construction of different segments of the line. As such this may represent the boundary between the different Federal units assigned to this stretch of the fortifications. The Moscow Carter map shows that this area was also the general location of an artillery battery just east of the cotton gin, and the change in the structure of the ditch here may also mark some difference in the details of the fortification in front of the battery location. The differences in the depths of the ditch seen in its eastern and western segments may be due to how those assigned to digging the fortifications in these two stretches chose to, or were directed to, define the details of the fortifications. The narrowing of the trench and its much shallower depth near the midpoint suggests there was a lack of coordination in how to merge the work from one army unit to the next on that busy afternoon before the start of the Confederate assault.

The stratigraphy (soil layering) of the ditch fill provides some insight into the abandonment of the fortifications and restoration of the farm landscape around the cotton gin after the battle. Excavation of the trench across the east end of the ditch exposure (TU 3) showed the feature to have been at least 27.6 inches (70 cm) deep here.

Figure 19 shows the stratigraphic profile of one wall of TU 3. Excavators found a scatter of artifacts on the floor of the ditch at its midpoint, including a corroded bulls-eye canteen, a broken ceramic plate, and a fragment of thin corroded iron sheeting, apparently a cartridge box (Figure 20). These three relatively large artifacts may represent the eastern edge of a more extensive scatter of post-battle debris dumped into the ditch prior to its refilling.

The scatter of large artifacts is within the complex layer of fill within the lower part of the ditch, labeled Zone II on Figure 19. This layer consists of jumbled soils of various colors and textures, interspersed with “lamella” or thin layers of whitish fine silty soil. These thin layers are wash deposits, silt that has settled out from multiple minor flooding or ponding events while the ditch was only partially filled. The soils of Zone II are relatively loose, in sharp contrast to the very compact clay subsoil forming the base of the ditch. Excavation of Zone II produced a light scatter of military artifacts, including ammunition, a sling hook, a leather strap fastener, and non-military items such as a bone and a porcelain button. None of the recovered artifacts are readily datable to post-war decades. Zone II is 15 inches (38 cm) thick at the center of the ditch. The layer thins out as it follows the sloping sides of the ditch up toward the top edge of the feature. The top surface of Zone II forms a shallow U shape, with its center deeper than its outer edges. Zone II is capped by another layer of fill, Zone I, consisting of a patchy mix of silty brown loam and more compact silty brown clay. Zone I produced no military artifacts but it did have a light scatter of small bits of coal.

Zone II, the deeper ditch fill, likely represents the initial filling of the ditch and general cleanup operations following the Battle of Franklin. The main element of this task would have been to start refilling the ditch with the soil that had been thrown up to form the earthen parapet that served as the main element of the Federal fortifications. The mix of

soils and flooding or ponding wash layers in Zone II suggests this was done haphazardly and incompletely over many weeks or months. Zone I, the relatively clean (except for coal bits) loam and clay, was likely added well after this initial filling, probably in a final effort to level the ground over the ditch. The filled ditch feature became definable at about 15 inches (38 cm) beneath the current ground surface. The material between the current ground surface and the definable top surface of the ditch feature is a cap of mixed clay and topsoil. This surface layer was created by natural and cultural processes associated with the farming activity, school construction and operation, and residential and commercial use of the property over the last 150 years. This very active use of the land would have destroyed the upper walls and original top edges of the ditch feature, but left its deeper and perhaps most interesting elements intact.

The two other test trenches excavated across the filled ditch feature had much less complex fill stratigraphy. TU 1, cutting across the central portion of the exposed segment of the feature, had two distinct fill layers thinner but similar to Zones I and II in TU 3 (Figure 21). There is no evidence in TU 1 of the thin wash layers seen in TU 3. TU 2, placed across the western segment of the ditch feature, also had two distinct fill layers, with its lower soil zone consisting almost exclusively of the whitish silty wash deposits (Figure 22). The presence of this wash deposit suggests this relatively shallow segment of the ditch line was left open with no effort to fill it for some time after the battle.

The three test trenches excavated across the filled ditch feature provide only limited evidence on the construction details and intended function in the Federal fortification line. A later section of this report provides analysis and initial interpretation in this regard, largely based on comparisons with the similar ditch feature found and excavated in 2009 off of Strahl Street on the west side of Columbia Pike.



Figure 15. Defensive ditch feature, outlined by blue flags, looking east-southeast. Near excavators are working on TU 3.

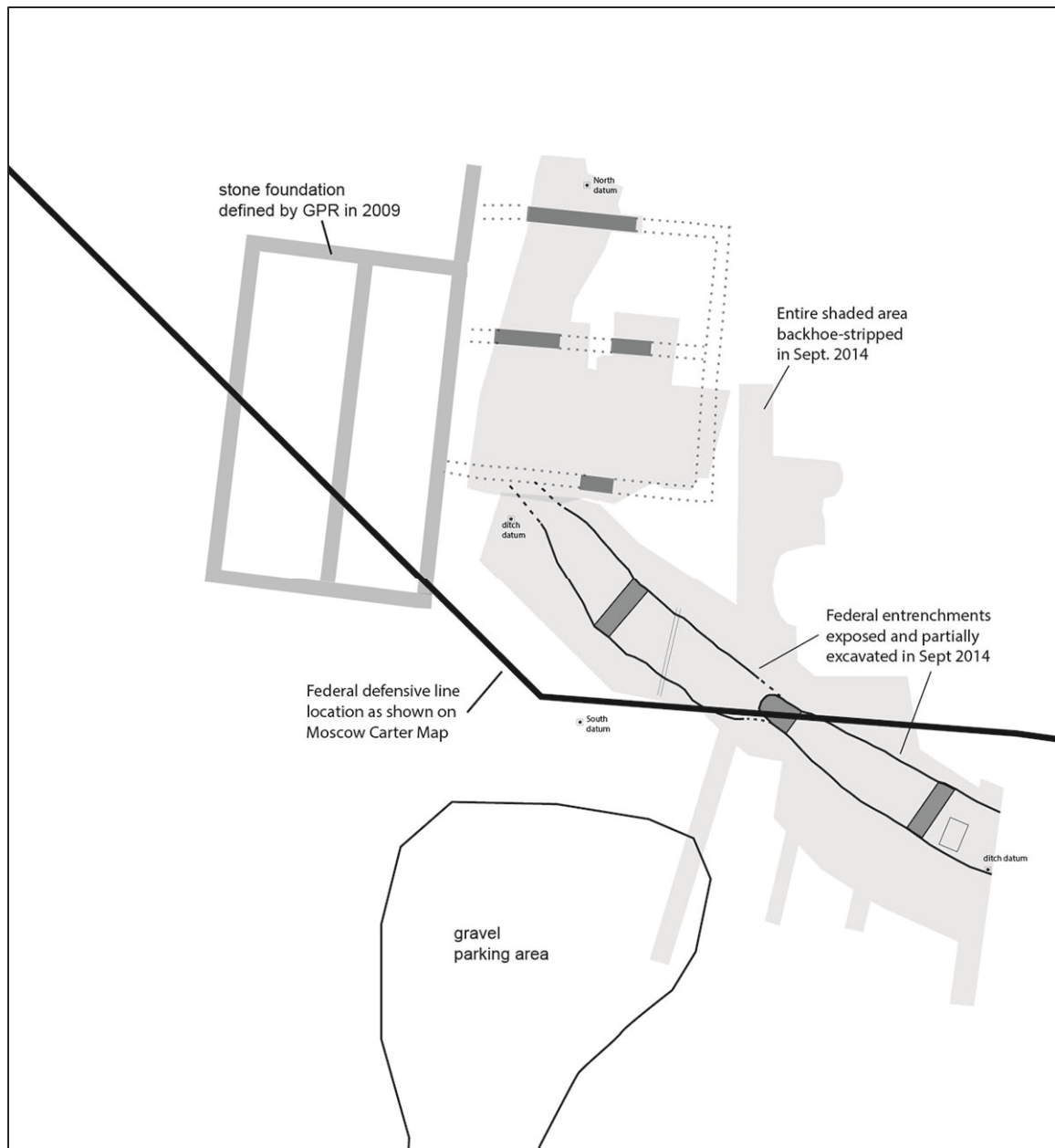


Figure 16. Overlay of Moscow Carter map version of defensive line location on actual location of ditch feature found in September 2014.

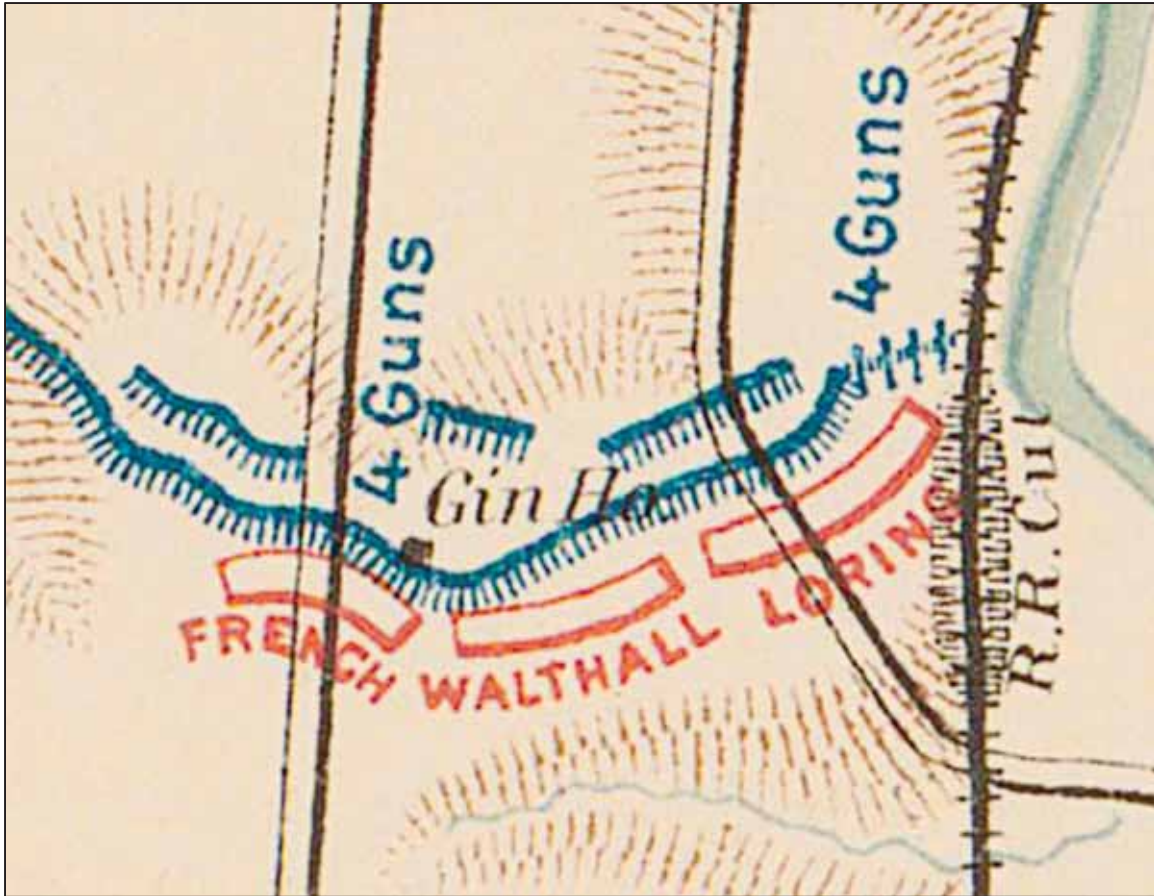


Figure 17. Detail from Foster's map of the Franklin battlefield, showing undulating rather than sharply angled lines near the cotton gin.

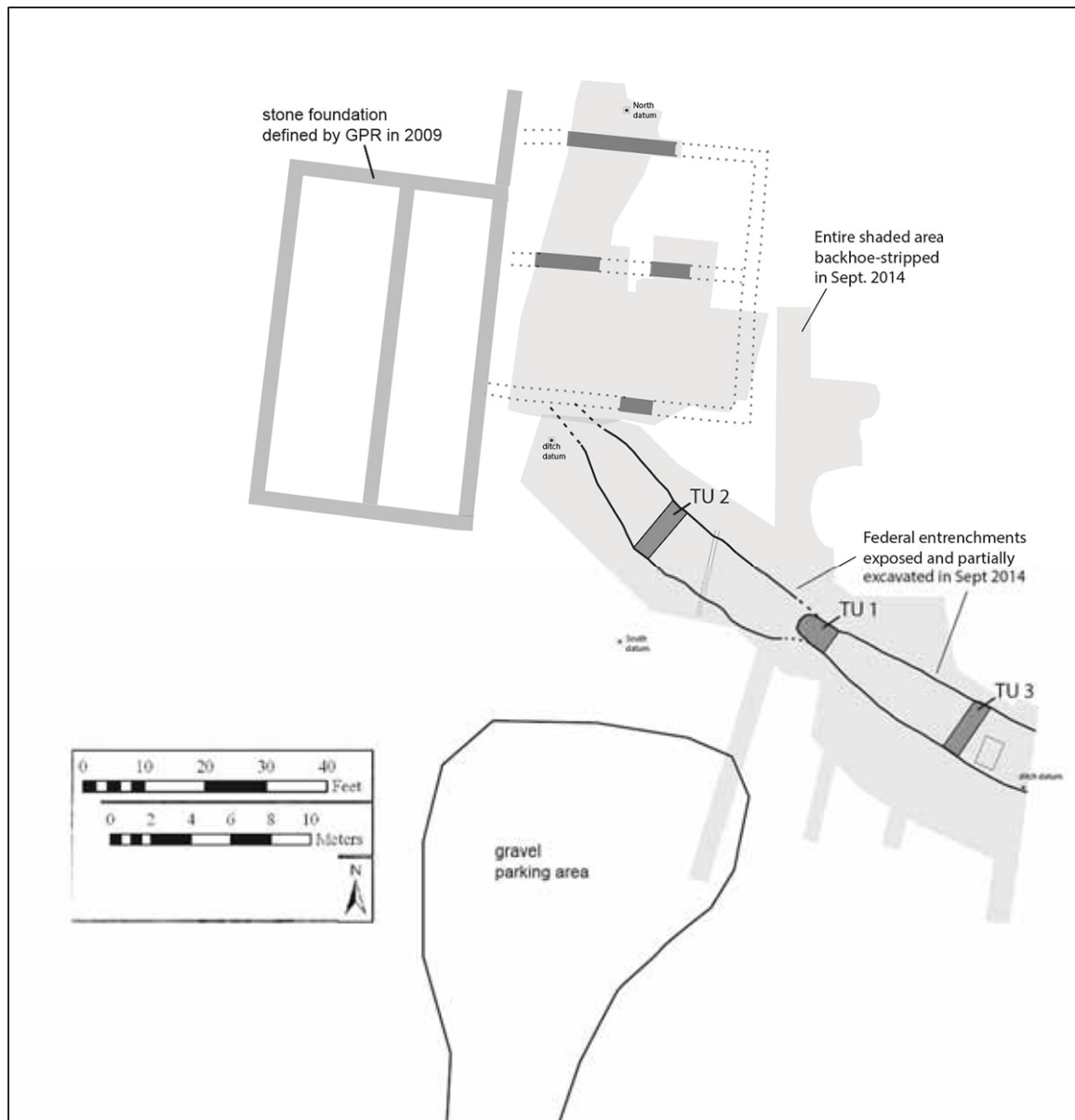


Figure 18. Plan of ditch feature showing relation to school remains and location of TUs 1, 2, and 3.

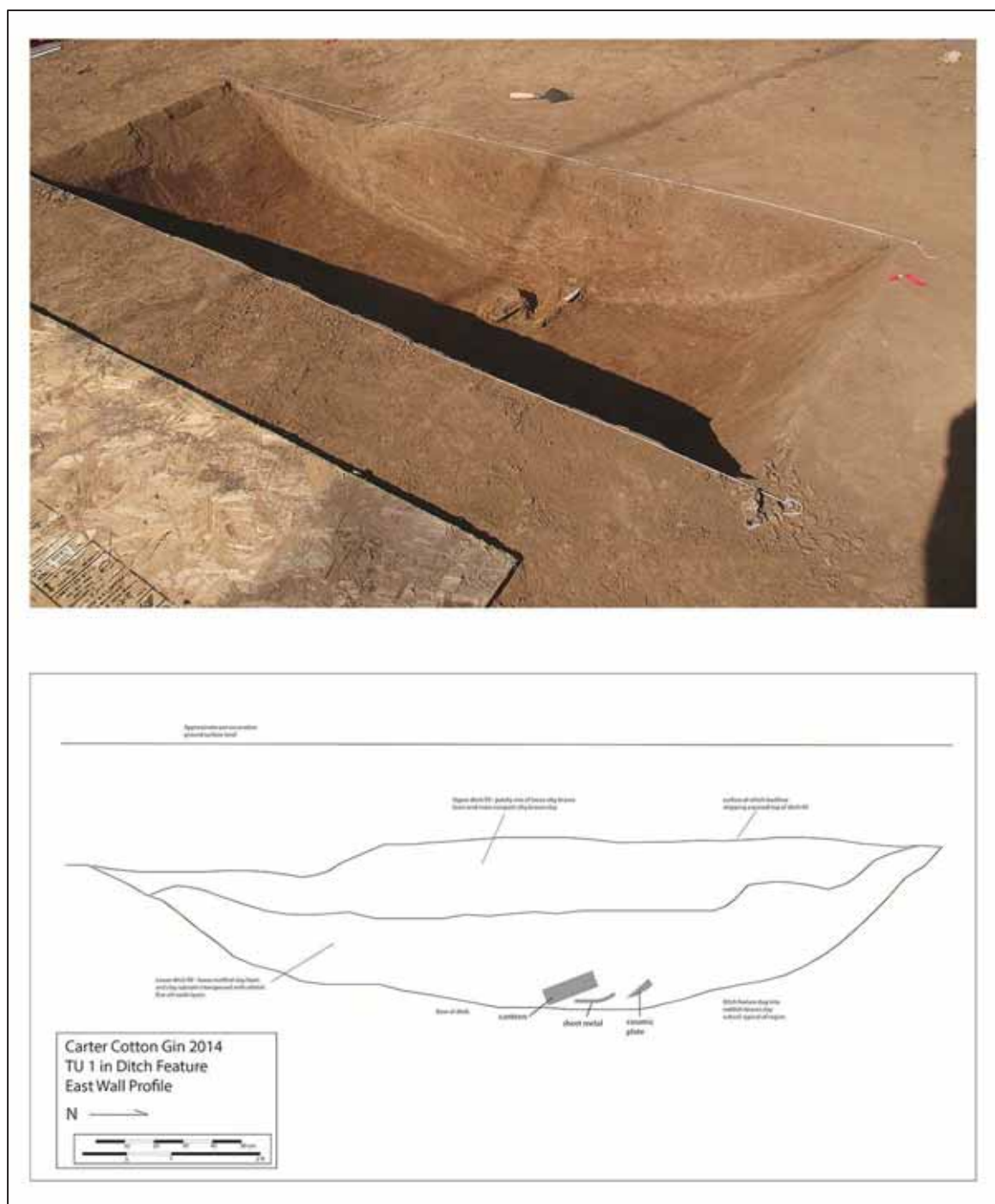


Figure 19. TU 3, west profile drawing and photo.



Figure 20. Artifact scatter in base of TU 3 along its west profile.

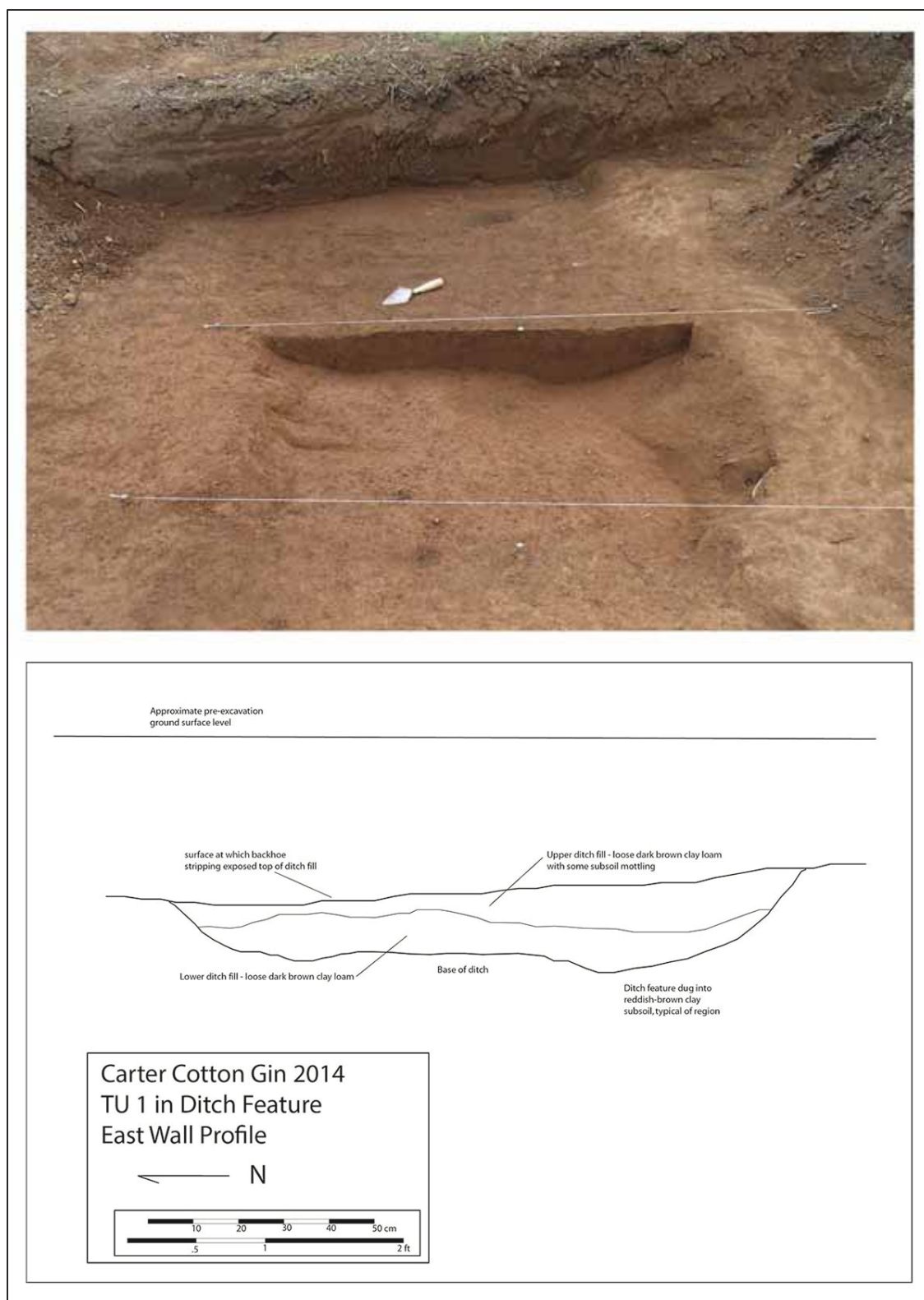


Figure 21. TU 1, west profile drawing and photo.

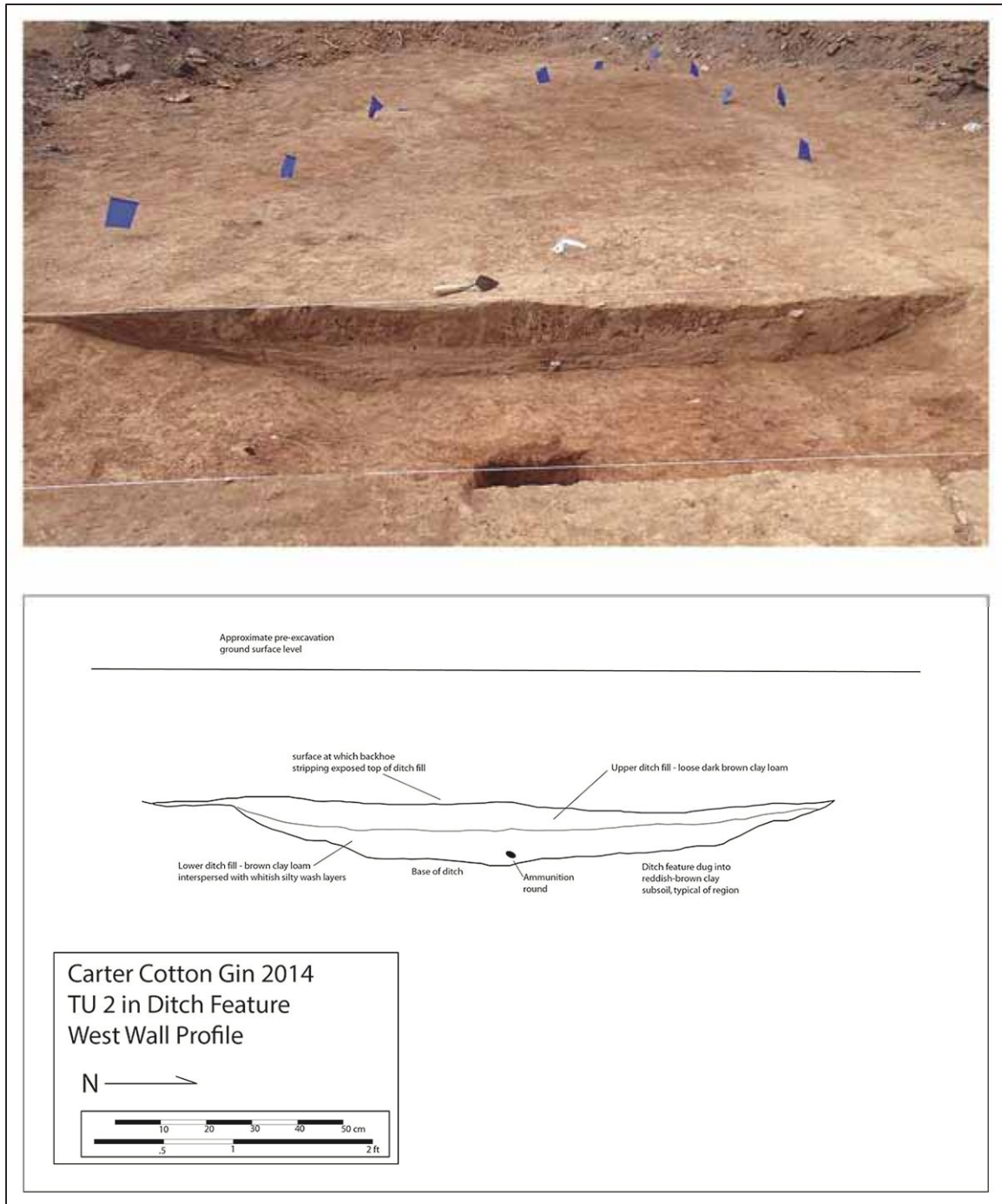


Figure 22. TU 2, west profile drawing and photo.

Artifacts from the 2014 Cotton Gin Investigation

The 2014 investigation of the cotton gin area produced a surprisingly small collection of artifacts related to the varied events that took place on the property during the 19th century. As mentioned above, the mechanical and hand excavation across the Mooney School remains uncovered no distinct artifact deposits related to its period of use beyond several iron student desk frames badly burned in the 1902 building fire. TRC did not collect these items. The backhoe stripping and by-hand “clean up” across the top of the fortification ditch feature and other areas also produced few items of note. The work did find a scatter of early to mid-20th century items, mostly broken bottles, dishes, and a few modern buttons, all likely related to the Blue House residence present here from about 1910 until its removal in 2014. A total of five artifacts likely related to military activity were found and collected during the trenching and hand work which exposed the remaining top surface of the defensive ditch feature. This collection includes two rounds of ammunition, both deformed from firing and impact, a percussion cap, a possible musket sling hook, and an iron buckle for a narrow strap. The surprisingly light scatter of military material found here likely reflects the intensive collecting of battle relics that probably started soon after the fighting ended and continued until recent years.

The hand excavation of three trenches across the ditch feature during the 2014 investigation also produced only a limited number of artifacts. Table 1 lists out items recovered from both the work to expose the top of the ditch and the excavation of the three trenches across it. Table 2 focuses exclusively on the ammunition recovered from these areas. Figures 23-26 provide photos of selected artifacts recovered during the investigation.

Although the presence of military items here was expected given the battle action that took place in this area, the low quantity of artifacts is somewhat puzzling given the ferocity of the fighting known to have taken place near the cotton gin. The small number and narrow range of non-military items recovered from the ditch feature fill and on its floor is also of note. This category includes two buttons, a fragment of glass, two pieces of ceramic dishes, and a fragment of a table knife. Further discussion and interpretation of the artifacts is presented below, in the section comparing the cotton gin area results with the results of the 2009 archaeological investigation of another segment of defensive line on the west side of Columbia Pike.

Also worth highlighting is the cluster of larger artifacts found along the west edge of TU 3 near the east end of the ditch exposure (Figure 20). The three items recovered, a poorly preserved bulls eye canteen, a corroded metal cartridge box insert, and a rim fragment from a molded white refined earthenware dinner plate, were jumbled together at the center of the floor of the ditch. This could be the edge of an extensive dump of post-battle debris continuing to the west on the ditch floor, tossed into this relatively deep section of the defensive ditch prior to its backfilling.

The work also recovered a few prehistoric artifacts, limited to small chert flakes from stone tool manufacturing and an unidentifiable fragment of a stone tool, classifiable only as a biface. None of this material is identifiable as to cultural affiliation or time period. Given Tennessee's rich prehistoric legacy, it is not surprising to find such material in this setting. The limited quantity and range of material recovered suggests that this specific area was not intensively used or occupied by Native Americans.

Table 1. Artifacts from 2014 Cotton Gin Investigation.

Provenience	Description	Count
Ditch General Surface Collection	Unidentified Ammo Round, Fired	1
	Hook, Brass (Possibly for Musket Sling?)	1
	Buckle, Small, Iron	1
	Percussion Cap, Whole	1
	Tertiary Flake	1
	Minie, 3 Ring, .58 cal	1
	Minie, 3 Ring, .58 cal	1
	Percussion caps	3
Ditch TU 1	Enfield .58 cal	1
	Unidentified Ammo Round, Fired	1
Ditch TU 1 W. Extension	Minie, Williams Cleaner, .58 cal	1
	Table knife, shank	1
	Percussion caps, whole and frags	4
	Minie, 3 Ring, .58 cal	1
	Enfield .58 cal	1
Ditch TU 2	Minie, Williams Cleaner, .58 cal	3
	Tompson for .70 cal gun barrel	1
	Percussion caps, whole	4
	Percussion caps, fragments	4
	Clear flat glass fragment	1
	Minie, 3 Ring, .58 cal	1
	Musket Ball, .45 cal	1
TOTAL		119

Provenience	Description	Count
Ditch TU 3	Minie, Williams Cleaner, .58 cal	1
	3 Ring .58 Cal., Dropped	4
	William's Cleaner w/ Base .58 Cal., Type II, Droj	1
	Enfield .58 Cal., Dropped	1
	Enfield .58 Cal., Fired,	1
	Enfield .58 Cal., Fired,	1
	3 Ring .58 Cal., Fired,	1
	Musketball .65 in. Fired,	2
	Buck Shot .30, Fired,	3
	Percussion Caps (1 Whole, 1 Fragment)	2
	Tertiary Flake prehistoric	2
	Flake Fragments prehistoric	2
	Biface Fragment prehistoric	1
	Fire Cracked Rock prehistoric	1
	Flat Glass, Clear frag	1
	White Refined Earthenware, body frag	1
	Grommet w/ Canvas	1
	Musket Sling Hook	1
	Leather Strap Fastener	1
	Button, Porcelain, 4 hole	1
	Button, Bone, Fragments	3
	Boothel Plate	1
	Buckles, Small	2
	Cut Nail, Whole	1
	Cut Nail, Fragments	3
	Bone, Fragments (One with cut marks.)	2
	Cartridge Box/Tin (Fragments)	41
	Canteen (Fragmented)	1
	Canteen Strap Lugs	2
TOTAL		119

Table 2. Ammunition recovered from 2014 Cotton Gin Investigation

Provenience	Ammunition Type	Fired	Dropped	Total
Ditch General Surface Collection	Unidentified	1		1
Ditch Backhoe Trench 1	Minie, 3 Ring, .58 cal	1		1
Ditch TU 1	Minie, 3 Ring, .58 cal		1	1
	Enfield .58 cal		1	1
	Unidentified	1		1
Ditch TU 1 W. Extension	Minie, Williams Cleaner, .58 cal		1	1
	Minie, 3 Ring, .58 cal		1	1
	Enfield .58 cal		1	1
Ditch TU 2	Minie, Williams Cleaner, .58 cal		3	3
	Minie, 3 Ring, .58 cal		1	1
	Musket Ball, .45 cal		1	1
Ditch TU 3	Minie, Williams Cleaner, .58 cal		1	1
	Minie, 3 Ring, .58 cal	1	4	5
	Enfield .58 cal	2	1	3
	Musket Ball, .45 cal	2		2
	Buckshot, .30 cal	3		3
TOTALS		11	16	27



Figure 23. Examples of fired and impacted ammunition rounds recovered during the investigation.



Figure 24. Range of ammunition types recovered during the excavation.



Figure 25. Tampion (plug for end of gun barrel) recovered from TU 2.



Figure 26. Examples of equipment and clothing artifacts recovered from TU 3.

IV. INTERPRETATIONS AND RECOMMENDATIONS

Cotton Gin

The 2014 search for subsurface remains of the cotton gin was unsuccessful. Going in to the project, TRC expected that some remnant of its corner pillars would be found, and that the base stone or stones for the nearby cotton press would be found as well. TRC focused the search for the features on an area defined by the locational information gleaned from the Moscow Carter map. Backhoe stripping across this area turned up extensive remains associated with the late 19th century Mooney School, but no traces of the gin came to light here.

It may be the school construction completely obliterated any remains of the gin and press. Although TRC did not completely clear off the the school remains, we are confident that the work did expose enough ground between its extant stone foundation lines to have revealed any remaining traces of earlier stone structural remains. A fuller excavation across the area, geared toward documenting and removing all traces of the school, might reveal subtler traces of buildings and activities associated with the cotton processing that went on here.

Alternatively, the Moscow Carter map may not provide accurate information on the location of the cotton gin. The map was published decades after the Battle of Franklin and was likely based on memory rather than physical traces of the features it shows. There may also be inaccuracies in how TRC aligned and referenced it to features on the current landscape, which may have thrown off projections in the search for the cotton gin. The newly discovered Federal fortification ditch feature on the cotton gin lot has a slightly different location and directional orientation from what is shown on the Moscow Carter map. Projecting the cotton gin location from the actual fortification line suggests its remains are further north and east than expected, outside the area investigated in 2014.

Federal Fortification Lines

The ditch feature with associated military artifacts discovered during the 2014 investigation is clearly a remnant of the Federal fortification lines known to have been in the area of the cotton gin. What is not clear at this time is what role the feature played in the overall structure of the defenses. Based on comparisons to the 2009 excavation findings along a similar segment of ditch feature near the Carter House, the segment studied in 2014 may have been the ditch on the southern, exterior side of the raised earthworks or parapet element of the defensive works.

As discussed above, the feature ranges in width from about 10 feet wide along most of its exposed 100-foot length down to about 4.5 feet wide in one short area. This narrow area looks to be a discontinuity or end point between two separated stretches of the defense line. This may mark the boundary between two Federal units assigned to side-by-side stretches along the line, or may mark an alteration to the defenses linked to a Federal artillery battery known to have been near this location. The narrow area of the ditch is also notably shallow, only about 8 inches deep at most, in comparison to the 10+ inch depth of the tested ditch section to the west and the 27+ inch depth of the ditch in the section tested to the east.

The ditch feature investigated near the cotton gin location in 2014 is generally similar in width and depth to the ditch feature along the defensive line investigated in 2009 near the Carter House. There are distinct differences between the two which fuel some speculation about how these fit in to the structure of the defensive lines in each location.

The ditch feature excavated in 2009 near the Carter House showed clear evidence that it was the fighting position of Federal troops at the start of the Battle of Franklin, thus putting it on the inner, north side of the parapet or earthworks along the line here (Figures

27-29). The ditch floor had a thin compacted grayish gritty layer on its surface, likely the residue of gunpowder raining down during the firing on the advancing Confederate attackers. A total of 299 rounds of various types of ammunition were found on the floor of the ditch, representing both clusters of dropped bullets (some still in cartridge cases) and isolated examples. This makes for an average of just over 21 rounds per each of the 14 one-meter wide units excavated along the line.

In comparison, the ditch feature excavated in 2014 near the cotton gin did not show similar direct traces of battle action. There was no gritty residue layer across its base, and it lacked the heavy scatter of dropped ammunition found in the 2009 excavation. The three test trenches along its exposed extent, covering a total length of about four meters (13 feet), produced a total of 27 rounds of ammunition, for an average of about seven examples per meter (Table 2).

The section of ditch excavated in 2009 showed much less variation in depth, ranging from 8 cm (2.8 inches) to 30 cm (11.8 inches) at different points along the investigated stretch, versus the much wider variation in depths seen in the cotton gin area ditch. The 2009 ditch had a generally shallow U shaped profile with a relatively wide flat floor. In some areas there appears to have been a narrow step or ledge intentionally created along the southern edge of its floor. No such distinct step was seen within the short segments of the ditch feature investigated in 2014.

As mentioned above, one explanation for the distinct differences seen between the 2009 ditch feature and the 2014 ditch feature is that the former was on the inside of the parapet line, on the side manned by Federal troops, and the latter was on the outside of the parapet. All accounts of the battle point to the fighting around the cotton gin as being just as intense as that near the Carter House, and the array and number of artifacts (ammunition, dropped cartridge boxes, etc.) left behind would be expected to be about the same between the two areas. It also is unlikely that there would have been any kind of post-battle cleanup of the ditch near the cotton gin prior to it being filled.

The two separate segments of Federal defensive lines discovered and investigated in 2009 and 2014 appear to represent two distinct styles of fortifications. The example near the cotton gin appears to be the classic and more formal style, with the ditch on the exterior of the raised earthwork or parapet (Figure 30). The ditch served both as a source of dirt for the parapet and as another obstacle to attackers trying to overrun the line. This style offered more protection to those manning the line, but also in its fully realized form took more time and labor to complete. The example excavated near the Carter House in 2009 may represent a second and more expedient style of fortification, with a “firing trench” on the interior of the line adjacent to the parapet (Figure 31). One important source on military fortifications dating to the Civil War period, Henry L. Scott’s *Military Dictionary*, makes clear that the latter is a less effective defensive work but notes “a trench and breastwork then will be generally used when the time is limited, and when cover and not the creation of an obstacle is the principal object of the work” (Scott 1861:284). This is an apt description of the situation for Federal troops in trying to create

the fortification line in the hours leading up to the start of the Battle of Franklin. A recent study of the tactics of Civil War field fortifications concluded that the parapet and firing trench style became the norm in the latter stages of the war, replacing the exterior ditch style (Chuber 1996:39).

Scott's discussion of fortification line designs suggests the option of having a ditch on both sides of a parapet in limited special circumstances, such as building defenses in marshy ground and using dirt from the outer ditch to buttress an existing masonry wall. The 2009 archaeological work included an intensive search for remains of both the parapet and a second ditch line to the south, toward the direction of the attack. No trace of either feature was present. We concluded that no exterior ditch was ever present here, and that any remains of the parapet here would have been obliterated in the course of the next century and a half of surface disturbances. The same likely goes for remains of the parapet along the line near the cotton gin, but TRC carried out no concerted search to search for it or a second ditch line here during the 2014 investigation. We recommend such a search should be carried out in the next phase of investigations at the site.

The fact that there appears to have been different styles of fortifications along the Federal defensive lines is not a surprise. The two studied segments are hundreds of feet apart, on opposite sides of Columbia Pike, and under the general command of two different Federal officers. The fortifications were created by the units assigned to the specific segments of the line, and given the circumstances of the day there was likely little coordination or careful planning in constructing the different segments.



Figure 27. In-progress excavation in 2009 of the defensive ditch feature near the Carter House. View looking west-northwest.

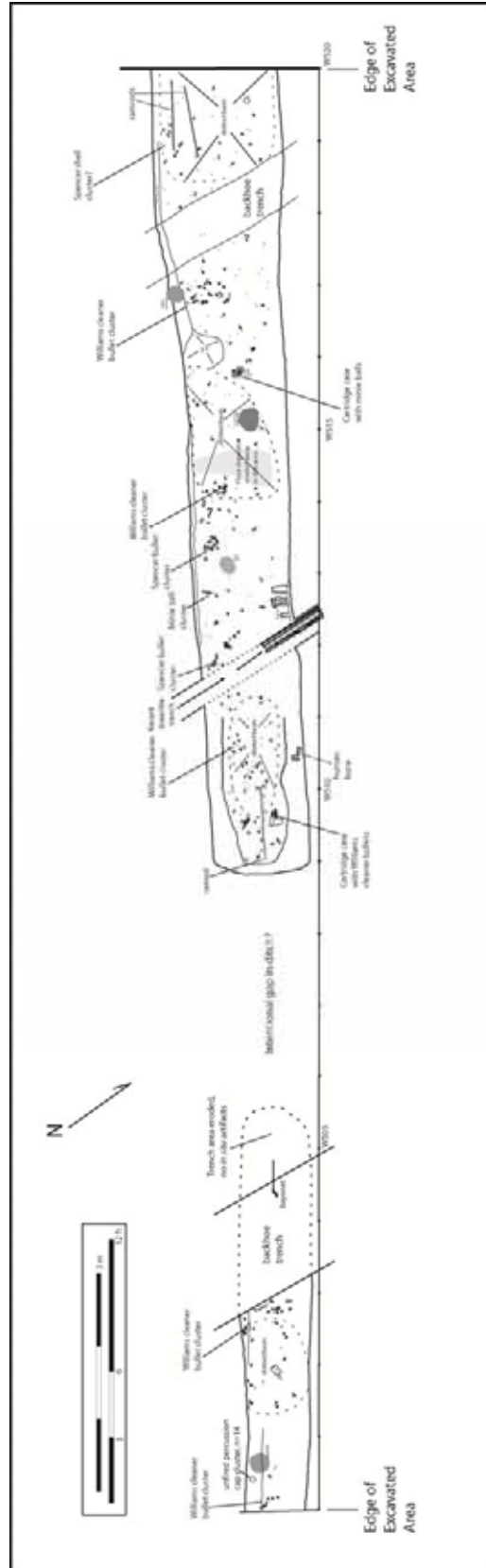


Figure 28. Plan view of ditch feature excavated in 2009 near the Carter House.



Figure 29. View of segment of ditch excavated in 2009 near the Carter House showing scatter of ammunition rounds across the floor of the feature.

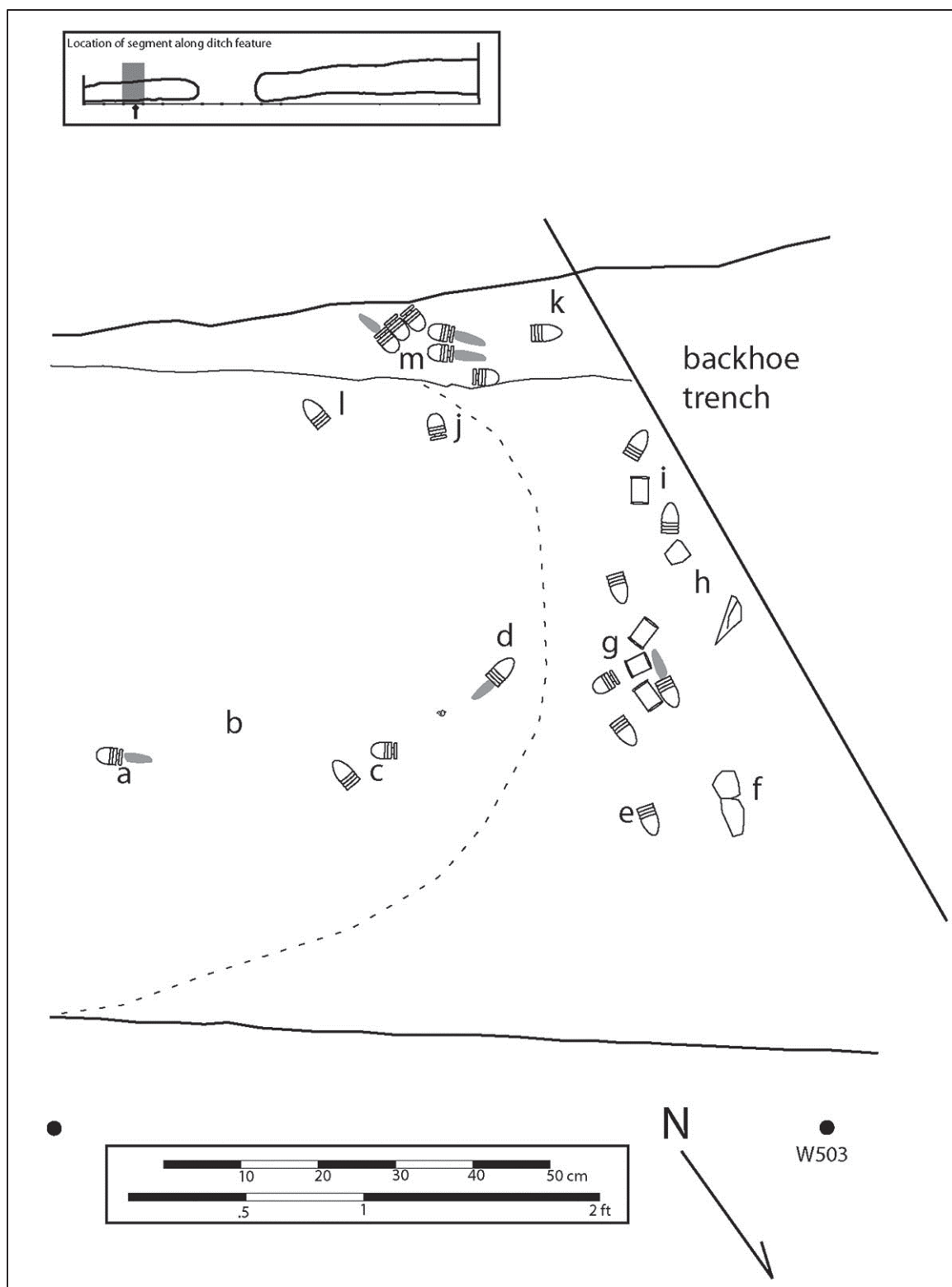


Figure 30. Plan view of one of 1x1 m excavation units across 2009 ditch feature near the Carter House.

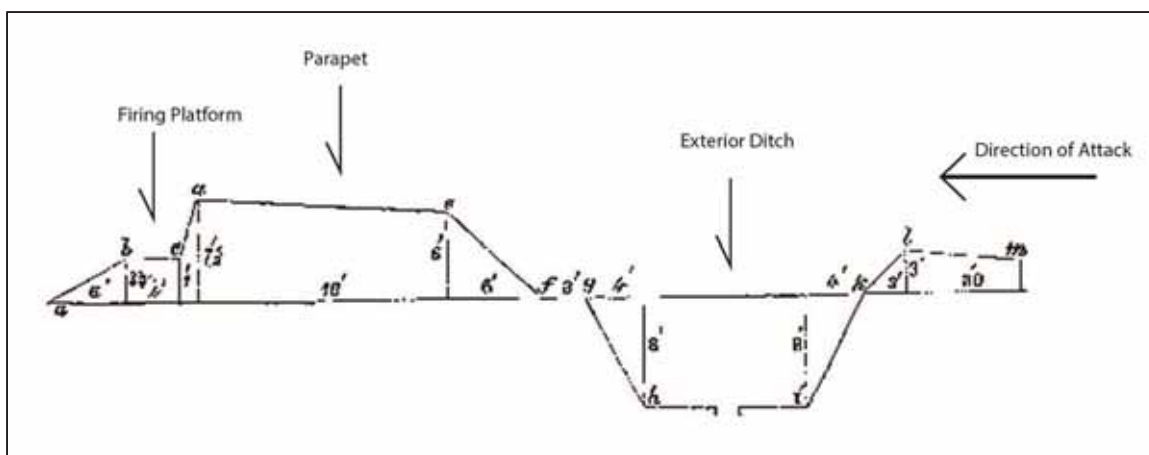


Figure 31. Schematic drawing of defensive works with ditch exterior to parapet, from Scott 1861:284 with annotations.

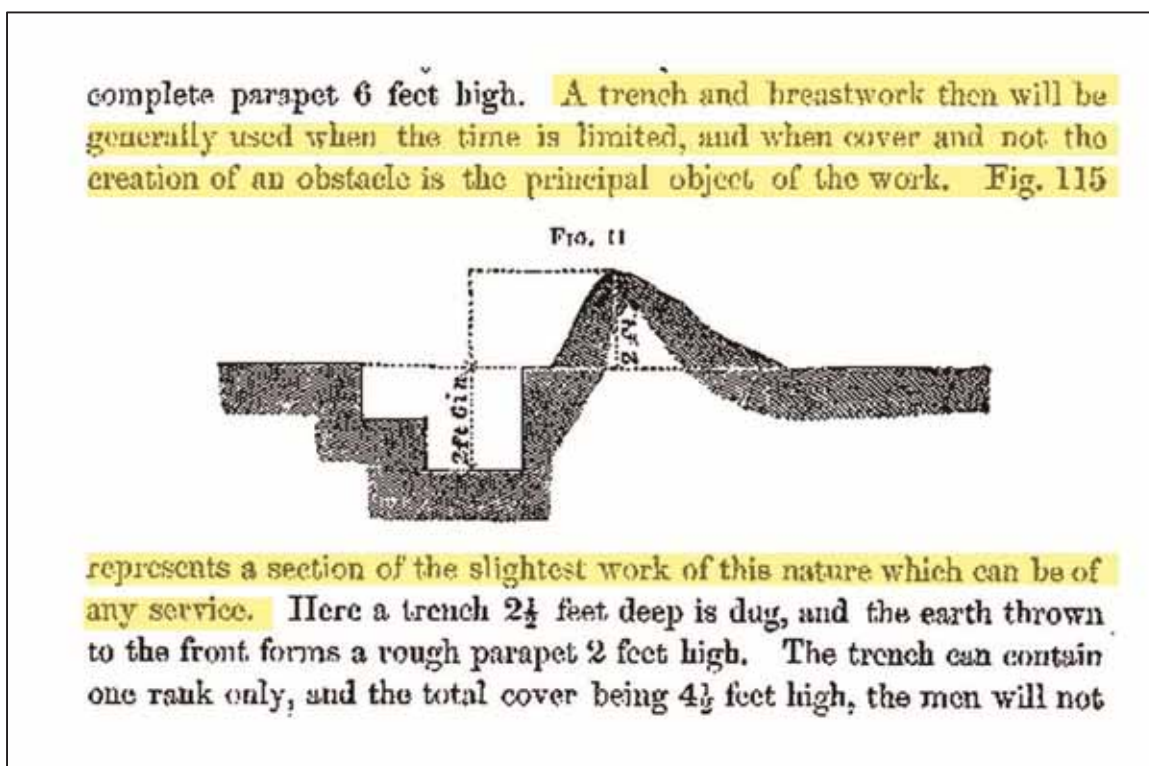


Figure 32. Drawing and descriptive text of defensive works with firing trench interior to parapet, from Scott 1861:286 with added highlighting.

Recommendations for Further Work

TRC recommends the following actions for the next phase of archaeological investigation near the Carter Hill cotton gin location,

- 1) Carry out mechanical stripping to the east of the school area, in a final search for cotton gin remnants;
- 2) Additional stripping along the north side of the ditch feature, in a search for signs of a parapet, an interior firing trench; and any other defensive features;
- 4) Additional hand excavation within the ditch feature to further explore its structure and further investigate the possible post-battle debris dump found in 2014 at the east end of the exposed segment;
- 3) Mechanical stripping to the northwest of the school remains, to search for additional remnants of the defensive lines.

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TRC appreciates our continued partnership with Franklin's Charge, the Battle of Franklin Trust, and other similarly active and effective historic preservation groups in Williamson County.

At TRC, Larry McKee served as Principal Investigator in direct charge of the project field work and analysis. Field technicians Brandy Dacus Hale, Matt Spice, and Nathan Allison worked with McKee in the field, with Mr. Spice providing his talents in backhoe operations. Ms. Hale and Mr. Allison carried out the artifact processing and cataloging following completion of the field work. Amanda Garvin, the TRC Nashville Lab

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REFERENCES CITED

Cox, Jacob D.

1897 The Battle of Franklin, Tennessee. Charles Scribner's Sons (1983 reprint by Monrningside House, Inc., Dayton, Ohio).

Jacobson, Eric A. and Richard A. Rupp

2007 *For Cause & For Country: A Study of the Affair at Spring Hill and the Battle of Franklin*. Franklin, Tennessee: O'More Publishing.

2011 *Baptism of Fire: The 44th Missouri, 175th Ohio, and 183rd Ohio at the Battle of Franklin*. Franklin, Tennessee: O'More Publishing.

McKee, Larry

2010 *Archaeological Investigations in 2009 near the Carter House: The Cotton Gin Area And Civil War Fortifications, Franklin, Tennessee*. Submitted by TRC Environmental Corporation, Nashville, Tennessee to Franklin's Charge, Franklin, Tennessee.

Ridley, Bromfield L

1906 *Battles and Sketches of the Army of Tennessee*. Missouri Printing and Publishing, Mexico, Missouri.

Scott, Henry Lee

1861 [2012] *Military Dictionary: Comprising Technical Definitions; Information on Raising and Keeping Troops; Actual Service, Including Makeshifts and Improved Materiel; and Law, Government, Regulation, and Administration Relating to Land Forces*. New York: D. Van Nostrand.

Smith, Samuel D. and Benjamin C. Nance

2010 *Archaeological Investigations at the Carter House State Historic Site, Franklin, Tennessee*. Tennessee Department of Environment and Conservation Report of Investigations No. 14. Nashville, Tennessee.

Sword, Wiley

1992 *Embrace an Angry Wind: The Confederacy's Last Hurrah: Spring Hill, Franklin, and Nashville*. Harper Collins Publishers, New York.

