PHASE I ARCHAEOLOGICAL SURVEY
NO. 145 NEW KARNER ROAD

Town of Guilderland, Albany County, New York

Prepared for:

Pine Bush Senior Living, LLC
823 West Park Avenue, #256
Ocean, New Jersey 07712

Prepared by:

Louis Berger

Louis Berger
20 Corporate Woods Blvd.
Albany, New York 12211

January 21, 2015

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Management Summary

Involved State and Federal Agencies	New York State Office of Parks, Recreation and Historic Preservation
Phase of Survey	Phase I Archaeological Survey
Location Information	
Town	Guilderland
County	Albany
Survey Area	The area of potential effect (APE) consists of a roughly triangular property measuring about 4.86 hectares (12 acres) fronting New Karner Road in Guilderland, Albany County, New York.
USGS 7.5-Minute Quadrangle Map	*Albany, NY*, 7.5-Minute Series Topographic Quadrangle, 2014
Archaeological Survey Overview	
Methods Used	Background research Surface reconnaissance Excavation of 129 shovel tests
Artifacts Recovered/ Features Identified	Four isolated historical artifacts/no features identified
Results of Archaeological Survey	
No./Name(s) of Prehistoric Sites Identified	None
No./Name(s) of Historic Sites Identified	None
Recommendations	No additional work is recommended
Report Author	Rebecca Brodeur
Date of Report	January 21, 2015

Abstract

The Louis Berger Group, Inc. (Louis Berger), Albany, New York, completed a Phase I archaeological survey of the proposed development of 145 New Karner Road in the Town of Guilderland, Albany County, New York, on behalf of Pine Bush Senior Living, LLC. The project involves the development of a new assisted and independent living community. Plans call for the construction of six new buildings, parking, access roads, an infiltration basin, and subsurface utility lines on the west side of New Karner Road, north of U.S. Route 20. The project parcel totals 20.2 hectares (50 acres), of which approximately 15 hectares (38 acres) will not be developed and will be donated to the Albany Pine Bush Preserve. The remaining 4.86-hectare (12-acre) area represents the area of potential effect (APE), or project area. The Kaikout Kill traverses the project parcel from north to south, and the associated ravine marks the western boundary of the 4.86-hectare (12-acre) APE.

The Phase IA archaeological sensitivity assessment of the APE determined that the project area was sensitive for prehistoric archaeological sites. Prehistoric archaeological sensitivity was based on the presence of previously recorded prehistoric sites within 1.6 kilometers (1 mile) of the APE, mapped soils considered suitable for the preservation of archaeological sites, areas of level topography, and proximity to a perennial watercourse (the Kaikout Kill). As a result of the sensitivity assessment, Louis Berger conducted a systematic subsurface investigation (Phase I survey) of the APE to determine if archaeological sites were present.

Subsurface testing was conducted November 3 to 7, 2014. During the investigation Louis Berger excavated 129 shovel tests. No archaeological sites were identified. Louis Berger identified several areas of surficial and subsurface disturbances in the APE. Four isolated historical artifacts were collected from the Ap-horizons of incongruent shovel tests in the APE. These artifacts appear to represent isolated field scatters and are therefore not deemed archaeological sites. It is Louis Berger's opinion that no cultural resources eligible for the National Register of Historic Places are present in the APE and that no further work is warranted.

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I. Introduction

A. Project Location

The Louis Berger Group, Inc. (Louis Berger), Albany, New York, completed a Phase I archaeological survey of the proposed development of an assisted living community located at No. 145 New Karner Road in the Town of Guilderland, Albany County, New York. The work was conducted on behalf of Pine Bush Senior Living, LLC. The project area, or area of potential effect (APE), for the proposed project consists of about 4.86 hectares (12 acres) of land located west of New Karner Road and north of U.S. Route 20 (Western Avenue) (Figures 1 and 2). The project area consists of a wooded lot bounded to the west by the Kaikout Kill ravine. The topography is generally level with discontinuous areas of surficial disturbances, which appear to be the result of earth moving for drainage swale creation.

B. Scope of Services

The Phase IA sensitivity assessment included background research, conducted to provide environmental data and a prehistoric and historical archaeological context. This context was applied to the assessment of archaeological sensitivity for the project area. Louis Berger conducted the background research for the project on October 31, 2014. The pedestrian reconnaissance was conducted on November 3, 2014, and was immediately followed by systematic subsurface testing (Phase I survey) from November 3 to 7, 2014.

For this contract the cultural resource services are being conducted in accordance with guidelines established by the New York Office of Parks, Recreation and Historic Preservation (OPRHP) and the *Cultural Resources Handbook: Guidance for Understanding and Applying the New York State Standards for Cultural Resource Investigations* published by the New York Archaeological Council (2000). Reporting conforms to all professional standards and requirements. The cultural resource specialists who performed this work meet or exceed the qualifications specified in the Secretary of the Interior's Professional Qualifications Standards (*Federal Register* 48:190:44738-44739) (United States Department of the Interior 1983) and in 36 CFR 66.3(b)(2) and 36 CFR 61.

This report contains five chapters and three appendices. Chapter I summarizes the project area location and scope of services. Chapter II summarizes the results of the background research. Chapter III describes the methods and results of the Phase IB archaeological survey. Chapter IV provides conclusions and Louis Berger's recommendations regarding the project area. Chapter V lists all sources referenced in this report. Appendices include a shovel test log, a description of the methods implemented in artifact analysis, and an inventory of the artifacts recovered during the archaeological survey.

Vice President-Cultural Resources Hope Luhman, PhD served as project manager for this study. Archaeologist Rebecca Brodeur directed the investigation as Principal Investigator with the assistance of Field Archaeologists Amanda Burt and Adam Dederick. Ms. Brodeur wrote the report with contributions from Cultural Resource Technician Emily Grace Smith. Principal Editor Anne Moiseev supervised the editing and production of the report, and Principal Draftsperson Jacqueline L. Horsford prepared the graphics.

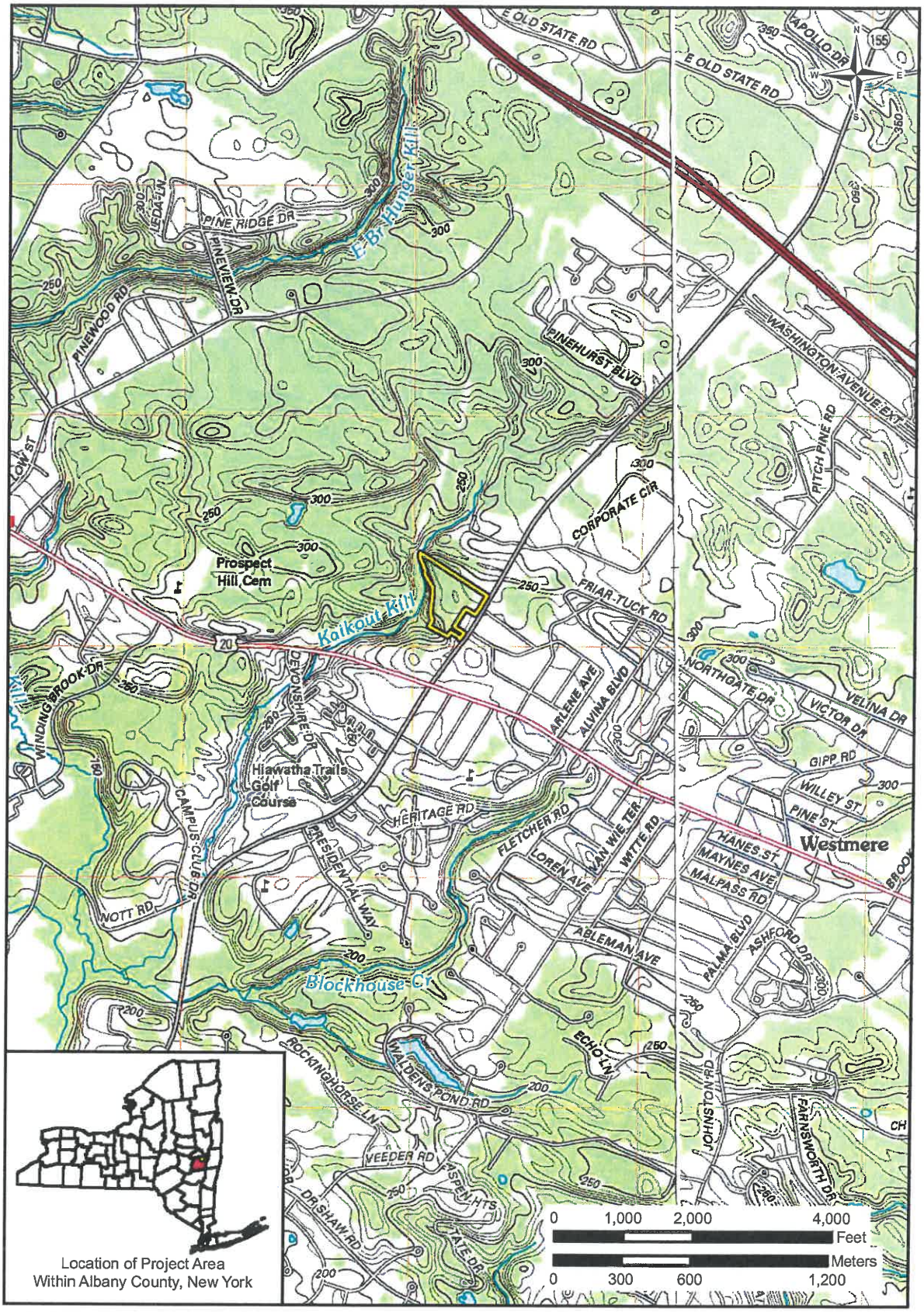

FIGURE 1: Location of Project Area (USGS Albany 2014a, Voorheesville 2014b)

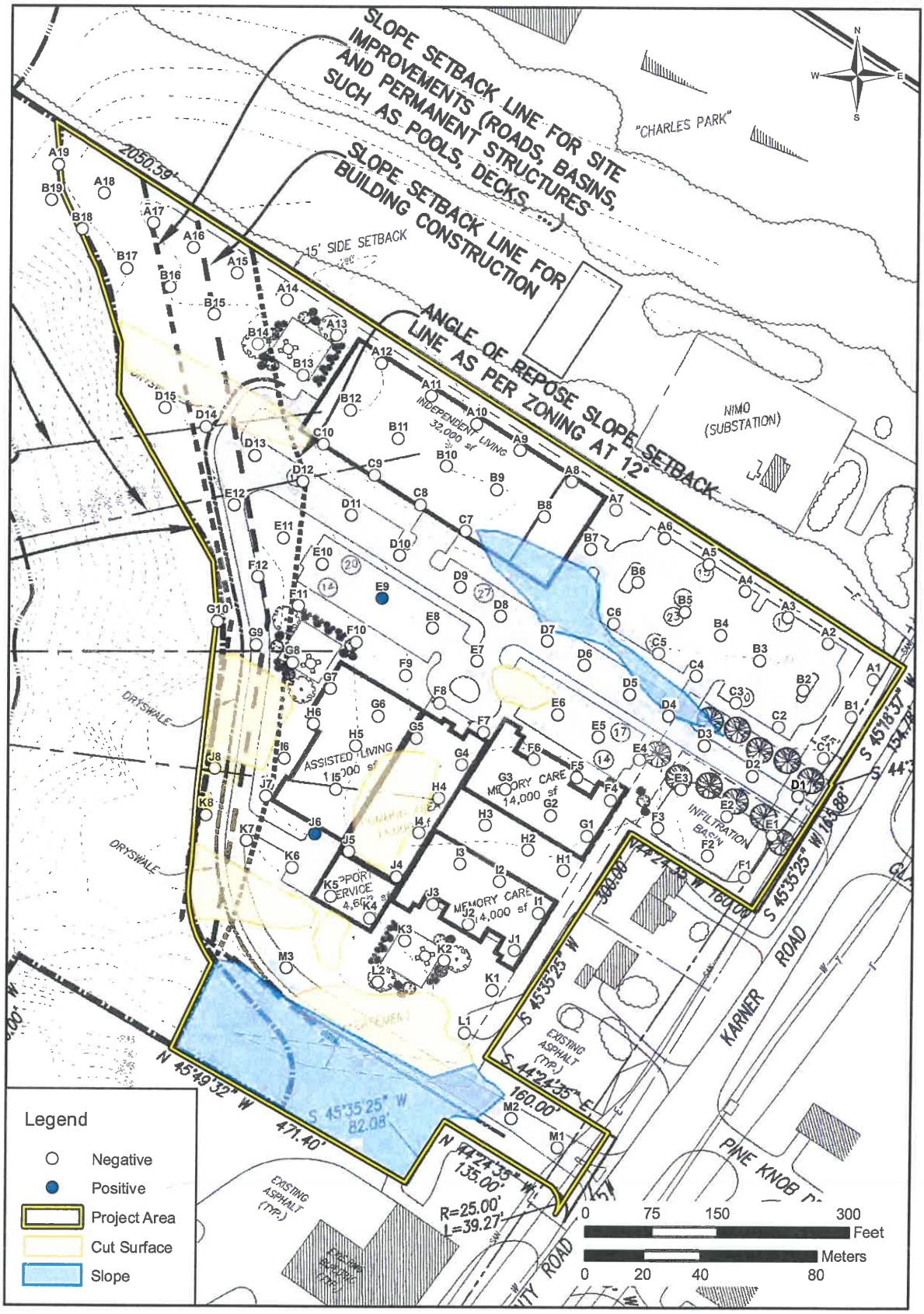

FIGURE 2: Archaeological Testing of the Project Area, or Area of Potential Effect (APE)

II. Background Research

A. Introduction

The background research conducted for the Phase I investigation of the proposed 145 New Karner Road project included general historical research, an examination of site files and reports from previously conducted cultural resource management projects at the New York Office of Parks, Recreation, and Historic Preservation (OPRHP), and a review of historical maps showing the project area.

B. Environmental Setting

The project area is located in the Hudson Valley division of the Hudson-Mohawk Lowland region of New York. The terrain in this area is relatively flat to gently rolling, with soils developed over deep glacial lacustrine deposits. The project area is the Hudson-Mohawk Lowlands region. Surficial geology for the project area is characterized as dunal, well-drained aeolian deposits (Cadwell and Dineen 1987). These dunes formed at the end of the Pleistocene, as sediments exposed by the draining of Glacial Lake Albany were blown up onto the surrounding uplands. This landscape once occupied a large region in the uplands between the Mohawk and Hudson valleys, and has been referred to as the Pine Bush or Pine Plains. This region is associated with xerophytic vegetation, notably pine, because of the excessively drained lacustrine sand and gravel deposits that overlie the former glacial lake (Cressey 1977:26, 29; Isachsen et al. 2000:171).

The Kaikout Kill ravine marks the western boundary of the APE. The Kaikout Kill is a deeply incised creek that drains into the Hudson River. Local lithic resources in the area appear to have been limited to quartzite and poor-quality cherts from gravel deposits; the closest good-quality cherts occur about 10 miles away (Curtin and Kramer 1990:6). Currently the project area is a mixed hardwood forest surrounded by a mosaic of cleared agricultural land now developed for residential or commercial/industrial use.

The project area contains four different soil types: Colonie Loamy Fine Sand, Elnora Loamy Fine Sand, Hudson Silt Loam, and Udipsamments-Urban Land (Figure 3; Table 1). The most expansive soil designations mapped in the APE are Colonie and Hudson series soils, which make up more than 75 percent of the overall APE. These soil series are very deep and are formed from glaciolacustrine, glaciofluvial, or aeolian deposits associated with the Wisconsin period (United States Department of Agriculture-Natural Resources Conservation Service [USDA-NRCS] 2014).

Elnora series soils are mapped in the northeastern corner of the APE along New Karner Road. The Elnora series is formed of aeolian soils derived of sands and very fine sands, is moderately well drained, and commonly associated with Relicts longshore bars, beach ridges, and lake plains. Colonie series soils, in the central and northwestern part of the APE, are formed on deltas, dunes, lake plains, outwash plains, and beach ridges. Hudson series soils are mapped along the slopes associated with the ravine along the western edge of the APE. These soils are formed in lacustrine clays and silts and are associated with dissected lower valley slopes, hilly moraines, and lake plains. Finally, a small portion of the APE is mapped as Udipsamments-urban land, which represents areas that have been impacted by modern development, located along the eastern edge of the APE.

FIGURE 3: Soils in Project Area (ESRI 2014, Soil Data Mart 2014)

TABLE 1

PROJECT AREA SOILS

NAME	SOIL HORIZON DEPTH cm (in)	COLOR	TEXTURE, INCLUSIONS	SLOPE PERCENT	DRAINAGE	LANDFORM
Colonie Loamy Fine Sand (CoC)	Ap 0-20(0-8) E1 20-41 (8-16) E2 41-71(16-28) E & Bt1 71-112 (28-44) E & Bt2 112-160 (44-63) C 160-203(63-80)	Dk Gr Br Yel Br Yel Br Br Br Br	Lo Fn Sa Lo Fn Sa Fn Sa Fn Sa Fn Sa Fn Sa	Rolling	Well to excessively well drained	Dunes, outwash plains, deltas, lake plains, beach ridges
Elnora Loamy Fine Sand (EnA)	Ap 0-25 (0-10) Bw1 25-53 (10-21) Bw2 53-81 (21-32) C1 81-102 (32-40) C2 102-183 (40-72)	Dk Gr Br Str Br Br Gr Br Br	Lo Fn Sa Lo Fn Sa Fn Sa Fn Sa Fn Sa	0-3	Moderately well drained	Lake plains, beach ridges, relict longshore bars,
Hudson Silt Loam (HuE)	Ap 0-13(0-5) E 13-23 (5-8) B/E 23-41 (8-16) Bt 41-71 cm (16-28) C 71-183 (28-72)	Br Br Yl Br Yl Br Gr Br	Si Lo Si Lo Si Cl Si Cl Si Cl	25-45	Moderately well drained	Dissected lower valley side slopes, hilly moraines, lake plains
Udipsamments-Urban Land (Uf)	No Information	No information	No information	No information	No information	Built or modified lands

Key: Dk, dark; Gr, gray; Br, brown; Gr, gray; Yl, yellowish; Lo, loam; Fn, fine; Si, silt; Sa, sandy; Cl, clay

C. Prehistoric Context

Archaeologists have divided the vast expanse of New York culture history into five general periods: Paleoindian (12,000 to 9500 years before present [BP]); Archaic (9500 to 3000 BP); Woodland (3000 to 500 BP); Contact (500 to 300 BP); and Historic (300 BP to present). The first three subdivisions (Paleoindian, Archaic, and Woodland) are thought to represent Native American cultural adaptation to changing climatic conditions since the arrival of humans in the New York region around 12,000 years ago—from Pleistocene (Ice Age) to Holocene or modern norms. The region's natural environment and geomorphology have greatly influenced the nature of Native American settlement, land use, and cultural development. One important factor in the interpretation of New York prehistory is the impact of glaciation on the topographic and hydrologic conditions in the area since the end of the Pleistocene.

1. Paleoindian Period (12,000 to 9500 BP)

Humans (the Paleoindians) first entered the region from the south between 12,000 and 9500 BP, following the retreat of the Wisconsin glaciers. At its maximum extent (18,000 and 16,000 BP), the Wisconsin glacier covered all of New York State and extended south into northern New Jersey and Pennsylvania. As the ice sheets receded, open spruce woodland developed in the Northeast, with pine replacing spruce as the dominant arboreal species by about 10,000 BP (Gaudreau 1988).

Few definite habitation sites from the Paleoindian period have been identified in the Northeast. It is more common to encounter isolated finds of artifacts that are diagnostic for the period. Such artifacts include Clovis-type fluted projectile points, assorted scrapers, gravers, and drills. These lithic tools are usually made from cherts that originate in eastern New York and jaspers found in Pennsylvania and New Jersey. The Paleoindian sites that have been located in New York tend to be quarry-related activity areas, small base camps, and isolated kill sites.

Paleoindian period sites in the region appear to be located in three geographic settings: (1) lowlands adjacent to water and near coniferous swamps or larger rivers; (2) upland bluffs with deciduous trees as the predominant arboreal species; and (3) ridgetops with deciduous trees as the predominant arboreal species. The basic model for Paleoindian habitation in the Northeast assumes that Paleoindians coalesced in small, highly mobile bands that traveled and hunted through large territories, focusing on post-Pleistocene megafauna. However, it is also possible that Paleoindian

populations used a relatively wide range of plant and animal resources that were encountered in more restricted territorial ranges.

2. Archaic Period (9500 to 3000 BP)

The Archaic period is characterized by climatic amelioration that eventually resulted in greater biodiversity in the resource base, and changes in technology, site size, and site location that reflect utilization of a broader spectrum of resources. Researchers usually divide the Archaic into three subperiods: Early (9500 to 7000 BP); Middle (7000 to 5500 BP); and Late (5500 to 3000 BP).

a. Early Archaic Period (9500 to 7000 BP)

The Early Archaic period was initially characterized by fluctuations in climate that eventually stabilized into a warming trend. The warmer conditions enhanced biological diversity in the plant and animal communities developing in the region. The subsistence focus of aboriginal populations shifted from a primary focus on hunting post-Pleistocene megafauna to hunting, fishing, and gathering a diverse range of animal and plant forms. Populations may have increased as a result of the greater stability of the resource base. Most of the evidence of human occupation during this period is based on isolated finds of artifacts diagnostic for the period, including bifurcate-base points, which are most often located along major drainages.

b. Middle Archaic Period (7000 to 5500 BP)

During the Middle Archaic, the climatic warming trend continued. New varieties of flora and fauna became established in the region. The subsistence and settlement pattern of the human occupants of the region continued to shift toward seasonal transhumance focused on utilization of specialized resources within limited ranges, which may have fostered a greater degree of territoriality (Dincauze and Mulholland 1977). Diagnostic artifacts included Neville and Stark projectile points. The reliance on diverse and specialized resources fostered expansion of the toolkit, which included adzes, axes, drills, mortars and pestles, netsinkers, and hammerstones.

c. Late Archaic Period (5500 to 3000 BP)

Climatic warming continued into the Late Archaic. The rich and diverse biotic resource base enabled increased habitation. Diagnostic artifacts for the subperiod include small stemmed projectile points such as Lamoka, Taconic, Squibnocket, and Brewerton.

By the Terminal Archaic (Transitional) period, people were grinding and polishing soapstone to make bowls and other cultural items. The Terminal Archaic is characterized by three cultural traditions: the Laurentian tradition (Vergennes phase and Vosberg complex); the small stemmed tradition; and the Susquehanna tradition (Snook Hill and Orient phases). Based on a reassessment of the distribution of Terminal Archaic points, Snow suggests that the Susquehanna tradition (Snook Hill, Perkiomen, and Susquehanna Broad points) was dominant in the first half of the Terminal Archaic, and superseded by the Orient complex (Orient Fishtail points) in the second half of the period (Snow 1980:237). The exact nature of the cultural differences reflected in the technological and stylistic differences between these traditions has not been conclusively discerned. They may represent differences in settlement system and technology based on utilization of different resource niches, the migrations of new people into the region, or the spread of distinctive technological ideas.

3. Woodland Period (3000 to 500 BP)

The Woodland period is divided into three subperiods: Early Woodland (3000 to 1700 BP); Middle Woodland (1700 to 1200 BP); and Late Woodland (1200 to 500 BP).

a. Early Woodland Period (3000 to 1700 BP)

In general, Early Woodland occupations in the Eastern Woodlands are characterized by a continuation of Late Archaic lifeways. Throughout the eastern United States it appears that Early Woodland groups were sedentary or semisedentary,

with residential sites located in riverine and upland contexts, and with logistical sites located in a variety of physiographic contexts.

Ritchie and Funk (1973:96) write that "as in the case of the Transitional [Archaic] stage, it [the Early Woodland] is marked by the appearance of certain new traits and by the characteristic expression of other, older traits," but "there is no evidence for significant changes in subsistence or settlement patterns." Substantial residential sites of the Late Archaic are often referred to as base camps, yet similar sites of the Early Woodland become "villages" with the presence of ceramics and possible storage pits at these sites.

Broadspear forms were phased out in the Early Woodland period, and small stemmed and notched forms, as well as lanceolate and teardrop forms, dominate hafted biface assemblages. Ground grooved axes, seen in the Late Archaic, continue into the Early Woodland but are refined, and the repertoire of such implements is expanded. Slate gorgets, pendants, and ground slate pieces have also been recovered from Early Woodland sites.

The mortuary complexity exhibited by some Late Archaic groups continued into the Early Woodland. Meadowood (3000 to 2560 BP) cremations, bundle burials, and flex burials include red ochre, cache blades ("up to 1,500 in one grave"), gorgets, tubular pipes, and copper objects, as well as utilitarian items such as hafted bifaces, other bifacial tools, adzes, celts, bone tools, carbonized nets, and basketry (Ritchie and Funk 1973:96, 348). Early Woodland groups also created burial mounds for their dead, which represent one of the most dramatic manifestations of the social complexity inherent in Adena societies.

The Early Woodland period (Middlesex phase) is characterized by the introduction of ceramic vessels—in this region typed as Vinette 1 undecorated wares, some with steatite temper. Sites of the period are usually found on well-drained knolls next to fresh water (Ritchie 1980:21).

b. Middle Woodland Period (1700 to 1200 BP)

The Middle Woodland period is marked by changes in lithic and ceramic technology. During the Middle Woodland period, maize agriculture and other horticultural practices were gradually incorporated into the subsistence adaptations of the occupants of the region, promoting development of semipermanent village settlement. Subsistence practices during the Middle Woodland period were not very different from those of earlier periods although intensified hunting, gathering, and small-scale agriculture increased use of resources. The climate during this cultural period remained similar to that of the Early Woodland period. Episodic fluctuations in temperature and precipitation did occur, which affected the distribution and composition of biotic communities. Site types identified include small camps (some temporary and some reoccupied over time), semipermanent large camps, cemeteries, burial mounds, and workshop activity areas (Ritchie and Funk 1973:349).

The bow and arrow were introduced in this period. Diagnostic lithic artifacts include Jack's Reef Corner Notched and Pentagonal projectile points, and Fox Creek projectile points. The presence of increased amounts of exotic lithic materials suggests further development of interregional trade networks. Other items of material culture associated with the Middle Woodland include ornamental pendants and pins. Ceramic technology became more sophisticated as indicated by a decrease in the wall thickness of pots and a rounding of vessel shape. Ceramic decoration, including netmarking and ornamentation of collars and bodies increased.

c. Late Woodland Period (1200 to 500 BP)

During the Late Woodland period aboriginal populations continued to grow and expand into riverine environmental zones. Agriculture continued to increase in importance as part of aboriginal subsistence systems. Maize became a major component of the prehistoric diet. By the time of the Late Woodland, the climate was very similar to that of today. A greater number of sites, larger sites, and sites with a higher density of cultural material are associated with this period in prehistory than with earlier periods. Sites have been encountered along major drainages, in association with rockshelters, in coastal areas and on islands. Small campsites are also located near swamps and streams. The settlement-subsistence system for this period appears to be characterized by an annual pattern of seasonal movement among riverine, coastal, and inland sites. The semipermanence of many of the occupations and resource areas may have fostered greater territoriality (Mulholland 1988:163). Diagnostic artifacts include Levanna projectile points and Owasco-related ceramics.

4. Early Historic Contact (500 to 300 BP)

Native American settlement and subsistence adaptations of the Late Woodland continued during the early Contact period, characterized by seasonal hunting and gathering and focusing on streams and major watercourses in the spring and fall for the seasonal fish runs. During this period Native Americans also accessed smaller sites in inland and upland areas for hunting and resource procurement. Larger semipermanent village sites, consisting of oval and round houses and large pits, were also located in the interior near planted fields. In the winter smaller bands of people occupied sites in inland and upland settings close to forest game (Cronon 1983:48).

Initial contact between Europeans and Native Americans was made when early explorers entered the area to engage in trade. The introduction of European material goods, the demands of trading relationships, rapid colonial expansion, and the spread of diseases brought by the Europeans had profound effects on the settlement and subsistence adaptations of the native populations. Native groups gradually became dependent on trade with the Europeans. Tribal and clan affiliations were affected, and much of the native population disappeared or was displaced (Brasser 1978). Some estimates suggest that between 60 and 90 percent of the native population was lost to European diseases in the seventeenth century in southern New England and New York (Snow 1980:34).

D. Historic Context

The first European settlement in what became Albany County occurred in 1624 with the construction of Fort Orange along the Hudson River by Dutch colonists (Markle 1886:776; Sullivan 1927). This settlement was under the auspices of the West India Company, which hoped to develop the area into more than just a trading post. In 1629 the West India Company granted Kiliaen Van Rensselaer a charter over the Fort Orange territory. In less than a decade, Van Rensselaer purchased and acquired an area surrounding the Hudson River that included much of what became Albany and Rensselaer counties (Sullivan 1927). At that time Van Rensselaer was given the title of Patroon, meaning he was granted proprietary and manorial rights over a large tract of land for having brought a large group of settlers to the colony. In addition, Patroons were entitled to annual rents from each of the tenants on their land (Markle 1886:776; Sullivan 1927).

In 1664 the English gained control of New Netherlands, and new charters were given to the land patents granted through the previous government. Kiliaen Van Rensselaer was granted one of these new charters for his land (Sullivan 1927). A generation following the capture of New Netherlands by the English, 10 counties were carved out of New York, of which Albany was one. Within Albany County was the "Manor of Rensselaerwyck," a large tract of land owned by Kiliaen Van Rensselaer (Bielinski 2003; Bleeker 1767). Rensselaerwyck remained intact over the next century, when it was made into an official government district in 1772 (Bielinski 2003; Sullivan 1927). Soon afterward, however, Rensselaerwyck was divided into an east and a west section, using the Hudson River as the dividing line. The west section was known as Watervliet by 1788 (Bielinski 2003).

Watervliet was divided into several townships, beginning in 1790 and continuing to 1809 (Sullivan 1927). The largest township was Albany City, which became the capital of New York State in 1797. Other townships in order of establishment included Rensselaerville (1790), Coeymans (1791), Bethlehem (1793), Guilderland (1803), and Niskayuna (1809).

Feudal tenure was abolished by British law in 1787; however, this did not entice previously titled Patroons to sell their land and thereby allow population expansion and diversity. Rather, these Patroons and their heirs, such as the Van Rensselaer family, continued collecting annual rents from their tenants over the next 60 years.

Much of Albany County was owned by the descendants of Kiliaen Van Rensselaer, who continued to collect annual rents from their tenants that were typically higher than what the farms were worth (Cannon 2005). Christman (1945:77) noted that some farmers paid the full value of their farm to the landowner/Patroon every 15 years. Additionally, a large number of farms to which these tenants were lured to settle were not ideal lands to cultivate, owing to the rocky and mountainous landscape; it was extremely difficult for most tenant farmers to produce enough to live on as well as enough to pay rent.

In 1769, at the age of five, Stephen Van Rensselaer III inherited the vast estate that had been acquired by his forefather (Rensselaer Polytechnic Institute [RPI] 2006). After graduating from Harvard, he married Margarita Schuyler, daughter of General Philip Schuyler, a prominent, politically active citizen in New York (Bielinski 2004,

2006a). Following Margarita's death in 1801, Van Rensselaer married Cornelia Patterson, daughter of former New Jersey Governor William Patterson (Van Rensselaer's marriages may have been politically oriented). He became involved in state government and served as Lieutenant Governor of New York, was a general in the state militia, and became a United States Congressman from 1822 to 1829 (Bielinski 2006a; RPI 2006).

Van Rensselaer III was well liked among his tenants because he was quite lenient and did not require annual rent. He promised tenants that for seven years there would be no rent, after which time they would be required to pay a "moderate" wheat rent. This idea was laid to rest through an intervention by his brother-in-law, Alexander Hamilton, who then rewrote the leases to tie the tenants to the land permanently (Cannon 2005).

Once his eldest son, Stephen Van Rensselaer, Jr., became of age, Van Rensselaer III conveyed to Van Rensselaer, Jr. all the tracts of land in the "Town of Rensselaerville, Berne, Guilderland, and Bethlehem," which amounted to approximately 7,000 acres (Albany County Clerk of the Court [ACCC] 1819), the west portion of Rensselaerwyck. The first seven years of the conveyance were to be rent-free. Each year afterward, Van Rensselaer, Jr. was to pay his father an annual rent of $500. If rents were not collected from the tenants, his father would seize the tenant's farm, remove any tenants, and sell a new lease on the farm, keeping what was owed to him. Any surplus was handed over to his son (ACCC 1819).

After maintaining the rents to this vast tract of land encompassing Guilderland, Rensselaerville, Berne, and Bethlehem, Van Rensselaer, Jr. obtained the 7,000 acres from his father in 1830 for a mere $100 (ACCC 1830). Many farmers on the Van Rensselaer estate did not pay their annual rents until they were called upon by Van Rensselaer, Jr. after his father's death. This led to many disputes between the farmers and the landowner that remained unresolved and led the farmers to take collective action. Strikingly, the farmers followed an American precedent and wrote a Declaration of Independence (Cannon 2005). "We have counted the cost of such a contest, and we find nothing as dreadful as voluntary slavery. . . . We will take up the ball of the Revolution where our fathers stopped it and roll it to the final consummation of freedom and independence of the masses" (Christman 1945:20). This defiance of Stephen Van Rensselaer, Jr. and his unjust demands in rent on his tenants marked the beginning of the Anti-Rent Wars in New York.

The revolt of the tenant farmers eventually led Van Rensselaer, Jr. to sell parcels of the Van Rensselaer estate (Cannon 2005). Over the course of the rebellion, Van Rensselaer, Jr. and his wife Harriet were forced to sell off a large quantity of land within Albany city limits and the 7,000 acres (ACCC 1837). Philip Schuyler, grandfather of Van Rensselaer, Jr., had accrued an insurmountable debt of $400,000, which his grandson paid off for him by the land sales. Van Rensselaer, Jr. sold the land to Jacob T.B. Van Vechten to pay off the debt to Teunis Van Vechten (ACCC 1837). Teunis Van Vechten served four terms as mayor for the City of Albany beginning in 1837 (Bielinski 2006b). Van Vechten ceased collecting annual rents and then sold the land piecemeal to his tenants over the next decade or so.

As described above, Europeans were settling the present-day town of Guilderland along Normans Kill as early as 1700; however, the town did not really grow until the nineteenth century, particularly after railroads came through Guilderland in the 1860s (Gregg 1966). Several reasons contributed to lack of settlement interest in the Pine Bush. For one, the region's sandy soil was not good for farming. Furthermore, this region was the location of frequent attacks upon settlers and residents at the hands of the French and their Indian allies until the end of the French and Indian War in 1763. In addition, Indians in the region continued to burn off the Pine Bush to clear annual growth into the eighteenth century (Rittner 1976).

The Pine Bush served as an important source of trees for lumber dating back to the original construction of Fort Orange and the continued construction of stockades around the expanding city of Albany. Pitch pines from the Pine Bush were also harvested to produce tar. In the late eighteenth century wood from the Pine Bush fueled the great Glass Works in present-day Guilderland. The factory collapsed after the War of 1812 in part because the factory could no longer compete with cheaper European imports, but also because the needs of the factory had finally exhausted the Pine Bush of wood by the beginning of the nineteenth century. In addition to trees, sand from the Pine Bush has been an important resource since the seventeenth century.

Since Cohoes Falls prevented river travel up the Mohawk past that point, the Pine Bush was an important location for roads going west from the earliest days of Albany. In 1663 an Indian trail running through the Pine Bush became a wagon route called the Albany Road, Schenectady Path, or the King's Highway (Rittner 1976). Later, during the eighteenth century, a road developed from Albany to Schoharie and became the Old Schoharie Road (Gregg 1966).

The development of this road encouraged some of the earliest settlements in Guilderland, Altamont, and Schoharie. In 1799 the Albany-Schenectady Turnpike and the Great Western Turnpike opened, running directly past the project area. New homes and taverns sprang up to serve residents, travelers, and drovers bringing cattle and turkeys into Albany (Gregg 1966).

During the 1860s the Albany & Susquehanna and the Hudson & Saratoga (later the West Shore Railroad) ran lines through Guilderland, creating further impetus for settlement in the region, including both farming and industry. By the middle of the twentieth century, the development of the Pine Bush had become so extensive that many in the area became concerned about conserving the region's natural character, and in the 1970s the Pine Bush Preserve opened just northwest of the project area to preserve some of the original landscape.

E. Background Research

Louis Berger's background research included a review of archaeological site files and unpublished cultural resource management studies at OPRHP, properties listed or recommended as eligible for listing in the National Register of Historic Places (NRHP), and a review of historical maps. Louis Berger's research determined that no known sites are currently located in the APE; however, 14 previously recorded archaeological sites were identified within 1.6 kilometers (1 mile) of the project area (Table 2). Five of the sites date to the early or mid-nineteenth century. Another six sites represent prehistoric occupations, of these sites four are camp sites and two are isolated prehistoric artifacts (see Table 2). The remaining three sites are of unknown temporal affiliation.

The Albany Pine Bush vicinity has been the location of several archaeological investigations. Six cultural resource management studies have been conducted within 1.6 kilometers (1 mile) of the APE (Table 3). Hartgen Archaeological Associates (HAA) has conducted five studies in the Pine Bush and close to the present APE. Landmark also conducted one Phase IB archaeological survey close to the APE. Collectively, these studies began in 1991 and extended to 2013, and were required by the Albany Pine Bush habitat restoration and invasive species removal programs (see Table 3). These investigations resulted in the evaluation of large tracts of land and the identification of prehistoric and historical archaeological sites in the Pine Bush. HAA's 1991 review assessed approximately 14,000 acres in support of the Albany Pine Bush Preserve management plan (see Table 3). Subsequent archaeological studies identified 12 precontact sites, 11 historical sites and one multicomponent archaeological site associated with the expansive Pine Bush ecological zone.

Six NRHP listed properties are located in the vicinity of the project area; however, none is located in or adjacent to the APE. Overall, these historic properties are situated west of the New Karner Road APE, roughly between Guilderland and Hartman's Corners to the west (Table 4).

Early maps of the region do not indicate past development in the APE. The David Burr (1829) map depicts the project area as unmodified land situated in the southeastern corner of Guilderland (Figure 4). The location of the APE as shown on the Gould and Moore (1854) map of Albany County is surrounded by two roads and a river. The road to the south corresponds to the contemporary U.S. Route 20. No development is depicted in the APE in 1854 (Figure 5). By 1866 residential development in the vicinity of the APE had become more substantial, with at least six structures depicted west of the APE at the intersection of today's U.S. Route 20 and New Karner Road; however, no development is shown in the APE (Beers 1866) (Figure 6). The APE remained undeveloped through the rest of the nineteenth century and into the twentieth century, as is shown on the 1893 and 1927 topographic maps (United States Geological Survey [USGS] 1893, 1927) (Figures 7 and 8). The only development in the immediate vicinity consists of the current commercial establishments that are today located on New Karner Road; however, these built lots are not located in the APE (see Figure 2).

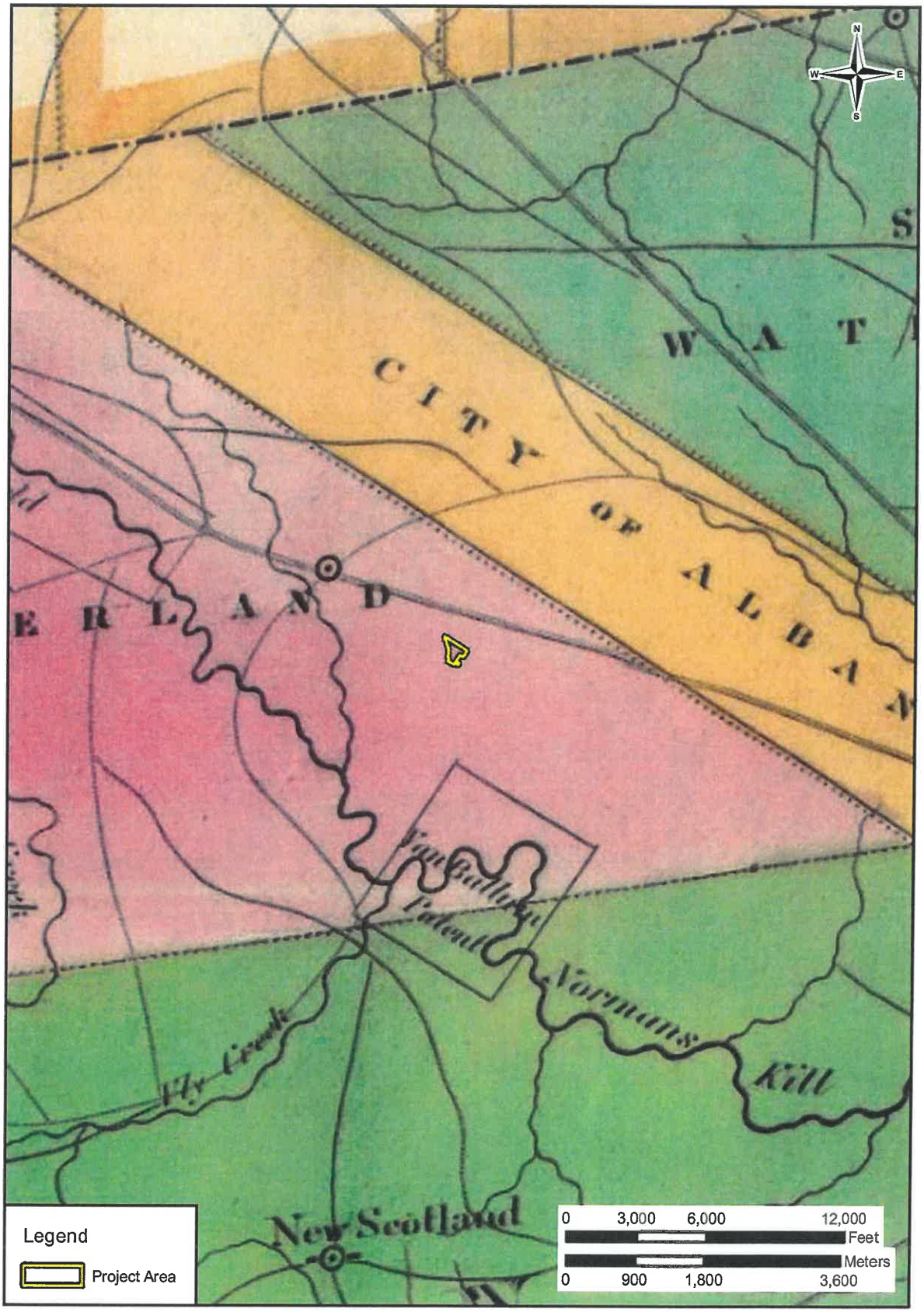

FIGURE 4: Project Area Location in 1829 (Burr 1829)

FIGURE 5: Project Area Location in 1854 (Gould and Moore 1854)

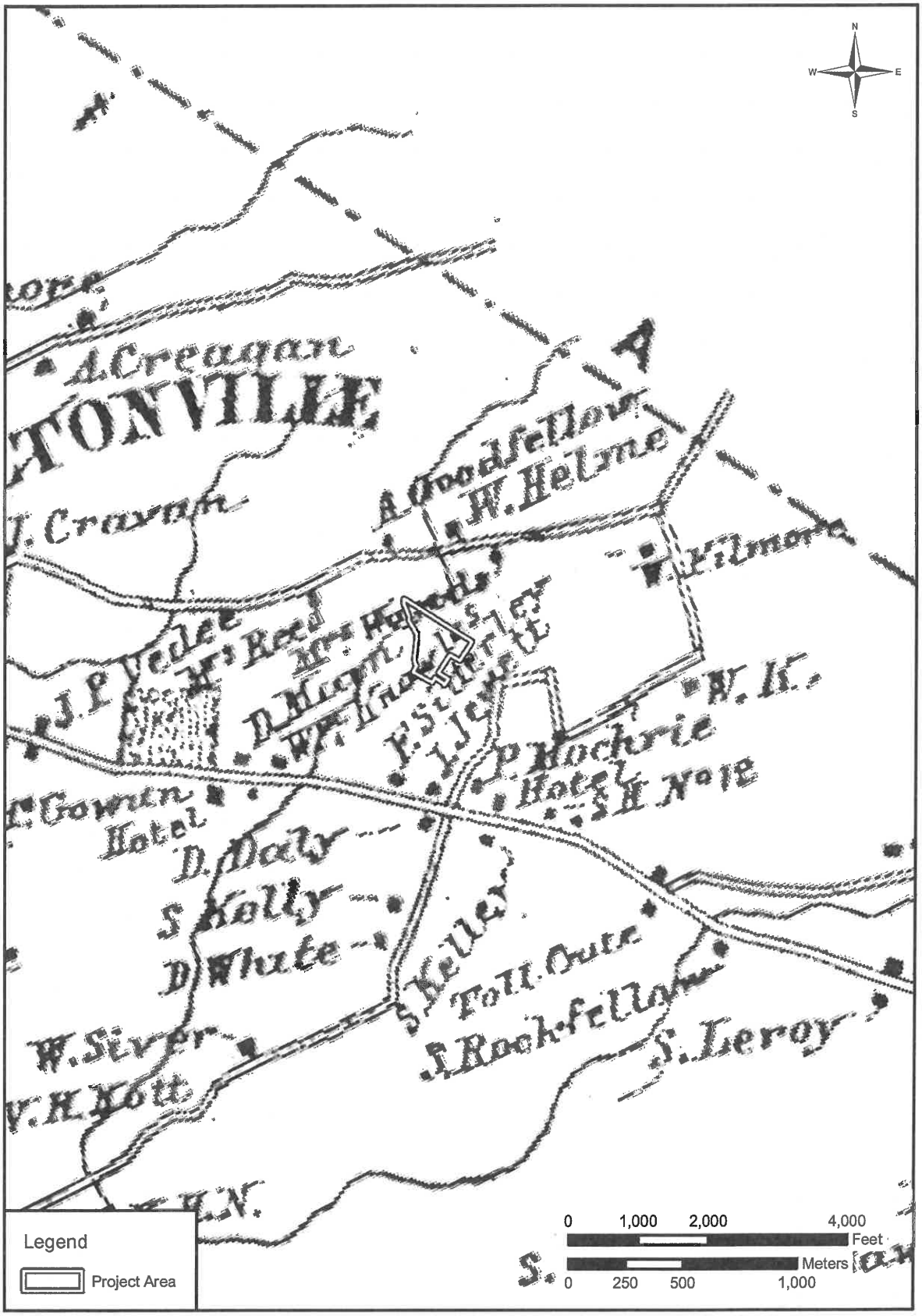

FIGURE 6: Project Area Location in 1866 (Beers 1866)

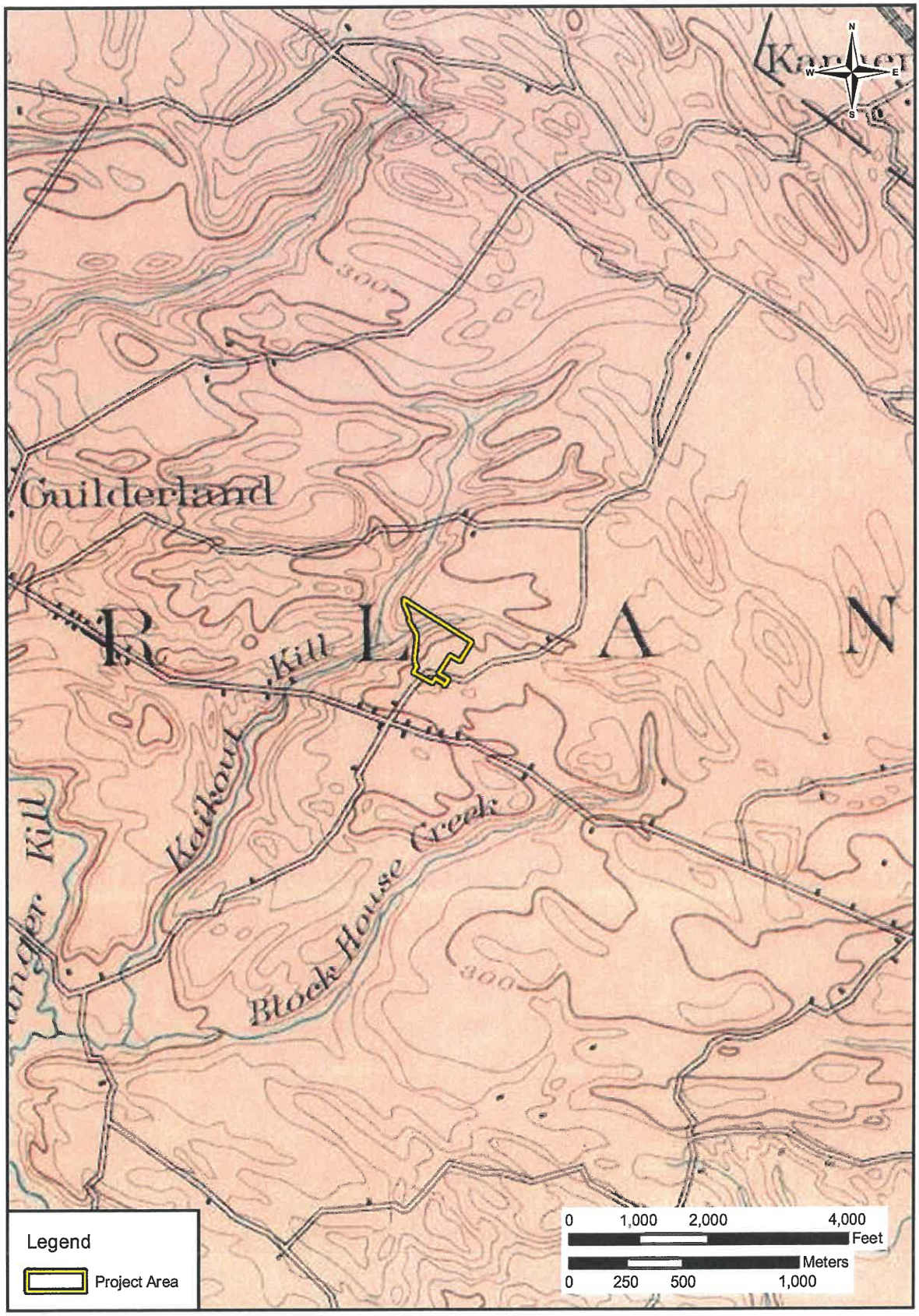

FIGURE 7: Project Area Location in 1893 (USGS 1893)

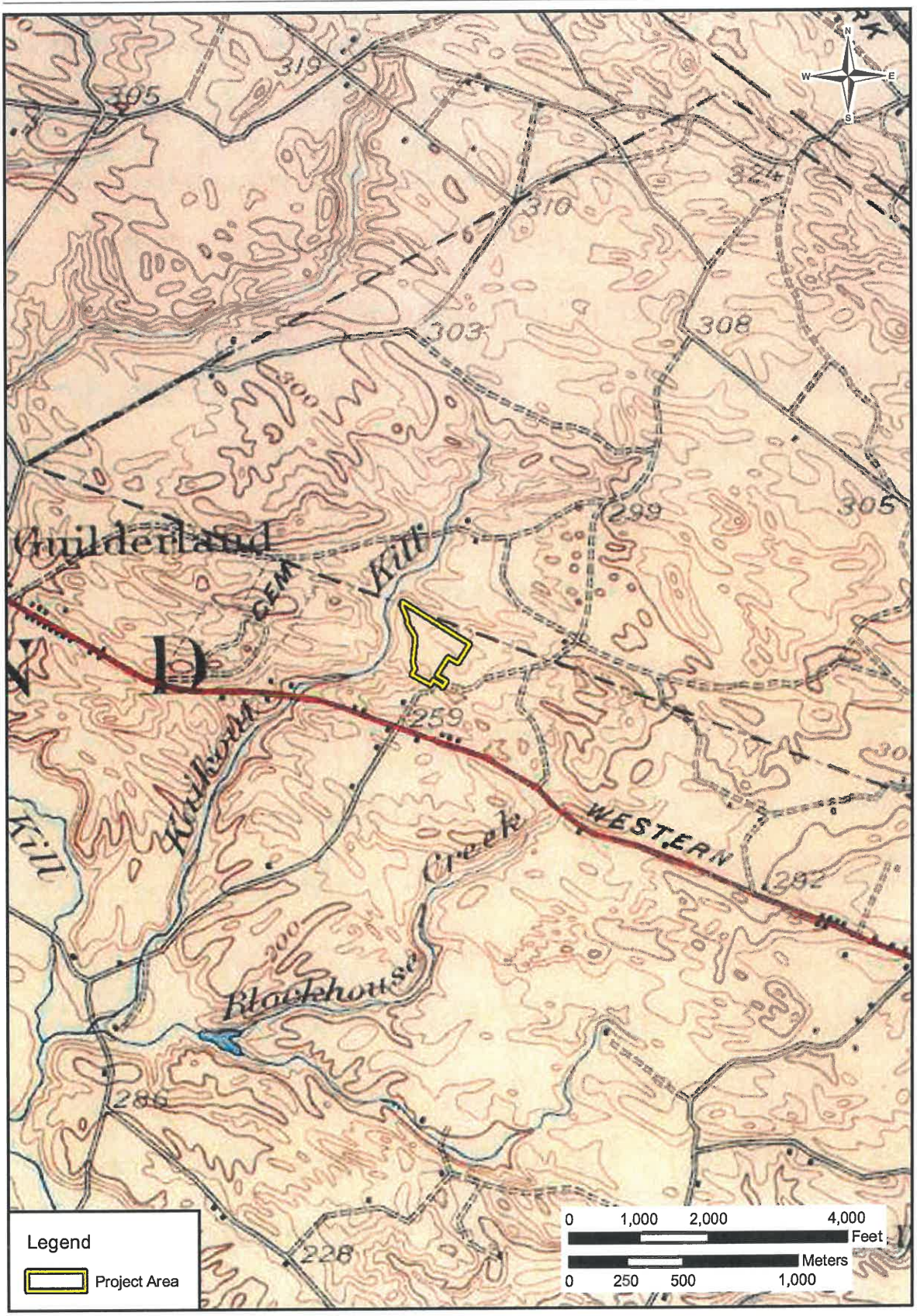

FIGURE 8: Project Area Location in 1927 (USGS 1927)

TABLE 2

RECORDED ARCHAEOLOGICAL SITES WITHIN 1.6 KILOMETERS (1 MILE) OF PROJECT AREA

SITE No./ ADDITIONAL SITE No. (NAME)	DISTANCE FROM APE/USGS QUADRANGLE	SITE TYPE/ TIME PERIOD	ARTIFACTS/ FEATURES	REPORTED BY
OPRHP				
A00140.004765/Helme Historic Site	372.75 m (1,222.93 ft)/ Albany, NY	Historic/19th Century	House and barn foundations	Hartgen 2009
A00140.004764/Wands Historic Site	124.25 m (407.64 ft)/ Albany, NY	Historic/19th Century	Cellar Hole/No Information	Hartgen 2009
A00140.004766	994 m (3,261.15 ft)/ Guilderland, NY	No information	No information	No information
A00140.004767/Blueberry Hill East 2 Historic Site	1,491 m (4,771 ft)/ Guilderland, NY	Historic/c. 1830-1860	Ceramics, faunal material, glass and brick	Hartgen 2009
A00140.004768/Albany Landfill Historic Site A	1,118.25 m (3668.80 ft)/ Albany, NY	Historic Landfill/c. 1850s	No Information	Hartgen 2006
A00106.000344/Winding Brook 1 Site	1118.25 m (3668.80 ft)/Guilderland, NY	Camp/Prehistoric	Debitage, core, unidentified faunal	Louis Berger 2009
A00140.004809/Willow Street Dump Historic Site	1118.25 m (3668.80 ft)/ Guilderland, NY	Historic	Bottle glass, ceramics, unidentified metal, ceramic tile	Landmark 2010
A00140.004808/White Pine Precontact isolate 1	869.75 m (2,835.51ft)/ Guilderland, NY	Prehistoric Isolate	Chert biface	Landmark 2010
A00140.004735/Muncie Precontact Site	869.75 m (2853.51 ft)/ Guilderland, NY	Camp/Prehistoric	Normanskill projectile point, debitage	Hartgen 2008
A00106.000345/Winding Brook 2 Precontact Site	994 m (3,261.15 ft)/ Guilderland, NY	Camp/Prehistoric	Projectile point fragment, debitage	Louis Berger 2009
A00140.000419/White Pine Precontact Site	1118.25 m (3668.80 ft)/ Guilderland, NY	Camp/Prehistoric	Debitage	Landmark 2010
A00140.004810/White Pine Precontact Isolate 2	1118.25 m (3668.80 ft)/ Guilderland, NY	Prehistoric	1 Flake	Landmark 2010
NYSM				
351/Dune	434.88 m (1,426.77 ft)/ Albany, NY	No information	No information	Parker 1922
5305	1242.50 m (4076.44 ft)/Albany, NY	No information	No information	Parker 1922

TABLE 3

CULTURAL RESOURCE MANAGEMENT PROJECTS CONDUCTED WITHIN 1.6 KILOMETERS (1 MILE) OF THE PROJECT AREA

AUTHOR	PROJECT	RESULTS
Hartgen Archaeological Associates 2009	Phase IA Literature Review and Archaeological Context, Albany Pine Bush Preserve Habitat Restoration Project	Survey of 162 hectares, identification of six historical sites
Hartgen Archaeological Associates 1991	Report for Archaeological Potential SEQRA Parts 1A & 3, the Albany Pine Bush Preserve Located in the Towns of Guilderland and Colonie and the City of Albany, Albany County, New York.	Review of 14,000-acre study area for a management plan
Hartgen Archaeological Associates 2007	Phase IB Archaeological Field Reconnaissance Albany Pine Bush Preserve Restoration, City of Albany, Towns of Guilderland and Colonie, Albany County, New York.	Excavation of 903 shovel tests. Two historic sites identified.
Landmark 2011	Phase IB Archaeological Investigations of the Albany Pine Bush Habitat Restoration Project, White Pine Site, Town of Guilderland and City of Albany, Albany County, New York.	Investigation of 8.5-hectare (21-acre) APE with 95 shovel tests. Three prehistoric sites and one historical site identified.
Hartgen Archaeological Associates 2008	Phase IA Literature Review and Archaeological sensitivity Assessment, Phase IB Archaeological Field Reconnaissance, Albany Pine Bush Preserve Habitat Restoration Muncie and Blueberry Hill Washington Avenue Extensions, NY 155 and Pitch Pine Road, City of Albany, Albany County, New York.	Review and subsurface investigation of 220 acre APE. Excavation of 490 shovel tests. One prehistoric archaeological site identified.
Hartgen Archaeological Associates 2013	Phase IB Archaeological Field Reconnaissance, Albany Pine Bush Preserve, Invasive Species Removal Program.	Eleven prehistoric archaeological sites and three historical sites identified. One multicomponent site also identified. All sites were recommended for Phase II site evaluation.

TABLE 4

PROPERTIES LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES IN THE VICINITY OF THE PROJECT AREA

NR NUMBER	NAME	ADDRESS	TIME PERIOD
02NR05000	Rapp Road Community Historic District	Rapp Road in Guilderland, 21 properties (19 contributing).	Late 19th and early 20th centuries
90NR01633	Rose Hill (Building #3)	2259 Western Turnpike, Guilderland, New York	ca. 1800
90NR01670	Albany Glassworks Site	Foundry Road, Guilderland, New York	1785-1815
90NR01664	John Schoolcraft House	2259 Western Turnpike, Guilderland, New York	ca. 1835
90NR01659	Gardener Residence	5661 Gardener Road, RD2, Altamont New York	ca. 1875
09NR05994	Nott House	6030 Nott Road, Guilderland, New York	Early 19th to early 20th centuries

F. Sensitivity Statement

Louis Berger combined the results of the research performed for the project location and the results of the pedestrian reconnaissance to assess the APE's archaeological sensitivity. Prehistoric archaeological sensitivity was based on the presence of previously recorded prehistoric sites within 1.6 kilometers (1 mile) of the APE, mapped soils considered suitable for the preservation of archaeological sites, topography, and proximity to a perennial watercourse (the Kaikout Kill). In general, the APE is considered to have a moderate to high sensitivity for the presence of prehistoric archaeological sites and a low sensitivity for historical archaeological sites. Although some areas of surficial disturbances were identified, these areas were intermittent, and therefore Louis Berger recommended Phase I archaeological survey of the APE.

III. Fieldwork

A. Archaeological Field Methods and Techniques

The Phase IB fieldwork required the excavation of 129 shovel tests placed in a 15-meter (50-foot) grid across the project area. A total of 13 shovel testing transects (Transects A-M) were oriented east-west across the APE. No shovel tests were excavated along the steep slopes of the ravine or in swales that were present along the western edges of the project area. Areas where disturbances were visible at the surface were documented and not tested. If disturbance was suspected, but not verifiable through pedestrian reconnaissance, subsurface testing was conducted to verify disturbances.

The shovel tests measured 40 centimeters (1.31 foot) in diameter and were excavated in natural stratigraphic layers to culturally sterile subsoil or to a depth of 1 meter (3.3 feet) below ground surface (bgs). All soils were screened through 0.25-inch mesh, described using Munsell color codes, and recorded with depths on standardized forms. In addition, digital photographs were taken of the project area, work in progress, and disturbances in the project area.

B. Results of Fieldwork

Transect A (Shovel Tests A-1 through A-19) paralleled the current alignment of the existing National Grid, Niagara Mohawk Power (NIMO) substation and transmission right-of-way (ROW) located at the northeastern edge of the APE (see Figure 2). Transect B immediately to the south also consisted of 19 shovel tests. This portion of the APE was densely wooded and level to gently sloping (Photograph 1). Transect A produced a sparse quantity of modern materials (plastic, glass, and a nail) that were recorded and discarded (Appendix A). The location of these materials along this transect is likely the result of modern activities in the area as evidenced by the presence of hunting stands and a picnic table.

The stratigraphy in Transects A and B was similar, consisting largely of a dark yellowish brown (10YR 3/4) sandy loam A-horizon and a yellowish brown (10YR 5/8) sandy loam B-horizon. Some shovel tests displayed signs of limited surficial cuts/grading, but depths for most intact A-horizons in this portion of the APE varied from 30 to 55 centimeters (0.98 to 1.80 feet). Louis Berger excavated the B-horizon to about 75 centimeters (2.46 feet) bgs.

The stratigraphy encountered to the south in Transects C and D was more varied. These transects traversed the upper and lower edges of a slope (Photograph 2). Shovel tests in these transects encountered areas of moderate and extensive grading and push piles. Transect C was roughly oriented parallel to the base of the slope. Louis Berger excavated a total of 10 shovel tests in Transect C, not excavating areas of excessive slope (greater than 15 percent) or cut surfaces. Cut surfaces in Transect C consisted of a large artificial swale at the northern end of APE (Photograph 3).

Intact stratigraphy in Transect C was consistent with that in Transects A and B; however, Shovel Tests C-5 to C-10 showed evidence of moderate surficial grading based on a lack of an A- or Ap-horizon. A typical disturbed shovel test in Transect C was Shovel Test C-5, which contained a yellowish brown (10YR 5/6) sandy B-horizon beginning at ground surface and extending to the base of excavation at 96 centimeters (3.15 feet) bgs. In Transect D evidence of grading and filling was visible in Shovel Tests D-2 to D-8 and D-10. The remainder of Transect D contained profiles similar to those in Transects A and B. In all, Louis Berger excavated 15 shovel tests in Transect D.

For Transect E the initial shovel tests (Shovel Tests E-1 to E-6) were marginally disturbed, often having a thin cap of fill material overlying the Ap-horizon. A total of 12 shovel tests were excavated in Transect E, and a large ellipsoid cut was mapped between Shovel Tests E-6 and E-7 (see Figure 2). Transect F contained a total of 12 shovel tests, which were largely intact with the exception of Shovel Tests F-6 to F-8, which appeared to have been subjected to limited surficial, grading and subsequent filling. Shovel Test F-9 represents a typical shovel test in Transect F: the Ap-horizon was described as a dark yellowish brown (10YR 4/6) sandy loam 34 centimeters (1.12 feet) thick. The underlying stratum was a brownish yellow (10YR 6/8) sandy B-horizon terminating at the base of excavation or 60 centimeters (1.97 feet) bgs.

The remaining shovel test transects (Transects G-M) displayed more consistently intact soil profiles (Photograph 4). [6]; Transect I [6]; Transect J [8]; Transect K [8]; Transect L [2]; Transect M [2]). However, areas of surficial

PHOTOGRAPH 1: Overview of Eastern Project Area, View to East

PHOTOGRAPH 2: Slope Between Transects C and D, View to South

PHOTOGRAPH 3: Manmade Swale at Northern Extent of Transect C, View to North

PHOTOGRAPH 4: Excavating Shovel Test G-3, View to Northeast

disturbance were more prevalent in the western half of the APE (Photograph 5), where modern land use and refuse disposal have resulted in push piles and large cuts/borrow areas. The northwestern areas of the APE, those located along the edge of the ravine, also contained areas where water runoff has created deeply incised natural swales with excessive slopes (see Figure 2; Photographs 6 and 7).

In summary, the stratigraphy is similar across the APE with the exception of areas where surficial disturbances have occurred. In areas where fill material was present, it appeared to the result of light grading and the subsequent redistribution of soil in the APE. The APE also contained artificial swales, the result of cutting/grading. Overall, cultural materials present in the shovel tests were modern; however, a small scatter of historical artifacts was collected. These materials were collected from the Ap-horizons of Shovel Tests E-9 (one lock plate) and J-6 (three whiteware fragments). No additional historical materials were identified in the APE, and no historical archaeological sites or features were identified. No prehistoric artifacts or archaeological sites were present in the APE.

PHOTOGRAPH 5: Visible Surface Cut Crossing Transects H, I, and J, View to Southwest

PHOTOGRAPH 6: Incised Natural Swale at Edge of Ravine, View to West

PHOTOGRAPH 7: Natural Swale in Western Project Area, View to South

IV. Conclusions and Recommendations

Louis Berger, Albany, New York, completed a Phase I archaeological survey of the proposed development of 145 New Karner Road in the Town of Guilderland, Albany County, New York. The project involves the development of a new assisted and independent living community. Plans call for the construction of six new buildings, parking, access roads, an infiltration basin, and subsurface utility lines. The project parcel totals 20.2 hectares (50 acres), of which approximately 15 hectares (38 acres) will not be developed and will be donated to the Albany Pine Bush Preserve. The remaining 4.86-hectare (12-acre) area represents the APE, or project area. The Kaikout Kill traverses the project parcel from north to south, and the associated ravine marks the western boundary of the APE.

The Phase IA archaeological sensitivity assessment of the APE determined that the project area was sensitive for prehistoric archaeological sites, based on the presence of previously recorded prehistoric sites within 1.6 kilometers (1 mile) of the APE, mapped soils considered suitable for the preservation of archaeological sites, topography, and proximity to a perennial watercourse (the Kaikout Kill). Louis Berger conducted a systematic subsurface investigation (Phase I survey) of the APE to determine if archaeological sites were present.

Subsurface testing was conducted November 3 to 7, 2014. During the investigation Louis Berger excavated 129 shovel tests. No archaeological sites were identified. During the survey Louis Berger identified several areas of surficial and subsurface disturbances in the APE. Four isolated historical artifacts were collected from the Ap-horizons in incongruent shovel tests in the APE. These artifacts appear to represent isolated field scatters and are therefore not deemed archaeological sites. It is Louis Berger's opinion that no NRHP-eligible cultural properties are present in the APE and that no further work is warranted.

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APPENDIX A

Shovel Test Data

Phase I - 145 New Karner Rd

SHOVEL TEST LOG

Guilderland, NY

STP	Stratum	Depth to base of Stratum cm	Depth to base of Stratum ft	Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
A-1	A	36	1.18	10 YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellow Brown	Sand		NCM	
A-2	A	32	1.05	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellow Brown	Sandy Loam		NCM	
A-3	A	18.2	0.6	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	45.6	1.5	10YR 6/6 Brownish Yellow	Sand		NCM	
A-4	A	40	1.31	10YR 3/4 Dark Yellowish Brown	Sandy Loam			H(N) 1 Glass
	B	60	1.97	10YR 5/8 Yellow Brown	Sand		NCM	
A-5	B	55.8	1.83	10YR 5/6 Yellowish Brown	Sand		NCM	Ap missing or graded.
A-6	A	24	0.79	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 5/8 Yellow Brown	Sand		NCM	
A-7	A	40	1.31	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	65	2.13	10 YR 5/8 Yellow Brown	Sand		NCM	
A-8	A	17.4	0.57	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	43.7	1.43	10YR 6/6 Brownish Yellow	Sand		NCM	
A-9	A	28	0.92	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	64	2.1	10YR 6/8 Brownish Yellow	Sand		NCM	
A-10	A	55	1.8	10YR 3/6 Dark Yellowish Brown moddled with 10 YR 5/6 Yellow Brown	Sandy Loam		NCM	1 piece of modern glass discarded.
	B	75	2.46	10 YR 6/8 Brownish Yellow	Sand		NCM	
A-11	A	13.9	0.46	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	45.2	1.48	10YR 6/8 Brownish Yellow	Sand		NCM	
A-12	A	10	0.33	10YR 4/4 Dark Yellowish Brown	Sandy Loam		1	H(N) 1 Nail - 7 glass and 5 plastic discarded (modern).
	B	75	2.46	10 YR 5/8 Yellow Brown	Sand		NCM	

Phase I - 145 New Karner Rd | SHOVEL TEST LOG | Guilderland, NY

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
A-13	A	18.8	0.62	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	63.4	2.08	10YR 6/8 Brownish Yellow	Sand		NCM	
A-14	A	14	0.46	10YR3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 5/8 Yellow Brown	Sand		NCM	
A-15	A	10	0.33	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellow Brown	Sand		NCM	
A-16	A	8.5	0.28	10 YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	59.8	1.96	10YR 5/6 Yellowish Brown	Sand		NCM	
	B2	64.1	2.1	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
A-17	A	14	0.46	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/8 Yellow Brown	Sand		NCM	
A-18	A	10	0.33	10YR 3/3 Dark Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/6 Yellow Brown	Sand		NCM	
A-19	A	26	0.85	10YR4/6 Dark yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/6 Yellow Brown	Sand		NCM	
B-1	A	26.2	0.86	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	56	1.84	10YR 5/8 Yellow Brown	Sand		NCM	
B-2	A	35	1.15	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 5/8 Yellow Brown	Sand		NCM	
B-3	A	35	1.15	10YR3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellow Brown	Sand		NCM	
B-4	Fill	23.4	0.77	10YR4/6 Dark Yellowish Brown	Sand		NCM	
	Ap	42.7	1.4	10YR 3/3 Dark Brown	Sandy Loam		NCM	
	B	64.4	2.11	10YR 6/8 Brownish Yellow	Sand		NCM	
B-5	A	45	1.48	10YR 5/6 Yellow Brown	Loamy Sand		NCM	Near possible artificial burren.
	B	65	2.13	10YR 6/8 Brownish Yellow	Sand		NCM	
B-6	A	40	1.31	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yellow Brown	Sand		NCM	

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
B-7	B	10.5	0.34	10YR 5/6 Yellow Brown	Sand		NCM	Ap missing.
	B2	23.3	0.76	10YR 4/4 Dark Brown	Sand		NCM	
	B3	28.7	0.91	10YR 3/6 Dark Yellowish Brown	Sand		NCM	
	B4	45.5	1.49	10YR 5/6 Yellow Brown	Sand		NCM	
B-8	Fill	31	1.02	10YR 4/6 Dark Yellowish Brown moddled with 10YR 3/6 Dark Yellowish Brown	Sandy Loam		NCM	Located near large dirt mound.
	A	55	1.8	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yellow Brown	Sandy Loam		NCM	
B-9	A	40	1.31	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yellow Brown	Sand		NCM	
B-10	A	27.4	0.9	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	43.4	1.42	10YR 5/6 Yellowish Brown	Sand		NCM	
B-11	Fill	15	0.49	10YR 4/6 moddled with 10YR 3/6 Dark Yellowish Brown	Sandy Loam		NCM	Some root disturbance.
	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	65	2.13	10YR 5/6 Yellow Brown	Sand		NCM	
B-12	A	17	0.56	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 5/8 Yellow Brown	Sand		NCM	
B-13	A	8.3	0.27	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	48.7	1.6	10YR 5/6 Yellowish Brown	Sand		NCM	
B-14	Fill	28	0.92	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	A	46	1.51	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	75	2.46	10YR 5/8 Yellow Brown	Sand			
B-15	A	43	1.41	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	61	2	10YR 5/8 Yellow Brown	Sandy Loam		NCM	
B-16	A	5.2	0.17	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	32.1	1.05	10YR 5/6 Yellowish Brown	Sand		NCM	
	B2	36.3	1.19	10YR 5/4 Yellowish Brown	Sand		NCM	
	B3	48	1.57	10YR 5/6 Yellowish Brown	Sand		NCM	

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
B-17	A	5	0.16	10YR3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8Yellow Brown	Sand		NCM	
B-18	A	26	0.85	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	BW	44	1.44	10YR 6/8 Brownish Yellow	Sand		NCM	
	BC	62	2.03	7.5YR 5/8 Strong Brown	Sand		NCM	
B-19	A	29	0.95	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	48	1.57	10YR 5/6 Yellowish Brown	Sand		NCM	
C-1	A	30	0.98	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellow Brown	Sand		NCM	
C-2	A	38	1.25	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 6/8 Brownish Yellow	Sand		NCM	
C-3	Fill	18.4	0.6	10YR 3/4 Dark Yellowish Brown	Sand		NCM	
	A	34	1.12	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	49.7	1.63	10YR 6/8 Brownish Yellow	Sand		NCM	
C-4	A	55	1.8	10YR 5/6 Yellowish Brown	Loamy Sand		NCM	
	B	70	2.3	10YR 6/8 Brownish Yellow	Sand		NCM	
C-5	Fill	96	3.15	10YR 5/6 Yellowish Brown	Sand		NCM	
C-6	Fill	63.4	2.08	10YR 5/6 Yellowish Brown	Sand		NCM	Fill Prism.
C-7	A	40	1.31	10YR 5/6 Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 6/8 Brownish Yellow	Sand		NCM	
C-8	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 5/8 Yellowish Brown	Sand		NCM	
C-9	Fill	59	1.94	10YR 5/8 Yellowish Brown	Sand		NCM	Fill Prism.
C-10	Fill	23	0.75	10YR 5/8 Yellowish Brown	Sand		NCM	Overcut.
D-1	Fill	28	0.92	10YR 5/8 Yellowish Brown	Sand	Gravel/Pebbles	NCM	Discarded plastic.

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
D-2	Fill	28	0.92	10YR 5/8 Yellowish Brown	Sand	Gravel/Pebbles	NCM	Discarded plastic. Located between dirt road and artificial ridge. Possible evidence of prior excavations/cutting.
	A	50	1.64	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	Root impasse.
D-3	Fill	40	1.31	10YR 4/6 Dark Yellowish Brown	Sand		NCM	
	A	46	1.51	10YR 3/6 Dark Brown	Sandy Loam		NCM	
	B	53	1.74	10YR 5/6 Yellowish Brown	Sand		NCM	
D-4	Fill	77	2.53	10YR 5/8 Yellowish Brown	Sand		NCM	
D-5	Fill	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	Fill Prism.
D-6	Fill	80	2.62	10YR 5/8 Yellowish Brown	Sand		NCM	
D-7	Fill	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	Root Impasse.
D-8	Fill	70	2.3	10YR 5/8 Yellowish Brown	Sand		NCM	
D-9	A	44	1.44	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
D-10	Fill	70	2.3	10YR 5/6 Yellowish Brown	Sand		NCM	
D-11	A	37	1.21	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	52	1.71	10YR 6/8 Brownish Yellow	Sand		NCM	
D-12	A	35	1.15	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	56	1.84	10YR 5/8 Yellowish Brown	Sand		NCM	
D-13	A	15	0.49	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
D-14	A	28.5	0.94	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	47	1.54	10YR 6/6 Brownish Yellow	Sand		NCM	
D-15	A	24	0.79	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	62	2.03	10YR 5/6 Yellow Brown	Sand		NCM	
E-1	Fill	58	1.9	10YR 5/4 Yellowish Brown	Sand		NCM	Fill Prism.

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
E-2	A	11	0.36	10YR 3/2 Very Dark Greenish Brown	Loam		NCM	Humus
	Fill	65	2.13	10YR 5/8 Yellowish Brown	Sand		NCM	
E-3	A	20	0.66	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	
E-4	A	45	1.48	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	61	2	10YR 5/8 Yellowish Brown	Sand		NCM	
E-5	Fill	23	0.75	10YR 5/4 Yellowish Brown	Sand		NCM	
	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	46	1.51	10YR 6/8 Brownish Yellow	Sand		NCM	
E-6	Fill	69	2.26	10YR 5/8 Yellowish Brown	Sand		NCM	
E-7	A	19	0.62	10 YR 5/4 Yellowish Brown	Sandy Loam		NCM	
	B	54	1.77	10YR 6/8 Brownish Yellow	Sand		NCM	
E-8	A	35	1.15	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	56	1.84	10 YR 6/8 Brownish Yellow	Sand		NCM	
E-9	A	36	1.18	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 6/8 Brownish Yellow	Sand		NCM	
E-10	B	23	0.75	10YR 5/6 Yellowish Brown	Sand		NCM	
	B2	51	1.67	10YR 6/8 Brownish Yellow	Sand		NCM	
E-11	A	39	1.28	10YR 5/8 Yellowish Brown	Sandy Loam		NCM	
	B	47	1.54	10YR 6/8 Brownish Yellow	Sand		NCM	Major root disturbance.
E-12	Fill	12	0.39	10YR 4/6 Dark Yellowish Brown	Sand		NCM	
	B	62	2.03	10YR 5/6 Yellowish Brown	Sand		NCM	
F-1	A	45	1.48	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yellowish Brown	Sand		NCM	
F-2	A	29	0.95	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 6/6 Brownish Yellow	Sand		NCM	

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
F-3	A	23	0.75	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	46	1.51	10YR 5/8 Yellowish Brown	Sand		NCM	
F-4	Fill	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	Root impasse.
F-5	A	44	1.44	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
F-6	Fill	39	1.28	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	Discarded plastic and modern glass.
F-7	Fill	80	2.62	10YR 5/8 Yellowish Brown	Sand		NCM	Discarded modern glass and .22 shell casing
F-8	Fill	50	1.64	10YR 5/6 Yellowish Brown	Sand		NCM	Cut into B.
F-9	A	34	1.12	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 6/8 Brownish Yellow	Sand		NCM	
F-10	Overburden	28	0.92	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	A	33	1.08	7.5YR 5/8 Strong Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	
F-11	A	23	0.75	10YR 5/6 Yellowish Brown	Sandy Loam		NCM	
	B	57	1.87	10YR 6/8 Brownish Yellow	Sand		NCM	
F-12	A	30	0.98	10YR 5/8 Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 6/8 Brownish Yellow	Sand		NCM	
G-1	A	50	1.64	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	75	2.46	10YR 5/8 Yellowish Brown	Sand		NCM	
G-2	Fill	45	1.48	10YR 5/8 Yellowish Brown	Sand		NCM	
	A	50	1.64	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
G-3	Fill	80	2.62	10YR 5/6 Yellowish Brown	Sand		NCM	
G-4	Fill	65	2.13	10YR 5/8 Yellowish Brown	Sand		NCM	Discarded .22 shell casing.

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
G-5	Fill	40	1.31	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 6/8 Brownish Yellow	Sand		NCM	
G-6	A	36	1.18	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	Discarded modern glass.
	B	50	1.64	10YR 6/8 Brownish Yellow	Sand		NCM	
G-7	A	50	1.64	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yellowish Brown	Sand		NCM	
G-8	A	27	0.89	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 6/8 Brownish Yellow	Sand		NCM	
G-9	A	22	0.72	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	52	1.71	10YR 6/8 Brownish Yellow	Sand		NCM	
G-10	A	20	0.72	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.71	10YR 6/8 Brownish Yellow	Sand		NCM	
H-1	Fill	51	1.67	10YR 5/4 Yellowish Brown	Sand		NCM	
	A	55	1.8	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	75	2.46	10YR 5/8 Yellowish Brown	Sand		NCM	
H-2	A	28	0.92	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	54	1.77	10YR 5/8 Yellowish Brown	Sand		NCM	
H-3	A	20	0.66	10YR 4/6 Dark Yellowish Brown	Sand		NCM	
	B	66	2.17	10YR 5/8 Yellowish Brown	Sand		NCM	
H-4	Fill	74	2.43	10YR 6/8 Brownish Yellow	Sand		NCM	
H-5	Fill	28	0.92	10YR 4/6 Dark Yellowish Brown	Sand		NCM	Discarded modern bolt, plastic, and glass.
	B	50	1.64	10YR 6/8 Brownish Yellow	Sand		NCM	
H-6	A	25	0.82	10YR 3/4 Drak Yellowish Brown	Sandy Loam		NCM	
	B	53	1.74	10YR 5/8 Yellowish Brown	Sand		NCM	
I-1	A	45	1.48	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
I-2	A	32	1.05	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
I-3	A	21	0.69	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 5/8 Yellowish Brown	Sand		NCM	
I-4	A	40	1.31	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	65	2.13	10YR 5/8 Yellowish Brown	Sand		NCM	
I-5	A	24	0.79	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	
I-6	A	45	1.48	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	67	2.2	10YR 5/8 Yellowish Brown	Sand		NCM	
J-1	A	41	1.35	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yallowish Brown	Sand		NCM	
J-2	A	30	0.98	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 6/6 Brownish Yellow	Sand		NCM	
J-3	A	25	0.82	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	52	1.71	10YR 5/8 Yellowish Brown	Sand		NCM	
J-4	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	57	1.87	10YR 5/8 Yellowish Brown	Sand		NCM	
J-5	Fill	23	0.75	10YR 4/4 Dark Yellowish Brown	Sand		NCM	
	B	55	1.8	10YR 6/6 Brownish Yellow	Sand		NCM	
J-6	A	33	1.08	10YR 4/6 Dark Yellowish Brown	Sandy Loam		N=3	Historic Ceramics; black/brown transfer print
	B	65	2.13	10YR 5/8 Yellowish Brown	Sand		NCM	
J-7	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	65	2.13	10YR 5/8 Yellowish Brown	Sand		NCM	
J-8	A	25	0.82	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	Modern glass discarded.
	B	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	
K-1	A	17	0.56	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	

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STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Artifact Cat. #	Comments
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
K-2	A	27	0.89	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	49	1.61	10YR 6/8 Brownish Yellow	Sand		NCM	
K-3	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	
K-4	A	31	1.02	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	66	2.17	10YR 5/8 Yellowish Brown	Sand		NCM	
K-5	A	17	0.56	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	50	1.64	10YR 6/8 Brownish Yellow	Sand		NCM	
K-6	A	36	1.18	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/8 Yellowish Brown	Sand		NCM	
K-7	A	33	1.08	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	60	1.97	10YR 5/8 Yellowish Brown	Sand		NCM	
K-8	A	30	0.98	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.3	10YR 5/8 Yellowish Brown	Sand		NCM	
L-1	Fill	60	1.97	10YR 3/4 Dark Yellowish Brown	Sandy Loam		NCM	Discarded (50+) modern plastic, tile, metal, garden hose, modern glass, metal screening etc.
L-2	A	40	1.31	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	55	1.8	10YR 5/6 Yellowish Brown	Sand		NCM	
M-1	A	25	0.82	10YR 4/4 Dark Yellowish Brown	Sandy Loam		NCM	
	B	47	1.54	10YR 5/8 Yellowish Brown	Sand		NCM	Root disturbance.
M-2	A	36	1.18	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	64	2.1	10YR 5/8 Yellowish Brown	Sandy Loam		NCM	
M-3	A	36	1.18	10YR 4/6 Dark Yellowish Brown	Sandy Loam		NCM	
	B	70	2.1	10YR 5/8 Yellowish Brown	Sandy Loam		NCM	

APPENDIX B

Methods of Artifact Cataloging and Analysis

METHODS OF ARTIFACT CATALOGING AND ANALYSIS

A. LABORATORY PROCESSING

All artifacts were transported from the field to the Louis Berger (Louis Berger) laboratory. In the field, artifacts were bagged in 4-mil, resealable polyethylene bags. Artifact cards bearing provenience information were included in the plastic bags. A Field Number was assigned to each unique provenience in the field. This number appears with all the provenience information and is used throughout processing and analysis to track artifacts.

Historic artifacts were washed in water with a soft toothbrush. Metal objects were cleaned using a dry toothbrush or stainless steel wire brush. All artifacts were laid out to air-dry in preparation for analysis

During analysis, individual Specimen Numbers were assigned to artifacts. After analysis, the artifacts were re-bagged into clean, perforated 4-mil resealable polyethylene bags. Artifacts are organized sequentially first by Site Number, then Field Number and finally by Specimen Number.

B. ANALYTICAL METHODS

All artifact analyses were conducted by the Laboratory Supervisor and/or Laboratory Technician(s). Louis Berger maintains an extensive comparative collection and laboratory research library to contribute to the completeness and accuracy of the analyses.

Louis Berger has developed a flexible analytical database system that fully integrates all artifacts in one database for use in data manipulation and interpretation. The computerized data management system is written using Microsoft Access, a relational database development package that runs on a Windows® platform. Each class of artifacts (historic ceramics, curved (vessel) glass, small finds/architectural, historic tobacco pipes, and faunal) has a series of attributes, sometimes unique to that class, that are recorded to describe each artifact under analysis. Artifact information (characteristics) was entered into the system during the process of analysis. The system was then used to enhance the artifact records with the addition of provenience information. Louis Berger maintains a complete type and attribute coding maintained in the database.

The artifact coding system employs a Type/SubType system developed by Louis Berger's Cultural Resource division. The format for the historic artifacts is based on the South/Noël Hume typology (South 1977), as modified for use in a computerized system (Louis Berger 2013). Pattern (group and class) codes, based on form or material type, were assigned to each artifact entry. The pattern categories used follow the work of South (1977), as modified by Louis Berger (2013).

C. HISTORIC CERAMIC ANALYSIS

The ceramic tabulation provides the following information: identification of ware types and techniques of surface decoration; dates based on manufacturing and decorative techniques and, if present, maker's marks; identification of vessel forms and functions; and descriptions of decoration motifs.

D. SMALL FINDS/ ARCHITECTURAL ANALYSIS

For the small finds/architectural analysis, each artifact was identified by its group and class, Material Type and Part/Portion, and received a count and/or weight. Additional information, including

Characteristic, Maker's Marks, Backmark, Color, and Decoration, is recorded as identified for the individual artifacts if present or needed.

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APPENDIX C

Artifact Inventory

2004207_145 NEW KARNER RD PHASE I ARTIFACT CATALOG

Temp Site	STP	Stratum	Field #	Specimen	Class	Artifact Description:	Count	Begin - End Date:		Comments
	E-9	A	1	1	Small Finds/Architectural	Lock Plate	1			Rectangular copper alloy lock plate; whole; with key hole in center and 4 holes in corners for nails/screws
	J-6	A	2	1	Historic Ceramic	Whiteware	1	1820	2000	Spalled body sherd; undecorated
	J-6	A	2	2	Historic Ceramic	Whiteware - Transfer Printed - Brown	2	1820	1915	mend; spalled body sherds; floral decorated interior; partial base fragment present; possible flatware

Louis Berger