

**PHASE I ARCHAEOLOGICAL SURVEY OF
THE ARMSTRONG CORNER NEW
STORMWATER MANAGEMENT
FACILITY, NEW CASTLE COUNTY,
DELAWARE**

Parent Agreement 1534, Task 10, Subtask I

DRAFT

by

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Prepared for

Delaware Department of Transportation

Prepared by

DOVETAIL
CULTURAL RESOURCE GROUP

September 2013

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ABSTRACT

From July 1 to 3, 2013, Dovetail Cultural Resource Group (Dovetail) conducted a Phase I archaeological survey at the request of the Delaware Department of Transportation (DelDOT) for the US Route 301 Armstrong Corner new stormwater management facility project area. Over the past several years, DelDOT has been completing cultural resource investigations related to the planned construction of US Route 301 and its associated Spur Road. Previous studies included archaeological investigations, architectural analysis, and archival research along the proposed US Route 301 project corridor. The goals of this Phase I archaeological survey were to identify any archaeological sites older than 50 years in the project area for the proposed stormwater management facility and make recommendations on their National Register of Historic Places (NRHP) eligibility.

Two historic archaeological sites (7NC-F-158 [the Walker Site] and 7NC-F-159 [the J. Armstrong 3 Site]) were identified within 0.5 miles (0.8 km) of the current project area. Phase II investigations were recommended for the two sites. However, no previously recorded archaeological sites are within the current project area.

Previous architectural surveys conducted in association with the US Route 301 project corridors in recent decades have identified numerous historic resources within the current project vicinity. Therefore, limited archival and background research were conducted for this project prior to any subsurface investigations. One previously documented historic resource, Ringgold Chapel A.M.E. Church (N-14330), is located within the project footprint. Three other previously documented resources are located within the viewshed: B&S Used Furniture Store site (N-5143), Armstrong-Walker House (N-5146), and H. G. Cole Canning Company (N-14331). The Armstrong-Walker House, farm complex, and surrounding 5 acres (2 ha) of land (N-5146) was listed on the NRHP in 1985 and reevaluated in 2006 during the architectural investigation of the Route 301 corridor. As a result of the 2006 study, the property continues to be listed on the NRHP. The other three resources were recommended not eligible for the NRHP in during the 2006 Route 301 corridor survey. Given the recent date of these investigations, these historic resources were not revisited as part of the current study.

The Phase I archaeological survey included a pedestrian reconnaissance to identify areas within the project area with the potential for intact deposits and subsurface investigations of these testable areas. Based on the results of the surface reconnaissance, the archaeological survey subjected approximately 2 acres (0.81 ha) of the 2.4-acre (0.97-ha) project area to subsurface testing, resulting in the excavation of 46 shovel test pits (STPs) and two test units. The survey identified two artifact concentrations. Dovetail **recommends that Artifact Concentration 1 is an archaeological site dating to the mid-nineteenth century that warrants a cultural resource survey (CRS) number and an archaeological site number.** Artifact Concentration 2 is an isolated find (ISF) consisting of one piece of lithic debitage that Dovetail **recommends not be assigned a CRS number or a site number.** Both Artifact Concentrations are **recommended not eligible for listing on the NRHP.**

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INTRODUCTION

Dovetail Cultural Resource Group (Dovetail) conducted a Phase I archaeological survey at the request of the Delaware Department of Transportation (DelDOT) for the US Route 301 Armstrong Corner new stormwater management facility project area. Over the past several years, DelDOT has been completing cultural resource investigations related to the planned construction of US Route 301 and its associated Spur Road. Previous studies included archaeological investigations, architectural analysis, and archival research along the proposed US Route 301 project corridor. The goals of this Phase I archaeological survey were to identify any archaeological sites older than 50 years in the project area for the proposed stormwater management facility and make recommendations on their National Register of Historic Places (NRHP) eligibility.

The archaeological project area of potential effects (APE) includes the physical footprint of the proposed stormwater management facility easement as depicted on mapping provided by DelDOT and Century Engineering. The archaeological survey consisted of a pedestrian survey to identify any surface features, non-testable disturbed areas, and non-testable wet or excessively sloped areas within the APE. Testable areas were subjected to systematic subsurface testing utilizing shovel test pits (STPs). The archaeological fieldwork was conducted between July 1 and 3, 2013 by Earl Proper, Jonathan Lewis, Curtis McCoy, Katherine Peresolak, and Kathleen O'Toole. The limited archival research and review of previously surveyed historic resources was conducted on June 27, 2013 by Danae Peckler. Dr. Kerri Barile served as the Principal Investigator and meets or exceeds the standards established for Archaeologist, Architectural Historian, and Historian by the Secretary of the Interior.

The location of the proposed Armstrong Corner stormwater management facility has been previously examined by a series of preliminary and Phase IA archaeological studies in support of the larger US Route 301 improvement project. Most notably Hunter Research, Inc. (Hunter) completed a Phase IA archaeological investigation of Section 2 of the 301 corridor, extending generally northward from the Maryland/Delaware state line, west of Middletown to the vicinity of Armstrong Corner Road (Burrow et al. 2009). This study included a reconnaissance investigation of a 300-foot (91.4-m) wide corridor to encompass areas of associated activities such as stormwater management facilities, wetland mitigation sites, staging, stockpiling and access areas, and disposal sites. The current study builds on this work; however, the comprehensive background review/archival research presented in the Phase IA will not be duplicated, and instead the current report synthesizes previous results in the context of the proposed undertaking.

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PROJECT AREA DESCRIPTION

The project area is located immediately to the east of US Highway 301 (Summit Bridge Road). The northwest corner of the project area is approximately 200 feet (61 m) south of the intersection of US Highway 301 and Marl Pit Road, an area known as Armstrong Corner (Figure 1; Figure 2, p. 4). Project area dimensions are 400 feet (121.9 m) north to south by an average of 260 feet (79.2 m) east to west, equating to approximately 2.4 acres (0.97 ha).

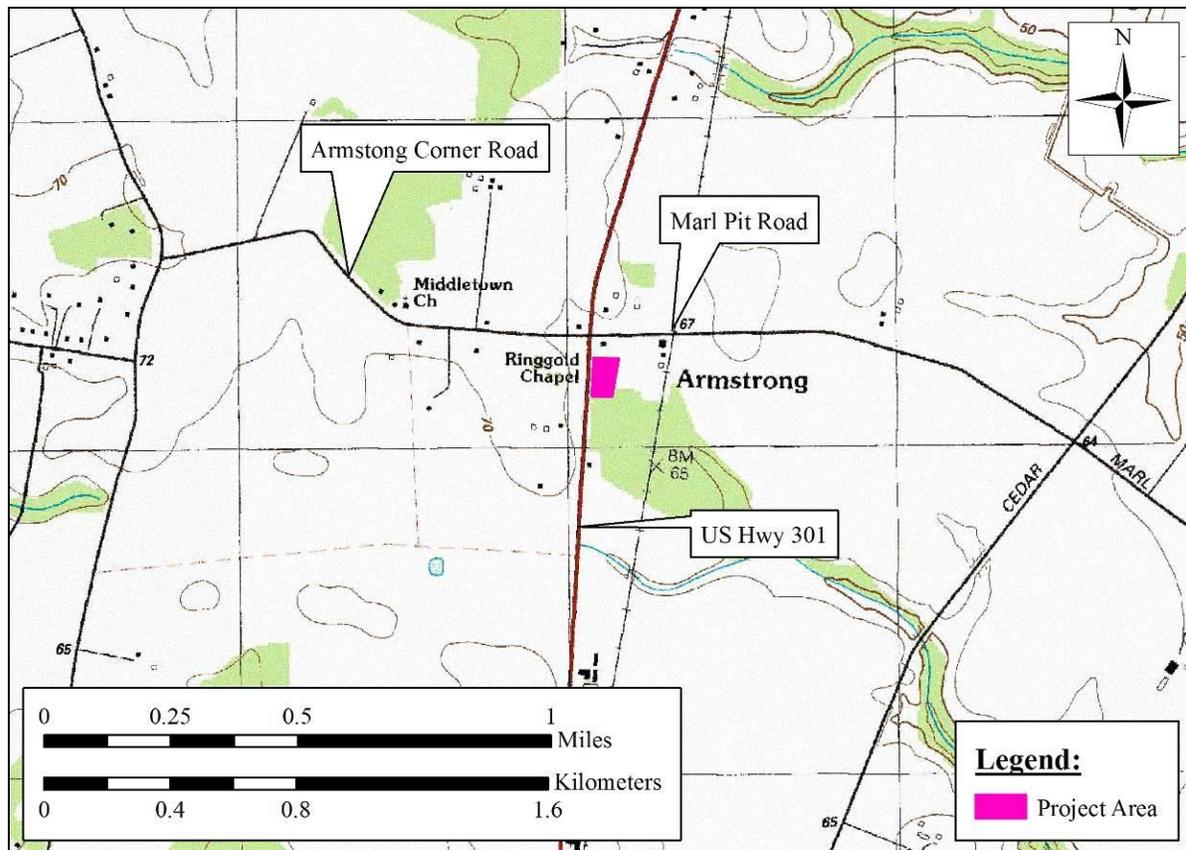


Figure 1: Location of Project APE on the 7.5-Minute Digital Raster Graphic Mosaic of New Castle County, Delaware (United States Department of Agriculture [USDA] 2001).

A driveway, parking lot, lawn, and circa-1985 Ringgold Chapel building effectively divide the project area in half, creating approximately 1 acre (0.4 ha) northern and southern portions of the project area (Photo 1 and Photo 2, p. 5). Much of the northern portion is overgrown in young saplings (Photo 3, p. 6). South of the saplings, the vegetation changes to dense thickets of large bramble bushes, vines, and wetland grasses (Photo 4, p. 6). The southern portion is largely covered with older secondary growth trees surrounded by a dense understory of brambles and wetland vegetation with a large open area next to US Highway 301 (Photo 5 and Photo 6, p. 7). A flagged wetland is located directly north of the Ringgold

Chapel grounds and another flagged wetland is located in the southeastern project area (Photo 7, p. 8).

Previous surveys of the Ringgold Chapel A.M.E. Church (N-14330) indicate that a circa-1912, one-story, frame, chapel building was moved to this location in 1944. This structure was demolished sometime after construction of the extant church building was complete. Built around 1985, the extant, one-story, concrete-block, church building was initially used as a social hall; it is currently used to hold church services. “All that remains of the former church is the datestone...” (Frederick et al. 2006a:CRS form).

The Ringgold Chapel grounds are built up approximately 5 feet (1.5 m) above the current ground surfaces of the northern and southern portions of the project area (Photo 8, p. 8). There is also an artificial linear berm along the northern and eastern boundaries of the project area (Photo 9 and Photo 10, p. 9). The ground surface along the northern berm is significantly higher outside of the project area than inside (Photo 11, p. 10). Along the eastern boundary, the berm separates the project area from a large, intact wet area (Photo 12, p. 10). These two observations indicate that the berm was created from inside the project area by pushing soil towards the northern and eastern boundaries.

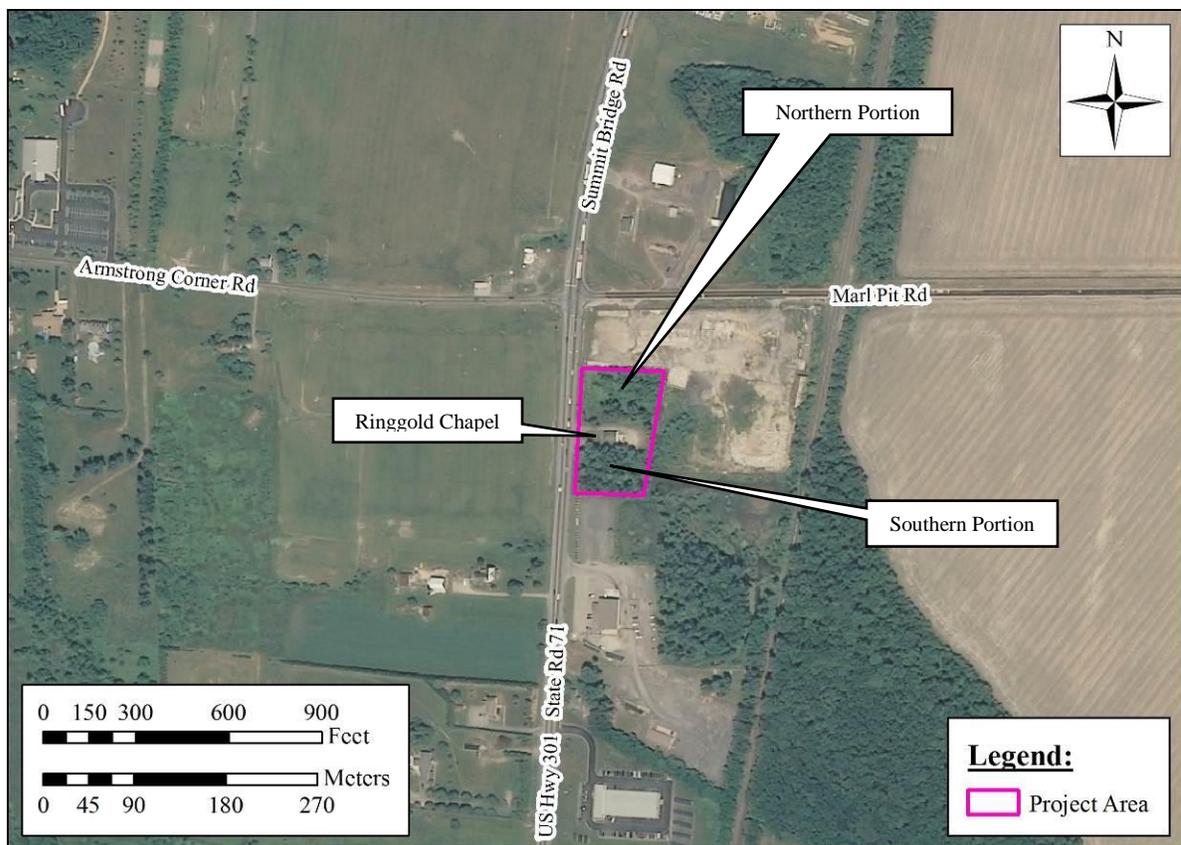


Figure 2: Location of the Project APE, National Agricultural Imagery Program (NAIP) (USDA 2011).



Photo 1: View of the Ringgold Chapel Driveway, Lawn, and Building, Looking East-Southeast.



Photo 2: View of the Parking Lot Behind the Ringgold Chapel, Looking North-Northeast.



Photo 3: View of Growth in the Northern Portion of the Project Area, Looking West.



Photo 4: View of the Dense Thickets of Large Bramble Bushes, Vines, and Wetland Grasses South of the Saplings in the Northern Portion of the Project Area.



Photo 5: View of the Larger Secondary Growth Trees Surrounded by Dense Undergrowth in the Southern Portion of the Project Area, Looking North.



Photo 6: View of the Open Area next to US Highway 301 in the Southern Portion of the Project Area, Looking Southeast.



Photo 7: View of Flagged Wetlands in the Project Area, Looking Northwest.



Photo 8: View of the Elevated Ringgold Chapel Grounds, Looking Southeast.



Photo 9: View of the Artificial Linear Berm along the Northern Project Area Boundary, Looking Northeast.



Photo 10: View of the Artificial Linear Berm along the Eastern Project Area Boundary, Looking Southeast. Wetland grasses are visible beyond the berm.



Photo 11: View of the Artificial Berm along the Northern Project Boundary from Outside of the Project Area, Looking Southwest. The significantly lower project area is visible beyond the berm.



Photo 12: View of the Intact Wetland Beyond the Artificial Berm along the Eastern Boundary of the Project Area.

ENVIRONMENTAL SETTING

The Armstrong Corner project area is located in southwestern New Castle County, Delaware. This part of New Castle County has historically been rural with large tracts of farmland and continues to be rural to a certain extent. The proposed improvements to US Highway 301, which will make it a four- to six-lane divided highway starting south of the Chesapeake and Delaware (C&D) Canal, in addition to the recent completion of State Route (SR) 1 (Korean War Veterans Memorial Highway), a four- to six-lane highway built to interstate standards, has made access from southwestern New Castle County to the urban areas of northern Delaware and southeastern Pennsylvania much easier. As a result, large housing subdivisions have begun to spring up on farmland around historic rural communities such as Middletown and Summit. However, this project area has not been impacted by this recent suburban development.

Geology

The project area is in the Upper Coastal Plain physiographic zone in the Mid-Peninsular Drainage Divide management zone subdivision. This zone is defined as an area of “low rolling topography that separates the headwaters of streams that drain into the Delaware River from streams that drain into the Chesapeake Bay” (Custer 1984:26). In addition to flat topography and slow-moving headwaters of the streams that empty into the Delaware and Chesapeake Bays, the Mid-Peninsular Drainage Divide zone includes swamps surrounded by sand ridges and by bay/basin features (Custer 1986).

The Upper Coastal Plain physiographic zone covers the area between the Smyrna River to the south and the Piedmont Fall Line to the north (Custer 1984; Custer and Bachman 1986; Hodny et al. 1989). The Potomac and Columbia formations characterize the sediments of the northern Delaware Coastal Plain. Potomac sediments are fluvial silts and clays deposited during the Early Cretaceous Period. They are overlain by the sediments of the Columbia formation, deposited by watercourses from the north during the Quaternary Period. Sands, made up mostly of quartz and feldspar, and coarse gravels, made up of sandstone, quartz, and chert, characterize the Columbia formation (Custer 1984; Jordan 1964). The gravels resisted erosion which created a gently rolling topography with up to 50-foot (15.2-m) differences in elevation between floodplain marshes and headlands, thereby creating differences in plant communities

Hydrology

The project area drains through a wetland in the southeast portion of the project area into a tributary of Drawyer Creek, which is a tributary of the Appoquinimink River. The Appoquinimink empties into the Delaware River east of Odessa, Delaware. The Delaware River empties into the Delaware Bay, which joins the Atlantic Ocean between Cape Henlopen, Delaware, and Cape May, New Jersey.

Soils

Fertile, well-drained soils attracted both humans and game over millennia. Moreover, the wild grasses, fruits, and seeds consumed by people both before and after the adoption of agriculture flourished in such settings. As a consequence, numerous archaeologists have cited the correlation between the distribution of level to gently sloping, well-drained, fertile soils and archaeological sites (e.g., Lukezic 1990; Potter 1993; Turner 1976; Ward 1965). Soil scientists classify soils according to natural and artificial fertility and the threat posed by erosion and flooding, among other attributes. Soil Classes 1 and 2 represent the most fertile soils, those best suited for not only agriculture but for a wide range of uses. Of course, soil productivity must be considered in relation to the productivity of the surrounding soils as well.

Within the project area, the Class 3 Udorthents represents the most likely setting for short-term prehistoric sites. Historic sites could also be present. The fact that these soils have a tendency to erode could impact site integrity. Poor to very poor drainage and shallow depth to the water table make the Class 3 and 5 Fallsington sandy loam unlikely settings for archaeological resources (Table 1) (Soil Survey Staff 2012).

Table 1: Soils in the Project Area (Soil Survey Staff 2012).

Soil Name	Class	Slope	Percentage of Project Area	Characteristics
Udorthents	3e	0–10%	97.9%	Well drained, tendency to erode, not prime farmland
Fallsington sandy loam, undrained	5w	0–2%	2.1%	Poorly drained, frequently wet, 0–10 inches to water table
Fallsington sandy loam, drained	3w			Very poorly drained, frequently wet, 10–20 inches to water table

METHODOLOGY AND RESEARCH DESIGN

The purpose and goal of this Phase I investigation was to identify any archaeological sites on or eligible for the NRHP within the project's APE. The project area is the stormwater management facility easement. Based on the relatively close proximity of water and high potential resource procurement areas (Drawer Creek, its tributary, and the delineated wetlands), and the high number of previously recorded sites in the general area, the project area was judged to have moderate to high potential for archaeological resources.

Archival and Background Research

Archival research conducted in association with this project gathered primary and secondary sources to learn more about the history of the project area, and cultural resources within it, to inform and support Phase I archaeological investigations. In June 2013, Dovetail staff reviewed previous cultural resource survey reports on file at DelDOT, as well as relevant CRS and NRHP forms available from the Delaware State Historic Preservation Office (DE SHPO). Historic maps and aerial images of the project area were also consulted to locate areas with any potential to contain historic materials.

Field Methods

The archaeological survey consisted of a pedestrian reconnaissance of the entire project area and subsurface testing utilizing shovel test pits (STPs) of those portions of the APE identified as having the potential for intact deposits during the pedestrian reconnaissance. STPs were excavated at 50-foot (15.2-m) intervals along transects across the testable areas. Each transect was given a letter designation (A, B, etc) and STPs on each transect were given a numerical designation. The provenience information for each STP included a transect designation and a numerical designation (i.e., transect A, STP 1). STPs measured approximately 15 inches (38.1 cm) in diameter and were excavated to penetrate at least 4 inches (10.2 cm) into sterile subsoil where possible. Shovel test radials were excavated at 25-foot (7.6-m) intervals in cardinal directions from shovel tests that produced cultural materials

All soils excavated from shovel test pits were passed through 0.25-inch (0.6-cm) hardware mesh cloth. Each natural stratum was given a stratum designation (e.g., L1) in order to delineate stratigraphic relationships. All artifacts were recovered and bagged by stratum. The shovel test area, transect, and numeric designation, level, excavator, date and material recovered were recorded on field tags for each level. Soil conditions, weather information, and notations on disturbances were recorded in field notes.

Based on the results of the pedestrian survey and shovel testing, two test units were excavated within the project area. The test units were used to augment the results of the shovel testing to ascertain the potential for intact stratigraphy and cultural features. The units measured 3 x 3 feet (0.9 x 0.9 m) and were excavated in natural levels. Where natural levels

exceed 4 inches (10 cm), arbitrary 4-inch (10-cm) levels were excavated to provide vertical control of the recovered artifact assemblage. All soils were screened through 0.25-inch (0.6-cm) mesh. All recovered cultural materials were collected and bagged according to provenience. Profile photographs were taken and scaled drawing made of at least one wall. If materials appropriate for chronometric testing were encountered, such as charcoal, samples were removed using appropriate methods to maintain the integrity of the samples. Like the shovel tests, the locations of the test units were documented through a hand-held GPS unit.

Laboratory Methods

Historic artifacts were divided into material type [*Architectural* (ARC), *Arms and Ammunition* (ARM), *Ceramic* (CER), *Glass* (GLS), *Metal* (MET), *Organic* (ORG), *Other* (OTH), and *Personal* (PER)] for basic analysis. The artifacts were then identified as to specific wares or manufacturing techniques. *Architectural* artifacts generally included any item that was used in the construction of a building such as nails, window glass, brick, cut stone, mortar, plaster, roofing slate, etc. Specifically, nails were recorded as hand-wrought, machine cut with wrought heads, machine cut with machine-cut heads, and wire (galvanized and ungalvanized) (Adams 2002; Nelson 1968). Window glass was broken into pre- and post-industrial categories, and brick was defined as either hand-made or machine-made. The *Arms and Ammunition* category included flints, bullets, bayonets, sabers, mortar shells, etc that were used during battle activity or for personal use such as hunting.

Ceramics were subdivided into refined and coarse earthenware, refined and coarse stoneware, porcelain, and semi-porcelain. Decoration, such as applied paint, transfer print, and molding, were also noted, and each fragment was examined to determine specific vessel portion (i.e., body, base, handle, rim). Specific ware types and manufacture dates were identified using Noel-Hume (1990), South (1977), Bartoviks (1980), Pittman et al. (1987), Greer (1970), and Digital Archaeological Archive of Comparative Slavery (DAACS) (2006). *Glass* included all domestic glass which were catalogued by manufacturing techniques, as well as color, use, attribute, and decoration (Jones and Sullivan 1985; Madden and Hardison 2002). This category was broken down by vessel and bottle glass distinctions to help identify their possible use without seeing the actual artifact, for example a piece of glass representing a candy dish versus a wine bottle.

Metal is a form category and generally includes flat pressed metal or unidentifiable metal fragments. An attempt was made to place other metal items in a functional category to aid in analysis. *Organic* included shell, bone, and any other culturally valued, naturally occurring object. The *Other* category included items that were not placed into a more specific category, such as ceramic insulators and porcelain toilet fragments. Although these items are technically ceramic they are placed within the *Other* category because they are not of a specific domestic use like a plate or bowl. *Personal* items consist of buttons, pipe fragments, military accoutrements, jewelry, and similar items.

Research Design

This cultural resource survey was conducted with the Delaware Statewide Comprehensive Historic Preservation Plan in mind (Ames et al. 1989; Bedell 2002; Catts and De Cunzo 1999; De Cunzo 2004). The state's Historic Preservation Plan identifies six historic periods:

- a. 1630–1730: Exploration and Frontier Settlement
- b. 1730–1770: Intensification and Durable Occupation
- c. 1770–1830: Early Industrialization
- d. 1830–1880: Industrialization and Early Urbanization
- e. 1880–1940: Urbanization and Early Suburbanization
- f. 1940–1960: Suburbanization and Early Ex-urbanization Period

Based on the previously completed Phase IA investigations (Burrow et al. 2009), it appears that the periods dating from 1770 to 1880 are the most relevant based on the occupation history of the project area. Data from the known archaeological sites near the APE suggests that any historic resources identified in the APE would likely date to the late-eighteenth to late-nineteenth centuries and could have the potential to provide new information on changes in agricultural practice in this historically agricultural area of Delaware during the Early Industrialization Period, the Industrialization and Early Urbanization Period, and the corresponding Periods of Transformation from Colony to State (1770–1830) and Industrialization and Capitalization (1830–1880) (De Cunzo and Catts 1990).

Dovetail also conducted the survey in light of the Delaware Management Plan for Prehistoric Resources (Custer 1986), which created models for the likely presence of prehistoric sites from various temporal affiliations in various Delaware locations based on the results of previous work in these locations. The project area is located within the Mid-Peninsular Drainage Divide Management Zone Unit of the Plan. The probability for finding Paleoindian and Archaic Period sites in the Mid-Peninsular Drainage Divide is medium to high based on the relatively high number of previous finds from these periods in this zone. All defined types of Woodland I Period sites have a high probability of occurrence, Woodland II Period sites have a moderate probability and European Contact Period sites have a low probability of occurrence in the Mi-Peninsular management unit. As yet unidentified Woodland I and Woodland II Period sites are considered likely to add valuable additional information (Custer 1986). Since the plan was first published in 1986, subsequent local prehistoric archaeological site information indicates that the likelihood of finding sites dating to the Woodland I Periods should be considered high.

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CULTURAL CONTEXT

Prehistoric Context

There are five general, chronological periods of Native American cultures of the Delmarva Peninsula defined by Custer (1984, 1986): Paleoindian (15,000–8500 B.P.), Archaic (8500–5000 B.P.), Woodland I (5000–1000 B.P.), Woodland II (1000 B.P.–AD 1650), and the Contact Period (AD 1650–1750).

Paleoindian Period (15,000–8500 B.P.)

The Paleoindian Period marks the retreating of glacial conditions and the beginning of a Holocene environment that is characterized by cold temperatures and alternating periods of wet and dry climate. Human adaptation to these environmental conditions developed into small groups of nomadic Native American hunters and gatherers. Although direct archaeological evidence of non-mammalian food resources consumed by Paleoindian peoples is lacking in Delaware, paleoenvironmental data suggests that the period comprised deciduous, boreal, and grassland biomes. These environs would have provided grazing, browsing, and shelter for animals and provided foraging opportunities. Primarily, Paleoindian Period toolkits were designed for game procurement and processing. They include projectile points, hafted and unhafted knives, scrapers, and less-formalized flake tools. The fluted point is the early diagnostic hallmark of this period (Clovis, Mid-Paleo, and Dalton). Later point forms of the period were notched and often serrated (Palmer, Amos, Kirk). Toolkits often displayed high degrees of maintenance and reworking, which is consistent with nomadic lifestyles and migration between lithic raw material sources. Custer (1989) has identified Paleoindian sites along the Mid-Peninsular Drainage Divide of the Delmarva Peninsula, with the Hughes Complex in Kent County exemplifying their distributional pattern (Custer 1984).

Archaic Period (8500–5000 B.P.)

The Archaic Period is characterized by the emergence of full Holocene environmental conditions and a landscape that was dominated by mesic oak and hemlock forests. These forests attracted smaller game, such as deer and turkey, which replaced the cold-adapted grazing animal species, like bison antiquus and caribou, which became extinct (Custer 1984). A rise in sea level caused lowland flooding and the formation of river systems and swamp areas within the Mid-Peninsular Drainage Divide. The Native American peoples shifted from a more hunting-based pattern (Paleoindian Period) to one where plants became a more important food source (Custer 1989:128). A fission-fusion model of social organization produced macro- and micro-base camps and procurement camps, with group sizes changing in response to the availability of resources each season (Custer 1989:129–130). Archaic toolkits include a number of tools indicative of plant food processing, grinding stones, netsinkers, and stone mortars. Archaic sites in the Delaware include several sites within the Churchman's Marsh vicinity.

Woodland I (5000 B.P.–1000 B.P.)

The Woodland I Period is marked by a pronounced warm and dry period, and dramatic changes in local environments and climate. Sea level rise slowed, allowing stabilization of riverine and estuarine areas, which in turn led to an increase in aquatic resources. This led to higher degree of sedentism by the Woodland I peoples who began establishing large macro-band base camps with evidence of use year-round (Custer 1989). Storage pits and evidence of house structures are found at these sites for the first time. Increased social complexity is also evident during this period in the form of grave goods indicating complex mortuary ceremonies beginning around 2500 B.P. The Woodland I Period is also marked by stemmed, broad-bladed, and fishtail points, as well as an increased use of rhyolite and argillite. Ceramics replaced steatite bowls around 3000 B.P. (Custer 1984). The Delmarva Adena Complex appeared in central Delaware while the Black Rock Complex (formerly the Wolfe Neck) was present in New Castle County. Components from the Black Rock Complex are found at Clyde Farm Complex sites. These two complexes seem to have ended by 2000 B.P., and the Carey Complex appears followed by the Delaware Park Complex by 1500 B.P. (Custer 1989:253).

Woodland II (1000 B.P.–350 B.P.)

The Woodland II Period is generally marked by more intensive use of plant foods in the Middle Atlantic region and a shift to a more sedentary lifestyle and the development of an agricultural system. However, this shift to more of an agricultural system is absent in the Delmarva Peninsula (Custer 1989). There are two Woodland II complexes identified in Delaware: the Slaughter Creek Complex and Minguannan Complex. Artifacts include thin-walled Minguannan ceramics and triangular projectile points. The sites of the complexes are in the same environmental contexts as those of the Woodland I Period, oriented in marshes and wetland areas. This indicates that there were no major changes in the lifestyles of the peoples in Delaware during this time period (Custer 1989:314).

Contact Period (AD 1650–1750)

The Contact Period is marked by the initial contact between the Native American peoples of Delaware and European colonists. This was followed by the collapse of traditional native lifeways, as European goods and practices were adopted, and disease and conflict over the fur trade caused a severe loss of life among native groups. Evidence indicates that resident native populations in Delaware had minimal interaction with European settlers and were prevented from interacting with them by the Susquehannocks of southern Lancaster County, Pennsylvania, who dominated the fur trade. The Susquehannocks were exterminated by the Europeans by 1763, and the groups of refugees formed what Custer calls “Refugee Complexes” (Custer 1986:315; Kent 1989).

Historic Context

In general, the history of Delaware is divided into five time periods beginning with the exploration of the area by numerous European peoples in North America and concluding

with modern urbanization of the state itself. These periods are: Exploration and Frontier Settlement (1630–1730), Intensified and Durable Occupation (1730–1770), Transformation from Colony to State (1770–1830), Industrialization and Capitalization (1830–1880), and Urbanization and Suburbanization (1880–1940).

Exploration and Frontier Settlement (1630–1730)

The first European to explore the Delaware River was Henry Hudson in 1609, yet it was the Dutch West India Company who sent the first settlers to the area, established settlements at High Island in 1624 and Lewes in 1631, and opened the region for colonization (Weslager 1961:11). By 1632, conflict with the Native American population forced the settlements to be abandoned. In 1638, after “purchasing” land from the Native Americans, Swedish colonists established settlements on the banks of the Delaware River from Cape Henlopen to modern Trenton with the center of the colony being Fort Christina. Swedish and Finnish immigrants settled in this region. However, the Dutch West India Company still claimed the entire coastline from New York to the Chesapeake Bay and, in 1651, they established Fort Casimir at the site of present-day New Castle. After a military struggle, the Dutch captured Fort Christina in 1655, and established more settlements in the area, including the town of New Amstel near Fort Casimir (Weslager 1961:12).

In 1664, Sir Robert Carr, acting on behalf of James, Duke of York and Albany, confiscated the lands, houses, and property of Dutch officials in the Delaware Valley region and transferred authority of the Dutch colonies to England. In 1681, William Penn received proprietary rights over Pennsylvania from King Charles II. This grant included all the land west of the Delaware River between 40 and 43 degrees north latitude. Penn believed his land was too far from the sea and in 1692 persuaded the Duke of York to convey the three Delaware counties, New Castle, Kent, and Sussex, to him. The Delaware and the Pennsylvania colonists found themselves in disagreement over voting power, appropriations, and religious character. This led to the counties breaking away and the creation of the new colony of Delaware in 1704 (Munroe 1984).

Settlement patterns in Delaware shifted from closely spaced Dutch and Swedish villages along the Delaware River to scattered farmsteads along internal drainages and emerging roadways. Transportation routes in the late-seventeenth and early-eighteenth centuries were dictated by natural waterways, as water transportation provided a cheaper, more efficient method of transporting goods (DeCunzo and Catts 1990:30–35). The ports of Philadelphia, Wilmington, and New Castle grew steadily and had a large commercial role in the growth of Delaware.

Intensified and Durable Occupation (1730–1770)

In the eighteenth century, Delaware saw an increase in population and commercial expansion. The main settlements were in Wilmington, New Castle, and Lewes. Milling operations prospered in response to the abundance of wheat produced in New Castle County. This led to the establishment of other industries in Wilmington, including shipbuilding, coopering, and import-export trading.

Most of the state's residents were farmers with 80 to 90 percent reported to be engaged in agriculture (Egnal 1975:201). Lands reserved as forests or marshes were cleared and incorporated into the crop cycle as the need for more land for crops increased. Many large estates and land grant parcels were divided, creating new farm properties centered on supplying the market-driven agricultural economy (Frederick et al. 2006b:56). Wheat was the primary crop, followed by rye, corn, barley, oats, and a variety of vegetables (Main 1973). Livestock supplemented farmers' income from surplus crops as an increased need for labor was filled by indentured servants and slaves (Frederick et al. 2006b:56).

Early Industrialization (1770–1830)

The American Revolution brought disarray to the region, and social and political unrest in Delaware further heightened an already tense atmosphere. Strong family and political ties to Pennsylvania resulted in support for the Revolutionaries. Only one Revolutionary War battle was fought in Delaware, at Cooch's Bridge near Scottsborough in 1777, during the campaign that led to the Battle of Brandywine. After the Battle of Brandywine, British troops occupied Wilmington and threatened the state capital at New Castle. The capital was moved to Dover, and became Delaware's permanent capital in 1781.

The War of 1812 similarly avoided the state, but its economic impacts were felt in a series of embargoes negatively affecting trade, depleting soil quality, and competition from new lands in the West. From 1800 to 1830, agricultural productivity in Delaware decreased markedly and many farmers were forced to sell their land and move to the state's industrial centers to find employment (Frederick et al. 2006b:59). To fight decreased soil fertility and improve agriculture, the farmers of New Castle County established the state's first agricultural society in 1804 (Frederick et al. 2006b:59). Meanwhile, manufacturing and commerce prospered as the state's population increased. Textiles, paper, snuff, rope, gunpowder, and iron were all produced in New Castle County (Coxe 1814).

The Chesapeake and Delaware Canal (C&D Canal) was opened to traffic in 1829, connecting the Chesapeake Bay with the Delaware River and providing improved market access for area farmers and industrialists (Frederick et al. 2006b:62). Overland transportation routes were also constructed at this time and improved to accommodate increased numbers of travelers and trade. The economic depression of 1819, brought on by low prices for wheat and other grains, further decreased the value of agricultural land and crops across the state. During this period, the most successful agrarians became part of central Delaware's rural elite farming class, and diversified their interests by purchasing urban properties, investing in banks and manufacturing facilities, and supporting the growth of transportation networks (Siders et al. 1991). Members of this elite class promoted scientific farming and agricultural reform, advocating for the enclosure of farmland and use of new machinery, constructing new farm buildings, increasing livestock production, and controlling patterns of land tenancy (Siders et al. 1993:10).

Industrialization and Capitalization (1830–1880)

In northern Delaware, the Industrial Revolution led to significant advances in transportation, urbanization, and industrialization. In the 1840s, the Pennsylvania, Washington and Baltimore Railroad connected Newport to Wilmington, and a branch line connected New Castle to Delaware Junction. The railroad and the newly constructed C&D Canal allowed farmers and merchants increased opportunity to ship their products to markets in the eastern urban areas and abroad. As eastern urban centers grew and farming techniques improved, agriculture in Delaware expanded to include the production of perishable dairy goods, fruits, and vegetables for these markets. Manufacturing in the state grew as well, with roughly 380 factories reported in Delaware at the start of the Civil War, many specializing in brick-making, milling, and canning (Frederick et al. 2006b:65).

Politically divided as a border state, Delaware was not physically impacted by military conflict during the Civil War, but played an important role in the Underground Railroad, with several stations located across the state. Following the Emancipation Proclamation in 1863, many African-Americans came to Delaware from the South in search of economic opportunity (Frederick et al. 2006b:74). This emigration of labor worked with the expansion of agriculture and industry to create an economic boom following the war. Delaware farmers were at the center of this growth and demonstrated their financial success through substantial improvements to their farm properties. Numerous families in St. Georges Hundred erected new farmsteads with sizable dwellings, barns, and outbuildings (Herman et al. 1985).

Urbanization and Suburbanization (1880–1940)

An increase in population in Delaware in the late-nineteenth and early-twentieth century led to an urban expansion as immigrants from Eastern and Central Europe settled in Delaware cities and towns. An increase in rural communities was also noted at this time, as Scharf observed in *History of Delaware*, “Armstrong’s Corner is a small village situated between Middletown and Mount Pleasant. It contains a store kept by W. H. Science, a brick yard, a Presbyterian Chapel, a Wheelwright, and blacksmith shop and about twenty dwellings” (Scharf 1888:993).

Nearly 70 percent of New Castle County’s population in the early 1900s lived in Wilmington (Kellogg 1990:32). Reflecting a larger trend in population across the country, more people resided in the cities than ever, aided by increased transportation opportunities and the automobile age. Construction of T. Colman DuPont’s concrete highway in 1923, also known as US Route 13, allowed farmers, merchants, and residents to traverse the state more easily. Open to traffic by 1924, this roadway stretched from Wilmington, at the north end of the state, to the Delaware-Maryland state line at the south (Frederick et al. 2006b:79).

Transportation improvements and the growth of manufacturing during this period encouraged farmers to industrialize as increased mechanization began to fill a growing labor shortage. Agriculture in the state continued to be diverse, though rising urban populations fostered growth in the number of dairy, poultry, and truck farming operations (Frederick et al. 2006b:77). Large farms became corporations producing goods specifically for markets in Philadelphia, New York, Baltimore, and other urban areas.

Population expansion in the state's urban areas continued throughout the period, bringing new concerns to towns regarding sewer service, water supplies, and other infrastructure. Urban growth spread out from Wilmington, encroaching on surrounding farmland. By the end of this period, the pattern and density of settlement in Delaware had developed into suburban clusters at the edges of urban communities and in close proximity to highways (Frederick et al. 2006b:80). Scattered commercial development grew in response to residents' increased reliance on the automobile, particularly along well-traveled highways, resulting in the construction of gas stations, motels, diners, and roadside stands across the state.

Recent History (1940–present)

After World War II, suburban and commercial development spread across New Castle County, altering the land use patterns and landscape of the region. This type of growth began in Wilmington and radiated outwards, affecting the towns of Newark and New Castle, and eventually spilling into the county's countryside. Although production levels increased, the number of people and amount of land involved in the state's agricultural industry declined. Suburban growth and increasing operational costs encouraged many farmers to sell their land to development companies (Frederick et al. 2006b:85).

Planned suburban communities spread as improved roadways and an increase in employment brought more traffic into the state's rural areas. Significant transportation developments include the improvement of existing transportation corridors as well as the construction of Interstate 95 (I-95) and SR 1 providing faster travel routes across the state. During this period the railroads declined, but large manufacturing companies, such as DuPont and Chrysler, built substantial operations in Delaware to service people worldwide.

Previous Surveys and Documented Cultural Resources

Prior to conducting fieldwork, the potential of the project area to contain significant archaeological resources and NRHP-eligible architectural properties was assessed by reviewing previous research, cultural resource surveys, and CRS forms of known historic properties previously documented in the DE SHPO site and survey file records. This background research indicated that a considerable number of cultural resources surveys have been conducted in the vicinity of the project APE. Six previous nearby surveys are described below. Additionally, eight previously documented archaeological resources and nine previously surveyed architectural properties noted within a 0.5-mile (0.8-km) radius of the project area are also described below.

Previous Surveys

The University of Delaware Center for Historic Architecture and Engineering (UDCHAE) conducted an architectural cultural resource survey of the corridor alternatives for the proposed US Route 301 in New Castle County in 1992 and 1993. UDCHAE identified 88 historic buildings that would be impacted by the corridor alternatives. Twenty of these

buildings were already listed on the NRHP, 64 were recommended potentially eligible, and four were recommended not eligible at that time (Siders et al. 1993).

Particularly relevant to the current Armstrong Corner project area are the numerous cultural resource investigations related to the proposed new US Route 301 corridor and its alternative corridors, including the associated Spur road. An index of these 301 reports is available on DelDOT Archaeology and Historic Preservation website, which includes four documents that specifically inform the current Dovetail study. These include A. D. Marble's archaeological predictive model for the corridor (Baublitz et al. 2006), historic context and architectural reconnaissance survey (Frederick et al. 2006b), and a determination of eligibility report (Frederick et al. 2006a). The fourth investigation, conducted in 2009 by Skelly and Loy, further studied the selected alternative and Spur road and primarily addressed archaeological resources within the chosen 301 project corridor (Gundy and Kuncio 2009). These four reports provide a detailed historic context for cultural historic resources in Appoquinimink, Pencader, and St. Georges Hundred. Accompanying A. D. Marble's determination of eligibility report is a volume containing architectural descriptions, NRHP evaluations, and CRS forms for hundreds of historic architectural resources, including the nine previously recorded architectural resources within 0.5 miles (0.8 km) of the current project APE. These resources are more specifically detailed in the following section on Previously Recorded Cultural Resources.

Other reports especially relevant to the current investigation include the work of Hunter Research during a Phase IA archaeological sensitivity survey of Section 2 of the Selected Alternative route for US Route 301. Section 2 includes the Armstrong Corner Area. Hunter identified 20 areas recommended for Phase IB investigation and 13 other areas where no further work was recommended (Burrow et al. 2009). In 2011, Hunter conducted a Phase IB survey of Area 17 of Section 2. No potentially significant archaeological resources were identified (Liebeknecht and Burrow 2011).

In September of 2010, Skelly and Loy conducted a Phase I archaeological for the US Highway 301 Contract C Project, the Armstrong Corner Interchange. Skelly and Loy identified 28 testable locations in the project area. During the course of testing these locations, three isolated finds (ISFs), two field scatters labeled as such based on DE SHPO definitions, and two historic archaeological sites (7NC-F-158 [the Walker Site] and 7NC-F-159 [the J. Armstrong 3 Site]) were identified, which are within 0.5 miles (0.8 km) of the current project area. Phase II investigations were recommended for the two sites (Smoker Schumer et al. 2011)

Previously Recorded Cultural Resources

Two historic archaeological sites (7NC-F-158 [the Walker Site] and 7NC-F-159 [the J. Armstrong 3 Site]) were identified within 0.5 miles (0.8 km) of the current project area. Phase II investigations were recommended for the two sites.

Previous architectural surveys conducted in association with the US Route 301 project corridors in recent decades have identified numerous historic resources within the project vicinity. Therefore, limited archival and background research was conducted for this project

prior to any subsurface investigations. One previously documented historic resource, Ringgold Chapel A.M.E. Church (N-14330), is located within the project footprint. Three other previously documented resources are located within viewshed of the APE: the B&S Used Furniture Store site (N-5143), the Armstrong-Walker House (N-5146), and the H. G. Cole Canning Company (N-14331).

The Armstrong-Walker House, farm complex, and surrounding 5 acres (2 ha) of land (N-5146) were listed on the NRHP in 1985 and reevaluated in 2006 during the architectural investigation of the Route 301 corridor. As a result of this study, the property continues to be listed on the NRHP. The other three resources were recommended not eligible for the NRHP in during the 2006 Route 301 corridor survey. Given the recent date of these investigations, these historic resources were not revisited as part of the current study.

Another five architectural resources are located within a 0.5-mile (0.8-km) radius of the project APE. One of these resources, a mid-nineteenth-century farm property known as Achmester (N-3930), was listed on the NRHP in 1979 and was found to retain the characteristics from which it derives eligibility in the recent 301 investigations (Athan and Herman 1979; Frederick et al. 2006a). The four other properties located within a half-mile (0.8-km) of the APE were determined not eligible for the NRHP during the previous investigations: N-5144, N-5145, N-14329, and N-14335 (Frederick et al. 2006a).

RESULTS OF SURVEY

Dovetail conducted a Phase I archaeological survey of the US Route 301 Armstrong Corner new stormwater management facility project area. The entire project area was the subject of pedestrian reconnaissance and photo documentation. Based on the results of the surface reconnaissance, the archaeological survey subjected approximately 2 acres (0.81 ha) of the 2.4-acre (0.97-ha) project area to subsurface testing. All of this acreage is north and south of the Ringgold Chapel grounds. Marked wetlands and other areas of standing water were encountered in this young forest as well as push piles, notably the high, linear berm along the northern and eastern borders of the northern project area.

Summary of Results

A total of 46 STPs and two test units were excavated across the project area. Cultural materials totaling 926 items were recovered from 12 STPs and the two test units and include 842 artifacts and 84 organic materials. The two test units were both placed in the northern portion of the project area, and combined with 11 STPs to yield 840 historic artifacts, 84 pieces of organic material, and one piece of quartz lithic debitage. This resulted in the identification of Artifact Concentration 1. This artifact concentration will be discussed in detail below. One piece of jasper lithic debitage was recovered from an STP in the southern portion of the project area and was designated as Artifact Concentration 2 (Figure 3; Figure 4, p. 26; Photo 13–Photo 15, p. 27–28). **Dovetail recommends that Artifact Concentration 2 be called an ISF and not be assigned an archaeological site number or a cultural resource number.** By definition, ISFs are not eligible for NRHP listing.

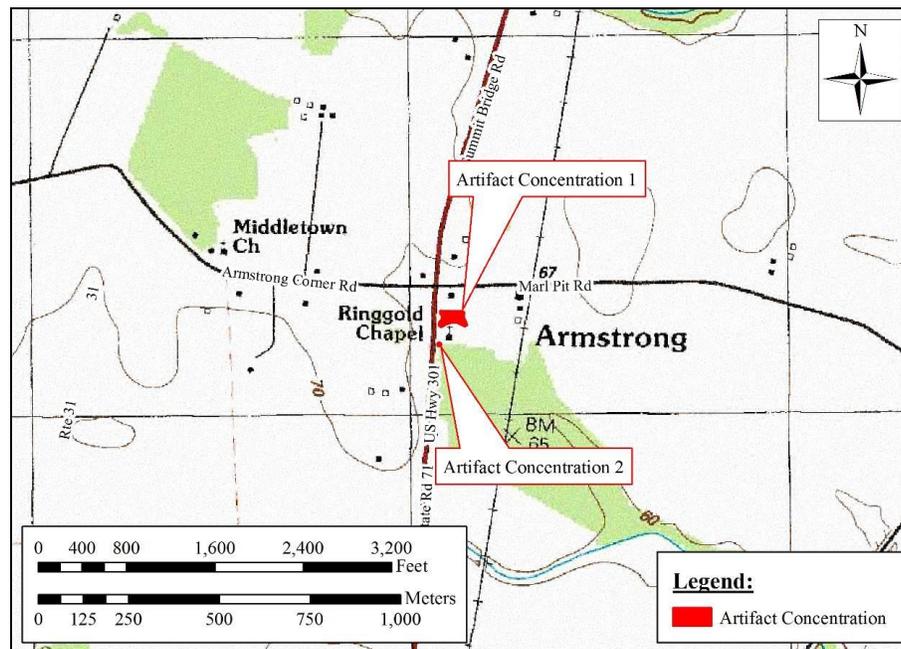


Figure 3: Location of Artifact Concentrations 1 and 2 on the 7.5-Minute Digital Raster Graphic Mosaic of New Castle County, Delaware (USDA 2001).

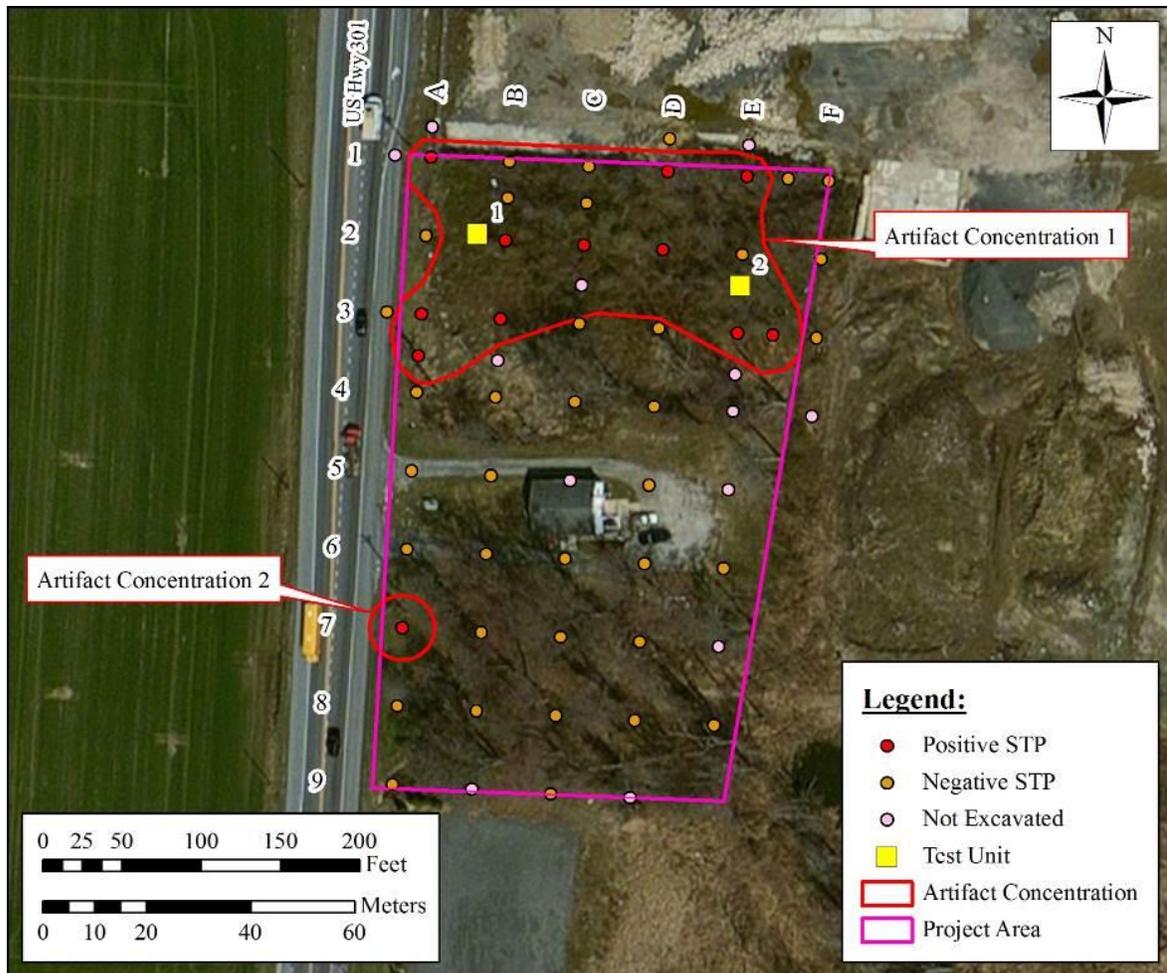


Figure 4: Location of STPs in the Project APE, NAIP (USDA 2011).

STPs across the project area were fairly shallow. The average depth was 6.8 inches (17.3 cm) and the deepest STP was 14 inches (35.6 cm). The average depth of A-horizon soils was 3.8 inches (9.7 cm), with the deepest A-horizon at 12 inches (30.5 cm). These numbers speak to the fact that the thickness of A-horizons and the overall depth of STPs varied greatly from very shallow to much deeper. STP soil profile variability was dependent on the STPs' locations relative to marked wetlands, other areas of standing water at the time of the fieldwork, and areas of obvious disturbance. Gley soils were encountered in some STPs, some filled with water immediately, and some showed the mixed evidence of disturbance under the topsoil. However, a similar soil profile was encountered in just over half of the STPs consisting of a 10YR 4/4 dark yellowish brown silty loam covering 10YR 5/6 yellowish brown silty clay (Figure 5, p. 28).



Photo 13: View of the Western Portion of Artifact Concentration 1, Looking South.



Photo 14: View of the Eastern Portion of Artifact Concentration 1, Looking South.



Photo 15: View of the Location of Artifact Concentration 2, Looking South.

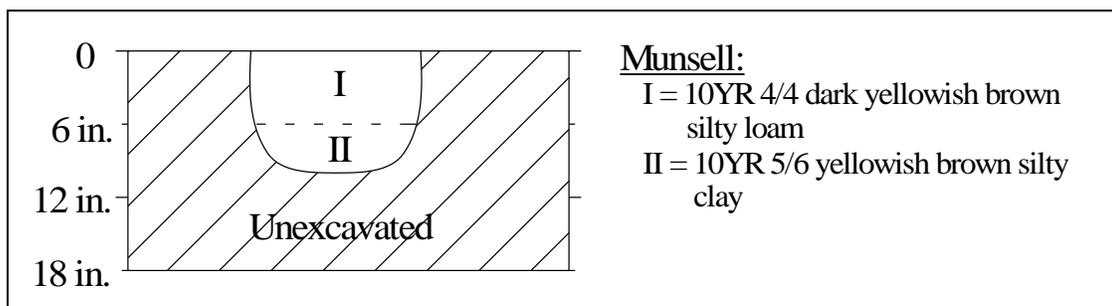


Figure 5: Representative STP Soil Profile From the Project Area.

Artifact Concentration 1

Artifact Concentration 1 is located north of the Ringgold Chapel in the northern portion of the project area. The dimensions of this concentration are approximately 225 feet (68.6 m) east to west by 100 feet (30.5 m) north to south, an area of approximately 0.52 acres (0.2 ha). Test Unit 1 was excavated in the west-central portion of the concentration, and Test Unit 2 was excavated in an east-central location (see Figure 4, p. 26). Two hundred and seventy-nine of the historic artifacts were recovered from the 11 STPs, and 561 were recovered from the test units. One piece of quartz lithic debitage was recovered from Test Unit 1.

Limited archival and historic background research was conducted to aid in the interpretation of the archaeological materials recovered from Artifact Concentration 1. The results of this work, as well as a summary of the archaeological findings, are summarized in the following sections.

Historic Background

Previous investigations of the project vicinity largely discuss the late-nineteenth and early-twentieth century history of the Armstrong Corners intersection. The Armstrong family owned land at the crossroads on the west side of the Mt. Pleasant Road since 1820, but did not commercially develop the area until shortly after the Civil War (Burrow et al. 2009:4-21).

Early-nineteenth century maps and surveys indicate that land on the east side of the crossroads belonged to Francis Haughey in the early-nineteenth century. A plat surveyed in 1802 and filed with a road petition of John Pennington lays out much of the same path that Armstrong Corner Road and Marl Pit Road maintain today (Figure 6). Furthermore, this survey also depicts a house belonging to Haughey, noted as an adjacent landowner. Decades later, Henry Heald's 1820 map of New Castle County roads also depicts this intersection along with a tavern belonging to Haughey in close proximity to the project area (Figure 7, p. 30). Tax records from St. Georges Hundred in 1816 list Francis Haughey with 325 acres (131.5 ha) containing just one house and barn (New Castle County [NCC] Tax Assessments); however, the 1820 Census indicates that more than 26 people lived within Haughey's household, including 15 slaves and two free colored persons (Ancestry.com [Ancestry] 2009).

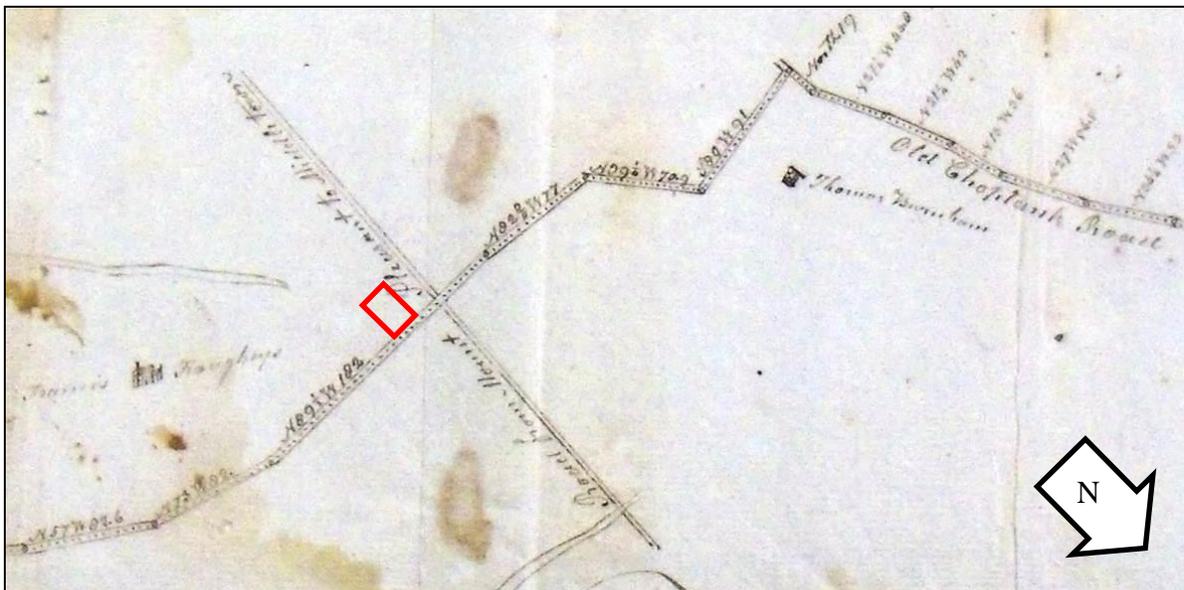


Figure 6: Detail of 1802 Petition of John R. Pennington for Roadway Connecting Choptank Road to the Road Leading from Middletown to Odessa (NCC Road Papers, DPA).

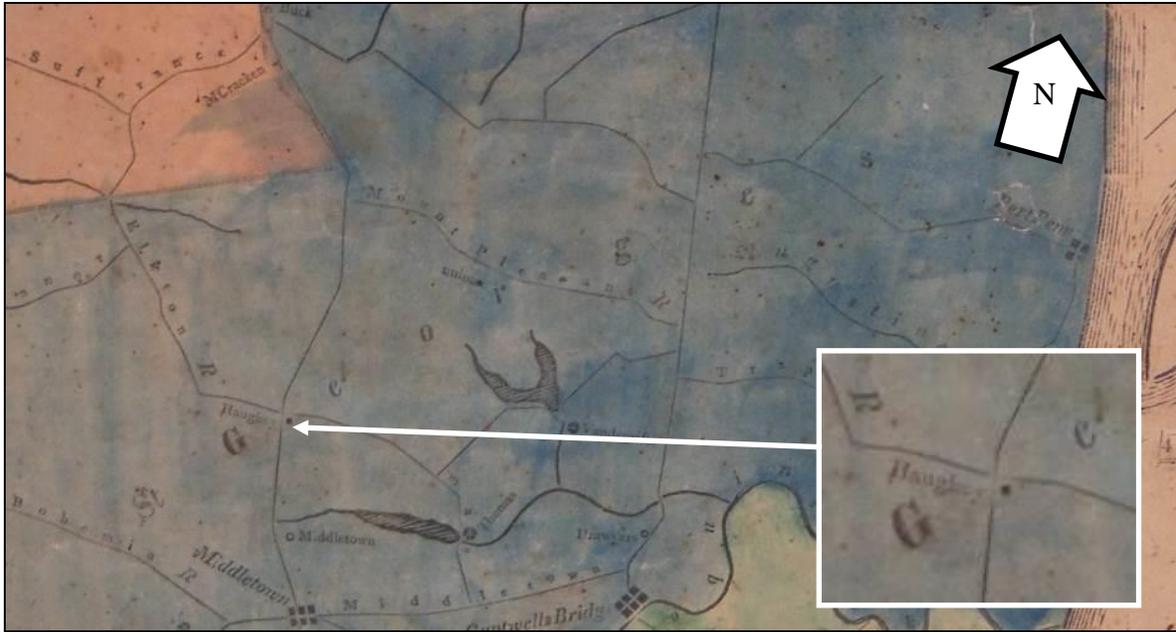


Figure 7: 1820 Heald Map of New Castle County Roads (Copy on File at Historical Society of Delaware). Inset image highlights project vicinity and impacted area, placing Haughey's Tavern close to intersection at what is now called Armstrong Corners.

By the mid-nineteenth century, St. Georges had become one of the three wealthiest hundreds in Delaware, having developed into a prosperous agricultural landscape (Herman et al. 1985:8-3). Improvements in farming technology and the agricultural economy in the decades leading up to the Civil War led to a re-building cycle that would impact nearly every house and farm in the area over a period of 40 years.

In this period agricultural practice, social organization, images of domestic order, and the structure of regional economic systems were reconsidered and reformed. The most visible result was a new architecture involving the extensive alteration of old houses, redevelopment of established sites, development of new sites, and even reworking of new buildings (Siders 1993:13).

Price and Rea's 1849 map of New Castle County does not depict a tavern or house at Armstrong Corners, suggesting that Haughey's house was not one of the older buildings that was substantially improved during this re-building period (Figure 8, p. 31). However, the 1868 Pomeroy and Beers Atlas shows two dwellings noted as the property of A.J. Nowland in the immediate vicinity of the project area, but also credits Nowland with ownership of Achmester, a NRHP-listed farm property located northeast of the project area (Figure 9, p. 31). Achmester was the home of Richard Mansfield from 1819 until his death in 1846, from which time he kept "detailed accounts of his various enterprises, business dealings and agricultural activities, including the names, activities and wages of all those involved in planting and harvesting the fruits of Achmester" (Athan and Herman 1979). Tax records from 1837 report that Mansfield owned a 400-acre (161.9-ha) tract with a frame house and barn, while the 1840 Census listed 17 people residing within his household (NCC Tax

Assessments; Ancestry 2009). Alfred C. Nowland, son of Mary Mansfield, appears to have inherited the family estate and owned 388 acres (157 ha) with a frame house and frame outbuildings valued at \$24,036 in 1869 (NCC Tax Assessments). No tenant houses were noted in these records at that time.

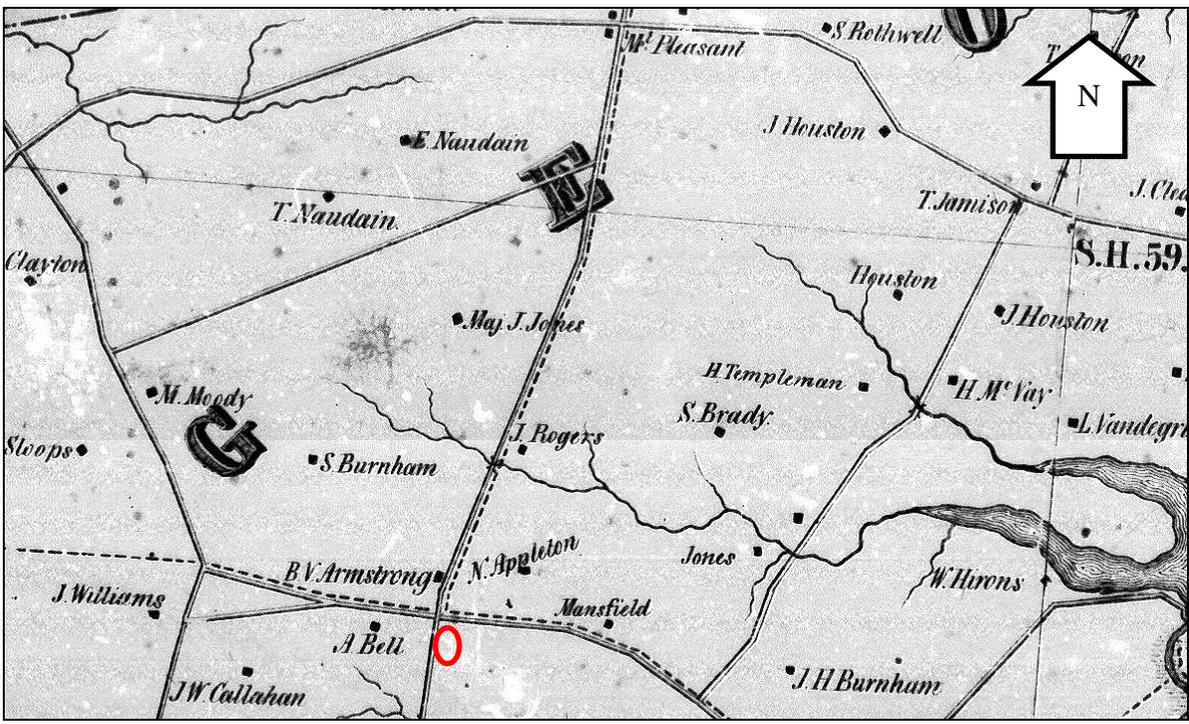


Figure 8: 1849 Price and Rea Map (Copy on File at Delaware Public Archives). Impacted area highlighted in red.

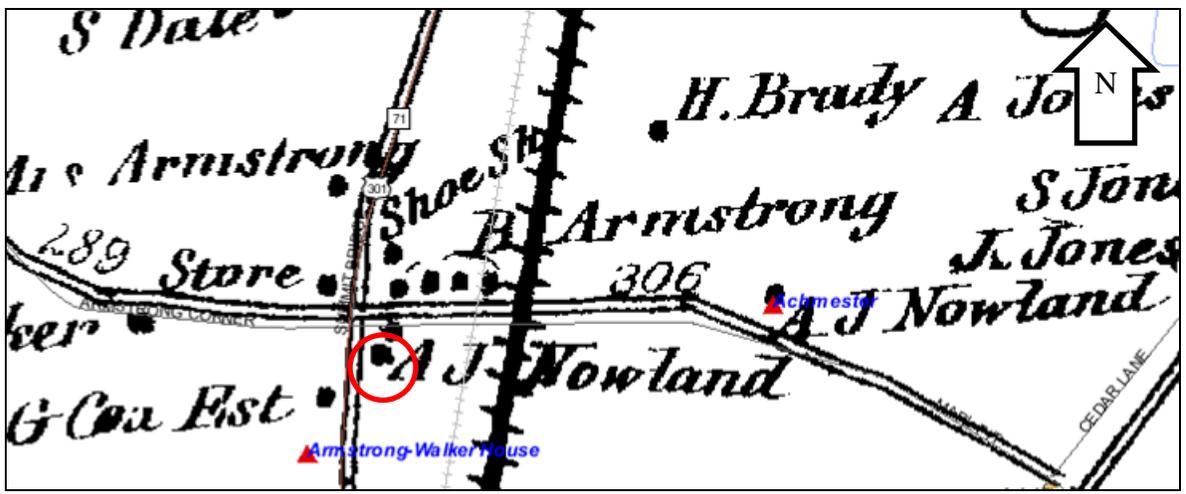


Figure 9: 1868 Pomeroy and Beers Map, St. Georges Hundred Showing NRHP-Listed Historic Resources (CHRIS 2013). The general project area is highlighted in red.

The Nowland family continued to own property at the southeast corner of the Armstrong Corners crossroads into the last-quarter of the nineteenth century and is associated with buildings in the project area on the 1881 Hopkins and 1893 Baist maps (Figure 10 and Figure 11). Census records from 1850 to 1880 indicate that A.C. Nowland did not live at the farm, but resided in the town of New Castle (Ancestry 2009).



Figure 10: 1881 Hopkins Map (Copy on file at Delaware Public Archives). Project area highlighted in red.



Figure 11: 1893 Baist Map (Copy on File at Delaware Public Archives). Project area highlighted in red.

The two dwellings noted along the east side of what is now Summit Bridge Road (SR 71/301) in 1893 are not depicted in a topographic map of 1899, but two barns or non-residential properties are recorded in another from 1957 (Figure 12 and Figure 13). These buildings are also visible in a circa-1961 aerial image of Armstrong Corners which reveals what appears to be a barn or farm building and what is likely the relocated Ringgold Chapel A.M.E. Church building (N-14330) situated within the project area (Figure 14, p. 34).

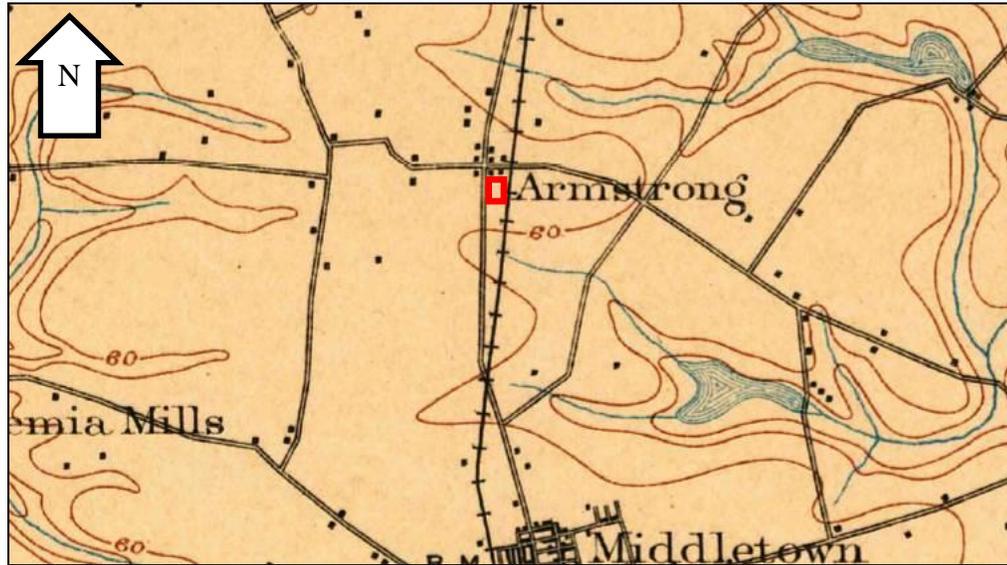


Figure 12: 1899 Dover Topographic Map, USGS Historical Topographic Map Collection (USGS 1899). Project area highlighted in red.

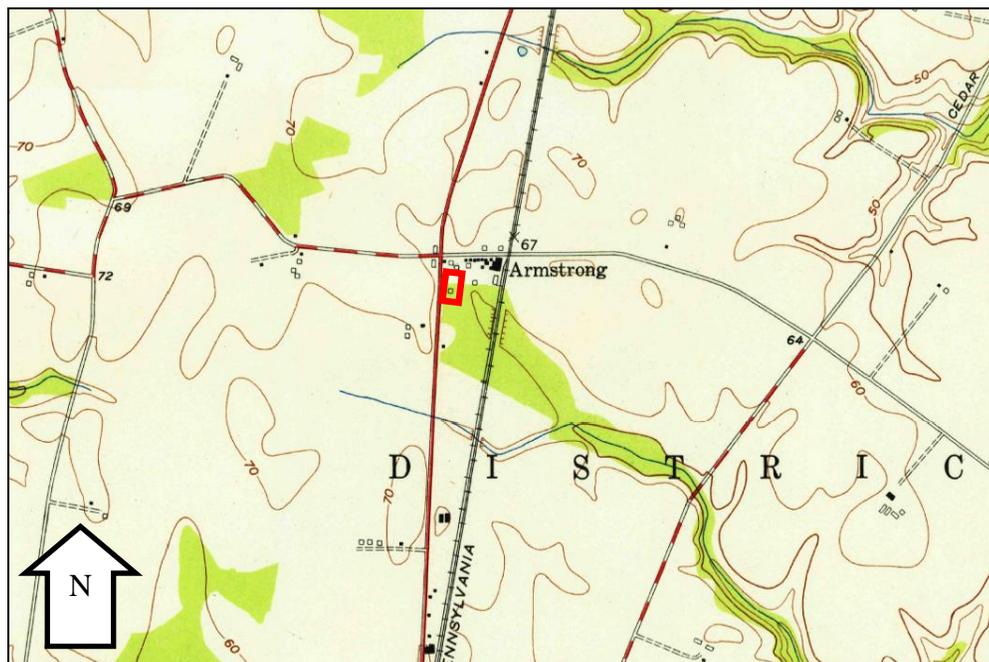


Figure 13: 1957 Middletown 7.5-Minute Topographic Quadrangle, USGS Historical Topographic Map Collection (USGS 1957). Project area highlighted in red.



Figure 14: Circa-1961 Aerial Image of Armstrong Corners (CHRIS 2013). What is likely a barn, or farm building, and Ringgold Chapel (N-14330) are highlighted.

By the early 1990s, the barn and other evidence of agricultural activities within the project area are no longer evident in topographic maps or aerial images (Figure 15 and Figure 16, p. 35).

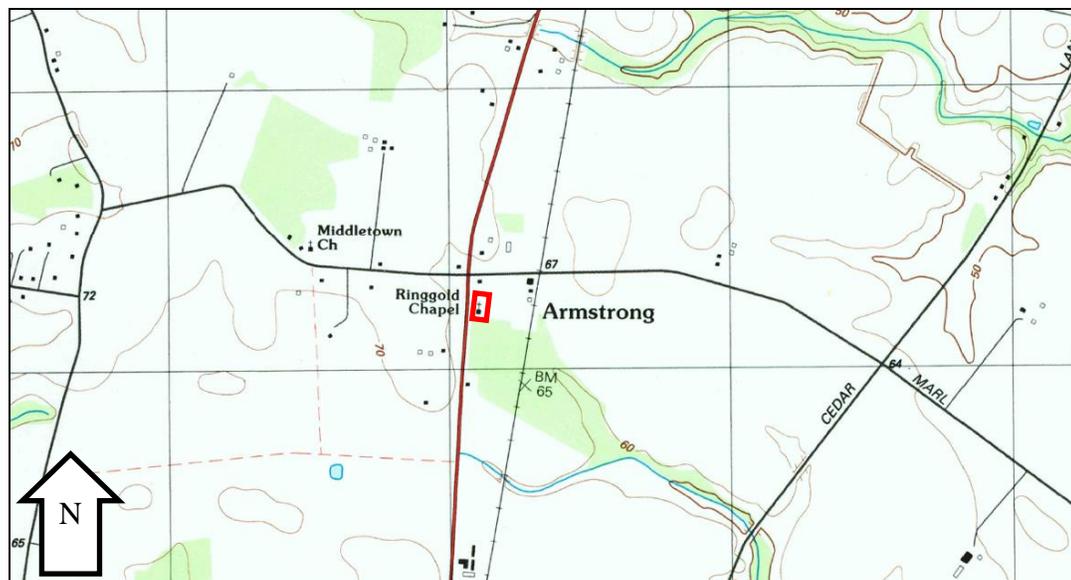


Figure 15: 1993 Middletown 7.5-Minute Topographic Quadrangle, USGS Historical Topographic Map Collection (USGS 1993). Project area highlighted in red.



Figure 16: Circa-1992 Aerial Image of Armstrong Corners (CHRIS 2013).

Shovel Tests

Shovel testing in the northern portion of the APE resulted in the recovery of 279 historic artifacts from 11 positive shovel test. This shovel testing assemblage was dominated by glass fragments, which composed more than 65 percent (n=184) of the overall collection. These artifacts consisted of a variety of colored vessel and bottle glass, including clear, milk glass, aqua, solarized, amber, brown, brilliant green, and green varieties. The assemblage also contained 47 architectural artifacts consisting of 25 nails, 20 pieces of window glass, and two handmade brick fragments. The nails included 11 cut (1815–1890), six ungalvanized wire (1890–1945), and eight that were unidentifiable. The ceramic assemblage collected from shovel testing consisted of 24 fragments (18 whiteware, three ironstone, one redware, one porcelain, and one refined stoneware). The remainder of the assemblage contained 19 iron alloy metal fragments (11 flat pressed, four strips, two unidentifiable, a cap rim, and a possible clamp), one bakelite button, four other rubber and plastic artifacts, and eight pieces of coal.

The majority of these artifacts were recovered from the upper soil strata, only 12 of which were obtained from the first soil stratum. The assemblage, dominated by disposable glass artifacts, appears to date to the last quarter of the nineteenth century into the twentieth century.

Test Units

Given the abundance of artifacts recovered during shovel testing, two test units were excavated within Artifact Concentration 1. These units were placed in areas of high artifact

concentrations in an effort to recover significant numbers of artifacts to further assist in site interpretations, as well as, to search for the intact cultural features. The excavation of these two test units resulted in the recovery of 561 additional artifacts.

Similar to the shovel test unit assemblage, the test unit collection was dominated by glass materials. A total of 350 (62 percent) glass fragments was recovered, including 186 bottle (126 clear, 27 brown, 13 dark amber, 11 brilliant green, four light aqua, two blue aqua, two green aqua, and one cobalt blue), 157 vessel (148 clear, four solarized, two milk, one aqua, one light aqua, and one cobalt blue), three flat, three melted, and one lamp. One-hundred twenty four (22 percent) architectural materials were collected consisting of 75 nails (33 unidentifiable, 24 ungalvanized wire, and 18 cut), 40 window glass (19 light aqua aqua, 10 clear, and one green aqua), eight bricks (six machine made, one handmade, one unidentifiable), and the one spike.

Metal artifacts included 18 iron alloy flat pressed metal, one brass alloy flat pressed metal, 10 unidentifiable iron, one possible brass alloy door hinge, one iron alloy pulley, and one iron alloy strap. The ceramics consisted of 27 (5 percent) ceramic fragments (17 whiteware, two ironstone, two redware, two porcelain, one refined earthenware, one refined stoneware, one yellowware, and one terra cotta). The remainder of the collection consisted of seven personal artifacts (one of each: perfume bottle, kaolin clay pipestem, glass marble, brass alloy button, bakelite button, plastic label, and brass alloy tag with chain), 21 other artifacts (including asbestos tile, hard plastic, plastic bag, a brass alloy fork, and a possible plastic insulator), 76 pieces of organic material (54 bone and 22 coal) and one quartz flake.

Test Unit 1

Test Unit 1 was located in the western portion of the site area, adjacent to STP B2. The unit, also near the farm building seen in Figure 13–15 (pp. 33–34), was placed in this location to explore the western extent of the site deposits as well as to further investigate the high number of artifacts from adjacent shovel test. Excavation of this test unit resulted in the recovery of 277 artifacts and 76 organic materials. All the artifacts were historic in nature except for one piece of lithic debitage.

Five natural strata were encountered during the excavation of the Test Unit 1. Stratum I was a 0.5 to 3.5-inch (1.3 to 8.9-cm) thick, 10YR 4/2 dark grayish brown silty clay topsoil. Only one piece of milk glass was recovered from this stratum. Stratum II appears to be a disturbed overburden ranging from 2 to 4 inches (5.1 to 10.2 cm) thick described as a 10YR 4/6 dark yellowish-brown clay loam that contained 39 artifacts (17 glass fragments [nine vessel and eight bottle], 13 nails [five unidentifiable, five cut, and three ungalvanized wire], three ceramic fragments [two whiteware and one ironstone], two light aqua window glass, two slag, the one plastic garment label, and the one possible plastic insulator) and six organic materials (four pieces of coal and two bone fragments).

Stratum III is likely a 6 to 9.5-inch (15.2 to 24.1-cm) thick buried plowzone (Ap-horizon) consisting of very wet 2.5Y 4/2 dark grayish brown silty loam. Water began seeping into the unit at the base of this stratum. A total of 213 artifacts and 69 organics was recovered from this stratum and a chain protruding from the east wall was left in situ. One hundred and

seventy-five of these artifacts and all of the organic materials came from the first 4 inches (10.2 cm) of this stratum. Artifacts from Stratum III include 115 glass fragments (104 bottle [84 clear, 13 dark amber, two brilliant green, one brown, one green aqua, one light green aqua, one cobalt blue, and one blue aqua], 10 vessel [eight clear, one aqua, and one milk], and one melted), 44 architectural artifacts (30 nails [14 unidentifiable, 13 ungalvanized wire, and three cut], 12 window glass [five aqua, five light aqua, one green aqua, and one clear], the one unidentifiable brick, and the one spike), 29 metal fragments (15 iron alloy flat pressed, the nine unidentifiable iron alloy, one possible brass alloy door hinge, one iron alloy pulley, and one iron alloy strap), 14 ceramic fragments (nine whiteware, two porcelain, one redware, one yellowware, and one terra cotta), nine other artifacts (four slag, two hard plastic, one plastic bag fragment, the fork, and one piece of asphalt), a marble, and a brass button.

Stratum IV represents a 2 to 3-inch (5.1 to 7.6-cm) thick possible transitional E-horizon above subsoil described as a 2.5Y 5/2 grayish brown silty clay. Twenty-four artifacts and one organic (coal) were present in this stratum. The artifacts include 11 glass fragments (10 vessel [eight clear, two solarized] and one brown bottle), nine architectural artifacts (eight nails [four unidentifiable and four cut] and one light aqua window glass), three ceramic fragments (one whiteware, one redware, and one refined stoneware), and the one piece of quartz lithic debitage. Finally, 4 to 6 inches (10.2 to 15.2 cm) of 2.5Y 5/6 light olive brown silty clay subsoil (Stratum V) was removed to ensure the bottom of the culture bearing strata had been reached. Water continued to seep in rapidly and excavation was terminated. No artifacts or organic materials were present in Stratum V (Photo 16 and Figure 17, p. 37).



Photo 16: Test Unit 1 East Wall Profile.

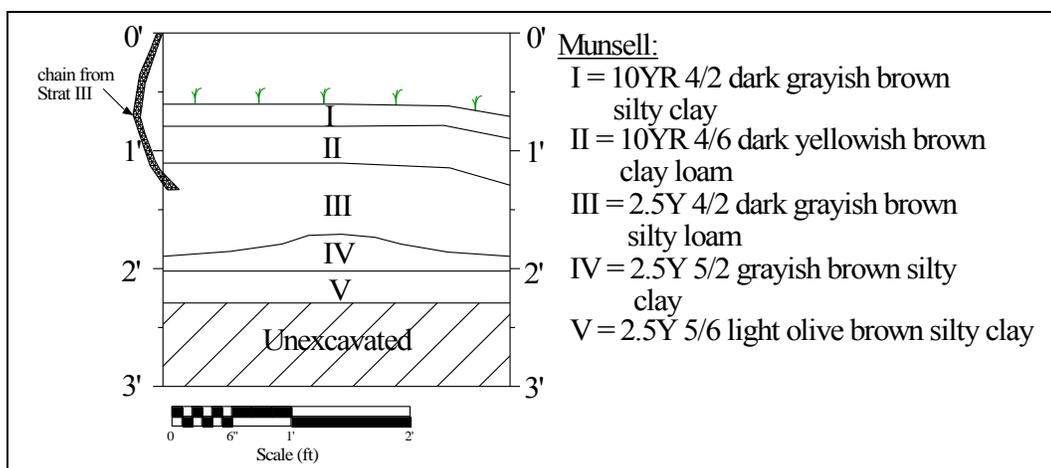


Figure 17: Test Unit 1 East Wall Profile.

Test Unit 2

Test Unit 2 was excavated in the eastern portion of the site area, south of STP E2. The unit was placed in this location to explore the eastern portion of the site and to investigate the high number of artifacts from adjacent shovel tests. Excavation of this test unit resulted in the recovery of 285 artifacts, all of which were historic. These artifacts include 206 glass fragments, 56 architectural artifacts, seven ceramic fragments, nine other artifacts, four personal artifacts, and three metal fragments.

Five natural strata were encountered during the excavation of the Test Unit 2. Stratum I was a 1 to 3-inch (2.5 to 7.6-cm) thick, 10YR 3/4 dark yellowish brown silty loam topsoil. A total of 67 artifacts was recovered from this stratum. These artifacts include 58 glass fragments (29 vessel, 25 bottle, two melted, one flat, and one lamp) and nine architectural artifacts (six window glass and three ungalvanized wire nails).

Stratum II is a disturbed layer ranging from 4 to 8 inches (10.2 to 20.3 cm) thick described as a 10YR 4/6 dark yellowish-brown silty clay mixed with 10YR 4/3 brown silty loam, 10YR 6/2 light brownish gray silty loam, and 10YR 6/6 brownish yellow sandy loam. Two hundred and eighteen artifacts were recovered from this stratum. Artifacts from the stratum include 148 glass fragments (98 vessel [97 clear and one solarized], 48 bottle [23 clear, 11 brilliant green, 11 brown, and three light aqua] and two flat), 47 architectural artifacts (21 nails [10 unidentifiable, six cut, and five ungalvanized wire], 19 window glass, six machine-made bricks, and one hand-made brick), all seven ceramic fragments, all nine other artifacts, all four personal artifacts, the two iron alloy flat pressed metal fragments, and the one unidentifiable metal fragment, one perfume bottle, one kaolin clay pipestem, one bakelite plastic button, and one brass alloy tag with an attached chain.

Stratum III is a 1 to 3-inch (2.5 to 7.6-cm) thick 10YR 3/2 very dark grayish brown silty clay loam which likely represents the remnants of an A-horizon truncated by disturbed Stratum II. The sharp break between this stratum and the next indicates that this buried A-horizon is likely a plowzone. Cultural materials were absent from this stratum. One level was excavated into Stratum IV, stopping after 1 to 2 inches (2.5 to 5.1 cm) along the north wall at

a soil change and at 4 inches (10.2 cm) across the rest of the unit. The soil was described as a very compact 10YR 6/3 silty loam and no cultural materials were present. Excavation of Test Unit 2 was terminated because two consecutive culturally sterile levels were encountered (Photo 17 and Photo 18; Figure 18, p. 40).

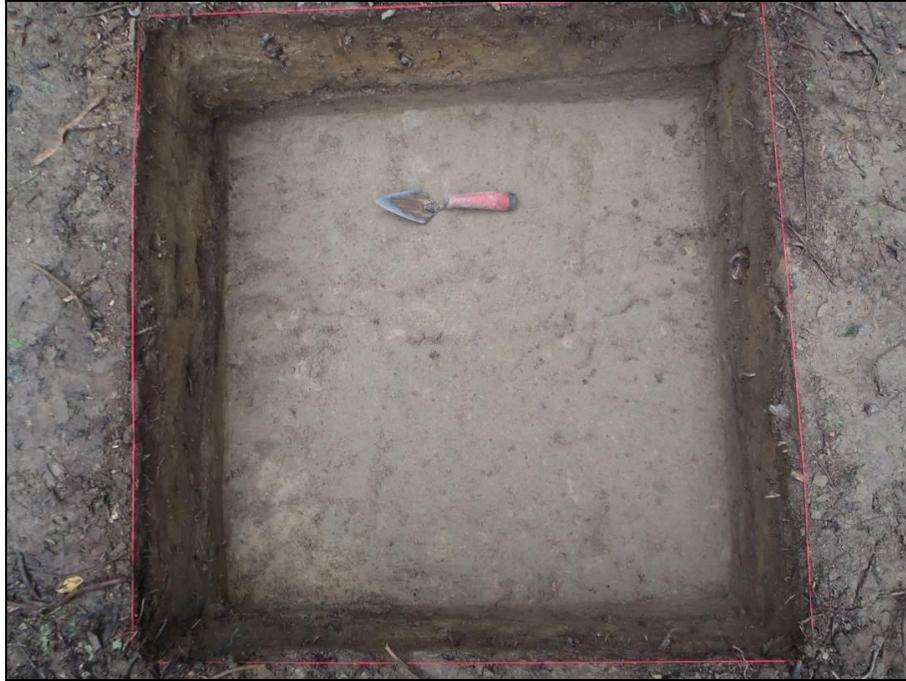


Photo 17: Test Unit 2 Plan View at Base of Excavation.



Photo 18: Test Unit 2 East Wall Profile.

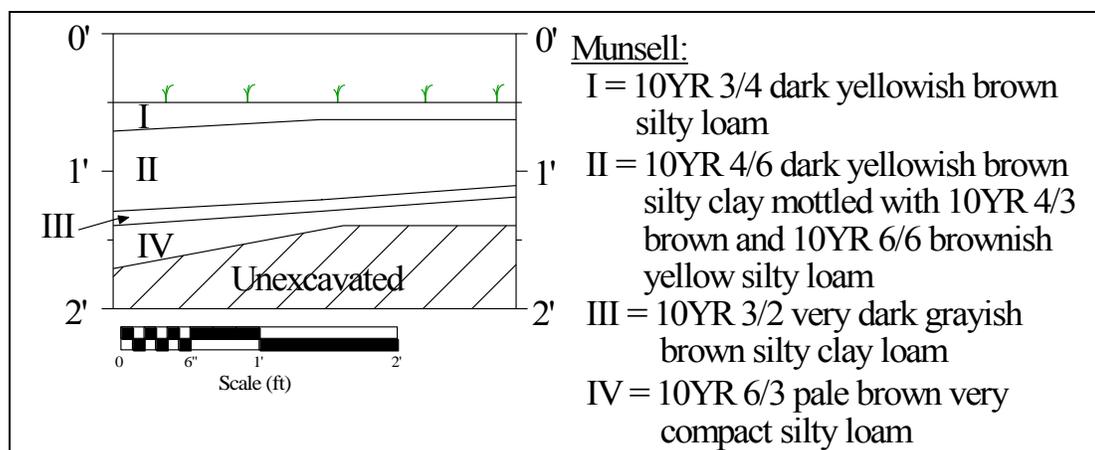


Figure 18. Test Unit 2 East Wall Profile.

Evaluation and Recommendations

With the exception of one piece of lithic debitage, Artifact Concentration 1 is a large historic artifact scatter which dates to the second quarter of the nineteenth century. The abundance of disposable glass artifacts and the presence of whiteware and ungalvanized wire-cut nails date the assemblage to the latter part of the nineteenth century into the twentieth century. This period of occupation is contemporaneous with the ownership of the property by the Nowland family, specifically Alfred C. Nowland who appears to have inherited the family estate complete with a frame house and frame outbuildings in 1869. The 1881 Hopkins and 1893 Baist maps depict buildings in the general vicinity of Artifact Concentration 1. Later aerial imagery of the parcel indicates that these were non-domestic, but instead farm-related buildings. It is likely the artifacts recovered from Artifact Concentration 1 are related to these non-domestic buildings. No above-ground or subsurface features were encountered. Nonetheless, due to large size of the artifact assemblage and number of artifact types represented, **Dovetail recommends that Artifact Concentration 1 be assigned an archaeological site number and a cultural resource number.** As a recommended archaeological site, the concentration's eligibility for NRHP listing must be evaluated based on the Phase I results if possible.

There are several examples from the vertical distribution of cultural material where artifacts with potentially different temporal affiliations were recovered from the same deposits. Whiteware fragments, which could date to 1840, and cut nails, which could date to 1815, were collected from Stratum II of Test Unit 1 along with the plastic tag off of a pair of Rand plastic baby pants dating to the late 1940s at the earliest. In the buried plowzone (Aph-horizon) of Test Unit 1, whiteware fragments and cut nails were recovered along with the stippled and knurled bases of machine made bottles dating to 1940 and later. In Stratum II of Test Unit 2, stippled and knurled bottle bases, the House of Fuller perfume bottle (post-1909), a bakelite plastic button (1907), and industrial window glass reinforced with chicken wire (1892) were recovered along with whiteware and cut nails. The presence of these artifacts in stratigraphic context with each other can be explained either by the length of time whiteware and cut nails were produced (whiteware is still being produced) or disturbance.

The Phase I data contains a great deal of evidence of severe disturbance to the area. Almost all of the STP cultural material was recovered from the first stratum. The one STP with cultural material below the first stratum appears to have a thin layer of yellowish brown overburden above the artifact bearing layer.

Layers of overburden were also encountered in both test units. In the case of Test Unit 1, the overburden appears to have been placed on top of a relatively intact plowzone. However, 74 percent of the cultural material recovered from Test Unit 1 came from the upper half of this plowzone and any features associated with these items would have been destroyed or extremely disturbed during the creation of this plowzone. The potentially intact Stratum IV has a maximum thickness of only 3 inches (7.6 cm). This is probably because Stratum IV represents the bottom of a soil horizon that was much more substantial in the past but has since been truncated by the plowzone. The remaining potentially intact soil contained only seven percent of the cultural materials recovered from Test Unit 1. The presence of a significant number of architectural artifacts (68) in the assemblage indicates that there may have been a building in the vicinity of Test Unit 1. However, nothing remains except these artifacts.

The soil profile of Test Unit 2 exhibits evidence of much greater disturbance. Stratum II is a disturbed layer with a maximum thickness of 8 inches (20.3 cm) which has truncated all except the final 1 to 3 inches (2.5 to 7.6 cm) of a possible plowzone. This indicates that the disturbed layer was pushed across the existing surface from elsewhere. Test Unit 2 is approximately 40 feet (12.2 m) from the berm along the eastern project boundary and approximately 70 feet (21.3 m) from the berm along the northern project boundary. The presence of the disturbed layer here may be related to the construction of the berm. Thin A-horizon topsoil subsequently developed on top of the disturbed layer. No cultural material was recovered from Test Unit 2 below the disturbed layer, indicating that the cultural material in this area was also pushed to this location from elsewhere.

The recommended site was evaluated based on the four NRHP listing criteria. There are no significant associations between these deposits and a significant historical event or patterns of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). The extremely disturbed condition of the site makes it very unlikely that there is potential for significant information on the history of southern New Castle County or the State of Delaware in general (Criterion D). Therefore, **Dovetail recommends that the Artifact Concentration 1 site is not eligible for NRHP listing and no further work is necessary.**

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SUMMARY AND RECOMMENDATIONS

From July 1 to 3, 2013, Dovetail conducted Phase I archaeological survey at the request of the DeIDOT for the US Route 301 Armstrong Corner new stormwater management facility project area. Over the past several years, DeIDOT has been completing cultural resource investigations related to the planned construction of US Route 301 and its associated Spur Road. Previous studies included archaeological investigations, architectural analysis, and archival research along the proposed US Route 301 project corridor. The goals of this Phase I archaeological survey were to identify any archaeological sites older than 50 years in the project area for the proposed stormwater management facility and make recommendations on their NRHP eligibility.

Two historic archaeological sites (7NC-F-158 [the Walker Site] and 7NC-F-159 [the J. Armstrong 3 Site]) were identified within 0.5 miles (0.8 km) of the current project area. Phase II investigations were recommended for the two sites, neither are within the current project area.

Previous architectural surveys conducted in association with the US Route 301 project corridors in recent decades have identified numerous historic resources within the current project vicinity. Therefore, limited archival and background research were conducted for this project prior to any subsurface investigations. One previously documented historic resource, Ringgold Chapel A.M.E. Church (N-14330), is located within the project footprint. Three other previously documented resources are located within the viewshed: B&S Used Furniture Store site (N-5143), Armstrong-Walker House (N-5146), and H. G. Cole Canning Company (N-14331). The Armstrong-Walker House, farm complex, and surrounding 5 acres (2 ha) of land (N-5146) were listed on the NRHP in 1985 and reevaluated in 2006 during the architectural investigation of the Route 301 corridor. As a result of the 2006 study, the property continues to be listed on the NRHP. The other three resources were recommended not eligible for the NRHP in during the 2006 Route 301 corridor survey. Given the recent date of these investigations, these historic resources were not revisited as part of the current study.

The Phase I archaeological survey included a pedestrian reconnaissance to identify areas within the project area with the potential for intact deposits and subsurface investigations of these testable areas. Based on the results of the surface reconnaissance, the archaeological survey subjected approximately 2 acres (0.81 ha) of the 2.4-acre (0.97-ha) project area to subsurface testing, resulting in the excavation of 46 shovel test pits (STPs) and two test units. The survey identified two artifact concentrations. Dovetail **recommends that artifact Concentration 1 is an archaeological site dating to the mid-nineteenth to early-twentieth century that warrants a CRS number and an archaeological site number.** Artifact Concentration 2 is an ISF consisting of one piece of lithic debitage that Dovetail **recommends not be assigned a CRS number or a site number.** Both Artifact Concentrations are **recommended not eligible for listing on the NRHP.**

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APPENDIX A: ARTIFACT CATALOG

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Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1	A1			I	ARC	window glass	aqua					1
Artifact Concentration 1	A1			I	ARC	window glass	light aqua					3
Artifact Concentration 1	A1			I	ARC	window glass	clear					1
Artifact Concentration 1	A1			I	CER	stoneware	refined	body		gray-bodied/salt glazed exterior/interior manganese lead glaze		1
Artifact Concentration 1	A1			I	CER	earthenware	whiteware	base		plain	crazed/mend/exposed to heat	2
Artifact Concentration 1	A1			I	CER	earthenware	whiteware	base		continuous foot	crazed	1
Artifact Concentration 1	A1			I	CER	earthenware	ironstone	body		plain	crazed	1
Artifact Concentration 1	A1			I	CER	earthenware	redware	body		clear lead glaze/ mottled		1
Artifact Concentration 1	A1			I	GLS	bottle	brilliant green	body				1
Artifact Concentration 1	A1			I	GLS	bottle	aqua	body				1
Artifact Concentration 1	A1			I	GLS	bottle	light aqua	body				1
Artifact Concentration 1	A1			I	GLS	bottle	solarized	body				1
Artifact Concentration 1	A1			I	GLS	bottle	solarized	rim		possible bead finish		1
Artifact Concentration 1	A1			I	GLS	vessel	clear	body				12
Artifact Concentration 1	A1			I	GLS	vessel	clear	body			crizzled	3
Artifact Concentration 1	A1			I	MET	strip	rounded		iron alloy			1
Artifact Concentration 1	A1			I	ORG	coal						1
Artifact Concentration 1	A1			I	OTH	hard rubber		flat		molded thin horizontal banding		3
Artifact Concentration 1	A3	South		I	CER	earthenware	whiteware	rim		plain	crazed/mend	2
Artifact Concentration 1	A3	South		I	CER	earthenware	whiteware	body		plain	crazed/mend with rim	1
Artifact Concentration 1	A3	South		I	CER	earthenware	whiteware	body		plain/glaze missing on reverse	crazed	4
Artifact Concentration 1	A3	South		I	GLS	bottle	aqua	body		embossed lettering		3
Artifact Concentration 1	A3	South		I	GLS	vessel	clear	body				5
Artifact Concentration 1	A3	South		I	GLS	vessel	clear	body			crizzled	1
Artifact Concentration 1	A3	South		I	GLS	bottle	clear	body		paneled		1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1	A3			I	ARC	brick	handmade				misfired	1
Artifact Concentration 1	A3			I	ARC	nail	cut	no head	iron alloy		shaft	7
Artifact Concentration 1	A3			I	ARC	nail	cut	unidentifiable head	iron alloy		head and shaft	2
Artifact Concentration 1	A3			I	ARC	nail	ungalvanized wire	no head	iron alloy		shaft	4
Artifact Concentration 1	A3			I	ARC	nail	ungalvanized wire	brad head	iron alloy		head and shaft	1
Artifact Concentration 1	A3			I	ARC	nail	unidentifiable	unidentifiable head	iron alloy		head and shaft	4
Artifact Concentration 1	A3			I	ARC	window glass	aqua					2
Artifact Concentration 1	A3			I	CER	earthenware	whiteware	body		plain	crazed	2
Artifact Concentration 1	A3			I	GLS	bottle	dark amber	body				5
Artifact Concentration 1	A3			I	GLS	bottle	dark amber	body		exterior stippling		3
Artifact Concentration 1	A3			I	GLS	bottle	dark amber	body		embossed band		1
Artifact Concentration 1	A3			I	GLS	bottle	aqua	body		embossed lettering	mend	2
Artifact Concentration 1	A3			I	GLS	bottle	clear	base		embossed lettering/hazel-atlas trademark		1
Artifact Concentration 1	A3			I	GLS	vessel	clear	body				14
Artifact Concentration 1	A3			I	GLS	vessel	clear	rim		molded pie crest edge	mend	2
Artifact Concentration 1	A3			I	GLS	vessel	clear	body		paneled		2
Artifact Concentration 1	A3			I	MET	flat pressed metal			iron alloy			4
Artifact Concentration 1	A3			I	MET	unidentifiable			iron alloy		metal conglomerate	2
Artifact Concentration 1	A3			I	ORG	coal					sample	2
Artifact Concentration 1	B2			II	ARC	nail	unidentifiable	no head	iron alloy		shaft	1
Artifact Concentration 1	B2			II	ARC	nail	cut	no head	iron alloy		shaft	2
Artifact Concentration 1	B2			II	CER	porcelain	hard-paste	body		plain		1
Artifact Concentration 1	B2			II	CER	earthenware	ironstone	rim		plain		1
Artifact Concentration 1	B2			II	GLS	vessel	clear	body				6
Artifact Concentration 1	B2			II	GLS	vessel	solarized	body		exterior molded geometric motif		1
Artifact Concentration 1	B2			II	GLS	bottle	light aqua	shoulder				1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1	B2			II	GLS	lamp glass	clear	body				1
Artifact Concentration 1	B3			I	CER	earthenware	ironstone	base		continuous foot		1
Artifact Concentration 1	B3			I	GLS	bottle	brilliant green	body		white and red applied unidentifiable label		1
Artifact Concentration 1	B3			I	MET	possible clamp			iron alloy			1
Artifact Concentration 1	B3			I	ORG	coal						3
Artifact Concentration 1	C2			I	CER	earthenware	whiteware	base		continuous foot	crazed/weathered	1
Artifact Concentration 1	C2			I	GLS	vessel	clear	body				4
Artifact Concentration 1	C2			I	ORG	coal						1
Artifact Concentration 1	D1			I	ARC	window glass	light aqua					2
Artifact Concentration 1	D1			I	CER	earthenware	whiteware	body		plain	crazed	1
Artifact Concentration 1	D1			I	GLS	vessel	clear	body				1
Artifact Concentration 1	D1			I	MET	cap rim	curved		iron alloy			1
Artifact Concentration 1	D1			I	ORG	coal						1
Artifact Concentration 1	D2			I	GLS	bottle	clear	body		embossed lettering		1
Artifact Concentration 1	D2			I	GLS	bottle	clear	body		embossed \floral motif		1
Artifact Concentration 1	D2			I	GLS	vessel	milk	lid				1
Artifact Concentration 1	D2			I	GLS	vessel	clear	body				3
Artifact Concentration 1	D2			I	GLS	bottle	clear	base		embossed lettering center of base	knurled base-post 1940	1
Artifact Concentration 1	D2			I	GLS	vessel	clear	rim		exterior threading/protruding bead	mason jar fragment	1
Artifact Concentration 1	E1			I	GLS	bottle	green	body				1
Artifact Concentration 1	E1			I	GLS	bottle	clear	body				1
Artifact Concentration 1	E1			I	GLS	vessel	light aqua	body				1
Artifact Concentration 1	E3	East		I	ARC	nail	unidentifiable	no head	iron alloy		shaft	1
Artifact Concentration 1	E3	East		I	ARC	nail	unidentifiable	unidentifiable head	iron alloy		head and shaft	1
Artifact Concentration 1	E3	East		I	ARC	window glass	clear					3
Artifact Concentration 1	E3	East		I	ARC	window glass	light aqua					5

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1	E3	East		I	CER	earthenware	whiteware	base		continuous foot/polychrome transferprint floral motif	mends with body	1
Artifact Concentration 1	E3	East		I	CER	earthenware	whiteware	body		polychrome transferprint floral motif	mend/mends with base	2
Artifact Concentration 1	E3	East		I	CER	earthenware	whiteware	body		plain		1
Artifact Concentration 1	E3	East		I	GLS	bottle	brown	body		embossed rilling		1
Artifact Concentration 1	E3	East		I	GLS	bottle	brilliant green	body				1
Artifact Concentration 1	E3	East		I	GLS	plate	light pink	body		molded cherry blossom motif	depression era plate	1
Artifact Concentration 1	E3	East		I	GLS	plate	light pink	rim		molded cherry blossom motif	depression era plate	1
Artifact Concentration 1	E3	East		I	GLS	bottle	light aqua	base		embossed dot stippling/lettering		1
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	base		embossed dot stippling/lettering		1
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	base		embossed stippling/lettering	exposed to heat	1
Artifact Concentration 1	E3	East		I	GLS	melted	clear					1
Artifact Concentration 1	E3	East		I	GLS	vessel	light aqua	base			worn	1
Artifact Concentration 1	E3	East		I	GLS	vessel	clear	body				24
Artifact Concentration 1	E3	East		I	GLS	vessel	clear	body		exterior stippling		7
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		exterior stippling/embossed lettering		1
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		exterior stippling/molded horizontal banding		5
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	base		dot stippling		2
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		vertical bands of horizontal dashes		2
Artifact Concentration 1	E3	East		I	GLS	vessel	clear	rim		horizontal band of vertical dashes along edge		1
Artifact Concentration 1	E3	East		I	GLS	vessel	clear	body		three molded horizontal bands		1
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		embossed lettering		7
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		embossed lettering/stippling		2
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		embossed band of triangle		1
Artifact Concentration 1	E3	East		I	GLS	bottle	clear	body		fluted exterior		1
Artifact Concentration 1	E3	East		I	GLS	flat glass	blue aqua	body				2
Artifact Concentration 1	E3	East		I	PER	button	threading		bakelite	white/molded convex center		1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1	E3			I	ARC	nail	ungalvanized wire	no head	iron alloy		shaft	1
Artifact Concentration 1	E3			I	ARC	nail	unidentifiable		iron alloy		head and shaft	1
Artifact Concentration 1	E3			I	ARC	brick	handmade					1
Artifact Concentration 1	E3			I	ARC	window glass	light aqua					2
Artifact Concentration 1	E3			I	ARC	window glass	aqua					1
Artifact Concentration 1	E3			I	GLS	vessel	milk glass	rim		incised horizontal banding/embossed geometric motif		1
Artifact Concentration 1	E3			I	GLS	vessel	milk glass	rim		incised horizontal banding/exterior threading/ovate rectangular/embossed sunburst motif on base/embossed vertical lines along foot		1
Artifact Concentration 1	E3			I	GLS	vessel	opaque light aqua	base				1
Artifact Concentration 1	E3			I	GLS	bottle	brown	body				4
Artifact Concentration 1	E3			I	GLS	vessel	opaque light aqua	body		embossed rilling		1
Artifact Concentration 1	E3			I	GLS	vessel	aqua	body				1
Artifact Concentration 1	E3			I	GLS	vessel	solarized	body				1
Artifact Concentration 1	E3			I	GLS	vessel	clear	body		embossed floral motif	slightly solarized	1
Artifact Concentration 1	E3			I	GLS	vessel	clear	body		embossed stippling		4
Artifact Concentration 1	E3			I	GLS	vessel	milk	rim		exterior embossed ribbing		1
Artifact Concentration 1	E3			I	GLS	bottle	clear	body		embossed lettering		1
Artifact Concentration 1	E3			I	GLS	vessel	clear	body				16
Artifact Concentration 1	E3			I	MET	flat pressed metal			iron alloy			7
Artifact Concentration 1	E3			I	MET	strip			iron alloy	curved		3
Artifact Concentration 1	E3			I	OTH	plastic	transparent aqua	flat		molded stippling on one side		1
Artifact Concentration 1			1	I-1	GLS	vessel	milk glass	shoulder				1
Artifact Concentration 1			1	II-1	ARC	window glass	light aqua					2
Artifact Concentration 1			1	II-1	ARC	nail	ungalvanized wire	flat head	iron alloy		complete/clear glass attached	1
Artifact Concentration 1			1	II-1	ARC	nail	cut	no head	iron alloy		shaft/coal attached	1
Artifact Concentration 1			1	II-1	ARC	nail	unidentifiable	unidentifiable head	iron alloy		head and shaft	3

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			1	II-1	ARC	nail	cut	unidentifiable head	iron alloy		head and shaft	1
Artifact Concentration 1			1	II-1	ARC	nail	cut	unidentifiable head	iron alloy		head and shaft/roofing nail	1
Artifact Concentration 1			1	II-1	ARC	nail	ungalvanized wire	unidentifiable head	iron alloy		complete	1
Artifact Concentration 1			1	II-1	ARC	nail	unidentifiable	unidentifiable head	iron alloy		complete	1
Artifact Concentration 1			1	II-1	ARC	nail	cut	cut head	iron alloy		head and shaft	1
Artifact Concentration 1			1	II-1	ARC	nail	cut	unidentifiable head	iron alloy		head and shaft	1
Artifact Concentration 1			1	II-1	ARC	nail	unidentifiable	no head	iron alloy		shaft	1
Artifact Concentration 1			1	II-1	ARC	nail	ungalvanized wire	no head	iron alloy		shaft	1
Artifact Concentration 1			1	II-1	CER	earthenware	whiteware	base		plain		1
Artifact Concentration 1			1	II-1	CER	earthenware	ironstone	body		glaze missing on reverse	weathered	1
Artifact Concentration 1			1	II-1	CER	earthenware	whiteware	body		green transfer print scenic motif/underglaze		1
Artifact Concentration 1			1	II-1	GLS	bottle	brilliant green	body				1
Artifact Concentration 1			1	II-1	GLS	bottle	brilliant green	body		unidentifiable applied label		1
Artifact Concentration 1			1	II-1	GLS	vessel	cobalt blue	body				1
Artifact Concentration 1			1	II-1	GLS	bottle	brown	body				1
Artifact Concentration 1			1	II-1	GLS	vessel	clear	body				7
Artifact Concentration 1			1	II-1	GLS	bottle	clear	base		mold seam		1
Artifact Concentration 1			1	II-1	GLS	bottle	clear	body		exterior stippling		3
Artifact Concentration 1			1	II-1	GLS	bottle	clear	body		embossed lettering		1
Artifact Concentration 1			1	II-1	GLS	vessel	clear	body		frosted		1
Artifact Concentration 1			1	II-1	ORG	coal						4
Artifact Concentration 1			1	II-1	ORG	bone	medium mammal					2
Artifact Concentration 1			1	II-1	OTH	slag						2
Artifact Concentration 1			1	II-1	OTH	possible insulator			plastic	brown/molded		1
Artifact Concentration 1			1	II-1	PER	garment label			plastic	blue printed 'rand/'they last longer'/rand rubber co./bklyn, n. y./large'		1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			1	III-1	ARC	window glass	aqua					3
Artifact Concentration 1			1	III-1	ARC	window glass	green aqua					1
Artifact Concentration 1			1	III-1	ARC	window glass	light aqua					3
Artifact Concentration 1			1	III-1	ARC	window glass	clear					1
Artifact Concentration 1			1	III-1	ARC	nail	ungalvanized wire	flat head	iron alloy		complete	5
Artifact Concentration 1			1	III-1	ARC	nail	ungalvanized wire	no head	iron alloy		shaft	6
Artifact Concentration 1			1	III-1	ARC	nail	ungalvanized wire	flat head	iron alloy		head and shaft	2
Artifact Concentration 1			1	III-1	ARC	spike	unidentifiable		iron alloy		complete	1
Artifact Concentration 1			1	III-1	ARC	nail	unidentifiable		iron alloy		complete	2
Artifact Concentration 1			1	III-1	ARC	nail	unidentifiable		iron alloy		head and shaft	5
Artifact Concentration 1			1	III-1	ARC	nail	unidentifiable		iron alloy		shaft	5
Artifact Concentration 1			1	III-1	ARC	brick	unidentifiable				misfired	1
Artifact Concentration 1			1	III-1	CER	terra cotta		body				1
Artifact Concentration 1			1	III-1	CER	porcelain		base		body painted pink/overglaze		1
Artifact Concentration 1			1	III-1	CER	earthenware	whiteware	rim		plain	crazed	1
Artifact Concentration 1			1	III-1	CER	earthenware	whiteware	rim		plain	crazed/termination point of handle	1
Artifact Concentration 1			1	III-1	CER	earthenware	whiteware	body		plain	crazed	1
Artifact Concentration 1			1	III-1	CER	earthenware	whiteware	body		continuous foot		1
Artifact Concentration 1			1	III-1	CER	earthenware	whiteware	body		transparent blue wash	crazed	1
Artifact Concentration 1			1	III-1	CER	earthenware	yellowware	body				1
Artifact Concentration 1			1	III-1	GLS	bottle	blue aqua	body				1
Artifact Concentration 1			1	III-1	GLS	bottle	brilliant green	body				1
Artifact Concentration 1			1	III-1	GLS	bottle	green aqua	base		fluted body	soda bottle/possible suction scar	1
Artifact Concentration 1			1	III-1	GLS	bottle	dark amber	body				10
Artifact Concentration 1			1	III-1	GLS	bottle	dark amber	base		embossed numbering	knurled base-post 1940	3
Artifact Concentration 1			1	III-1	GLS	melted	clear					1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			1	III-1	GLS	vessel	milk	body			exposed to heat	1
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		red and white applied label/stippling		16
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		red and white applied label/stippling/molded horizontal banding		1
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		red and white applied label/stippling/molded horizontal banding/fluted		2
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body				25
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		exterior stippling		17
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		molded wavy lines		1
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		fluted exterior		5
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		fluted exterior/stippling		4
Artifact Concentration 1			1	III-1	GLS	bottle	clear	base		incised circular banding along base		1
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		embossed lettering		3
Artifact Concentration 1			1	III-1	GLS	bottle	clear	body		paneled		4
Artifact Concentration 1			1	III-1	GLS	vessel	clear	rim		rounded	mend	2
Artifact Concentration 1			1	III-1	GLS	bottle	clear	rim		exterior threading		4
Artifact Concentration 1			1	III-1	GLS	bottle	clear	rim		bead finish		1
Artifact Concentration 1			1	III-1	MET	flat pressed metal	circular		brass alloy		possible can base	1
Artifact Concentration 1			1	III-1	MET	hardware	possible door hinge		brass alloy	three nail holes/three knuckles		1
Artifact Concentration 1			1	III-1	MET	strap			iron alloy			1
Artifact Concentration 1			1	III-1	MET	flat pressed metal			iron alloy			4
Artifact Concentration 1			1	III-1	MET	unidentifiable			iron alloy		metal conglomerate	9
Artifact Concentration 1			1	III-1	MET	pulley			iron alloy			1
Artifact Concentration 1			1	III-1	ORG	coal						17
Artifact Concentration 1			1	III-1	ORG	bone	medium mammal				bleached	1
Artifact Concentration 1			1	III-1	ORG	bone	medium mammal					51
Artifact Concentration 1			1	III-1	OTH	plastic		flat		light blue		1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			1	III-1	OTH	plastic bag		fragment		yellow and red applied label		1
Artifact Concentration 1			1	III-1	OTH	utensil	fork		brass alloy	four prongs/engraved handle		1
Artifact Concentration 1			1	III-1	OTH	asphalt						1
Artifact Concentration 1			1	III-1	OTH	plastic				blue		1
Artifact Concentration 1			1	III-1	OTH	slag						4
Artifact Concentration 1			1	III-1	PER	marble			glass	blue interior		1
Artifact Concentration 1			1	III-1	PER	snap button	backing		brass alloy			1
Artifact Concentration 1			1	III-2	ARC	window glass	aqua					2
Artifact Concentration 1			1	III-2	ARC	window glass	light aqua					2
Artifact Concentration 1			1	III-2	ARC	nail	unidentifiable	unidentifiable head	iron alloy		head and shaft	2
Artifact Concentration 1			1	III-2	ARC	nail	cut	unidentifiable head	iron alloy		head and shaft	2
Artifact Concentration 1			1	III-2	ARC	nail	cut	no head	iron alloy		shaft	1
Artifact Concentration 1			1	III-2	CER	porcelain		body		flow blue unidentifiable motif		1
Artifact Concentration 1			1	III-2	CER	earthenware	whiteware	rim		plain	crazed	2
Artifact Concentration 1			1	III-2	CER	earthenware	whiteware	body		plain	crazed	2
Artifact Concentration 1			1	III-2	CER	earthenware	redware	body		manganese lead glaze		1
Artifact Concentration 1			1	III-2	GLS	bottle	brilliant green	body				1
Artifact Concentration 1			1	III-2	GLS	bottle	light cobalt blue	body				1
Artifact Concentration 1			1	III-2	GLS	bottle	light green aqua	neck				1
Artifact Concentration 1			1	III-2	GLS	bottle	brown	body				1
Artifact Concentration 1			1	III-2	GLS	vessel	clear	body				6
Artifact Concentration 1			1	III-2	GLS	vessel	aqua	body				1
Artifact Concentration 1			1	III-2	MET	flat pressed metal	disc		iron alloy		15.9mm	1
Artifact Concentration 1			1	III-2	MET	flat pressed metal			iron alloy			11
Artifact Concentration 1			1	IV-1	ARC	window glass	light aqua					1
Artifact Concentration 1			1	IV-1	ARC	nail	unidentifiable	no head	iron alloy		shaft	2

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			1	IV-1	ARC	nail	cut	unidentifiable head	iron alloy		head and shaft	2
Artifact Concentration 1			1	IV-1	ARC	nail	cut	no head	iron alloy		shaft	2
Artifact Concentration 1			1	IV-1	ARC	nail	unidentifiable	unidentifiable head	iron alloy		complete	2
Artifact Concentration 1			1	IV-1	CER	earthenware	whiteware	body		plain	crazed	1
Artifact Concentration 1			1	IV-1	CER	earthenware	redware	body		dark manganese lead glaze		1
Artifact Concentration 1			1	IV-1	CER	stoneware	refined	body		gray-bodied/salt glazed exterior		1
Artifact Concentration 1			1	IV-1	GLS	vessel	solarized	body		molded geometric motif		1
Artifact Concentration 1			1	IV-1	GLS	bottle	brown	body				1
Artifact Concentration 1			1	IV-1	GLS	vessel	clear	body				8
Artifact Concentration 1			1	IV-1	GLS	vessel	solarized	body				1
Artifact Concentration 1			1	IV-1	LTC	debitage	annular debris		quartz			1
Artifact Concentration 1			1	IV-1	ORG	coal						1
Artifact Concentration 1			2	I-1	ARC	nail	ungalvanized wire	no head	iron alloy		shaft	2
Artifact Concentration 1			2	I-1	ARC	nail	ungalvanized wire	flat head	iron alloy		head and shaft	1
Artifact Concentration 1			2	I-1	ARC	window glass	clear					4
Artifact Concentration 1			2	I-1	ARC	window glass	light aqua					1
Artifact Concentration 1			2	I-1	ARC	window glass	aqua					1
Artifact Concentration 1			2	I-1	GLS	bottle	blue aqua	body				1
Artifact Concentration 1			2	I-1	GLS	bottle	brilliant green	body				1
Artifact Concentration 1			2	I-1	GLS	melted	clear					2
Artifact Concentration 1			2	I-1	GLS	bottle	brown	body				7
Artifact Concentration 1			2	I-1	GLS	bottle	brown	base		embossed stippling		1
Artifact Concentration 1			2	I-1	GLS	bottle	brown	rim		exterior threading/embossed stippling on body		1
Artifact Concentration 1			2	I-1	GLS	bottle	brown	rim		exterior threading		1
Artifact Concentration 1			2	I-1	GLS	lamp glass	clear	body				1
Artifact Concentration 1			2	I-1	GLS	vessel	solarized	body				1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			2	I-1	GLS	vessel	clear	body				25
Artifact Concentration 1			2	I-1	GLS	vessel	clear	body		embossed lettering		2
Artifact Concentration 1			2	I-1	GLS	bottle	clear	body		embossed dot stippling		3
Artifact Concentration 1			2	I-1	GLS	bottle	clear	body		embossed stippling		1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	body		embossed ribbing		1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	body		embossed geometric motif/lettering		1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	neck				1
Artifact Concentration 1			2	I-1	GLS	vessel	light aqua	body				1
Artifact Concentration 1			2	I-1	GLS	flat glass	light green aqua	body			thick/5.43 mm	1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	base				2
Artifact Concentration 1			2	I-1	GLS	bottle	clear	base		embossed lettering and numbering/hazel-atlas trademark	ovate	1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	base		embossed 'Duraglas' on body		1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	base		embossed lettering on body		1
Artifact Concentration 1			2	I-1	GLS	bottle	clear	base		embossed numbering on base		1
Artifact Concentration 1			2	II-1	ARC	brick	machine made					1
Artifact Concentration 1			2	II-1	ARC	brick	handmade					1
Artifact Concentration 1			2	II-1	ARC	nail	unidentifiable		iron alloy		shaft	1
Artifact Concentration 1			2	II-1	ARC	window glass	aqua					1
Artifact Concentration 1			2	II-1	ARC	window glass	clear					2
Artifact Concentration 1			2	II-1	CER	earthenware	ironstone	body		gilded floral motif/overglaze		1
Artifact Concentration 1			2	II-1	CER	earthenware	whiteware	body		green floral motif/overglaze	crazed	1
Artifact Concentration 1			2	II-1	GLS	bottle	brown	body				3
Artifact Concentration 1			2	II-1	GLS	bottle	brilliant green	body				1
Artifact Concentration 1			2	II-1	GLS	bottle	green aqua	body				1
Artifact Concentration 1			2	II-1	GLS	vessel	clear	body				10
Artifact Concentration 1			2	II-1	GLS	bottle	clear	body		red and white applied label/beer bottle		1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			2	II-1	GLS	vessel	clear	rim		exterior threading/protruding bead	mason jar fragments	4
Artifact Concentration 1			2	II-1	GLS	vessel	clear	body		embossed lettering		1
Artifact Concentration 1			2	II-1	GLS	vessel	clear	body		stippling		2
Artifact Concentration 1			2	II-1	GLS	vessel	clear	body		embossed rilling		1
Artifact Concentration 1			2	II-1	GLS	vessel	clear	body		embossed ribbing		1
Artifact Concentration 1			2	II-1	GLS	flat glass	clear	body		stippling/unidentifiable residue on reverse		1
Artifact Concentration 1			2	II-1	MET	flat pressed metal			iron alloy			2
Artifact Concentration 1			2	II-1	OTH	tile				white		2
Artifact Concentration 1			2	II-1	PER	perfume bottle			brass alloy/glass	molded floral motif on body/molded 'house of fuller' trademark/incised lettering/embossed 'perfume mist/2 oz net wt/E Hartford, Conn/made in USA'	broken	1
Artifact Concentration 1			2	II-1	PER	pipe stem			kaolin clay	molded rouletting	5/64ths	1
Artifact Concentration 1			2	II-2	ARC	brick	machine made					5
Artifact Concentration 1			2	II-2	ARC	window glass	light aqua	industrial		molded exterior rilling	chicken wire interior	1
Artifact Concentration 1			2	II-2	ARC	window glass	light aqua	industrial		molded exterior dot stippling	chicken wire interior	1
Artifact Concentration 1			2	II-2	ARC	window glass	aqua					3
Artifact Concentration 1			2	II-2	ARC	window glass	light aqua					8
Artifact Concentration 1			2	II-2	ARC	window glass	clear					3
Artifact Concentration 1			2	II-2	ARC	nail	ungalvanized wire	flat head	iron alloy		head and shaft	3
Artifact Concentration 1			2	II-2	ARC	nail	ungalvanized wire	no head	iron alloy		shaft	2
Artifact Concentration 1			2	II-2	ARC	nail	unidentifiable	unidentifiable head	iron alloy		complete	1
Artifact Concentration 1			2	II-2	ARC	nail	unidentifiable	no head	iron alloy		shaft	3
Artifact Concentration 1			2	II-2	ARC	nail	cut	no head	iron alloy		shaft	6
Artifact Concentration 1			2	II-2	CER	earthenware	whiteware	body		plain	crazed	4
Artifact Concentration 1			2	II-2	CER	earthenware	refined	body		black and green hand painted floral motif/underglaze	exposed to heat	1
Artifact Concentration 1			2	II-2	GLS	bottle	brilliant green	body				4

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			2	II-2	GLS	bottle	brilliant green	body		mold seam/exterior stippling		1
Artifact Concentration 1			2	II-2	GLS	bottle	brown	body				10
Artifact Concentration 1			2	II-2	GLS	bottle	brown	base			knurled base-post 1940	1
Artifact Concentration 1			2	II-2	GLS	vessel	clear	rim		exterior threading/wide mouth	mason jar fragment	3
Artifact Concentration 1			2	II-2	GLS	bottle	clear	rim		double ring finish		1
Artifact Concentration 1			2	II-2	GLS	vessel	clear	body		exterior rilling		1
Artifact Concentration 1			2	II-2	GLS	vessel	clear	body		embossed diamond diapering		1
Artifact Concentration 1			2	II-2	GLS	bottle	light aqua	body		etched unidentifiable lettering		1
Artifact Concentration 1			2	II-2	GLS	bottle	clear	base		dot stippling		1
Artifact Concentration 1			2	II-2	GLS	bottle	clear	body		embossed lettering		2
Artifact Concentration 1			2	II-2	GLS	bottle	clear	rim		exterior threading	crizzled	1
Artifact Concentration 1			2	II-2	GLS	bottle	clear	body		exterior stippling		13
Artifact Concentration 1			2	II-2	GLS	bottle	clear	body		embossed horizontal banding		3
Artifact Concentration 1			2	II-2	GLS	bottle	clear	body		paneled		1
Artifact Concentration 1			2	II-2	GLS	vessel	clear	body				71
Artifact Concentration 1			2	II-2	GLS	vessel	clear	rim		round		1
Artifact Concentration 1			2	II-2	GLS	bottle	light aqua	body				2
Artifact Concentration 1			2	II-2	GLS	vessel	solarized	body				1
Artifact Concentration 1			2	II-2	GLS	bottle	clear	base		embossed lettering	crizzled	1
Artifact Concentration 1			2	II-2	GLS	vessel	clear	body			crizzled	1
Artifact Concentration 1			2	II-2	GLS	flat glass	aqua	body			thick/5.4mm	1
Artifact Concentration 1			2	II-2	MET	unidentifiable	possible nails		iron alloy			5
Artifact Concentration 1			2	II-2	MET	unidentifiable			iron alloy		metal conglomerate	1
Artifact Concentration 1			2	II-2	OTH	asbestos tile						1
Artifact Concentration 1			2	II-2	OTH	asbestos tile				dark green paint residue		1
Artifact Concentration 1			2	II-2	OTH	tile			hard rubber	white		1

Site	STP	Radial	Test Unit	Level	CAT	Type	Subtype	Form	Material	Decoration	Size/Other Comments	Count
Artifact Concentration 1			2	II-2	OTH	plastic	flat			translucent white		2
Artifact Concentration 1			2	II-2	OTH	plastic	flat/container	rim		translucent white/rounded edge		1
Artifact Concentration 1			2	II-2	OTH	plastic	container	rim		white/embossed banding		1
Artifact Concentration 1			2	II-2	PER	button	2-hole		Bakelite	brown/two center threading holes/incised banding along edge		1
Artifact Concentration 1			2	II-2	PER	tag			brass alloy	chain attached/stamped 'depot/102/State St Chicago'		1
Artifact Concentration 2	A7			I	LTC	debitage	tertiary	fragment	jasper		possible heat-treated	1

APPENDIX B: STP CATALOG

STP	Radial	Level	Start Depth	End Depth	Last Level	Soil Description	Comments
A-1		I	0	12		10YR 2/2 very dark brown silty loam	
A-1		II	12	14	*	10YR 4/6 dark yellowish brown silty clay	
A-2		I	0	5	*	10YR 3/4 dark yellowish brown silty clay	excavation halted due to standing water
A-3	South	I	0	2		10YR 6/1 gray silty clay	
A-3	South	II	2	5	*	10YR 5/1 gray silty clay	
A-3	West	I	0	6		10YR 6/1 gray clay	
A-3	West	II	6	8	*	10YR 5/1 gray clay	
A-3		I	0	7		10YR 4/4 dark yellowish brown silty clay	
A-3		II	7	10	*	7.5YR 5/6 strong brown silty clay	
A-4		I	0	6		10YR 4/4 dark yellowish brown silty loam	
A-4		II	6	10	*	10YR 5/6 yellowish brown silty clay	
A-5		I	0	2	*	10YR 3/3 dark brown silty loam	
A-6		I	0	2		10YR 3/4 dark yellowish brown silty loam	level II highly disturbed, contained gravel and asphalt
A-6		II	2	4	*	10YR 6/6 brownish yellow silty clay	
A-7		I	0	7		10YR 2/2 very dark brown silty loam	
A-7		II	7	10	*	10YR 6/2 light brownish gray silty clay	
A-8		I	0	5		10YR 4/4 dark yellowish brown silty clay	excavation halted due to water
A-8		II	5	6	*	10YR 5/6 yellowish brown silty clay	
B-1		I	0	1		10YR 4/4 dark yellowish brown silty clay	
B-1		II	1	4	*	10YR 5/6 yellowish brown silty clay	
B-2	North	I	0	1		10YR 2/1 black silty clay	
B-2	North	II	1	2	*	10YR 4/1 dark gray silty clay	
B-2		I	0	2		10YR 5/8 yellowish brown silty loam	
B-2		II	2	10		10YR 3/3 dark brown silty loam	
B-2		III	10	14	*	10YR 6/2 light brownish gray silty clay	
B-3		I	0	7		10YR 4/4 dark yellowish brown silty clay	
B-3		II	7	11	*	Gley silty clay	
B-4		I	0	2		10YR 3/4 dark yellowish brown silty loam	
B-4		II	2	4	*	10YR 4/4 dark yellowish brown silty loam	
B-5		I	0	4	*	10YR 5/6 yellowish brown silty loam	disturbed, in front of church
B-6		I	0	2		10YR 3/4 dark yellowish brown silty loam	
B-6		II	2	5	*	10YR 4/6 dark yellowish brown silty loam	
B-7		I	0	7		10YR 4/4 dark yellowish brown silty clay	
B-7		II	7	11	*	Gley silty clay	
B-8		I	0	7		10YR 2/2 very dark brown silty loam	
B-8		II	7	9	*	10YR 7/1 light gray silty clay	
C-1		I	0	1		10YR 4/4 dark yellowish brown silty clay	
C-1		II	1	4	*	10YR 5/6 yellowish brown silty clay	
C-2	North	I	0	1		10YR 2/1 black silty clay	
C-2	North	II	1	4	*	10YR 4/6 dark yellowish brown silty clay	
C-2		I	0	8		10YR 3/2 very dark grayish brown silty loam	
C-2		II	8	12	*	10YR 4/6 dark yellowish brown very compact silty clay	
C-3		I	0	1		10YR 4/4 dark yellowish brown silty clay	
C-3		II	1	5	*	10YR 5/6 yellowish brown silty clay	
C-6		I	0	3	*	10YR 4/6 dark yellowish brown silty clay	very rocky subsoil, about 4 feet south of stone driveway
C-7		I	0	9		10YR 4/4 dark yellowish brown silty clay	
C-7		II	9	13	*	Gley clay	
C-8		I	0	3	*	gley- popped cap	
C-9		I	0	3	*	gley- popped cap	
D-1	North	I	0	4		10YR 4/4 dark yellowish brown silty loam	

STP	Radial	Level	Start Depth	End Depth	Last Level	Soil Description	Comments
D-1	North	II	4	10	*	10YR 6/2 light brownish gray silty loam	
D-1		I	0	4		10YR 3/4 dark yellowish brown silty clay	
D-1		II	4	5		10YR 5/6 yellowish brown silty clay	
D-1		III	5	10	*	10YR 5/4 yellowish brown silty clay	
D-2	South	I	0	3	*	10YR 6/2 light brownish gray mottled with 10YR 4/6 dark yellowish brown silty clay	
D-2		I	0	7		10YR 4/4 dark yellowish brown silty loam with 10YR 4/6 dark yellowish brown silty clay	
D-2		II	7	12	*	10YR 6/2 light brownish gray sandy clay	
D-3		I	0	2		10YR 3/4 dark yellowish brown silty clay	
D-3		II	2	6	*	10YR 5/4 yellowish brown mottled with 10YR 3/4 dark yellowish brown silty clay	
D-4		I	0	2		10YR 3/4 dark yellowish brown silty clay	
D-4		II	2	6	*	10YR 5/6 yellowish brown silty clay	
D-6		I	0	2		10YR 3/4 dark yellowish brown silty clay	
D-6		II	2	6	*	10YR 5/6 yellowish brown silty clay (disturbed)	
D-7		I	0	2		10YR 6/1 gray silty clay	
D-7		II	2	6	*	10YR 5/1 gray clay	
D-8		I	0	5		10YR 6/1 gray silty clay	
D-8		II	5	8	*	10YR 5/1 gray clay	
E-1	East	I	0	2		10YR 4/4 dark yellowish brown silty loam	
E-1	East	II	2	4	*	10YR 6/2 light brownish gray silty loam mixed with 10YR 4/6 dark yellowish brown silty clay	
E-1		I	0	6		10YR 4/4 dark yellowish brown silty loam	
E-1		II	6	9	*	10YR 6/2 light brownish gray silty loam mottled with 10YR 4/6 dark yellowish brown silty clay at strat interface	
E-2		I	0	1		10YR 4/4 dark yellowish brown silty loam	
E-2		II	1	3	*	10YR 4/6 dark yellowish brown silty clay mottled with 10YR 6/2 light brownish gray silty loam	
E-3	East	I	0	7		10YR 4/4 dark yellowish brown silty loam	ground covered in poison ivy, 1 wire cord with contact loops discarded, 5 charred wood pieces with nails discarded, can tops and metal/ glass cap discarded
E-3	East	II	7	11	*	10YR 6/2 light brownish gray silty loam	
E-3		I	0	5		10YR 4/4 dark yellowish brown silty loam	
E-3		II	5	8	*	10YR 4/6 dark yellowish brown silty clay mottled with 10YR 6/2 light brownish gray silty loam	
E-6		I	0	2		10YR 3/4 dark yellowish brown silty clay	
E-6		II	2	6	*	10YR 5/6 yellowish brown silty clay (disturbed)	
E-8		I	0	1		10YR 2/1 black silty clay	end of transect
E-8		II	1	4	*	10YR 4/1 dark gray clay	
F-1		I	0	3		10YR 4/4 dark yellowish brown silty loam	
F-1		II	3	8	*	10YR 6/2 light brownish gray silty loam	
F-2		I	0	1		10YR 2/1 black silty clay	
F-2		II	1	4	*	10YR 4/1 dark gray clay	
F-3		I	0	1		10YR 2/1 black silty clay	
F-3		II	1	4	*	10YR 4/1 dark gray clay with water	