Phase I Archaeological Investigation

SR 1, Northeast Front Street Grade Separated Intersection

Milford Hundred

Kent County, Delaware

Prepared for:

Delaware Department of Transportation -
P.O. Box 778
Dover, Delaware 19901

January 2014

Prepared by

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DRAFT

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AGREEMENT No. 1532
Task Order #6

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ABSTRACT

This report presents the results of the archaeological resources identification survey conducted by A.D. Marble & Company for the proposed SR 1, Northeast (NE) Front Street Grade Separated Intersection project in Milford Hundred, Kent County, Delaware. Delaware Department of Transportation (DelDOT) proposes the construction of a grade separated intersection (Alternative 6) to improve traffic safety by allowing easier entrance to and exit from SR 1 in the vicinity of the intersection of NE Front Street and SR 1. Since the undertaking will be federally funded, Federal Highway Administration (FHWA) seeks to comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and the implementing regulations outlined in 36 CFR Part 800. The investigation was performed for DelDOT.

The Area of Potential Effects (APE) measures approximately 48 acres and consists of agricultural fields, wooded areas, residential front yards, and roads and road margins. DelDOT and the Delaware Division of Historic and Cultural Affairs (DHCA) generated a sampling and testing strategy that divided the APE into resource-sensitive test areas. Approximately 21.5 acres (45 percent) of the APE exhibits resource sensitivity and underwent shovel testing and pedestrian survey. The northwest and southwest quadrants of the NE Front Street and SR 1 intersection (Test Area 1) contain approximately four archaeologically sensitive acres, while the southeast quadrant (Test Area 2) contains approximately 17.5 archaeologically sensitive acres. No testing took place in the northeast quadrant of the APE.

The Phase I investigation revealed evidence of historic occupation. A.D. Marble & Company recovered 730 artifacts (all historic) during the survey. A moderately dense concentration of late-nineteenth and early-twentieth century artifacts (N=147) was identified in the north end of the agricultural field portion of Test Area 1. Given the kitchen and architectural group artifact character of the assemblage, it is hypothesized that the site is associated with either an in situ domestic occupation or alternatively a refuse dump associated with households that resided in the nearby Fleetwood or Paisley farmsteads. A second moderately dense concentration of nineteenth and twentieth century artifacts was identified in the agricultural field portion of Test Area 2 where the Potter Estate farmstead stood in the mid-nineteenth to late-twentieth century. The site was designated the Potter Estate Tenant Farmstead. Cultural Resource Survey (CRS) and Site numbers will be assigned to each when/if DHCA concurs that the two artifact concentrations equate to archaeological sites.

It is the opinion of A.D. Marble & Company that the site in Test Area 1 does not likely qualify as a potentially significant site because of the inability to associate the site materials with any particular household(s) occupation. The site in Test Area 2 may, on the other hand, qualify as a potentially significant archaeological resource because its archaeological materials are likely associated with the households that occupied the Potter Estate farmstead. No potentially significant archaeological resources were identified elsewhere during the investigation.

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1.0 Introduction

1.0 INTRODUCTION

The following report details the results of a Phase I identification-level archaeological investigation conducted by A.D. Marble & Company of Conshohocken, Pennsylvania, for the proposed SR 1, Northeast (NE) Front Street Grade Separated Intersection project in and adjacent to the east of the City of Milford in Milford Hundred, Kent County, Delaware (Figure 1). A.D. Marble & Company performed the study for the Delaware Department of Transportation (DelDOT) on behalf of the Federal Highway Administration (FHWA). DelDOT proposes the construction of a grade-separated intersection (Alternative 6) to improve traffic safety by allowing easier entrance to and exit from SR 1 in the vicinity of the intersection of NE Front Street and SR 1. Since the undertaking will be federally-funded, FHWA seeks to comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and the implementing regulations outlined in 36 CFR Part 800.

The objective of the investigation was to identify archaeological resources in the archaeological Area of Potential Effects (APE). The APE equates to the limit of project ground disturbance (LOD) of Alternate 6 (Figure 2). All project construction staging and stockpiling areas will be contained within the LOD. The APE is composed of relatively flat agricultural fields, roads and road margins, residential property margins (along NE Front Street), and wooded areas. Mispillion River flows west to east approximately 2,000 feet south and east of the APE, while Swan Creek—a tributary that feeds Mispillion River to the east—is located approximately 0.75 mile north of the APE.

DelDOT and DHCA designed a Phase I survey sampling strategy to target portions of the APE with potential for containing archaeological resources (Figure 3). The total acreage of the portion of the APE that underwent survey is approximately 21.5 acres (8.7 ha), which equates approximately to 45 percent of the 48-acre (19.4-ha) APE. Approximately 6.1 acres (2.4 ha) of the APE underwent shovel testing; approximately 15.5 acres (6.3 ha) underwent pedestrian survey. Given the need to accommodate plowing and harvesting schedules, the fieldwork took place intermittently in August and October through November 2013.

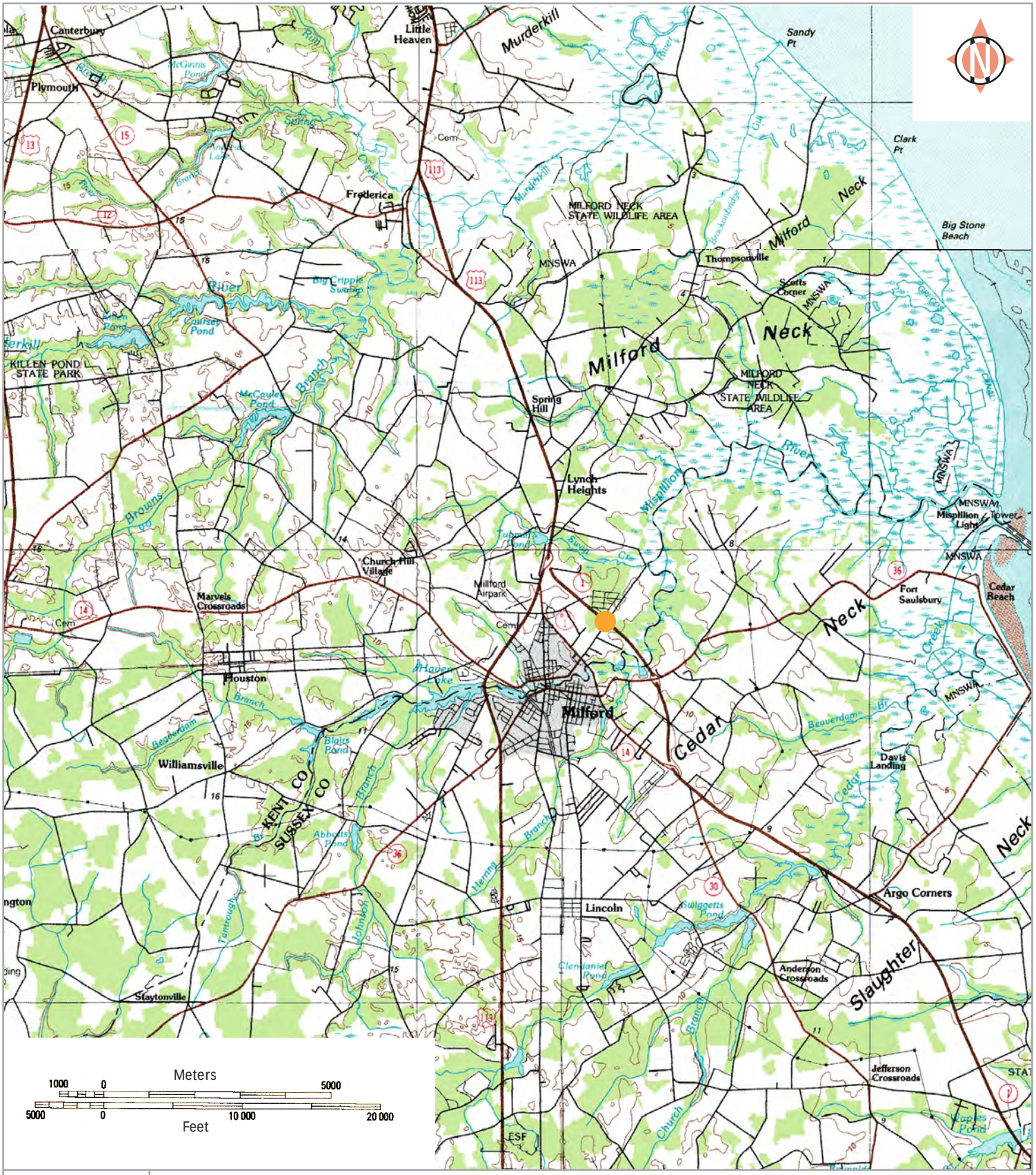


Figure 1
Project Location

SR1, Northeast Front Street Grade Separated Intersection Project
Milford, Kent County, Delaware

Map Document X:\Graphics\Projects\P-1311D\Project Location.ai

This investigation was performed in compliance with the provisions of the DHCA Guidelines for Architectural and Archaeological Surveys and the Secretary of the Interior's Standards and Guidelines. All cultural resources evaluations were conducted in accordance with Section 106 of The National Historic Preservation Act of 1966, as amended; the Procedures for the Protection of Historic and Cultural Properties set forth in 36 CFR 800, as amended; 23 CFR 771, as amended; guidance published by the Advisory Council on Historic Preservation; Sections 1(3) and 2(b) of Executive Order 11593; and the National Environmental Policy Act of 1969, as amended. A.D. Marble & Company acknowledges: Frank Dunsmore – field director; Kristen Norbut, Amadeusz Zajac, Alexander Hulse, Andrew Colucci – field technicians; Christine Gill – laboratory supervisor; and Mike Lenert – principal investigator. A special thanks to David Kenton, commissioner of the Milford Museum and former president of the Milford Historical Society, who provided information on the history of occupations in and near the APE.

2.0 Environmental Setting

2.0 ENVIRONMENTAL SETTING

The APE is located within the Mid-Drainage Zone of the low Coastal Plain Physiographic Province. This area is underlain by the Pleistocene sands and gravels of the Columbia formation. These deposits have been extensively reworked resulting in a relatively flat and featureless landscape. Topographic elevation in the APE ranges from approximately 15 to 30 feet above sea level. The hydrologic setting of the area consists of the Mispillion River that flows west to east to the south and east of the APE, and the Swan Creek that flows northwest to southeast to the north of the APE. No small-order tributaries of either drainage are located inside the APE.

Galestown loamy sand (GaB, 0-5 percent slopes) comprises much of the soil throughout APE (Figure 4). It is considered to be somewhat excessively well-drained, occurs on flats, knolls, and terraces, and is typically situated more than 80 inches above the water table (USDA-NRCS Web Soil Survey 2013). Fort Mott loamy sand (FmA, 0-2 percent slopes) also predominates in the agricultural field portions of the APE (on the east side of SR 1). The Fort Mott soil is considered well-drained, occurs on flats and terraces, and like the Galestown soil, is also typically situated more than 80 inches above the water table. The presence of these soils was a major contributing factor in the agricultural development of the APE. Farmsteads were constructed on landforms of relative topographic prominence and along early road networks, like the mid-nineteenth to late-twentieth century farmstead (Potter Estate farmstead) that stood in the field east of SR 1 and along New Wharf Road. Lower lying and poorly-drained areas associated with wetlands and drainages remain wooded. Agricultural landscapes are still preserved in portions of the western and eastern sections of the APE. Suburban land use now characterizes much of the area in the northern section of the APE.

Most of the soils in the study area are characterized primarily as level and well-drained (USDA Web Soil Survey 2013). In addition to the Galestown and Fort Mott soils, the APE is composed of three soil types. In order of decreasing frequency these include: Ingleside loamy sand (IeA, 0-2 percent slopes); Downer loamy sand (DnA, 0 to 2 percent slopes); and Fallsington sandy loam (0 to 2 percent slopes) (see Figure 3). The third soil in this list is the only one of the three that is poorly-drained; it occurs in the southeastern end of the APE, adjacent to the north of the

Mispillion River, and typically exhibits the water table between 0 to 10 inches below the ground surface.

The relative higher elevations evident in the APE would have been attractive to Native Americans as hubs for procuring plant and animal resources (Egghart 2008). In terms of climate and vegetation, patterns shifted from a mosaic to a zoned pattern in the early Holocene (post-8,000 B.C.). Pine was dominant at this time, with lesser amounts of hemlock, birch, and oak. Low-lying areas became swamps, and marshes supported deer and turkey, as the continental climate began to stabilize. After 6,000 B.C., an oak-hickory climax was present during a xeric period, which was followed by a pine–oak dominated forest after 3,000 B.C., which was a more cold and moist period. Oak-hickory and marsh climax vegetation and open grasslands took hold after approximately 500 B.C., as the climate and sea-level rise stabilized to its current conditions. In sum, given that the APE was an attractive Native American resource locale and that it contains agriculturally productive soils that are still in use today, A.D. Marble & Company concludes that the project area was a very attractive landscape for human settlement in the recent and deeper past.

3.0 Cultural History and Archaeological Site Context

3.0 CULTURAL HISTORY AND ARCHAEOLOGICAL SITE CONTEXT

3.1 Precontact Era Context

The *Management Plan for Delaware's Prehistoric Resources* (Custer 1983) divides the Mid-Drainage Management Unit—the unit where the project area is located—into the Delaware and Nanticoke Drainages. Site probabilities were delineated based on previously identified sites in the Unit. The probability for finding Paleoindian Period sites is considered low, while the probability for finding Archaic Period sites is considered medium. The probability for finding Woodland I Period sites in the Unit is considered high, while the probability of finding Woodland II Period sites in the Unit is considered medium. Lastly, the likelihood of finding Contact Period sites is considered low. Note that each of these cultural historic periods is outlined below.

In terms of research sensitivity zones (Custer 1983), the APE falls in Zone III, which is characterized by Medium/High Significance Probability, High Data Quality, and High Numbers of Known Sites. Custer (1983) assessed the local area including and surrounding the APE as Zone III: Medium Significant Site Potential with No Development Pressure. This assessment likely holds true today; very little substantial development has taken place in the area and continues to be characterized primarily by agricultural and riparian settings flanking the nearby major tributaries (i.e., Mispillion River and Swan Creek). In light of research priorities set forth in the Plan, the APE lies in Category III, which evinces a relatively low research priority for management decisions (Custer 1983). It is the opinion, herein, that the Plan remains a valid precontact resource management tool and should continue to be used to frame and guide investigations throughout the state.

More recently, John Milner Associates (JMA) assessed the archaeological resource sensitivity of the project area as part of their larger US 113 North / South Study in 2005 (JMA 2005). JMA rigorously and with the aid of a number of variables generated a mathematically based series of predictive models for precontact- (pre-1600), early historic- (1600-1770), and historic- (1770-1960) era archaeological resources in the US 113 project area, which extended from Milford to Georgetown and along US 113. The models assessed precontact site sensitivity as low, early

historic site sensitivity as low as well, but later historic site sensitivity as high, specifically at the location of Potter Estate farmstead that stood in the southeast quadrant of the APE.

There are currently five periods of chronological sequencing of Native American cultures of the Delmarva Peninsula: Paleoindian (13,000 to 6500 B.C.); Archaic (6500 to 3000 B.C.); Woodland I (3000 B.C. to A.D. 1000); Woodland II (A.D. 1000 to 1600); and the Contact Period (A.D. 1600 to 1750).

Paleoindian Period (10,000 to 6500 B.C.)

It is purported that Pleistocene megafauna played an important role—although a role that is not well understood—in the lives of the earliest inhabitants. Groups likely employed a broad-spectrum diet that included plants and other smaller animals as well, which allowed them to adapt to changing ecologies they faced within the early pioneer landscape of the Delmarva. Site data suggest that settlement during this time period occurred largely in the Mid-Peninsular Drainage Divide. Resource procurement camps and small base camps likely also existed near swampy areas and bay/basin features that dotted Kent County forests. Such locales attracted game and were a source of plant resources, but these places were mostly unoccupied.

Researchers identified a cluster of Paleoindian fluted point finds designated as the Hughes Early Man Complex of sites in central Kent County, Delaware (7K-E-10, -24, and -33). The complex includes six Paleoindian artifact concentrations/surface finds located on well-drained knolls adjacent to a large freshwater swamp and several poorly-drained areas (Custer 1989:105). Similar marshy-wetland settings are present north, east, and south of the APE. The majority of the remaining Paleoindian sites in central Delaware and the Mid-Drainage Zone have taken the form of isolated point and tool finds on the surface (Custer 1984, 1989). A detailed discussion of Paleoindian mobility and subsistence strategies is not appropriate for this report. It will suffice to remark that competing and sometimes complementary theories about Paleoindian mobility and subsistence economies are available in many late-twentieth-century works (see Custer 1996; Custer and Stewart 1990; Gardner 1989; Kelly and Todd 1988; McNett 1986; Meltzer 1993; Moeller 1989).

Archaic Period (6500 to 3000 B.C.)

The Archaic period is marked by the gradual emergence of a Holocene environment with the Atlantic episode. Warmer and wetter climatic conditions prevailed with the disappearance of grasslands and the expansion of mesic forests of oak and hemlock. Mast foods were provided by the mesic forest, which also attracted small game animals, especially deer and turkey. A marked rise in sea level during the early Holocene had a profound effect on the Delmarva Peninsula. This rise caused lowland flooding and the inundation of river systems, which sped the development of complex estuary systems. Numerous interior swamps also emerged. These changes caused a net increase in floral and faunal resources associated with these new wetland areas. As the climate grew warmer, and plant and animal resources began to inhabit larger areas, human occupation spread into new ecological settings. As a result, Archaic-period sites are found in a much broader range of topographic settings.

Overall, Archaic period sites within the Mid-Drainage Zone are few in number. Archaic sites are often associated with bay/basin features and represent short-lived hunting and processing occupations (Custer 1989:135). Increased diversity and frequency of stone tools paralleled the increased diversity in the local ecology and resource seasonality. Tools used for processing plant resources became more common. Based on this information, it was anticipated that Archaic-period sites in or near the APE might be identified on the edges of bay/basin features and in relative upland settings overlooking extant or ephemeral, or relict water sources, such as low-order tributaries of Mispillion River and Swan Creek. Late-Archaic components are present at two nearby sites, 7K-F-8 (Exley Site) and 7S-C-102. Both are located on feeder streams of major creeks, namely Swan Creek and Cedar Creek.

Woodland I (3000 B.C. to A.D. 1000)

In North American archaeology, the Woodland period is traditionally defined as a stage of precontact socio-cultural development marked by the appearance of: 1) ceramic manufacturing and 2) use of domesticated plants (Willey and Sabloff 1980). These two technological innovations have been deemed significant in that they presuppose greater sedentism with population growth and increased socioeconomic complexity. Climatic conditions in Woodland I

times were defined by the Sub-boreal episode, which was generally drier and exhibited greater climatic variation than the previous Atlantic episode. The Woodland period in the greater Mid-Atlantic region is frequently characterized as a period of increased sedentism and a gradual shift toward the exploitation of domesticated cultigens (maize, beans, and squash) together with wild grasses such as amaranth and chenopodium. However, evidence for domesticated plants is sparse on the Delmarva Peninsula, and evidence for increased sedentism is at best tenuous. Woodland I period data do suggest a greater use of aquatic resources. It is during the Woodland I period that large macroband base camps were occupied on a year-round basis (Custer 1989). Storage pits and evidence of house structures are first found during this period. Microband base camps are the predominant site type identified along river floodplains and estuarine marshes. Small procurement camps are found along streams and adjacent to bay/basin features.

Groups inhabiting the Middle Atlantic region during the Woodland I period appear to have expanded their use of lithic raw materials to include quartz, quartzite, argillite, and rhyolite (Custer 1992; Kinsey 1977; Stewart 1984). Custer (1992:42) suggested that the use of more varied materials reflects a decrease in size of band territories. The wide distribution of non-local lithic materials, such as South Mountain rhyolite from south-central Pennsylvania, also suggests the development of long-distance exchange networks. It might also represent broader local interaction among the groups residing on the Delmarva Peninsula who had access to these sources or access to groups with direct access to these non-local sources.

Increased social complexity is argued to be evident during the Woodland I period. Some researchers have agued that the development of a sedentary lifestyle and the control of surplus food resources may have led to the development of ranked societies at this time (see Custer 1989). Evidence for this change comes in the form of non-local grave goods that may indicate mortuary ceremonies, which were being practiced in central Delaware beginning around 500 B.C. and ending around 0 B.C. However, mortuary practices featuring grave goods should not be automatically considered evidence of sociopolitical ranking; the two do not always need to positively correlate. Nonetheless, known as the Delmarva Adena, this culture period is hallmarked by raw materials and finished items similar to those used by Ohio Valley Adena groups (Custer 1984). The Island Field Site (7K-F-17) near the mouth of the Murderkill River is

the closest site containing this kind of evidence (Thomas 1974; Thomas and Warren 1970). The settlement and subsistence patterns 2,000 to 1,000 years ago (in the later Woodland I period) are generally inferred to have been similar to the earlier Woodland I times. Altogether, Woodland I artifact assemblages may reflect the intensification of food production concomitant with the development of a more sedentary settlement strategy focused on riverine and estuarine resources (Custer 1984). However, increased sedentism does not necessarily need to positively correlate with resource intensification. As noted, mortuary practices incorporating various grave goods, such as carved platform pipes, bone and antler tools, and a variety of projectile points, celts, and pestles, are in place during Woodland I as well (Custer 1989:293).

Seven sites within three miles of the APE are classified solely as Woodland I or contain Woodland I components. The most notable of these is perhaps the Exley Site (7K-F-8) located one-half mile away across the agricultural field to the northeast of Test Area 2. The site also contains historic-era and Late Archaic-period components. Another noteworthy site containing evidence dating to the Woodland I-period and near the APE is the Taylor Cedar Creek Site (7S-C-17). The Taylor Cedar Creek Site is located approximately six miles southeast of the APE and along SR 1. It also contained a Woodland II-period component and contained more than 40 features and over 3,000 lithic and ceramic artifacts (Thomas et al. 1973). The site contained steatite vessel fragments, as well as ceramic types that included Dames Quarter Black Stone Tempered, Marcy Creek, Wolfe Neck, Coulbourn, Mockley, Hell Island, and Townsend (Custer 1989). A nearby site, approximately three miles south of the APE and containing a Woodland I component, is 7S-C-100, which was recently identified by Hunter Research, Inc., (HRI) during an investigation for an SR 1 / SR 30-Cedar Neck Road intersection improvements project (HRI 2010). HRI recovered a broad-bodied knife, which appears to represent a broadspear-type biface that dates the precontact component of the site to the early Woodland I period. The site was located on a relict stream and contained a low-density and low-diversity (N=10) lithic scatter containing two debitage, a projectile point/knife fragment, six thermally altered rock, and the possible broadspear. HRI interprets the site as a procurement site or ephemeral transient camp (HRI 2010:5-13).

Woodland II (A.D. 1000 to 1600)

The Woodland II period is associated with the first appearance of the "three sisters" (i.e., maize, beans, and squash) in the Mid-Atlantic region. *Zea mays* (maize) is first dated on the central Delaware River ca. A.D. 900 to 1000 (Stewart 1998:9). Other changes that purportedly mark the Late Woodland period in the greater Delaware Valley include:

- A change in lithic technology with the disappearance of a formal biface industry and use of cobbles for tool manufacture;
- Changes in ceramic production and decoration;
- Changes in settlement pattern; and
- Changes in environmental exploitation.

The horizon markers for the Woodland II period are not found uniformly throughout the Delaware Valley. Although the presence of cultigens is documented in the Delaware River drainage by the end of the first millennium A.D., the impact of these food sources is unclear. Evidence suggests that food production and village life was not universally adopted in all sections of the river, and in some areas, it may not have even been adopted prior to European arrival (Becker 1986). Although there is no consensus among archaeologists, it appears that there was a gradient from south to north for an increased importance in food production among Late Woodland/"village farming" Native American societies in the Delaware River drainage.

In the lower Delaware River drainage, the emergence of sedentary (or semi-sedentary) villages and food production began to appear by A.D. 1000, but cultigens appear to have supplemented rather than supplanted wild plant gathering and hunting. And "few, if any, Woodland II groups ever became fulltime farmers" along the lower Delaware River and Delaware Bay (Custer 1984:147). Some of the largest sites (macroband base camps such as Indian Field and Indian Landing) produced extensive evidence of wild plant gathering, rather than domesticates (Custer 1984:163-166). Custer (1984:169-170) believes that food production most likely occurred along tributary rivers to the Delaware Bay south of the Mispillion River. He hypothesized that food production began here because of environmental constraints on maintaining a hunter-gatherer economy in the face of a rising population.

The most notable Woodland II-period site in proximity to the APE is the Mispillion Site (7S-A-1) located approximately 0.75 mile south of the APE on the right bank of the Mispillion River. It is associated with the Slaughter Creek Complex of the Woodland II period, which is defined by the presence of Townsend ceramics and interpreted as a large macroband base camp that contains storage and subterranean house features (Sussex Society of Archaeology and History 1957; see also Custer 1984, 1986). Microband base camps are more frequently found in the Woodland II period with site locations corresponding to Woodland I period microband base camps. Procurement sites are poorly understood, but they appear to commonly occur on small ridges adjacent to poorly drained woodland and floodplain areas of major drainages, such as the Mispillion River south of the APE.

Contact Period (A.D. 1600 to 1750)

The Contact period in Delaware was marked by the establishment of European settlements initially along the Delaware River and then later more generally in the hinterland of the Delmarva Peninsula. This precipitated a major disruption in the lives of the Native Americans already living on the peninsula. European demand for furs affected the indigenous economy; metal and other European goods displaced stone and other traditional materials. The introduction of European diseases and the conflict over control of the fur trade caused catastrophic social and political disruptions. By the end of the period, traditional lifeways were all but abandoned, and few Native American groups remained on the peninsula. Native American descendants (Lenape and Nanticoke) continue to reside in Delaware. There exists the potential to encounter Contact-period sites in the project area, but sites of the period would not be easily distinguishable from Woodland II sites. The APE and the vicinity contain no known Contact-era sites.

3.2 Historic Era Context

HRI (2010) presents a relevant historic overview of the local region in their Phase I archaeology report for the SR 1 / SR 30-Cedar Creek Road intersection improvement project. Another relevant history that highlights the history of Milford and the surrounding region is presented in the US 113 Cultural Resources Document prepared by JMA (2004). The following summary provides salient information about the APE drawn largely from these two sources and supplements the summary with information provided by a local Milford informant.

The land containing the APE was originally part of St. Jones County, which was divided in 1683 into Kent and Sussex Counties that are bordered by the Mispillion River located adjacent to the south of the APE. Early settlements in the Milford area included a 2,000-acre tract called "Saw Mill Range" patented in 1680 to Henry Bowman, as well as tracts in Cedar Neck in 1676 and Slaughter Neck in 1677 (Hurley 1962:9; Kenton 2001:7). By this time a program of public works had been introduced that included the construction of roads, bridges, and ferries (Scharf 1888). Overland transport was limited to a few major roads, such as the eighteenth-century post road connecting Philadelphia-Wilmington-New Castle-Odessa-Middletown-Dover-Lewes with a western branch at Milford, linking it to the Chesapeake Bay (JMA 2004). In an attempt to improve the roads in the Lower Counties, the General Assembly in 1752 and again in 1761 called for the repair of the "King's Road" between the New Castle-Kent County border and Lewes, which was present in the 1680s. The King's Highway passed through the village of Milford, crossing the Mispillion River at the headwaters of Silver Lake (Kenton 2001:9; see JMA 2004).

Milford was later founded in 1787 by Joseph Oliver at the confluence of the Mispillion River, Bowmans Branch, and Clarks Branch. The village grew from a landing site and later included a dam and grist mill along the Mispillion River. The original part of Milford, or North Milford, was located along the north-side of the Mispillion River and in Kent County. Milford obtained a town charter in 1807 (Kenton 2001:7). The Mispillion River was important to early settlement and industrial development in the region, as it divides the town and supported a number of mills that spurred local development. The first mill in the vicinity was built in 1787, and land near the mill was divided into town lots for Milford (Scharf 1888; see HRI 2010).

The forests on the edges of Milford contained valuable oak that was used for the shipbuilding industry that emerged along the Mispillion River in the late 1700s/early 1800s. The first vessel built on the Mispillion River was launched at New Wharf—located east of the APE—and its builders were William Dredden and William Dupree (Marvil 1961). During the nineteenth century, shipbuilding became an important industry in Milford particularly during the period from 1850 to 1890 (Davis, Bowen, & Friedel 2003: 16). By the 1880s, three active shipyards

were present along the river (Scharf 1888). Most of the ships built at that time were two- and three-masted schooners, which were used for coastal shipping and trade (Emory 1997; Scharf 1888:1190).The portion of Milford situated in Sussex County, known as South Milford, especially became known as a shipbuilding area. By the start of the twentieth century, over 400 wooden schooners and sloops were constructed along the Mispillion River (Hancock 1976:63).

In addition to shipbuilding, Milford was also the center of a fruit and vegetable canning industry that served the larger regional farming community. The burgeoning town of Milford was a focal point of shipping and mercantile business throughout the nineteenth century. Two landings near the southern and eastern ends of the APE served as important embarkation points used by farmers, passengers, and shippers to transport their goods and selves without needing to travel into town (Emory 1989). Construction of the Junction and Breakwater Railroad in 1859 also encouraged industry and commerce in Milford (HRI 2010). The railroad crossed the hundred west of the APE and was connected to Rehoboth in 1869, which formed a direct route from Dover to the Atlantic. The railroad later became part of the Delaware, Maryland, and Virginia Railroad in 1883.

After the Civil War, Milford was regarded as one of the largest and most active towns in Delaware, competing with Smyrna for the honor of second largest town (JMA 2004). The town benefited from its excellent water and rail connections that permitted regional farming and timber production. By 1875, Milford businesses included grist, saw, and flour mills; newspapers; several fruit evaporators; and machine shops, schools, and churches (Hancock 1976a:64). By 1880, Milford was the "most considerable point in the state south of Wilmington" (Hancock 1976:64; see JMA 2004). With a population of 3,719, Milford was the fourth largest community in Delaware by the end of the period (Eckman et al. 1938:208).

Twentieth-century road improvements prompted additional development in the project area. US Rt. 113 was constructed parallel to the railroad in the early-twentieth century. The highway is located west of the APE, which remained relatively agricultural throughout its history into the mid-twentieth century. SR 1 was constructed in the late 1970s, which cuts through the center of

the APE. Although residential developments and businesses appeared along the highway, the APE generally remains agricultural in character into the twenty-first century.

During the field component of the investigation, the A.D. Marble & Company field team was fortunate to have met David Kenton, the commissioner of the Milford Museum and former president of the Milford Historical Society, who offered additional insight into the history of the APE and vicinity. He informed the crew that the 192-acre parcel containing Test Area 2, the portion of the APE located in the southeast quadrant of the SR 1 and New Wharf Road intersection, became one of the farms owned by the Kent County Poor Trust from 1850 to 1862 when the tract was sold by the Delaware Chancery Court for the Potter Trust Fund. The eastern section of the farm was known as New Wharf, starting in 1764, and extended to its current boundaries.

The original wharf at Millstone Landing, east of the APE, was also on this tract of land, but it was located 300 yards west of the New Wharf location, which was where Swan Creek originally met the Mispillion River. He noted that the DuPree family moved the wharf when they purchased the site in about 1770. Important to remember for future studies work in the area is that Mr. DuPree's daughter is interred in the cemetery in the small wooded square in the agricultural field near New Wharf Bridge, approximately 0.5-mile northeast of the APE and near the Exley Site (7K-F-8). Mr. Kenton also showed the crew an early land grant map dating to the late-seventeenth century that shows that the APE is contained in the eastern portion of the tract known as Saw Mill Range (mentioned above), which consisted of 2,000 acres and was patented on March 28, 1680, to Henry Bowman, as also discussed above. Another map dating to 1758 that Mr. Kenton showed the crew depicts the Swan Creek and Mispillion River confluence where the Levin Adam's wharf was located. The map also depicts what appears to be a two-story house and detached summer kitchen adjacent to the west of the wharf. This entire wharf and house complex was located outside and approximately 0.5-mile northeast of the APE.

3.3 Historic Maps and Aerials

Historic atlas and topographic mapping and historic aerial photographs shed additional light on the history of the APE and its potential for containing historic-era archaeological resources. The

APE lies one-half mile east of the transportation corridor (probably The King's Road) that was established late in the seventeenth century and ran through the town of Milford and became and remains today Walnut Street. The modern-day NE 10th Street that runs east-west at the north end of the APE appears to have been established in the first half of the nineteenth century, and it extended east to New Wharf (Figures 5 and 6). However, the section of road extending to New Wharf disappears by the early twentieth century when it became a farm lane and diverged to the south where it ended at New Wharf Road close to the farm complex (Potter Estate) that stood in the field in the eastern portion of the APE (Figure 7). USGS topographic maps show that the farm lane disappears completely between 1969 and 1982 after the establishment of a fourth-quarter twentieth-century residential development on the north side of New Wharf Road and across (north of) from the APE.

The Byles 1859 atlas map shows four occupations (likely farmsteads) in the vicinity of the APE (see Figure 5). These belonged to J. Davis and C. Fleetwood near the north end of the APE and S. Paisley and L. Latchum's Hrs [Heirs] near the south end of the APE. No roads, other than the road that connected to New Wharf (discussed above), were located in the APE at this time. The Beers 1868 atlas map shows that slight development occurred in and around the APE (see Figure 6). The J. Fleetwood farm is owned by A. Fleetwood by this time, while the S. Paisley farm appears to have been re-established nearby, northwest of its former location, and now on the north-side of NE Front Street. Although the portion of the Beers map for the southern portion near the Mispillion River is hardly legible, it appears that a newly established farm owned by W.A.B. (?) Dorsey is located near the south end of the APE. This farm would have been located immediately west of SR 1 or in the highway right-of-way. Based on the DHCA Cultural and Historical Resource Information System (CHRIS), the Dorsey occupation appears to have been recorded as the Bowen Farm (7K-F-37) site.

Intrinsically related to archaeological resource probability in the APE is a farm established in the eastern portion of the APE (see Figure 6). This farm is labeled "Potter Est," which refers to the Potter Estate mentioned above in the information provided by Mr. David Kenton. This farmstead is an extension of the main Potter Estate (CRS# K-4887), which was located approximately 1.5

mile north of the APE near the east end of the road that led to New Wharf on Fishing Branch. This farm complex is also depicted inside the APE on USGS topographic maps dating from 1918 (see Figure 7) to 1969; but it does not appear in the USGS map dating to 1982. Therefore, it was razed between 1969 and 1982 (Historicaerials.com). The farm appears on historic aerial photographs dating to 1937, 1954, and 1961 (Figure 8; DHCA CHRIS 2013; see also Historicaerials.com 2013). The aerials show that the farmstead core containing the dwelling lies firmly inside the APE. A few outbuildings (barn and equipment shed) lie adjacent to the southeast and outside of the APE. Note that multiple "Potter Est" properties are depicted east of the APE on the Beers and Byles maps. It seems likely that the Potter Estate farmstead in the APE was occupied by a tenant that farmed the field containing Test Area 2.

Early- and mid-twentieth century USGS topographic maps and aerial photographs show that residential dwellings were established on the southwestern edges of the APE along NE Front Street. The APE includes the edges of their front yards. The S. Paisley farmstead adjacent to the west of the macaroni-shaped curve in Test Area 1 of the western portion of APE is continually shown on aerials and topographic maps dating up to 1982. It was razed prior to publication of the 1993 USGS topographic map. Aerials and topographic maps show that another farmstead lay adjacent to NE 10th Street east of the northwest end of the APE during the early to late twentieth century, but it was razed when SR 1 was constructed, as it was located under the center of the intersection of NE 10th Street and SR 1. Interestingly, a pit mine was located north of the macaroni-shaped section of the APE in Test Area 2 and where the Royal Farms gas and convenient store is located today. This portion of the project area is comprehensively disturbed.

In sum for the archaeological sensitivity of the APE and based on these background data, it was anticipated that the field team would encounter archaeological materials associated with 1) the Potter Estate farmstead occupation in the field on the east side of the APE; 2) the early- to mid-twentieth century dwelling occupations in the front yards on NE Front Street west of SR 1; and 3) possibly the farmstead occupations of the Fleetwood and/or Paisley farmsteads. It was also anticipated that given the dense concentration of precontact era sites south of the Mispillion River and in proximity to the east side of the APE that the field team might encounter precontact archaeological materials in the field on the east side of the APE. Essentially the APE exhibited

Archaic to Woodland II-period precontact site potential, and mid-nineteenth to late-twentieth century historic site potential.

3.4 Local Archaeological Site Context

Examination of the Delaware Cultural Resource Survey (CRS) archaeological site forms and the CHRIS website (accessed August 2013) demonstrates historic and precontact occupations in the vicinity of the APE. Most of the precontact sites are associated with the Mispilion River and were found east, south, and northeast of the APE. Most of the reported historic sites are associated with the surrounding agriculturally rich terrain and are located north, east, and south of the APE.

Thirteen recorded archaeological sites are located within an approximately 3.0-mile radius of Test Areas 1 and 2 (Table 1). Ten sites contain evidence for precontact occupations. Two of these contain evidence for Late Archaic occupations; six contain evidence for Woodland I occupations; four contain evidence for Woodland II occupations, and one contains evidence for an undated precontact-era component. Two sites contain evidence for precontact and historic occupations. One site contains only evidence for a nineteenth- to mid-twentieth-century historic occupation. Based on these sites, it is inferred that the portions of the APE closest to the Mispillion River contain high sensitivity for precontact archaeological resources. It is also inferred that portions of the APE near former locations of historic farmsteads contain high sensitivity for historic archaeological resources.

Table 1. Recorded Archaeological Sites within a 3.0-mile radius of Test Areas 1 and 2.

CRS #	Site #	Site Name	Period	Site Type	Distance from APE/Setting
K-781	7K-F-14	Arrowhead Farm	Woodland I	Unknown	2.5 mi N of APE; near feeder stream of Fishing Br
K-788	7K-F-37	Bowen Farm	Historic	Farmstead	0.25 mi SW of APE; near Mispillion R
K-789	7K-F-8	Exley	Late Archaic, Woodland I, and Historic	Unknown precontact, farmstead historic	0.5 mi N of APE, W of Swan Ck, N of Mispillion R
K-790	7K-F-60	Price's Farm	Unreported	Unknown	2.75 mi W of APE, near Griffith Lake

CRS #	Site #	Site Name	Period	Site Type	Distance from APE/Setting
K-893	7K-F-83	Lynch Heights	Unreported	Unknown	2.25 mi N of APE, near Jenkins Pond / head of feeded stream of Fishing Br
S-455	7S-A-1	Mispillion	Woodland II	Macroband base camp, burials	0.5 mi SW of APE, S bank of Mispillion R
S-456	7S-A-2	Cedar Neck School	Woodland I	Unknown	0.75 mi S of APE, S bank of Misplillion R
S-457	7S-A-7	--	Woodland II	Unknown	0.75 mi SE of APE, S bank of Mispillion R
S-458	7S-A-4	Old Potter	Woodland I	Unknown	2.25 mi E of APE, S band of Mispillion R
S-459	7S-A-3	Saul Creek	Woodland I Woodland II	Unknown	1.5 mi SE of APE, near headwaters of feeder stream of Mispillion R
S-815	7S-A-9	--	Precontact	Unknown	1.5 mi E of APE, S bank of Mispillion R
S-10315	7S-C-100	--	Woodland I, Historic	Unknown	3.0 mi S of APE, near headwtaers of feeder stream of Cedar Ck
S-12257	7S-C-102	--	Late Archaic, Woodland I and II	Unknown	3.0 mi S of APE, near headwaters of feeder stream of Cedar Ck

Reference: Delaware CRS forms/CHRIS website, accessed August 2013

Based on the local archaeological site context—as well as on the historic maps and aerial photographs, it was anticipated that the APE was most likely to contain evidence of the last 5,000 years of human occupation in central Delaware. More specifically, it was anticipated that artifacts potentially associated with Late Archaic-, Woodland I-, and Woodland II-period sites might be encountered, and it was expected that nineteenth- through mid-twentieth-century agricultural farmstead sites might also be encountered during the survey.

4.0 Research Design and Methods

4.0 RESEARCH DESIGN AND METHODS

4.1 Research Design

The purpose of the Phase I investigation was to identify archaeological resources in the APE. Furthermore, the goals of this study were to identify archaeological-bearing deposits, and if possible, then attempt to determine the integrity of those deposits and determine the range of historic and precontact activities that may have occurred in the APE. The APE is based on the proposed limits of construction for the SR 1, NE Front Street Grade Separated Intersection project. Prior to the start of the fieldwork, DelDOT assessed the sensitivity of the APE and generated a testing strategy. Tested portions of the APE west of SR 1 were defined as Test Area 1, and tested portions of the APE east of SR 1 were defined as Test Area 2. These two areas underwent Phase I survey via a combination of shovel testing and pedestrian survey.

Test Area 1 is primarily located in the northwest quadrant of the SR 1 / NE Front Street-New Wharf Road intersection, but it also includes a narrow strip on the south side of NE Front Street (see Figure 3). Test Area 1 was believed possibly to contain archaeological deposits associated with farmsteads that were established in the nineteenth century, and residential dwellings that were established in the early- to mid-twentieth century. Test Area 2 is located in the southeast quadrant of the SR 1 / NE Front Street-New Wharf Road intersection. It was believed likely to contain archaeological deposits associated with a mid-nineteenth- to twentieth-century farmstead as well as the precontact era.

The survey was conducted in light of the *Delaware Statewide Comprehensive Historic Preservation Plan* (Ames et al. 1987; see also Herman and Siders 1989; see also Bedell 2002; Catts and De Cunzo 1999; De Cunzo 2004; De Cunzo and Garcia 1992). The Plan identifies five historic periods:

- 1630-1730 Exploration and frontier settlement;
- 1730-1770 Intensification and durable occupation;
- 1770-1830 Early industrialization;
- 1830-1880 Industrialization and early urbanization; and
- 1880-1940 Urbanization and early suburbanization.

Given the occupation history of the project area, the periods dating from 1770 to 1940 are considered the most relevant. Based on the known resources in and near the APE, it was expected that any historic resources identified in the APE would date from the early-nineteenth to mid-twentieth centuries and reflect the longue durée of "cultures of agriculture" in the local area. Information gathered from previous studies suggests that historic resources in the APE might be linked to a few of the research domains outlined by DeCunzo and Catts (1990), such as the general themes of domestic economy and landscape, as well as settlement patterns and demography. Artifacts associated with historic farmstead properties dating to the nineteenth century that were located in or adjacent to the APE were anticipated to dominate any historic artifact assemblages recovered during the investigation.

A.D. Marble & Company also conducted the survey in light of the *Delaware Management Plan for Prehistoric Resources* (Custer 1983). The project area falls within the Mid-Drainage Management Unit of the Plan. Probability for finding sites dating to the various precontact eras was determined by information gathered during previous investigations in the Unit. These probabilities are summarized above, but in general, the APE was considered sensitive to Late Archaic to Woodland II sites.

4.2 Field Methods

The investigation was accomplished via pedestrian survey in the agricultural field portions of the APE. The fields were plowed, disked, and subjected to a washing rain. Archaeologists examined the plowed fields in perpendicular 2-meter transects. All artifacts were flagged, and their locations were recorded using a hand-held Global Positioning System (GPS) unit. The artifacts were then collected for processing and analysis. Archaeological survey was also conducted via a systematic sampling strategy employing 50-foot interval STP excavations in the wooded and

residential front yard portions of the APE. All STPs were excavated at least 10 cm into culturally sterile subsoil. All excavated sediments were sifted through 0.64-centimeter wire mesh cloth. Excavation data from all STPs were recorded on standard field forms. All artifacts recovered from the tests were retained for processing and analysis. The locations of the STPs were recorded on scale maps.

4.3 Lab Methods

All artifacts recovered during the investigation were washed, inventoried, cataloged, and prepared for curation standards of the Delaware State Museum. Artifacts recovered during the survey were analyzed according to their relevant attributes; artifacts were characterized as to their type, function, period of attribution, and diagnostic features. Various sources were consulted for identifying the historic materials; these included works by Nöel Hume (1969, 2001), Jones et al. (1989), Miller (1980), and South (1977). Works by Custer (1989) and Fogelman (1988) were consulted to identify the precontact materials. Analyses of the field findings included basic numeric and qualitative assessments of the artifacts to evaluate the nature of the artifact assemblages and their depositional contexts. The goal of these analyses was to attempt, if possible, to determine the integrity of the archaeological deposits and to determine their potential to provide new and significant historical information.

5.0 Field Results

5.0 FIELD RESULTS

This chapter reviews the results of the Phase I survey. Artifact tables, distributions maps, and photographs are included when appropriate. The artifacts recovered in each test area are discussed in light of the most current definitions for "archaeological site," "historic field scatter," and "isolated find/find spot" that are provided in the Delaware Division of Historical and Cultural Affairs *Guidelines/Instructions for Using the Delaware State Historic Preservation Office's Archaeological Survey Report Form* (2008). It is the opinion of A.D. Marble & Company that the Phase I investigation identified two historic archaeological sites characterized by artifact concentrations in agricultural settings respectively in the east and west sides of the APE. The following sections review the results of the investigations conducted in each test area.

5.1 Test Area 1

Test Area 1 is a 3.9-acre area located primarily in the northwest quadrant of the intersection of SR 1 / NE Front Street (see Figure 3; Photographs 1-4). Test Area 1 very gradually slopes southward toward NE Front Street. Approximately 3.0 acres of Test Area 1 consist of agricultural fields. The agricultural field portion of the test area north of NE Front Street underwent pedestrian survey, while the narrow agricultural field portion south of NE Front Street underwent STP survey. The remainder of the test area consists of a fallow grassy field margin and front edges of two residential yards. These areas also underwent STP survey. At the outset, Test Area 1 was considered to exhibit potential to contain evidence for historic-era habitation.

The field team laid in and excavated 13 STPs in Test Area 1 (Figure 9). STPs 5, 7, and 12 provide a cross-section of the profiles encountered in Test Area 1 (see STPs 5, 7, and 12 on Figure 10). STP 5 was located on the west end of the fallow field adjacent to the north of NE Front Street, adjacent to the south of a storm water basin, and adjacent to the east of a farm lane that skirted the eastern edge of the field that underwent pedestrian survey. The eastern and southern edges of the fallow field contained underground utilities. Like other STPs in the fallow field, STP 5 appeared to exhibit an intact sequence of three soils. A dark, yellowish-brown, 18 centimeter-thick sand A-horizon/plowzone overlies an approximately 35 centimeter-thick

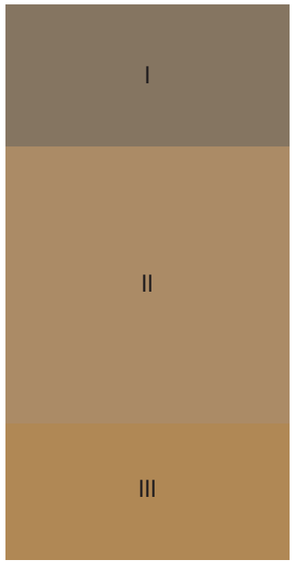
Photograph 1: TA 1, north side of NE Front Street, Area of STPs 1-5, facing west (August 2013).

Photograph 2: TA 1, north side of NE Front Street, west end of Area of STPs 1-5, facing west toward corn, which represents southern end of pedestrian surveyed portion of TA 1 (August 2013).

Photograph 3: TA 1, north side of NE Front Street, Area of STPs 6-9, facing west (August 2013).

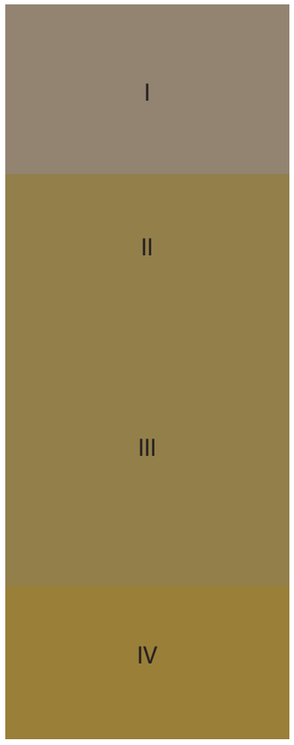
Photograph 4: TA 1, south side of NE Front Street, Area of STPs 10-13 between road and white fence, facing west (August 2013).

Test Area 1
STP 5



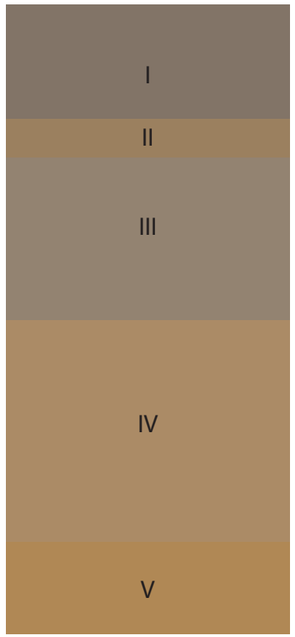
Stratum I: 10YR 3/4 Dark yellowish brown sand
Stratum II: 10YR 5/6 Yellowish brown sand
Stratum III: 10YR 5/8 Yellowish brown sand

Test Area 1
STP 7



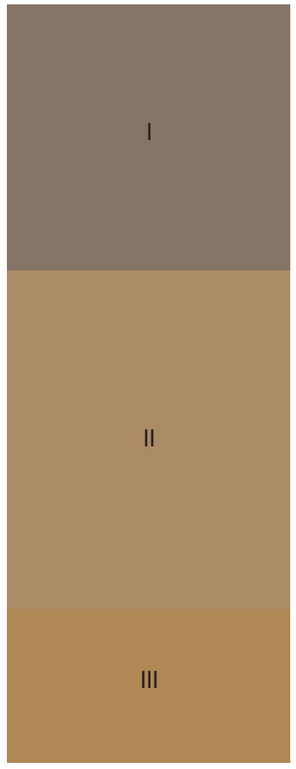
Stratum I: 10YR 4/3 Brown sandy loam
Stratum II: 2.5Y 5/3 Light olive brown sandy silt
Stratum III: 2.5Y 5/3 Light olive brown coarse sand
Stratum IV: 2.5Y 5/6 Light olive brown coarse sand

Test Area 1
STP 12



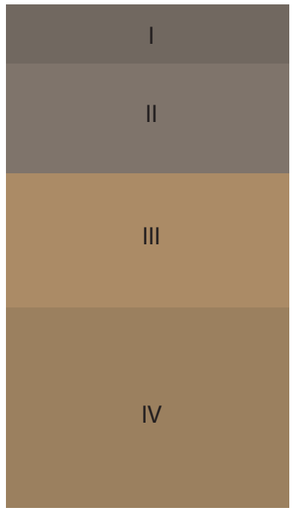
Stratum I: 10YR 3/2 Very dark grayish brown loamy sand
Stratum II: 10YR 4/6 Dark yellowish brown sand
Stratum III: 10YR 4/3 Brown sandy loam
Stratum IV: 10YR 5/6 Yellowish brown medium sand
Stratum V: 10YR 6/6 Brownish yellow medium sand

Test Area 2
STP 6



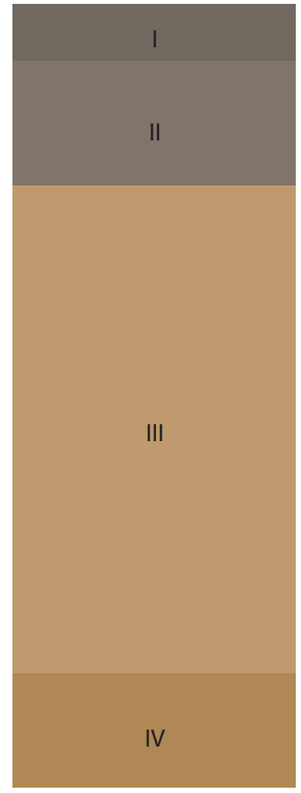
Stratum I: 10YR 3/3 Dark brown sandy loam
Stratum II: 10YR 6/6 Brownish yellow sand
Stratum III: 10YR 5/8 Yellowish brown sand

Test Area 2
STP 28



Stratum I: 10YR 2/2 Very dark grayish brown sandy loam (humus)
Stratum II: 10YR 3/3 Dark brown sand
Stratum III: 10YR 5/6 Yellowish brown sand
Stratum IV: 10YR 4/6 Dark yellowish brown sand

Test Area 2
STP 61



Stratum I: 10YR 2/2 Very dark brown sandy loam (humus)
Stratum II: 10YR 2/2 Very dark brown mottled with 10YR 6/6 brownish yellow sand
Stratum III: 10YR 6/6 Brownish yellow sand
Stratum IV: 10YR 6/6 Brownish yellow mottled with 10YR 5/8 yellowish brown sand

Figure 10
Representative Shovel Test Pit Profiles
SR1, Northeast Front Street Grade Separated Intersection Project
Milford, Kent County, Delaware

Map Document X:\Graphics\Projects\P-1311D\ST profile.ai

yellowish-brown sand B1-horizon that overlies a slightly lighter yellowish-brown sand B2-horizon. Excavations halted approximately 70 centimeters below surface in the B2-horizon. The plowzones of STPs 2 through 5 collectively yielded nine artifacts. These included clam and oyster shell fragments, colorless bottle glass fragments ("SNAPPLE"), a metal pull-tab, and a large, threaded bolt.

STPs 6 through 9 were also placed at 50-foot intervals in the front edges of two residential yards on the north side of NE Front Street. STP 7 exemplifies the profiles encountered in this portion of Test Area 1 (see Figure 10). An approximately 20 centimeter-thick, brown sandy loam A-horizon/topsoil layer overlies an approximately 20 centimeter-thick, light olive-brown sandy silt layer. This layer overlies an approximately 40 centimeter-thick, light olive-brown coarse sand that overlies a slightly lighter olive-brown coarse sand. The profiles encountered in this portion of the test area are inconsistent with the sequences of the soil types reported at this location (i.e., Downer sandy loam and Galestown loamy sand). It would appear that the layers observed in these STPs may consist of a mix of these two soil types. The field team recovered 11 artifacts altogether from STPs 6, 7, and 9. Apparent fill layers of STPs 6 and 7 located on the edge of the easternmost front yard contained nine artifacts: colorless and amber glass bottle fragments; plastic; and a brick fragment. An apparent fill layer in STP 9, located on the edge of the westernmost front yard, contained amber and emerald green bottle glass and a fragment of a paper sticker.

STPs 10 through 13 were laid in at 50-foot intervals along the south side of NE Front Street in the narrow edge of the west end of Test Area 1 in an agricultural field. The east and west ends of the transect contained underground utilities, while a driveway to a farmstead south of the road bisects the transect. Two STPs were dug on each side of the driveway. STP 12 typifies the profiles encountered in this portion of the test area (see Figure 10). An approximately 15 centimeter-thick, very dark grayish-brown loamy sand A-horizon/plowzone overlies a thin, roughly 5 centimeter-thick, dark yellowish-brown sand (possible fill) that overlies an approximately 20 centimeter-thick, brown sandy loam (possible E-horizon). This layer overlies an approximately 30 centimeter-thick, yellowish-brown medium sand B1-horizon that overlies a brownish-yellow medium sand B2-horizon. The field team recovered artifacts (N=17) from STPs

10 through 12. The thin, second layer of STP 10 contained a bent metal threaded bolt and a 6-ounce Pepsi can. These materials suggest that this layer is probably a fill layer. The same layer in STP 11 contained single pieces of aqua and emerald green bottle glass. The plowzone in STP 12 contained eight artifacts that included amber and colorless glass fragments, a clam shell fragment, a cut nail, and a piece of rigid plastic. The uppermost portion of the third layer—the possible E-horizon—contained five artifacts that included amber and colorless bottle glass, a clam shell fragment, and a piece of concrete. In sum for the shovel-tested potion of Test Area 1, it is the opinion of A.D. Marble & Company that the field team encountered no potentially significant archaeological resources and that additional investigation in this portion of the APE is not warranted.

The field team conducted a pedestrian survey of the agricultural field portion of Test Area 1 and encountered two artifact concentrations: one light concentration to the south and one heavy concentration to the north (Figure 11; Photographs 5-7). Overall the crew recovered a total of 239 artifacts (all historic) in the field. Note that artifacts found lying close to one another were grouped together and recorded as a single location in the GPS. Therefore, although 239 artifacts were recovered during the survey, there are not 239 points depicted on Figure 11. The concentration at the southern end of the field contained 26 artifacts including brick fragments, window glass, tile fragment, clam shell, plastic and glass lamp shade fragments, aqua, colorless, green, and olive bottle glass fragments, and ironstone and institutional porcelain sherds. The diffuse distribution of these materials suggests that they represent field scatter that originated from the practice of field manuring.

The artifact concentration occurring near the north end of the Test Area 1 pedestrian survey area is denser and contains 213 artifacts (see Figure 11; Table 2). Notable materials include brick fragments, ironstone, porcelain, and whiteware sherds, and aqua and colorless bottle and vessel glass fragments. The materials generally span the last third of the nineteenth century to the early twentieth century. The clustering, combined with the kitchen and architectural group assemblage character suggests that the materials represent an archaeological site. The assemblage is domestic in nature and likely derives from refuse behavior associated with a household(s) that lived nearby, perhaps on the Paisley Fleetwood properties. The architectural debris hints that a

structure may have stood at this location, but there is no documentary evidence that a building stood here in the past. Another possibility is that a household(s) associated with the formerly nearby Fleetwood or Paisley farmsteads may have dumped its trash in the edge of woods next to

Photograph 5: TA 1, north end of pedestrian surveyed area, facing southwest (October 2013).

Photograph 6: TA 1, central portion of pedestrian surveyed area, facing south (October 2013).

Photograph 7: TA 1, southern portion of pedestrian surveyed area, facing north (October 2013).

the field, as is a common practice occasionally today as well as in the deeper past. In sum for the field portion of Test Area 1, it is the opinion of A.D. Marble & Company that the artifact concentration in the north end of the test area should be considered part of an archaeological site (CRS and Site # pending). However, it is also the opinion of A.D. Marble & Company that additional investigation at this location is not merited because the portion of this site inside the APE is not a potentially significant historic resource. It likely cannot teach us much about local or regional history given the inability to associate the cultural materials with any specific household(s) or persons.

Table 2. Test Area 1 Pedestrian Survey (Site 1) Artifact Assemblage.

Artifact	Notes	Quantity
Flower pot	Terra cotta	3
Doll head	Porcelain bisque	3
Metal wire	Heavy gauge, possible fencing	1
Brick	-	33
Window glass	-	1
Slate	Landscape or roofing	3
Shell	1 clam, 6 oyster	7
Statue	Porcelain bisque figurine base, gilded	1
Lamp chimney	1 colorless, crenellated, 3 milk glass, beaded	4
Coal	-	2
Rubber	Highly degraded	1
Asphalt/macadam	-	1
Bottle glass fragments	7 amber, 22 aqua, 1 cobalt, 38 colorless, 2 dark aqua, 1 green, 1 light green, 5 olive	77
Canning jar glass fragments	2 dark aqua, 1 aqua, 2 milk lid liners	5
Vessel glass fragment	6 colorless, 7 milk, 4 light green Depression	17
Ironstone	-	19
Porcelain	-	9
Stoneware	Gray salt-glaze, Albany slipped interior	1
Whiteware	-	25
Total		**213**

5.2 Test Area 2

Test Area 2 is a 17.6-acre, generally level area located in the southeast quadrant of the SR 1 / NE Front Street-New Wharf Road (see Figure 3; Photographs 8-11). It consists of 5.2 acres of woods (to the south) and fallow field (to the west) and 12.4 acres of agricultural field. It was considered likely to contain archaeological deposits associated with a mid-nineteenth- to twentieth-century

Photograph 8: TA 2, north edge of heavily vegetated portion of test area, facing east (August 2013).

Photograph 9: TA 2, northwest corner of heavily vegetated portion of test area, facing southwest (August 2013).

Photograph 10: TA 2, center of heavily vegetated portion of test area, facing south in vicinity of STP 38 (August 2013).

Photograph 11: TA 2, west edge of shovel tested portion of test area, facing north in vicinity of STP 10 (August 2013).

farmstead (Potter Estate) that stood nearby and deposits associated with the precontact era given the proximity of the Mispillion River adjacent to the south. The area underwent shovel test survey and pedestrian survey.

The field team excavated 83 STPs laid in at 50-foot intervals within the wooded and fallow field sections of the test area (Figure 12). STPs 6, 28, and 61 provide a cross-section of the profiles encountered in Test Area 2 (see STPs 6, 28, and 61 on Figure 10). STP 6 was located near the north end of the grassy unplowed western edge of the field. A utility ditch was located between the single row of STPs (1-10) and the highway. STPs in this vicinity exhibited an approximately 30 to 40 centimeter-thick, dark brown sandy loam A-horizon/plowzone that overlies a 50 centimeter-thick, brownish-yellow sand B1-horizon. The underlying layer is a yellowish-brown sand B2-horizon. Only the top of the B1-horizon of STP 6 yielded an artifact (an undecorated creamware sherd). The field team then excavated four radial STPs around STP 6. The radials to the north, east, and west yielded additional cultural materials. The field crew recovered a piece of plastic from the plowzone of the eastern radial (STP 6E), a manganese redware sherd from the B1-horizon of the northern radial (STP 6N), and an oyster shell fragment and cut nail from the plowzone of the western radial (STP 6W).

STP 28 typifies the soil profiles encountered in the eastern third of the heavily vegetated portion of the test area (see Figure 10). A well-developed 10 centimeter-thick, very dark grayish-brown sandy loam humus overlies a 15 centimeter-thick, dark brown sand A-horizon. This layer overlies a 20 centimeter-thick, yellowish-brown sand B1-horizon that overlies a dark yellowish-brown sand B2-horizon. STPs 11, 12, 15, 16, and 26 in this area contained cultural materials. The STP 11 humus contained a piece of colorless lamp chimney glass, and its A-horizon contained a fragment of a bottle base made of aqua colored glass. The STP 12 B1-horizon similarly contained a fragment of an aqua glass bottle. The B1-horizon of STP 15 contained an undecorated ironstone sherd; the A-horizon of STP 16 contained an undecorated cream-colored ware sherd. Lastly in this area, the STP 26 A-horizon held a piece of colorless bottle glass.

STP 61 is the typical soil profile encountered in the western wooded section of Test Area 2 (see Figure 10). The stratigraphic sequence is similar to the sequence to the east (i.e., the humus, A- ,

B1, and B2 layers), except that the B1-horizon is much deeper, ranging from 60 to 80 centimeters in thickness. Historic aerials show that this portion of the test area was wooded prior to the late-twentieth century, but that it was then then (recently) cleared and now left to grow back, as the thick, early generation vegetation shows. This explains the occasional mottling of A-horizon and B1-horizon soils observed in the A-horizon in this section of the test area. STPs 43, 50, 57, and 78 yielded artifacts. The humus of STP 43 contained a piece of brick, coal, oyster shell, and a cut nail, while the humus of STP 50 contained a transitional pearlware sherd. The B1-horizon of STP 57 contained a piece of colorless bottle glass, and the humus of STP 78 contained a fragment of a handmade brick. In sum for the findings in the wooded or fallow portions of Test Area 2, the assemblage (N=22 historic artifacts) evinces a nineteenth- and twentieth-century domestic occupation. These materials likely originated as refuse of the Potter Estate farmstead that was occupied during this time and located a few hundred feet to the northeast of the shovel tested area.

Following the STP survey, the field team conducted pedestrian survey of the test area and encountered 185 artifacts (Table 3; Photographs 12-14). A number of them clustered near the former location of the Potter Estate farmstead complex (Figure 13; see also Figure 8). Note that like the artifact distribution map for the Test Area 1 pedestrian survey, artifacts found lying close to one another during pedestrian survey in Test Area 2 were grouped together and recorded as a single location in the GPS. Therefore, there are not 185 points depicted on Figure 13. Artifacts recovered during the survey include brick fragments, window pane glass fragments, ironstone, pearlware, porcelain, redware, and white salt glaze stoneware (one sherd), and primarily aqua and colorless bottle glass fragments. The artifacts are considered likely associated with the Potter Estate farmstead occupation, which stretched from the mid-nineteenth to late-twentieth centuries.

Photograph 12: TA 2, pedestrian surveyed field, facing northeast from southwest corner of the field (November 2013).

Photograph 13: TA 2, pedestrian surveyed field, facing northwest from southeast corner of the field (November 2013).

Photograph 14: TA 2, pedestrian surveyed field, facing west from the northeast corner of the field (November 2013).

Table 3. Test Area 2 Pedestrian Survey (Site 2) Artifact Assemblage.

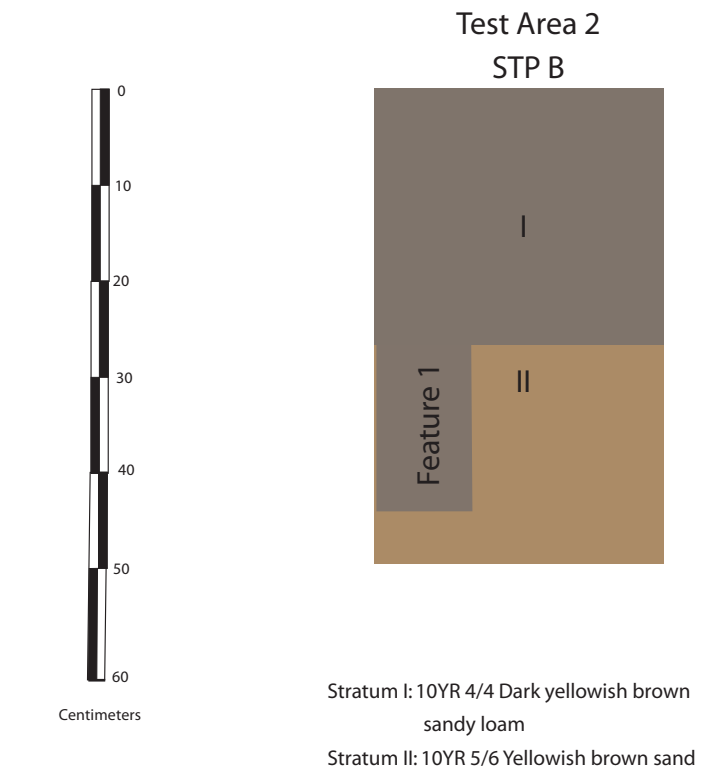
Artifact	Notes	Quantity
Brick fragments	-	33
Window glass fragments	-	7
Mortar	-	1
Metal hardware/tools	1 large gauge wire rod, 1 mounting plate w/ screw	2
Toy marble, glass	-	1
Shooting pigeon	Bakelite	1
Shotgun shell	1 metal base, 3 plastic tubing	4
Shell	8 clam, 28 oyster	36
Coal	-	7
Metal	Unidentifiable	1
Pendant	Plastic, sequined w/ chain	1
Bottle glass fragments	3 amber, 12 aqua, 23 colorless, 1 olive	39
Canning jar glass fragments	1 cobalt, 2 colorless, 2 milk glass lid liner	5
Vessel glass fragment	1 colorless, 2 milk	3
Ironstone	Undecorated	3
Pearlware		11
Porcelain	-	2
Red earthenware	-	6
Stoneware	1-buff-bodied, tan salt glaze, 1-white salt glaze w/ blue decoration	2
Whiteware	-	20
Total		**185**

The crew then excavated two STPs (A and B) in the vicinity of the Potter Estate farmstead complex (see Figure 13). Based on A.D. Marble & Company's understanding of the farm complex layout (see Figure 8), we believed that STP A would have been located near the foot of the farm lane and that STP B would have been located among the farmstead structures. STP A exhibited a 25 centimeter-thick, dark yellowish-brown sandy loam A-horizon/plowzone atop a yellowish-brown sand B-horizon. The field team recovered 31 artifacts from the plowzone: two amber bottle glass, two clam shell, and 27 oyster shell fragments. STP A was located toward the front of the farm complex near New Wharf Road.

The field crew excavated the second STP (STP B) near where the complex of farm buildings would have stood. The stratigraphic profile was very similar to that in STP A. The field team observed a small, circular, 20 centimeter-diameter posthole feature (Feature 1) at the plowzone—subsoil interface that probably represents a hole for a fence post (Figure 14; Photographs 15-16).

Photograph 15: Opening plan view of post hole Feature 1 post hole in southwest corner of STP B (November 2013).

Photograph 16: Closing plan view of post hole Feature 1 in STP B, facing south (November 2013).



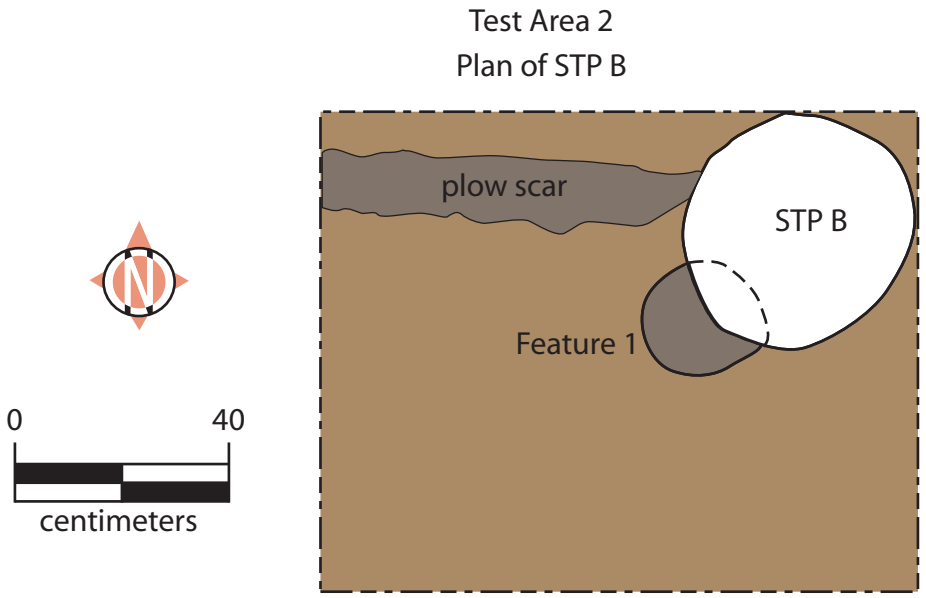


Figure 14
Test Area 2, STP B Profile and Planview
SR1, Northeast Front Street Grade Separated Intersection Project
Milford, Kent County, Delaware

Map Document X:\Graphics\Projects\P-1311D\TA2 stp B.ai

The team opened up the STP to a 100-by 120-centimeter unit to expose the feature. The feature had been plow-scarred and rodent-tunnel disturbed. The team recovered 201 artifacts from the plowzone. The artifacts were similar in types and frequencies as those encountered during the pedestrian survey in Test Area 2. Artifact types included brick, window glass, mortar, cut and wire nails, coal, ironstone, porcelain, redware, whiteware, and aqua and colorless bottle glass. The team recovered 15 artifacts near the top of the feature and B-horizon. These included aqua and colorless bottle glass fragment, a few cut nails, oyster and clam shell, and a piece of coal.

In sum for Test Area 2, the crew encountered 454 historic artifacts that primarily date from the mid-nineteenth to the beginning of the last-quarter of the twentieth century. Historic atlas maps, topographic maps, and aerial photographs show a farmstead in the field and in the Test Area 2 portion of the APE. The artifacts are attributed mostly to domestic kitchen and architectural groups. It is hypothesized that the artifacts appear in their current depositional contexts as a result of the mechanical razing of the farm buildings as well as the result of field manuring in the nineteenth and early-twentieth centuries. Essentially, the assemblage represents demolition debris where the artifacts occur most densely and field scatter where the artifacts occur more diffusely. Field scatters typically contain artifacts that date after 1830 when field manuring practices became more widespread. The white salt glaze stoneware sherd is tantalizing evidence for the presence of an earlier, nearby occupation because these artifacts were manufactured in the eighteenth century. However, based on the overall chronological and domestic/architectural character of the assemblage, it is argued that the artifacts in Test Area 2 originated from refuse disposal by households that occupied the Potter Estate farmstead throughout the nineteenth and twentieth centuries. It is the opinion of A.D. Marble & Company that the artifacts constitute an archaeological site (CRS and Site #’s pending). Not enough information about the site is known at this time to rule out that the portion of the site in the APE is not a potentially significant historic resource.

6.0 Conclusions

6.0 CONCLUSIONS

A.D. Marble & Company identified two archaeological sites in the APE during the Phase I archaeological survey (Figure 15). The site in Test Area 1 appears to be associated with in situ or nearby domestic occupation in the late-nineteenth and early-twentieth centuries. There is no record of a residence at this location during this time frame, and therefore, it seems more likely that the site is the product of refuse behavior of nearby household(s), such as those that resided in the Fleetwood and Paisley farmsteads that stood respectively a few hundred feet northwest and southwest of the site. The site in Test Area 2 is associated with households that occupied the Potter Estate farmstead, which operated from the mid-nineteenth to late-twentieth centuries.

Although this investigation is an archaeological resources identification (Phase I) survey and not an evaluation (Phase II) study, it is the opinion of A.D. Marble & Company that the evidence recovered from one of the sites, the site in Test Area 1, is compelling enough to evaluate its eligibility to the National Register of Historic Places at this time. The site is represented by a cluster of kitchen and architectural group artifacts that are believed to represent either an in situ domestic occupation or (more likely) a refuse dump on the edge of the agricultural field. There are no recorded occupations at this location. It is argued that because of the inability to associate the assemblage with any particular household(s) that the site has little potential to provide new information about nineteenth to early-twentieth century history of the local region and should not be considered a significant historic resource.

Conversely, the dense artifact concentration recovered in the farmstead core in Test Area 2 suggests that the site has the potential to provide information on rural tenant farmstead life during the following culture historical periods: 1830-1880+/- Industrialization and Early Urbanization; 1880-1940+/- Urbanization and Early Suburbanization; and 1940-Present - Commercialization and Suburbanization. Thus, unlike the site in Test Area 1, this site is a potentially significant archaeological resource, and A.D. Marble & Company recommends that the project avoid the site. If project plans cannot be revised to avoid the site, then A.D. Marble & Company recommends Phase II evaluation-level study at the site to determine if additional

subsurface features or artifact patterning within the site deposits are present and to determine the integrity of those deposits. Ultimately any additional investigation would allow cultural resource managers to evaluate satisfactorily the integrity and eligibility of the site to the National Register of Historic Places.

In sum, it is the opinion of A.D. Marble & Company that the site in Test Area 2 is a potentially significant archaeological resource; that the site in Test Area 1 is not a potentially significant resource; and that no other potentially significant archaeological resources were identified elsewhere in the APE (Table 4).

Table 4. Archaeological Sites and Recommendations.

Test Area	Site Name	CRS#	Recommendation
1	-	Pending	Cluster of late 19th-early 20th c historic domestic and architectural debris in corner of field; possible in situ domestic occupation or refuse dump; can not link data to specific households; no Phase II recommended
2	Potter Estate Tenant Farmstead	Pending	Mid 19th to late 20th c historic domestic/farmstead, established as part of the Potter Estate in the mid-19th c; site materials likely associated w/ resident households, Phase II recommended

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Appendix A

Artifact Catalog

Appendix A: Artifact Catalog
TA 1 STP Results

STP	Strat	Lv	Class	N	Group	Material	Type	Notes1	Notes2	Portion
2	I	1	Historic	2	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
2	I	1	Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
2	I	1	Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; "SNAPPLE"	Fragment
3	I	1	Historic	1	Activity	Metal	Hardware / Tools		very large threaded bolt	Complete
4	I	1	Historic	1	Faunal	Slate	Shell	Clam	clam shell	Fragment
4	I	1	Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
5	I	1	Historic	1	Kitchen	Metal	Can	Pull Tab	beverage can pull tab	Complete
6	II	1	Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
6	II	1	Historic	1	Industry	Plastic	Unidentified plastic	Rigid	plastic disk fragment	Fragment
7	I & II	1	Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; textured surface, machine made	Fragment
7	I & II	1	Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
7	I & II	1	Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
7	I & II	1	Historic	1	Industry	Plastic	Unidentified plastic		plastic, blue	Fragment
7	I & II	1	Historic	1	Architecture	Architectural Ceramic	Brick		brick; sandy paste, handmade	Fragment
9	II	1	Historic	1	Activity	Paper	Packaging		paper sticker, image partially visible - hand striking an object with a wheel or belt/ pulley. Mostly obscured	Fragment
9	II	1	Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
9	II	1	Historic	1	Kitchen	Glass	Bottle	Green	emerald green bottle glass	Fragment
10	II	1	Historic	1	Activity	Metal	Hardware / Tools		threaded bolt; bent	Fragment
10	II	1	Historic	1	Kitchen	Metal	Can		Pepsi can; 6 oz.	Complete
11	II	1	Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
11	II	1	Historic	1	Kitchen	Glass	Bottle	Green	emerald green bottle glass lip; screw top	Lip
12	I	1	Historic	3	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
12	I	1	Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
12	I	1	Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
12	I	1	Historic	1	Architecture	Metal	Nail	Cut	cut nail	Fragment
12	I	1	Historic	1	Industry	Plastic	Unidentified plastic	Rigid	black plastic; ridged, flat	Fragment
12	III	1	Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
12	III	1	Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
12	III	1	Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
12	III	1	Historic	1	Architecture	Architectural Ceramic	Concrete		concrete	Fragment
			N=	37						

Appendix A: Artifact Catalog
TA 1 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	2	Activity	Ceramic	Gardening	Flower pot	terra cotta flower pot	Fragment
Historic	1	Activity	Ceramic	Gardening	Flower pot	terra cotta flower pot rim	Rim
Historic	3	Activity	Ceramic	Toys	doll	porcelain bisque doll head fragments	Fragment
Historic	1	Activity	Metal	Hardware / Tools		wire fragment; heavy gauge, possibly fencing wire	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	5	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	3	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	5	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	5	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	2	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	2	Architecture	Architectural Ceramic	Brick		brick; sandy paste	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	2	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	3	Architecture	Architectural Ceramic	Brick		brick; rough sandy paste, likely handmade	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick; sandy paste	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick; marbled paste	Fragment
Historic	1	Architecture	Architectural Ceramic	Tile		porcelain tile	Fragment
Historic	1	Architecture	Ceramic	Brick		brick; machine made	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	3	Architecture	Slate	Slate		slate; landscaping or roofing - no nail holes evident	Fragment
Historic	2	Faunal	Ceramic	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell, eroded	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	75-95% Complete
Historic	1	Furniture	Ceramic	statue		porcelain bisque figurine base; green glaze, gilded banding	Base
Historic	1	Furniture	Glass	Lamp chimney glass	Colorless	colorless lamp chimney glass; crenellated edge	Rim
Historic	3	Furniture	Glass	Lamp shade		milk glass lamp shade; beaded edge	Fragment
Historic	1	Furniture	Glass	Lamp shade		green and white flashed glass lampshade; molded decoration	Fragment
Historic	1	Furniture	Plastic	Lamp shade		plastic lamp cover; textured, transparent	Fragment
Historic	1	Industry		Coal		coal; coke	
Historic	1	Industry		Coal		coal	
Historic	1	Industry	Other			unidentified rubber object; badly degraded	Fragment
Historic	1	Industry	Other synthetic	asphalt / macadam		asphalt	Fragment
Historic	1	Kitchen	Ceramic	Bottle	Amber	amber bottle glass	Fragment
Historic	1	Kitchen	Ceramic	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	1	Kitchen	Ceramic	Ironstone		Ironstone; decal	Fragment

Appendix A: Artifact Catalog
TA 1 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	3	Kitchen	Ceramic	Ironstone		Ironstone plate; modern, blue glaze, "…COR…OWAVE…ND…SAFE"; microwave and oven safe	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Annular	Ironstone plate rim; green banded	Rim
Historic	1	Kitchen	Ceramic	Ironstone	Molded Decoration	Ironstone plate or bowl rim; scalloped edge with molded bead, decal decoration	Rim
Historic	1	Kitchen	Ceramic	Ironstone	Molded Decoration	Ironstone; scalloped edge, molded bead, decal decoration	Rim
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated, sherd covered with asphalt	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone footring; undecorated	Foot-ring
Historic	3	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Fragment
Historic	3	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone chamber pot fragments; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone tea cup fragment; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone saucer; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Body
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Body
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone small bowl or saucer; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone rim; undecorated	Rim
Historic	1	Kitchen	Ceramic	Porcelain	Hard paste	porcelain cup rim; hard paste, orange over glaze decoration, evidence of additional polychrome over glaze	Rim
Historic	1	Kitchen	Ceramic	Porcelain	Hard paste	porcelain rim; hard paste, green over glaze	Rim
Historic	2	Kitchen	Ceramic	Porcelain	Institutional	Institutional semi-porcelain rims; green transfer print	Rim
Historic	2	Kitchen	Ceramic	Porcelain	Institutional	Institutional porcelain; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Porcelain	Institutional	Institutional porcelain rim; undecorated	Rim
Historic	1	Kitchen	Ceramic	Porcelain	Semi	Institutional semi-porcelain rim; undecorated	Rim
Historic	1	Kitchen	Ceramic	Porcelain	Soft paste	porcelain; soft paste, scalloped edge, decal decoration	Rim
Historic	1	Kitchen	Ceramic	Porcelain	Soft paste	porcelain base; soft paste, thick brown glaze; most likely Majolica? Or figurine? Vitreous clear / amber swirling glaze	Base
Historic	1	Kitchen	Ceramic	Stoneware	Gray Salt Glaze	Stoneware storage jar rim; thick bodied, gray salt glazed exterior, Albany slipped interior	Rim
Historic	1	Kitchen	Ceramic	Whiteware		whiteware; pink wash decoration	Fragment
Historic	2	Kitchen	Ceramic	Whiteware	Decal	whiteware; decal	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Gilded	whiteware tea cup; gilded banding	Rim
Historic	1	Kitchen	Ceramic	Whiteware	Molded Decoration	whiteware rim; molded decoration	Rim
Historic	1	Kitchen	Ceramic	Whiteware	Molded Decoration	whiteware; molded flowers on rim	Rim
Historic	8	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; scalloped edge; shallow bowl or saucer	Rim
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	2	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	5	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware rim; undecorated	Rim
Historic	3	Kitchen	Glass	Bottle	Amber	amber bottle glass; remnants of the glue from paper label	Fragment
Historic	2	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
Historic	3	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	2	Kitchen	Glass	Bottle	Aqua	aqua bottle glass; melted	Fragment

Appendix A: Artifact Catalog
TA 1 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	2	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	2	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	2	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass base	Base
Historic	3	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	4	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	2	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass; machine made, wide banded finish	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	dark aqua bottle glass base; "4"	Base
Historic	1	Kitchen	Glass	Bottle	Cobalt blue	cobalt blue bottle glass	Fragment
Historic	6	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; machine made, "…LEASE….HIS…BOTTLE"	Fragment
Historic	3	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless milk bottle lip	Lip
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass base; thick base	Base
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless vessel glass; molded "cut glass" decoration, small bowl or cup	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	3	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; skirted, textured; posible colorless Coke bottle	Fragment
Historic	4	Kitchen	Glass	Bottle	Colorless	milk bottle; colorless glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass base	Base
Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; machine made, embossed	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	3	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; thick bodied	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Base
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless ink bottle; complete, blown-in-mold manufacture, "2 OZ"	Complete
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	2	Kitchen	Glass	Bottle	Colorless	colorless glass milk bottle	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	milk bottle; colorless glass	Rim
Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass base; Edward H. Everet Glass Co. 1885-1904	Base
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass lip; wide double banded, patent finish, turned lip	Lip
Historic	2	Kitchen	Glass	Bottle	Dark aqua	dark aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Green	emerald green bottle glass; "…TE…"	Fragment
Historic	1	Kitchen	Glass	Bottle	Green	emerald green bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Light green	light green bottle glass base; machine made, "12 oz"	Base
Historic	1	Kitchen	Glass	Bottle	Olive	olive bottle glass	Fragment

Appendix A: Artifact Catalog
TA 1 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	3	Kitchen	Glass	Bottle	Olive	olive bottle glass; applied lip, kick-up base; no evidence of seams, fine and uniformly made. Thick bodied, could be modern. There is little to no wear on the bottom of the kick-up. This may be the "inner" part of a bigger base	Fragment
Historic	1	Kitchen	Glass	Bottle	Olive	olive bottle glass neck, banded finish; possibly modern, however - no seam lines, vertical striations in glass matrix with a few bubbles, not consistent with twist mold. Heavy. Opening is not perfectly round.	Fragment
Historic	1	Kitchen	Glass	Bottle	Olive	light olive bottle glass	Fragment
Historic	2	Kitchen	Glass	Jar	Canning Jar	dark aqua canning jar	Fragment
Historic	1	Kitchen	Glass	Jar	Canning Jar	aqua canning jar glass; most likely BALL jar	Fragment
Historic	1	Kitchen	Glass	Jar	Lid Liner	milk glass lid liner; "MASON"	Fragment
Historic	1	Kitchen	Glass	Jar	Lid Liner	milk glass lid liner	Fragment
Historic	1	Kitchen	Glass	Jar	Lid Liner	milk glass lid liner	Fragment
Historic	1	Kitchen	Glass	Jar	Lid Liner	milk glass lid liner	Fragment
Historic	1	Kitchen	Glass	Jar	milk glass	milk glass jar base	Base
Historic	1	Kitchen	Glass	Vessel		milk glass disk; embossed damask decoration	Fragment
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless vessel glass; molded scalloped panel decoration, small bowl or tumbler	Fragment
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless vessel glass; ridged decoration	Fragment
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless vessel glass handle, molded	Handle
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless glass pitcher handle; heavy, thick bodied	Handle
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless glass tumbler base; molded decoration	Base
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless vessel glass; molded "cut glass", thick bodied	Fragment
Historic	4	Kitchen	Glass	Vessel	Depression Glass	light green Depression Glass bowl fragments, ridged decoration	Fragment
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass	Fragment
Historic	2	Kitchen	Glass	Vessel	Milk	milk glass vessel base, posible bowl	Fragment
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass handle fragment; molded	Handle
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass disk; embossed damask decoration; possible fancy lid liner, there is a mark around the edge consistent with this.	Fragment
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass	Fragment
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass	Fragment
N=	239						

Appendix A: Artifact Catalog
TA 2 STP Results

STP	Strat	Lv	Class	N	Group	Material	Type	Notes1	Notes2	Portion
6	II	1	Historic	1	Kitchen	Ceramic	Creamware	Undecorated	creamware; undecorated	Fragment
6E 6.5m	I	1	Historic	1	Industry	Plastic	Unidentified plastic		plastic cylinder; black, ridged	Fragment
6N 7.5m	II	1	Historic	1	Kitchen	Ceramic	Redware	Manganese glaze	redware; manganese glaze interior, unglazed exterior	Fragment
6W 4m	I	1	Historic	1	Faunal	Shell	Shell	Oyster	oyster shell; eroded	Fragment
6W 4m	I	1	Historic	1	Architecture	Metal	Nail	Cut	cut nail; complete, pulled	Complete
11	I	1	Historic	1	Furniture	Glass	Lamp chimney glass	Colorless	lamp chimney glass	Fragment
11	II	1	Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass base	Base
12	III	1	Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass; thin bodied	Fragment
15	III	1	Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone rim; undecorated	Rim
16	II	1	Historic	1	Kitchen	Ceramic	CC ware	undecorated	cream colored ware; undecorated	Fragment
26	II	1	Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
43	I	1	Historic	5	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
43	I	1	Historic	1	Architecture	Metal	Nail	Cut	cut nail	Fragment
43	I	1	Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
43	I	1	Historic	1	Industry		Coal		coal	
50	I	1	Historic	1	Kitchen	Ceramic	Pearlware	Undecorated	pearlware; transitional, undecorated	Fragment
57	III	1	Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass base, mold seams	Base
78	I	1	Historic	1	Architecture	Architectural Ceramic	Brick		brick half; handmade	50-75% Complete
A	I	1	Historic	2	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
A	I	1	Historic	2	Faunal	Shell	Shell	Clam	clam shell	Fragment
A	I	1	Historic	27	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
B	I	1	Historic	1	Activity	Ceramic	Gardening	Flower pot	terra cotta flower pot base	Base
B	I	1	Historic	1	Activity	Metal	Hardware / Tools		landscaping staple	Complete
B	I	1	Historic	1	Activity	Metal	Hardware / Tools		threaded hexagonal nut	Fragment
B	I	1	Historic	5	Architecture	Architectural Ceramic	Brick		brick	Fragment
B	I	1	Historic	1	Architecture	Architectural Ceramic	Brick		brick; over fired	Fragment
B	I	1	Historic	1	Architecture	Architectural Ceramic	Brick		brick; very sandy paste	Fragment
B	I	1	Historic	1	Architecture	Architectural Ceramic	Mortar		mortar	Fragment
B	I	1	Historic	1	Architecture	Architectural Ceramic	Plaster		plaster	Fragment
B	I	1	Historic	9	Architecture	Glass	Window glass		window glass	Fragment
B	I	1	Historic	7	Architecture	Metal	Nail	Cut	cut nails	Fragment
B	I	1	Historic	1	Architecture	Metal	Nail	Wire	wire nail	Fragment
B	I	1	Historic	4	Clothing	Leather	Shoe		Shoe leather with metal grommet	Fragment
B	I	1	Historic	1	Faunal	Bone	Bone		bone	Fragment
B	I	1	Historic	16	Faunal	Shell	Shell	Clam	clam shell	Fragment
B	I	1	Historic	28	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
B	I	1	Historic	1	Furniture	Glass	Lamp chimney glass	Colorless	lamp chimney glass; solarized	Fragment
B	I	1	Historic	1	Industry				rubber fragment	Fragment
B	I	1	Historic	1	Industry		asphalt / macadam		asphalt; burnt	Fragment
B	I	1	Historic	7	Industry		Coal		coal	Fragment
B	I	1	Historic	38	Industry		Coal		coal; coke	Fragment
B	I	1	Historic	1	Industry		Coal slag		coal slag	Fragment
B	I	1	Historic	1	Industry	Metal	Unidentified Metal		unidentified metal object	Fragment
B	I	1	Historic	1	Industry	Plastic	Unidentified plastic		plastic; yellowed	Fragment
B	I	1	Historic	2	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Fragment

Appendix A: Artifact Catalog
TA 2 STP Results

STP	Strat	Lv	Class	N	Group	Material	Type	Notes1	Notes2	Portion
B	I	1	Historic	2	Kitchen	Ceramic	Porcelain	Semi	Semi-porcelain; handle attachment fragment, undecorated	Handle
B	I	1	Historic	1	Kitchen	Ceramic	Redware		terra cotta; fine grade, thin bodied, unglazed	Fragment
B	I	1	Historic	2	Kitchen	Ceramic	Redware	Eroded	redware; eroded	Fragment
B	I	1	Historic	1	Kitchen	Ceramic	Redware	Lead glaze	redware; lead glazed on two surfaces	Fragment
B	I	1	Historic	1	Kitchen	Ceramic	Redware	Manganese glaze	redware; manganese glaze exterior, lead glazed interior	Fragment
B	I	1	Historic	1	Kitchen	Ceramic	Stoneware	Albany Slip	stoneware; white bodied, white salt glazed exterior, Albany slipped interior	Fragment
B	I	1	Historic	1	Kitchen	Ceramic	White Earthenware paste		white earthenware paste	Fragment
B	I	1	Historic	1	Kitchen	Ceramic	Whiteware	Decal	whiteware; polychrome, decal	Fragment
B	I	1	Historic	2	Kitchen	Ceramic	Whiteware	Molded Decoration	whiteware; molded decoration	Fragment
B	I	1	Historic	1	Kitchen	Ceramic	Whiteware	Transfer Print	whiteware rim; blue transfer print, "strawberry" or "flower bud"	Rim
B	I	1	Historic	8	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
B	I	1	Historic	2	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated, burnt	Fragment
B	I	1	Historic	10	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
B	I	1	Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass; melted	Fragment
B	I	1	Historic	16	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
B	I	1	Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; "E"	Fragment
B	I	1	Historic	4	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
B	I	1	Historic	1	Kitchen	Glass	Bottle	Dark aqua	dark aqua bottle glass, poss Mason jar but no diagnostic features	Fragment
B	I	1	Historic	1	Kitchen	Glass	Bottle	Light green	same color as coke bottles, but this piece is not diagnostic	Fragment
B	I	1	Historic	1	Kitchen	Glass	Jar	Colorless	colorless glass jar; sand ground lip	Lip
B	I		Historic	1	Kitchen	Glass	Vessel	Colorless	colorless tumbler glass; hatched, solarized	Fragment
B	I	1	Historic	1	Kitchen	Glass	Vessel	Milk	milk glass; thin bodied	Fragment
B	I	1	Historic	3	Kitchen	Metal	Can		steel can fragments	Fragment
B	I	1	Historic	5	Kitchen	Metal	Jar	lid	zinc canning jar lid; screw top	Fragment
B	I	1	Historic	1	Kitchen	Metal	Jar	lid	zinc canning jar lid fragment; "…TAR & O…" (letters in mirror image on piece)	Fragment
B	II	1	Historic	2	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
B	II	1	Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
B	II	1	Historic	1	Kitchen	Glass	Vessel	Colorless	colorless tumbler glass; hatched	Fragment
B	II	1	Historic	3	Architecture	Metal	Nail	Cut	2 head fragments, 1 complete and pulled	
B	II	1	Historic	3	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
B	II	1	Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
B	II	1	Historic	3	Industry		Coal		coal; coke	
			N=	269						

Appendix A: Artifact Catalog
TA 2 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	1	Activity	Glass	Toys	Marble	toy glass marble; milk glass with blue "stripe"	Fragment
Historic	1	Activity	Metal	Hardware / Tools		large gauge wire rod; approx 2 ft long	Fragment
Historic	1	Activity	Metal	Hardware / Tools		hardware plate with mounting screw; single slot screw top, threaded screw	Fragment
Historic	1	Activity	Plastic	Sports		Bakelite shooting pigeon	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	2	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	3	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	3	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick; handmade	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick; handmade	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick; handmade	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	2	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	3	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	2	Architecture	Architectural Ceramic	Brick		brick; handmade	Fragment
Historic	1	Architecture	Architectural Ceramic	Brick		brick	Fragment
Historic	1	Architecture	Architectural Ceramic	Mortar		mortar	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	2	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Architecture	Glass	Window glass		window glass	Fragment
Historic	1	Arms	Metal	Ammunition		shot gun shell base; center fire "UMC CO, NO 12, NEW CLUB"	Base
Historic	1	Arms	Plastic	Ammunition		shot gun shell casing; plastic tube, metal base, center fire, "MADE IN USA"	Fragment
Historic	1	Arms	Plastic	Ammunition		shot gun shell casing; plastic with metal end, center fire	Fragment
Historic	1	Arms	Plastic	Ammunition		plastic shot gun shell casing; center fire	Fragment
Historic	3	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment
Historic	1	Faunal	Shell	Shell	Clam	clam shell	Fragment

Appendix A: Artifact Catalog
TA 2 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell; eroded	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell; eroded	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell; eroded	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	2	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	10	Faunal	Shell	Shell	Oyster	oyster shell	Fragment
Historic	1	Industry		Coal		coal	Fragment
Historic	1	Industry		Coal		coal	Fragment
Historic	1	Industry		Coal		coal	Fragment
Historic	1	Industry		Coal		coal	Fragment
Historic	1	Industry		Coal		coal; coke	Fragment
Historic	1	Industry		Coal		coal; coke	Fragment
Historic	1	Industry		Coal		coal	Fragment
Historic	1	Industry	Metal	Unidentified Metal		unidentified metal concretion	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Ironstone	Undecorated	Ironstone cup rim; undecorated	Rim
Historic	1	Kitchen	Ceramic	Pearlware		pearlware; blue decoration	Fragment
Historic	1	Kitchen	Ceramic	Pearlware	Molded	pearlware base; molded	Base
Historic	1	Kitchen	Ceramic	Pearlware	transfer print	pearlware; light blue transfer print	Fragment
Historic	1	Kitchen	Ceramic	Pearlware	transfer print	pearlware; light blue transfer print, "scribble" or "sea weed" pattern	Fragment
Historic	1	Kitchen	Ceramic	Pearlware	Undecorated	pearlware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Pearlware	Undecorated	pearlware rim; undecorated; stepped ring, steep sides,possbile mug or storage jar	Rim
Historic	1	Kitchen	Ceramic	Pearlware	Undecorated	pearlware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Pearlware	Undecorated	pearlware; undecorated	Fragment
Historic	2	Kitchen	Ceramic	Pearlware	Undecorated	pearlware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Pearlware	Undecorated	pearlware; undecorated; likely transitional	Fragment
Historic	1	Kitchen	Ceramic	Porcelain		porcelain base; decal decoration	Base
Historic	1	Kitchen	Ceramic	Porcelain	Molded	porcelain vessel base; molded, undecorated; steep sided, possible figurine or container	Base
Historic	1	Kitchen	Ceramic	Redware		redware; hard bodied, white slip glazed on two surfaces, refined, likely imported	Fragment
Historic	1	Kitchen	Ceramic	Redware	Lead glaze	redware; lead glaze on two surfaces	Fragment
Historic	1	Kitchen	Ceramic	Redware	Lead glaze	redware; lead glazed exterior, unglazed interior with turn marks	Fragment

Appendix A: Artifact Catalog
TA 2 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	1	Kitchen	Ceramic	Redware	Manganese glaze	redware; manganese glazed interior, unglazed exterior	Fragment
Historic	1	Kitchen	Ceramic	Redware	Unglazed	redware rim; wheel turned, unglazed	Rim
Historic	1	Kitchen	Ceramic	Redware	Unglazed	redware base; unglazed	Base
Historic	1	Kitchen	Ceramic	Stoneware		stoneware; buff-bodied, tan salt glaze	Fragment
Historic	1	Kitchen	Ceramic	Stoneware	White Salt Glaze	white salt glazed stoneware; blue glaze decoration	Fragment
Historic	1	Kitchen	Ceramic	Whiteware		whiteware; brown glaze on one surface	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Molded Decoration	whiteware; molded, green & yellow glaze	Body
Historic	1	Kitchen	Ceramic	Whiteware	Molded Decoration	whiteware; molded edge	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Transfer Print	whiteware rim; red transfer print; floral decoration, slightly smeared	Rim
Historic	1	Kitchen	Ceramic	Whiteware	Transfer Print	whiteware; green transfer print, blue glaze	Fragment
Historic	2	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Rim
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	3	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	2	Kitchen	Ceramic	Whiteware	Undecorated	whiteware; undecorated	Fragment
Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Amber	amber bottle glass base; machine made. Mold marks, but no maker marks. Semi-ovular cross section	Base
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass base; exhibits possible pontil scar	Base
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	dark aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Aqua	aqua bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; machine made	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment

Appendix A: Artifact Catalog
TA 2 Pedestrian Survey Results

Class	N	Group	Material	Type	Notes1	Notes2	Portion
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass base; Owens Illinois Glass Co., mark used 1954-on	Base
Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass base; T.C. Wheaton Glass Co., Millville, NJ mark used 1946 to present on laboratory, chemical and drug bottles	Base
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	3	Kitchen	Glass	Bottle	Colorless	colorless bottle glass	Fragment
Historic	2	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; glue residue from paper label	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	1	Kitchen	Glass	Bottle	Colorless	colorless bottle glass; solarized	Fragment
Historic	1	Kitchen	Glass	Bottle	Olive	olive bottle glass	Fragment
Historic	1	Kitchen	Glass	Jar	Cobalt	cobalt blue jar; screw top	Fragment
Historic	1	Kitchen	Glass	Jar	Colorless	colorless jar rim; screw top	Rim
Historic	1	Kitchen	Glass	Jar	Colorless	colorless jar base; machine made	Base
Historic	1	Kitchen	Glass	Jar	Lid Liner	milk glass lid liner; "…PORCE…"	Fragment
Historic	1	Kitchen	Glass	Jar	Lid Liner	milk glass lid liner	Fragment
Historic	1	Kitchen	Glass	Vessel	Colorless	colorless vessel glass base; beveled edges, solarized; heavy, low walled and very shallow. Not crystal. Maybe a soap dish	Fragment
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass	Fragment
Historic	1	Kitchen	Glass	Vessel	Milk	milk glass	Fragment
Historic	1	Personal	Plastic	Adornment		sequined pendant with chain; plastic bead @ center, fabric backed & sewn	Complete
N=	185						

Appendix B

Qualifications of Researchers

Michael Lenert, Ph.D., RPA
Principal Investigator/Archaeologist

Dr. Lenert has the education, training, and experience to serve as Principal Investigator on historic and precontact archaeological sites in the Eastern United States. He has experience with identification, evaluation, and mitigation level (Phase I, II, and III) cultural resource management projects in Delaware, Pennsylvania, New Jersey, Maryland, New York, and Vermont. He has successfully navigated the Section 106 process for numerous private and public sector clients. His personal interests center on precontact and historic archaeology and broad anthropological issues of regional interaction, political economy, households, and community organization. His role as Principal Investigator includes managing Phase I, II, and III compliance investigations, budgets, client coordination, and the laboratory and report production. Over his 22 years of experience, Dr. Lenert has been responsible for developing and implementing research designs, supervising field crews, processing and inventorying historic and prehistoric artifacts, and acting as interim archaeology laboratory manager. Dr. Lenert meets the Secretary of the Interior's requirements for Professional Archaeologist as specified in 36 CFR Part 61.

Education

2007 Ph.D., Anthropology, University of California, Los Angeles

2000 M.A., Anthropology, University of Montana

1990 B.A., Anthropology and Geography, University of Delaware

Professional Experience

2007 – Present	A.D. Marble & Company	*Principal Investigator/Archaeologist*
1993 – 1998	Hunter Research, Inc.	*Archaeologist*
1990 – 1993	U of DE, Center for Archaeological Research	*Archaeologist*

Academic Experience

2004-2006	Maccallum and Katz Site Investigations, B.C., Canada	*Principal Investigator*
2002-2006	Fraser Valley Archaeological Project, B.C., Canada	*Research Assistant*
1999-2003	Keatley Creek and Bridge River, B.C., Canada	*Research Assistant*

Professional Affiliations

Society for American Archaeology
Archaeological Society of Delaware
Middle Atlantic Archaeology Conference
Pennsylvania Archaeological Council
Register of Professional Archaeologists
Society for Pennsylvania Archaeology
Northern Chesapeake Archaeological Society
Philadelphia Archaeological Forum
Archaeological Society of New Jersey
Eastern States Archaeological Federation

Frank Dunsmore
Field Director

Frank Dunsmore is an experienced archaeologist and AutoCAD technician with 25 years of experience in conducting, documenting and managing cultural resource studies. He has conducted Phase IA assessment through data recovery-level field investigations throughout the Northeast and Middle-Atlantic regions pursuant to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Environmental Policy Act of 1966 (as amended). Mr. Dunsmore has conducted cultural resource investigations for historic and prehistoric period resources with specialties in cartography, the analysis of contact and historic period military sites and surveys for Departments of Transportation. The following are examples of projects that reflect Mr. Dunsmore's experience:

Education

2008 M.A., Military Studies, American Military University, Virginia

1988 B.A., Archaeology, Rutgers University, New Jersey

Professional Experience

2009 – Present	A.D. Marble & Company	*Field Director*
2001 – 2008	Hunter Research, Inc.	*Graphics Coordinator/CAD Manager/Archeologist*
2001 – 2001	Kise, Straw and Kolodner, Inc.	*CAD Analyst/Archeologist*
1998 – 2000	The Atlantic Publishing Group, Inc.	*Cartographer*
1987 – 1998	Hunter Research Inc.	*Senior Archaeologist*

Professional Training

OSHA HazWOPR Training – 2001
AutoCAD Certification

Professional Affiliations

Archaeological Society of New Jersey
Society for Pennsylvania Archaeology
Archaeological Society of Delaware

Publications and Conference Papers

"The Johnny's Salvage Yard Site, 36CU0207," Pennsylvania Turnpike Commission for the Society for Pennsylvania Archaeology, April 8-10, 2011.

Christine D. Gill
Archaeology Laboratory Director

Ms. Gill is A.D. Marble & Company's Laboratory Director and has 17 years of experience in Laboratory and Field Archaeology, Conservation Science, Material Analysis, and Geoarchaeology. She has excavated and analyzed artifacts at all Phases of archaeological testing. She oversees all functions of the Archaeological Laboratory and staff, including: cleaning, identification, dating and inventorying artifacts; and preparation of artifacts, photographs and field documentation for permanent curation. Ms. Gill is familiar with curation under the State Guidelines of Pennsylvania, New Jersey, Maryland, Delaware, New York, Virginia, Alaska and The National Park Service. She has experience working under NAGPRA legislation and has evaluated and repatriated NAGPRA collections.

Ms. Gill has designed and maintained custom databases for photographic and archaeological collections including the artifact cataloging system used by A.D. Marble & Company. She is trained in field conservation and in safe methods of moving and transporting fragile artifacts in both field and museum environments. She enjoys public outreach and has run programs for both adults and children on archaeology related topics. Ms. Gill's prior experience includes material analysis for architectural restoration, waste water and lead paint testing, hazardous material containment and removal, process chemistry, and analytical chemical testing.

Education

1996 B.S., Chemistry, Rochester Institute of Technology

Professional Experience

2004 – Present	A.D. Marble & Company	*Archaeological Lab Director/ Archaeologist*
2003 - 2004	General Motors Acceptance Corporation	*Credit Administrator*
2002 - 2003	LaPorta & Associates Geologic Consulting, LLC	*Archaeologist*
2002 - 2003	Independent Contractor for Historic Elk Landing, Inc.	*Laboratory Director*
2001 - 2002	Bristol Myers-Squibb Field Sales Service Center	*Administrative Assistant*
1998 - 2001	Cultural Heritage Research Services, Inc.	*Assistant Laboratory Director, Acting Laboratory Director, Field Technician*

Specialized Training

2011 Protecting Collections, Disaster Prevention, Planning & Response, Conservation Center for Art & Historic Artifacts Collections Care Training / Philadelphia Stewardship Program

2011 Understanding Integrated Prevention Pest Management & Mold, Conservation Center for Art & Historic Artifacts Collections Care Training / Philadelphia Stewardship Program

2000 Curation, Conservation and Collections Management Summer Course, Maryland Archaeological Conservation Laboratory

1997 Historic Archeology Summer Field School, Strawbery Banke Museum
Portsmouth, NH

Publications

2005 "*Phase I and II Archaeological Survey Report, S.R. 2031, Section 05B, Spinnerstown Road Bridge over Hosensack Creek Replacement Project, Lower Milford Township, Lehigh County, Pennsylvania."* A.D. Marble & Company, (Bailey, Weinberg, Groben, Schopp and Blades), Prepared for PennDOT District 5-0

2004 "*Phase IB Archaeological Survey Addendum Report, Mainline of the Pennsylvania Turnpike from the Valley Forge Interchange (MP 326.1) to Flint Hill Road (MP 331.33), Storm Water Management Basin #4, Upper Merion Township, Montgomery County, Pennsylvania, Addendum to Phase IA Archaeological Survey Report (May 2001).*" A.D. Marble & Company, (Walker, Groben, Baily and Wagner), Prepared for the Pennsylvania Turnpike Commission

2004 "*Cultural Resources Survey Report, Scoping Study of Job's Point Bridge No. EH-32 C.R. 559 over Patcong Creek, Egg Harbor Township and City of Somers Point, Atlantic County, New Jersey."*, A.D Marble & Company (Emory, Groben & Walker), Prepared for County of Atlantic Division of Engineering Department of Regional Planning Economic Development

2002 "*Phase I Archaeological Survey and Limited Phase II Testing at Historic Elk Landing, Elkton, Maryland,"* report for The Historic Elk Landing Foundation, Inc. and The Maryland Historic Trust. Dwayne W. Pickett, Keith Heinrich and Christine Groben

1994 Listed in the New Jersey Architectural Twentieth Century Materials database for material analysis of "Zenitherm," an early acoustic building material.

Presentations

2008 Center for North East Historic Archaeology: St. Mary's, MD, Author and Presenter of paper testing predictive modeling strategies for predicting 17th Century sites in Delaware

2007 Historic Elk Landing Speakers Series, Elkton, MD, February Key Note Speaker

2003 The Society for Historical Archaeology Annual Meeting: Providence, RI, Author and Presenter of Archaeological research in a dedicated session for Historic Elk Landing

2001 The Society for Historical Archaeology Annual Meeting: Long Beach, CA, Presenter for the Maryland Historic Trust Underwater Archaeology "War of 1812 Survey"

1995 25th Annual North East Regional Meeting of the American Chemical Society: Rochester, NY, Author and Presenter of Material Research & Testing for the Memorial Art Gallery and RIT

Professional Affiliations

The Long Now Foundation
The Chemical Heritage Foundation
The History of Chemistry (HIST), division of the American Chemical Society
The Archaeological Science, division of the American Chemical Society
The Girl Scouts of America