

3.0 BACKGROUND RESEARCH

3.1 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Portions of the current project area have been subjected to two previous archaeological investigations. The first of these was performed by A.D. Marble & Company, Inc. in the spring of 2001, in association with the planned replacement of the Back Creek Bridge and the widening of both the north and south roadway approaches to it (see Figure 3). Phase I testing of this study area involved the excavation of thirty-two STPs adjacent to the east and west sides of Choptank Road, both north and south of the bridge, and resulted in the documentation of widespread impacts associated with prior landscaping and in-filling activities. While this investigation produced some 498 historical and 13 Native American artifacts, all but two of the prehistoric finds were recovered from disturbed contexts.

The second investigation was conducted by MTA in the late autumn of 2001 and early winter of 2002, and involved Phase I testing over the entire length of the current project area in association with early stages of the Choptank Road Improvements undertaking. This study involved the conduct of background research and the examination of a series of 23 archeological “target areas” that were determined to exhibit moderate to high potentials for containing prehistoric and/or historical archaeological deposits (see Table 1). Target areas for Native American cultural deposits were defined as well-drained ground located within 600-1000 feet (ca. 180-300 meters) of sources of fresh water, while historic target areas included land adjacent to 11 extant and 12 non-standing structures located adjacent to Choptank Road, as identified during the background research phase of MTA’s investigation. Within identified test areas, subsurface examinations were completed through the excavation of a total of 273 shovel tests. STPs were organized in linear transects placed along the outer edge of the identified project right-of-way (generally within 25 feet [7.6 meters] of the edge of the existing pavement) and spaced at intervals of either 50 or 100 feet (ca. 15-30 meters) (Appendix I).

Materials collected during this investigation (N = 2,626) consisted of a large quantity of modern roadside trash (brown, green and clear machine-bottle glass, aluminum can fragments, and plastic), and temporally non-diagnostic items (brick fragments, coal), as well as small quantities of historical and prehistoric artifacts (Appendix II). The historical artifacts were found exclusively within near-surface plow zone soils and included a variety of white-bodied (whiteware, porcelain, possible pearlware) and red-bodied (lead-glazed) ceramic vessel sherds, aqua glass bottle fragments, and cut nails. Prehistoric artifacts were represented by lithic manufacturing debitage and fire-cracked rock, and were collected from both the ground surface and plow zone contexts. Testing also identified a single potential sub-surface feature within the Sharp Farm test area.

Based on the distribution of recovered artifacts as assessed without the benefit of laboratory analysis, MTA archaeologists delineated a total of twenty-three (23) areas that were thought to represent discreet site locations. Of this total, 15 potential site locations were recommended for additional archaeological examination in order to evaluate their potential eligibility for listing in the National Register of Historic Places (Table 2). Following the conclusion of fieldwork, the methods and results of this investigation were summarized in the PDC Project Handoff Package: Choptank Road Improvement Project (MTA 2002); however, no final report was produced and no formal analysis of the recovered artifact assemblage was completed before KSK assumed responsibility for the investigations in 2003.

Table 2: Summary of MTA subsurface investigation.

Test Area (N to S)	Dimensions (ft)	Test interval (ft)	# of STPs	Findings	Add. Testing
Property #7	2100 x 5-25	100	21	MTA 1 – unknown prehistoric	No
Brush	450 x 10-40	50-100	8	MTA 2 – unknown prehistoric; historical (mid-late 19 th century; possibly associated with B.T. Biggs property)	Yes
Schoolhouse	1000 x 50	50	23	MTA 3A – prehistoric (Woodland I) MTA 3B – historical [mid 19 th – early 20 th centuries; possibly associated with octagonal schoolhouse (#58)]	Yes Yes
Evergreen	500 x 20	100	6	MTA 3C – prehistoric (Woodland I)	Yes
Back Creek	190 x 25	50	4	NCM	---
Christmas Trees	200 x 25	100	3	NCM	---
J. Clayton #1	750 x 25	50	13	MTA 4 – historical (mid-late 19 th century; possibly associated with adjacent J. Clayton property)	Yes
N 109	360 x 25	50	7	NCM	---
Winbak Farm	1350 x 20	50	31	MTA 5A/5B - historic (mid-late 19 th century) - possible associated structural ruins MTA 6/7 – historical (mid 19 th – early 20 th centuries) – possible structural ruins and landscape features MTA 8 - unknown prehistoric	Yes Yes Yes

Table 1: Summary of MTA subsurface investigation (cont'd).

Test Area (N to S)	Dimensions (ft)	Test interval (ft)	# of STPs	Findings	Add. Testing
West Side Hunt	150 x 25	50	4	NCM	---
Armstrong Curve	1000 x 25	50	10	NCM	---
Armstrong Corner	450 x 25	50	10	NCM	---
Bohemia Mill East	600 x 25	100	5	NCM	---
Bohemia Mill West	350 x 25	100	4	NCM	---
N 107	2500 x 20-50	50-100	21	MTA 9/10 – historical (mid-late 19 th century) MTA 12 - unknown prehistoric	Yes Yes
Creek	1300 x 40	50-100	16	MTA 11 – historical (mid-late 19 th century)	Possibly
Black Fence	1900 x 25	50-100	21	MTA 13 – unknown prehistoric	No
Sharp Farm	200 x 15	50	9	MTA 14A – unknown prehistoric; historical (mid-late 19 th century) – possible sub-surface feature associated	Yes
Maple Group 2	2400 x 20	50-100	22	MTA 14B– unknown prehistoric; historical (mid-late 19 th century) MTA 15B – historical (mid-late 19 th century)	Yes
Sharp Lane 2	---	---	1	MTA 15A – historical (probable 19 th century)	No
White Fence	800 x 15	50-100	17	MTA 16A – historical (mid-late 19 th century)	Yes
Maple Group 1	800 x 20	100	7	MTA 16B – unknown prehistoric	Yes
Bunker Hill	1100 x 23	100	12	MTA 17 – unknown prehistoric; historical (mid-late 19 th century)	Yes

3.2 PREHISTORIC CONTEXT

3.2.1 Prehistoric Overview

The following regional overview is abstracted from Custer (1989, 1996). The prehistoric archaeological record of the upper Delaware peninsula can be divided into four chronological units, defined on the basis of sets of shared cultural characteristics and common adaptations to similar environmental conditions: The Paleo-Indian Period (ca. 12,000 B.C. - 6,500 B.C.), the Archaic Period (6,500 B.C. - 3,000 B.C.), the Woodland I Period (3,000 B.C. - A.D. 1,000), and the Woodland II Period (A.D. 1,000 - A.D. 1650). A fifth time segment, the Contact Period, may also be considered and lasts from approximately A.D. 1650-1750. While Native American groups may have still existed in this region after the latter date, their culture by that time had been irreversibly altered by contact with European peoples. The following sections describe the defining characteristics of each of these Culture Periods.

The **Paleo-Indian Period** (ca. 12,000 - 6,500 B.C.) encompasses the block of time witnessed by the final retreat of the Pleistocene glacial conditions from eastern North America and the onset of more modern Holocene environments. The distinctive feature of this Culture Period is an adaptation to the cold, and alternately wet and dry, conditions characterizing the times and manifested in the form of a lifestyle based primarily on hunting and gathering of foods, with hunted foods possibly comprising a large portion of the diet. Hunted animals may have included now-extinct megafaunal species, including mammoth, mastodon, Eastern Bison, camels, and horses. A mosaic patterning of deciduous, boreal, and grassland environments would have provided a large number of productive habitats for these game animals in Northern Delaware and permanent watering habitats would have been particularly good hunting settings.

Paleo-Indian populations are believed to have exhibited a highly mobile lifestyle incorporating a fairly fluid social organization based on relatively small bands of single and multiple family units. Tool kits of these peoples reflect a reliance on hunted animal resources and are characterized by a preference for high quality lithic materials and the long-term curation and maintenance of finished tools. Throughout the 5,500-year time span of this period, the basic adaptation remains relatively constant, though with some modifications appearing as Holocene environmental conditions begin to emerge.

Reflecting their preference for high quality lithics, the most common known Paleo-Indian sites are quarry-related base camps, reduction workshops, and temporary hunting camps situated near surficial raw material outcrops. Within Northern Delaware such outcrops are represented by the so-called Delaware Chalcedony Complex, located in the extreme northwest portion of New Castle County, and in the vicinity of modern-day Newark. A secondary location for Paleo-Indian sites is adjacent to poorly drained swamps, springheads, and sinkholes, within environments similar to those surrounding nearby Churchman's Marsh.

The **Archaic Period** (6,500 B.C. - 3,000 B.C.) is characterized by a series of adaptations to the newly emerged full Holocene environments. These environments differed from earlier ones and were dominated by mesic forests of oak and hemlock. A reduction in open grasslands associated with the onset of warm and wet conditions caused the extinction of many of the grazing megafaunal species hunted in earlier times, and saw them replaced by browsing species such as deer. Sea level rise accompanied the melting of glacial ice and resulted in the elevation of the local water table and the creation of a number of large interior swamps. Warmer, wetter climatic conditions resulted in the rise of a greater variety of edible plant resources and aquatic environs such as rivers, lakes, and marshes, along with their immediate surroundings, became substantially

more productive. In the face of this proliferation of resources Native subsistence strategies changed from the hunting focus of the Paleo-Indian Period to a more generalized foraging pattern in which plants and aquatic foods played a more important role.

Reflecting this more diversified environment Archaic Period tool kits were more generalized than those of the Paleo-Indian Period and witnessed the increased use of, and reliance on, a wider array of pecked/ground plant processing tools such as grinding stones, mortars, and pestles. The presence of other tool forms, such as net sinkers, indicates an increased exploitation of, and reliance on, aquatic resources. Native populations evidently continued to lead a fairly mobile lifestyle with a wide range of resources and settings utilized on a seasonal basis. Social structure continued to be typified by band-level organization, with group membership evidently shifting on a seasonal basis in relation to resource availability. During this time favored site locations became more diversified and included upland settings near both ephemeral and perennial streams and elevated landforms adjacent to swampy floodplains. Less intensively utilized procurement sites and temporary camps are recorded scattered throughout the surrounding uplands.

The **Woodland I Period** (3,000 B.C. - A.D. 1,000) can be correlated with a dramatic change in local climates and environments that seem to be associated with events occurring throughout the Middle Atlantic region. Following the onset of a pronounced warm and dry period (3,000 B.C. - 1,000 B.C.) oak/hemlock forests were replaced by ones dominated by oak/hickory, extensive grasslands again became common, and some interior streams dried up; the overall effect of which was an alteration of the environment, but not a degradation. Continued sea level rise and a reduction in its rate also made many areas of the Delaware River and Bay the sites of large brackish water marshes that were especially productive. These changes in environment and resource distribution resulted in significant, concomitant shifts in subsistence and socio-cultural adaptations for prehistoric populations. Settlement systems were now focused on the rich and varied environments represented by the floodplains of major rivers and the margins of estuarine swamps, which become the sites of large base camps. These sites appear to have supported larger aggregate populations than earlier base camp sites and were inhabited for longer periods of time, possibly on a year-round basis. The overall tendency witnessed during this period is toward the development of a more sedentary lifestyle and a general increase in overall Native American population densities.

Woodland I tool kits show some minor variations over those of the Archaic Period as well as a few major additions. Plant processing tools become even more common and seem to indicate an intensive harvesting of wild plant foods that, by the end of the period, may have approached the efficiency of agriculture. Chipped stone tools changed little over previous types, although broad-blade, knife-like processing tools became more prevalent. The addition of stone, and later ceramic containers is also seen. These items allowed the more efficient cooking of certain types of food and may also have functioned for storage of certain surplus plant foods. Long-term stockpiling of food surpluses is indicated by the presence of large storage pits of various configurations and evidence for more sedentary habitation sites is supported by the appearance of semi-subterranean house structures.

This general trend toward increased sedentism additionally wrought changes in the socio-political organization of Native populations. Less reliance on high-mobility subsistence strategies resulted in a reduction in effective group territory and, in conjunction with increases in overall population densities, led to the development of highly sophisticated regional trade networks. These factors, in turn, resulted in the creation of the first identifiable cultural groups, delineated on the basis of named site complexes. While further to the south, in the middle Delaware peninsula, the above changes accompanied the appearance of populations exhibiting incipient ranked social structure Native groups in the northern peninsula continued to exhibit an egalitarian social structure.

In many portions of Middle Atlantic Region the **Woodland II Period** (A.D. 1,000 - ca. A.D. 1650) is marked by the appearance of agricultural food production systems. Within northern Delaware, however, the addition of agricultural practices seems not to have appreciably altered earlier lifeways and cultural adaptations. In general, Woodland II populations in the Project Area vicinity exhibited many of the same characteristics as their Woodland I predecessors. Hunted and gathered foods continued to comprise the largest portion of the diet, and tool kits and basic lifestyles remain essentially unchanged, though the extensive trading networks of the previous period did not continue. Settlement patterns during this time also followed closely those of earlier periods, with many of the same sites continuing to be revisited; however, the absence of evidence for dwellings or other signs of settled village life may signify a slight reversal of the cultural evolution trajectory, in favor of a somewhat less sedentary existence. Looking ahead, it can be said that Woodland II peoples in this region exhibited many of the same cultural characteristics and adaptations as the Delaware Indian groups that populated the area during early historical times.

The **Contact Period** (ca. A.D. 1650 - A.D. 1750) represents a poorly understood segment of the archaeological record in northern Delaware, and begins with the arrival of the first substantial numbers of Europeans to the region. In the Mid-Atlantic region, the first settlers were primarily Dutch and Swedish, with large numbers of British peoples arriving after the mid-seventeenth century. Based on ethnographic accounts, three main Native American groups occupied the Middle Atlantic region at time of contact: the Munsee in the Upper Delaware Valley, the North Unami in the Middle Delaware Valley and central New Jersey, and the South Unami or Unalachtigo in the Lower Delaware Valley and southern New Jersey. These indigenous peoples referred to themselves as the Lenape (the People); due to their association with the Delaware River Europeans called them the Delawares.

This period continues to be poorly understood simply because so few sites have been documented in this portion of the State with deposits, well preserved or otherwise, dating to this time. Based on existing historical accounts it appears as though the Native groups in the northern portion of the State did not maintain intensive interactions with their European counterparts, remaining instead under the virtual domination of the Susquehannock Indians of southern Lancaster County, Pennsylvania. It is likely that Woodland II lifestyles continued through the late-seventeenth and early eighteenth centuries in this area, with gradual erosion of Native traditions and finally the complete acculturation of local populations by the middle of the eighteenth century.

3.2.2 Previously Recorded Prehistoric Sites

The immediate vicinity of the current Choptank Road project area contains two previously documented archaeological sites, designated 7NC-F-14 and 7NC-F-76. Located on a high terrace to the northeast of the Back Creek Bridge (1-377), 7NC-F-14 is a Native American site lying some 300 feet (ca. 100 meters) east of Choptank Road; this site was surface collected by the Delaware Archaeology Bureau in 1966. Based on the recovery of a broadspear point and steatite bowl fragment this occupation has been provisionally dated to the Woodland I Period. Though no detailed analysis of the site artifacts has been performed, contemporary interpretations hold that it may have served as a small, possible microband basecamp. To date the full limits of this site have not been accurately determined.

The second Native American site, 7NC-F-76, is situated atop and adjacent to the southern bank of Back Creek in the immediate vicinity of Choptank Road. Identified by representatives of the DE HCA through informal surface inspection during the construction of the Back Creek Golf Course,

this site is comprised of an ephemeral scatter of prehistoric lithic material. No chronological association has been assigned to this site, due to a lack of temporally diagnostic artifacts observed during the field investigation, nor have precise boundaries been determined. Portions of the proposed roadway modifications intrude into the current Back Creek Golf Course property in the general documented vicinity of site 7NC-F-76, although as site boundaries are unspecific, the potential extent of impact to the site is currently unknown. This portion of the Choptank Road archaeological testing program potentially overlapping site 7NC-F-76 has been designated the KSK # 6 test area and was subjected to close interval shovel testing.

Within a mile of the current project area, background research revealed a single previously recorded Native American occupation (designated 7NC-F-75). This site was identified as a result of a professional archaeological investigation conducted by Heite Consulting in 1996, and consists of a light scatter of fire-cracked rock, a small number of prehistoric quartz and jasper lithic debitage, and a single unclassified sherd of prehistoric pottery, all of which were collected from the plow zone of shovel tests or during surface collection. This site is located on a ridge of well-drained soil within the Summit Airport property, situated well to the east of the Choptank Road project area.

3.2.3 Informant Interviews Regarding Prehistoric Finds

Interviews with current and previous residents of the Choptank Road project area vicinity resulted in evidence of prehistoric occupations with a range of temporal associations, all of which were purportedly located outside the current project area boundaries. Robert Taylor, a resident of the historical B.T. Biggs house at the northern end of the Choptank Road alignment, produced a single quartz stemmed projectile point (Plate 1), and indicated its provenience as atop a slightly elevated landform adjacent to a small bay/basin feature approximately 500 feet (152.4 meters) northeast of the project area. The artifact had been collected from the surface of a cultivated field. Additional information regarding prehistoric cultural material gathered from the vicinity of the Choptank Road project area was obtained from James Rhoades, former resident of the Rhoades Farm (1542 Choptank Road). Mr. Rhoades exhibited several projectile points of various materials and styles (Plate 2), and recalled collecting them from both the banks of Back Creek and an unnamed tributary of Back Creek, located no closer than 650 feet (198.1 meters) east of the KSK 8 Phase I test area.

Preliminary stylistic identification of these bifacially modified artifacts represent a variety of types including: bifurcate (Lecroy-like), corner-notched (possibly Brewerton), straight stemmed (Duncan's Island-like), contracting stemmed (Piscataway-like), expanding stemmed (Fox Creek-like), and Orient Fishtail. Collectively, these artifacts serve to indicate the presence of prehistoric inhabitants in the general vicinity of Back Creek from Archaic through Woodland I times.

3.3 HISTORICAL CONTEXT

3.3.1 Historical Overview

In the first decade of the seventeenth century, Dutch exploratory parties associated with the Dutch West India Company returned reports to the European continent of the discovery of the Delaware Bay and River. Within two decades of this discovery, Dutch settlers had established a whaling station located near present-day Lewes. Named Fort Oliphant, this outpost was the first European attempt at colonization of the region and was completed in 1631. Intact for only one year, this

settlement was destroyed by members of the indigenous population and no additional European attempts at settlement in this region were accomplished until 1638 (Scharf 1888).

At this time, settlers under the auspices of the New Sweden Company established Fort Christiana on the northern banks of the Christiana River, in the current vicinity of the city of Wilmington. Shortly thereafter a scattering of villages was also secured in the region although the population of the Swedish settlement remained relatively small, being limited to an estimated population of 250-300 individuals (Printz 1647). Comprised primarily of employees of the New Sweden Company, bondsmen, and convicts who had been deported from Sweden, these early settlers of the area were generally intended to be temporary residents. However, the degradation of economic conditions in their native land produced an influx of more permanent residents to the Delaware Valley; by 1650 the population of settlers of Swedish and Finnish descent was on the upswing. Those immigrants who were not employees of the New Sweden Company were generally otherwise occupied as subsistence farmers and took advantage of the bounty of the newly settled lands.

Governmental dominance of the region by the Dutch was re-attained by 1655, when control of New Sweden was seized and the colony was absorbed into the larger Dutch territories of New Netherlands. Construction of Fort Casimir and a focus on the town of New Amstel (today referred to as New Castle) resulted in this portion of Delaware becoming the commercial and economic center of the settlement. Despite this shift of power, and although technically now under Dutch rule, the established Swedish presence in the region assured the dominance of their cultural tradition throughout the daily operation of the colony (Hoffman and Brown 2005). A letter written by Carl Christopherson Springer in 1693 enumerates the Swedish population in New Sweden, limited to the west bank of the Delaware, as close to one thousand, indicating a more than tripling of the population in just over 50 years of colonization (Scharf 1888).

Less than a decade after the resumption of Dutch governance over the settlements of the lower Delaware Valley, control of the region was once again contested, as Charles II of England granted title of all Dutch possessions in the New World to the Duke of York. Unable to sufficiently fend off the attack of the invading army, New Amstel surrendered to the British on September 30, 1664. This shift of power resulted in the rapid expansion of settlement in the region, with land grants issued to individuals willing to “improve” interior lands, especially those along major tributary streams such as the Christiana and Brandywine Rivers, and Appoquonimink, White Clay, and Red Clay Creeks. Reflecting this rapid spread of colonization, May 1672 brought the incorporation of the town of New Castle, and during the following year New Castle County was established (Scharf 1888, Conrad 1908).

In 1681, Charles II granted the Province of Pennsylvania to William Penn as repayment for a £16,000 loan. Penn petitioned the Crown to extend his patent to include the west side of the Delaware and the Duke of York conveyed what is now the State of Delaware to him in 1682 (Weigley 1982). The following year the Lower Counties were annexed to Pennsylvania as territories with full privileges.

The Lower Counties became the State of Delaware on June 15, 1776, using the Declaration of Independence to secede from both England and Pennsylvania. The capital then was moved from New Castle to the more centrally located Dover (Hoffecker 1988). Remaining a strong supporter of the new nation, nearly 4,000 men from Delaware enlisted during the War for Independence, though only one Revolutionary War engagement was fought on Delaware soil. The Battle of Cooch’s Bridge was fought on September 3, 1777 approximately two miles north of Glasgow, and entailed heavy skirmishing between the American Light Infantry Corps commanded by Brigadier General William Maxwell and British forces of Light Infantry and Hessian Field Jaeger

Corps. American troops pressed the engagement in an effort to delay and hinder the British forces in their procession to the north and both armies are documented as having passed through Glasgow, including the encampment of the British Army in the area between Aiken's Tavern and Iron Hill for five days following the battle (Catts 2002).

Delaware's economy was stimulated by the Embargo Acts preceding the War of 1812, which greatly diminished the supply of European manufactured goods to America. By 1810, Delaware had four paper mills, five forges, three cotton and two woolen mills, and several iron rolling and slitting mills. A notable innovator, Eleuthère Irénée du Pont, founded a gunpowder mill, and the du Pont dynasty, at Hagley in 1803. The Eleutherian Mills produced greatly superior and more reliable powder than ever before manufactured in America, thus revolutionizing American warfare.

The manufacturing economy in Delaware was short-lived, however. Du Pont was one of the few to survive after 1815, when British goods again flooded the domestic market. Delaware's main industry reverted to wheat production, with most of its other business activities ancillary to farming. Into the 1900s, most of its roads, landings, canneries, rail spurs, warehouses, and mills were constructed to support an economy and culture predicated on agriculture (Monroe 1993).

Farmland was most valuable in New Castle County. Each acre was valued at approximately seventy dollars, with the percentage of improved acreage approximately eighty-two percent. Kent County farms were significantly lower in value, at twenty-eight dollars per acre. The percentage of improved land on each farm was also significantly lower, thirty-three percent. In Sussex County, almost one-half of the land of each farm was unimproved, and each acre valued at approximately thirteen dollars.

The bulk of Delaware's agricultural laborers were originally slaves. The Dutch West India Company, the largest European slave dealer, introduced the first slaves to Delaware in 1639. By 1664, slaves comprised 20% of the population, continuing to rise as English colonists emigrated from Maryland and brought slaves with them. Not until the 1800s did the percentage of slave to free black population began to shift, a trend attributed to the growth of Methodism. In 1790, 95% of the African population in Delaware was enslaved. By 1860 there were 90,000 whites, 20,000 free blacks, and only 1,800 slaves (Hoffecker 1988).

Delaware became a border state during the Civil War, with New Castle County pro-Union and Sussex County pro-slavery. Approximately 12,000 men joined the Union Army and only 500 joined the Confederacy. The Union had a field hospital in Wilmington and a POW camp at Fort Delaware on Pea Patch Island. Wilmington was the center of Delaware's war effort, manufacturing steam ships, wagons, shoes, ammunition containers and holsters for the north (Hoffecker 1988).

Historically most of Delaware's manufacturers, and farmers, transported their products by water. Many Delaware rivers have access to the Atlantic Ocean, including the Christiana, Mispillion, Broadkill, Saint Jones and Murderkill. Towns along these rivers became shipbuilders and transportation hubs. Milford and Milton each had three shipyards and Seaford one. Frederica retained its shipbuilding industry into the 1890s, and regular steamer service served the town until 1929. Most ports specialized in local produce.

With such an abundance of navigable rivers, most of Delaware's roads were poor-quality and provided only local access. Capital, labor, and engineering skills were limited in rural communities, and bad roads along short distances did not greatly impinge on the movement of goods to market. One of the few through routes was the King's Highway connecting New Castle

and Lewes, the two most important Delaware cities in the early nineteenth century. Originally a succession of country roads, it was eventually lengthened and straightened into the continuous State Road from Wilmington into Maryland, with branches to Lewes and Seaford.

Overland travel was slightly improved with the invention of turnpikes. Turnpikes were paved toll roads built, usually by non-local investors, for the transportation of goods along overland routes where these routes were competitive in price or travel time with waterborne transportation. The Newport and Gap, Delaware's first turnpike and first road to be improved with crushed stone, was completed in 1808. Built over an old Indian trail, it connected southern Delaware with the market town Christiana. The New Castle Turnpike was built from New Castle to Clark's (Hare's) Corner in 1813. It was eventually extended out to Frenchtown, MD and Christiana, PA in 1817 (Scharf 1888). By the mid-nineteenth century, many of Delaware's northern ports had turnpikes radiating out into the farmland of Delaware and Pennsylvania, with the Wilmington and Kennett Turnpike (now Route 52) emerging as the best access to the tidewater. Turnpikes, however, continued to remain ancillary to shipping until the invention of the automobile.

Contemporary with the construction of turnpikes, canals were introduced to augment and improve Delaware's water traffic. Relatively flat topography and abundant water sources made Delaware ideal for canals. The highly successful Chesapeake and Delaware Canal was built in 1824-29. It connected the Delaware River with Back Creek on the Chesapeake Bay. A tidal canal 13.6 miles in length and deepened over time to 27 feet deep, it shortens the route from Baltimore to Philadelphia by 316 miles, and the distance to New York by 179 miles (Hoffecker 1988). Owned and operated by the federal government, toll-free, since 1919, it is one of the few canals still in active service.

Unlike most states, the introduction of railroads in Delaware in the mid-1800s did not replace canals. Instead, it decreased shipping along Delaware's rivers. Shipbuilding and water transport had peaked during the Civil War and Reconstruction, but by 1887 began to cease altogether. As marine railroads replaced river traffic, trade was withdrawn from the tidewater landings, and new villages were created inland, including Harrington, Ellendale, Viola, and Houston (Harter 1911).

Delaware had many railroad lines, both passenger and freight, beginning in 1831 with the New Castle and Frenchtown (NC&F) line between New Castle, DE and Frenchtown, MD. 161.9 miles long, it followed the New Castle and Frenchtown Turnpike and comprised the rail link in a water-rail-water route from Philadelphia to Baltimore (Mummert 2001). Local lines were built connecting the NC&F to smaller ports on the Atlantic Ocean and Chesapeake Bay, such as the Junction and Breakwater Railroad from Harrington to the port of Lewes via Milford and Georgetown, completed in 1868. By the late 1880s the Philadelphia, Wilmington & Baltimore RR had linked together a through line from Newark DE to Cape Charles, VA (Hoffecker 1988).

Railroads with their refrigerated cars and rapid speeds introduced new crops to Delaware, including blackberries, apples, tomatoes, and strawberries. They particularly helped farmers capitalize on the Peach Boom of 1840-80, when scientists discovered that grafting young trees produced superior and more abundant fruit.

The development of a paved road network through Delaware faltered from 1903 through 1917. A State Aid Law appropriating funds for road improvement passed in 1903, but was repealed in 1905. In 1909, the legislature nearly passed a bill to pave the road from Wilmington to Georgetown, but did not (Reed 1947). Even the efforts of T. Coleman du Pont, who offered to fund construction of this same alignment, were stymied from 1911 to 1915 in court. After reaching the United States Supreme Court to resolve eminent domain powers, construction of this road proceeded, and, in 1917, a twenty-mile section in Sussex County was dedicated.

Coleman du Pont donated \$4,000,000 to the Boulevard, one of many state projects the du Pont family would sponsor. In 1930, Henry Francis du Pont established the Winterthur Corporation, a non-profit, educational organization and museum on his estate in Wilmington. Throughout the 1920s, Pierre S. du Pont replaced more than eighty one-room schoolhouses statewide with modern buildings equipped with auditoriums, gymnasiums, cafeterias and libraries (Hoffecker 1988).

The automobile and improved road technology finally eclipsed waterways as an efficient means of transport, revitalizing Delaware agriculture and in time making railroads obsolete. Farmers had always faced the difficulty of getting their goods to a distribution point. Continued neglect of local infrastructure had by the early twentieth century silted up tidewater creeks and ruined already marginal roads. According to the Works Project Administration, “The problem of hauling had so completely baffled many owners and tenants” that production began to drop back to subsistence farming. The use of trucks provided the first rapid, direct access from farm to market, and agriculture production rose again. New “truck crops” were created, including broiler chickens, which have become a staple cash crop in Delaware today (Hoffecker 1988).

The emergence of the automobile also led to early and mid-twentieth century residential roadside subdivisions. Historically, land bordering the corridors between population nodes, such as state and country highways, consisted of large-acre agricultural parcels or country estates. With the widespread use of automobiles, they became available for the first time for suburban development, and were heavily pursued by developers.

With regard to historical development in the immediate vicinity of the project area, the primary north/south roadway through this and the northern section of Pencader Hundred was alternately referred to as the Newark or Glasgow Road. Present on historical maps from as early as the seventeenth century, this roadway extended from Newark via Cooch’s Bridge southward to Buck’s Tavern in St. Georges Hundred (Lothrop et al. 1987). Adjacent to the current project area, this throughway was named Adam Peterson’s Road, King’s Road, or later the Summit Bridge to Middletown Road (SR 896), and adhered to the peninsular divide (Heite 1996).

The agricultural nature of southern New Castle County and specifically the Middletown vicinity remained relatively intact until the mid-twentieth century, when increasing light industry, commercialization, and residential occupation of the land took precedence over agricultural use. This effect continues to increase, with very few active farms remaining in the area and the suburbanization of the region becoming imminent.

3.3.2 Previously Recorded Historical Resources

Historical maps and road survey documents consulted during background research of Choptank Road indicate the historical presence of many structures to both the east and west of the roadway; historical maps consulted also indicate a generally static roadway configuration throughout the development and settlement of the area. A review of technical reports concerning previous archaeological investigations in the vicinity of the project area as well as inquiry into files at the DE HCA and the Delaware Public Archives indicate no previously identified historical archaeological sites within the specific Choptank Road improvement project area. However, this same review revealed several previously documented historical resources in the vicinity surrounding the Choptank Road improvement project area, as well as several standing historical structures (KSK 2004).

As documented during the previously referenced Phase I cultural resource survey conducted by Heite Consulting (1996) in preparation for runway and taxiway modifications at the nearby Summit Airport, the eastern portion of the Summit Airport property has historically contained both high style and vernacular structures associated with the agricultural history of the region. Among these buildings are the Appleton house, Eliason house, as well as the mid-eighteenth century Buck Farm tenant house, and the Ponzio house, a vernacular structure. None of these structures are extant, with demolition of the final standing historical structure occurring at the close of the 20th century.

On the western side of the SR 896 roadway from its intersection with SR 415 is the former location of the mid-late nineteenth century Appleton house and an associated historical archaeological site (N-12813, 7-NC-F-70). Located a short distance to the south of the Appleton house and also immediately adjacent to the primary roadway (SR 896) is the Appleton tenant house, as determined from historical maps and highway drawings. No element of either of these structures remains erect; however, subsurface artifact scatters were located during the 1996 Phase I Heite survey.

3.3.3 Historical Site Potential

Given the information presented above, the Choptank Road project area as a whole must be considered to exhibit a moderate potential for containing historical archaeological deposits. In particular, test areas situated in proximity to the approximate locations of historically documented historical structures carried an elevated potential for the presence of historical artifacts. Prior to the start of fieldwork, it was anticipated that should historical cultural material be encountered during shovel testing in areas not expressly associated with a structure documented in the historical record, in all likelihood these artifacts would be manifested as an ephemeral distribution present as a result of historical manuring practices, rather than as part of a discrete historical site. Historical atlases consulted during background research (Rea & Price 1849, Beers 1868, Hopkins 1881, Baist 1893), as presented in Figures 10-14, indicate a multitude of structures scattered across the entire length of Choptank Road, and show little variation in the historical alignment of the road alignment as contrasted with the current roadway configuration.