3.0 ARCHAEOLOGICAL RESOURCES PREDICTED FOR THE PROJECT APE

3.1 Pre-contact

The following is a summary of previously identified pre-contact period archaeological sites in the general vicinity of the S.R. 26 Improvements project APE, and a discussion of the potential for the project APE to contain pre-contact period archaeological sites.

The Paleoindian period started with the arrival of the earliest inhabitants of Delaware, *ca.* 15,000 years ago, and ended with the emergence of essentially modern environmental conditions at approximately 6,500 years ago. Paleoindian archaeological remains in Delaware include fluted projectile points attributable to the Clovis, Mid-Paleo, and Dalton-Hardaway phases, as well as early side and corner notched projectile points such as Palmer, Amos, and Kirk types (Broyles 1971; Coe 1964; Custer 1986:32). Types of Paleoindian sites include quarries, quarry reduction stations, base camps, base camp maintenance stations, outlying hunting sites, and isolated projectile point finds, with isolated projectile points the most common site types (Custer 1984:52-53). The majority of the Paleoindian site types, as defined by Gardner (1979), are directly related to lithic resource procurement and lithic tool manufacturing. Since no good sources of high quality lithic raw materials are located in the S.R. 26 Improvements project region, Paleoindian sites would not be expected in this area. Custer (1986; 1987) and Custer and Mellin (1991a, 1991b) do not list any Paleoindian sites in southeast Delaware, and no Paleoindian archaeological remains have been previously identified within or adjacent to the S.R. 26 Improvements project APE. The S.R. 26 Improvements project APE lacks sources of high quality lithic raw materials, and there are no previously identified Paleoindian sites located in the Coastal Plain of Delaware. The project APE is very constricted in size and has been extensively disturbed during the historic and modern periods. The combination of these factors appears to preclude the potential for Paleoindian remains to be present in the project APE.

"The beginning of the Archaic period coincides with the emergence of Holocene environments in Delaware and is characterized by a shift in human adaptation strategies" (Custer 1984:61). This adaptation strategy shift occurs at approximately 6,500 years ago with the emergence of bifurcate projectile points such as St. Albans, LeCroy, and Kanawha types (Broyles 1971; Chapman 1975). Based on preliminary information gleaned from excavated archaeological sites in locations surrounding Delaware, a variety of stemmed projectile point

types characterize the Archaic period from approximately 6,000 B.C. to 4,000 B.C. (Custer 1984:62). Indicators of the new adaptations include the addition of new tools, such as groundstone, to the tool kit; the addition of alternative lithic raw material sources (e.g., secondary cobble sources) for tool making; replacement of direct procurement systems by embedded systems; reduction in the range of activities carried out at special purpose sites; less reliance on cryptocrystalline lithic raw materials; increased floral resource use; reduced emphasis on hunting; and site location preference to a wider variety of environmental settings different from Paleoindian preferences. ”In the overall picture the variety of site types and activities seems to represent a diffuse adaptation (Cleland 1976) to an increasing variety of environmental settings as well as the increasing variety of resources available due to increased seasonality” (Custer 1986:65). This seasonality is reflected in the macro/micro-band/procurement site settlement types postulated for the Archaic period in Delaware. Interior environmental settings are likely to yield procurement sites and stations adjacent to poorly drained locations (Custer 1987:27). The S.R. 26 Improvements project APE is an interior environmental setting; therefore, procurement sites rather than base camps would be expected. The Indian River and Assawoman Bay areas to the north and south of the project APE contain major drainages and the types of settings in which base camps would be expected. None of the previously identified archaeological sites located close to the project APE have defined Archaic components. Few Archaic period archaeological sites are known in Delaware generally (Custer 1984:61, 65). The potential for the S.R. 26 Improvements project APE to contain Archaic period archaeological remains is low based on the absence of defined Archaic cultural materials associated with nearby previously recorded archaeological sites, the absence of typical environmental settings associated with Archaic period sites, and the small size and disturbed nature of the project APE. If Archaic period materials are identified in the project APE, they will most likely reflect ephemeral transitory use of the area for procurement activities.

The Woodland I period begins approximately 3,000 B.C. when the rate of sea level rise slowed, riverine and estuary environments began to stabilize, and a pronounced warm and dry period set in (Custer 1987:31; Morin *et al.* 2001:3.2). An increase in population is posited for the period, along with the development of sedentism. Many large base camp sites, with associated large numbers of people, are evident in many parts of the Delmarva peninsula during the Woodland I period (Custer and Catts 1991:19). The overall trend was towards more sedentism with increases in local populations. Woodland I period lifeways varied from the Archaic period and included increases in plant processing tools; the introduction of stone and

then ceramic containers; the development of incipient ranked societies; the addition of fishing gear such as netsinkers; increases in broad-bladed knives; and the development of trade and exchange networks/systems.

Settlement during the Woodland I period commonly consisted of repeated use camp sites and semi-sedentary to sedentary village sites along major river floodplains and estuaries (Custer 1987:31; Morin *et al.* 2001:3.3). Woodland I sites are the most common sites identified in Delaware's Atlantic Coastal zone. Three of the seven previously recorded sites within 0.8 km (0.5 mi) of the S.R. 26 Improvements project APE have identified Woodland I artifacts associated with them. However, all of these sites are north of the project APE in the Indian River area and are associated with major water sources. Due to the lack of major river/stream floodplains and estuaries in the S.R. 26 Improvements project APE, there is a low probability of identifying Woodland I period macro-band sites; however, due to the proximity of large streams to the project APE, associated Woodland I micro-band sites may be present.

The Woodland II period is dated from A.D. 1000 to the contact period, *ca.* A.D. 1600. The period is marked by the alteration of Woodland I lifeways (Custer 1984:146). "The basic changes noted in Delaware include the breakdown of trade and exchange networks, alterations of settlement patterns, the development of sedentary lifestyles, and the appearance of agricultural food production to varying degrees in different areas" (Custer 1984:146). Horticulture became very important across the Middle Atlantic region during the Woodland II period, although little archaeological evidence for it has been identified in Delaware (Morin *et al.* 2001:3.3). "Exploitation of sites with Woodland I components continued during Woodland II" (Brown *et al.* 1990:9). Small triangular projectile points and various styles of ceramics are temporally diagnostic Woodland II period artifacts. Two basic varieties of ceramics, Townsend and Minguannan wares, are distinguished in Delaware (Custer 1984:148). Townsend ceramics are described as shell tempered, fabric impressed exterior surface wares (Griffith 1982), while Minguannan wares exhibit sand, grit, or quartz temper with smoothed, corded, or smoothed-over corded surfaces (Custer 1981). Other items of material culture include bone and antler tools, stone celts, clay pipes, and shell beads (Brown and Basalik 1984).

Settlement patterns in the Woodland II period are similar to those of the Woodland I period. In interior environmental settings, micro-band base camps are located on floodplains of low-order drainages, with procurement sites located near poorly drained woodlands and ephemeral drainages (Custer 1987:45). Four of the seven previously identified archaeological sites located proximal to the S.R. 26 Improvements project APE have identified Woodland II

period artifacts. Due to the lack of floodplains of low-order drainages in the S.R. 26 Improvements project APE, micro-band base camps would not be expected. If Woodland II period cultural remains are identified in the project APE, they will most likely be associated with ephemeral transitory behaviors associated with procurement site activities.

According to the predictive modeling accomplished by Custer (n.d.) for pre-contact period archaeological resources in Delaware, the majority of the project APE is contained within low probability areas; however, there are a few moderate probability areas and three locations along the project APE that have been assigned as high probability. The first of these high probability locations is situated approximately 243.5 m (799.0 ft) east of the intersection of S.R. 26 with Diane Road (see Figure 2:Sheet 6). The second high probability area is located approximately 182.9 m (600.0 ft) east of Lord Baltimore School within the project APE (see Figure 2:Sheets 23 and 24). This high probability area is the only one of the three that is directly associated with a stream (headwaters of White Creek); however, no floodplain of any consequence is associated with the stream in the project APE. The third high probability area is located immediately west of the intersection of S.R. 26 with Central Avenue (see Figure 2:Sheets 24 and 25). More specifically, Custer (1987:62) indicates that the probability for finding significant sites within the Mid-Drainage/Inland Bay areas of the Atlantic Coastal region, is medium to high for most of the pre-contact period site types, while the existing data quality is poor. Custer (1987:58) concludes that the Mid-Drainage/Inland Bay areas of the Atlantic Coastal region have the best data and the highest potential for significant sites, as well as the highest research sensitivity, although his mapping (Custer n.d.) does not indicate this level of potential for the specific project APE.

Background research revealed numerous previously completed cultural resources surveys in the immediate vicinity of the S.R. 26 Improvements project APE (e.g., Catts e*t al*. 1994; Custer and Mellin 1987, 1990, 1991a, 1991b; Kellogg *et al*. 1994; Kellogg *et al*. 1999; Wholey 2000). However, review of the Delaware archaeological site files did not yield any previously recorded pre-contact period archaeological sites within the project APE. There are seven previously recorded archaeological sites (7S-K-29, 7S-K-54, 7S-K-75, 7S-K-76, 7S-K-77, 7S-K-101, and 7S-K-103) located within 0.8 km (0.5 mi) of the project APE. Several of these sites are located on the Blackwater/Clarksville Creek and White Creek drainages, whose tributaries extend into the project APE. Table 1 presents the site data available for these previously recorded pre-contact period archaeological sites.

Table 1.
Previously Recorded Pre-contact Period Archaeological Sites Located Within 0.8 Km (0.5 Mi) of the S.R. 26 Improvements Project APE

SITE NUMBER	DISTANCE AND DIRECTION FROM S.R. 26 PROJECT APE	DESCRIPTION
7S-K-29	approximately 0.45 km (0.28 mi) north on White Creek drainage	Woodland I/II transient camp site; surface collection and shovel testing; Mockley, Hell Island, and Townsend ceramics; bifacial tools, fire-cracked rock
7S-K-54	approximately 0.23 km (0.14 mi) north on White Creek drainage	Woodland I procurement station; surface collection; Mockley and other ceramics; insufficient information to assess eligibility
7S-K-75	approximately 0.61 km (0.38 mi) north on Blackwater Creek drainage	base camp; surface collection; argillite Fox Creek projectile point; Wolfe Neck, Mockley, and Townsend ceramics; fire cracked rock; potentially eligible for listing in the NRHP
7S-K-76	approximately 0.53 km (0.33 mi) north on Blackwater Creek drainage	Unknown pre-contact period; surface collection; Fox Creek argillite projectile point; rhyolite and jasper flakes
7S-K-77	approximately 0.76 km (0.47 mi) north on Blackwater Creek drainage	Unknown pre-contact period; surface collection; clam shells; Nassawango-like and shell tempered ceramics; fire cracked rock
7S-K-101	approximately 0.92 km (0.57 mi) north of S.R. 26 and Woodland Avenue intersection in Bank Harbor Estates	Unknown pre-contact period; shovel testing; unspecified artifacts; eligibility not evaluated; appears to have been destroyed by house construction and landscaping
7S-K-103	approximately 0.39 km (0.24 mi) north on White Creek drainage	Woodland I and II; shovel testing; unspecified artifacts; eligibility not evaluated

Based on the presence of previously recorded pre-contact period archaeological sites located near the project APE along drainages that extend into the project APE; the information contained in the statewide contexts, including a categorization of the area as having medium to high site potential for most of the pre-contact period site types in concert with a need for research; and the presence of soils of appropriate age to contain pre-contact period archaeological remains, the S.R. 26 Improvements project APE is considered to have a moderate potential to contain pre-contact period archaeological remains. However, this assignation of moderate site potential must be tempered by the disturbed nature of the project APE along an existing transportation and utilities corridor, the topographic setting, and the

constricted areal size of most of the test areas. These factors appear to preclude or lessen the probability that significant pre-contact period archaeological sites will be identified. If pre-contact period archaeological remains are identified, they will most likely represent ephemeral transitory use (procurement sites according to Custer 1986) of this upland area as part of a more general settlement pattern which included larger more permanent base camps in the Indian River Bay area. For additional pre-contact period context of the project area, the reader is referred to *A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986), *Delaware Prehistoric Archaeology, An Ecological Approach* (Custer 1984), and *Chesapeake Prehistory* (Dent 1995).

3.2 Historic

The following is a summary of previously identified historic period archaeological sites in the general vicinity of the S.R. 26 Improvements project APE and a discussion of the potential for the project APE to contain historic period archaeological sites. The S.R. 26 Planning Study (McCormick, Taylor & Associates, Inc. 2002) presents an in-depth discussion of the history of the project area. For additional descriptions of Delaware's Euro-American history, the reader is referred to the *Management Plan for Delaware's Historical Archaeological Resources* (De Cunzo and Catts 1990) and "*Neither a Desert Nor a Paradise:" Historic Context for the Archaeology of Agriculture and Rural Life, Sussex County, Delaware, 1770-1940* (De Cunzo and Garcia 1993). Based on the information contained in the documents cited above, it appears that the area surrounding the S.R. 26 Improvements project has the potential to contain historic period archaeological resources dating from the contact period to the recent past. The McCormick, Taylor & Associates, Inc. (2002:34) S.R. 26 Planning Study identified the following.

> One hundred-fourteen (114) architectural resources were identified within the project's Area of Potential Effect (APE). Of these resources, one (1), Spring Banke (S-454), is listed in the National Register of Historic Places. Two (2) ineligible resources, the C.J. Raubacher House (S-2478) and the Shore Deal Auto Property (S-9148), were determined as such in 1999. Twenty-nine (29) properties were previously identified with no determination of eligibility. Four (4) of the twenty-nine properties, the F.S. Barnett, Jr. House (S-2481), Esther Hudson House (S-2470), Dorothy E.W. Schulze House (S-2438), and the property identified at the corner of S.R. 26 and road 349 near Millville in 1998 (S-9114) are no longer extant. Eighty-two (82) properties were identified during the recent survey that met the fifty years of age or older requirement for evaluation...

The resources documented in this study span several contextual periods and the property types illustrate several different themes within these contexts.

Early historic period mapping (Arrowsmith and Lewis 1819; Doolittle 1796, 1801; Lewis 1804) does not indicate the current roadway alignment or structures that might have been present in the project APE. Historic period mapping of the S.R. 26 Improvements project APE after 1886 (Delaware State Highway Department 1941, 1959, 1963; USGS 1934, 1944, 1949) indicates that the area immediately adjacent to the roadway has been reasonably urban throughout most of the historic period. Catts *et al.* (1988) and De Cunzo and Catts (1990) present an in-depth discussion of the history of the project area, as well as the statewide historic contexts within which identified historic period resources may be evaluated. De Cunzo and Catts (1990:28, 172) place the S.R. 26 Improvements project APE within the Indian River area of seventeenth and early eighteenth century exploration and frontier settlement. However, the project APE is not directly within the inland transportation routes emphasized during the eighteenth and nineteenth centuries. Historically, S.R. 26 has served as a main route from Maryland and western Delaware to the coastal beach resorts. The S.R. 26 Improvements project APE continues to be threatened by modern development by virtue of its location between inland and coastal destinations. Based on the information contained in historic mapping, Catts *et al.* (1988) and De Cunzo and Catts (1990), it appears that the area surrounding the S.R. 26 Improvements project APE has a moderate potential to contain historic period archaeological resources dating from the early seventeenth century to the recent past. Due to the long-term urban nature of the project APE, and based on the numbers of different types of previously identified historic archaeological sites located nearby, if historic period archaeological sites are identified in the project APE, they will likely be related to domestic or commercial activities associated with residences, churches, stores, schools, and cemeteries.

However, given the constricted size and positioning of the project APE, most of it falls in what is and would have been historically front yards of residences and commercial buildings. Typically, deep historic period archaeological features such as wells and privies and/or sheet middens are not located in the fronts of buildings along the main road. Historic activities which might have taken place in the front yards of the residences and commercial establishments along S.R. 26 were most likely short term and ephemeral, leaving little or no archaeological signature. Not only are front yards not usual places for accumulations of historic period artifacts, they have also often been extensively disturbed by the emplacement of water and sewage lines into the buildings from the mains in the streets. If generalized historic period

artifact scatters or isolates are found during the Phase I survey, they will most likely be representative of roadside litter rather than associated with specific historic structures. They will most likely not be diagnostic with regard to specific temporal or functional historic contexts. Generalized/fragmentary temporally and functionally non-diagnostic historic period artifacts do not permit specific contextual associations, nor do the interpretations of them contribute significant information to the specific land-use history of the project APE generally, or individual properties specifically.