Introduction and Statement of Purpose

The purpose of this report is to present results and recommendations of a preliminary cultural resource reconnaissance of the proposed dualization of U.S. Rt. 113, Kent County, Delaware (Map 1). The reconnaissance was undertaken by the Department of Transportation, Division of Highways, Project Planning Section. A proposal for conducting research was submitted by Project Planning to the Bureau of Archaeology and Historic Preservation on May 28, 1980 (Appendix 5). Pre-field background, archival research and field investigations were carried out between April 28 and June 20, 1980. Artifact analysis, further archival research, data collation and report preparation were accomplished between June 23 and July 22, 1980. Survey procedures consisted of examining areas along the entire proposed route.

The proposed dualization project consists of two alternate routes, an eastern and western alignment both of which run adjacent to present Rt. 113. The right of way trends north by northwest along the 10' - 20' contour interval, beginning at Station #21+80, approximately one mile north of Little Heaven, and proceeds north for 25,820' or 4.89 miles, crossing several agricultural fields, the St. Jones River and one of its tributaries Trunk (Kiunk) Creek, extensive marsh lands, wooded areas and disturbed zones until its termination at the south entrance of Dover AFB at Station #280+00 (Map 2). The entire ROW is contained within the Frederica 7.5 minute USGS quadrangle map.

We would like to extend our appreciation to our supervisors Glenn Pusey and Joe Wutka and our colleagues Darwin Kates, Tom Parsons, Nick Blendy, Hugo Dreibelbis, Terry Coghlan and Barry Schoch, all of the Division of Highways, Project Planning Section for their help, information and comments

during this project. We wish also to thank Tim O'Brien for his photographs taken during this project. Special appreciation goes to Floyd and Joel Blessing of Houston and Charles Jackson, representative of Draper King Cole, Milford for permission to enter upon their property in order to complete our testing program.

Methodology

The methodology during all phases of this reconnaissance was geared to satisfy the Heritage Conservation and Recreation Service requirements for a preliminary archaeological reconnaissance as per (36 CFR Part 210) Chapter 1 "Recovery of Scientific, Prehistoric, Historic, and Archaeological Data: Methods, Standards, and Reporting Requirements" and Appendix B "Guidelines for the Location and Identification of Historic Properties Containing Scientific, Prehistoric, Historical, or Archaeological Data." The methodology proceeded along two avenues of investigation, background and archival research and field investigation.

Background and Archival Research: Research consisted of a review of the literature, records, and maps pertinent to the development of a prehistoric and historic cultural and paleo-environmental history of the region and site specific locations. A records check combined with consultation revealed that the study area had been subjected to prior investigation (Griffith, Artusy, Wise, Nelson 1977-1978; deValinger 1970; Stewart 1970; Thomas 1976; Artusy and Hoffman 1976; Griffith 1976; Hutchinson 1963; Stocum 1977). This information together with the regional work which has been done to date (Gardner 1978; Thomas et al. 1975; Kraft et al. 1976, 1977, 1978; Griffith 1974; Gardner and Stewart 1978; and Carbone 1976) provided an interpretive framework for understanding the prehistory of the study area. Various maps were studied including soils, geologic, topographic, historic

and aerial, not only to select likely areas for historic/prehistoric habitation and anomalous features but to determine any structures which may have once stood within the proposed right of way. A Title Search (Appendix 3) and further investigations were done on the H. Barnett residence which shows up on the Beers 1868 map and corresponds to 7K-F-88 (K-951) Area A-1 and possibly Area A. In addition to a literature and map search, consultation and liaison were undertaken with the Delaware Division of Historical and Cultural Affairs. Consultation revealed the presence of 67 sites within the study area, 4 of which may be impacted by the proposed ROW. They were: 1. 7K-F-88 (K-951) Areas A, A-1, & E; 2. 7K-F-101 (K-1413) Area C; 3. 7K-D-42 (K-880) Area B; and one site previously listed in the National Register of Historic Places, 4. 7K-D-35 (K-783) Area D. For an explanation of the state numerical system see Appendix 4.

Finally the artifacts previously collected and excavated from the study area and on repository at the Island Field Museum were viewed and utilized to provide a basis on which to evaluate the temporo-cultural affiliation and technology of the early inhabitants. The diagnostic artifacts were photographed and are included in the back of the report as are the standing historic resources which were viewed from the right of way.

Field Investigations: Field work consisted of a complete walkover and surface collection of the proposed ROW except in the marsh areas and one parcel of land which we were not given permission to enter. The parcel of land not tested is denoted on Map 2. Investigations included examination of all horizontal and vertical exposures such as dirt roads and road sides, tree falls, animal burrows, drainage cuts, and erosional features. Sub-surface investigations conducted in conjunction with the walkover consisted of one-half meter square test pits and strata cuts along Trunk (Kiunk) Creek.

A total of 16 test pits were placed in high as well as low probability locations to obtain as much of an unbiased sample as possible (see Appendix 1 and Figures 1-16 for profiles). These locations are plotted on Map 2. Exact provenience of each test pit was kept by spray painting a small white spot perpendicular to the white stripe on the side of the road. If the test pit was placed on the east side of Rt. 113 a compass was utilized to determine due east and measurements were made along that line. The reverse held for the test pits on the west side i.e. measurements were made along the due west line. For exact provenience see Appendix 2.

Environmental Setting

The study area is located in the central portion of Kent County, Delaware in the Atlantic Coastal Plain physiographic province (Thornbury 1965). The most recent sediments of this section of the Coastal Plain consist mainly of yellow and reddish brown quartz sand (Jordan 1974). The sediments are Pleistocene (Columbia Formation) fluvial deposits which were deposited by outwash streams from the north and east (principally the Susquehanna and Delaware River systems) and spread south and southeast in a veritable sheet wash covering the lower two-thirds of Delaware. Besides the enormous amounts of sand, the Columbia sediments contain much smaller percentages of gravel, pebbles, cobbles, clays and silts. The pebbles and cobbles of quartzites, quartz, and cryptocrystalline materials i.e. cherts and jaspers together with the developed clay facies were an important raw material in the technological system of the prehistoric inhabitants.

The environmental history of the study area has been controlled by a number of factors including Late Pleistocene glacial activity, climate and sea level lowering, and Post-Pleistocene sea level rise and various climatic episodes during the Holocene. Though not covered by glacial activity, the study area's climate during the Late Pleistocene-Early Holocene was

significantly altered to produce vegetational change (Carbone 1976). Looked at from a macro perspective, the study area during the Late Pleistocene-Early Holocene would have supported a mixed mosaic pattern of vegetal distribution, including but not limited to, open grasslands, coniferous forests, and a partly deciduous gallery-floodplain. These eco-zones supported a faunal assemblage with some species which are present now, i.e. white tailed deer, others which have become extinct, i.e. camel, horse, mastadon, and still others which have retreated to more northerly habitats, ie. elk. Around 8,500 to 7,000 B.C., the rise in sea level due to the influx of glacial meltwater into the oceans began a gradual drowning of the rivers and their tributaries.

With the continued climatic changes during the Early Holocene, both floral and faunal patterns continued to change. Post 8,000 B.C. the floral and faunal species would have followed an increasing zonal pattern rather than the mosaic of the Late Pleistocene. A pollen sample from the Dill Farm site in Kent County ca. 8,000 B.C. gives a pine dominance with lesser amounts of hemlock, birch, and oak together with a strong non-arboreal element. By this time, most, if not all of the Late Pleistocene mega-fauna were extinct. Deer and other small animals would have radiated into the uninhabited area. Post 6,000 B.C. an oak-hickory climax was present and later, by around 3,000 B.C., the southern mixed pine-oak forest became dominant, with animal associations which included deer and turkey as dominant species. The vegetation at the historic period, (Thomas, et al. 1977) was an oak-hickory and marsh climax vegetation.

The study area has been classified within the Upper Delaware Bay Drainage (Griffith, 1974: 354-356) and is entirely drained by the St. Jones River and one of its tributaries, a third order stream Trunk (Kiunk)

Ditch. Both exhibit a dendritic drainage pattern due in part to the unconsolidated sediments in which they flow. The St. Jones River has its headwaters in west central Kent County approximately 22 miles from its mouth on Delaware Bay. The river is tidal throughout most of its lower half. At the point where the ROW crosses the St. Jones there is a considerable movement of the water with the fluctuations of the tide anywhere from 1-3 feet. The extensive marsh lands adjacent to the St. Jones and Trunk (Kiunk) Ditch are classified within Zone 1 (Daiber et al. 1974: 74 & 98) containing a cordgrass marsh association. Other sections of the ROW cross through cultivated fields, wooded areas and borrow pits all spaced over a relatively flat area with a few low relief knolls present. Soils are classified within the Sassafras-Fallsington association which is dominantly level to gently sloping, well-drained and poorly drained soils that have a moderately permeable subsoil of sandy loam to sandy clay loam on uplands, or a Tidal Marsh association which are soil materials that are regularly subject to flooding, mainly by salt water. Within the United States comprehensive soil classification system (USDA 1960) the soils of the southern two-thirds of Delaware are classified within the order Ultisols and suborder Aquults. Utisols are usually moist, with horizons of clay accumulation and a low base supply and Aquults (seasonally saturated with water) gently sloping; woodland and pasture if drained, feed and truck crops if drained (Birkland 1974).

At present, the ROW's location is less than four miles west of the Delaware Bay. This has not always been the case. A series of core borings and subsequent research done within the region (Kraft 1976) and the immediate area (Kraft 1978) and within the ROW (Dreibelbis 1976) shows the different land and water conditions present in the Delaware Bay and its tributaries since the time of the earliest cultural occupation ca. 9,500 B.C. (Figures 17, 18, 19). Kraft et al, (1978) charts showing the Late Pleistocene-Holocene

evolution of the Delaware Valley and mouth of the St. Jones River ca. 8,000 B.C. to the present, indicates substantial changes in the location of tidal marsh, rivers, upland surfaces and adjacent gemorphologic features over the past 10,000 years. Paleogeographic research indicates that at the end of the Pleistocene the mouth of the St. Jones river was located well into the Delaware River Valley. Ocean transgression and the ultimate drowning of the Delaware Valley moved the mouths of its perpendicular tributaries further inland. The St. Jones River and associated salt marshes reached its present condition sometime around 1,000 A.D., although sea level continues to rise approximately three inches per century (Kraft et al. 1976: 2).

Archaeological Background

A brief outline of prehistoric cultural development is presented here which is applicable to the general study area in question. The best general culture historic model which can be presented to date draws upon the years of research done by the Delaware Division of Historical and Cultural Affairs and the ten years of research by Gardner and his associates in the Middle Atlantic Region. It must be stressed that this is a working model and is not to be interpreted as a final statement but as a framework on which to base future research within the Middle Atlantic Region and which can be constantly revised as future systematic data comes in.

The basic chronology used here is as follows:

Paleo-Indian	9500-8500 B.C.
Early Archaic	8000-6500 B.C.
Middle Archaic	6500-2500 B.C.
Late Archaic	2500-1000 B.C.
Early Woodland	1000- 450 B.C.
Middle Woodland	450 B.C. - 800 A.D.
Late Woodland	800 A.D. - Euroamerican settlement

Paleo-Indians

The Paleo-Indian refers to cultural manifestations dating from the Late Pleistocene or Ice Age. This is the earliest known prehistoric occupation known to exist in the United States.

At the time of the first appearance of the Paleo-Indian tradition, the northern part of the United States was covered by glaciers. The climatic conditions (mainly cooler and more moist) resulted in considerably altered environments throughout most of North America. In general, grasslands and coniferous forests were dominant with deciduous forests reduced. The dominant fauna consisted of herd animals such as mammoth, horse, camel, bison, and close to the glacial front, caribou, and the more solitary mastodon. It was this type of environment that the Paleo-Indians were adapted to.

The tool kit, as known, is heavily oriented to hunting and the processing of by-products of the hunt, consisting of lanceolate leaf-shaped stone spear points and such bone, horn, hide, and skin working tools as scrapers, gravers, wedges, and knives. A strong preference for a limited range of high quality cryptocrystalline lithic materials such as various types of "flint and chert" is indicated. Such lithic preference had a tendency to restrict population distribution to locations where material of this type was available.

The most well-known and most diagnostic artifact of the Paleo-Indian is the fluted spear point. It is easily recognized by the presence of a single flake scar which runs vertically from the base of the artifact, toward its tip.

The settlement pattern or camp cycle appears to have been related to the location of the preferred types of stone for the prouduction of their tool kits. Wandering within a prescribed territory was probably conditioned by the amount of game available. The total territory covered seems to have been a factor of the amount of open range; nature, type, and density of the fauna;

and the distribution of raw material. Fixed points in the camp cycle were the quarries, which were returned to as the tool kit was depleted; or the particularly favorable micro-environment which attracted game.

Overall, human population was sparse and widely scattered. Population density within particular groups and favorable areas was probably more dense. Short term settlement occurred at fairly regular intervals at quarry locations, lasting at least a few weeks (Gardner 1974).

Archaeological sites containing Paleo-Indian material are scattered throughout the State of of Delaware with the exception of the Atlantic Coast Drainage Basin of Sussex County. While there are a number of sites known, few have produced more than a single artifact. The majority of documented sites are located in areas containing either numerous, small ponds and "sink holes" or large, poorly drained areas which are thought to have been post-Pleistocene lakes or marshes. It is to these water sources that the large, game herds are thought to have come and there that they were most susceptible to the predation of man. The presence of these camps suggest specialized hunting as a primary economic system. Some of the sites reveal a large number of butchering tools. This suggests that the tools were used for hunting and the processing of the animal.

Throughout the Paleo-Indian period, the glaciers were in retreat stages and the overall climatic trend is toward drying and warming.

Early Archaic

Glacial recession and climatic change at the end of the Late Pleistocene brought on environmental changes which led to a readaptation of the aboriginal population. Such climatic changes resulted in gradual reduction of grasslands, increase of coniferous and deciduous species, and megafauna extinction. The subsistence base is viewed as a continuum of the Paleo-Indian phase though focusing on more solitary and scattered forms of game, i.e., elk, moose, and

deer (Gardner 1976). A technological innovation of corner-notched, and side-notched projectile points is a reflection of the change in hunting strategy during the Early Archaic.

Middle and Late Archaic

The Middle Archaic coincides with the beginning of the Atlantic climatic episode resulting in conditions similar to those of today. These changes brought about further changes in prehistoric adaptation. Aboriginal populations, as represented by the artifacts, and number of sites, increase throughout this period. The diversity of stone, bone, and wood tools indicated a subsistence pattern based on the exploitation of a wide variety of plant materials. Unlike the more generalized tool kit of the Paleo-Indian, i.e. a few tools for many purposes, the Middle Archaic tool kit shows a much larger degree of specialization. The bifurcate base projectile point is a horizon marker in the east for the Middle Archaic. Areas such as flats, wallows, spurs and knolls, previously little used, are increasingly occupied. Seasonal shifting of camp sites followed a zonal pattern of resource distribution. It is within this Middle Archaic period when confirmed aboriginal evidence first shows up in the St. Jones Neck area.

Increasing population, a continuance of general foraging based on seasonally available foodstuffs and the development of an adaptation exploiting riverine food sources characterizes the Late Archaic. Base camps are situated so as to maximize the exploitation of such resources. A wide variety of projectile point styles develop and, by the end of the Late Archaic, steatite bowls are manufactured.

Early, Middle and Late Woodland

Essentially a continuation of the Late Archaic in terms of settlement and subsistence patterns, the Early Woodland showed a preference for riverine

resources in the Middle Atlantic Region. The Early Woodland phase is defined by the presence of a full blown ceramic tradition. Though no ceramics from this early period have been located within the St. Jones Neck area, several types are recognized as being distinctive at this time, e.g. Marcey Creek, Seldon Island and Dames Quarter. It is postulated that a trend towards horticulture and increased sedentism begins during this period. The "Delmarva-Adena Complex" is the most identifiable cultural manifestation of the Early Woodland. The Middle Woodland, in the St. Jones Neck region shows a distinct preference for mid-drainage base camps and rather intense transitional seasonal utilization of the headwaters of streams and rivers as well as coastal zones. Several new ceramic types are markers for the Middle Woodland. Wolfe Neck, Coulbourn, Mockley and Hell Island ceramics are all found, however in small quantities within the St. Jones Neck. Mockley Ware, a shall tempered type with both cord and net impressed surfaces, is the predominate type found in the Coastal Plain.

Another aspect of the Middle Woodland within the Delmarva area, and the Middle Atlantic region in general, is the participation in an exchange network involving the movement of exotic raw materials. Such items as rhyolite, argillite, copper, etc. are present in the Selby Bay phase and later Webb phase manifestations of the Middle Woodland. Though the settlement pattern appears to remain the same from the Middle to Late Woodland within the St. Jones Neck, the Middle Atlantic in general witnesses a population increase with evidence for larger stockaded villages utilized for protection against waring groups. It is from these large, agricultural based camps that the aborigines ventured to exploit their nearby fields, the surrounding forests, rivers and coastal environments.

Late Woodland, Townsend and Potomac Creek ceramics are the types which show up in small quantities within the St. Jones Neck. The widespread use of small triangular points during this time indicates the use of the bow and arrow.

Early Historic Settlement

The first successful European settlements along the coast of Delaware began at least a decade later than those further north in Massachusetts and south in Virginia. By 1638 the Swedes had established a settlement along the Christina river in present day New Castle County and by 1650 the Mennonites had the first successful settlement at Zqaanendael (Lewes) in present day Sussex County.

In 1664 the Duke of York claimed the New Amsterdam landholdings, which included Delaware for the British Crown. Seven years later (1671) after the region was in firm political control under the Crown, the Duke of York issued nine major land grants of approximately 400 acres each to nine separate patentees whom were to use, occupy and settle the area along the St. Jones River. The nine land grants were: Byfield (warranted 1680), Burton's Delight (surveyed 1679), Poplar Ridge (warranted 1677/78), Brinckloe's Range (warranted 1681), Town Point (surveyed 1679), Kingston-upon-Hull (patented 1671), Jones Tract (patented 1671), Wharton's Tract (patented 1671), and Mulberry Swamp (patented 1671).

Historic documentation appears to show that successful settlements south of Bombay Hook and north of Lewes were not made prior to 1676 because all nine original land grants along the St. Jones, had to be reissued back to the Crown. The Crown in turn reissued them in their original form (acreage) between 1676-1680. From 1680 the land along the St. Jones which was included in the nine original grants was occupied and finally settled

by the people who held the offices of sheriff, justice of the peace, clerk of the courts, etc. They were the early political system and chose choice areas to settle. Within Kent County the St. Jones River area was settled prior to Duck Creek or the Murderkill River regions.

Though permanent settlements within the study area didn't take place until ca. 1676-1680 it is inconceivable that the area was unoccupied by Euro-americans prior to 1671 when the original land grants were given. Archaeological evidence uncovered within the survey area at 7K-F-88 (K-951), Area A in 1977-1978 by the Kent County Archaeological Society and by our reconnaissance has produced yellow brick and a bottle base with an extremely shallow kick. This evidence would indicate an early 17th century occupation site. Squatters, trappers, outcasts, explorers, a boat expedition to name but a few, could have been some of the earliest inhabitants of the St. Jones River.

An attemted explanation of why the Kent County region was settled later than the areas north or south seem to center around the topography and interrelated environmental variables. The area adjacent to the Delaware Bay does not have any high relief landing areas, it is an area which is accompanied by a high water table and marshy conditions. This combined with the Euro-american ships which were large enough to cross the Atlantic Ocean and sail up the Delaware Bay but were just too large to sail up the Duck Creek, Murderkill and St. Jones Rivers, or to find suitable landings that were in evidence further south and north.

Settlement was also unique in Kent County when compared to New Castle and Sussex. As evidenced along the St. Jones River, the first settlements were individual rural tract owners who were widely spaced over the landscape and had the responsibility to build and maintain their own individual trail/roads

and bridges or ferries. In contrast, the people in the settlements further to the north and south exhibited social cohesiveness through civic responsibilities. These settlements more closely resembled towns.

Results

Cultural resources encountered during field investigations together with those artifacts viewed on repository at the Island Field Museum from within the ROW, will be discussed according to the sites in which they were found. A general description of the soil profile at each site will be discussed first, followed by the site specific results.

For locations of each site discussed refer to Map 2. Complete artifact counts recovered during our field tests, and their excavated context are found in Figures 1-16 and Appendix 1.

7K-F-88 (K-951) Area A and E:

The soil profiles encountered at both Find Spots were identical. They are exemplified by test pits 4, 5 and 7. Zone 1, 0-30 cm. average depth of 3 test pits; is a dark grayish-brown sandy loam plow zone. Zone 2, 30 cm. - 53 cm. average; is a light yellowish-brown heavy sandy loam B1 horizon. Zone 3, 30 cm. - 90 cm. average; is a dark orangy-brown sandy clay loam B21t horizon which continues for an unknown depth. The boundary between each zone is distinct.

The two test pits (4 & 5) excavated at Area A, together with the surface collection, produced a few dubious flakes and a scattering of historical material. This site is deemed significant and will be recommended for further work because of the yellow brick and bottle base with a shallow kick. These artifacts may date as early as the mid 17th century. The integrity of the site is in question because all material was uncovered in the plow zone. Area E produced no artifacts from test pit 7 or the area around it. Needless to say, this Area is not significant.

7K-F-101 (K-1413) Area C:

Test pits were not placed in this location. A search at the Island Field Museum together with a complete walkover of this Area by five people produced no artifactural information. This Area is not significant.

7K-D-35 (K-873) Area D:

A surface collection from our field work together with the artifact collection on repository at the Island Field Museum have indicated that Area D is a multi-component site. Various projectile points ranging from Late Archaic through Middle and possibly Late Woodland have been collected. No test pits were placed here at the request of the land tenant. Further work will be recommended for this site. It is already listed in the National Register of Historic Places.

7K-D-42 (K-880) Area B:

This area was the only area within the entire ROW which was not subjected to field investigation. We were requested not to go on this property until Fall. A literature search of the St. Jones Neck Federal Register Nomination Form and an artifact search at the Island Field Museum turned up no information on Area B. If further work is to be requested due south at 7K-D-35 (K-873), we will, at that time, conduct a 100% reconnaissance of this area.

A review of Appendix I, Test Pit and Surface Find Inventory, reveals a scanty amount of prehistoric and historic data found in the ROW. A total of 101 artifacts, 21 were collected at 7K-D-13 (K-606) an area at least 200 feet west of the ROW. This leaves a total of 80 artifacts found and collected within the ROW. The remaining 40 or 50% of the 80 artifacts came from test pits or surface collections within the two sites which I will recommend for further work.

Summary and Recommendations

The cultural resource reconnaissance which was conducted on the proposed dualization ROW of Rt. 113 consisted of a walkover; examination of all exposed horizontal surfaces and other exposed vertical banks; and 16 one-half meter square excavation units. Field tests resulted in the verification of two archaeological sites 7K-F-88 (K-951) Area A and 7K-D-35 (K-783) Area D (Map 2). 7K-F-88 (K-951) Area A appears to be a small multicomponent prehistoric and historic site. The historic component could be one of the earliest (ca. mid-17th century) habitation sites located in Kent County based upon a small, but significant find (yellow brick and a bottle base with a very shallow kick). The other alternative based upon the more significant amounts of 18th-19th century artifacts recovered, is that this site is a closely associated activity area of the Henry Barnett residence. Area A, which is in question here, is no more than 300 feet due east of Area A-1 which was the location of the H. Barnett residence (Maps 2 & 3). Hopefully further testing can settle this interesting situation.

The second area of concern, 7K-D-35 (K-783) Area D (Map 2), proved to be a relatively large, prehistoric multi-component transitory/seasonal and/or base camp (See Appendix 1). Enough information had previously been collected to deem this site with enough integrity and significance that it is listed in the National Register of Historic Places. The site is situated on a low relief knoll approximately 150 feet north of the St. Jones River marsh. The location of the small multicomponent prehistoric and historic site 7K-F-88 (K-951) Area A, and the larger, multi-component prehistoric site 7K-D-35 (K-783) Area D, are predictable because they are situated on low relief knolls in well drained soils adjacent to flowing water and high biomass areas. Environmental variables in this context are considered to be high priority areas based on

settlement models developed and continually being tested and refined by archaeologists working in the Appalachian Plateau, Ridge and Valley, Piedmont, and Coastal Plain physiographic provinces of the Mid-Atlantic region (Gardner 1978; Cunningham, Barse, Gardner 1979, etc.). Both 7K-F-88 (K-951) Area A and 7K-D-35 (K-783) Area D are located within the proposed ROW and will be affected by the dualization project.

Field inspection, a second specific examination of those artifacts on repository at the Island Field Museum collected from within the ROW, combined with archival research dealing with local histories, and studies of available historic period and more recent maps indicate that the proposed dualization of Rt. 113 will not affect any other significant cultural resources except those two sites already designated.

Both 7K-F-88 (K-951) Area A and 7K-D-35 (K-783) Area D contained enough cultural material and/or significance to assume that more material lies in the immediate and adjacent areas, and that a controlled archaeological excavation would produce significant cultural information. If the eastern alternative is selected as the recommended alternative, then the archaeological remains at these locations should be subjected to an intensive test excavation program to see if more archaeological work (total mitigation) would be necessary on the National Register site 7K-D-35 (K-783) Area D and to determine the potential of 7K-F-88 (K-951) Area A for nomination to the National Register of Historic Places.

Intensive excavation at each location should be designed so as to determine specifics such as site extent and integrity; presence-absence of subsurface features; internal patterns; and potential for information pertinent to the clarification of the sites' functions.

To meet these objectives, it is recommended that extensive bucket augering together with scattered one and one-half meter squares be excavated at both sites, with these excavations geared to determine the extent of the site; and the possible presence of undisturbed features such as chipping areas, hearths, storage pits, shell middens or other activity areas. Efforts should also be made to recover chronologically diagnostic artifacts.

This testing program could be accomplished by the Division of Highways' Project Planning Archaeologist after consultation with the State Archaeologists of the Division of Historical and Cultural Affairs.

Personnel

Principal Investigator:

Kevin W. Cunningham, Delaware Division of Highways, Project Planning Archaeologist, MA candidate in Anthropology/Archaeology from the Catholic University of America, Washington, D.C. with six years of archaeological experience.

Crew:

John W. Martin and Joann L. Calvert, college students employed as summer assistants with the Division of Highways, Project Planning Section.