CULTURAL CONTEXT AND DATA QUALITY

The purpose of this section is to assess the quality of the data noted in Appendices I - III and to provide a brief discussion of the cultural context of the sites noted in the inventories. Specifically, the discussion of the cultural context will seek to relate the specific sites in the inventories to the general trends noted in the earlier discussion of the region's prehistory and history.

PREHISTORIC SITES

Table 5 provides a summary of the known prehistoric sites found within the project area while Figure 16 shows the locations. In general, a variety of sites of different time periods are noted. However, before considering the cultural context of these sites, it is necessary to consider the quality of the data base of known prehistoric sites.

The state site files, from which the inventory in Appendix I was generated, record only the sites located in places where people have looked for archaeological sites. Although two large research-oriented projects generated some of the data found in the site files (Figure 15), for the most part these files provide a very biased sample of the possible site locations within the project area. The presence or absence of certain types of sites from varied time periods, and the relative abundance of sites of any function of age, cannot be used for anything other than an initial approximation of the total range of prehistoric cultural resources that may be found in the area. Nevertheless, the data from these site files can be used to develop initial impressions,

TABLE 5

SUMMARY OF KNOWN PREHISTORIC ARCHAEOLOGICAL SITES

Quad	Number	P	A	WI	WII	BC	P/P
Ellendale	4	0	0	0	0	0	0
Fairmont	15	0	0	4	3	5	5
Georgetown	13	1	1	8	4	5	3
Greenwood	2	1	0	0	0	0	0
Harbeson	6	0	0	1	2	0	0
Hickman	9	0	0	3	2	1	0
Lewes	4	0	0	0	0	0	0
Seaford East	27	1	1	18	9	6	21
Seaford West	4	0	0	2	0	0	4
Total	84	3	2	36	20	17	33

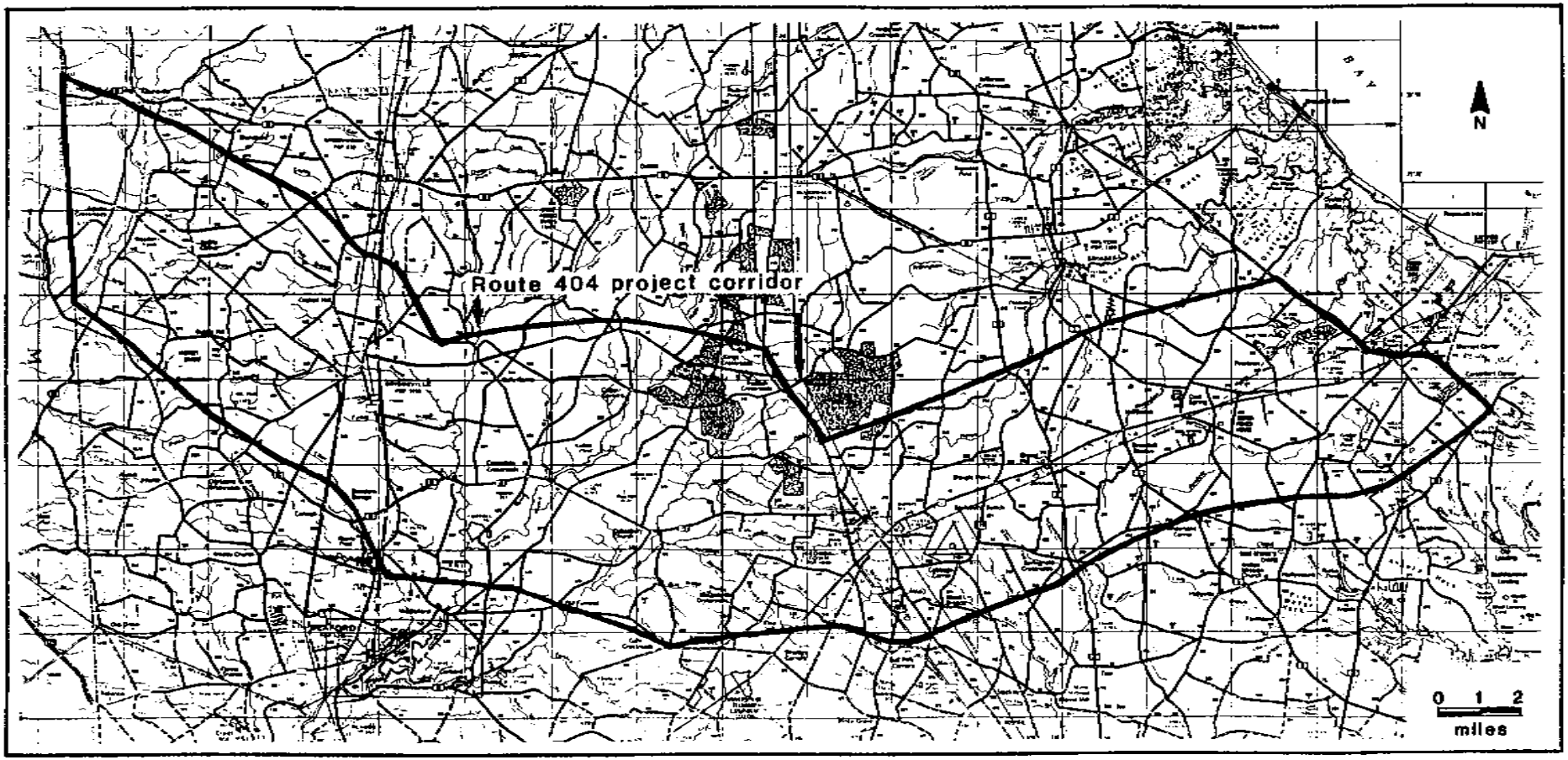
Key:
P - Paleo-indian
A - Archaic
WI - Woodland I
WII - Woodland II
BC - Basecamp
P/P - Procurement Processing

and testable hypotheses about prehistoric site locations (for example, see Custer, Cavallo, and Stewart 1983; Custer and Wallace 1982). It should also be noted that in the central portion of the study area along the Nanticoke there is a relatively controlled sample of site data available (Custer 1989). With these limitations of the data in mind, the cultural context of the known sites can be evaluated and patterns of site locations can be tentatively noted.

Three sites dating to the Paleo-Indian Period are noted in the site files for the study area. This finding is an indication that population densities in the study area were probably low.

FIGURE 16

Distribution of Known Prehistoric Sites in the Study Area



* Site locations on file at Delaware Dept. of Transportation and University of Delaware.

Paleo-Indian settlement pattern models from the Middle Atlantic Coastal Plain (Custer, Cavallo, and Stewart 1983) and summaries of fluted point data from the Delmarva Peninsula (Custer 1983a: Chapter 3;, 1984b) note that there are two concentrations of fluted point finds in Delaware. One is in the northern part of the state between Newark, Delaware, and Elkton, Maryland, and is associated with outcrops of high quality cryptocrystalline lithic materials (Custer and Galasso 1980; Custer, Ward, and Watson 1986). Another site concentration is located along the poorly drained mid-peninsular drainage divide where there are good data indicating the presence of numerous game-attractive swamps and bogs during later Pleistocene and Early Holocene times. The study area crosses a large portion of this Mid-Peninsular Drainage Divide and many interior swamps and bogs are present. Two of the three known Paleo-Indian sites are associated with areas that were once poorly-drained woodlands and more such sites are probably present in the study area.

Only two known Archaic sites are present in the study. Both of these components co-occur with Paleo-Indian components on sand ridges adjacent to areas that were once poorly-drained woodlands. As was the case for Paleo-Indian sites, there are probably many more Archaic sites in the study area.

Sites of the Woodland I Period represent the greatest portion of the recorded prehistoric sites in the proposed highway corridor. Of the 84 known sites, 36 had identifiable Woodland I components. Woodland I base camps are located primarily along the floodplains of the major drainages and have the highest proportion of multi-component sites. Some Woodland I base camps

are also found in the same interior sand ridge settings as the Paleo-Indian and Archaic sites. Generally, all of the various Woodland I culture complexes are represented among the recorded Woodland I base camp sites. However, Barker's Landing Complex and Carey Complex components are among the most common among the sites recorded in the study area. In sum, the entire range of Woodland I functional site types, except for specialized mortuary sites, and the entire range of Woodland I culture complexes are present in the study area.

Twenty Woodland II sites are recorded for the study area. Most of the Woodland II base camps are multi-component and have evidence of earlier Woodland I occupations. This continuity of base camp locations has been viewed as indicative of continuities in adaptations between the Woodland I and II Periods in southern Delaware (Custer and Griffith 1986). Little or no information is available on Woodland II procurement sites. No Contact Period sites were noted for the study area in the state site files.

HISTORIC SITES

The historic standing structures identified in the project corridor are listed in Appendix II and summarized in Table 6. As can be seen, the overwhelming majority -- over 93% -- of inventoried standing structures within the project corridor date from the last two historic periods (1830 to 1880, and 1880 to 1940+). In fact, over 66% of the total number of inventoried standing structures were built in the 1880 to 1940+ period. The other three chronological periods are poorly represented, with only .3% for the 1630 to 1730 period, .6% from the 1730 to 1770

TABLE 6

SUMMARY OF STANDING STRUCTURES FROM THE BAHP SITE FILES WITHIN THE PROJECT CORRIDOR

	Date Range					
Quads	**1630-1730**	**1730-1770**	**1770-1830**	**1830-1880**	**1880-1940+**	**Unk**
Ellendale	-	-	-	5	7	-
Fairmount	1	-	-	45	52	8
Georgetown	-	-	8	33	63	-
Greenwood	1	-	-	13	41	-
Harbeson	-	-	9	37	51	-
Hickman	-	1	2	18	95	1
Lewes	-	-	3	8	14	-
Milton	-	1	-	4	12	1
Sea. East	-	2	3	30	118	4
Sea. West	-	-	-	2	18	-
Total	2	4	25	195	471	14

KEY:
Unk = Unknown
Sea. = Seaford

period, and 3.5% from the 1770 to 1830 period. The project corridor seems to accurately reflect the housing situation in Sussex County overall, for Ames et al. (1987:58) have estimated that about 77% of the housing stock in in the county has been constructed since 1940.

Site functional types are fairly well-represented throughout the corridor, considering that Sussex County has been and remains a predominately agricultural region (Table 7). The vast majority of sites are either agricultural complexes, dwelling complexes or dwellings (260, 269, and 127, respectively). Churches account for 11 sites. Most of the churches date from the 1830 to 1880 period, such as Reeds Methodist Church (S-3172) and Trinity Methodist Church (S-329), though some, like the Coolspring Presbyterian Church (S-138) and the Cokesberry Church (S-409)

TABLE 7

SUMMARY OF SITE TYPES/QUAD WITHIN THE PROJECT CORRIDOR

Site Type	Quad										
	Hick	Lew	Mtn	Fmt	Harb	Gtwn	Gnwd	Sea E	Sea W	Ell	Total
AgCx	46	11	9	40	39	40	16	47	4	8	260
DwCx	41	5	5	40	43	32	21	69	11	2	269
Dwlg	25	7	3	20	6	19	16	25	5	1	127
Church	2	-	-	1	2	5	-	1	-	-	11
Cemetery	-	-	-	-	4	5	-	8	-	-	17
Store	2	-	-	1	-	-	-	2	-	-	5
Bridge	-	-	-	-	-	2	2	1	-	-	5
Water Tower	1	-	-	-	-	-	-	-	-	-	1
Serv. Stn.	-	1	-	-	-	-	-	1	-	-	2
School	-	-	1	1	-	-	-	1	-	-	3
Ag. Bldg.	-	-	-	-	2	-	-	-	-	-	2
Saw Mill	-	-	-	-	-	-	-	2	-	-	2
Eatery	-	-	-	-	-	-	-	1	-	-	1
Grist Mill	-	-	-	-	-	-	-	1	-	-	1
Office	-	-	-	-	-	1	-	-	-	-	1
Almshouse	-	-	-	-	1	-	-	-	-	-	1
Ag. M. Cx.	-	-	-	1	-	-	-	-	-	-	1
Mill	-	1	-	-	-	-	-	-	-	-	1
Com. Center	-	-	-	1	-	-	-	-	-	-	1
Total	117	25	18	105	97	104	55	159	20	11	711

KEY:

Hick = Hickman
Lew = Lewes
Mtn = Milton
Fmt = Fairmount
Harb = Harbeson
Gtwn = Georgetown
Gnwd = Greenwood
Sea E = Seaford East
Sea W = Seaford West
Ell = Ellendale

AgCx = Agricultural Complex
DwCx = Dwelling Complex
Dwlg = Dwelling
Serv. Stn. = Service Station
Ag. Bldg. = Agricultural Building
Ag. M. Cx. = Agricultural Manufacturing Complex
Com. Center = Community Center

date from earlier periods. Cemeteries account for 17 sites in the BAHP files, and many of these are not church-related, but are associated with farms throughout the project corridor. These family graveyards are an indication of the generational continuity of the inhabitants of Sussex, a phenomena noted by Bausman in 1941, and discussed previously.

The remainder of the sites compiled from the BAHP files include five retail structures, such as Scott's Store (S-823), a National register site dating to the mid-1870s, an early twentieth century eatery (S-6066), an office (S-3224), and two service stations (S-3296, S-5044). Transportation-oriented sites are represented by five bridges built in the project corridor in the early 1930s. The agricultural-orientation of the project corridor throughout its history is demonstrated by agricultural buildings, agricultural manufacturing complexes, a wooden watertower (S-356), and several saw and grist mills. The rest of the site types are rounded out by community and government structures, such as the Cool Springs Community Center (S-3025), three former one-room schools, and the county almshouse (S-210), built in the early nineteenth century.

There are a total of 434 potential historic archaeological sites located within the project corridor. Appendix III contains a complete inventory of these sites, and Table 8 presents a summary of these sites by chronological period. Several standing structures have been included within this Appendix because these are structures that are known from the BAHP files to be standing on the locations of earlier buildings. It can be seen that by far the greatest number of sites (370) date from the 1830 to 1880 period of historic settlement; this is undoubtably a bias in the historic source materials utilized for this study, since the only historic atlas showing the project area dates from this time period, and there are few earlier published and detailed maps which can be used. Most of the identified sites were plotted from Beers' Atlas (1868), while the remaining sites were located

TABLE 8

SUMMARY OF POTENTIAL HISTORIC ARCHAEOLOGICAL SITES BY CHRONOLOGICAL PERIOD

SITE TYPES PER HUNDRED: 1630-1730

	Nan	Geo	Indr	L+R	NWF	Brk	Mis	Ced	Total
Church	-	-	-	1	-	-	-	-	1
Dwelling	-	-	-	1	-	-	-	-	1
Total				2					2

SITE TYPES PER HUNDRED: 1730-1770

	Nan	Geo	Indr	L+R	NWF	Brk	Mis	Ced	Total
Dwelling	-	-	-	1	1	1	-	-	3
Forge	2	-	-	-	-	-	-	-	2
Ag. Tenant	-	-	-	1	-	-	-	-	1
	2			2	1	1			6

SITE TYPES PER HUNDRED: 1770-1830

	Nan	Geo	Indr	L+R	NWF	Brk	Mis	Ced	Total
Ag. Complex	-	-	2	1	4	1	-	-	8
Almshouse	-	1	-	-	-	-	-	-	1
Bridge	1	-	-	-	-	-	-	-	1
Dwelling	-	-	-	1	4	1	-	-	6
Family Cemetery	-	-	-	-	-	2	-	-	2
Forge	2	-	-	-	-	-	-	-	2
Grist Mill	1	-	-	-	-	-	-	-	1
Mill Dam	1	-	-	-	-	-	-	-	1
Mill	-	-	-	1	-	-	-	-	1
Saw Mill	-	-	-	-	2	-	-	-	2
	5	1	2	3	10	4			25

SITE TYPES PER HUNDRED: 1830-1880

	Nan	Geo	Indr	L+R	NWF	Brk	Mis	Ced	Total
Ag. Complex	82	56	20	35	69	24	3	-	288
Ag. Tenant	1	5	1	-	2	-	-	-	9
Almshouse	-	1	-	-	-	-	-	-	1
Blacksmith Shop	-	-	-	-	1	-	-	-	1
Church Cemetery	2	1	-	-	-	-	-	-	3
Church	-	-	-	1	2	-	-	-	3
Dwelling Complex	2	2	4	4	2	-	-	-	14
Dwelling	1	2	-	2	1	5	-	1	12
Family Cemetery	6	1	-	-	-	3	-	-	10
Grist Mill	2	-	-	-	-	1	-	-	3
Mill Dam	-	1	-	-	-	-	-	-	1
Office	-	-	-	1	-	-	-	-	1
School	6	-	1	1	2	-	-	-	10
Saw Mill	1	-	-	-	2	2	-	-	5
Store	2	-	-	-	2	1	-	-	5
Total	105	69	26	44	83	36	3	1	370

TABLE 8 (cont.)

SITE TYPES PER HUNDRED: 1880-1940

	Nan	Geo	Indr	L+R	NWF	Brk	Mis	Ced	Total
Church Cemetery	-	1	-	-	-	-	-	-	1
Dwelling Complex	-	-	-	-	1	-	-	-	1
Dwelling	1	2	-	1	-	-	-	1	5
	1	3		1	1			1	7

KEY:

Nan = Nanticoke
Geo = Georgetown
Indr = Indian River
L+R = Lewes and Rehoboth
NWF = Northwest Fork
Brk = Broadkill
Mis = Mispillion
Ced = Cedar's Neck
Ag. = Agricultural

from examinations of primary source documentation, in particular the manuscript Sussex County Road Papers dating prior to 1863. There are also few sites from the 1880 to 1940 time period, and this is due to the fact that most of these sites are presently occupied by standing structures, and are included in Appendix II. Site types represented by the potential historic archaeological sites are representative of the region as of the mid-nineteenth century, and consist mainly of agricultural complexes. Some grist and saw mills are present, and four unique sites, the Collins Forge, Old Furnace, Gravelly Delight Forge, and Unity Forge, are all archaeological cultural resources within the project corridor.

Taken together, the biases inherent in the historic archaeological sites information are partially corrected, because the standing structure files indicate that a substantial number of sites dating from the 1830 to 1880 period are still extant, and both data sources indicate that the earlier periods are under-represented. Based on the standing structures listed in

Appendix II and the potential historic archaeological sites listed in Appendix III, a grand total of 1,147 historic sites are located within the project corridor; this number should be somewhat lower, due to the cross-listing of several sites in both Appendices. By combining these data bases, it can be seen that the first three periods are under-represented within the project corridor: there are only four sites from the 1630 to 1730 period, ten from the 1730 to 1770 period, and 50 from the 1770 to 1830 period. By contrast, there are at least 565 historic sites dating from the 1830 to 1880 period, and 485 dating to the 1880 to 1940+ period. These results suggest that the last two periods can be studied best from existing standing structures supplimented by archaeological investigations, while the first three periods can best be examined by archaeological inquiry, due to the paucity of sites, standing structures, and functional types dating from prior to the mid-nineteenth century in the project corridor.

PREDICTIVE MODELS

The previous section of this report presented the inventories of known, and previously recorded, prehistoric and historic archaeological sites. As was noted earlier, the sites recorded in the state records do not represent all the cultural resources in the study area, or even an unbiased sample. Consequently, it is necessary to use projections of potential archaeological site locations (predictive models) to make management and planning decisions about cultural resources. This section describes the uses of predictive models in prehistoric