Research Design II

II. RESEARCH DESIGN

Research Objectives

The purpose of Historic Architectural and Phase I Archaeological surveys is to identify all cultural resources within a given study area that may be eligible for listing in the National Register of Historic Places. This is accomplished through the implementation of a multi-tiered research design that combines background research, field investigation, data analysis, and report preparation. The specific research objectives for this project included:

1. Identification of previously recorded cultural resources in the Project Area and vicinity.

2. Establishment of detailed historic and prehistoric contexts within which sites and properties identified during the survey may be interpreted.

3. Documentation of cultural resources identified during fieldwork.

4. Correlation of cultural resources in the Project Area with the research questions, goals and priorities listed in *The Delaware Comprehensive Preservation Plan.*

Methodology

General Background Research

KSK's project team conducted background research to gain an understanding of the historical and architectural development in the area and to identify and assess previously prepared documentation to avoid unnecessary duplication of efforts. KSK thoroughly searched pertinent literature to identify historical information about the Project Area and vicinity. Appropriate primary and secondary source materials pertaining to the area were also examined. KSK consulted the Delaware State Historic Preservation Office (DESHPO); the Delaware State Archives; the New Castle County Planning Department in New Castle; The Delaware Historical Society in Wilmington; the Morris Library at the University of Delaware in Newark; the Historical Society of Pennsylvania in Philadelphia; and Van Pelt Library at the University of Pennsylvania in Philadelphia. KSK examined relevant historic maps and atlases, aerial photographs and local histories, and also reviewed previous cultural resources surveys and National Register nominations for properties, structures, and sites located within and near the Project Area. KSK also met with Ned Height, archaeologist for the New Castle County Airport, to review and discuss unpublished reports.

Archaeological Phase IA Investigations

The archaeological component of the background research was initially combined with the findings of a pedestrian reconnaissance of the archaeological Area of Potential Effect (APE) in order to generate a detailed sensitivity model for the study area. Given the nature of archaeological deposits the APE for these investigations was defined as encompassing only those specific areas where proposed Airport and Churchmans Road improvements will result in subsurface disturbances (see Figure 11). KSK's pedestrian reconnaissance involved the visual inspection of the entire archaeological APE, as well as the recordation of current topographic and environmental conditions and other relevant characteristics of the area (plates 1-9).

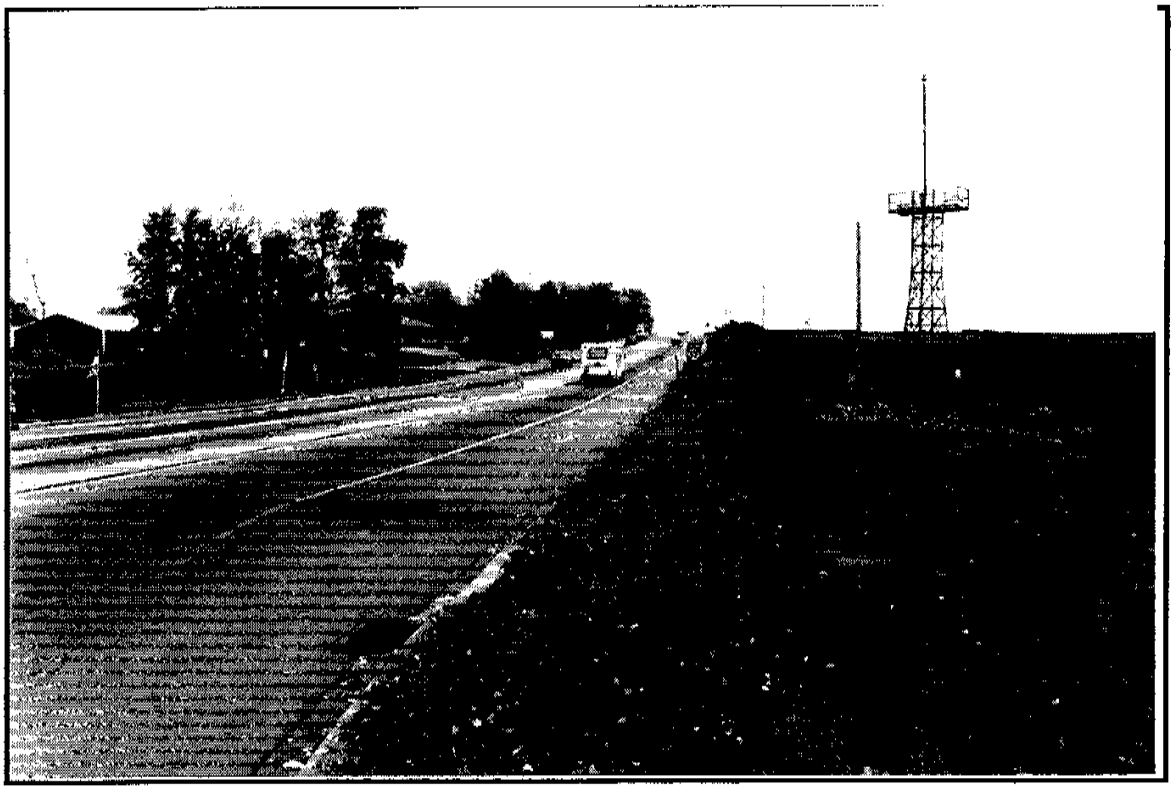

Plate 1. Overview from the intersection of Churchmans Road and Airport Road, looking northeast along Airport Road.

Plate 2. Overview from the northeast project area boundary, looking southwest along Airport Road.

Plate 3. Overview from the intersection of Churchmans Road and Airport Road, looking southeast along Churchmans Road.

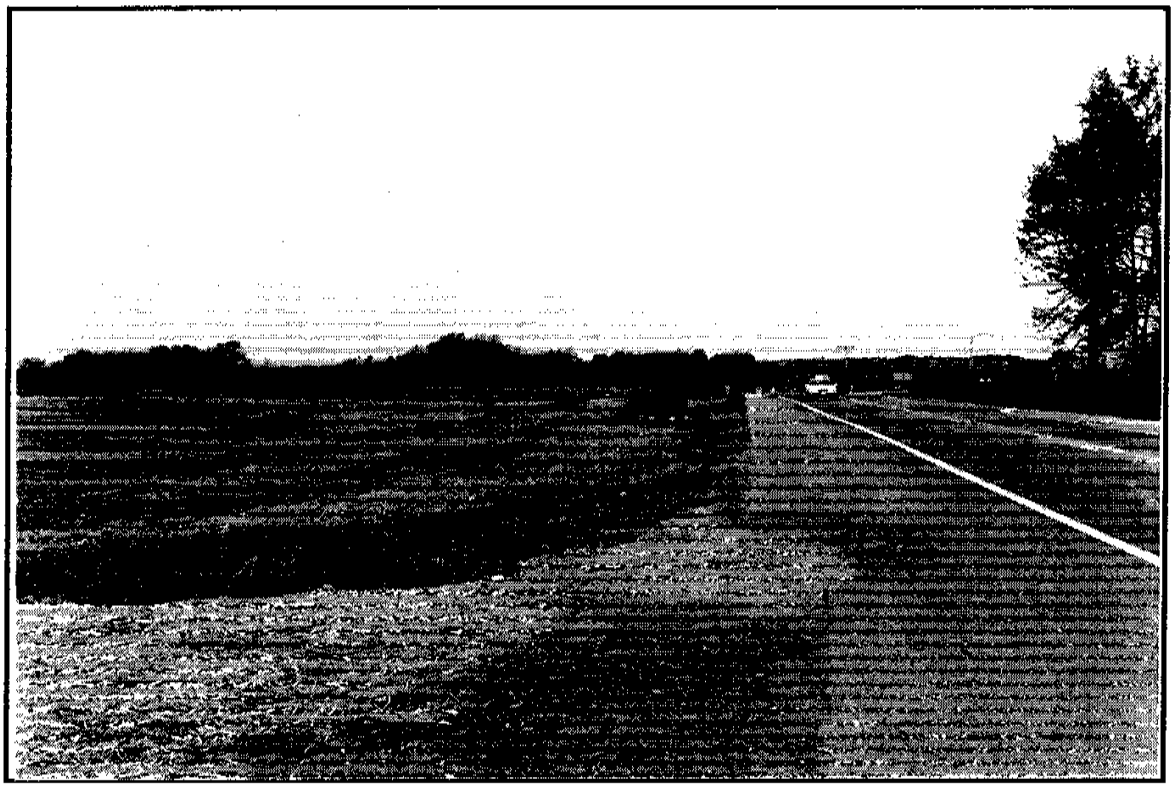

Plate 4. Overview from the southeast project area boundary, looking northwest along Churchmans Road.

Its specific goals were:

1. To gather information regarding current conditions within each proposed mitigation site;

2. To identify any environmental conditions at these locations that may have favored or limited the formation and preservation of archaeological deposits; and

3. To search for any surface evidence of possible cultural resources deposits, especially those related to previously recorded Native American sites and previously documented historical structures.

The resultant sensitivity model was designed to assess the relative probabilities for the occurrence of historic and/or Native American archaeological deposits within different parts of the study area. These probabilities reflect not only the potential that archaeological resources originally existed in any portion of the APE, but also whether such resources are likely to have survived subsequent disturbance.

Field testing was performed following a review of the sensitivity model by DESHPO and DelDOT archaeologists and was conducted in order to determine the presence or absence of subsurface cultural resources within the archaeological APE. The field testing strategy was designed to evaluate the predictions of the sensitivity model and involved the excavation of a series of close interval shovel test pits (STPs), as well as a number of larger, one meter-by-one meter excavation units (EUs). Upon completion of the field testing regimen, all recovered artifacts were removed to KSK's laboratory facilities in Pennsauken, New Jersey for cleaning, analysis, and stabilization for long term curation. More detailed descriptions of the specific methodologies employed in the archaeological field investigation and subsequent lab analyses are presented in Chapter IV.

Historic Architectural Investigations

In addition to the research discussed above, the specific methodology for completing the survey of historic architectural resources included a windshield survey, field investigations, detailed research, completion of survey forms, and a National Register evaluation of each resource.

This project began with a windshield survey of the Project Area to determine if any historic architectural resources were present in the vicinity of the proposed improvements. Historic Architectural Resources are defined as properties containing buildings, districts, structures and objects constructed prior to 1950. The windshield survey revealed the presence of several historic architectural resources.

KSK staff examined project plans and established the APE for architectural resources. Based on the proposed improvements, the APE area was defined as including properties fronting the improvements or have sightlines to the improvements. Specifically, approximately 0.8 kilometers (0.5 miles) north along Airport Road and 0.5 kilometers (0.3 miles) east and west along Churchmans Road and south along Airport Road (Figure 3).

KSK staff conducted field investigations within the APE to identify and document architectural resources constructed prior to 1950 that have not been previously recorded. Each resource identified during the fieldwork was photographed, and field notes were taken describing the resource's appearance, integrity, and proximity to the proposed improvements. KSK staff also interviewed available property owners.

Plate 5. Overview from the intersection of Churchmans Road and Airport Road, looking southwest along Airport Road.

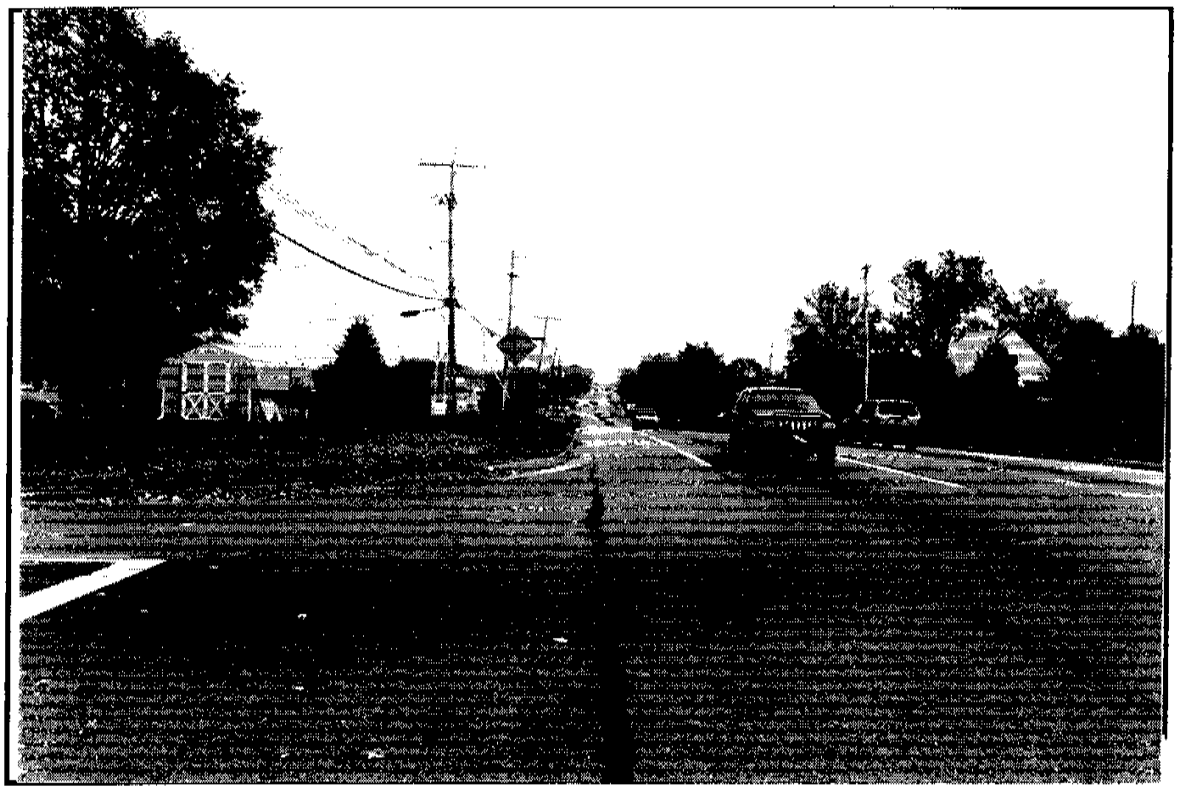

Plate 6. Overview from the southwest project area boundary, looking northeast along Airport Road.

Using the data acquired during the research and field investigation phases, KSK staff evaluated each resource within the contexts outlined in the *Delaware Comprehensive Historic Preservation Plan* and the *Delaware Historic Context Master Reference and Summary*, and federal guidelines for determining National Register eligibility, 36 CFR 60.4 entitled "Criteria for Evaluation".

The *Delaware Comprehensive Historic Preservation Plan* identifies the following preservation priorities that may apply to historic architectural, or above-ground, resources in the APE:

1. Priority Themes for Above-Ground Resources
   Agriculture (#1)
   Transportation and Communication (#5)
   Settlement Patterns and Demographic Change (#11)
   Architecture (#12)

2. Priority Chronological Periods for Above-Ground Resources
   The resources fall within two periods:
   1770-1830 +/- Early Industrialization (#1)
   1880-1940 +/- Urbanization and Early Suburbanization (#3)

3. Priority Geographic Zones for Above-Ground Resources
   Upper Peninsula (#2)

Report and Survey Form Preparation

Following the completion of the historic architecture field investigation and the creation of the archaeological sensitivity model all background and field-collected data were assembled in a detailed management summary (November 29, 2000). This management summary described investigative procedures initiated and results thus far generated, as well as KSK's interpretations regarding whether any potentially National Register-eligible historic structures are contained, and archaeological sites are likely to be preserved, within the respective APE's.

The present report was assembled following the completion of archaeological field testing and discusses the final findings and interpretations for both the historic architectural and archaeological components of this investigation. All findings and analyses described above were documented in writing and assembled in this draft report according to requirements presented in the *Delaware Comprehensive Historic Preservation Plan* and *Guidelines for Architectural and Archaeological Surveys in Delaware*. Maps and photographs are included as Figures and Plates, respectively. Delaware Cultural Resource Survey (CRS) Forms and Archaeological Site Forms were prepared for each resource identified in the APE and are included as Appendix A and B, respectively.

This preliminary report is being submitted for review to WRA, DelDOT, and the Delaware State Historic Preservation Office (DE SHPO) for concurrence with the understanding that upon the receipt of comments, the KSK will prepare the final report.

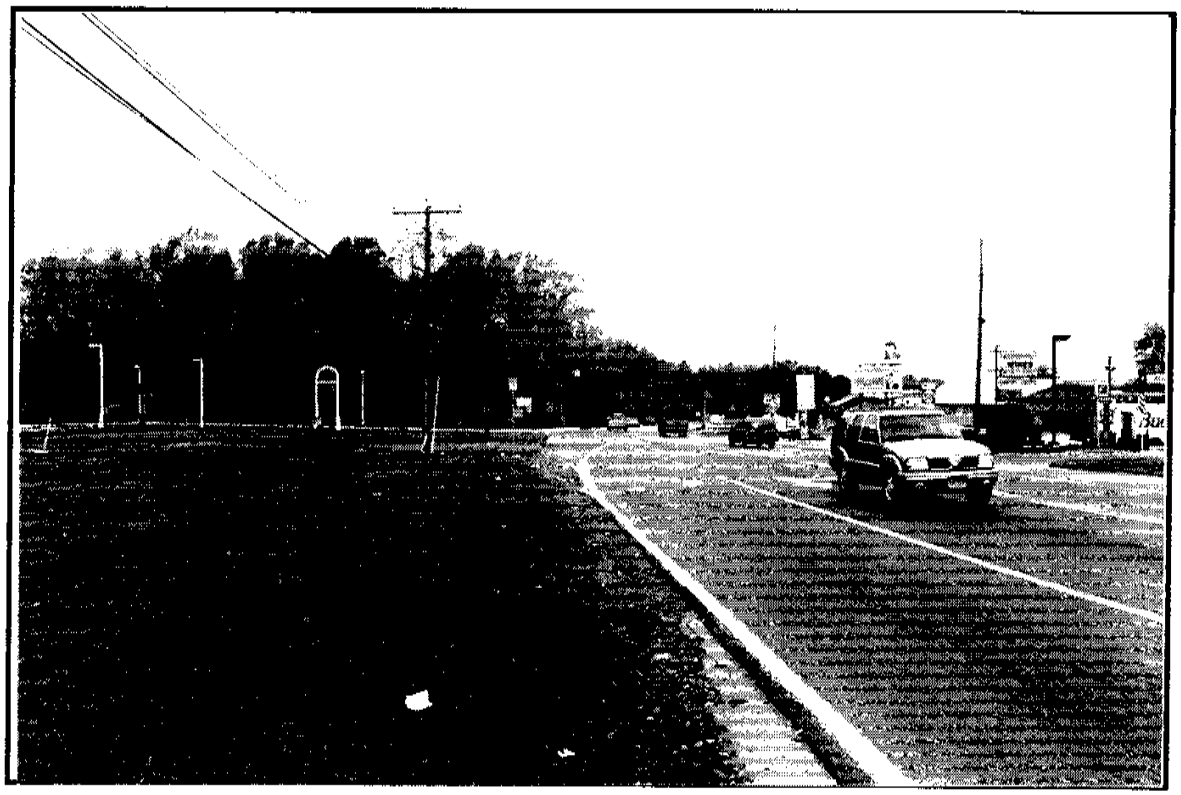

Plate 7. Overview from the intersection of Churchmans Road and Airport Road, looking northwest along Churchmans Road.

Plate 8. Overview of the wetlands area south of Churchmans Road west of Airport Road.

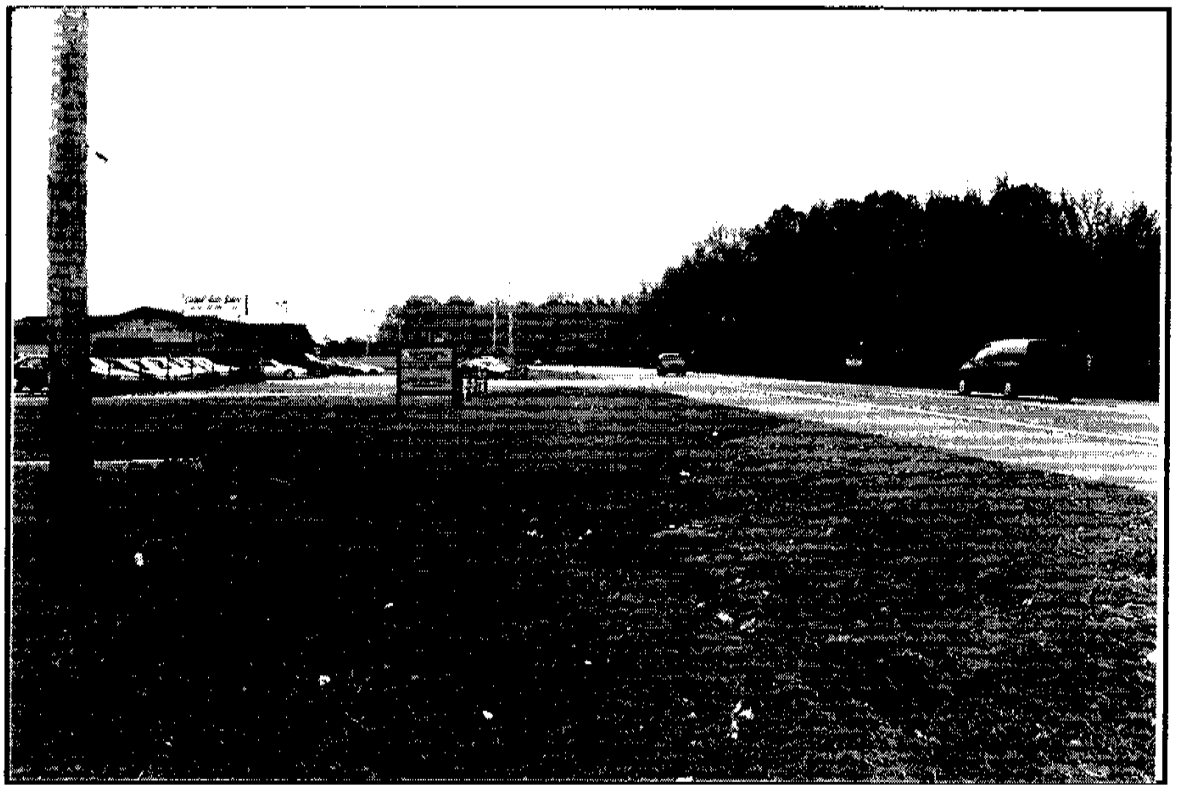

Plate 9. Overview from the northwest project area boundary, looking southeast along Churchmans Road.