

APPENDIX D

RESEARCH PROPOSAL

A PROPOSAL FOR
A LOCATION AND IDENTIFICATION SURVEY
FOR DELAWARE ROUTE 4, 7 & 273

INTRODUCTION

This research proposal has been prepared by Mid-Atlantic Archaeological Research, Inc. of Newark, Delaware in response to a "Request for Consulting Services" (Agreement No. 190) advertised by the State of Delaware, Department of Transportation. The services to be provided include a location and identification survey for three highway improvement projects proposed by the Delaware Department of Transportation: Delaware Routes 4, 7 and 273, New Castle County.

On February 2, 1979 a "Letter of Interest" was submitted by MAAR to the Administrative Manager, Office of Administration. On March 8, 1979 Mr. Joseph T. Wutka, Jr. of the Location Studies and Environment Section of DOT responded by informing Mid-Atlantic Archaeological Research, Inc. that we had been selected to submit an unpriced proposal for the work to be conducted. This proposal follows the guidelines provided in that letter and in the Scope of Work which accompanied the letter.

PROJECT DESCRIPTION

The highways improvement projects will involve the construction of new rights-of-ways and the improvement of, or widening of, existing highways and intersections. Three separate projects are being contemplated; State Route 4, 7 and 273. Delaware Route 4 is to become a four lane highway from a new intersection with Delaware Route 2 west of Newark to the intersection with Route 7 near Stanton. The project will involve the construction of new roadway in several sections, notably the western and eastern portions.

Delaware Route 7 improvements will involve the widening of an existing highway, the construction of new ROW over the Antrak railroad line and over Red Clay Creek. It will involve an intersection with the newly relocated Route 4. The Route 273 project will involve a bypass of the community of Christiana and will cross an existing highway (Old Baltimore Pike) as well as the Christiana River.

The consultant services to be provided include intensive archaeological survey, test borings and units, and the intensive test excavation of two known historic sites (one standing and one archaeological). The purpose of the project will be to gather information sufficient to allow the determination of significance of all cultural resources likely to be impacted by the proposed highways improvement projects.

The following sections of this proposal outline the research strategy and techniques to be used by Mid-Atlantic Archaeological Research, Inc. Also included are personnel resumes, time schedules, cost estimates and other information pertinent to this proposal.

RESEARCH STRATEGY

Phase 1

The first phase of the research will be a background and literature search. This will address two items; the presence of known historical resources and the potential for prehistoric occupation in the project areas. The documents on file at the Division of Historical and Cultural Affairs will be closely examined and summarized for the final project report. Information useful in locating and identifying any historic resources will be retained. General secondary histories of the area will be perused for background data useful in interpreting cultural significance. Also to be checked during the document search are the files of the Historical Society of Delaware and the National Register of Historic Places. Items to be sought include diaries, government documents and early maps of the general areas. Property deeds will be examined for information on structures or features that may be of significance. The historical document search will be thorough.

The second item to be addressed during phase 1 is the nature of the prehistoric occupation of the project area. Known sites will be examined, artifacts and archeological records pertaining to these sites will be perused at the Hall of Records in Dover and at the Island Field Archaeological Museum and Research Center at South Bowers. Collectors of prehistoric Indian artifacts will be questioned.

More importantly, an attempt will be made to develop a predictive model of prehistoric settlement patterns for the New Castle County area. Existing models developed in the coastal plain of the Delmarva and others developed in Piedmont regions of the Middle Atlantic area will be used in this attempt. A predictive model will be based on environmental factors as well as on known prehistoric site distribution in the immediate area and in similar areas in neighboring states.

Phase 1 will be completed prior to the initiation of any subsurface field investigations. The results of the phase 1 investigations will be included in the project report.

Phase 2

The initiation of field investigations will proceed immediately upon receipt of the notice to begin operations from the Department of Transportation. This phase will be divided into three tasks. Task A will be a total vehicular and pedestrian survey of the rights-of-ways of the three projects. These surveys will determine the general nature of the landforms to be crossed and will seek surface indications of any historic or prehistoric cultural activity. The pedestrian survey will be conducted by teams of experienced surface collectors. All areas of exposed surface will be closely examined. Field visibility conditions will be recorded on project maps so that evaluation of techniques used can be done. All artifacts recovered during the pedestrian survey will be retained and will be properly labeled and located on the project maps.

Task B will be initiated when appropriate. This will consist of the use of controlled surface collection procedures in areas in which archaeological evidence is abundant. Control units will vary, depending upon the intensity of the artifact concentration. Usually, 5 meter blocks will be used in such cases. Control unit data will be analysed and the results and interpretations presented in the project report.

Task C is the excavation of tests in areas which may contain subsurface cultural deposits or which could not be adequately examined on the surface due to heavy vegetation or other factors. Tests will be made at intervals to be determined by specific site conditions. Areas in which the predictive model suggests a high potential for archaeological evidence will be more intensively tested. Tests will be made by the use of a hand operated post hole digger. Each test will be taken down to sterile subsoil and strata encountered will be recorded on profile sheets. Test unit locations will be plotted on project maps.

Task D is the excavation of deep test units in those areas in which topographical and geological data indicate that buried cultural levels may exist. This will generally be in flood plain situations although slope wash may provide reason for suspecting that cultural resources may be present in deep levels. All deep test units will be carefully plotted on project maps. Proper archaeological records will be retained and artifacts recovered will be marked as to provenience.

Task E will consist of the intensive excavation tests requested in the vicinity of the Robert Ferguson and Thomas Ogle historic sites. The Scope of Work will be carefully followed in these areas. Architectural descriptions of any standing structures will be made.

Phase 3

All data recovered during the background study and the field investigations will be subjected to rigid archaeological processing and analysis. Identification and description will be by persons experienced in such work (see personnel). Data will be presented in a format adaptable to synagraphic computer mapping, as requested in the Scope of Work.

Archaeological interpretation will include a test of the predictive model developed in the first phase of the investigation. Inferences will emphasize the environmental factors influential in settlement patterning as well as the underlying technology of the cultural manifestations present.

The preparation of a project report will proceed according to the Scope of Work and archaeological standards. The report will include all background and descriptive data obtained during earlier phases. It will also include an assessment of the potential impact of the project on discovered cultural resources. Finally, the project report will provide data to be used for possible determinations of significance and will make recommendations for further investigations or for conservation measures. All specifications outlined in the Scope of Work will be followed.

MISCELLANEOUS SERVICES

Separate documentation for Determinations of Eligibility of any site considered cultural significant will be prepared by Mid-Atlantic Archaeological Research, Inc. Location maps of all tests, surveyed areas, etc. will be provided according to Department of Transportation requests. An appendix to the project report will be prepared, if appropriate, outlining recommended further investigations and containing cost estimates for that work. Mid-Atlantic Archaeological Research, Inc. will prepare progress reports to be submitted with Requests of Payment on a regular basis. The submission of a draft report for comment by the State Historic Preservation Officer is understood.

FIRM EXPERIENCE

Mid-Atlantic Archaeological Research, Inc. has conducted 33 archaeological research projects during the past two years. Included are cultural resources surveys, data gathering operations (salvage operations), collection assessments and management programs. These projects have covered a large portion of the Middle Atlantic area including work in the States of New Jersey, Pennsylvania, Delaware, Maryland, Virginia, the District of Columbia and North Carolina.

Attached is a MAAR brochure and inventory of projects completed.

PERSONNEL

Mid-Atlantic Archaeological Research, Inc. maintains a staff of experienced individuals who have participated in archaeological research for many regional organizations. MAAR President and Principal Investigator is Ronald A. Thomas, formerly State Archaeologist for the State of Delaware and a member of the Society of Professional Archaeologists. Field supervisor on this project will be Glen Scott Mellin of Seaford, Delaware and an experienced field archaeologist. Other critical staff will include John McCarthy of Temple University and Ms. Betty Cosans who is a specialist in historic site archaeology and ceramic studies. Resumes for these individuals are attached.

SCHEDULE

Personnel are available to initiate field investigations upon receipt of authorization to proceed. Present MAAR projects are scheduled for completion in the near future and it is not impossible to plan on an immediate start on this project. Based on the outlined research strategy it appears possible to complete the project within three months of its initiation. This would include all background studies, field work and the preparation of the draft report. The final project report could be completed within three weeks of the receipt of comments from the SHPO and the Department of Transportation.