APPENDIX V

PROPOSAL FOR A PHASE I ARCHAEOLOGICAL PLANNING STUDY OF THE PROPOSED U.S. 13, RELIEF ROUTE CORRIDOR, NEW CASTLE AND KENT COUNTIES, DELAWARE

INTRODUCTION

The purpose of this proposal is to outline the potential units-of-work to be included in a Phase I Planning Study of the Proposed U.S. 13 Relief Route Corridor that will pass through sections of New Castle and Kent Counties, Delaware. The units-of-work outlined in this proposal are based on the following assumptions:

1) The study is strictly a planning study and will require no field research, other than preliminary driving reconnaissance and visiting of existing sites.
2) The study will produce information useful for highway planning purposes, but will not be sufficient by itself for determinations of National Register eligibility or determination of effects on potentially significant and significant cultural resources.

This proposal will outline the goals of the proposed research, note the units-of-work to be performed to reach these goals, and note the costs of the project.

PROJECT GOALS

Pursuant to the request-for-proposal (Appendix I), the main goal of the proposed research project is to provide a series of maps that outlines the sections of the project area that contain, or are likely to contain, cultural resources that are eligible for listing on the National Register of Historic Places. These maps will be designed to provide the kinds of information that will allow highway planners to minimize the costs of mitigation of adverse effects on these cultural resources. In other words, this project will outline "sensitive" areas within the project boundaries that it would be best to avoid with the actual corridor of impact. These data can also be used to guide later phases of field research, including location and identification surveys, and determination of eligibility testing. Also, it is hoped that some preliminary estimations of cultural resource management project costs related to the highway development can be generated. The overall utility of these data can be measured in

minimized impacts on cultural resources and minimized costs for mitigation during later stages of the project.

UNITS-OF-WORK

The units-of-work to be performed in this project will vary by the types of cultural resources considered. The two basic categories of cultural resources expected are historic resources and prehistoric resources. The project activities related to each are described below.

Historic Resources

Historic resouces differ significantly from prehistoric resources in that existing documentary records can be used to inventory the known and potential locations of historic resources. In general, historic resources can be divided into two categories: standing structures and archaeological sites. Usually, standing structures will have associated archaeological materials; however, there may be locations where historic archaeological sites are no longer associated with standing structures. Consequently, the proposed units-of-work listed below for a Phase I survey of historic cultural resources include searches of documents and records that relate to standing structures as well as other documentary data that pertains to archaeological sites with no associated structures and archaeological sites that were associated with standing structures that are no longer extant.

1) The comprehenisve architectural surveys carried out by the Delaware Bureau of Archaeology and Historic Preservation will be searched for all standing structures of National Register significance and potential National Register significance in the project area. These comprehensive surveys of standing structures are available for all of the proposed project area.

2) The potential for archaeological remains associated with the standing structures will also be assessed for all structures in the proposed project area.

3) Historic maps and other pertinent documents that indicate the presence of structures that may no longer be extant or that document activities likely to produce significant historic archaeological sites, but no structures, will be searched for the project area. Beers Atlas is an example of one of these sources.

4) The available literature on the likely placement of historic archaeological sites will also be reviewed and applied to the project area to make sure that any sites that might have significant historic archaeological resources, and which might not have been recorded in the documents, are noted and considered.

Completion of these units-of-work will assure that all known or potential significant historical cultural resources within the proposed project area will be considered.

Prehistoric Resources

Prehistoric resources are more difficult to inventory and consider because there are no extant records of their locations available for study. The locations of known prehistoric archaeological sites can be listed; however, such a method does not consider the vast array of prehistoric archaeological sites that exist, but are as yet undiscovered. Rather than just consider the known sites and allow the unknown sites to be encountered on a haphazard basis as the project proceeds, it is possible to make educated judgement about the types of archaeological sites that one might expect to find in the project area and their locations. Working from the assumption that the locations of prehistoric archaeological sites are the results of patterned human behavior, and assuming that prehistoric groups had to locate their habitation sites in relation to basic subsistence needs, certain patterns in archaeological site locations can be recognized. These patterns, termed settlement patterns (Parsons 1972), vary from

place to place and through time. The basic composition of the environment is one determinant of settlement patterns as are the technologies and social organization of prehistoric groups. Numerous studies of past environments and past technologies of the inhabitants of Delaware's Coastal Plan (Custer 1983; Thomas et al. 1975; Griffith 1974) provide the background information needed to predict the possible locations of varied types of archaeological sites from varied time periods within the past 15,000 years. The initial descriptions of these regional settlement patterns are necessarily impressionistic (see Custer 1983 for an example); however, further stages of research that seek to test the validity of these impressions by using detailed field survey and statistically valid sampling techniques (Custer and Galasso 1983) and multrivariate quantitative site location models (Wells 1981; Wells et al. 1981) can provide quantitative estimates that are quite reliable.

In general, the types of information needed to generate fairly accurate, impressionistic site location models are present for the entire corridor. Statistically valid samples and multi-variate quantitative models are available for approximately one-third of the area. Because it is unfeasible to attempt to gather new filed data for the remaining segments of the corridor at this time, the proposed units-of-work listed below are designed to maximize the utility of the presently available data base and generate a series of equally accurate, but variably precise models.

1) Search the existing site records of the Bureau of Archaeology and Historic Preservation for all known prehistoric archaeological sites within the proposed project area and note which have been determined eligible for the National Register and which are potentially eligible.

2) Compare the physiographic settings of the project area with archaeological site location models described in the Management Plan for Delaware's Prehistoric Archaeological Resources (Custer n.d.) and note the assessments of resource stress and potential significance for the predicted

site locations.

3) Utilize more detailed models of archaeological site locations as they are available in the project area for generated more detailed predictive statements.

4) Where possible, utilize regional mapping of environmental features and variables by methods such as LANDSAT (Wells 1981) and the New Castle County Grid Cell Data Base (Svatos 1979) to map out the distributions of cultural significant environmental features.

Table 1 shows five sub-divisions of the project area and describes the kinds of data that are available in each for developing the listings of potential site location.

EXPECTED RESULTS

The following items will be included in the final report:

1) A series of maps detailing known and potential site locations.

2) Discussion of the significance of known and predicted sites and the kinds of mitigation strategies that might be necessary for the varied classes of sites expected for the project area.

3) Discussion of the sensitivity of various portions of the study area for significant cultural resources and a delineation of very sensitive areas that would be est to avoid during final alignment selection.