APPENDIX B

RESEARCH PROPOSAL

PROPOSAL FOR
PHASE I CULTURAL RESOURCE STUDIES
AT THE HARES CORNER INTERCHANGE
U.S. ROUTE 13/40 AND SR 273
NEW CASTLE COUNTY, DELAWARE

PREPARED FOR:

State of Delaware
Department of Transportation
Division of Highways

PREPARED BY:

The Cultural Resource Group
Louis Berger & Associates, Inc.

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I. INTRODUCTION

The Cultural Resource Group of Louis Berger & Associates, Inc., (LBA) is pleased to submit this proposal to perform Phase I cultural resource investigations at the Hares Corner Interchange, U.S. Route 13/40 and SR 273 in northeastern New Castle County. LBA understands that the project involves improvements to this intersection, known historically as Hares Corner. A modified diamond alternative and a bypass alternative are currently under evaluation. Although originally a small service node for farms on the periphery of Wilmington, the area is now intensively developed. Previous assessment of cultural resource potential (HES-84(5) identified one standing structure in the vicinity of the project area as well as the possibility for significant prehistoric and historic archaeological resources. The purpose of this Phase I investigation is to refine this assessment of archaeological potential and to evaluate the significance of the standing structure so that a determination of its possible eligibility for inclusion in the National Register can be made.

II. TECHNICAL APPROACH

A. HISTORICAL RESEARCH

The purpose of the historical research component of this project is to provide a context within which potential archaeological and architectural resources may be interpreted. LBA understands that eight utility maps covering the project area will be made available so that an assessment of subsurface impacts can be made prior to initiating archaeological fieldwork.

Prior assessment of the cultural resource potential noted that this intersection appears to possess historic locational significance, having functioned as a local service center for the outlying farms and possibly mediating between the farmers and the urban markets in Wilmington. The historic maps provided in the environmental assessment suggest that Hares Corner lost its importance as a transportation node when the railroad bypassed it. It was, however, located on a turnpike and contained a blacksmith's shop, hotel, and post office, which implies at least local industrial, social, and administrative significance.

In-depth examination of the regional and sub-regional systems is clearly beyond the scope of work appropriate to this project. However, given the historic importance of this location, some systematic historical research would appear to be necessary. Therefore, a program of historical research consisting of intensive review of maps and atlases; sampling of the deed, tax, census, probate and court records; and selective review of the secondary literature will be undertaken. Site histories, including chains of title and searches of relevant tax, census, probate and court records, will be compiled for the nineteenth-century blacksmith's shop and hotel in addition to the site-specific work that shall be conducted in support of the historic architectural evaluation. The cartographic research will provide information on the evolving transportation system and the site histories will contain data illustrating three of the functions (industrial, residential, social) associated with this area.

Deeds can be found at the City County Building in Wilmington as well as at the Hall of Records in Dover. Cartographic materials are housed at the Historical Society of Delaware, University of Delaware, and the Hall of Records. Tax, census, probate, and court records are curated at the Hall of Records.

B. HISTORIC ARCHITECTURAL EVALUATION

The late eighteenth-century standing structure in the southeast quadrant of the intersection (identified as "Hill" [Rea and Price 1849], "B.S. Booth-Walnut Cottage" [Beers 1868], and "T. Holcomb" [Baist 1893] in the Environmental Assessment provided [HES-5]) will be investigated in order to determine its potential eligibi-

lity for inclusion in the National Register. The investigation will include a field inspection, deed research, and additional archival research as necessary utilizing tax records, maps and local/area histories. Some of these data, namely, the cartographic information, shall be collected in the course of the historical research (see II.A. HISTORICAL RESEARCH), which will expedite analysis of the property and its historic boundaries, which may be impacted by the proposed work. Similarly, much of the historical data assembled during this phase of the work shall be integrated into the overall historical description of this area. The formal analysis and evaluation of this structure shall be contained in a separate chapter of the report, which shall be augmented by a Determination of Eligibility form and CRS forms contained in an appendix to the report.

C. ARCHAEOLOGICAL INVESTIGATIONS

Archaeological investigations for this project would consist of background research and reconnaissance and testing to determine the presence and nature of all archaeological resources affected by the proposed highway improvements. Initial work, referred to as Phase I, would attempt to locate all sites within the project area. All archaeological work that would be conducted will conform to guidelines established by the Delaware Bureau of Archaeology and Historic Preservation, as well as requirements of the National Historic Preservation Act, as amended. The following description of the proposed research strategy addresses both prehistoric and historic resource investigations which differ somewhat in terms of research problems, available data, and field and analytic strategies.

Background research will involve the examination of various sources expected to yield data concerning: 1) previously encountered prehistoric and historic archaeological sites; 2) environmental and topographic factors likely to influence the location of prehistoric sites; and 3) historical events and trends that would effect the location, preservation and interpretation of historic archaeological remains. Several types of sources are expected to provide such data, including various forms of published material, unpublished manuscripts, interviews with informants, agency consultations, the holdings of various government bodies and agencies, and the holdings of libraries and local historical/archaeological organizations.

The background research will begin with a review of the materials already assembled by DelDOT. The results of background research will serve as the basis for developing a research strategy and evaluating the significance of any archaeological deposits identified during fieldwork. Hopefully, background research will also suggest the probable location and nature of major historic period archaeological deposits, which would guide the location of appropriate subsurface tests.

Field investigations will focus on the areas to be impacted by planned construction. Phase I fieldwork will consist of pedestrian surveys, soil augering, and appropriate interval shovel testing, trowel cuts and test unit excavations to verify findings of the background research and to identify areas where archaeological sites could potentially exist but have not been identified.

Surface reconnaissance will involve walking and examining all exposed surfaces and noting the nature and extent of any artifact scatters, structural remains, landscape anomalies indicative of cultural activities, and any other disturbances that might have directly or indirectly affected the integrity of archaeological remains. Soil augering will be used to determine the depth of any disturbances observed on the surface and to examine soil horizons possibly related to artifacts exposed at the surface. Surface reconnaissance will also involve the examination of stream bank cuts, washouts, and other erosional features. This will provide clues as to possible subsurface occurrences of artifact deposits and serve as a means of initially evaluating the site specific soils and landscape formation. Field inventories of the type and number of artifacts observed will be produced. Only diagnostic artifacts will be collected for laboratory analysis from surface exposures. All artifacts will be retained from subsurface tests.

The excavation of shovel tests will be used in areas where surface exposures are lacking. This type of test provides information on soils, landscape development, and the presence/absence of cultural remains. All excavated fill will be screened and soils will be excavated by natural and/or culturally defined strata. The placement and frequency of shovel tests will be subject to the following factors: degree of disturbance indicated by surface reconnaissance and soil augering; distribution of artifacts found at the surface or noted in bankcut, etc.; degree of surface exposure within the particular project vicinity; and distribution of environmental features such as well-drained ground and surface water that are often associated with archaeological sites. In general, when surface indications suggest the presence of an archaeological site, shovel tests will radiate out from known artifact finds to determine the extent of the site and its subsurface integrity, if any. Shovel tests, as well as the test excavations described below, will proceed into culturally sterile soils.

High probability areas which have been plowed will require a survey limited to a surface examination unless there is a possibility of buried (sub A Horizon) cultural remains. Where excavation is warranted, three-foot square (or other size as appropriate) test units at appropriate intervals will be performed. These test units will be excavated to the base of the A Horizon and all soil will be screened using 1/4-inch mesh or smaller. If cultural remains below the A Horizon are believed possible, the depth of excavation will be increased accordingly.

The excavation of test units will be reserved for areas where the presence of a site has already been indicated by surface reconnaissance or shovel testing. The southwest quadrant of the intersection (Bypass Alternative) has already been identified as an area of possible prehistoric occupation, therefore this area will be examined by a series of subsurface tests, including test squares. These test units will provide a more detailed look at site soils and their relationship with artifact deposits and provide a sample of artifacts for determining site function and chronology. Excavations will proceed by arbitrary 3-inch levels within natural soil horizons that appear to be undisturbed. Plow-mixed soils or soils otherwise disturbed will be removed as a single excavation level regardless of their thickness. The placement and number of test units used within a site area will be an in-field decision related to the size of the site, possible intra-site artifact or activity patterning, and the variety of topographic features and soil types in evidence.

All surface tests, including auger borings, will be located on a base map of the project area which will appear in the final report. Appropriate records will be kept for all excavations performed and for surface finds. All data, including descriptions of soils, will be recorded in scientifically prescribed fashions (e.g., Munsell color notation will be used in describing soils). Photographs of site areas and test units will be taken where appropriate. Site record forms will be completed on a daily basis.

All excavations will be backfilled immediately upon completion. If it is necessary to leave an excavation open overnight, it will be covered or fenced to insure safety. Where possible, the area will be returned as near to possible to its original condition. Should burials be encountered, they will be mapped, but not excavated, and backfilled unless consultations with city or BHP officials suggest otherwise.

Data analysis will consist of the analysis of the field data and an evaluation of any cultural resources which were located. All recovered materials, including floral and faunal remains will be cleaned and conserved to assure their stability. All recovered artifacts will be identified, as far as possible, to cultural and temporal affiliation, material, style, function, form, etc. Ceramics will be classified according to appropriate typologies which indicate cultural affiliation and age. Where possible, a vessel form analysis will be conducted.

Appropriate data can be entered into the computerized archaeological data base management system developed by the Cultural Resource Group of LBA if the size of a particular project warrants. This system provides a readily accessible inventory of archaeological data and increases the efficiency of analytical and report preparation tasks. Upon completion of the analysis of data, a report will be prepared, consisting of the results of the Phase I field investigations and data analysis.