## APPENDIX B: PHASE IB SCOPE OF WORK

**Richard Grubb & Associates, Inc.**
***Cultural Resource Consultants***

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September 16, 2009

David S. Clarke
DelDOT Archaeologist
Department of Transportation
P.O. Box 778
800 Bay Road
Dover, DE 19903

Re: Task 9, Parent Agreement 1417
Technical and Cost Proposal
U.S. Route 301 Mainline Contract 3: Maryland/Delaware State Line to North of Levels Road
St. Georges and Appoquinimink Hundreds and Town of Middletown, New Castle County, Delaware
and Electoral District 1, Cecil County, Maryland.

Dear Mr. Clarke:

Richard Grubb & Associates (RGA) is pleased to present this technical and attached cost proposal for Phase IB archaeological survey work at the proposed U.S. Route 301 Mainline Contract 3: Maryland/Delaware State Line to North of Levels Road, in St. Georges and Appoquinimink Hundreds and the Town of Middletown, New Castle County, Delaware and Electoral District 1, Cecil County, Maryland. The proposal incorporates DelDOT's comments received via e-mail on June 9, 10, and 15, August 26, 2009, and September 3, 2009, and from tele-conferences on June 15, 2009 and August 31, 2009. Delaware Department of Transportation (DelDOT) proposes the construction of a new four-lane highway; the Levels Road interchange; relocated Warwick Road and Strawberry Lane and associated off ramps; concrete barriers; culverts over stream crossings; an earthen berm near the Warwick Road off ramp; and approximately 19 potential stormwater management facilities. The Area of Potential Effects (APE) is an estimated 205 acres and includes all areas which will be directly impacted by this project. The APE lies near the western limits of the preferred U.S. Route 301, Green Alternative (North Option) in Delaware. U.S. Route 301 is a proposed four-lane toll highway that will extend approximately 17.5 miles from the Maryland-Delaware border to State Route (SR) 1, just south of the SR 1 Bridge over the Chesapeake and Delaware Canal. This new corridor will facilitate traffic movements between Maryland and SR 896 and SR Route 1 south of the Chesapeake and Delaware Canal. Prior to the preparation of this proposal RGA requested an update for Section 3 from the Section 3 designer, therefore, this proposal is based on the APE as it is currently understood.

The Final Environmental Impact Statement (FEIS) for the U.S. Route 301 project was completed in December of 2007, and a Record of Decision (ROD) was issued by the Federal Highway Administration (FHWA) on April 30, 2008. Consultation with the FHWA and Delaware State Historic Preservation Office (DESHPO) has taken place, and a Memorandum of Agreement (MOA) was developed between the FHWA, DelDOT, DESHPO, and the Maryland Historical Trust (executed in November and December of 2007). Stipulation 1.A. of the MOA requires the completion of Identification/Evaluation-level (i.e. Phase I/II) archaeological surveys to determine if archaeological historic properties (i.e. National Register eligible) are present in the APE for the project.

All work will be performed in accordance with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the *Guidelines for Architectural and Archaeological Surveys in Delaware* (1993) issued by the DESHPO. Since federal funds are being used, this work will be completed under Section 106 of the National Historic Preservation Act and its regulations (36 CFR 800) and in accordance with the MOA. Should human remains be identified, the provisions of the Delaware Unmarked Human Remains Act (7DE code Chapter 54, 66 Del. Laws, c.38§ 1; 75 Del. Laws, c. 153, §§4, 5) will be followed. This is further discussed within the section on archaeological fieldwork.

RGA is committed to meeting or exceeding DelDOT's Disadvantaged Business Enterprise (DBE) goals for the project. DelDOT's current list of DBE firms has been reviewed. RGA plans on addressing the DBE goals for this project by utilizing the services of AB Consultants, Inc., a DBE surveying firm (Certification No. 757), during the project.

As part of Task 3 (Parent Agreement 1417), RGA performed Phase IA-level background research and a pedestrian reconnaissance of the APE. The results of that work were presented at a meeting with DelDOT and DESHPO on January 7, 2009 and a Phase IA report was submitted on February 20, 2009.

A brief summary of Phase IA results followed by the Scope of Work, Deliverables, and Schedule for the Phase IB archaeological survey work are presented below.

## PHASE IA RESULTS

Background research performed during the Phase IA archaeological survey included consultation with individuals knowledgeable about the APE and vicinity, research on recorded archaeological sites, cultural resource management reports, and site-specific land use history from the seventeenth century to the present, as well as a review of models for archaeological potential within the Mid-Peninsular Drainage Divide portion of the High Coastal Plain. The results of this work indicated that there were no registered archaeological sites within the APE. Seven archaeological sites with a prehistoric component, and seven sites with a historic component, are registered with the DESHPO and the MHT within two miles of the APE. The closest of these to the APE is site 7NC-F-103, a prehistoric lithic scatter/procurement site with an historic artifact surface scatter located 0.85-miles north of the APE, on both sides of a tributary of Sandy Branch. An examination of the remainder of the Bohemia River drainage in Delaware and Maryland indicated that 46 prehistoric sites and 19 historic sites had been identified.

Areas of high potential for prehistoric resources are found in the APE in upland settings proximate to streams and minimally or undisturbed locations. In the northernmost section of the APE, areas of high potential for prehistoric resources include the portion of the APE near Levels Road and near tributaries of the Sandy Branch. In addition, historic background research indicated that a former Indian trail (the "Delaware Path," the "Delaware Road or Highway," the "Old Indian Path," and/or the "Choptank Road,") crossed this section of the APE north of Middle Neck Road, which suggests a high potential for late prehistoric sites in this area. Between Middle Neck and Warwick Roads, high potential for prehistoric resources is found near the portion of the APE bisected by a tributary of the Great Bohemia Creek. In the southern sections of the APE, high potential for prehistoric resources are found near tributaries of the Sassafras River. Areas of moderate potential for prehistoric resources include areas that are located 150-250 meters (500-820 feet) from wetlands in level, well-drained areas. Areas of moderate potential for prehistoric resources are present adjacent to high potential areas. Areas of low potential for prehistoric resources are 250 to 500 meters (820-1640 feet) or more from streams or wetlands, and contain poorly drained soils without adjacent upland settings. Small areas of low potential are present, particularly at the southern portions of the APE, in poorly drained settings. Disturbed areas are considered to have no or very low potential for archaeological resources.

The majority of prehistoric sites in the vicinity of the APE consist of ephemeral lithic scatters or short-term seasonal procurement sites situated in proximity to water, such as the sites located by Kise Straw & Kolodner's nearby survey of Choptank Road. It is likely that sites within the APE will be of this type. Larger sites, such as Bohemia Mills or

Hack Point, tend to be located closer to the confluences of high order streams. The APE is situated in a relatively level and well-drained setting bisected by low order streams, and largely consists of undisturbed woodlands and agricultural fields. Based on the presence of known sites nearby, the topographic setting, proximity to watercourses, and general lack of disturbance, the APE has low to high sensitivity for prehistoric resources, particularly for small seasonal procurement sites.

The likelihood for historic archaeological resources to exist within the APE is high in several areas. High historic site potential is defined as within 60 meters (200 feet) of documented pre-1940 structures and early roads. In the northern portion of the APE, areas of high potential include the possible location of the "J.P.C" tenant house on the 1868 map in the proposed Park and Ride Facility at the northern end of the APE, the possible location of the non-extant Choptank Road that bisects a portion of the northern part of the APE, the farm field adjacent to the Rumsey Farmstead, the "W. Polk" tenant house noted on the 1849 map of the area, and the eighteenth century Evertson Farm located near the intersection of Middle Neck Road and U.S. Route 301. Further south the possible locations of the J. McCrone, H. Brady, and Dr. Goodwin houses and portions of the farmsteads that fall within the APE have high potential for historic resources although sensitivity for historic resources is lessened near the recently-constructed Weigh Station and Inspection Facility due to construction disturbances. Near Strawberry Lane, areas of high potential include possible tenant houses attributed to "W. Polk" and possibly structures attributed to "B.F. Hanson," "Dr. Goodwin," "J. McCrone," "Mrs. M.P. McCrone," and "H. Brady."

Historic archaeological resources within the APE could contribute to the significance of the existing National Register-listed Rumsey Farm, and National Register-eligible C. Polk House Estate, Shahan Farm, and the thematic nomination "Rebuilding St. Georges Hundred 1850-1880".

Moderate potential is found within 500 feet of nineteenth century roads or structures. Areas of moderate potential are found north of Middle Neck Road and near the present U.S. Route 301 between Middle Neck and Warwick Roads. The southern portion of the APE generally is considered to have low potential for historic resources. South of Warwick Road, U.S. Route 301 did not exist until the late 1950s and historic site potential is considered low due to a lack of documented structures or historic roads. Areas of high, moderate and low sensitivity for historic resources are depicted on the attached figures.

Field reconnaissance indicated that disturbances are generally minimal but are found near the northern end of the APE near roadwork for existing U.S. Route 301, a stockpile adjacent to the Rumsey Farm, the area of a weigh station north of Strawberry Lane, and commercial development along existing U.S. Route 301. Areas of high and moderate sensitivity for prehistoric and historic resources, along with areas of low sensitivity for archaeological resources and prior disturbance are indicated on the attached figures.

## SCOPE OF WORK

At a meeting between RGA, DelDOT archaeologists David Clarke and Kevin Cunningham, and Gwenyth Davis of the DESHPO on January 7, 2009, the results of the Phase IA-level background research were presented. The potential scope of work requirements for the Phase IB archaeological survey of the U.S. Route 301, Section 3 was also discussed and was further defined during a conference call on June 15, 2009 and via e-mails dated June 9, 10, and 15, August 26, 2009 and September 3, 2009. The scope of work tasks are defined as:

Task 1: Archaeological Field Survey
Task 2: Artifact Processing, Analysis, Catalog, and Curation
Task 3: Management Summary and Phase I archaeological survey report

The scope of work for each task is presented below.

**Task 1: Archaeological Field Survey**

This scope of work for Phase IB archaeological fieldwork is based on the results of background research and field reconnaissance conducted during the Phase IA archaeological survey. The background research indicated that while there are no documented prehistoric resources within the APE, environmental factors suggested that there was high potential for prehistoric resources within portions of the APE. High potential for prehistoric resources was likely to be found on upland locations within 150 meters (492 feet) of water sources, moderate potential between 150 meters and 300 meters (492 to 984 feet), and low potential in areas greater than 300 meters (984 feet) from water sources. In addition, micro-drainage divide settings are considered to have potential for prehistoric resources.

The attached figures depict the combined sensitivity for historic and prehistoric resources. These figures are keyed to the attached table that indicates the sensitivity and proposed testing strategy for each numbered area. The field strategy for the Phase I archaeological survey within the approximately 205-acre APE will be stratified and will consist of a pedestrian survey, shovel testing, excavation units, and a metal detector survey (see Table). Within areas of moderate to high potential for historic resources, the proposed field strategy consists of 100 percent pedestrian survey within agricultural areas, shovel test pits (STPs) at 15-meter intervals (17 tests per acre), STPs and excavation units (EUs) as needed, and metal detector survey. The metal detector survey is an additional strategy to locate farmsteads and low density structures within the upper portions of the soil column given that cultural bearing soils are considered shallow throughout the APE. Areas of moderate potential for historic resources will be surveyed, utilizing 100 percent pedestrian survey within agricultural areas, STPs at 15-meter intervals, and EUs, as needed. Areas of low potential for historic archaeological resources will be examined for micro-topographic settings, surface indications of the presence of historic resources, and tested judgmentally.

Testing is proposed for approximately 148 acres of the approximately 205 acres, or 72 percent of the APE. Approximately 57 acres are considered disturbed or have low potential and are not proposed for testing. Approximately 112 acres of the APE are proposed for pedestrian survey. In addition, a total of 529 STPs, 17 EUs, and approximately 31 acres of metal detector survey are proposed. If other areas are determined to be disturbed during the project set up period, they will be eliminated from testing.

Determinations of the limits of Section 3 will be made prior to the initiation of fieldwork. The determination of the northern limits of Section 3 in Middletown, New Castle County, Delaware will need to be delineated by the Section 3 designers and surveyors (e.g., RKK, Jacobs, Century) in order to limit confusion and duplication of survey efforts or using landmarks (e.g., the location of the Rumsey farm lane, farm lane crossroads, tributary to Sandy Branch) in consultation with the Section 3 designers. Similarly, the southern limits of Section 3 in Cecil County, Maryland will need to be delineated by the Section 3 designers or via a use of landmarks in consultation with the Section 3 designers. The segments of the APE will be delineated upon receiving detailed revised project plans from the Section 3 designers prior to the initiation of fieldwork and their boundaries mapped on the surface utilizing landmarks and laid out with total station and measuring tapes. Section 3 designers will be requested to provide GPS coordinates for mapped historic resources to facilitate the location of such resources in the field.

Results of Phase I archaeological survey and geomorphology within the adjacent Levels Road Mitigation site will be evaluated and added to the results of the Phase IB archaeological survey for U.S. Route 301 Section 3, particularly in areas 3 and 4 (see attachments) for a more complete analysis of the archaeological potential and context of the APE. Similarly, the Phase IA archaeological survey reports on Sections 1, 2, and 4 will be reviewed and the information utilized for a fuller picture of archaeological potential and context along the U.S. Route 301 corridor. In addition the on-line soil survey data will be examined and the information utilized and included in the report.

**Pedestrian Survey**

The agricultural portions of the APE will be plowed and disked in areas of moderate to high potential for prehistoric and historic resources. The fields will be examined by a team of RGA archaeologists walking at three-meter (10-foot)

intervals after the field has been sufficiently rain-washed. At least two passes over the field are planned; some areas may be examined further. An examination of projects conducted in the area suggests that this is sufficient coverage to locate prehistoric sites (e.g., A.D. Marble & Company 2006a; Lothrop et al. 1987; Petraglia et al. 1998, 2002; Skelly and Loy 2005). Areas of low potential for prehistoric archaeological resources will be examined for micro-topographic settings and hot spots, and surface indications of prehistoric resources.

During the pedestrian survey, both historic and prehistoric artifact locations will be marked with pin flags. The locations of prehistoric and historic artifacts will be point provenienced and mapped by AB Consultants, Inc. using a Trimble R6 RTK Global Positioning System (GPS) Receiver capable of centimeter accuracy. Artifact locations will be recorded via GPS, and distribution maps created. Each prehistoric artifact will be assigned a number, collected and bagged individually. Prehistoric artifacts will be designated P and numbered consecutively (e.g., P001, P002, etc.). Historic artifacts will be assigned a number with an H designation, and also numbered consecutively (e.g., H001, H002, etc.). Modern debris, such as recent bottle glass, aluminum cans, foil, paper or plastic food wrapper, plastic, and cigarette parts, will be noted but not retained. Heating by-products, such as coal and coal ash, will be noted and discarded. Preliminary site limits and artifact distributions will be depicted on project base maps.

**Shovel Test Pits**

Areas of moderate and high archaeological potential within wooded areas will be shovel tested at 15-meter (50-foot) intervals (see Table). Judgmental tests will be placed in the vicinity of surface finds, positive tests, artifact concentrations and other archaeologically sensitive locations at the discretion of the Principal Investigator and in consultation with DelDOT. The testing interval for the judgmental tests will be at the discretion of the Principal Investigator. The goal of the judgmental tests is to gain additional data on the distribution and nature of artifact concentrations, or to determine if potentially significant archaeological resources are present. In addition, areas of low potential for prehistoric archaeological resources will be examined for micro-topographic settings and hot spots, and surface indications of prehistoric resources and will be shovel tested judgmentally at these locations. Approximately 529 STPs are proposed. The number and distribution of STPs across the APE is presented in the attached table.

Shovel test pits will measure 50 centimeters (cm, 1.6-foot) in diameter and will be excavated using round-bladed shovels into the upper portions of subsoil below the level of cultural materials. Shovel test pits on a 15-meter (50-foot) interval grid will be placed using landmarks, a total station or GPS, and measuring tapes for tests or their locations will be chosen judgmentally by the senior archaeologist. The locations of all STPs will then be recorded using a Trimble R6 RTK GPS or Trimble Pathfinder ProXH GPS Receiver capable of centimeter accuracy of coordinates and elevations. All STPs will be excavated into sterile levels or at least 60 cm (2 feet) below ground surface (BGS). Soils removed from the STPs will be separated by stratum and screened for artifacts through quarter-inch mesh hardware cloth. Descriptions of each stratum, including Munsell color, texture, sediments, and presence or absence of cultural material, will be recorded on standardized forms. Shovel test pits will be immediately backfilled upon completion to restore the ground to its natural contours. Representative photographs of all field activities will be taken using digital photography.

**Excavation Units**

Excavation units will be used as a further tool to locate significant resources and better define potentially significant resources located during other phases. Excavation unit placement will be guided by background research and the results of the pedestrian survey and metal detector survey, and STP excavation. They will be placed within features or artifact concentrations, and employed within areas of high potential for archaeological resources, and areas requiring more investigation. Approximately 17 EUs are proposed.

Excavation units will measure one meter by one meter in size and will extend through the plowzone and into the upper portions of the subsoil into sterile levels or at least 60 cm (2 feet) BGS. These EUs will be excavated using square and round bladed shovels. The plowzone will be removed as a natural stratum and B-horizon strata will be excavated in 10 cm (0.3-foot) levels for control. Soils removed from EUs will be separated by level and/or stratum

and screened for artifacts through quarter-inch mesh hardware cloth. Descriptions of each stratum, including Munsell color, texture, sediments, and presence or absence of cultural material, will be recorded on standardized forms. Profiles will be drawn of representative EUs or ones with features.

If encountered, cultural features will be explored within the confines of the EU. Exposed portions of the features will be recorded (i.e. plan and profile drawings). The features will then be documented, covered with tarps and backfilled in consultation with DelDOT. Each feature location will be mapped using GPS as described above. Excavation will continue until two culturally sterile levels of subsoil have been encountered or to 60 cm (2 feet) BGS. To ensure that the base of cultural deposits has been reached, an STP may be dug at the bottom of each EU. Excavation unit profiles will be documented through digital photography and scaled line drawings. All other EUs will be immediately backfilled upon completion. Excavation unit locations will be plotted on a map of existing conditions.

**Metal Detector Survey**

The metal detector survey will be performed by Battlefield Restoration and Volunteer Organization (BRAVO) and will consist of a thorough coverage of areas of high potential for historic resources, including the vicinity of documented historic structures as described above. Metal detector survey is an accepted methodology on historic sites and areas with high potential for historic sites, supplementing the results of the pedestrian survey and STPs. This method has been successful for locating early historic and contact period sites in shallow deposits, where metal objects, such as tools, brass artifacts and points, nails, coins, and ammunition, might be present that could indicate the presence of a significant historic resource (see attached references; Conner and Scott 1998). In accordance with established methodologies for metal detecting, several models of metal detectors are used by BRAVO's experienced personnel (Sivilich 1995, 1996, 2005). RGA has successfully used metal detector surveys conducted by BRAVO to locate early historic sites. Examples are the Millhurst Road site in Monmouth County, New Jersey, where two brass Contact period projectile points, two brass unidentified objects, and concentrations of musket balls at the Monmouth Battlefield Historic District, were located, and the Thompson Park site in Middlesex County, New Jersey, where the metal detector survey aided in the identification of an eighteenth-century site (e.g., Richard Grubb & Associates, Inc. 2006a, 2006b, 2007a, 2007b; Sivilich 1995, 1996, 2005).

Locations positive for pre-twentieth century metal artifacts will be recorded via GPS and will be indicated on project maps. Modern debris, such as aluminum cans, foil, bottle caps, modern tractor and automobile parts, will not be retained. Retained artifacts will be catalogued by RGA with the assistance of BRAVO. BRAVO's report on their activities and results will be appended to the Phase IB archaeological survey report. Upon completion and review of BRAVO's report by RGA, the artifacts will be transferred to RGA and temporarily stored at RGA's Cranbury, New Jersey archaeological laboratory. These artifacts will be curated and stored with the rest of the materials recovered from the Phase IB survey.

**Other Fieldwork Related Items**

Surveying services to accurately record artifact, STP, EU, structure, and site locations will be performed by AB Consultants, Inc. (ABC, DBE Certification No. 757), a multi disciplinary engineering and construction firm located in Baltimore, Maryland. Currently AB Consultants is performing survey field work and CADD processing, according to DelDOT MicroStation XM CADD standards, on Sections 1 and 2 of the U.S. Route 301 project (on Section 1 as subconsultant to Whitman, Requardt & Associates and on Section 2 as a subconsultant to AECOM).

In the event that human burials and/or skeletal remains are identified all archaeological survey work in the area of the burials will cease and DelDOT Archaeologist David Clarke (302-760-2271) will be immediately notified. It is assumed that Mr. Clarke will contact the DESHPO. Should Mr. Clarke be unavailable, Kevin Cunningham of DelDOT (302-760-2125) will be contacted. If Mr. Clarke or Mr. Cunningham cannot be reached within one hour of the identification of human burial/skeletal remains, RGA will contact Gwenyth Davis (302-736-7410) of the DESHPO. All archaeological survey work at and near the burial location will cease until the DESHPO, in consultation with a medical examiner and DelDOT, has approved work resumption. A separate scope of work and cost proposal will be

required to complete requirements in accordance with the protocols outlined in Delaware's Unmarked Human Remains Law (7 DE Code, Chapter 54, Subchapter II).

It is anticipated that the results of this Phase IB archaeological survey and the Phase IB survey completed in the adjacent portion of the U.S. Route 301, Levels Road Mitigation site will provide meaningful information on prehistoric and historic site distributions, locations and land use patterns in a portion of New Castle County that has seen relatively little archaeological survey. The survey methodology proposed herein is similar to that proposed for the U.S. Route 301 Section 3 mainline. As a result, the validity of predictive models, such as those presented by Jay Custer and A.D. Marble & Company, will be tested.

While the fieldwork is in progress, RGA will provide brief weekly updates to DelDOT in the form of e-mails describing progress and notable finds.

Crop damage is anticipated to 112.18 acres of corn or soybeans at a potential cost of $53,001.50. However if the timing of the survey is such that Parcels 131 and 136 have been harvested prior to survey (this affects portions of map areas 4, 5, 8, and 10), the total is potentially $17, 606.26 less in crop damage payments or $35, 395.24.

DESHPO guidelines state that an archaeological site is defined as "a locus of human activity that is indicated by the presence of buildings, structures, or ruins, artifact concentrations…" within a defined geographic area (DESHPO 1993, 2008). Isolated artifacts or a light scatter of post-1830 artifacts within an agricultural field are not considered evidence of the presence of a potentially significant prehistoric or historic archaeological site. If a site is located during the archaeological survey, it will be registered with DESHPO and a form will be prepared consistent with DESHPO requirements. In consultation with DelDOT, a Phase II archaeological survey will be recommended to further evaluate all sites considered to have integrity and the potential to be eligible for the National Register of Historic Places.

**Task 2: Artifact Processing, Analysis, Catalog, and Curation**

This proposal assumes that no more than 3,500 artifacts will be recovered during the Phase IB archaeological survey. If the survey yields more than 3,500 artifacts, a new cost proposal may be required. Modern artifacts as described above will not be retained but will be noted in the field and discarded. Recovered artifacts will be placed into re-sealable polyethylene bags with accompanying tags that list the appropriate provenience information. All artifacts will be taken to an off-site laboratory at the offices of RGA in Cranbury, New Jersey. All retained artifacts will be washed and processed. Artifacts will then be sorted by material/artifact type and placed into a clean 4mm-thick re-sealable polyethylene bag. All artifacts recovered from a single provenience will be bagged together with a tag listing the appropriate provenience information.

Artifacts will be cataloged according to provenience. Within each provenience historic artifacts, if any, will be cataloged according to functional group, material, class, and type. When appropriate, a detailed description of artifacts will be made. If possible, a temporal designation will be assigned to artifacts with known manufacture dates. Prehistoric artifacts recovered, if any, will be cataloged by provenience, then by artifact type and material. Lithic and ceramic data will be recorded in detail, including descriptions, size, and weight. Where appropriate, data from lithic analysis (e.g., length, width, thickness, platform, flake termination, cortex, and heat treatment) will be recorded.

Artifact processing, marking, and containerization, and curation preparation of project documents will be performed according to the Guidelines and Standards for the Curation of Archaeological Collections prepared by the Delaware Division of Historical and Cultural Affairs, Delaware State Museums. Separate artifact catalogs will be prepared for historic and prehistoric artifacts. Artifact catalogs will be included as appendices in the Phase IB archaeological survey report.

All artifacts recovered and project documents will be temporarily stored at the offices of RGA, in Cranbury, New Jersey. Upon project completion and in consultation with DelDOT and DESHPO, the artifacts and associated

documentation will be packaged in the appropriate Hollinger boxes and delivered for curation to the Delaware State Museum in Dover, Delaware.

**Task 3: Reporting**

Reporting will be conducted in two stages. The first will consist of a management summary. The second will entail the completion of a Phase I archaeological survey report. The scope of work for each task is presented below.

***Management Summary***

The management summary will consist of a brief three to five page written synopsis of the results of archaeological testing and recommendations. Base maps will show the location of artifact locations, each STP and EU, cultural material recovered, and the locations of cultural features, if any. The management summary is intended for DelDOT planning purposes.

***Report***

RGA will present the results of the Phase IB archaeological survey in a Phase IB archaeological survey report. The Phase IB archaeological survey report will consist of a title page, abstract, introduction, research design, new soil data and other additional background information, description of fieldwork, review criteria, interpretations and conclusions, recommendations, bibliography, and appendices. The Phase IB archaeological survey report will incorporate information from the Phase IA archaeological survey for Section 3 as well as information from the Phase IA archaeological survey report reports from Sections 1, 2, and 4 and the on-line soil survey data. This report will include the results of the Phase IB archaeological survey field work, including metal detector survey (Task 1), artifact analysis (Task 2), and management recommendations for further archaeological survey, if needed. If archaeological sites are identified, site forms will be prepared for each site and submitted with the draft Phase IB report. A full report is assumed; it is not anticipated that a DESHPO Archaeology Survey Report Form will be sufficient.

**DELIVERABLES**

RGA will present the results of the Phase IB archaeological survey in a brief management summary and detailed Phase IB report (Task 3). Three (3) draft copies of both the management summary and the Phase IB report will be provided to DelDOT. One (1) set of revisions from DelDOT and DESHPO for the Phase IB report is included in this scope of work. Once the review comments have been implemented, five (5) copies of the final report will be produced. RGA will provide five (5) bound final report copies to DelDOT in hard copy and two (2) CDs with electronic copies. Report copies will be shipped via regular mail. RGA will provide weekly email updates to DelDOT.

This proposal also assumes one (1) meeting will be held in the field with DelDOT/DESHPO, attended by the Senior Archaeologist. Per a telephone conversation of August 31, 2009 with DelDOT, a second meeting in Dover following the receipt of the management summary is planned by DelDOT and will be attended by the Senior Archaeologist and Principal Senior Archaeologist.

**SCHEDULE**

RGA will begin the project immediately upon the notice to proceed from DelDOT. The farmer will plow and disk the fields as field conditions allow. It is assumed that DelDOT will facilitate the fieldwork by reimbursing the farmer for his crops. An estimate of the cost of the crops has been prepared and is included in the budget as a line item.

- Weeks 1-3 - Fieldwork planning, consultation with the farmer (Dennis Clay) for plowing/disking agricultural fields, fieldwork set up. Obtain latest project plans from RKK and Jacobs. Stake out of portions of north and south boundaries of project.
- Weeks 4-14 - Phase IB archaeological fieldwork and metal detector survey

- Weeks 15-19 - Artifact Processing/Cataloging/Analysis.
- Week 20-22 - Preparation and submission of Management Summary
- Weeks 23-30 - Report writing and graphics production; Submission of draft Phase I archaeological survey report in Week 30.
- Weeks 30-34 - DelDOT and DESHPO Review.
- Weeks 35-36 - Report revisions and submission of Final Phase I archaeological survey report.

It is estimated that the final report will be submitted approximately nine (9) months from the notice to proceed.

We look forward to starting the outlined tasks. Please contact me at 609-655-0692, ext. 309, or Richard Grubb at ext. 320 with any comments or questions regarding the proposal.

Very truly yours,

Paul J. McEachen, M.A.
Principal Senior Archaeologist
PJM: cd

Enc.

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2006 Phase II Archaeological Survey, Four Seasons at Manalapan- East Parcel, Woodward Road (Block 66, Lots 7.01 and 9), Manalapan Township, Monmouth County, New Jersey. On file, Historic Preservation Office, Trenton, New Jersey.

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