



17th and 18th CENTURY ARCHAEOLOGY SITES FROM THE U.S. ROUTE 301 PROJECT, DELAWARE



THE U.S. ROUTE 301 PROJECT

The route 301 project in Delaware is a rare opportunity to look into the past and identify archaeological sites from the 17th and 18th centuries. The Delaware Department of Transportation (DelDOT) is in the throes of its largest public works project in over 20 years. DelDOT will be constructing 17 miles of new grade separated highway across the state to move traffic safely and efficiently from Maryland's route 301 onto the existing Delaware route 1 corridor. The route 301 project is federally funded, thus necessitating the need to comply with federal laws and regulations. The National Historic Preservation Act of 1966 (as amended) and the associated federal regulation 36 CFR 800 are the primary instruments for addressing archaeology on the project. An archaeological program has been established, via a memorandum of agreement, between the Delaware Department of Transportation, The Delaware Division of Historical and Cultural Affairs, and the Federal Highway Administration. Background research and archaeological survey are currently taking place along the project corridor; as a result numerous early historic archaeological sites have been identified.



U.S. ROUTE 301 PROJECT DELAWARE

One of the first tasks of the U.S. route 301 archaeology program was to complete a detailed history of the project corridor, as well as an archaeological predictive model. The Geographic Information System (GIS) based predictive model for the project concluded that there were areas of high archaeological potential for early historic resources, based on a number of environmental factors such as topography, hydrologic features, soil permeability, percent slope, and distance to water

PHASE I ARCHAEOLOGY

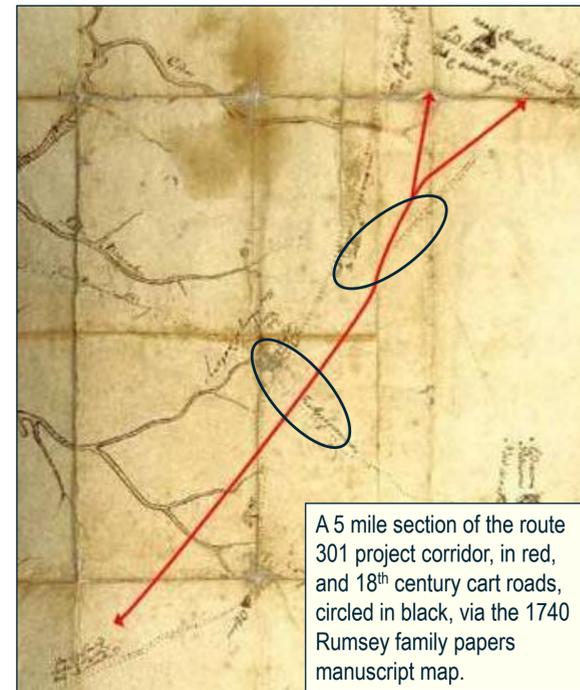
The next step in the archaeology program was to begin the fieldwork with phase I archaeological survey of select portions of the project corridor, based on the results of the GIS predictive model and history of the project corridor. Phase I work is still ongoing but preliminary results have been very enlightening about the presence of early historic archaeological sites within the project corridor. During the background research phase of this project, numerous historic maps were compiled to determine the potential for archaeological resources in the project corridor. One of the most influential early historic maps is the 1740 manuscript map from the Rumsey family papers. This map depicts numerous 18th century cart roads, in both Maryland and Delaware that cross the project corridor. The potential exists for some of the cart roads on this map to date back into the mid to late 17th century. Utilizing this map and detailed background research in conjunction with the GIS based predictive model has aided our archaeological survey to test areas with the greatest likelihood of finding archaeological sites dating to the 17th and 18th centuries. Archaeological sites from this time period are very rare in Delaware and across the Mid-Atlantic region, thus making this project all the more important to our collective knowledge about the culture of the American Colonies prior to being the United States of America. Most of the route 301 project corridor has been used as agricultural land for the past 300 years. This factor is a very important reason why the potential exists to have buried archaeological deposits beneath the plow zone soils that date to the 17th and 18th centuries. A plow zone is the upper layer of organic soil in an agricultural field that is continually reworked by the plow. In the Middle-Atlantic region this is about 8-12 inches thick. Part of the phase I survey was to test for early historic archaeology sites associated with early historic cart roads. Preliminary results from the phase I survey indicate that there are intact archaeological sites associated with the cart roads depicted on the 1740 map. Preliminary dating results from these archaeology sites have them being occupied as early as the 17th century and some possible continuing into the 18th and 19th centuries. Preliminary results as to the function of these early historic archaeology sites has them being domestic in nature (houses and outbuildings such as a possible smoke house) and trade related (wharfs / landings).



Photograph of 18th century artifacts from the project. Top left, dark olive green wine bottle closure with a hand applied string rim. Top right, grey-bodied salt-glazed stoneware jug rim sherd. Middle, slip combed red earthenware body sherd with clear lead glaze. Bottom right, pistol size grey gunflint. Bottom left, honey colored French musket flint.

PHASE II ARCHAEOLOGY

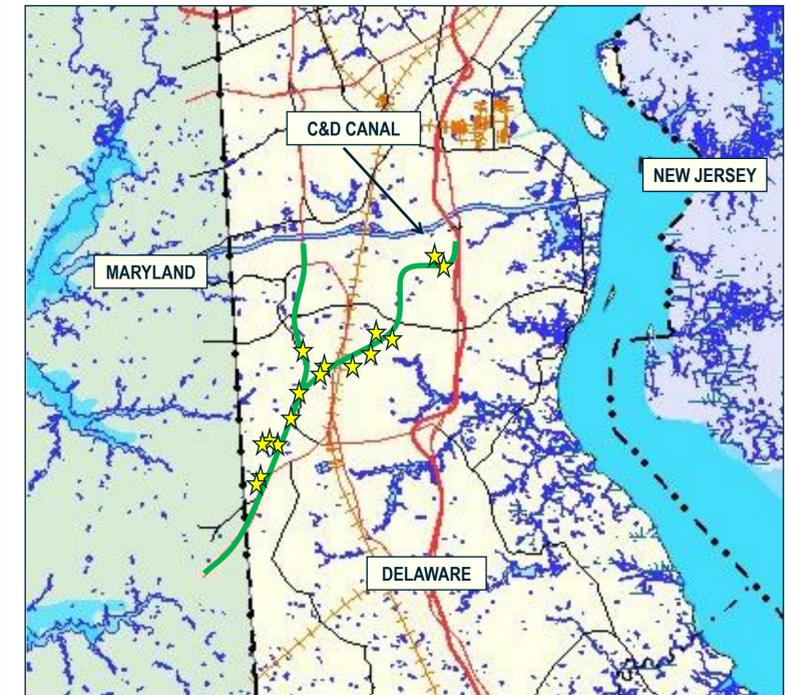
The next step in the archaeological program is to finish phase I archaeological survey work and begin phase II work, which will determine the boundaries of the identified archaeology sites from the phase I survey, as well as their potential eligibility to be listed on the National Register of Historic Places. Also as part of the phase II archaeological survey specific locations within the route 301 project corridor will be tested to determine the presence, or archaeological signature, of these early cart roads. When attempting to define the signature of early historic cart roads, one must look to the relationship of soil discoloration, texture, and other pedological and archaeological characteristics to properly define its presence as a cultural feature. Early historic cart roads were utilized by horse or oxen drawn carts / carriages that leave a distinct archaeological signature, which can be preserved intact for hundreds of years beneath a plow zone. Once the early historic cart roads stopped being used, they filled in with soils and eventually became part of an agricultural landscape for farming over a 300 year period.



A 5 mile section of the route 301 project corridor, in red, and 18th century cart roads, circled in black, via the 1740 Rumsey family papers manuscript map.

As archaeological sites are being identified for the route 301 project their locations are being mapped to determine their relationship to each other and early historic cart roads. The route 301 project has provided us with a more accurate model for identifying archaeological sites from the 17th and 18th centuries. Our preliminary phase I results are concluding that the heavily loaded up front effort is paying off via the amount of archaeological sites we are finding and what we already know about them from our detailed background research.

CONCLUSION



The U.S. route 301 project corridor in green and 17th / 18th century archaeology sites.

The route 301 archaeology program takes a holistic approach from the beginning of the project, which included a GIS based predictive model, detailed background research, and an intensive archaeological testing strategy, to identifying archaeology sites. This methodological approach to the route 301 archaeology program, in the end, will show how "front loading" the work has saved the Federal Highway Administration money and time by having a more accurate preconceived notion of where archaeology sites are located. This project has the potential to alter our viewpoint about the economic and cultural landscape from the 17th and 18th centuries in Delaware. In the future, all of this new information from the route 301 archaeology program will be synthesized to see how it may revise our collective knowledge about the history of Delaware, Maryland, and the entire Mid-Atlantic region. These preliminary results are nothing less than astounding and will continue to fuel our research needs for this project as we move forward with additional archaeological work.

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