

1.0 INTRODUCTION

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The following report details the results of a combined Phase IB Archaeological Survey and Phase II Archaeological Investigation conducted by A.D. Marble & Company of Conshohocken, Pennsylvania, for the proposed SR 1 Frederica Interchange project located in Murderkill Hundred, Kent County, Delaware. The study is part of the SR 1 Corridor Capacity Preservation Program. This study was performed for Century Engineering, Inc. and the Delaware Department of Transportation (DelDOT).

The DelDOT has proposed to redesign the intersection of SR 1 and SR 12, located north of the town of Frederica (Figure 1). The 2004 proposed roadway design, developed by Century Engineering, Inc. and referred to as “Conceptual Alignment 2004,” would redirect northbound vehicular traffic on SR 12 across SR 1 via a bridge to the northbound lane of SR 1 (Figure 2). This proposed design eliminates traffic on SR 12 northbound from crossing SR 1 at an unsignalized intersection and merging with the northbound lane of SR 1 from a short merge lane on the left side of the roadway. Conceptual Alignment 2004 includes the creation of an access road from the east side of SR 12, a bridge over SR 1, and the formation of a “T” intersection with the northbound lane of SR 1 approximately 106.7 meters north of the existing SR 12/SR 1 intersection. Other areas in the project design include the creation of merge lanes on the east side of the SR 1 northbound lane approximately 487.7 meters north of and 213.4 meters south of the existing SR 12/SR 1 intersection.

In March 2005, a revised alternative design was produced for the SR 1 North Frederica Grade Separated Intersection project. Designated “Conceptual Alignment March 2005,” the revised alternative followed a similar concept as illustrated with the Conceptual Alignment 2004, channeling northbound vehicular traffic on SR 12 across SR 1 via a bridge to the northbound lane of SR 1 (Figure 2). The Conceptual Alignment March 2005 exhibits some minor modifications from the earlier alignment, including the relocation of the bridge approaches and overpass slightly to the south of the 2004 alignment, a longer deceleration lane from northbound SR 1 to the SR 12 overpass, and an improved offramp and acceleration lane from the overpass to the northbound lane of SR 1. In addition, the Conceptual Alignment March 2005 includes the

construction of two stormwater retention basins situated north of the intersection and east of SR 1, flanking the north and southeast sides of an existing farm pond.

The Area of Potential Effects (APE) is defined as “the geographic area within which an undertaking may cause changes in the character of or use of historic properties, if any such properties exist” (36 CFR Part 800: Protection of Historic Properties 1986, revised 2004). The proposed archaeological APE associated with this project is defined as the area within which the proposed improvements to the SR 1/SR 12 intersection may directly or indirectly cause changes in the character or use of identified National Register-listed or eligible resources, if any such properties exist. The proposed archaeological APE for the project is limited to the areas of ground disturbance. Based on the changes in design from the Conceptual Alignment 2004 to the Conceptual Alignment March 2005, the archaeological APE was adjusted to accommodate the revised area of impact (Figure 2).

This report contains an archaeological survey (Phase IB) of the proposed APE and an evaluation (Phase II) of the significant archaeological resources documented in the proposed APE. The purpose of the Phase IB archaeological survey is to determine whether significant archaeological resources are present in the proposed APE. The archaeological survey utilizes systematic field excavations to identify the presence or absence of archaeological deposits within the APE. The Phase II evaluation-level archaeological investigation is used to assess if the archaeological resources present within the proposed APE contain unique information regarding prehistory or history and warrant inclusion in the National Register of Historic Places.

This Phase IB Survey was performed for DelDOT in compliance with the provisions of the Delaware State Historic Preservation Office (DESHPO) *Guidelines for Architectural and Archaeological Surveys*, and the Secretary of the Interior’s *Standards and Guidelines*. In addition, all cultural resource evaluations were conducted in accordance with Section 106 of The National Historic Preservation Act of 1966, as amended; the Procedures for the Protection of Historic and Cultural Properties set forth in 36 CFR 800, as amended; 23 CFR 771, as amended; guidance published by the Advisory Council on Historic Preservation (ACHP); Sections 1(3) and 2(b) of Executive Order 11593; and the National Environmental Policy Act of 1966. This

legislation requires that the effect(s) of any federally assisted undertaking on historically significant buildings, structures, districts, objects, or sites be taken into account during the project planning process. Significant resources are those that are listed in or eligible for listing in the National Register of Historic Places. Funding for the archaeological investigation was provided by the DelDOT.

A.D. Marble & Company of Conshohocken, Pennsylvania prepared this report for Century Engineering, Inc. of Dover, Delaware, and the Delaware Department of Transportation. A.D. Marble & Company conducted the Phase IB archaeological survey of the SR 1 North Frederica Grade Separated Intersection project March 4 through April 29, 2004; March 28 to April 1, 2005; and July 5 through 8, 11 through 14, and 19 through 20, 2005. The Phase II archaeological investigation fieldwork took place from December 19, 2005 through February 10, 2006. Scott A. Emory was the Principal Investigator for the project. The Field Director was Amy K. Fanz, with Judy Rosentel, Dawn Cheshaek, William Dixon, Sheena Batchelor, Stephanie Yasick, Jennifer Marye, and Frank Mikolic III assisting as field technicians. Daniel R. Hayes, of Hayes & Monaghan, Geoarchaeologists, conducted the geoarchaeological investigations for the Phase IB and Phase II efforts. Christine D. Gill directed the laboratory processing and cataloging of the artifact collection, and contributed to the analysis of the artifact assemblage. Paul W. Schopp served as the Project Historian. Scott Emory, Amy Fanz, Daniel Hayes, Paul Schopp, and Christine Gill co-authored the report.