

1.0 INTRODUCTION

Phase I archaeological investigations have been completed in conjunction with the proposed School Bell Road (State Route [S.R.] 1 to U.S. 40) Improvements project located in New Castle Hundred, New Castle County, Delaware (Figure 1). A historic structures survey has been completed for the project and is reported separately in Hyland and Kuncio (2004).

1.1 Purpose and Need

The School Bell Road Improvements project Phase I archaeological survey was performed by Skelly and Loy, Inc. personnel at the request of the Delaware Department of Transportation (DelDOT) in order to identify any and all archaeological resources that might be present within the project's Area of Potential Effects (APE), and to preliminarily assess those resources for integrity and/or significance. The archaeological APE was defined by DelDOT to include all geographic areas of the project within which the School Bell Road Improvements undertaking may cause changes in the character or use of archaeological resources [36 CFR 800.16 (d)]. The School Bell Road Improvements project APE for archaeological resources follows the footprint of the proposed construction activities for the roadway improvements and includes one stormwater management area, is in proportion to the scale of the proposed undertaking, and has considered the appropriate variables for impacts to archaeological resources. The archaeological APE boundaries were included in the geomorphology report and Phase I Survey research design previously submitted to the Delaware State Historic Preservation Office (SHPO), and reviewed and approved by DelDOT (Gundy *et al.* 2003).

Federal funding is anticipated by DelDOT for this project. By identifying and assessing the archaeological resources which may be affected by the proposed School Bell Road Improvements project, compliance with federal legislation, including Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992; the Federal-Aid Highway Act of 1966, as amended; and the National Environmental Policy Act of 1969; Code of Federal Regulations: Advisory Council on Historic Preservation CFR 800 is assured. *The Guidelines for Architectural and Archaeological Surveys in the State of Delaware* (Delaware State Historic Preservation Office 1993) was followed in preparing the project research design, methodology, and this report.

1.2 Project Description

The archaeological APE is located on the Newark East, Delaware 7.5 minute United States Geological Survey (USGS) topographic quadrangle (USGS 1993), in the Upper Coastal Plain physiographic province (Fenneman 1938). DeIDOT will improve the existing two-lane roadway by the construction of 1.5 m (5.0 ft) wide roadway sidewalk/bicycle lanes, 2.4 m (8.0ft) wide shoulders, and a stormwater management system, as well as the minor realignment of substandard horizontal curves located north and south of the Jamestown community, and at the intersection of School Bell Road with U.S. 40.

The School Bell Road Improvements project archaeological APE includes property on either or both sides of School Bell Road from the S.R. 1 overpass southeast for approximately 1.9 km (1.2 mi) to the intersection of School Bell Road and U.S.40. Additional archaeological APE is located on the north side of U.S. 40 from its intersection with School Bell Road, for approximately 0.27 km (0.17 mi) to the intersection of S.R. 40 with Appleby Road. A stormwater management facility is proposed for a location north-northwest of the School Bell Road and U.S. 40 intersection in an agricultural field. The total area of the School Bell Road Improvements project APE, including proposed roadway construction and stormwater management facilities, is 6.67 ha (16.48 ac). Elevations within the archaeological APE range from approximately 15.2 to 24.4 m (50.0 to 80.0 ft) above mean sea level (msl).

The School Bell Road Improvements archaeological project APE includes all of the areas designated for ground disturbance as shown on project design mapping dated October 23, 2003 and supplied by DeIDOT to Skelly and Loy, Inc. (Figure 2). Based on the project mapping, all of the areas within the proposed shoulders, sidewalk/bicycle lanes, and stormwater management facilities were considered part of the project APE.

The archaeological project APE consists of six discontinuous test areas, with non-testable areas in between, along School Bell Road and U.S. 40 and including the potential location of one stormwater management facility north-northwest of the School Bell Road and U.S. 40 intersection (Figure 2). The test areas are those portions of the archaeological APE that have intact soils of appropriate age to contain pre-contact period archaeological deposits and those areas that have potential for historic period resources as demonstrated by historic documentary and map resources. Non-testable areas include areas where the soil profile is no longer intact due to modern disturbances such as residential and commercial development,

emplacement of both above-ground and subsurface utilities, roadway construction, paving, grading, and landscaping (Photographs 1, 2, 3, and 4).



Photograph 1. Example of disturbance to the School Bell Road Improvements project archaeological APE by emplacement of a manhole near Test Area 5, facing east.



Photograph 2. Example of disturbance to the School Bell Road Improvements project archaeological APE by emplacement of a stormwater system including a drainage grate and curbing near Test Area 5, facing east.



Photograph 3. Example of disturbance to the School Bell Road Improvements project archaeological APE by emplacement of fencing, a stormwater system including a drainage grate, and curbing south of Jamestown Drive, facing south.



Photograph 4. Example of disturbance to School Bell Road Improvements project archaeological APE by emplacement of a large drainage culvert under U.S. 40 near Test Area 6, facing southeast.