

Custer and De Santis 1986; De Cunzo and Catts 1990; De Cunzo and Garcia 1992; Hoseth *et al.* 1994; Lothrop *et al.* 1987; Parson Engineering Science 1999; Petraglia and Knepper 1995; Shaffer *et al.* 1988; Thomas 2001a, 2001b; Traver and Thomas 2001). The soils were consistent with the mapped units and series descriptions provided by Matthews and Lavoie (1970).

1.2.3 Cultural Context

The present format also does not include a cultural history. The prehistory of the area has been addressed extensively in state contexts and nearby project reports (Brown *et al.* 1990; Catts and Custer 1990; Custer 1986; Custer *et al.* 1986; Custer and Cunningham 1986; Custer and De Santis 1986; De Cunzo and Catts 1990; De Cunzo and Garcia 1992; Hoseth *et al.* 1994; Lothrop *et al.* 1987; Parson Engineering Science 1999; Petraglia and Knepper 1995; Shaffer *et al.* 1988; Thomas 2001a, 2001b; Traver and Thomas 2001). The history of the project area likewise was covered by previous projects and by the historic resources report for the Route 40 improvement project (Kuncio and Hyland 2003). The previously recorded sites (see Table 1) and previously cleared project areas (see Table 1) are illustrated on Figure 2.

1.3 Methods

The APE for the archaeological survey included all areas of proposed direct construction impact from the highway improvements and stormwater retention ponds. The APE is illustrated on Figure 2.

Sources consulted during the background research included the files of the Delaware cultural resource survey and the National Register of Historic Places. Table 1 provides references for the previous reports and state contexts which were reviewed. Rea and Price (1849), Beers (1868), and Hopkins (1881) were among the historic maps consulted, and data from those maps are provided on Figure 2 and in Table 2.

The evaluation of the Pyle Tenant House site included oral history with neighbors of the site and chain-of-title research at the New Castle County Courthouse. State Highway Department

(1922, 1946) maps provided data on the configuration and past ownership of the site. Field methods at the Pyle Tenant House site are detailed in Appendix A.

The field methods for each test area are detailed in Table 3. The locations of STPs and surface collection areas are illustrated on Figure 2. The geomorphological reconnaissance used hand-placed auger borings to characterize the soils and disturbance of the APE. The results of the geomorphological reconnaissance are presented in Appendix B.

STPs measured 50.0 x 50.0 cm (19.7 x 19.7 in) and were excavated to sterile subsoil. STPs were placed at 15.0 (49.2 ft) intervals. All soil was screened through 0.64 cm (0.25 in) mesh. Notes were made on the soil stratigraphy and artifact content of each STP.

Surface survey was utilized where there was greater than 70 percent surface visibility and where the project geomorphologist confirmed that cultural deposits would be limited to the plowzone. Transects were placed at 5.0 m (16.4 ft) intervals.

One prehistoric lithic artifact was recovered, and it was described by morphology and raw material. The historic artifacts recovered were analyzed by material class, South (1977) artifact pattern class, and temporally and functionally diagnostic attributes. The artifacts, project notes, and photographic material were prepared for curation at the Delaware State Museum according to their guidelines (Delaware State Historic Preservation Office 1993:47-54).

1.4 Summary of Findings

Narrow, linear survey universes are poorly suited for the discovery of archaeological resources, even under the best of conditions. When the environmental marginality of an area for prehistoric use is factored in, the expectations again drop. The chances of finding either prehistoric or historic sites are further decreased when historic and modern disturbance to the APE has been extensive.

All of these factors have been combined in the present project. The majority of the APE is paved road, parking lots, or beneath modern buildings (Photograph 1). The APE is generally limited to within 4.0 m (13.1 ft) of existing edge of pavement for most of the APE, and this narrow strip has been disturbed by the placement of natural gas pipelines, fiber optic cables, and other utilities (Photograph 2). The previously recorded sites and models of prehistoric settlement suggest that the APE, at best, had only a moderate probability of containing prehistoric sites. The historic maps and surviving historic structures indicate that most of the historic houses along the APE were set back from the road and were not present in the APE.



Photograph 1. APE, typical area of modern disturbance.



Photograph 2. APE, typical area of disturbed road shoulder and fiber-optic cable disturbance.

The survey discovered two historic sites. One was an early nineteenth century house site (Site 1) and the other was a twentieth century tenant house site (Site 2). Cultural Resource Survey (CRS) forms are included in Appendix C. The single isolated find was a quartz biface fragment, possibly the base of a projectile point. It is clear from the map records that other historic loci were formerly present in the APE, and it is similarly likely that additional prehistoric loci were once present. The survey results attest to the significant levels of disturbance that have occurred along this corridor, especially in the last 20 years.

1.5 Recommendations

The Phase I archaeological survey of the proposed Route 40 Improvements Project, S.R. 896 to S.R. 1, was completed in November 2002. The background research showed that only five previously recorded sites were present in the APE, and that all of the sites were either not NRHP-eligible or were eligible but mitigated under earlier projects. The field survey resulted in the discovery of two historic sites, one outside the APE (Site 1) and one partially within the APE but disturbed by road shoulder and fiber-optic cable disturbance (Site 2). One prehistoric isolated find was recovered within the APE. The eligibility of Site 1 was not evaluated as part of this project because the site is entirely outside the APE. Several approaches to evaluating twentieth century farm sites were applied to Site 2 (the Pyle Tenant site), and the site is recommended not eligible for NRHP listing (see Appendix A). The isolated find is recommended not eligible for listing in the NRHP. As currently designed, the Route 40 Improvements Project, S.R. 896 to S.R. 1, will not affect any archaeological resources that are eligible for or listed in the NRHP. No further archaeological research is recommended.