

## 5.0 FIELD RESULTS

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This section presents the results of the Phase I field work. The results are presented as intuitively defined testing areas in order to help the reader easily grasp the survey findings (Figures 6A and 6B). Essentially, the areas were divided according to road/highway, landscape setting, or testing method (STP or pedestrian survey).

The cultural materials recovered in each area are discussed in the light of the most current definitions for ‘archaeological site,’ ‘historic field scatter,’ and ‘isolated find/find spot’ that are provided in the DESHPO *Guidelines/Instructions for Using the Delaware State Historic Preservation Office’s Archaeological Survey Report Form* (2008).

DESHPO defines an archaeological site as:

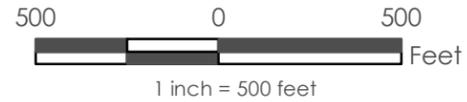
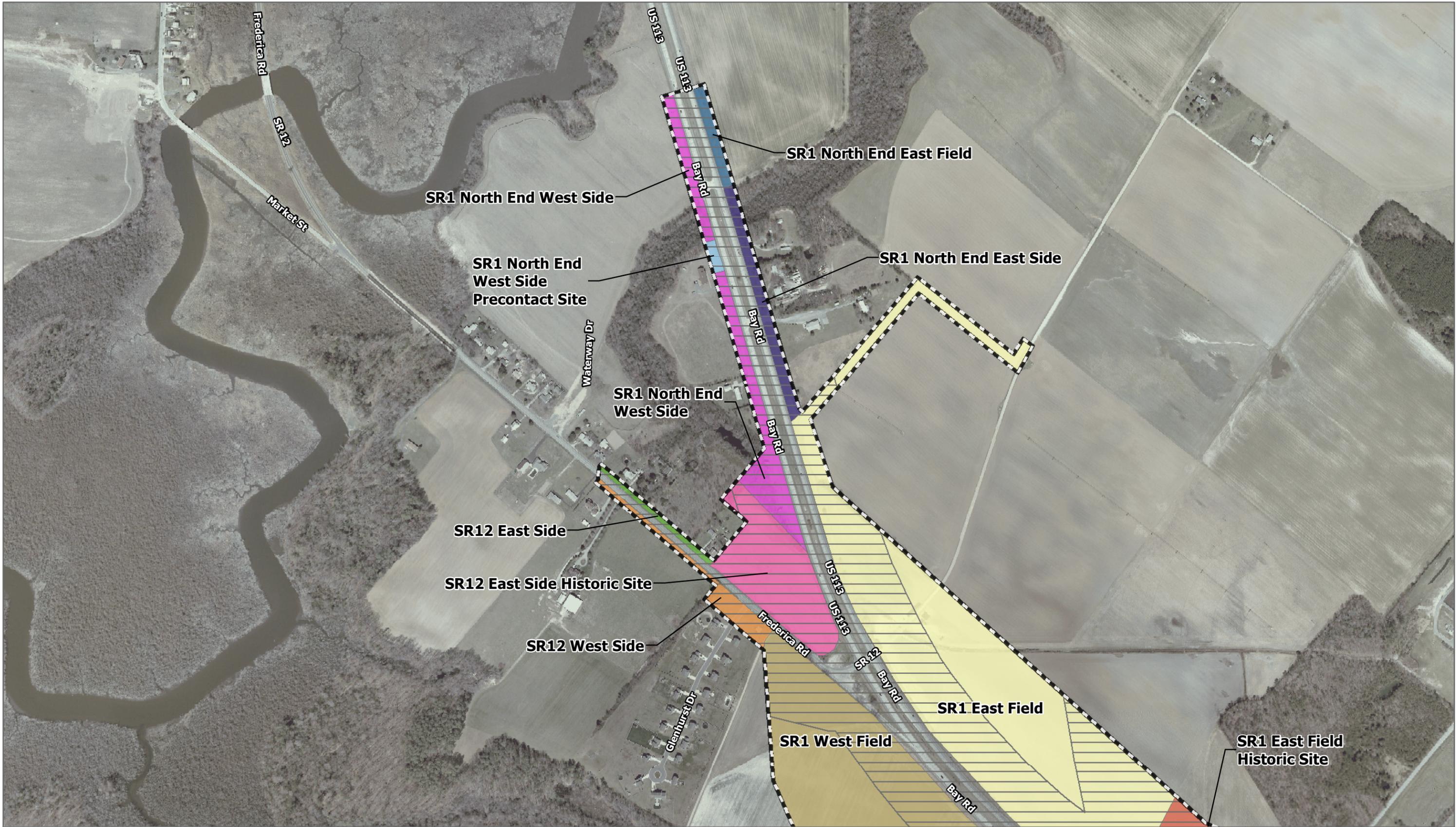
...a locus of human activity, indicated by the presence of: buildings, structures or ruins; watercrafts; artifact concentrations; soil discolorations; or other surface, sub-surface or sub-aqueous signs of the modification or use of a geographic area bounded by visible natural or cultural features such as ephemeral or permanent streams, roads, or field boundaries. (2008:1)

DESHPO defines a historic field scatter as:

...a light density of dispersed, ca. 1830 to 1920 period artifacts in a currently or formerly plowed field, with no soil discoloration, ruins, or any other indication of a historical activity area. Field scatter is the result of the 19<sup>th</sup> and early 20<sup>th</sup> century practice of field manuring to increase the fertility of the soil, and for purposes of these Guidelines, does not constitute an archaeological site. If the assemblage contains a high percentage of architectural artifacts, or pre-dates ca. 1830, the source is unlikely to be manuring; further research and /or testing may be needed to determine if a site is present. (2008:2)

DESHPO defines an isolated find as:

...a place where a single artifact or two were found, with no other indications of a site, such as soil discolorations visible on the surface, oyster shell, or coal bits in a concentration, or where testing found no other artifacts or features. (2008:2)

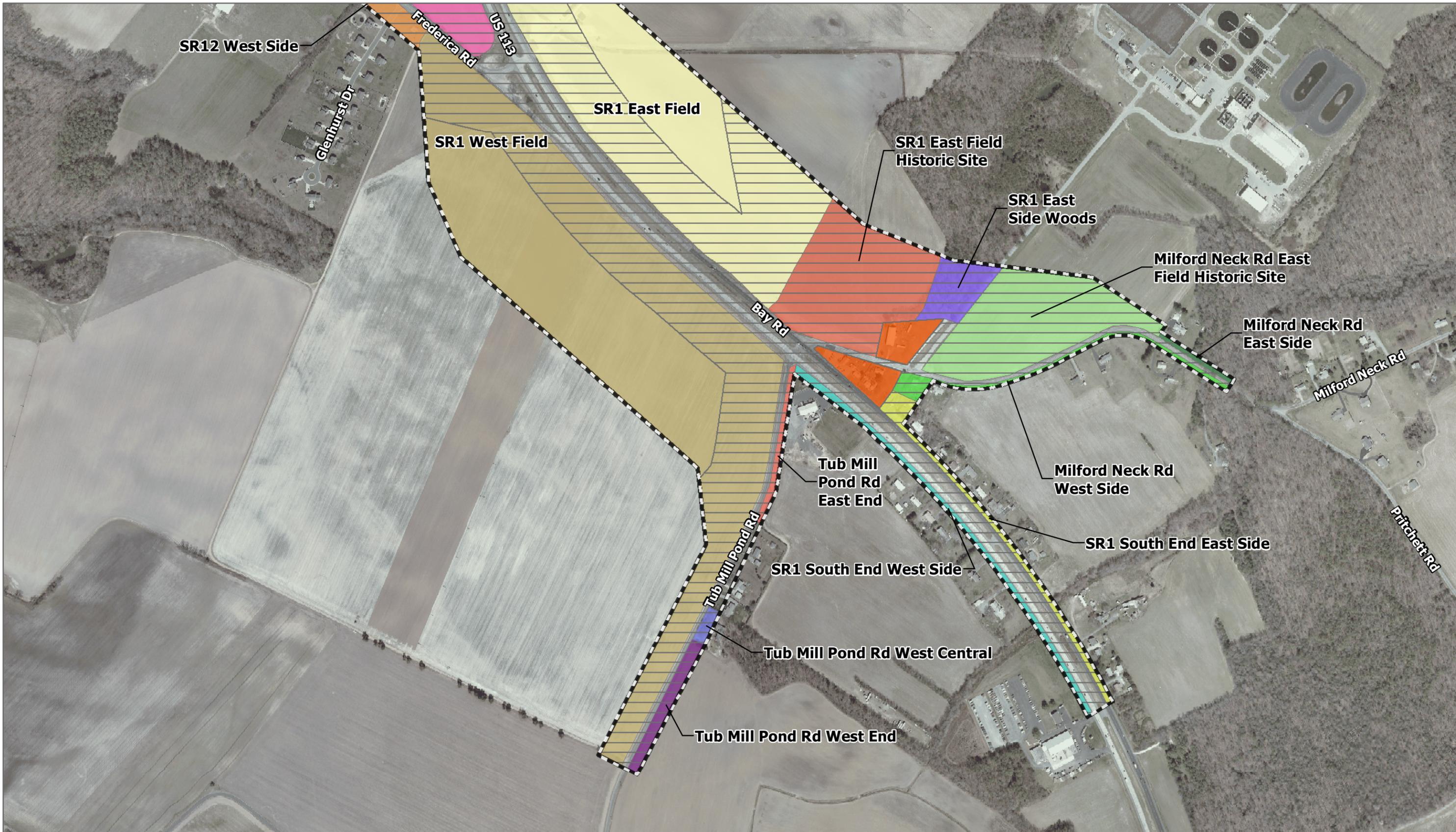


Source: 2007 Orthophotography De DataMIL

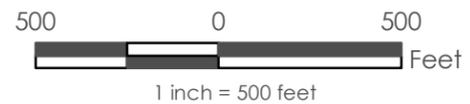
 APE  
 Survey Area Boundary

 Comprehensively Disturbed-  
Not Tested

Figure 6A  
 Map of Test Areas Referred  
 to in Report: Northern Half of APE  
 SR 1 South Frederica Grade Separated Intersection  
 Kent County, Delaware



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Source: 2007 Orthophotography De DataMIL

 APE  
 Survey Area Boundary

 Comprehensively Disturbed-  
 Not Tested

Figure 6B  
 Map of Test Areas Referred  
 to in Report: Southern Half of APE  
 SR 1 South Frederica Grade Separated Intersection  
 Kent County, Delaware

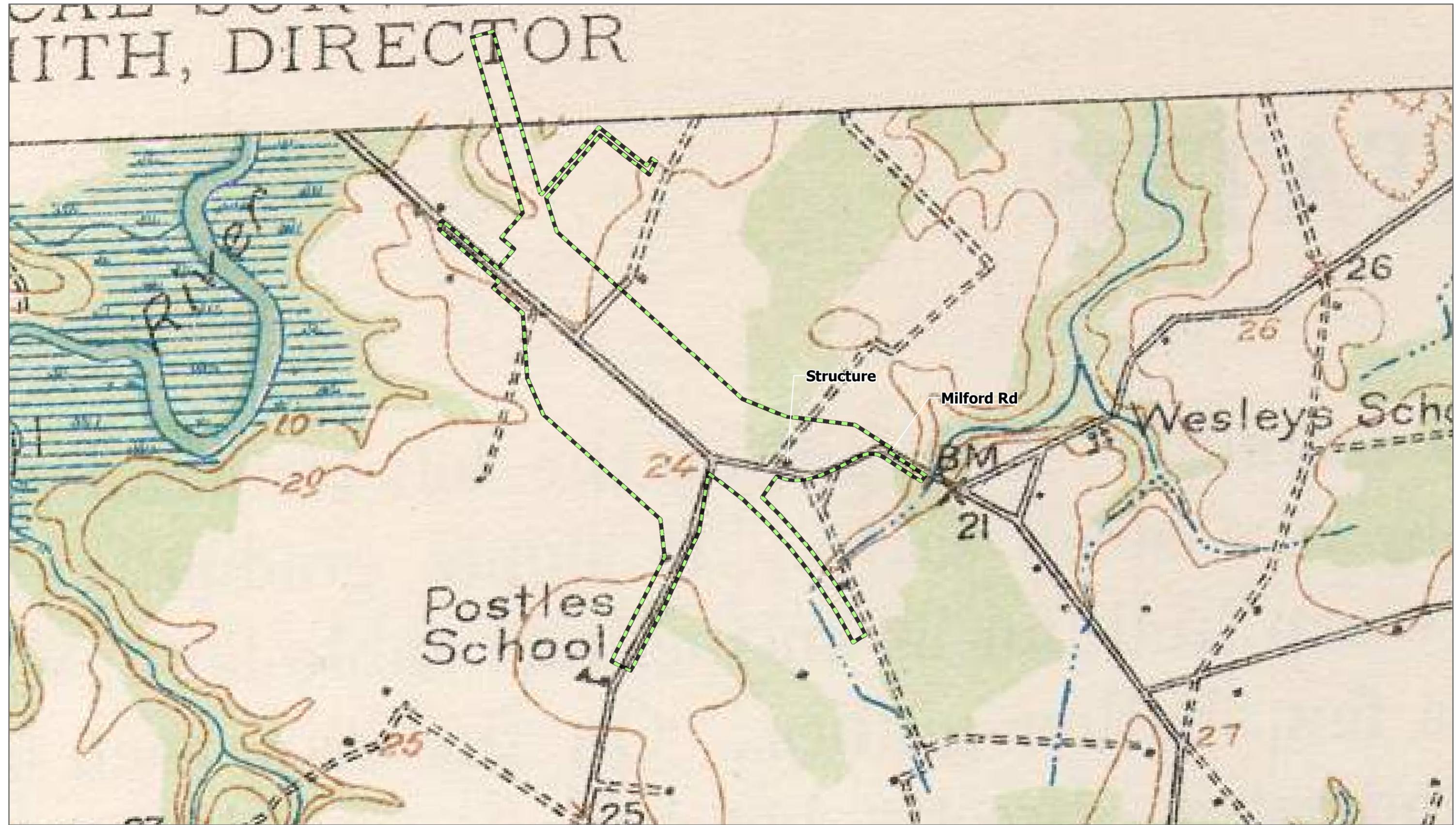
The Phase I investigation identified each of these: archaeological sites, historic field scatters, and isolated find/find spots.

### **5.1 Milford Neck Road – East Field Historic Site**

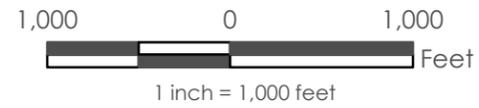
A.D. Marble & Company conducted a pedestrian survey of the approximately 10-ac field located at the southeastern quadrant of the intersection of Milford Neck Road and the entrance road leading to the Kent County Sewer Treatment Facility (Figures 6B and 7). A dense concentration of historic artifacts dating generally to the nineteenth century was identified in the corner of the field near the intersection. Artifacts are present elsewhere in the field, but they are distributed in a more diffuse manner. It is hypothesized that all the materials in the field are associated with the same occupation. A 1918 United States Geological Survey (USGS) map shows that a structure stood at this corner of the intersection (Figure 8). The structure fails to show up on any earlier mapping such as the Byles and Beers atlases.

The field team recovered 238 artifacts from the field (Appendix A). The assemblage contains only two precontact artifacts: one medial fragment of a jasper biface and a jasper projectile point fragment. Although the hafting element of the projectile point is missing, slightly rounded shoulders suggest that its morphology is akin to a contracting stem point. Domestic/Kitchen debris accounts for 132 items (57 percent) of the assemblage. Diagnostics from this group include 41 whiteware sherds, three ironstone sherds, eight pearlware sherds, and an Albany-slip stoneware sherd. The assemblage also includes late-nineteenth-century and early-twentieth-century porcelain and semi-porcelain sherds, redware sherds, and terra-cotta sherds. The assemblage contains 27 pieces of bottle glass that were amber, aqua, cobalt, colorless, dark amber, dark aqua, green, light aqua, or light green. Other glass materials included 14 glass jar fragments (two canning, 12 lid liner) and nine vessel glass (two colorless, seven milk). A single kaolin pipe bowl fragment, three pieces of unidentifiable metal, one piece of sheet metal, and one piece of strap metal were also recovered.

Approximately 40 percent (n=92) of the assemblage is represented by architectural debris. Eighty-four of these are brick fragments, three of which are glazed. One piece of window glass, pieces of plastic flashing, a few unidentifiable-type nails, and a metal wall hook and bolt



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Source: USGS 1918.

Approximate Location of APE

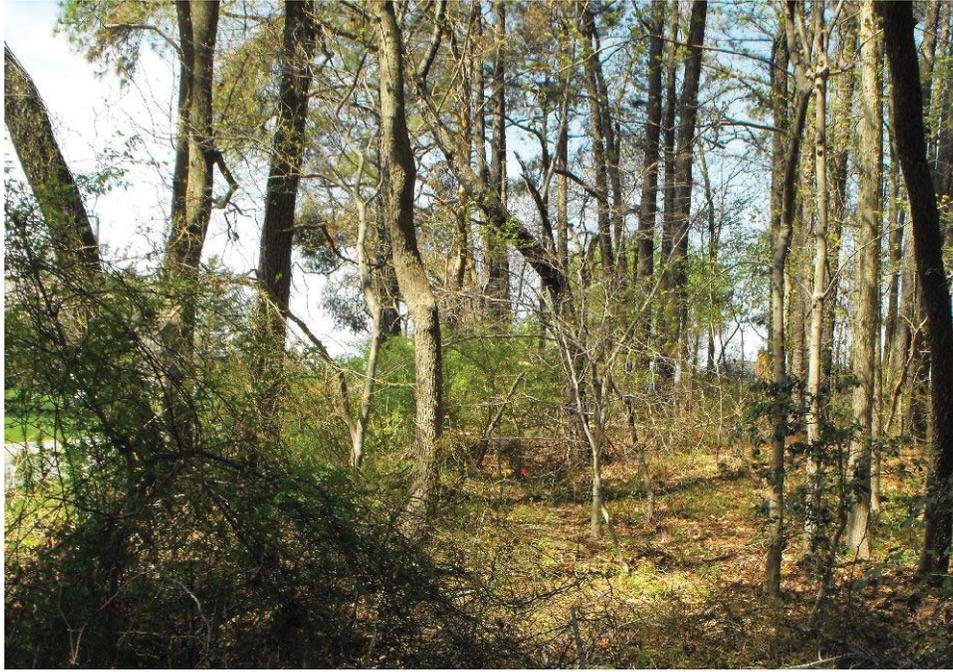
Figure 8  
1918 USGS Map of the Project Area  
SR 1 South Frederica Grade Separated Intersection  
Kent County, Delaware

complete the assemblage of architectural-related materials. Overall, the assemblage contains a relatively high percentage of architectural materials; in light of the definition for a site, this suggests the assemblage is not a historic field scatter but instead is an archaeological site. A dense concentration of these materials is present where a structure is depicted on very early twentieth-century mapping. It is the opinion of A.D. Marble & Company that this field constitutes an archaeological site: a nineteenth- to early-twentieth-century historic domestic site. The property on which the site is located has no associated CRS number.

## **5.2 Milford Neck Road – East and West Side Transects**

The A.D. Marble & Company field team placed and excavated three STPs (STPs 1 to 3) in the wooded portion of the east side of Milford Neck Road (Figures 6B and 7; Photograph 1). STPs were not excavated elsewhere in the wooded and residential segments of the APE on the east side of Milford Neck Road because these areas had been previously disturbed by utilities. The tested area was lightly wooded and characterized by a slight rise that overlooked an unnamed tributary to the south. The STPs shared similar stratigraphic profiles consisting of an approximately 20-cm thick dark yellowish brown sandy loam A-horizon overlying a yellowish to pale brown loamy sand subsoil (Figure 9). No cultural materials were recovered in these three STPs on the east side of Milford Neck Road. No archaeological sites were identified in this section of the APE.

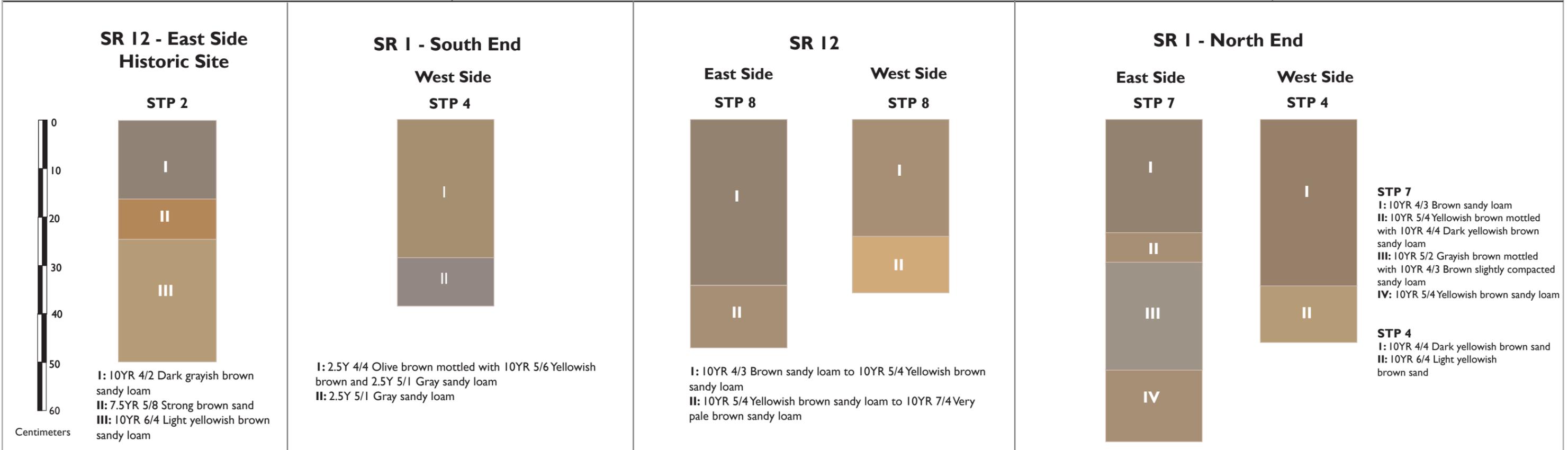
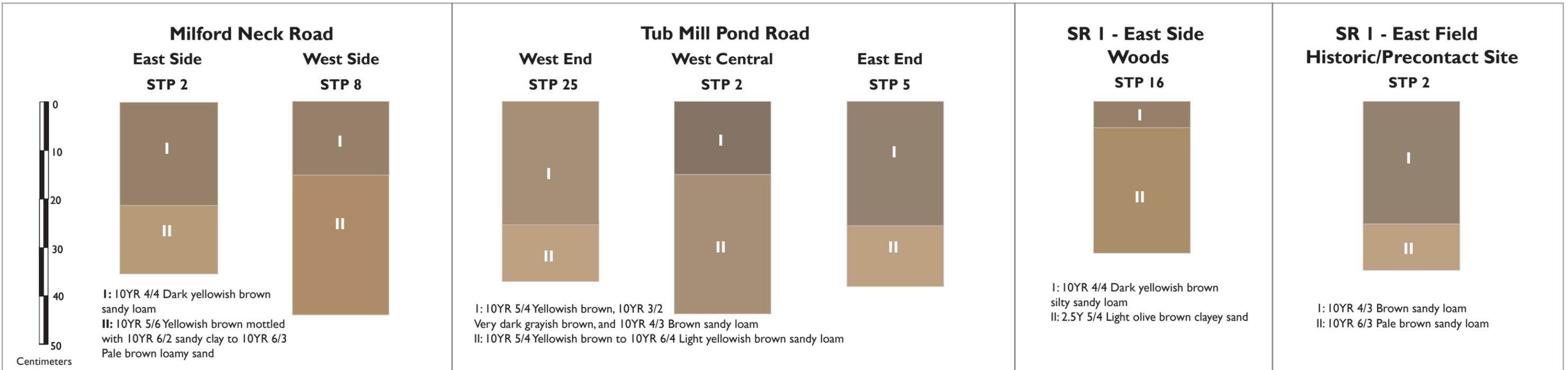
The field crew placed and excavated ten STPs in the southern portion of the west side of Milford Neck Road (Figures 6B and 7; Photograph 2). STPs were not excavated elsewhere in this section of the APE due to the presence of utilities and drainage ditches. The portion of the APE near the intersection of Milford Neck Road and SR 1 was not tested because it had been visibly and severely mechanically disturbed and recently developed. The STPs were located on the front edges of residential properties on Milford Neck Road. All ten STPs shared generally similar stratigraphic profiles that consisted of an approximately 20-cm thick dark yellowish brown sandy loam A-horizon overlying yellowish brown or pale brown sandy clay loam subsoil (Figure 9). The A-horizon of STP 1 contained one small brick fragment, while the A-horizon of STP 2 contained four small brick fragments. It is the opinion of A.D. Marble & Company that these



**Photograph 1:** Milford Neck Road – East Side Transect, facing north (April 2010).



**Photograph 2:** Milford Neck Road – West Side Transect, facing north (April 2010).



\* Stratigraphy colors based on Munsell Palette

**Figure 9**  
**Representative Shovel Test Pit Profiles**  
 SR I South Frederica Grade Separated Intersection  
 Kent County, Delaware

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materials constitute isolated finds and that no archaeological sites were identified on the west side of Milford Neck Road.

### **5.3 SR 1 – South End and Tub Mill Pond Road**

Testable portions (i.e., areas lacking utilities, ditches, and/or road berms) on the west side of SR 1 and on the south side of Tub Mill Pond Road also underwent STP survey (Figures 6B and 10). The entire length of the APE on the east side of SR 1 contains utilities and ditches (Photograph 3). As a result, no testing occurred at this location. The field team placed and excavated nine STPs in the northern end of the west side of SR 1. This area is relatively flat and is composed of the edges of a large grassy field and an agricultural field south of Meding and Son Seafood Restaurant on the west side of SR 1. A drainage ditch parallels SR 1, but it is located 4 m east of the STP transect (Photograph 4). The STPs were placed in 15-m intervals; however, the distance between STPs 4 and 5 was slightly increased to accommodate underground utilities. Stratigraphic profiles in this section of the APE contain an approximately 30-cm thick disturbed olive brown sandy loam mottled with a yellowish brown and gray sandy loam overlying a gray sandy loam (Figure 9). Based on the observation of mottled soils and the proximity to the highway and drainage ditch, it would appear that the test area was likely disturbed as a result of SR 1 and ditch construction. The field crew recovered single whiteware sherds in the top layers of STPs 3 and 9 (Appendix A). It is the opinion of A.D. Marble & Company that these materials constitute isolated finds and that no archaeological sites were encountered in this section of the APE.

Testing on the south side of Tub Mill Pond Road was divided into three areas: the West End, the West-Central, and the East End (Figures 6B and 10). The field team placed and excavated ten STPs adjacent to a narrow drainage ditch present in the Tub Mill Pond Road – East End area (Figure 10; Photograph 5). The STPs were placed strategically to avoid utilities (telephone poles) that were also present. Profiles evinced an approximately 30-cm thick brown sandy loam A-horizon overlying a light yellowish brown sandy loam (Figure 9). The field crew noted that the area appeared to be intact and that the abrupt transition between the A-horizon and subsoil suggested that the A-horizon was formerly a plowzone. The A-horizon of STP 2 contained an unidentified nail and three small brick fragments. The A-horizon of STP 3 contained two brick



**Photograph 3:** SR 1 – South End East Side, facing north (April 2010).



**Photograph 4:** SR 1 – South End West Side, facing north (April 2010).



**Photograph 5:** Tub Mill Pond Road – East End, facing east (April 2010).

fragments and a piece of modern, molded colorless vessel glass. The A-horizon of STP 6 contained a piece of a modern, threaded metal lid; a brick fragment; a cut nail fragment; three fragments of a colorless machine-made modern threaded bottle glass lip; and two pieces of modern colorless bottle glass. It is the opinion of A.D. Marble & Company that these materials likely represent modern roadside debris and historic field scatter and that no archaeological site was encountered in the Tub Mill Road – East End test area. A potential source of the field scatter may be field manuring that was practiced by the occupants of the Dr. N.C. Cooley farmstead and tenancy located nearby in the nineteenth century.

The Tub Mill Pond Road – West Central test area consisted of the excavation of three STPs in a residential property containing a structure dating to 1966 (Figures 6B and 10; Photograph 6). The profiles evinced a 15-cm thick very dark grayish brown sandy loam overlying a yellowish brown sandy loam (Figure 9). A significant amount (over 60 percent of the layer) of small gravels was observed in the upper layer of STP 3, which suggests that this layer represents a landscape-fill layer. The upper layer of STP 1 contained half a machine-manufactured brick. The upper layer (fill) of STP 3 contained three cut nail fragments, one green transfer-print whiteware sherd, two redware sherds (one burned, one lead glaze), and 8 pieces of metal sheeting. It is the opinion of A.D. Marble & Company that these artifacts do not constitute a site because they were recovered from a modern deposit of residential landscaping fill. Although the origin of these materials is unknown, it is plausible that they were former contents of the nearby plowzone surrounding the southern and western ends of the property and were incorporated into the landscaping fill of the modern residential property when the property was developed. It is posited that these materials were initially introduced into the plowzone via field manuring by the occupants of the nearby R.H. Davis farmstead in the nineteenth century.

The width of the testable area increases at the west end of Tub Mill Pond Road. This area received a separate designation because unlike the test area to the east, this area lay in an unplowed agricultural field. The field crew placed and excavated two transects of a combined total of 34 STPs at the Tub Mill Pond – West End location (Figures 6B and 10; Photograph 7). The crew observed consistent profiles of a 25-cm thick brown sandy loam plowzone overlying yellowish brown sandy loam subsoil (Figure 9).



**Photograph 6:** Tub Mill Pond Road – West Central, facing east (April 2010).



**Photograph 7:** Tub Mill Pond Road – West End, facing east (April 2010).

The plowzones of ten of the 34 STPs collectively yielded 30 historic artifacts (Appendix A). STP 1 contained a piece of cobalt blue vessel glass. STP 2 contained a small brick fragment. STP 4 contained three pieces of modern bottle glass (two colorless and one amber). STP 7 contained two pieces of colorless bottle glass of unidentifiable age and a brick fragment. STP 9 contained four pieces of modern bottle glass (one amber, one aqua, and two green).

STP 16 contained one piece of cobalt blue vessel glass and two undecorated sherds of whiteware. STP 17 contained one piece of aqua bottle glass, one brick fragment, a nail (unidentifiable type), and a bowl fragment of a kaolin tobacco pipe. STP 18 contained an aqua and a colorless bottle glass fragment, three small pieces of brick, three pieces of colorless vessel glass, and one undecorated whiteware sherd. STP 22 contained one undecorated whiteware sherd. STP 23 contained one cut nail.

STPs 1, 2, 4, 7, and 9 contained artifacts indicative of roadside debris and the edge of a historic field scatter. Materials recovered from STPs 16 to 18, 22, and 23 appear to represent historic field scatter. With the exception of the modern bottle glass found in STPs 4 and 9, the remaining materials date to the mid-nineteenth and early twentieth centuries, occur in a plowed field, and contained a low percentage of architectural artifacts. There is no indication of a historic activity area. Like the materials recovered from the Tub Mill Pond Road – West Central test area, these materials were probably also introduced into the plowzone via field manuring practices, presumably associated with the nearby R.H. Davis farmstead and/or those households residing at the farmstead before or after the Davis household in the nineteenth and early twentieth centuries. It is the opinion of A.D. Marble & Company that no archaeological site was identified in this section of the APE.

#### **5.4 SR 1 – West Field**

A.D. Marble & Company conducted pedestrian survey of the 30-ac SR 1 – West Field portion of the APE (Figures 6A, 6B, and 11; Photographs 8 and 9). The field crew identified a fairly evenly distributed assemblage of historic (n=499) and precontact (n=13) artifacts. The precontact assemblage contained no precontact diagnostic artifacts but did include: one piece of quartz debitage, three FCRs, two anvilstones, a pestle/mano, three cores (one argillite, one jasper, and



**Photograph 8:** SR 1 – West Field, south side of test area along Tub Mill Pond Road, facing east (March 2010).



**Photograph 9:** SR 1 – West Field, facing south (March 2010).

one quartz), one jasper retouched flake, one jasper biface tip, and one quartz scraper fragment (Appendix A). None of these precontact materials appear clustered on the landscape; therefore, they are considered to represent isolated finds and do not constitute and are not part of an archaeological site.

The historic assemblage contains: 158 brick fragments; two pieces of window glass; a piece of concrete; three pieces of agricultural tilling equipment; a socket wrench; piece of sewer pipe; 18 pieces of agricultural field drain; 38 pieces of shell (10 oyster, seven clam, and 21 unidentified); 49 pieces of coal; three pieces of coal slag; an iron bolt; two pieces of plastic; one cream-colored ware sherd, three undecorated creamware sherds; two ironstone sherds; three pearlware sherds; five porcelain sherds; 63 redware sherds (five slip-trail); an Albany-slip stoneware sherd; and 13 whiteware sherds. A single kaolin pipe stem fragment was recovered. Bottle glass fragments (n=114) include: 39 amber, five aqua, two cobalt, 46 colorless, four dark aqua, 12 green, one light aqua, four light green, and one light olive. Two pieces of melted glass, a piece of dark aqua flat glass, five milk glass (three lid, two body), four vessel (three aqua, one cobalt) were also recovered.

Figure 11 depicts the distribution of materials recovered from the tested portion of the SR 1 – West Field. The materials are relatively evenly distributed; however, moderately dense concentrations of historic artifacts are present in the southern, central, and northern portions of the SR 1 – West Field. The Byles map (Figure 4) shows that at one time part of Tub Mill Pond Road ran north-south across the west field APE and that historic occupations occurred in and near the west field. A schoolhouse was located near the bend in the road outside the southwestern end of the APE on Tub Mill Pond Road; a structure owned by D.C. Cooley existed at another bend in Tub Mill Pond Road and adjacent to the south-central part of the west field APE; and two structures owned by “T. Fosties” were present near the north end of the west field (one of these two appears to have been located in the APE but not within the sample area). The Beers map (Figure 5) shows that historic occupation also occurred in the west field during the mid-nineteenth century. Structures belonging to Dr. N.C. Cooley and situated in the APE are present, and the schoolhouse, like in the Byles map, is similarly present and situated adjacent to the APE. Note that the scales of both maps are somewhat inaccurate, and that the Geographic

Information System-layered (GIS-layered) APE is approximated in each of the maps. Recall that these immediate areas surrounding these historic structures were excluded from the sample area because they were situated outside of the anticipated limits of project construction.

Perhaps the most parsimonious statement regarding the relationship between the mapped locations of the structures and the cultural materials is that the artifacts in the west field *may* be related to these occupations. Based on findings in other areas of the APE, it appears that the project area witnessed intensive field manuring.

As noted in the beginning of Section 5.0, a site is

...a locus of human activity, indicated by the presence of buildings, structures or ruins; watercrafts; artifact concentrations; soil discolorations; or other surface, sub-surface or sub-aqueous signs of the modification or use of a geographic area bounded by visible natural or cultural features such as ephemeral or permanent streams, roads, or field boundaries. (DESHPO 2008:1)

A historic field scatter is

...a light density of dispersed, ca. 1830 to 1920 period artifacts in a currently or formerly plowed field, with no soil discoloration, ruins, or any other indication of a historical activity area. Whereas, field scatter is the result of the 19<sup>th</sup> and early 20<sup>th</sup> century practice of field manuring to increase the fertility of the soil, and does not constitute an archaeological site. If the assemblage contains a high percentage of architectural artifacts, or pre-dates ca. 1830, the source is unlikely to be manuring. (DESHPO 2008:2)

Overall in the SR 1 – West Field, only eight sherds (three creamware, five slip-trail redware) unambiguously date to the eighteenth century; these are diffusely distributed across the test area. The majority of the materials date to the mid- to late nineteenth century. Household (Kitchen/Domestic) debris accounts for 43 percent of the historic assemblage; architectural debris accounts for 33 percent of the historic assemblage. Roughly 30 percent of the entire historic assemblage is composed of small pieces of brick that are scattered throughout the test area. Moderately dense artifact concentrations are present, but with the exception of slight increases of the frequencies of brick fragments at these locations, the distribution of artifacts

remains even throughout the test area. Given the small size, age (mostly nineteenth century), and relatively even distribution of the materials, A.D. Marble & Company opines that these materials represent a historic field scatter across a very large area and that no archaeological sites were identified in this portion of the APE.

### **5.5 SR 12 – East and West Side Transects**

The field team placed and excavated 27 STPs on the west side of SR 12 in the northwestern corner of the APE (Figures 6A and 12; Photographs 10 and 11). STPs 1 to 14 were placed in a single transect located on the edge of an agricultural field, STPs 15 and 16 were placed in a single transect located on the edge of a residential property facing SR 12, and STPs 17 to 27 were placed in two transects located in grassy fields at the foot of the Glenhurst Residential Development. Although the STPs were located in three distinct landscapes (agricultural field, residential front lawn, and manicured grassy field), the STPs shared the same profile of an approximately 25-cm thick yellowish brown sandy loam overlying a very pale brown sandy loam (Figure 9).

The top layer of five of the 27 STPs yielded cultural materials (n=13). STP 1 yielded three pieces of modern colorless bottle glass. STP 2 yielded five pieces of bottle glass (two amber, three colorless). STP 12 yielded a piece of modern colorless bottle glass and a wire nail. STP 13 yielded an eroded redware sherd. STP 18 yielded a nail (unidentifiable type) and a piece of threaded, colorized colorless bottle glass. This diffuse distribution of materials is indicative of historic field scatter and roadside debris. It is the opinion of A.D. Marble & Company that no archaeological site was identified in the portion of the APE.

The team excavated 13 of the 15 STPs they placed on the east side of SR 12 in the northeastern section of the APE (Figures 6A and 12; Photograph 12). STP 9 was not excavated because it was located on an asphalt driveway. STP 12 was not excavated because it was located on a gravel driveway. Most of the STPs contained profiles of a 25-cm to 40-cm thick brown sandy loam overlying a yellowish brown sandy loam (Figure 9). STP 2 contained three layers: a 23-cm thick pale brown sandy loam mottled with light gray brown and light yellow brown fill layer overlying a moderately compact brown sandy clay loam fill with a few pieces of coal and abundant gravels



**Photograph 10:** SR 12 – West Side Transect, agricultural field, facing south (April 2010).



**Photograph 11:** SR 12 – West Side Transect, grassy field at mouth of residential development, facing south (April 2010).



**Photograph 12:** SR 12 – East Side, facing south (April 2010).

overlying a very pale brown sandy loam. STP 10 also contained three layers: a dark yellowish brown sandy loam overlying a dark gray brown sandy loam fill layer mottled with dark yellowish brown overlying a light yellowish brown sandy loam.

Four STPs yielded a combined 12 artifacts (Appendix A). The top layer of STP 1 contained a piece of coal, two nails (unidentifiable type), a crown bottle cap, and a metal grommet. These materials are believed to represent modern roadside debris. The fill layer of STP 10 (note: profile discussed above) contained two wire nail fragments, a blue transfer-print whiteware sherd, and an undecorated whiteware sherd. The fill layer containing artifacts is considered a historic fill layer based on the age of the materials it yielded. The top layer of STP 11 contained a base fragment of an ironstone mug. The artifacts were found on the front edge of a farmstead property associated with CRS #K-04954. It is the opinion of A.D. Marble & Company that the materials recovered from STPs 10 and 11 constitute the assemblage of a historical domestic/farmstead archaeological site associated with the occupation of this property. The top layer of STP 14 contained a burned earthenware sherd and a piece of colorless bottle glass; these are considered to be isolated finds and not associated with an archaeological site.

In summary, this section of the APE contains one archaeological site that was identified in STPs 10 and 11 on a property associated with CRS #K-04954.

## **5.6 SR 12 – East Side Historic Site**

The field team conducted pedestrian survey of the triangular-shaped area near the intersection of SR 12 and SR 1 (Figures 6A and 12; Photographs 13 and 14). It was immediately clear that the crew had identified a site because of the high number of domestic and architectural debris in the field coupled with historic and oral records of a small farmstead located in the northwest corner of the field. Historic aerials attest to a small residential (and former farmstead) occupation that dated from the early twentieth century to the very early twenty-first century (Figure 13). Local residents told field crew that the dwelling on the property burned down in the early 2000s. The majority of the artifacts cluster around the structures that once stood on the property (Figure 13). The site was also investigated via four STPs (STPs 1 to 4). The profiles evinced an approximately 15-cm thick dark grayish brown sandy loam overlying 10-cm thick strong brown



**Photograph 13:** SR 12 – East Side, triangular field, facing south (April 2010).



**Photograph 14:** SR 12 – East Side, Historic Site, facing east (April 2010).

coarse sand overlying a light yellowish brown sandy loam (Figure 9). No features were identified in the STPs. Based on the profiles and soil discolorations apparent on the surface, it appears that the property had been mechanically razed and leveled. Randomly distributed low and broad piles of concrete and detritus associated with tire ruts are present on the site surface and suggest that dumping has occurred at the site in the recent past. No signs of any structural ruins or foundations were observed at the site.

The field team recovered 194 artifacts from the plowzone of the site (Appendix A). Two precontact artifacts were found: an FCR and a quartzite anvilstone. The historic artifact assemblage includes 37 brick fragments, pieces of mortar, nine wire and cut nails, seven shards of window glass, 58 bottle glass fragments (amber, aqua, colorless, green, light aqua, and light green), milk glass lid liner fragments, pieces of coal, and vessel glass (aqua, cobalt, milk). Diagnostic ceramic sherds include one cream-colored ware, one creamware, six soft and semi-hard paste porcelain, ten redware (one Jackfield-like), two terra cotta flower pot, eight undecorated whiteware, and one yellowware sherd. A toy marble and an eyeglass lens were also recovered at the site. These materials, coupled with the aerial photographic and oral records, strongly suggest the presence of a nineteenth- to twenty-first-century occupation of the property. All of the materials recovered in the field constitute the assemblage of the site. The property is associated with a CRS# K-04952.

## **5.7 SR 1 – North End**

### *5.7.1 SR 1 –North End West Side Transect*

The field team placed and excavated a transect of 38 out of 39 STPs on the west side of SR 1 in the north end of the APE (Figure 6A and 14). STPs 1 to 9 were located at the foot of a berm adjacent to the highway (Photograph 15; STPs 10 to 30 were located on the edges of modern residential properties fronting SR 1; STPs 31 to 39 were located on the edge of the highway and adjacent to a wooded area (Photograph 16). STP 15 was not excavated because it was located on an asphalt driveway. An unnamed tributary of the Murderkill River crosses the transect between STPs 9 and 10; no STPs were excavated in this steep and wet area. STPs 10 to 13 contained a precontact site that will be discussed in detail in a following section. No STPs were excavated in



**Photograph 15:** SR 1 – North End West Side, foot of berm, facing south (April 2010).



**Photograph 16:** SR 1 – North End West Side, southern end of STP transect, facing south (April 2010).

the roughly 150-ft disturbed area (utilities, berm, and ditch) between STPs 25 and 26 and in the 50-ft stretch south of STP 39 where another area disturbed via utilities was encountered. The unnamed tributary that traverses the transect between STPs 9 and 10 also runs parallel to the transect between STPs 26 to 39. With the exception of the STPs in the precontact site (STPs 10 to 13), this section discusses the results of the STPs on the west side of SR 1.

STPs 1 to 9 were located north of the unnamed tributary of the Murderkill River in a narrow area confined by a berm and the highway. Throughout the entire transect, the crew encountered consistent profiles of 20-cm to 30-cm thick brown sandy loam overlying yellowish brown sandy loam. This area was the former edge of an agricultural field. The upper layer of four STPs in this area north of the tributary yielded cultural materials (Appendix A). STP 2 contained a small brick fragment and a lead-glazed redware sherd. STP 3 contained a Jackfield-like redware sherd. STP 5 contained an undecorated whiteware sherd. STP 7 contained two colorless bottle glass fragments, a colorless glass vessel fragment, and a brick fragment. No historic properties dating similarly to these materials are located or known to have been located in this section of the APE. These artifacts likely originated from a historic field scatter that existed in the formerly adjacent agricultural field that is currently being developed as a residential neighborhood.

STPs 14 to 25 were located south of the precontact site identified in STPs 10 to 13. The A-horizon of STP 21 yielded an undecorated whiteware sherd. The A-horizon of STP 26 yielded an undecorated whiteware sherd and a nail (unidentifiable type). It is the opinion of A.D. Marble & Company that these represent isolated finds or artifacts that might be related to a historic field scatter that was present at this location prior to the residential development of this section of the APE.

The A-horizon of STP 30 yielded a cinder, a piece of coal, and a cut nail. The A-horizon of STP 33 yielded a piece of window glass, a brick fragment, and a net-impressed precontact vessel sherd. The sherd is shell-tempered; therefore, it appears to represent a sherd of Mockley (Woodland I) ware. Radial STPs were not excavated around STP 33 because of the lack of chronological and overall depositional integrity demonstrated by the chronologically mixed finds and because the precontact sherd was considered to be an isolated find. The historic-era materials

are considered to be components of a historic field scatter associated with the agricultural field to the east and prior to the construction of SR 1.

With the exception of the precontact site, no other archaeological sites were identified at the northern end of the APE along the west side of SR 1.

#### *5.7.2 SR 1 – North End West Side Precontact Site*

The field crew encountered a precontact site in the area between STPs 10 and 13 (Figures 6A, 14, and 15; Photographs 17 and 18). After DeIDOT consultation, four radial STPs were placed and excavated east, west, and south of STP 11, which was the first STP on the flat terrace south and above of the unnamed tributary leading to the Murderkill River (Figure 15). The site is located on the edge of a property with a structure dating to 1969. STPs 10, 11, and 12 exhibited a 20-cm thick dark yellowish brown sandy loam overlying a 20-cm thick yellowish brown sandy loam layer identified as a buried plowzone overlying a light yellowish brown sandy loam. The remainder of the profiles lacked the intermediate, buried A-horizon/plowzone layer. TU 1 was placed and excavated between STPs 10 and 11 in a flat area near the north edge of the site (Photograph 19). Its profile also exhibited the two-layer profile (Figure 16; Photograph 20).

Sixty artifacts (four historic, 56 precontact) were recovered from the site (Appendix A). The buried A-horizon/plowzone in STP 10 contained a single piece of jasper debitage. The same layer in STP 11 contained a piece of jasper debitage and a sherd of cord-marked and quartz-temper ceramic (possibly Wolfe Neck ware [Griffith 1982]). The buried A-horizon/plowzone of STP 12 contained one FCR. The A-horizon (top layer) of STP 13 also contained one FCR. The field crew determined that radials would be executed around STP 11, where the ceramic sherd was recovered. They placed STPs 11 + 5m East, 11 + 5m West, 11 + 5m South, and 11 + 10m South. It was hoped that the excavation of these STPs would provide additional information on the precontact site boundary. The A-horizon of STP 11 + 5m East contained four pieces of debitage (three chert, one quartz) and one piece of unidentified lead with cut marks). The A-horizon of STP 11 + 5m West contained two debitage (one chert, one jasper) and an FCR. The A-horizon of STP 11 + 5m South contained two pieces of debitage (one chalcedony, one chert).



**Photograph 17:** SR 1 – North End West Side, Precontact Site, facing south (April 2010).



**Photograph 18:** SR 1 – North End West Side, Precontact Site, facing north toward tributary (April 2010).

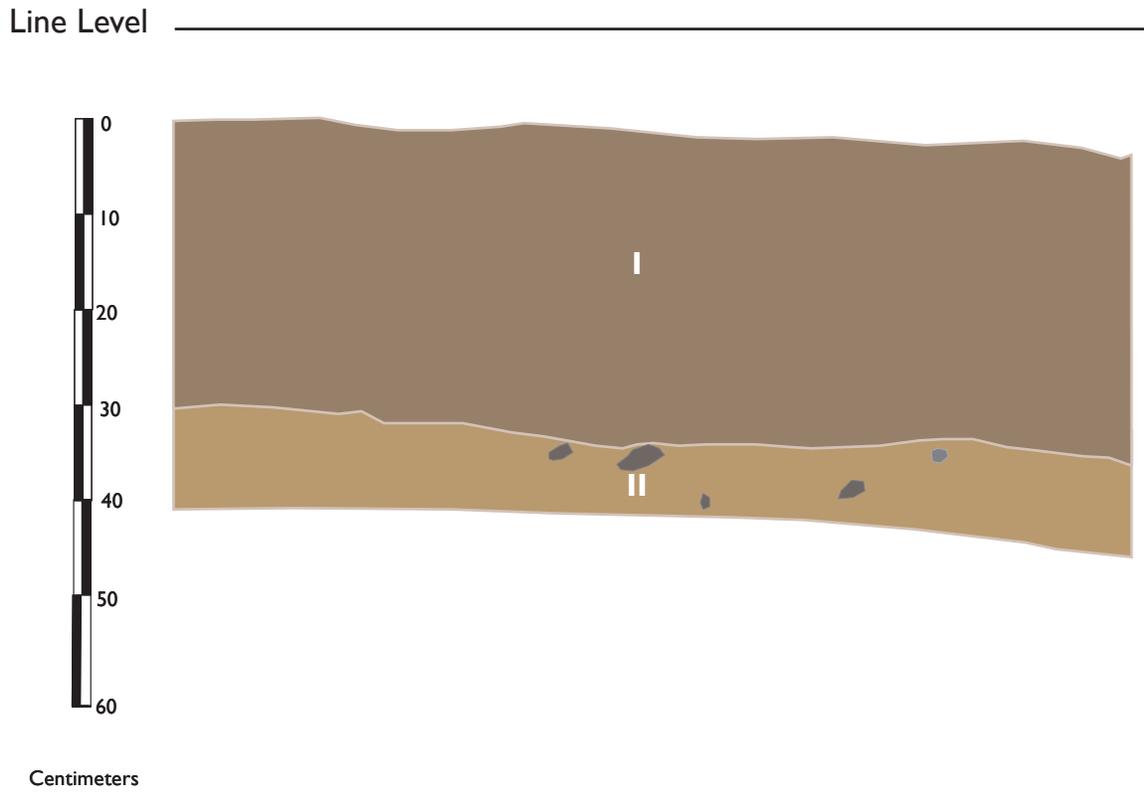


**Photograph 19:** SR 1 – North End West Side, Precontact Site, TU 1, facing north (April 2010).



**Photograph 20:** TU 1, north wall profile (April 2010).

**Figure 16**  
**Test Unit I, North Wall Profile**  
**SR I - North End West Side, Precontact Site**  
 SR I South Frederica Grade Separated Intersection  
 Kent County, Delaware



X:\Graphics\Projects\PI0428\Mapping\Figure 16\_TU 1\_Profile.ai



**\*Munsell Descriptions**

- I:** 10YR 4/4 Dark yellowish brown medium sand
- II:** 10YR 6/4 Light yellowish brown coarse sand



The A-horizon of STP 11 + 10m South contained a brick fragment, two FCRs, four debitage (three jasper, one chert), and a cord-marked, grit-tempered ceramic sherd (possibly Hell-Island Ware [Griffith 1982]).

The A.D. Marble & Company field team then consulted with project directors, who determined that it would be appropriate to excavate a 1-m by 1-m TU (i.e., TU 1) near the edge of the site and in the vicinity of STP 11 where the first of the two precontact sherds was recovered. It was hoped that the excavation of the TU might shed additional light on site stratigraphy, function, and chronology. The field crew recovered 37 artifacts in the TU 1 A-horizon. Two of these artifacts were a cinder and a terra cotta sherd; the remainder was precontact in age and included 23 debitage (one chalcedony, seven chert, 15 jasper) and two FCRs. Diagnostic materials included three steatite bowl fragments, three cord-marked sherds (one grit-tempered [possibly Hell Island Ware], one quartz-tempered [possibly Wolfe Neck Ware], one cord-marked, grit-temper sherd [possibly Hell Island Ware]), three eroded sherds (one quartz-tempered), and one sherd with smooth unidentifiable temper and smoothed interior and exterior. Based on the presence of steatite bowl fragments and the Wolfe Neck and Hell Island Ware sherds, it appears that this portion of the APE witnessed precontact occupation during the early to late Woodland I period.

### *5.7.3 SR 1 – North End East Field*

The field crew conducted a pedestrian survey of an approximately 2-ac portion of an agricultural field at the north end of the APE on the east side of SR 1 (Figures 6A and 14). The team recovered 12 artifacts (11 historic, one precontact). These materials occurred in a diffuse manner and consisted of a piece of jasper shatter, six small brick fragments, one unidentifiable shell fragment, one modern amber bottle glass fragment, one semi-hard-paste porcelain sherd, one burned redware sherd, and one undecorated whiteware sherd (Appendix A). This diffusely patterned historic assemblage is indicative of a historic field scatter; the single precontact lithic is considered an isolated find. It is the opinion of A.D. Marble & Company that no archaeological site was identified in this section of the APE.

#### *5.7.4 SR 1 – North End East Side Transect*

The A.D. Marble & Company team placed and excavated a single transect of 13 STPs on the east side of SR 1 at the northeast end of the APE (Figures 6A and 14; Photographs 21 and 22). The area slopes up and levels out to the north, where its north end then dips down into the cut of the unnamed tributary to the Murderkill River. The southern end of the transect is composed of an agricultural field and the grassy front lawn of a church. Further to the north, the transect traversed the front of residential lawns and followed the lightly wooded, relatively steep and wet riparian edges of the unnamed tributary. STPs were placed and excavated in opportune locations where underground utilities and steep slopes were not present. The field crew encountered profiles typified by modern A-horizons that overlay fill layers above sterile subsoil. A common profile in the residential yards is represented in Figure 9: an approximately 25-cm thick brown sandy loam A-horizon above a 10-cm thick yellowish brown sandy loam mottled with dark yellowish brown that lies on top of a 25-cm thick grayish brown sandy loam mottled with brown overlying a yellowish brown sandy loam subsoil. Profiles in the agricultural field are typified by an approximately 35-cm thick brown sandy loam plowzone overlying a yellowish brown sandy loam.

Three STPs yielded a combined six artifacts (Appendix A). The plowzone of STP 1 contained a sherd of institutional porcelain with a maroon underglaze design. A piece of window glass was recovered in the upper margin of the B-horizon subsoil. The A-horizon of STP 7 contained a single sherd of slip-trail redware. A quartzite FCR was recovered from the A-horizon of STP 8; two pieces of undecorated whiteware were found in the third layer encountered in the STP (a fill layer). Given that historic aerials show that this area was formerly used for crops and that no known historic structures were located where cultural materials were recovered, it is the opinion of A.D. Marble & Company that the historic-era materials originated from a historic field scatter and that no archaeological sites were identified in this section of the APE.



**Photograph 21:** SR 1 – North End East Side, facing south (April 2010).



**Photograph 22:** SR 1 – North End East Side, north end of test area disturbed, facing north (April 2010).

## 5.8 SR 1 – East Field

The field crew performed pedestrian survey of the approximately 35-ac agricultural field situated in the eastern portion of the APE east of SR 1 (Figures 6A, 6B, and 17; Photograph 23). A relatively dense, approximately 10-ac concentration of artifacts was encountered in the southern end of the field. This concentration is the SR 1 – East Field Historic Site and is discussed in the following section. This section discusses the findings in the remaining 25 ac of the field (i.e., the section of the field located north of the historic artifact concentration). Crew members recovered 250 artifacts: seven precontact and 253 historic (Appendix A). The precontact artifacts included two pieces of jasper debitage, a jasper stemmed point with missing tip, a chert triangular-shaped projectile point with a broken base, an FCR, and two precontact ceramic sherds (one eroded, one smoothed and shell-tempered [possibly Mockley Ware]). Together, the stemmed point and the possible Mockley-type sherd suggest Woodland I-era occupation of this portion of the APE. The triangular point suggests Woodland II-era occupation of this portion of the APE. The distribution of these materials is considered to be diffuse; therefore, they are believed to represent isolated finds and not a site.

Historic materials include: 107 brick fragments, eight pieces of window glass, five pieces of coal, a wire nail, a piece of concrete, a piece of strap metal, an agricultural machinery part, an unidentifiable piece of metal, three pieces of plastic, two pieces of colorless lamp chimney glass, 19 bottle glass fragments (one amber, one aqua, 12 colorless, one dark aqua, one light green, and three olive), one piece of thick flat colorless glass, a piece of aqua Mason jar, and single pieces of cobalt and green vessel glass. The assemblage contains the following historic-era sherds: a single creamware, three ironstone, two pearlware, eight hard-paste, and one undecorated porcelain (one hard-paste identified as Chinese Export); 46 redware (two slip-trail, five refined body with manganese glaze on dark paste [“Delaware Black”]); three stoneware (gray-bodied), two white-bodied earthenware, and 25 whiteware. The materials are distributed in a diffuse pattern across the field and date primarily to the nineteenth century. It is the opinion of A.D. Marble & Company that these materials represent a historic field scatter.



**Photograph 23:** SR 1 – East Field, facing south (April 2010).

## 5.9 SR 1 – East Field Historic Site

As mentioned above, pedestrian survey of the southern 10 ac of the agricultural field east of SR 1 contains an artifact concentration (Figures 6B and 18; Photograph 24). It is bounded by the woods and a comprehensively disturbed area to the south, SR 1 to the west, the edge of the APE to the east, and an approximated border to the north where the artifact distribution becomes less dense. The field crew excavated two STPs in the artifact concentration. Both STPs exhibited similar profiles: an approximately 25-cm thick brown sandy loam plowzone overlying a pale brown sandy loam (Figure 9). Neither STP yielded cultural materials.

A sum of 643 artifacts (640 historic, three precontact) were recovered from the concentration (Appendix A). Architectural artifacts in the historic assemblage include 107 brick fragments, two pieces of mortar, a piece of sewer pipe, a piece of a blue porcelain bathroom fixture, a wedge-shaped metal handle, 13 pieces of window glass, three nails (two wire, one unidentifiable), a piece of concrete, a metal screw, and a paint chip. Furniture-related artifacts included a piece of a possible marble statuette base. Industry class artifacts include three pieces of strap metal, an unidentified piece of metal, and a piece of metal pipe. Two clothing-related artifacts are Prosser-type buttons. Activity class artifacts are a large metal spring (agricultural) and a metal staple.

A total of 274 ceramic sherds were recovered. These include three lead-glaze buff-bodied earthenware sherds, 13 cream-colored ware sherds, ten creamware sherds, 26 ironstone sherds, seven pearlware sherds, 29 porcelain sherds (nine hard paste, one institutional, one molded [cup], 16 semi-hard paste, and two unidentified paste [one salt shaker]), 53 redware sherds (includes one Jackfield-like [“Delaware Black”], five slip-trail), 16 stoneware sherds (includes three Albany slip), ten terra cotta sherds, four white-bodied earthenware sherds, 101 whiteware sherds, and two yellowware sherds.

The assemblage also included 114 pieces of bottle glass (seven amber, 16 aqua, one blue, five cobalt blue, 67 colorless, six dark aqua, two emerald, one light amber, three light aqua, two light green, and four olive). The assemblage also included eight pieces of various unidentifiable glass objects (one frosted, one thick-walled flat colorless, three colorless, one opaque white), one piece



**Photograph 24:** SR 1 – East Field Historic Site, facing north (April 2010).

of colorless glass jar, 23 pieces of milk glass jar lid liner, 13 pieces of milk glass jar, one colorless jar lid, 68 pieces of unidentified glass vessels (one opaque blue, one dark aqua, one aqua, three cobalt, 15 colorless, one green, 45 milk, one rose). Two metal can fragments and a metal lid fragment were also recovered from the field. Completing the historic assemblage are two pieces of shell (one oyster, one unidentifiable), eight pieces of plastic, a piece of a metal sign post, and a carbon battery rod.

Kitchen/Household class artifacts account for 492 materials (77 percent) and Architectural class artifacts account for 129 artifacts (20 percent) in the historic assemblage. Historic artifacts appear to be most densely clustered in the southeastern corner of the area (Figure 18). There are no recorded occupations in this portion of the APE; however, the dense concentration of materials strongly suggest that an eighteenth- to early-twentieth-century domestic site is present and that features (foundation[s], middens, shaft feature[s], and postholes) may be present beneath the surface of the site.

The crew recovered three precontact artifacts distributed in a diffuse manner in this portion of the field. These include a hammerstone, a projectile point with a missing tip and base, and a projectile point with a broken base. The distribution of these materials is diffuse; thus, they are believed to represent isolated finds.

In sum, an artifact concentration containing historic and precontact artifacts was identified in the southern portion of the field east of SR 1. The dense distribution and character of the historic materials suggest that a historic domestic archaeological site is present in this vicinity. The site contained precontact artifacts, but these materials occur in a diffuse pattern and thus suggest no specific locus at the site where intensive precontact occupation may have taken place. It is the opinion of A.D. Marble & Company that a historic domestic archaeological site was identified in this section of the APE.

#### **5.10 SR 1 – East Side Woods**

The field team excavated 16 of the 22 STPs they placed in the wooded area east of SR 1 near the intersection of SR 1 and the entrance road to the Kent County Wastewater Treatment Plant in the

southeastern portion of the APE (Figures 6B and 18; Photograph 25). The west side of the test area was determined to be disturbed, as it contained numerous mechanically derived push-piles and depressions containing water. Six STPs (STPs 3, 4, 8, 12, 19, and 22) in the tested portion of the area were not excavated because they were located in standing water. Profiles in the test area exhibited approximately 7-cm thick dark yellowish brown silty sandy loam layer overlying light olive brown clayey sand (Figure 9). Only one STP (i.e., STP 14) yielded cultural material, which included three fragments of modern green bottle glass. It is the opinion of A.D. Marble & Company that no archaeological sites were identified in this section of the APE.

In sum, A.D. Marble & Company identified five archaeological properties during the survey (Table 2). Four are historic; one is precontact. The sites were identified using a combination of field methods that included shovel test pit excavations, test unit excavations, and pedestrian survey.

**Table 2. Summary of Test Area Methods and Results.**

<b>Test Area</b>	<b>Methods</b>	<b>Results</b>
Milford Neck Road – East Field Historic Site	Pedestrian Survey	Identified 19 <sup>th</sup> /e. 20 <sup>th</sup> -century historic occupation; possible farmstead
Milford Neck Road – East and West Side Transects	Shovel Test Pits	No sites
SR 1 South End and Tub Mill Pond Road	Shovel Test Pits	No sites
SR 1 – West Field	Pedestrian Survey	No sites
SR 12 East and West Side Transects	Shovel Test Pits	Identified 19 <sup>th</sup> /e. 20 <sup>th</sup> -century historic occupation, farmstead associated w/ K-04954
SR 12 – East Side Historic Site	Pedestrian Survey, Shovel Test Pits	Identified 19 <sup>th</sup> /e. 20 <sup>th</sup> -century historic occupation; farmstead; associated w/ K-04952
SR 1 – North End West Side Transect	Shovel Test Pits	((Identified precontact site [see immediately below]))
SR 1 – North End West Side Precontact Site	Shovel Test Pits, Test Unit	Identified Woodland I occupation
SR 1 – North End East Field	Pedestrian Survey	No sites
SR 1 – North End East Side Transect	Pedestrian Survey	No sites
SR 1 – East Field	Pedestrian Survey	No sites
SR 1 – East field Historic Site	Pedestrian Survey, Shovel Test Pit Survey	Identified 18 <sup>th</sup> to e. 20 <sup>th</sup> -century historic occupation; possible farmstead
SR 1 – East Side Woods	Shovel Test Pits	No sites



**Photograph 25:** SR 1 – East Side Woods, facing northeast (April 2010).