

**PHASE IB ARCHAEOLOGICAL SURVEY  
OF THE STATE ROUTE 1 WIDENING  
PROJECT IN NEW CASTLE COUNTY,  
DELAWARE**

**Parent Agreement 1650, Task 2**

*by*

**D. Brad Hatch,  
Heidi E. Krofft,  
Danae Peckler,  
and Kerri S. Barile**

*Prepared for*

**Delaware Department of Transportation**

*Prepared by*

**DOVETAIL**  
CULTURAL RESOURCE GROUP

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D. Brad Hatch,  
Heidi E. Krofft,  
Danae Peckler,  
and Kerri S. Barile

*Prepared for*

**Delaware Department of Transportation**  
P.O. Box 778-800 Bay Road  
Dover, Delaware 19903

*Prepared by*

**Dovetail Cultural Resource Group**  
300 Central Road, Suite 200  
Fredericksburg, Virginia 22401

Dovetail Job #13-066  
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Kerri S. Barile, Principal Investigator  
Dovetail Cultural Resource Group

January 4, 2016

Date

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## ABSTRACT

From January to March 2014, Dovetail Cultural Resource Group (Dovetail) conducted a Phase IB archaeological survey and archival research at the request of the Delaware Department of Transportation (DelDOT) for the State Route (SR) 1 Widening project. Over the past 20 years, rapid growth in the New Castle County area and a significant increase in traffic along SR 1 have caused DelDOT to propose widening SR 1 from the current six-lane configuration to an eight-lane roadway. This project would also include modified intersections and connector roads. As part of the SR 1 Road Widening project, the Louis Berger Group (Berger) conducted a Phase IA archaeological investigation of the area of potential effects (APE) and concluded that 70 percent of the total APE had been disturbed, previously surveyed, or otherwise contained low potential for intact stratigraphy (Bedell et al. 2012). Based on the Berger report and additional data received from DelDOT, Dovetail conducted a Phase IB archaeological study of testable areas along the SR 1 corridor. Using Berger's survey as a guide, the goals of Dovetail's Phase IB archaeological survey were to identify any archaeological sites older than 50 years in the project area and make recommendations on their National Register of Historic Places (NRHP) eligibility.

The Phase IB archaeological survey included a pedestrian reconnaissance to identify areas within the project area with the potential for intact deposits and subsurface investigations of these testable areas. The project area was defined as the portion of the APE determined to be undisturbed by Berger's Phase IA survey and Dovetail's pedestrian reconnaissance. The archaeological survey subjected the majority of the 25.1-hectare (62-ac) project area to subsurface testing, resulting in the excavation of 1,001 shovel test pits (STPs) and the recovery of 168 artifacts. Prior to the excavation of test units in areas of distinct artifact concentration, funding for the larger SR 1 project was withdrawn and the project was halted. Therefore, the results presented in this report were only based upon shovel testing. The survey identified one potential site, three field scatters, and three isolated finds (ISF). 7NC-E-051 Locus B is an historic scatter dating to the late-nineteenth or early-twentieth century. **Dovetail recommends that 7NC-E-051 Locus B is an archaeological site dating to the late-nineteenth or early-twentieth century and is defined by a cultural resource survey (CRS) number and an archaeological site number.** The three field scatters and three ISFs are, by definition, not archaeological sites and, therefore, **do not warrant CRS numbers or archaeological site number.** 7NC-E-051 Locus B, the field scatters, and the ISFs are **recommended not eligible for listing on the NRHP.**

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## INTRODUCTION

Dovetail Cultural Resource Group (Dovetail) conducted a Phase IB archaeological survey and archival research as part of the State Route (SR) 1 Road Widening project for the Delaware Department of Transportation (DelDOT). The project was completed between January and March 2014. Dr. Kerri Barile served as the Principal Investigator for the project. Dr. Barile meets or exceeds the standards established for archaeologist, architectural historian, and historian by the Secretary of the Interior. Field crews were under the direction of Project Archaeologist Heidi Krofft. Ms. Krofft meets or exceeds the standards for archaeologists set by the Secretary of the Interior.

Over the past 20 years, rapid growth in the New Castle County area and a significant increase in traffic along SR 1 have caused DelDOT to propose widening SR 1 from the current six-lane configuration to an eight-lane roadway. This project would also include modified intersections and connector roads. As part of the SR 1 Road Widening project, the Louis Berger Group (Berger) conducted a Phase IA archaeological investigation of the area of potential effects (APE) and an architectural survey (Bedell et al. 2012; Kuhn et al. 2012). The overall APE extends approximately 16.1 kilometers (10 mi) from the Roth Bridge, north of the Chesapeake & Delaware Canal, northward to the Christiana Mall. Within the total APE of 786.3 hectares (1,943 ac), Berger's background research identified 29 previous archaeological sites, 13 of which had been destroyed. Berger concluded that 70 percent of the total APE had been disturbed, previously surveyed, or was wetlands or bodies of water (Bedell et al. 2012:62). In addition to Berger's Phase IA survey, previous work conducted by MAAR Associates, Inc. (MAAR) identified a historic farmstead (7NC-E-149) within the current project area and included the excavation of an associated cemetery (Archibald 1999; Traver 2000). Based on a review of the Berger and MAAR studies, and in consultation with DelDOT staff, approximately 25.1 hectares (62 ac) along the APE corridor were determined to require Phase IB archaeological testing and were divided into seven different survey areas. Prior to the excavation of test units in areas of distinct artifact concentration, funding for the larger SR 1 project was withdrawn and the project was halted. Therefore, the results presented in this report are only based upon shovel testing.

The Phase IB archaeological survey included archival research, pedestrian survey, and subsurface archaeological investigations of the seven different testable areas identified in the Phase IA. The goals of the archaeological survey were to identify any archaeological resources over 50 years in age and to make recommendations on the National Register of Historic Places (NRHP) eligibility for all identified resources.

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## **PROJECT AREA DESCRIPTION**

The overall APE extends approximately 16.1 kilometers (10 mi) from the Roth Bridge, north of the Chesapeake & Delaware Canal, northward to the Christiana Mall, generally running along SR 1 and encompassing interchanges and intersections (Figure 1, p. 4). Over the past 20 years this 16.1-kilometer (10-mi) stretch has experienced rising traffic counts due to increasing population and growth. To alleviate these concerns, the road will be widened from its six-lane configuration to an eight-lane configuration. This work will require the widening of the road itself and the construction of modified intersection and reconfigured connector roads. A Phase IA survey by Berger concluded that 70 percent of the total APE had been disturbed, previously surveyed, or consisted of wetlands or bodies of water (Bedell et al. 2012:62). Therefore, approximately 25.1 hectares (62 ac) along the APE corridor were determined to require archaeological testing and were divided into seven different survey areas for this project (Figure 2, p. 5). As a part of this, one of the survey areas, Area 3, was located within a previously-identified site, 7NC-E-149. Due to its location within the boundaries of a site, Area 3 was subjected to close-interval shovel testing.

The survey areas located south of the divide between SR 1 and Route 13 tended to be composed of agricultural fields and small woodlots consisting of a mix of deciduous growth and low scrub, particularly near drainages (Photo 1–Photo 2, p. 6). North of this divide, the project area setting tended to be more suburban, with a distinct increase in residential developments consisting of single family homes. The survey areas, however, continued to comprise small deciduous woodlots mixed with agricultural fields (Photo 3–Photo 5, pp. 7–8). Typical disturbances encountered within the project area included berms related to SR 1, utilities, flooding, and grading (Photo 6–Photo 9, pp. 8–10).

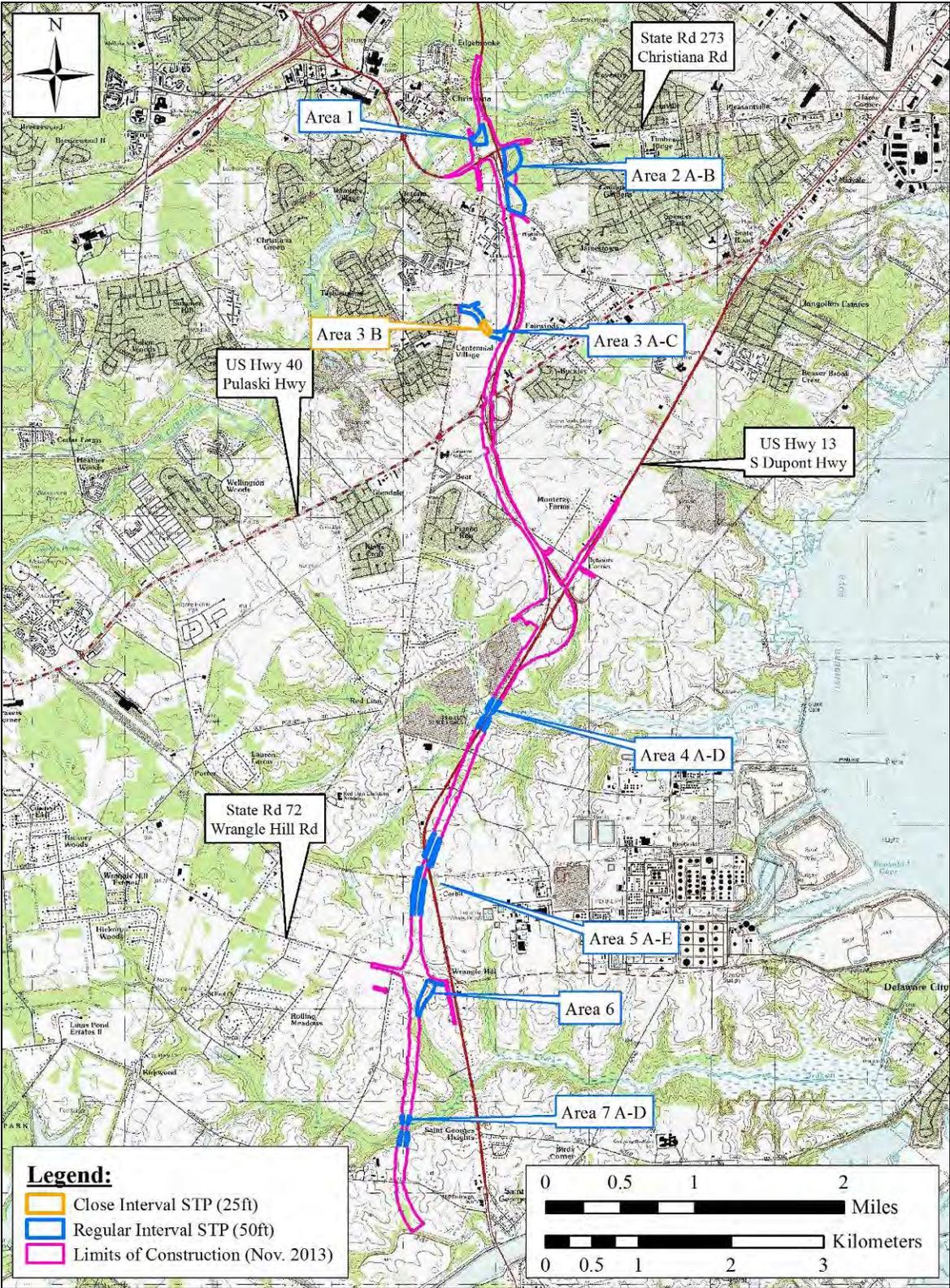


Figure 1: Location of Project APE Showing Dovetail Survey Areas on the United States Geological Survey Digital Raster Graphic Mosaic of New Castle County, Delaware (United States Department of Agriculture [USDA] 2001).





Photo 1: Suburban Setting North of the SR 1/Route 13 Divide.



Photo 2: View of Agricultural Fields Mixed with Woodlots North of SR 1/Route 13 Divide.



Photo 3: View of Typical Setting with Low Scrub Growth South of SR 1/Route 13 Divide.



Photo 4: View of Agricultural Field Typical of Setting in Survey Areas South of SR 1/Route 13 Divide.



Photo 5: View of Typical Wooded Setting South of the SR 1/Route 13 Divide.



Photo 6: View of Disturbance from Berm and Flooding in Project Area.



Photo 7: View of Disturbance Related to Drainage in Project Area.



Photo 8: View of Retention Pond Disturbance in Project Area.



Photo 9: View of Disturbance Related to Utilities in Project Area.

## **ENVIRONMENTAL SETTING**

The part of New Castle County in which the SR 1 Widening APE is located has historically been rural with large tracts of farmland and continues to be rural to an extent, particularly in the southern portion of the APE. However, improvements to roads such as U.S. Route 301 and SR 1, have made access from central New Castle County to the urban areas of northern Delaware and southeastern Pennsylvania much easier. As a result, large housing subdivisions have been built on former farmland. The APE extends along SR 1 from just north of the Chesapeake and Delaware Canal to south of Interstate 95. The southern portion of the APE is generally defined by agricultural fields, while the central and northern portions exhibit a mixture of housing developments interspersed with agricultural fields.

### **Geology**

The current project area is situated in the North Coastal Plain region of Delaware. The Coastal Plain physiographic province comprises two subdivisions, the High and Low Coastal Plain sections. The High Coastal Plain physiographic zone stretches north from the Smyrna River to the Fall Line, the boundary between the Piedmont and Coastal Plain (Custer 1984; Custer and Bachman 1986; Hodny et al. 1989). Sand and gravel deposits of continental origin blanket the High Coastal Plain.

The Potomac and Columbia formations characterize the sediments of the northern Delmarva Coastal Plain. Potomac sediments include fluvial silts and clays deposited during the Early Cretaceous Period. Sediments of the Columbia formation, deposited by watercourses from the north during the Quaternary Period, cap the Potomac sediments in portions of the region. Glacial outwash near the end of the Pleistocene deposited extensive beds of coarse sands, pebbles, and cobbles across the High Coastal Plain as far south as the Smyrna River in Delaware. Sands composed primarily of quartz and feldspar, along with coarse gravels of sandstone, quartz, and chert, form the Columbia formation (Custer 1984; Jordan 1964; Petraglia et al. 1998:7).

The gravels resisted erosion which created a gently rolling topography with up to 15.2 meter (50 ft) differences in elevation between floodplain marshes and headlands, thereby creating differences in plant communities. These topographic conditions combined with the presence of tidally influenced brackish watercourses and freshwater further inland to create habitats suited for a wide range of resources.

### **Hydrology**

The project area is drained primarily by the Christina River, Red Lion Creek, and Dragon Creek, in addition to smaller unnamed tributaries of these drainages. All of these drainages eventually empty into the Delaware River to the east of the project area. The Delaware River then empties into the Delaware Bay, which joins the Atlantic Ocean between Cape Henlopen, Delaware, and Cape May, New Jersey.

## Soils

Fertile, well-drained soils attracted both humans and game over millennia. Moreover, the wild grasses, fruits, and seeds consumed by people both before and after the adoption of agriculture flourished in such settings. As a consequence, numerous archaeologists have cited the correlation between the distribution of level to gently sloping, well-drained, fertile soils and archaeological sites (e.g., Lukezic 1990; Potter 1993; Turner 1976; Ward 1965). Soil scientists classify soils according to natural and artificial fertility and the threat posed by erosion and flooding, among other attributes. Soil Classes 1 and 2 represent the most fertile soils, those best suited for not only agriculture but for a wide range of uses. Of course, soil productivity must be considered in relation to the productivity of the surrounding soils as well.

Within the testable portions of the project area, Class 1 and 2 soils, such as Matapeake silt loam and Reybold silt loam, represent the most likely setting for short-term prehistoric sites. Soils included in these two classes comprise 75 percent of the testable portions of the project area. Historic sites could also be present. The fact that most of these soils have a tendency to erode could impact site integrity. Poor to very poor drainage and flooding make most of the remaining soil types, such as Nanticoke and Mannington soils, unlikely settings for archaeological resources (Table 1, p. 13) (Soil Survey Staff 2015).

Table 1: Soils in the Testable Portions of the Project Area (Soil Survey Staff 2015).

| Soil Name                       | Class | Slope   | Percentage of Project Area | Characteristics                                     |
|---------------------------------|-------|---------|----------------------------|---|
| Reybold silt loam               | 2e    | 2–5%    | 17%                        | Well-drained, tendency to erode                     |
| Keyport silt loam               | 2e    | 2–5%    | 15%                        | moderately well-drained, tendency to erode          |
| Greenwich loam                  | 2e    | 2–5%    | 13%                        | Well-drained, tendency to erode                     |
| Reybold silt loam               | 3e    | 5–10%   | 12%                        | Well-drained, tendency to erode                     |
| Sassafras sandy loam            | 2e    | 2–5%    | 11%                        | Well-drained, tendency to erode                     |
| Keyport silt loam               | 2e    | 2–5%    | 6%                         | moderately well-drained, tendency to erode          |
| Mattapex-Urban land complex     | 2e    | 0–5%    | 5%                         | moderately well-drained, tendency to erode          |
| Nanticoke and Mannington Soils  | 8     | 0–2%    | 4%                         | very poorly drained, very frequently flooded, tidal |
| Sassafras sandy loam            | 4e    | 10–15 % | 3%                         | Well-drained, tendency to erode                     |
| Downer sandy loam               | 3e    | 5–10%   | 3%                         | Well-drained, tendency to erode                     |
| Woodstown loam                  | 2w    | 0–2%    | 2%                         | moderately well-drained, water in soil              |
| Nanticoke and Mannington Soils  | 8     | 0–2%    | 2%                         | very poorly drained, frequently flooded, tidal      |
| Hambrook sandy loam             | 2e    | 2–5%    | 1%                         | Well-drained, tendency to erode                     |
| Downer sandy loam               | 2e    | 2–5%    | 1%                         | Well-drained, tendency to erode                     |
| Matapeake silt loam             | 1     | 0–2%    | 1%                         | Well-drained  |
| Matapeake silt loam             | 2e    | 2–5%    | 1%                         | Well-drained, tendency to erode                     |
| Longmarsh and Indian Town Soils | 5w    | 0–2%    | 1%                         | very poorly drained, frequently flooded             |
| Keyport silt loam               | 2w    | 0–2%    | 1%                         | moderately well-drained, water in soil              |
| Nassawango silt loam            | 2e    | 2–5%    | 1%                         | Well-drained, tendency to erode                     |
| Sassafras sandy loam            | 6e    | 15–25 % | 0%                         | Well-drained, tendency to erode                     |
| Greenwich-Urban land complex    | 2e    | 0–5%    | 0%                         | Well-drained, tendency to erode                     |
| Reybold silt loam               | 1     | 0–2%    | 0%                         | Well-drained  |

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## METHODOLOGY AND RESEARCH DESIGN

The purpose and goal of this Phase IB investigation was to identify any archaeological sites on or eligible for the NRHP within the project's APE. The project area is defined as the areas within the limits of disturbance for the widening of SR 1 that were determined to have the potential for intact subsurface deposits during the Phase IA survey. Based upon research conducted during the Phase IA survey and previously recorded sites located within and adjacent to the project area, the project area was judged to have moderate to high potential to contain archaeological resources.

### Archival Research

Over the past few decades, numerous studies have examined the area in and around the SR 1 corridor in New Castle Hundred. The most relevant to this investigation include two studies conducted by The Louis Berger Group, entitled *Phase IA Archaeological Investigations State Route 1 Widening, New Castle County, Delaware* (Bedell et al. 2012) and *Architectural Survey Report, SR 1 Widening, New Castle County, Delaware* (Kuhn et al. 2012). Both investigations conducted a thorough background review of the current corridor of study, identifying a number of previous surveys and cultural historic resources in the project vicinity and creating a historic context for the affected area. The current investigation builds upon this work, conducting additional archival research to inform the archaeological study of specific parcels to be impacted by the proposed project.

In 2014, Dovetail conducted archival research to further examine the history and historic occupants of the project area, primarily the portion surrounding Areas 1, 2, and 3. Additional architectural and archaeological investigations conducted in the 1990s are particularly relevant to the Area 3 and the site of Partridge Memorial Cemetery and House (7NC-E-149; N-13766) and the John T. Simmons House and Farmstead (N-4039) (Traver 2000). This includes physical documentation and archival research conducted by staff and students at the University of Delaware's Center for Historic Architecture and Design (CHAD) in October 1999, resulting in measured drawings of the main dwelling, dairy barn, and corn crib/granary (CHAD 1999).

Beginning in January, Dovetail staff visited several repositories in the region, including the Delaware Public Archives, New Castle County Circuit Court, the Historical Society of Delaware, Cecil County Historic Society in Elkton, Maryland, and Morris Library at the University of Delaware. Online resources, such as Ancestry.com, familysearch.org, digital collections of the Delaware Public Archives, the CHAD at the University of Delaware, the library of the Maryland Historical Society, Maryland State Archives, and the Library of Congress.

Primary historic sources associated with the project area recovered in this initial research included limited deeds and mortgages, wills and probate records, warrants and surveys, various court records, newspaper articles, historic maps, family records, Federal Population Census records, and tax assessments from both Delaware and Maryland dating from the

eighteenth, nineteenth, and twentieth century. Identified secondary sources consisted of genealogical records and historical publications, as well as previous architectural and archaeological surveys of cultural resources in the project vicinity.

## **Archaeological Survey**

The goal of the Phase IB archaeological survey was to locate any archaeological resources within the seven survey areas. The survey also included an initial determination of resource integrity, identification of cultural activities that took place, and a recommendation for future studies on identified resources to make an informed determination of eligibility for NRHP listing.

The archaeological survey consisted of a pedestrian survey to identify any unrecorded above-ground resources and areas of disturbance and a subsurface field survey to identify any buried resources. The subsurface testing utilized STPs on those portions of the project area that were identified as having the potential for intact deposits. STPs were excavated at 15.2-meter (50-ft) intervals along transects across the testable areas. Each transect was given a letter designation and STPs on each transect were given a numerical designation. The provenience information for each STP included area number, transect letter, and a numerical designation (i.e., 2-A-4). STP radials were excavated at 7.6-meter (25-ft) intervals in cardinal directions from shovel tests that produced cultural materials. One exception to this is a portion of Area 3 that was determined to have a very high probability of containing an abundance of historic materials (Bedell et al. 2012). Thus, this portion was surveyed at 7.6-meter (25-ft) intervals with no radial shovel tests. STPs measured approximately 38.1 centimeters (1.25 ft) in diameter and were excavated to penetrate at least 12.2 centimeters (0.4 ft) into sterile subsoil where possible.

All soils were screened through 0.6-centimeter (0.25-in) hardware mesh cloth. Each natural stratum was given a stratum designation in order to delineate strata relationships. All artifacts were recovered and bagged by stratum. All provenience, excavator, date, and material information were recorded on field tags. Profile photographs and a scale drawing were done of at least one unit wall and any identified features. The location of all STPs and test units were documented through a hand-held GPS unit. Soil conditions, weather, and notations on disturbances were recorded in field notes. Field notes and photographs were taken to document the general project area.

## **Laboratory Methods**

Any archaeological specimens collected during the Phase IB survey were transported to the Dovetail laboratory in Fredericksburg, Virginia for processing and analysis. Prior to washing, each bag was cross-referenced with the field log to confirm provenience information and contents. Stable objects were washed with tap water and a soft brush with special attention paid to edges of ceramics and glass to better aid in identification. After washing, the artifacts were grouped by provenience and placed on a drying rack.

Once dry, the artifacts were cataloged for analysis. Specific characteristics were described using currently accepted terminology and were entered into an Excel database. After cataloging, diagnostic artifacts were pulled and directly marked with their provenience information or accession number.

Specific ware types and manufacture dates were identified using Adams (2002), Bartoviks (1980), Greer (1970), Nelson (1968), Noël Hume (1991), Pittman et al. (1987), and South (1977). Non-tool prehistoric lithics were identified using Andrefsky (1998), Odell (2004), and Whittaker (1994). Hafted bifaces and prehistoric ceramics, if recovered, were assigned types using standard regional typologies (i.e., Coe 1964; Custer 1989; Ritchie 1971).

## **Research Design**

This cultural resource survey was conducted with the Delaware Statewide Comprehensive Historic Preservation Plan in mind (Ames et al. 1989; Bedell 2002; Catts and De Cunzo 1999; De Cunzo 2004). The state's Historic Preservation Plan identifies six historic periods:

- a. 1630–1730: Exploration and Frontier Settlement
- b. 1730–1770: Intensification and Durable Occupation
- c. 1770–1830: Early Industrialization
- d. 1830–1880: Industrialization and Early Urbanization
- e. 1880–1940: Urbanization and Early Suburbanization
- f. 1940–1960: Suburbanization and Early Ex-urbanization Period

Based on the previously completed Phase IA investigations (Bedell et al. 2012), it appears that the periods dating from 1770 to 1880 are the most relevant based on the occupation history of the project area. Data from the known archaeological sites near the APE suggests that any historic resources identified in the APE would likely date to the late-eighteenth to late-nineteenth centuries and could have the potential to provide new information on changes in agricultural practice in this historically agricultural area of Delaware during the Early Industrialization Period, the Industrialization and Early Urbanization Period, and the corresponding Periods of Transformation from Colony to State (1770–1830) and Industrialization and Capitalization (1830–1880) (De Cunzo and Catts 1990).

Dovetail also conducted the survey in light of the Delaware Management Plan for Prehistoric Resources (Custer 1986), which created models for the likely presence of prehistoric sites from various temporal affiliations in various Delaware locations based on the results of previous work in these locations. The project area is located within the Coastal Management Unit of the Plan. In general, the probability for finding Paleoindian period sites along the coast is low. Specifically, the probability of finding Paleoindian quarries, quarry reduction stations, quarry-related base camps, base camps, and base camp maintenance stations are low. There is a medium probability of finding Paleoindian hunting sites along the coast. The coastal management unit should have a low probability for the presence of all Archaic Period base camps, but a medium probability for the presence of procurement sites. Woodland I Period macro-band base camps have a low probability of occurrence, while micro-band base camps and procurement sites have a medium to high probability of occurrence. Woodland II Period sites have a moderate to high probability and European Contact Period sites have a

low probability of occurrence in the coastal management unit. As yet unidentified Woodland I, Woodland II, and Contact Period sites are considered likely to add valuable additional information (Custer 1986).

## CULTURAL CONTEXT

Recommended contexts for Native American prehistory in Delaware rely on Custer's (1986) quadripartite division of Paleoindian, Archaic, Woodland I, and Woodland II. Recently, the possibility of a human presence on the Delmarva Peninsula prior to the Paleoindian Period has moved from remote to possible; for this reason, a Pre-Clovis discussion precedes the recommended time periods. The seventeenth- through twentieth-century historical overview follows the Delaware Division of Historical and Cultural Affairs (2014) recommended sequence: Contact; Exploration and Frontier Settlement; Intensified and Durable Occupation; Industrialization and Early Urbanization; Early Urbanization and Suburbanization; and Suburbanization and Ex-Urbanization. Temporally overlapping periods have been combined.

### Prehistoric Context

There are five general, chronological periods of Native American cultures of the Delmarva Peninsula defined by Custer (1984, 1986): Paleoindian (15,000–8500 B.P.), Archaic (8500–5000 B.P.), Woodland I (5000–1000 B.P.), Woodland II (1000–300 B.P.), and the Contact Period (1650–1750).

#### *Paleoindian Period (15,000–8500 B.P.)*

The Paleoindian Period marks the retreating of glacial conditions and the beginning of a Holocene environment that is characterized by cold temperatures and alternating periods of wet and dry climate. Human adaptation to these environmental conditions developed into small groups of nomadic Native American hunters and gatherers. Although direct archaeological evidence of non-mammalian food resources consumed by Paleoindian peoples is lacking in Delaware, paleoenvironmental data suggests that the period comprised deciduous, boreal, and grassland biomes. These environs would have provided grazing, browsing, and shelter for animals and provided foraging opportunities.

Primarily, Paleoindian Period toolkits were designed for game procurement and processing. They include projectile points, hafted and unhafted knives, scrapers, and less-formalized flake tools. The fluted point is the early diagnostic hallmark of this period (Clovis, Mid-Paleo, and Dalton). Later point forms of the period were notched and often serrated (Palmer, Amos, Kirk). Toolkits often displayed high degrees of maintenance and reworking, which is consistent with nomadic lifestyles and migration between lithic raw material sources. Custer (1989) has identified Paleoindian sites along the Mid-Peninsular Drainage Divide of the Delmarva Peninsula, with the Hughes Complex in Kent County exemplifying their distributional pattern (Custer 1984).

A concentration of fluted point finds in northwestern New Castle County may be indicative of Paleoindian exploitation of high-quality cryptocrystalline lithics found in the Delaware Chalcedony complex (Custer 1989). Paleoindian sites throughout North America are characterized partially by their exhibiting a preference for high-quality lithics from which to craft fluted points and other tools used as part of a continuous curation tool-use strategy

(Callahan 1979; Goodyear 1979). Other, as-yet undiscovered, Paleoindian sites are likely to be located offshore in the Delaware and Chesapeake Bays in former terrestrial landscapes which are now inundated as a result of constant sea-level rise since the onset of the Holocene (Lowery 2007; Lowery et al. 2012). In fact, it is possible that the earliest Paleoindian sites in the region, pre-dating Clovis times, are currently in locations where they are inundated or in active tidal zones (Lowery 2007).

### ***Archaic Period (8500–5000 B.P.)***

The Archaic Period is characterized by the emergence of full Holocene environmental conditions and a landscape that was dominated by mesic oak and hemlock forests. These forests attracted smaller game, such as deer and turkey, which replaced the cold-adapted grazing animal species, like bison antiquus and caribou, which became extinct (Custer 1984).

A rise in sea level caused lowland flooding and the formation of river systems and swamp areas within the Mid-Peninsular Drainage Divide. The Native American peoples shifted from a more hunting-based pattern (Paleoindian Period) to one where plants became a more important food source (Custer 1989:128). A fission-fusion model of social organization produced macro- and micro-base camps and procurement camps, with group sizes changing in response to the availability of resources each season (Custer 1989:129–130). Archaic toolkits include a number of tools indicative of plant food processing, grinding stones, netsinkers, and stone mortars. Archaic sites in the Delaware include several sites within the Churchman's Marsh vicinity, located a short distance upstream along the Christina River from the present project area.

### ***Woodland I (5000 B.P.–1000 B.P.)***

The Woodland I Period is marked by a pronounced warm and dry period, and dramatic changes in local environments and climate. Sea level rise slowed, allowing stabilization of riverine and estuarine areas, which in turn led to an increase in aquatic resources. This led to higher degree of sedentism by the Woodland I peoples who began establishing large macro-band base camps with evidence of use year-round (Custer 1989). Storage pits and evidence of house structures are found at these sites for the first time. Increased social complexity is also evident during this period in the form of grave goods indicating complex mortuary ceremonies beginning around 2500 B.P.

The Woodland I Period is also marked by stemmed, broad-bladed, and fishtail points, as well as an increased use of rhyolite and argillite. Ceramics replaced steatite bowls around 3000 B.P. (Custer 1984). The Delmarva Adena Complex appeared in central Delaware while the Black Rock Complex (formerly the Wolfe Neck) was present in New Castle County. Components from the Black Rock/Wolfe Neck Complex are found at Clyde Farm Complex sites. These Black Rock and Delmarva Adena complexes seem to have ended by 2000 B.P., and the Carey Complex appears followed by the Delaware Park Complex by 1500 B.P. (Custer 1989:253).

The Woodland I period is particularly relevant to the present discussion because it is during this time period that large archaeological sites begin to appear in landscapes similar to that in

which the current project area is located. The type site for the Clyde Farm Complex is located a short distance upstream from the current project area along the Christina River in a similar environmental setting, being associated with the extensive wetlands of Churchmans Marsh. Such wetlands are among the most productive environments in the world in terms of the availability of naturally occurring food resources. Location near extensive wetland areas became the core of local native peoples' settlement patterns for the remainder of the Woodland period in the area around what it now Wilmington (Custer 1984, 1989).

### ***Woodland II (1000 B.P.–350 B.P.)***

The Woodland II Period is generally marked by more intensive use of plant foods in the Middle Atlantic region and a shift to a more sedentary lifestyle and the development of an agricultural system. However, this shift to more of an agricultural system is absent in the Delmarva Peninsula (Custer 1989). There are two Woodland II complexes identified in Delaware: the Slaughter Creek Complex and Minguannan Complex. Artifacts include thin-walled Minguannan ceramics and triangular projectile points. The sites of the complexes are in the same environmental contexts as those of the Woodland I Period, oriented in marshes and wetland areas. This indicates that there were no major changes in the lifestyles of the peoples in Delaware during this time period (Custer 1989:314), although ceramics become more refined and are presumably used with greater and greater frequency for everyday cooking tasks.

### ***Contact Period (1650–1750)***

The Contact Period is marked by the initial contact between the Native American peoples of Delaware and European colonists. This was followed by the collapse of traditional native lifeways, as European goods and practices were adopted, and disease and conflict over the fur trade caused a severe loss of life among native groups. Evidence indicates that resident native populations in Delaware had minimal interaction with European settlers and were prevented from interacting with them by the Susquehannocks of southern Lancaster County, Pennsylvania, who dominated the fur trade. The Susquehannocks were exterminated by the Europeans by 1763, and the groups of refugees formed what Custer calls “Refugee Complexes” (Custer 1986:315; Kent 1989).

## **Historic Context**

In accordance with Delaware Comprehensive Preservation Plan (Ames et al. 1989), the history of Delaware is generally divided into six time periods beginning with the exploration of the area by numerous European peoples in North America and extending more than three centuries to encompass recent development trends in suburbanization and the policies that have shaped the landscape during the latter-half of the twentieth century. These periods are: Exploration and Frontier Settlement (1630–1730), Intensified and Durable Occupation (1730–1770), Transformation from Colony to State (1770–1830), Industrialization and Capitalization (1830–1880), Urbanization and Early Suburbanization (1880–1940), and Suburbanization and Ex-Urbanization (1940–1960).

### *Exploration and Frontier Settlement (1630–1730)*

The first European to explore the Delaware River was Henry Hudson in 1609, yet it was the Dutch West India Company who sent the first settlers to the area, established settlements at High Island in 1624 and Lewes in 1631, and opened the region for colonization (Weslager 1961:11). By 1632, conflict with the Native American population forced the settlements to be abandoned. In 1638, after “purchasing” land from the Native Americans, Swedish colonists established settlements on the banks of the Delaware River from Cape Henlopen to modern Trenton with the center of the colony being Fort Christiana. Fort Christiana, was located near present-day Wilmington and was the first permanent settlement in the state (Rummel, Klepper, & Kahl [RK&K] 1993:IV-8). Also known as Christianaham, this colony is originally contained 25 Swedish and Finnish settlers who built a small fort with a cluster of houses and cultivated fields along the Christina River (LeeDecker et al. 2011:17).

Though Swedish and Finnish immigrants settled much of the region, the Dutch West India Company laid claim to the entire coastline from New York to the Chesapeake Bay and, in 1651, they established Fort Casimir at the site of present-day New Castle. After a military struggle, the Dutch captured Fort Christina in 1655 and allowed it to fall into ruin, but encouraged continued settlement of the region by Dutch, Swedish, and Finnish colonists (LeeDecker et al. 2011:17). In 1664, Sir Robert Carr, acting on behalf of the Duke of York and Albany, confiscated the lands, houses, and property of Dutch officials in the Delaware Valley region and transferred authority of the Dutch colonies to England.

Soon after England obtained possession of the country, political officials sought to develop it by awarding a number of land grants. In 1687, the state was divided into administrative units known as “hundreds,” five of which were established in New Castle County. Over time, these five political districts were further divided, resulting in the 11 hundreds that continue to mark the County today (Kuhn et al. 2012:6). Settlement patterns shifted from closely spaced Dutch and Swedish villages along the Delaware River and its estuaries to scattered farmsteads along internal drainages and emerging roadways. Around the confluence of the Christina and Brandywine Rivers, much of the land was owned by relatively few farmers.

Transportation routes in this era were dictated by natural waterways, as water transportation provided a cheaper, more efficient method of transporting goods (DeCunzo and Catts 1990:30–35). Few overland paths and roadways connected villages along the waterways. One early village known as Christiana Bridge developed on the north side of the Christina River in the late seventeenth century at a strategic point along the King’s Road from Baltimore to Philadelphia (Kuhn et al. 2012:7). European settlers valued the marshlands around the Delaware Bay for the access they provided to navigable waters, but also for the wildlife they harbored including fowl, fish, and small game (Fisher et al. 1993:2). Although trade limitations prevented the commercial, fur trading and fishing for domestic trade occurred regularly.

The ports of Philadelphia, Wilmington, and New Castle grew steadily and had a large commercial role in the growth of Delaware. Early records from this period indicate that a sawmill cut lumber along the Christina River in 1677 and three grist mills were in operation

along Shellpot Creek by 1679; however, the most common activities in the area remained clearing forest, cultivating land, along with hunting, trapping, and trading (Dixon 1992:13).

Continued settlement and population growth in northeastern Maryland, southeastern Pennsylvania, and northern Delaware fueled agricultural activities and development of the hinterlands, and reinforced the economic growth of the region's ports. In 1692, William Penn received title to the three "Lower Counties" of Delaware: New Castle, Kent, and Sussex. Shortly after this exchange, colonists in Delaware found themselves in disagreement with those in the Pennsylvania colony over matters of governance, voting power, appropriations, and religious character. This led to the counties breaking away and the creation of the new colony of Delaware in 1704 (Munroe 1984).

### ***Intensified and Durable Occupation (1730–1770)***

In 1731, the first permanent settlement of Wilmington began when Thomas Willing bought land between the Christina and Brandywine Rivers and laid out the town's grid. By 1736, 30 houses reportedly occupied this high ground around the Fall Zone between Piedmont and Coastal Plain zones (LeeDecker et al. 2011:17). Initially known as "Wilmington," the town's location on a natural harbor, navigable waterways, and established overland transportation routes supported its commercial growth.

Several early-eighteenth-century towns formed along the few overland roadways that marked the area, including the communities of Red Lion and St. Georges. "St. Georges was established sometime before 1730 at a milldam on the south side of St. Georges Creek. A tavern was at the location as early as 1735 and was still in operation as late as 1762, when the King's Highway was officially surveyed through the area" (Kuhn et al. 2012:7).

Most of the state's residents were farmers with 80 to 90 percent reported to be engaged in agriculture (Egnal 1975:201). Many large estates and land grant parcels were divided, creating new farm properties centered on supplying the market-driven agricultural economy (Frederick et al. 2006:56). In the marshland areas around the Delaware Bay, farmers grazed cattle and harvested salt hay and other marsh grasses. Throughout the year, they "ditched and banked the marshy areas to utilize the fertile organic soil of the lowlands" (Fisher et al. 1993:2). Lands reserved as forests or marshes were cleared and incorporated into the crop cycle as the need for more cropland increased. Wheat was the primary crop produced by area farmers, followed by rye, corn, barley, oats, and a variety of vegetables (Main 1973). Livestock supplemented farmers' income from surplus crops as an increased need for labor was filled by indentured servants and slaves (Frederick et al. 2006:56).

Milling operations prospered in response to the abundance of wheat produced in the area and led to the establishment of other industries in urban centers, including shipbuilding, coopering, and import-export trading. "The processing of grains by merchant millers gave tremendous impetus to Wilmington's growth as a regional port..." with many of the area's mills situated along the Brandywine and most of its wharves and shipyards dotting the Christina (Dixon 1992:16).

Increased commercial activity fostered the growth of port towns along the region's waterways. These communities "housed ship builders, captains and their crew members, fishermen, trappers, hunters and various occupations associated with a prosperous town," including merchants, store keepers, physicians, cobblers, and others in consumer goods (Fisher et al. 1993:2). The river town of Newport emerged in the 1730s as one of the earliest villages established in Christiana Hundred (Kurtze 1992:2). In addition to its location along the Christina River, Newport was at the crossroads of two early overland transportation routes, making it "...an important trans-shipment point for land and waterborne commerce" (Kurtze 1992:4). As place of both receiving and shipping goods, river towns also became centers for processing, exchange, and storage (RK&K 1993:IV-11). Wharves and store houses were increasingly common in Newport and along navigable portions of the Christina River in the latter half of the eighteenth century. In 1772, a local law was passed to establish specific dimensions for wharf construction and curtail the growing number of long wharves that impeded navigation (Weslager 1947:58).

### ***Early Industrialization/Transformation from Colony to State (1770–1830)***

By the late-eighteenth century, area farmers began to suffer the effects of exhaustive agriculture with decreased soil fertility and erosion in northern Delaware. Virgin soils and large land grants on the nation's frontier challenged the region's agricultural economy. To fight these problems and improve area agriculture, the farmers of New Castle County established the state's first agricultural society in 1804 (Frederick et al. 2006:59). Marshland areas were increasingly reclaimed by farmers for use as cropland as ditches helped to drain the marsh and often doubled as property boundaries (Fisher et al. 1993:86). As the reclamation process became more routine, farmers collaborated to make improvements:

Individuals or groups applied to the General Assembly for permission to ditch and bank certain areas... The legislature granted permission in almost every case, often allowing marsh companies to levy taxes for the improvement on any landholder whose marsh land benefitted from the work (Fisher et al. 1993:87).

Though smaller landowners and tenant farmers initially fought these developments, marsh companies were eventually accepted as beneficial to farmers and were seen to improve land values (Fisher et al. 1993:87).

Throughout this period, improved milling technology and increased diversity of manufacturing operations around Wilmington characterized the region's industrial development (Dixon 1992:18). Oliver Evans, a wheelwright by trade, invented the "automatic fowl mill" when he compiled a number of machines to automate the grinding process, enabling a significant expansion in its production (Dixon 1992:21). Born in Newport, Evans' invention was soon picked up by prominent millers in the region, and adapted to suit other areas of industry.

The American Revolution brought disarray to the region, and social and political unrest in Delaware further heightened an already tense atmosphere. Strong family and political ties to Pennsylvania and a mercantile economic system resulted in support for the Revolutionaries

(Hunter et al. 1995:4–7). Though only one Revolutionary War battle was fought in Delaware at Cooch’s Bridge in 1777, British troops occupied Wilmington after the Battle of Brandywine for a time, and threatened the state capital at New Castle. The capital was soon transferred to Dover—a move that became permanent in 1781.

The War of 1812 similarly avoided the state, but its economic impacts were felt in a series of embargoes negatively affecting trade and increased economic competition from new lands in the West. Meanwhile, manufacturing and commerce prospered as the state’s population increased. Textiles, paper, snuff, rope, gunpowder, and iron were all produced in New Castle County (Coxe 1814).

Overland transportation routes were also constructed at this time and improved to accommodate increased numbers of travelers and trade. The economic depression of 1819, brought on by low prices for wheat and other grains, further decreased the value of agricultural land and crops across the state. During this period, the most successful agrarians became part of central Delaware’s rural elite farming class, and diversified their interests by purchasing urban properties, investing in banks and manufacturing facilities, and supporting the growth of transportation networks (Siders et al. 1991). Though labor-intensive agricultural activities were common, farmers in Delaware were less dependent on the use of enslaved people on the whole. The state constitution even prohibited the importation and exportation slaves shortly after the Revolutionary War.

One new type of transportation network developed in America during this era was the canal. Plans to construct a canal through central Delaware were initiated in the late-eighteenth century, though construction did not begin until the early 1820s. The Chesapeake and Delaware Canal (C&D Canal) opened to traffic in 1829 and connected the Chesapeake Bay with the Delaware River to provide improved market access for the region’s farmers (Frederick et al. 2006:62). However, the new canal also got the attention of industrialists and companies looking to expanded steamboat service in the area.

### ***Industrialization and Capitalization (1830–1880)***

In northern Delaware, the Industrial Revolution led to significant advances in transportation, urbanization, and industrialization. The state’s first railroad, the New Castle and Frenchtown, was completed in the early 1830s and was soon followed by the Philadelphia, Wilmington, and Baltimore Railroad (PW&B) in 1837. Around this time another group of entrepreneurs formed the New Castle and Wilmington Railroad Company, chartered in 1839, though construction did not begin until 1852 (Coverdale and Colpitts 1946:324). Funding for this smaller rail line was secured from the PW&B, and was sold to the latter company in the 1880s (Pennsylvania Rail Road Company Corporate Records [PRRCCR] n.d.). Impacting southern New Castle County and the rest of the state, the Delaware Railroad was constructed in the 1855 and 1856, extending rail service south from Wilmington through Dover and Seaford into Maryland’s Eastern Shore (PRRCCR n.d.).

These railroads, the newly constructed C&D Canal, and the continued construction of turnpikes and overland transportation routes allowed farmers and merchants increased opportunity to ship their products to markets in the eastern urban areas and abroad. As

eastern urban centers grew and farming techniques improved, agriculture in Delaware expanded to include the production of perishable dairy goods, fruits, and vegetables for these markets. During this boom period, area farmers invested in new machinery and buildings in what has been identified as a great period of rebuilding the agricultural landscape.

Wilmington remained an important commercial and manufacturing hub for the state. The industrialization of area factories grew rapidly in the city as steam-powered machinery took hold of various manufacturing concerns. Between 1850 and 1860, “steam-powered factories increased over 240%, from 15 to 51 establishments... and the total number of works rose nearly 120%, from 1,745 to 3,826” (Dixon 1992:28). Work drew people to the city and Wilmington’s population grew from over 8,000 residents in 1840 to 21,258 in 1860, and reached 42,478 by 1880 (Dixon 1992:29). Shipbuilding and associated mercantile trades remained an important sector of area industry, with numerous firms locating and expanding operations in the area.

Throughout the Delaware River estuaries, shad, oyster, and sturgeon fishing were lucrative endeavors for residents in the marshlands and river towns, aided by technological improvements and machinery, commercial fishing operations began to emerge (Fisher et al. 1993:3). Salt hay grown in area marshlands was used for packing and insulating these products, particularly caviar (sturgeon roe), for shipment to overseas markets where they commanded high prices (Fisher et al. 1993:2). Marsh companies continued to support agriculture along the Christina River, while the Christiana River Improvement Company conducting widespread filing of some marshes in the mid-1800s (Bromberg 1988).

Delaware was not physically impacted by military conflict during the Civil War, but played an important role in the effort for the Union. As a strong industrial center, Wilmington’s economy flourished in the production of railroad cars, ships, gunpowder, tents, clothing, shoes and other materials for the war (City of Wilmington 2003:1). This prosperity continued after the conflict, and “By 1868, Wilmington was producing more iron ships than the rest of the country combined and rated first in the production of gunpowder and second in carriages and leather” (City of Wilmington 2003:2).

### ***Urbanization and Suburbanization (1880–1940)***

The state’s industrialization, post-war prosperity, and increasing population in the late-nineteenth and early-twentieth century led to an urban expansion as immigrants from Eastern and Central Europe settled in Delaware cities and towns. Nearly 70 percent of New Castle County’s population in the early 1900s lived in Wilmington (Kellogg 1990:32). Beginning in last quarter of the century, suburban neighborhoods emerged as a fashionable alternative to the busy streets and industrial activities at the City’s core. Common problems in the urban environment resulting from a lack of sewer and water facilities plagued city residents, including a series of viral outbreaks. Wilmington’s board of trade worked to improve living conditions in the city promote the dredging of the silted Christina River, the establishment of freight service throughout south Wilmington, and the construction of new Port facilities between the 1880s and 1920s (Dixon 1992:35).

Railroads continued to have a significant influence on the state, as several companies expanded operations or re-constructed existing lines to accommodate increasing freight and passenger traffic. Twice during this period, the PW&B, along with the Pennsylvania Rail Road (PRR), is successor, “undertook building programs that transformed the Christiana riverfront” (Dixon 1992:34). One such program was the construction of the Shellpot Cut-off branch, a 8.53-kilometer (5.3-mi) stretch of double-track railroad built in 1888 to divert commercial freight traffic around Wilmington, while another cut-off was constructed to bypass New Castle and facilitate better rail transportation from southern New Castle County north to Philadelphia.

Manufacturing in the state remained highly concentrated in the northern portion of the state around Wilmington in this period, and continued to play an important role in the country’s industrial economy—ranking seventh in leading manufacturing centers by 1907 (RK&K 1993:IV-17). However, despite economic growth in the first decades of the twentieth century, “some of Wilmington’s largest and oldest industries, especially those involved in railroad car and shipbuilding, experienced downturns causing some to close operations or become part of national corporations” (Dixon 1992:36). Though government contracts aided many in manufacturing during the First World War, after it was over, a decline persisted throughout the Great Depression.

Reflecting a larger trend in population across the country, more people resided in the cities than ever, aided by increased transportation opportunities and the automobile age. Construction of T. Colman DuPont’s concrete highway in 1923, also known as US Route 13, allowed residents and visitors to traverse the state more easily. Open to traffic by 1924, this roadway stretched from Wilmington, at the north end of the state, to the Delaware-Maryland state line at the south (Frederick et al. 2006:79).

Urban growth spread out from Wilmington, encroaching on surrounding farmland. By the end of this period, the pattern and density of settlement in Delaware had developed into suburban clusters at the edges of urban communities and in close proximity to highways (Frederick et al. 2006:80). Scattered commercial development grew in response to residents’ increased reliance on the automobile, particularly along well-traveled highways, resulting in the construction of gas stations, motels, diners, and roadside stands across the state.

Transportation improvements and manufacturing growth during this period encouraged farmers to industrialize as increased mechanization began to fill a growing labor shortage. Agriculture in the state continued to be diverse, though rising urban populations fostered growth in the number of dairy, poultry, and truck farming operations (Frederick et al. 2006:77). By the end of the period, large farms had become corporations producing goods specifically for markets in Philadelphia, New York, Baltimore, and other urban areas.

Beginning in the 1870s, intensive agricultural use of marshland areas throughout the state started to decline as agricultural markets began to shift to the Midwest (Fisher et al. 1993:90). After a series of financial crisis in the last quarter of the nineteenth century and a few devastating hurricanes in the early-twentieth century, many owners abandoned reclamation and farming activities in the coastal plains areas.

### ***Suburbanization and Early Ex-urbanization Period (1940–1960)***

Efforts to improve the country's economy during World War II aided ailing commercial and industrial operations in the state, and revived a number of Wilmington's shipbuilding firms (LeeDecker et al. 2011:27). However, the City's industrial resurgence was short lived, as many of the most-active wartime producers permanently closed after the conflict ended. Industry shifted to the production of chemicals and automobiles, but the new factories were constructed outside the City center; DuPont constructing plants at Newport and Edgemoor, while General Motors built a factory near Elsmere (LeeDecker et al. 2011:28).

After World War II, suburban and commercial development spread across New Castle County, altering the land use patterns and landscape of the region. Though technological improvements and increased use of pesticides and chemical fertilizers increased farmers' production levels, less land was required to meet demand and fewer people returned to work in the state's agricultural sector. Suburban growth and increasing operational costs encouraged many farmers to sell their land to development companies (Frederick et al. 2006:85).

### ***Recent History (1960–present)***

Planned suburban communities spread as improved roadways and an increase in employment brought more traffic into the state's rural areas. Significant transportation developments include the improvement of existing transportation corridors as well as the construction of I-95 and I-495 providing faster travel routes across the state. During this period the nation's railroads entered into a steep decline. Many companies merged and consolidated their holdings, and abandoned underused rail lines. In 1968, the Pennsylvania Railroad Company merged with New York Central to create Penn Central, but continued economic issues forced the company to declare bankruptcy.

In the 1980s, the state legislature passed laws to encourage international finance corporations to relocate to Delaware. Wilmington soon became known as the "Corporate Capital of the World" as 60 percent of Fortune 500 companies established their headquarters in the city (LeeDecker et al. 2011:28). This economic resurgence impacted Wilmington's waterfront in the 1990s and redeveloped the abandoned manufacturing centers along the Christina River.

## **RESULTS OF SURVEY**

Dovetail conducted a Phase IB archaeological survey and archival research as part of the SR 1 Road Widening project for DelDOT. The entire Phase IB project area was the subject of pedestrian reconnaissance and photo documentation. Based on the results of the surface reconnaissance and the Phase IA survey, the current archaeological survey subjected approximately 25.1-hectares (62 ac) to subsurface testing. This acreage spans the entire length of the SR 1 widening corridor. Marked wetlands and other areas of standing water, in addition to pushpiles and berms were encountered throughout the project area and precluded the excavation of some shovel tests.

### **Summary of Results**

A total of 1,001 STPs was excavated across the project area. One hundred and sixty-eight artifacts, representing eight distinct loci, were recovered from four of the seven survey areas during the Phase IB archaeological survey. The artifact assemblage consisted of 163 historic, two prehistoric, two organic, and one modern artifact. Dovetail recommends that these artifact loci represent one site, three field scatters, and three isolated finds (ISF). The site (7NC-E-051 Locus B), is defined by a site number and CRS number. By definition, the field scatters and ISFs do not require site numbers or CRS numbers and are not eligible for listing on the NRHP. The following sections first address the overall results within each survey area, followed by the results for 7NC-E-051 Locus B and the field scatter located near site 7NC-E-149, the remaining field scatters, and finally the ISFs.

### **Area 1**

Area 1 is located at the northwest corner of the intersection of SR 1 and SR 273/Christiana Road, north of a commuter parking lot, between the SR 1 southbound off-ramp and SR 7/East Main Street (Figure 3, p. 30). The area is between 38.1 and 152.4 meters (125 and 500 ft) east to west and between 79.2 and 207.3 meters (260 and 680 ft) north to south and covers 2.1 hectares (5.2 ac). Area 1 is located approximately 195 meters (640 ft) south of the Christina River and the Lewden-Greene Park Site (7NC-E-9), a prehistoric base camp. It is also located approximately 76 meters (250 ft) south of the John Lewden House (N00197), an eighteenth-century brick house listed on the NRHP.

Although the east, south, and west edges of the area have been disturbed by utilities and road and parking lot construction, the interior of the survey area appeared undisturbed. The area was wooded with mixed hardwoods interspersed with pine and had low amounts of understory growth. There were a few low spots with standing water and two drainage channels (Photo 10–Photo 11, p. 31).

Figure 3: STP Map of Area 1 (USDA 2011).



Photo 10: View of Area 1, Facing Northeast.



Photo 11: East Edge of Area 1, Facing North. Shows SR 1 berm on the right and associated drainage channel.

Shovel testing was conducted in testable portions across the area. Area 1 consisted of nine transects (A–I) with a total of 100 shovel tests. Identified disturbances included a strip 15.2 meters (50 ft) off of SR 7 due to water and sewer utilities, the SR 1 berm along the southbound off-ramp, and the drainage channel that ran north to south about 22.9 meters (75 ft) from the eastern edge of the area. In addition, shovel testing along Transect A confirmed that the ground between the SR 1 berm and the drainage channel had been disturbed, likely during SR 1 construction.

Shovel tests with intact profiles in Area 1 averaged 43 centimeters (1.4 ft) in depth with a range between 15 and 91 centimeters (0.5 and 3.0 ft). STPs generally comprised two strata. The A horizon consisted of a dark brown (10YR 3/3) silty loam that averaged 30 centimeters (0.98 ft) thick and ranged from 6 to 60 centimeters (0.2 to 2.1 ft) deep. This stratum generally sealed a dark gray (10YR 4/1) silty clay subsoil that indicated frequent flooding in the survey area (Figure 4).

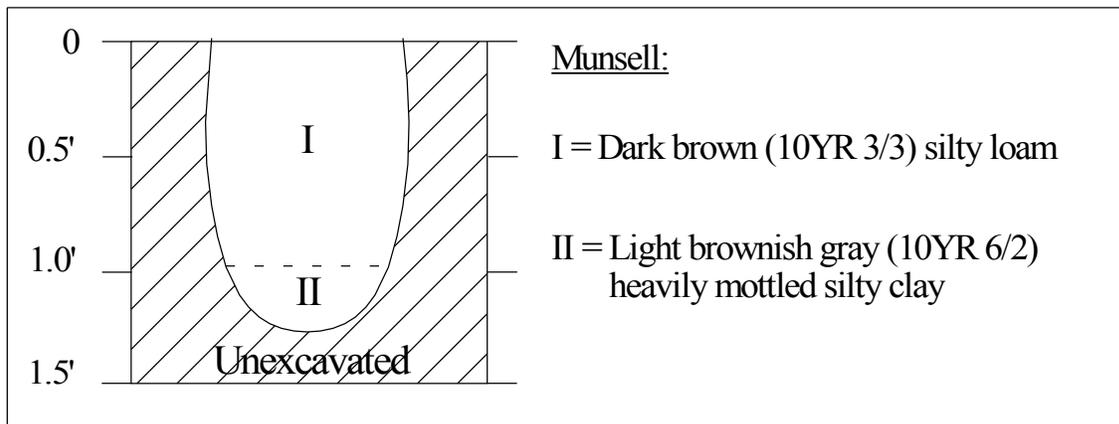


Figure 4: Profile Drawing of STP 1-E-06.

A total of 76 historic and prehistoric artifacts were recovered from 25 positive shovel tests. Two prehistoric flakes were recovered from the northeast corner of the survey area. Given the low quantity of prehistoric artifacts and the proximity to a known site to the north, these are likely associated with the redeposition of material from the Lewden-Greene Park Site (7NC-E-9) resulting from agricultural activities during the historic period. The remaining 74 artifacts were historic in nature. The historic artifacts date to the late-eighteenth through nineteenth century with a few twentieth-century artifacts. The majority of the artifacts are loosely clustered in the northwest portion of the survey area and are interpreted as a field scatter associated with the John Lewden House to the north. Early-twentieth century aerial photography indicated that this land had been plowed farmland at least during the first three quarters of the twentieth century and likely even earlier.

## Area 2

Area 2 is located between School Bell Road and SR 273/Christiana Road along the SR 1 northbound off-ramp (Figure 5, p. 33). The area is between 122 and 175 meters (400 and 575

ft) east to west and between 648 and 762 meters (2,125 and 2,500 ft) north to south. Area 2 covers 8.9 hectares (22.1 ac).

Figure 5: STP Map of Area 2 (USDA 2011).

The area was mostly wooded with very little understory and a few low-lying wetland areas in the center of the survey area (Photo 12). In the west-central portion of the survey area were several above-ground features including cinder block foundation sections, a rectangular depression, and fencing for a livestock chute (Photo 13–Photo 14, p. 35). In addition, there is a Colonial Revival style house that dates to 1953 (Hyland and Kuncio 2004:27). The house was surveyed as part of improvements to School Bell Road from SR 1 east to US 40 and was determined to be not eligible for listing in the NRHP (Hyland and Kuncio 2004:27). The front yard of the house shows extensive disturbance from utilities, a drainage ditch associated with School Bell Road, a driveway, and a man-made landform (Photo 15, p. 36).



Photo 12: Central Portion of Area 2, Facing West.

Shovel testing was conducted in testable portions of the area. Area 2 consisted of 14 transects (A–K and X–Z) with a total of 388 shovel tests. The majority of the survey area had intact soils with disturbances along the northern and western edges due to SR 1 and SR 273 and the disturbances associated with the house in the southern portion of the survey area.

Shovel tests in Area 2 tended to represent three strata and averaged 49 centimeters (1.6 ft) deep ranging between 0.09 and 1.07 meters (0.3 and 3.5 ft). The A horizon averaged 30 centimeters (0.98 ft) deep and ranged between 0.06 and 1.07 meters (0.2 and 3.5 ft). The typical soil profile for this area consisted of a dark brown (10YR 3/3) silty loam overlying a yellowish brown (10YR 5/6) silty loam, which then sealed a dark yellowish brown (10YR 4/6) silty clay subsoil (Figure 6, p. 36).



Photo 13: View of Rectangular Depression, Facing East. Shows location of STP 2-D-15 South Radial.



Photo 14: View of Livestock Fencing With SR 1 in the Background, Facing Southwest.



Photo 15: View of Dwelling in the Southern Portion of Area 2 (105 School Bell Road), Facing North.

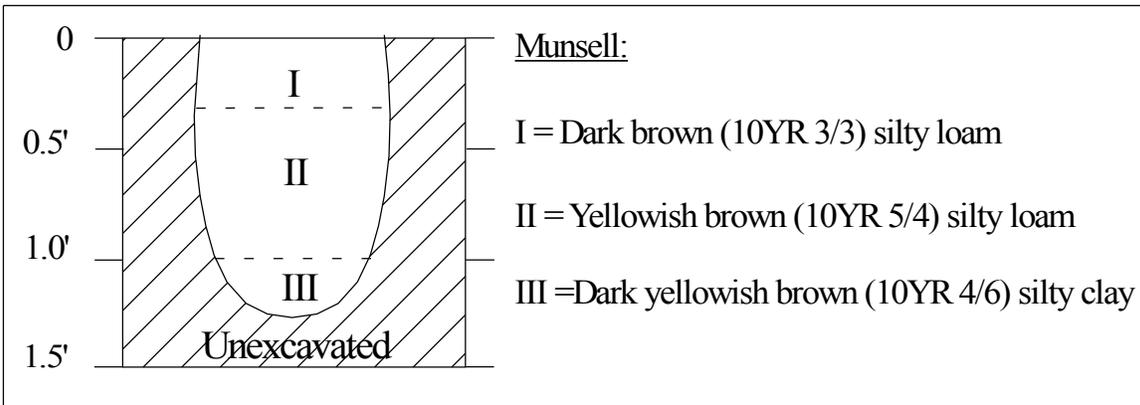


Figure 6: Profile Drawing of STP 2-E-08.

A total of 28 historic period artifacts were recovered from 18 STPs. In the southern half of the survey area, two ISFs were identified consisting of three artifacts. These were a piece of creamware (1762–1820), a piece of pearlware (1779–1830), and a piece of amber bottle glass. In the central part of the survey area, an iron fence clamp and wire nail (1890–1945) were recovered from an STP associated with the livestock fencing and a piece of whiteware (1820–2000) and window glass from two STPs associated with a rectangular depression. The majority of the artifacts were loosely scattered in the northern portion of the survey area and consisted of 14 pieces of redware, several pieces of brick, and a light green bottle glass fragment. Given the combination of above-ground and below-ground resources this area was designated as a potential site. A farm complex was located where SR 1 currently is and is visible in early-twentieth-century aerial photography. The cultural resources identified are likely associated with this farm complex, which, based on chain of title research, was likely occupied by Josiah Lewden in the late-nineteenth century and George Tobin in the first quarter of the twentieth century. Additionally, two ISFs were located in the southern portion of Area 2. ISF 1 consisted of a fragment of creamware and a fragment of pearlware, while ISF 2 consisted of a bottle glass fragment.

### **Area 3**

Area 3 is a ribbon-shaped area located between the intersection of SR 7/Bear Christiana Road and Newtown Road and SR 1 (Figure 7, p. 38). The area is approximately 541 meters (1,775 ft) east to west and approximately 76 meters (250 ft) north to south. Area 3 covers a total of 4.4 hectares (10.9 ac). Given the close proximity to known historic resources, close-interval shovel testing was conducted across the central 0.9-hectare (2.2-ac) portion of the survey area

Area 3 is a mixture of grassy fields and low growth scrub. The east third of the survey area is a grassy field with a few low areas that were holding water (Photo 16, p. 39). The central portion of the survey area is a mixture of low growth scrub, young hardwoods, and low, wet areas with pokeweed (Photo 17, p. 39). The western third of the survey area consists of grassy fields with two paved driveway, one as the entrance to the bank facility, and one a driveway to the historic house and farm complex (Photo 18, p. 40). Multiple utilities created disturbances along the 30.5 meters (100 ft) adjacent to SR 7 and along both sides of the driveway entrance to the bank facility.

Approximately 22.9 meters (75 ft) north of the survey area is a nineteenth-century house with an attached kitchen along with a complex of farm buildings further north (Photo 19–Photo 20, p. 41). The farmstead and surrounding property was originally owned by the Partridge family and subsequently the Simmons family and is recorded as CRS number N-4039. Additionally, the archaeological site representing the Partridge family cemetery and cellar is located south of the survey area and is recorded as site 7NC-E-149. The archival results above present a more thorough examination of the family history and the current above-ground architectural components of the farmstead. Additionally, there is a high probability for archaeological evidence of additional farm buildings, outbuildings, and possibly an eighteenth-century house outside of the current project area but within the adjacent landscape.



Figure 7: STP Map of Area 3 (USDA 2011).



Photo 16: Eastern Third of Area 3, Facing West. Location of the Simmons Farm Dwelling is circled in red.



Photo 17: Central Portion of Area 3, Facing South.



Photo 18: Southwest Portion of Area 3, Facing East. Shows entrance drive to nineteenth-century farmstead and small pond.



Photo 19: Nineteenth-Century Dwelling and Attached Kitchen Associated with the John Simmons Farm (N-4039), Facing East.



Photo 20: Outbuildings Associated with Simmons Farm Located North of the Survey Area, Facing West.

Approximately 121.9 meters (400 ft) from the house and 76.2 meters (250 ft) south of the survey area is what remains of the Partridge Family Cemetery, a component of site 7NC-E-149. The cemetery was defined and the human remains exhumed in 1999 by MAAR prior to development of the First USA/Bank One project (Traver 2000). The remains of 10 adults and three infants were exhumed and taken to the Smithsonian Institution (Smithsonian) in Washington, D. C. for identification and analysis with the intent to reinter them elsewhere on the property. The remains are currently housed at the Smithsonian for long-term curation and study under a Memorandum of Understanding between the DE SHPO and the Smithsonian. The materials of the brick and stone memorial and vault that was deconstructed during the cemetery excavations remain on the property in a storage container (Photo 21, p. 42).

Shovel testing was conducted in testable portions of Area 3 and consisted of 43 transects (A–QQ) and a total of 294 shovel tests. In addition to the utility disturbances in the western portion of the survey area, shovel testing determined that the majority of the western third of the area, particularly the grassy field north of the historic driveway and tree line had been filled and graded, likely during construction of the bank facility.

The average shovel test in Area 3 measured 46 centimeters (1.5 ft) deep, ranging between 33 and 79 centimeters (1.0 and 2.6 ft) and consisted of two strata. The A horizon, which consisted of a brown (10YR 4/3) silty loam, measured 34 centimeters (1.1 ft) deep on average and ranged between 12 and 61 centimeters (0.4 and 2.0 ft). This upper stratum sealed a dark yellowish brown (10YR 4/6) silty clay subsoil (Figure 8, p. 42).

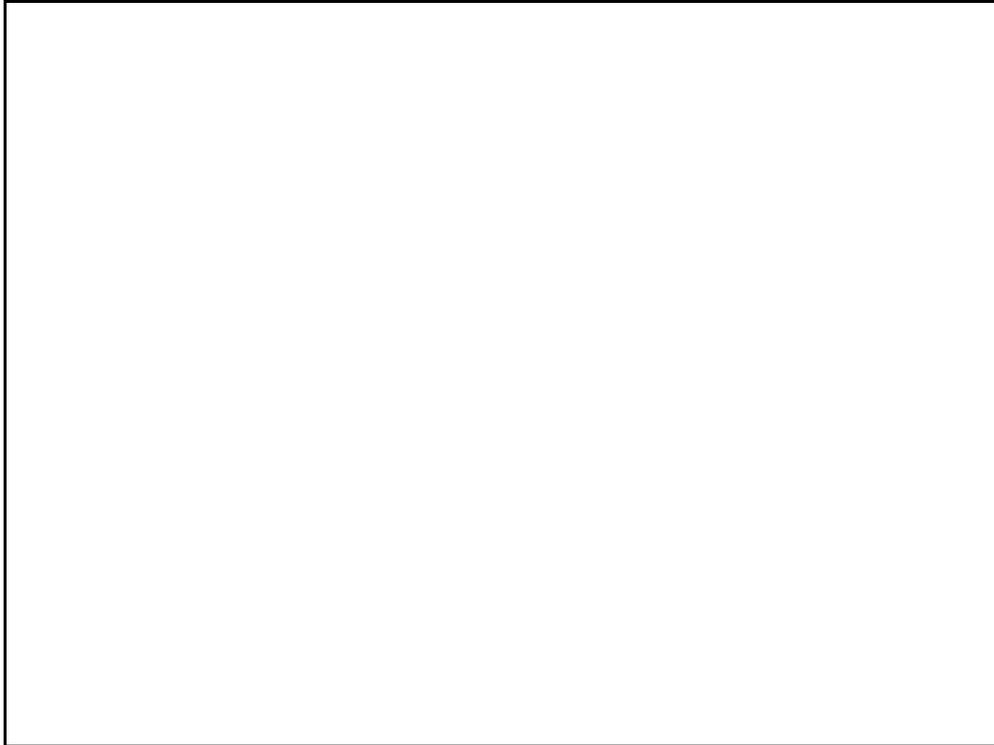


Photo 21: Material Remains of the Partridge Family Memorial and Burial Vault, Housed Next to the Cemetery Location.

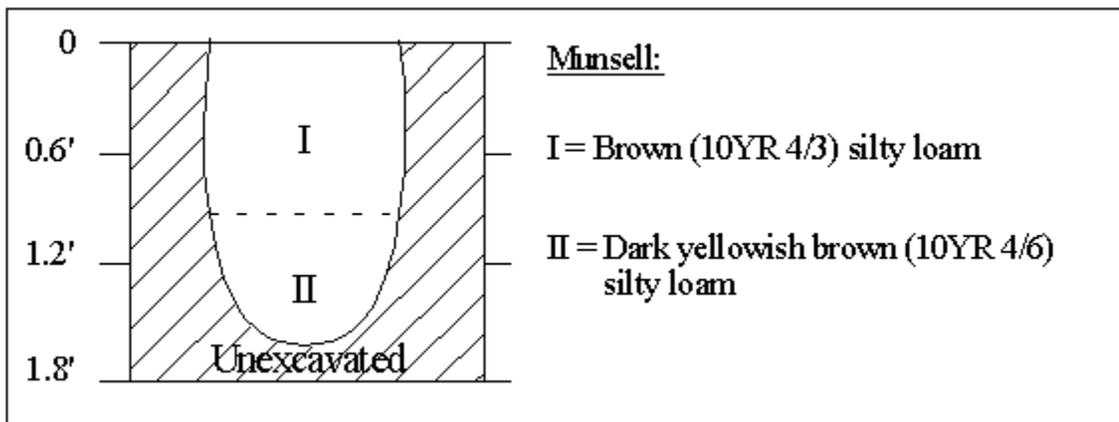


Figure 8: Profile Drawing of STP 3-A-15.

Given the proximity to the nineteenth-century farmstead there was a high probability for abundant cultural remains in the survey area. However, very few artifacts were recovered from the shovel testing of Area 3. A total of 50 historic artifacts was recovered from 28 STPs and date to the nineteenth and twentieth centuries. Artifacts included architectural material of hand-made brick, cut (1815–1890) and ungalvanized wire (1890–1945) nails, and window glass. Bottle glass, American stoneware (1800–1900), redware (1700–1900), and whiteware (1820–2000) ceramic fragments were also recovered. These artifacts are widely dispersed

across the survey area and are associated with the Simmons farmstead on the north side of the survey area. Given the paucity of artifacts and the fact that the area appears to have been an orchard, based on a 1937 aerial photograph, these artifacts area likely a field scatter associated with the Simmons farmstead.

#### **Area 4**

Area 4 is located along the banks of Red Lion Creek which Berger indicated as having a high potential for small prehistoric sites (Bedell et al. 2012:61). This area of the APE is broken into four subareas situated on either side of SR 1 and Red Lion Creek (Photo 22; Figure 9, p. 44). The subareas south of Red Lion Creek are between 9.1 and 25.9 meters (30 and 85 ft) wide from SR 1 and extend south from the current SR 1 bridge abutments between 137 and 157 meters (450 and 515 ft). The subareas north of Dragon Creek are between 7.6 and 25.9 meters (25 and 85 ft) wide from SR 1 and extend north from the current SR 1 bridge abutments approximately 147.8 and 158.5 meters (485 and 520 ft). Area 7 covers 1.1 hectares (2.8 ac).

All four subareas were heavily disturbed by the construction of SR 1. The northern subareas consist of highway berm and drainage ditches for SR 1, wooded areas of mixed hardwoods, and marsh environments. The southern subareas consist of highway berm, drainage channels, wooded areas of pine interspersed with mixed hardwoods, and marsh (Photo 23–Photo 24, p. 45).



Photo 22: Northeast Subarea of Area 4, Facing North. Shows SR 1 berm, marshy area associated with Red Lion Run, and wooded area in the extreme north of the subarea.

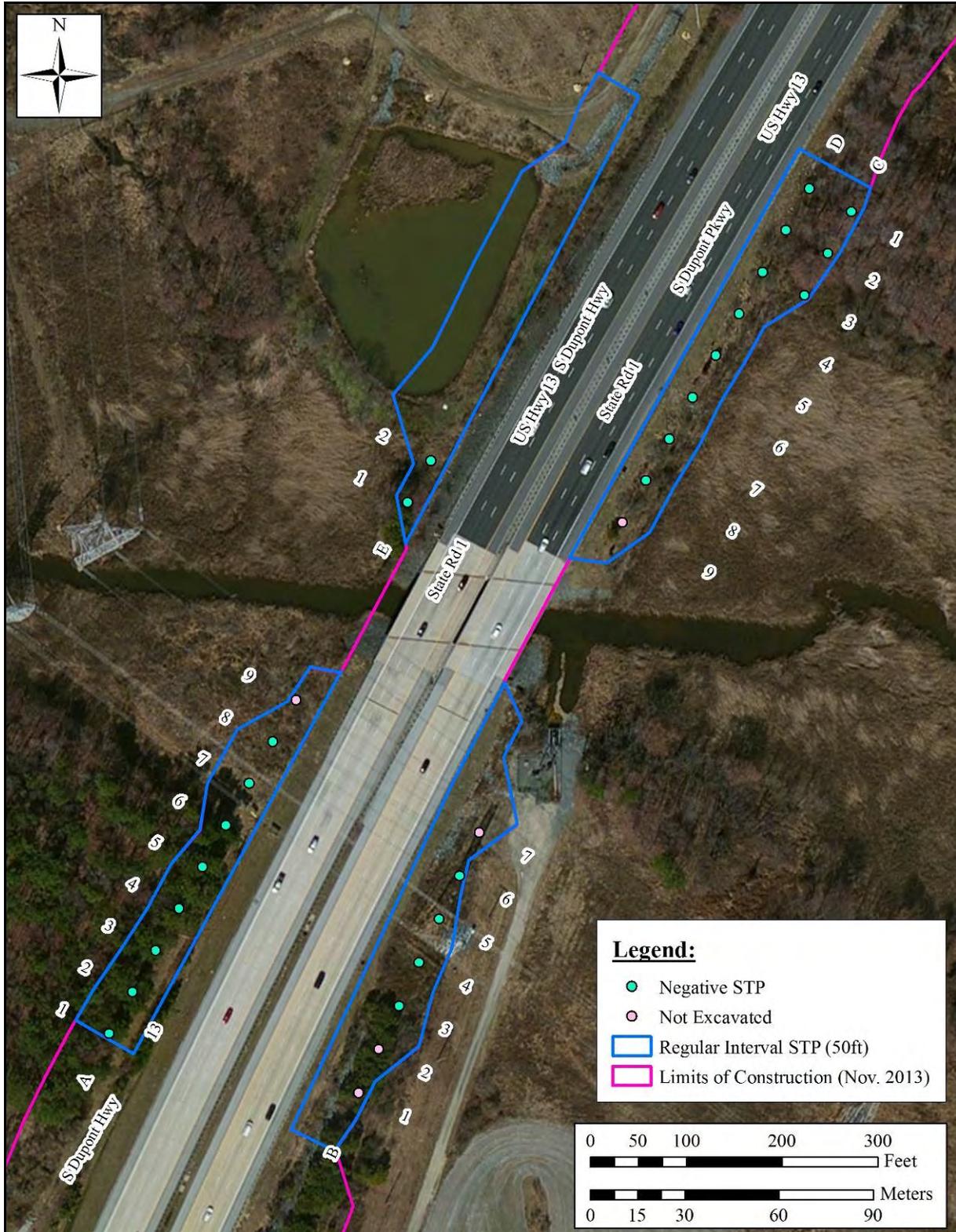


Figure 9: Map Showing Locations of STPs in Area 4 (USDA 2011).



Photo 23: Southeast Subarea of Area 4, Facing South. This subarea was extremely disturbed from SR 1 and utilities.



Photo 24: Southwest Subarea of Area 4, Facing North. Shows marshy area associated with Red Lion Run in the background.

Shovel testing was conducted in testable portions of all four subareas. Area 4 consisted of five transects (A–E) with a total of 25 shovel tests. The northwest subarea was heavily disturbed and only two shovel tests were placed in the southern part of this subarea (4-E-1 and 4-E-2). Disturbances in this area included a rocky highway berm and drainage channel, a man-made pond, and marsh. The northern three quarters of the subarea were not tested due to the rocky SR 1 drainage channel and the man-made drainage pond for the Tybouts Corner Landfill Site, a superfund cleanup (Photo 25).



Photo 25: Northwest Subarea of Area 4, Facing North. Shows rocky SR 1 berm to the east, man-made drainage pond on the west, and grassy superfund site in the background.

Stratigraphy for shovel tests in Area 4 generally consisted of two strata extending to an average depth of 55 centimeters (1.8 ft) and ranging between 27 and 91 centimeters (0.9 and 3.0 ft). The A horizon comprised a brown (10YR 4/3) silty loam that averaged 30 centimeters (1.0 ft) deep, ranging between 9 and 85 centimeters (0.30 and 2.8 ft). This stratum sealed a yellowish brown (10YR 5/6) to dark yellowish brown (10YR 4/6) silty sand subsoil (Figure 10, p. 47). Shovel testing on the southern half of Transect A, all of Transect B, the southern two-thirds of Transect D, and Transect E all revealed a soil profile that indicated disturbed soils. Shovel tests with disturbed soils ranged in depth from 30 to 91 centimeters (1.0 to 3.0 ft).

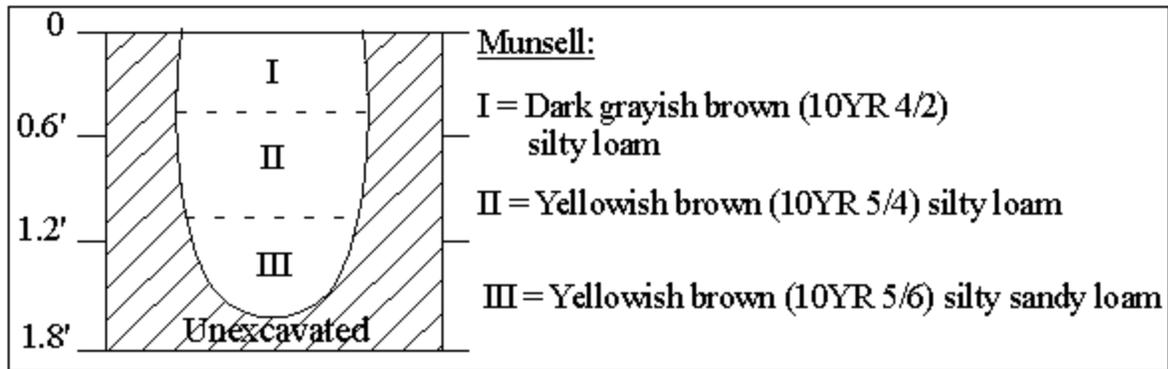


Figure 10: Profile Drawing of STP 4-A-08.

Although a prehistoric lithic scatter had been previously identified just west of the southwest subarea and this area had a high probability for prehistoric sites, no cultural material was found in Area 4. Further, it was determined that much of this area had been previously disturbed by SR 1 construction.

## Area 5

Area 5 is located at the intersection of SR 1 and SR 7/Bear Corbitt Road. At this intersection, there is an SR 1 overpass that crosses SR 7 and a set of railroad tracks. Given the five prehistoric lithic scatters that were previously identified in and near the survey area, Berger indicated Area 5 as having a high potential for prehistoric sites (Bedell et al. 2012). This area of the APE is broken into five subareas and bisected by SR 1, SR 7, and the railroad tracks (Figure 11, p. 48). The two subareas south of the railroad tracks are between 15.2 and 42.7 meters (50 and 140 ft) wide from SR 1 and extend south from the railroad tracks approximately 378 meters (1,240 ft). The subarea west of SR 1 between the railroad tracks and SR 7 is approximately 39.6 meters (130 ft) wide and 94.5 meters (310 ft) long. The subareas north of SR 7 are between 18.3 and 41.1 meters (60 and 135 ft) wide from SR 1 and extend north from the SR 7 between 271.3 and 312.4 meters (890 and 1,025 ft). Area 5 covers 4.6 hectares (11.3 ac).

The five subareas consist of highway berm and drainage ditches for SR 1, dense scrub and corn fields (Photo 26–Photo 27, p. 49). Shovel testing was conducted in testable portions of all five subareas. Area 5 consisted of 10 transects (A–J) with a total of 128 shovel tests. Shovel testing on transects closest to the SR 1 berm (B, C, F, H, and I) indicated disturbed soils from road construction. In addition the southwest subarea was heavily disturbed by SR 1 berm and a water sewer line that ran through the western half of the subarea. Shovel tests with disturbed soils ranged in depth from 12 to 91 centimeters (0.4 to 3 ft) and consisted of heavily mottled soils with some gravel.

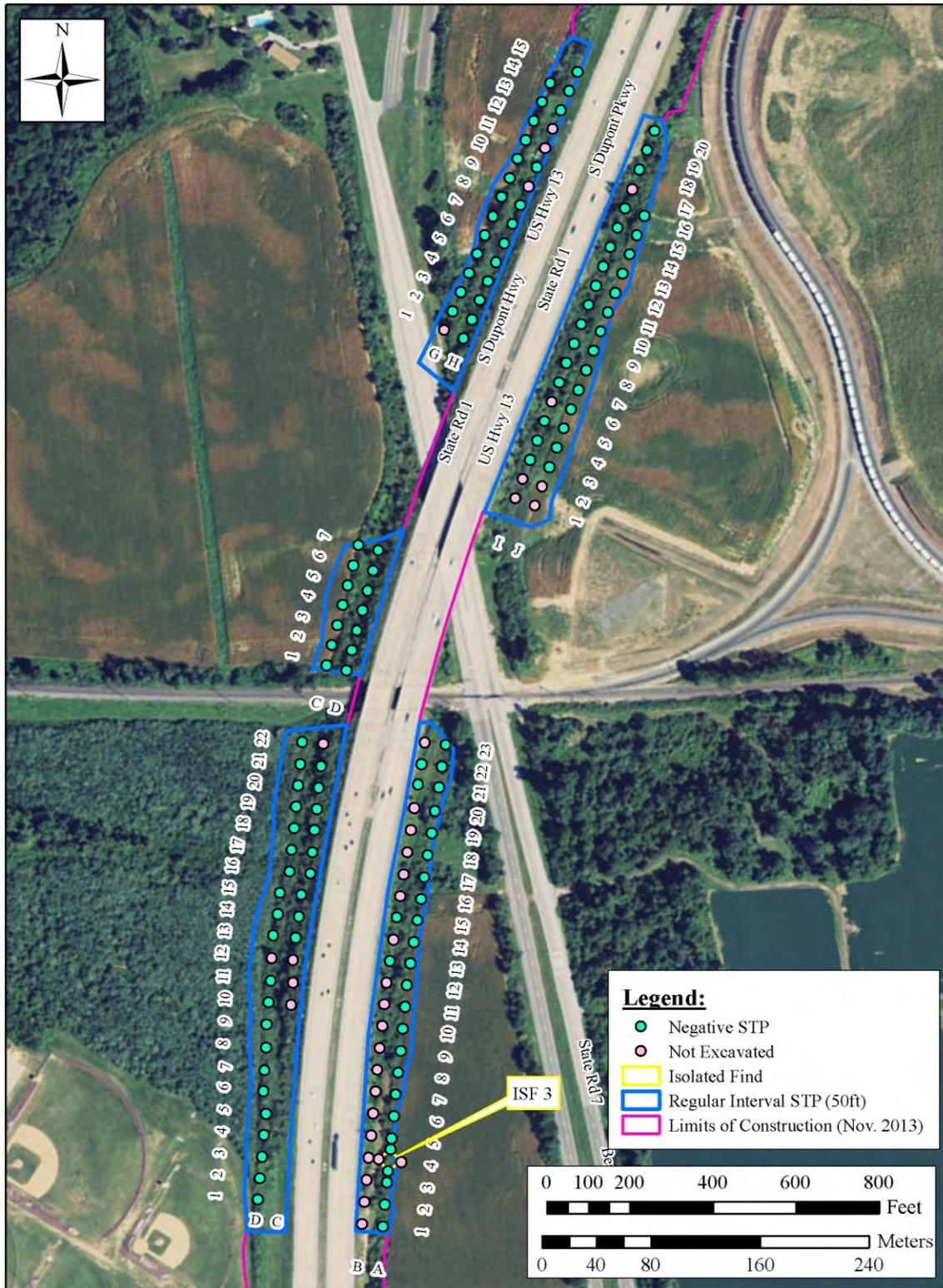


Figure 11: Map Showing Locations of STPs in Area 5 (USDA 2011).



Photo 26: Southwest Subarea of Area 5, Facing North.



Photo 27: Northeast Subarea of Area 5, Facing North. Shows low area holding water at the southern end of the subarea, cornfield in the east half and scrub growth along SR 1 berm in the west half.

Undisturbed shovel tests in Area 5 averaged 43 centimeters (1.4 ft) deep, ranging between 18 and 91 centimeters (0.6 and 3.0 ft) and consisted of two strata. The A horizon, which comprised a brown (10YR 4/3) silty loam, extended to an average depth of 30 centimeters (1.0 ft) with a minimum of 9 centimeters (0.3 ft) and a maximum of 91 centimeters (3.0 ft). This stratum sealed a yellowish brown (10YR 5/6) silty clay subsoil (Figure 12).

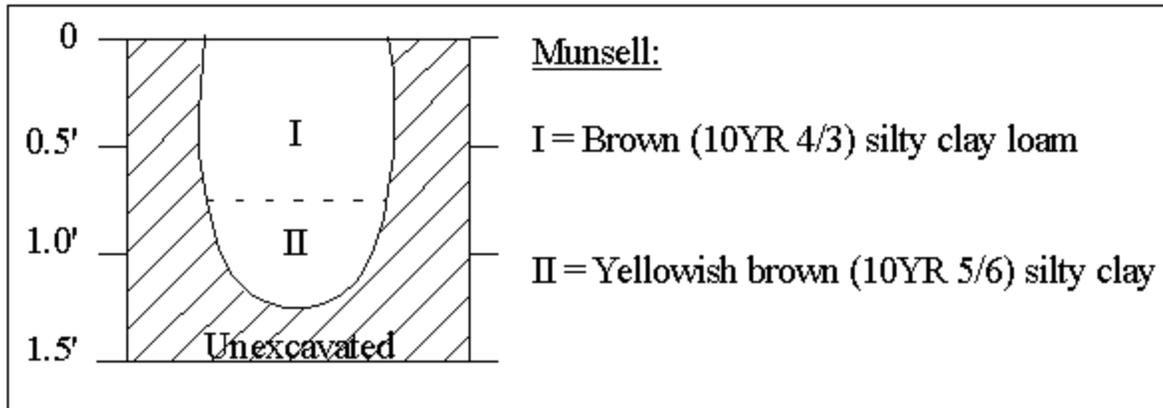


Figure 12: Profile Drawing of STP 5-A-1.

Although five non-eligible prehistoric lithic scatters had been previously identified in and near the survey area, and this area had a moderate probability for prehistoric sites, only one artifact was recovered from the testing in Area 5. One creamware fragment was recovered from STP 5-A-4 in the southeast subarea. This was determined to be an isolated find, designated as ISF 3, as no other positive shovel tests were in the survey area.

## Area 6

Area 6 is located at the southeast corner of the intersection of SR 1 and SR 72/Wrangle Hill Road. This area runs along the northbound exit ramp 388.6 meters (1,275 ft) south from SR 72 and is 99 meters (325 ft) wide at the northern end and tapers to 30.5 meters (100 ft) wide at the southern end. A small section runs along SR 72 to the east and is 12.2 meters (40 ft) wide and 53.3 meters (175 ft) long (Figure 13, p. 51). Area 6 covers 3.1 hectares (7.57 ac).

This area has been heavily disturbed by utilities, roadside berms, and multiple asphalt and gravel access roads. The majority of the area was covered in low growth scrub with a small portion of young mixed hardwoods in the southern tip and several drainage ditches in the west portion of the survey area (Photo 28–Photo 30, pp. 52–53). In addition, immediately east of the survey area is a radio tower and DelDOT facility.

Shovel testing occurred in testable portions of Area 6 and consisted of 11 transects (A–K) with a total of 62 shovel tests. Areas that were not tested due to extensive disturbance included the western 83.8 meters (275 ft) along SR 72 due to utilities, the western 15.2 meters (50 ft) along the northbound off-ramp due to utilities, berm and drainage channel, and the southern 73.2 meters (240 ft) due to a gravel parking area and wetlands.

Figure 13: STP Map of Area 6 (USDA 2011).



Photo 28: Northwest Portion of Area 6, Facing South. Shows SR 1 berm, multiple utility boxes, asphalt parking area, and scrub vegetation.



Photo 29: Central Portion of Area 6, Facing East. Shows multiple asphalt and gravel drives across the area.



Photo 30: Southern Portion of Area 6, Facing South. Shows SR 1 berm, drainage channel, and wetlands.

Shovel test depth in Area 6 averaged 0.43 meters (1.4 ft) and ranged between 18 and 61 centimeters (0.6 and 2.0 ft). In general, many of the STPs showed evidence from disturbance in the form of mixed soils, gravel, or modern inclusions. Those with intact profiles, however, generally contained two strata. The A horizon, which measured 30 centimeters (1.0 ft) thick, on average, and ranged from 6 to 55 centimeters (0.2 to 1.8 ft), consisted of a brown (7.5YR 5/3) brown clay loam. This layer generally sealed a strong brown (7.5YR 4/6) clay loam subsoil (Figure 14).

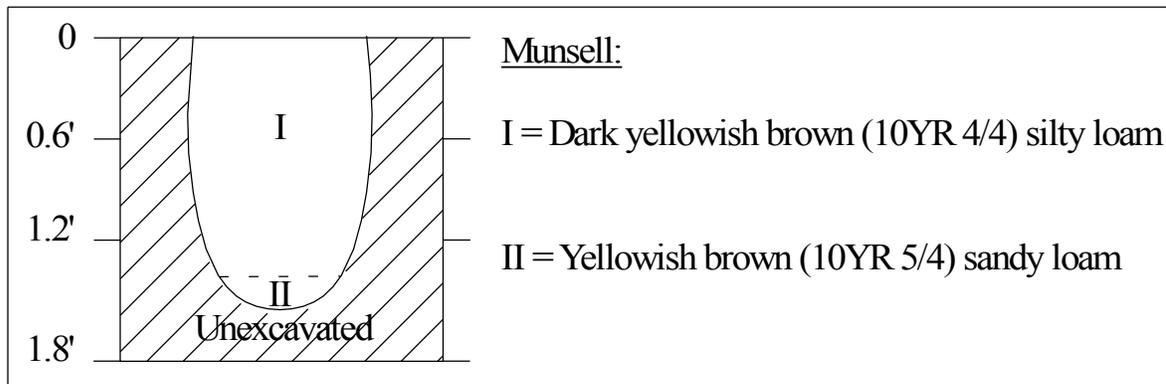


Figure 14: Profile Drawing of STP 6-H-07.

Given the proximity to both a previously recorded Woodland I period site (7NC-G-105) and a nineteenth-century house site (7NC-E-102), this area had the potential for both prehistoric and historic cultural material. However, both the pedestrian survey and shovel testing identified much of the area as being previously disturbed. A total of 13 historic period artifacts were recovered from five shovel tests, including creamware (1762–1820), whiteware (1820–2000), redware (1700–1900), clear bottle glass, and brick fragments. These artifacts date to the nineteenth and twentieth centuries and are interpreted as a field scatter associated with the Start House (7NC-E-102) located outside of the survey area to the east.

## **Area 7**

Area 7 is located along the banks of Dragon Creek which Berger indicated as having a very high potential for small prehistoric sites (Bedell et al. 2012:61). This area of the APE is broken into four subareas situated on either side of SR 1 and Dragon Creek (Figure 15, p. 55). The subareas south of Dragon Creek are between 7.6 and 22.9 meters (25 and 75 ft) wide from SR 1 and extend south from the current SR 1 bridge abutments approximately 146.3 meters (480 ft). The subareas north of Dragon Creek are between 7.6 and 22.9 meters (25 and 75 ft) wide from SR 1 and extend north from the current SR 1 bridge abutments approximately 88.4 meters (290 ft). Area 7 covers 0.9 hectares (2.28 ac).

All four subareas were heavily disturbed by the construction of SR 1. The northern subareas consist of grassy shoulders and drainage ditches for SR 1, and scrub and marsh environments (Photo 31, p. 56). The southern subareas consist of highway berm, drainage channels, wooded areas of mixed hardwoods, and marsh (Photo 32–Photo 33, p. 56–57).

Shovel testing occurred in testable portions of all four subareas. Area 7 consisted of five transects (A–E) with a total of 15 shovel tests. The southeast subarea was not systematically tested due to the known disturbance of the highway berm. Only one shovel test was placed in this subarea (7-B-5) to confirm disturbance. In addition, shovel testing confirmed disturbance in the two northern subareas (transects C–E). Shovel tests with disturbed soils ranged in depth from 12 to 49 centimeters (0.4 to 1.6 ft) and consisted of heavily mottled soils with gravel.

Averaging 43 centimeters (1.4 ft) in depth and ranging between 24 and 70 centimeters (0.8 and 2.3 ft) deep, shovel tests in Area 7 generally consisted of two strata. The A horizon was approximately 27 centimeters (0.9 ft) thick with a range between 12 and 30 centimeters (0.4 and 1.0 ft) and comprised a brown (10YR 4/3) sandy loam. This stratum sealed a yellowish brown (10YR 5/6) sandy clay subsoil (Figure 16, p. 57).

Although this area had a high probability for small prehistoric sites, no cultural material was found in Area 7 and it was determined that much of this area had been previously disturbed by SR 1 construction.

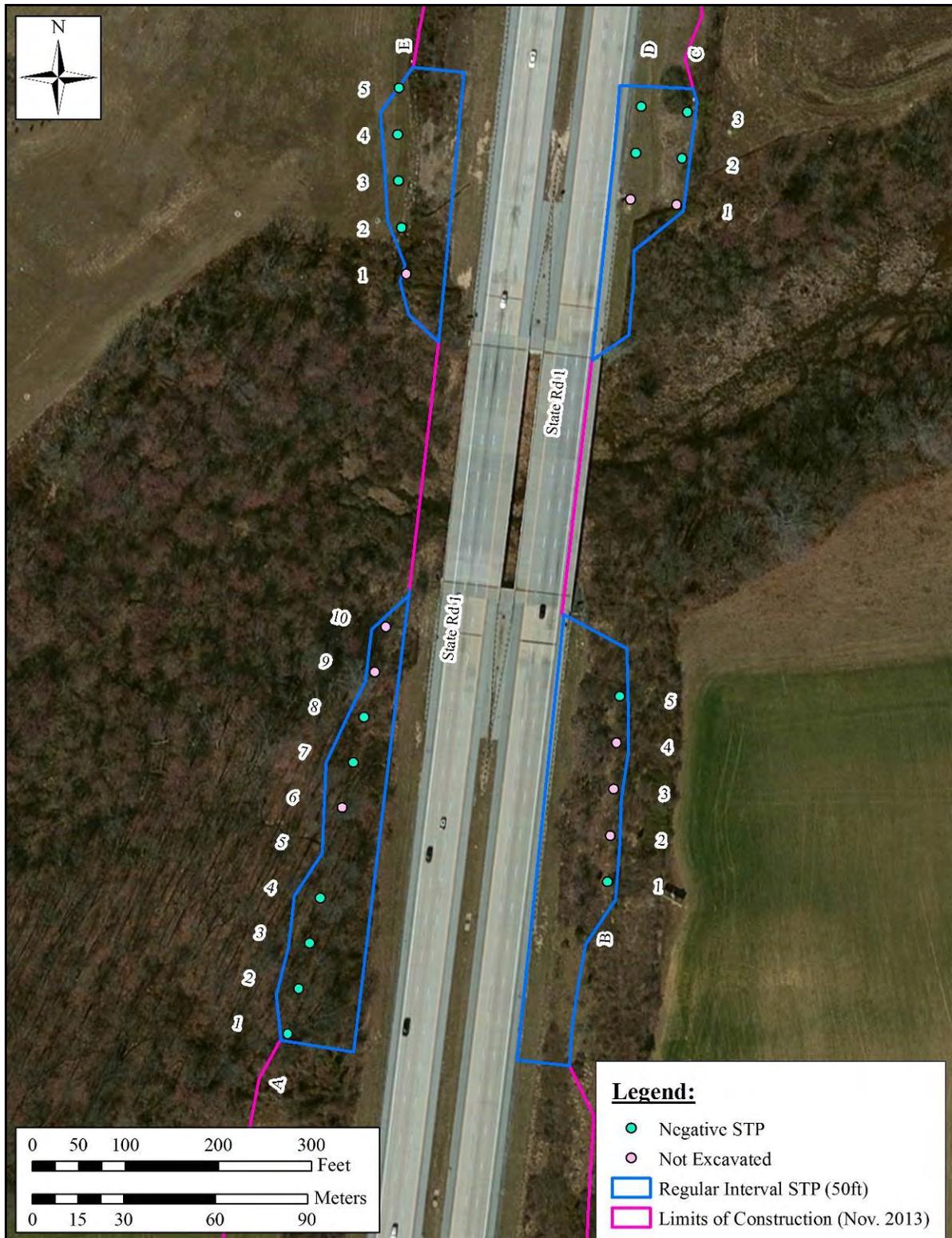


Figure 15: Map Showing Locations of STPs in Area 7 (USDA 2011).



Photo 31: Northeast Subarea of Area 7, Facing South. Shows SR 1 berm, drainage channel, and marsh area along the north bank of Dragon Creek.



Photo 32: Southeast Subarea of Area 7, Facing North.



Photo 33: Southwest Subarea of Area 7, Facing North.

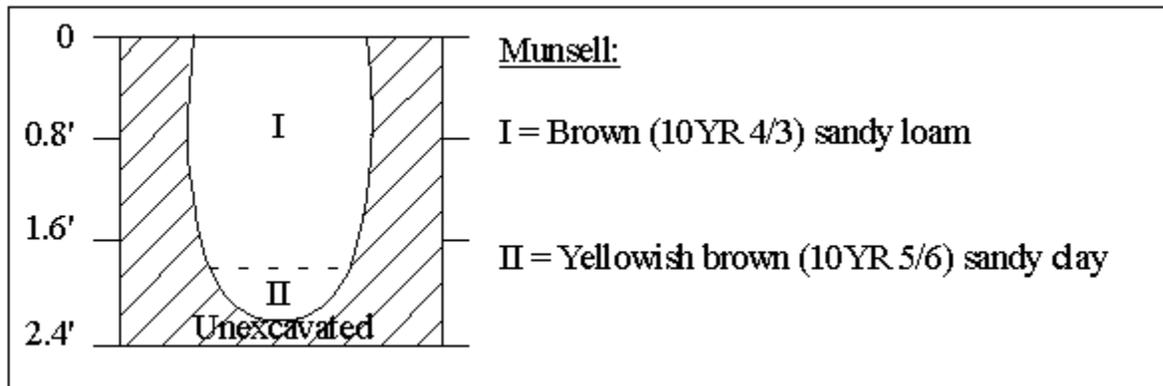


Figure 16: Profile Drawing of STP 7-A-01.

### 7NC-E-051 Locus B

Site 7NC-E-051 Locus B is located in a level patch of deciduous growth southeast of the intersection of SR 1 and Christiana Road, in the northern half of Area 2 (Figure 17, p. 58; Photo 34, p. 59). The site, located approximately 19.81 meters (65 ft) above mean sea level (amsl), measures approximately 106.68 by 243.84 meters (350 by 800 ft), encompassing an area of 2.07 hectares (5.12 ac). A total of 25 historic artifacts was recovered from the 16 positive shovel tests at the site, which likely represents a late-nineteenth- to early-twentieth-century domestic artifact scatter. Site boundaries were determined by negative shovel tests and no test units were excavated, as stated above. Additionally, near the southern end of the

site, a rectangular depression measuring approximately 6.10 by 9.14 meters (20 by 30 ft) was recorded (Photo 35, p. 59). This depression may represent the remains of a structure. Limited archival and historic background research was conducted to aid in the interpretation of the archaeological materials recovered from 7NC-E-051 Locus B. The results of this work, as well as a summary of the archaeological findings, are summarized in the following sections.

Figure 17: STP Map Showing Boundaries of 7NC-E-051 Locus B (USDA 2011).



Photo 34: Overview of Setting at 7NC-E-051 Locus B, Facing South.



Photo 35: View of Depression at 7NC-E-051 Locus B near STP D-15 South Radial, Facing North.

## *Historic Background*

Situated just southeast of the village of Christiana Bridge and in close proximity to the Christina River, land within Area 2 was likely impacted by Delaware's earliest period of settlement. Named for a bridge that is known to have crossed the river in this location as early as 1686, the village developed on the north side of the river "along the Kings Road (SR 7) from Philadelphia to Baltimore" (Bedell et al. 2012:37). This route likely followed portions of the Old Minquas Indian Trail that connected the head of the Elk River to the head of the Christina River—one of the most used Colonial avenues tying areas around the Chesapeake Bay to the Delaware Bay (Weslager 1947:126). As an important Colonial trading center and one of just a few hamlets in the Upper Peninsula in the 1700s, the Village of Christiana Bridge was a popular resting spot for many travelers, including George Washington (Bedell et al 2012:37). Several eighteenth-century transportation corridors traversing the project area seen in Henry Heald's 1820 Map of New Castle County Roads continue to be used by area motorists today (Figure 18, p. 61).

Land in Area 2 is believed to have been granted to members of the Lewden family in the early-eighteenth century, likely part of a tract more than 283.3 hectares (700 ac) in size that was granted to John Lewden in 1708 (New Castle County, Warrants and Surveys L2#34). This John Lewden died in 1744, leaving his land to his sons, John and Josiah Lewden. Tax Assessments from the 1780s indicate that John Lewden was one of New Castle Hundred's elite—falling in the top 10 percent of taxable residents. In 1785, the median tax assessment of land owners was a little over £8 and Lewden was assessed more than £250 (New Castle County Tax Assessment [NCCTA], New Castle Hundred 1785). The 1804 tax assessment lists John Lewden's estate with 300.7 hectares (743 ac) (240 hectares [593 ac] improved), a brick house, log house, frame barn, and more buildings valued at more than \$7,700 (NCCTA, New Castle Hundred 1804). Two other John Lewdens also resided in the hundred at this time, the elder of which owned 133.5 hectares (330 ac) with a brick house, kitchen, stable, and tan house valued at \$2,120 (NCCTA, New Castle Hundred 1804).

Listed on the NRHP in 1974, The John Lewden House (N-0197), addressed at 107 E Main Street, Newark, Delaware, is located approximately 0.4 kilometers (0.25 mi) northwest of Area 2 and contains a circa-1770, two-story, five-bay, brick dwelling originally constructed by John Lewden (Jr.). According to the property's NRHP nomination, "generations of the Lewden family dominated the economic life of Christiana for more than 175 years as farmers, tanners, storekeepers, ship owners, and traders" (Herman 1979).

Although the family's larger holdings were regularly divided and developed into smaller farms throughout the nineteenth century, the land in Area 2 stayed within the Lewden family until the turn of the twentieth century following the death of Josiah Lewden in 1900 (New Castle County Deed Book [NCCDB] K18:376). Area 2 was historically part of Lot Number 3 of Josiah Lewden's estate. A small section of the southeast corner of Area 2 was divided and sold to Thomas Stafford in December 1952 (NCCDB A53:448). Stafford then combined this land with acreage purchased a month earlier from the widow, Sarah Whitten, owner of what was historically the property of Alfred Lofland in the last quarter of the nineteenth century (NCCDB A53:321). The two-story, brick-clad dwelling that is situated on what is now a 0.5-hectare (1.2-ac) lot was constructed around 1955 (New Castle County Tax Parcel Data 2014).



Figure 18: Detail of Heald's 1820 Map of New Castle County Roads Showing Project Area (On file at Historical Society of Delaware [HSD]). Red circle highlights land in Area 2.

Although Area 2 was situated along eighteenth-century roadways, the land within this area has likely been used in association with agriculture, either as plowed fields or woodlots, since the settlement period. Aside from the mid-twentieth-century dwelling at the southeastern corner of Area 2, no additional data has been uncovered to suggest the presence of any buildings or structures within this space.

***Shovel Tests***

Shovel testing at 7NC-E-051 Locus B resulted in the recovery of 25 historic artifacts from 16 positive shovel tests. STPs displayed intact stratigraphy and generally consisted of two strata, averaging 39 centimeters (1.29 ft) deep and ranging from 24 to 76 centimeters (0.8 to 2.5 ft). The A horizon comprised a brown (10YR 4/3) to dark yellowish brown (10YR 4/4) silty loam that averaged 32 centimeters (1.06 ft) deep and ranged between 21 and 64 centimeters (0.7 and 2.1 ft). This layer sealed a yellowish brown (10YR 5/6) silty clay subsoil (Figure 19).

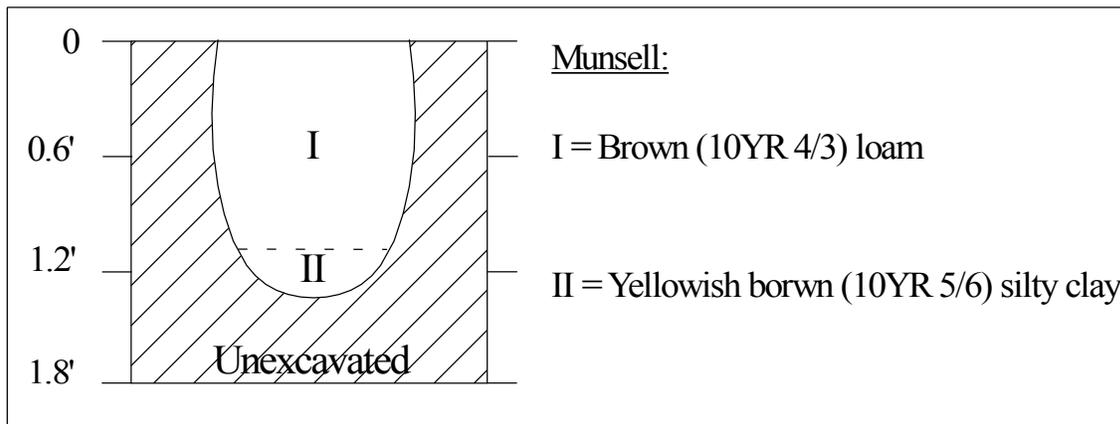


Figure 19: Profile Drawing of STP 2-G-10.

The artifact assemblage from 7NC-E-051 Locus B was dominated by ceramics, specifically redware, which made up 56 percent of the total number of artifacts recovered from the site (Table 2). Other artifacts included a handmade brick fragment, clear window glass, light green bottle glass, an iron clamp, and an ungalvanized wire nail (Photo 36, p. 63). All of the artifacts were recovered from the A horizon and appear to be concentrated in two distinct loci, perhaps indicating two separate activity areas at the site. While none of these artifacts are particularly temporally diagnostic, the presence of an ungalvanized wire nail suggests that the site dates to the late-nineteenth or early-twentieth century.

Table 2: Comparison of Artifact Categories at 7NC-E-051 Locus B.

| Artifact Category | Count | Percentage |
|-------------------|-------|------------|
| Architectural     | 8     | 32%        |
| Ceramic           | 14    | 56%        |
| Glass             | 1     | 4%         |
| Metal             | 2     | 8%         |



Photo 36: Example of Artifacts Recovered from 7NC-E-051 Locus B, Including Redware and Window Glass.

### ***Evaluation and Recommendations***

Site 7NC-E-051 Locus B is a historic artifact scatter which dates to the late-nineteenth or early-twentieth century, based upon the presence of an ungalvanized wire nail. The presence of notable proportions of both ceramics and architectural remains suggests a domestic occupation of the area. This period of occupation is contemporaneous with the ownership of the property by the Lewden family, specifically Josiah Lewden who died in 1900. It is likely the artifacts recovered from 7NC-E-051 Locus B are related to the domestic buildings from the Lewden occupation of the property. As an archaeological site, the concentration's eligibility for NRHP listing must be evaluated based on the Phase IB results if possible.

The significance of 7NC-E-051 Locus B was evaluated in relation to the NRHP eligibility criteria. The site was evaluated in regards to Criterion A, for its association with events that have made a significant contribution to the broad patterns of our history; Criterion B, for its association with people significant in our nation's history; Criterion C, for its embodiment of the distinctive characteristics of a style; and Criterion D, for its potential to yield information important in history.

The site is not associated with significant events (Criterion A), people significant to our nation's history (Criterion B), and it does not embody the distinctive characteristics of a style (Criterion C). A general paucity of diagnostic artifacts coupled with a lack of features and

relatively low density of material indicates that there is little potential for this site to yield information important to the Urbanization and Suburbanization (1880–1940) period in Delaware history (Criterion D). Therefore, 7NC-E-051 Locus B, the remains of a late-nineteenth- to early-twentieth-century domestic occupation, are **recommended not eligible for listing on the NRHP**.

### **Site 7NC-E-149 and Simmons Farm**

Site 7NC-E-149 is located adjacent to the central portion of Area 3, which was defined by a small patch of deciduous trees mixed with low growth scrub (Figure 20, p. 65; Photo 37–Photo 39, pp. 66–67). The site was first identified in 1999 by MAAR during a Phase I survey conducted in advance of development near the site (Archibald et al. 1999). The survey identified several prehistoric resources and one early-eighteenth-century historic site, in addition to the standing buildings and structures associated with the Simmons Farm and the Partridge Memorial. A development permit application required further work at the Partridge Memorial consisting of the identification of grave shafts, cemetery delineation, and the excavation of remains for their reinterment on another portion of the property (Traver 2000). The excavation of the cemetery resulted in the recovery of 15 burials dating between the mid-eighteenth and early-nineteenth century. Additionally, an early-eighteenth-century cellar was identified but not excavated.

The current project area passes to the north of 7NC-E-149, but is within the boundaries of the Simmons Farm property. A total of 30 historic artifacts were recovered from the 17 positive shovel tests adjacent to the site, which likely relate to the later Simmons occupation of the property in the mid- to late-nineteenth century. Due to their low concentration and date, these artifacts represent a field scatter associated with the Simmons Farm. Additionally, near the eastern end of the portion of the site within the project area, there were the remains of a small wooden outbuilding (Photo 40–Photo 41, p. 68). Limited archival and historic background research was conducted to aid in the interpretation of the archaeological materials recovered near site 7NC-E-149. The results of this work, as well as a summary of the archaeological findings, are addressed in the following sections.

#### ***Historic Background***

Area 3 is situated between the communities of Christiana Bridge and Bear on the east side of SR 7, just west of SR 1. Historically located on a 13.8-hectare (34.2-ac) parcel, land in Area 3 is part of the John T. Simmons Farmstead (N-4039). The architectural resources of this property were thoroughly documented in October 1999 at which time included a two-story dwelling, crib/ granary, dairy barn, windmill, several outbuildings, and a family cemetery (CHAD 1999).

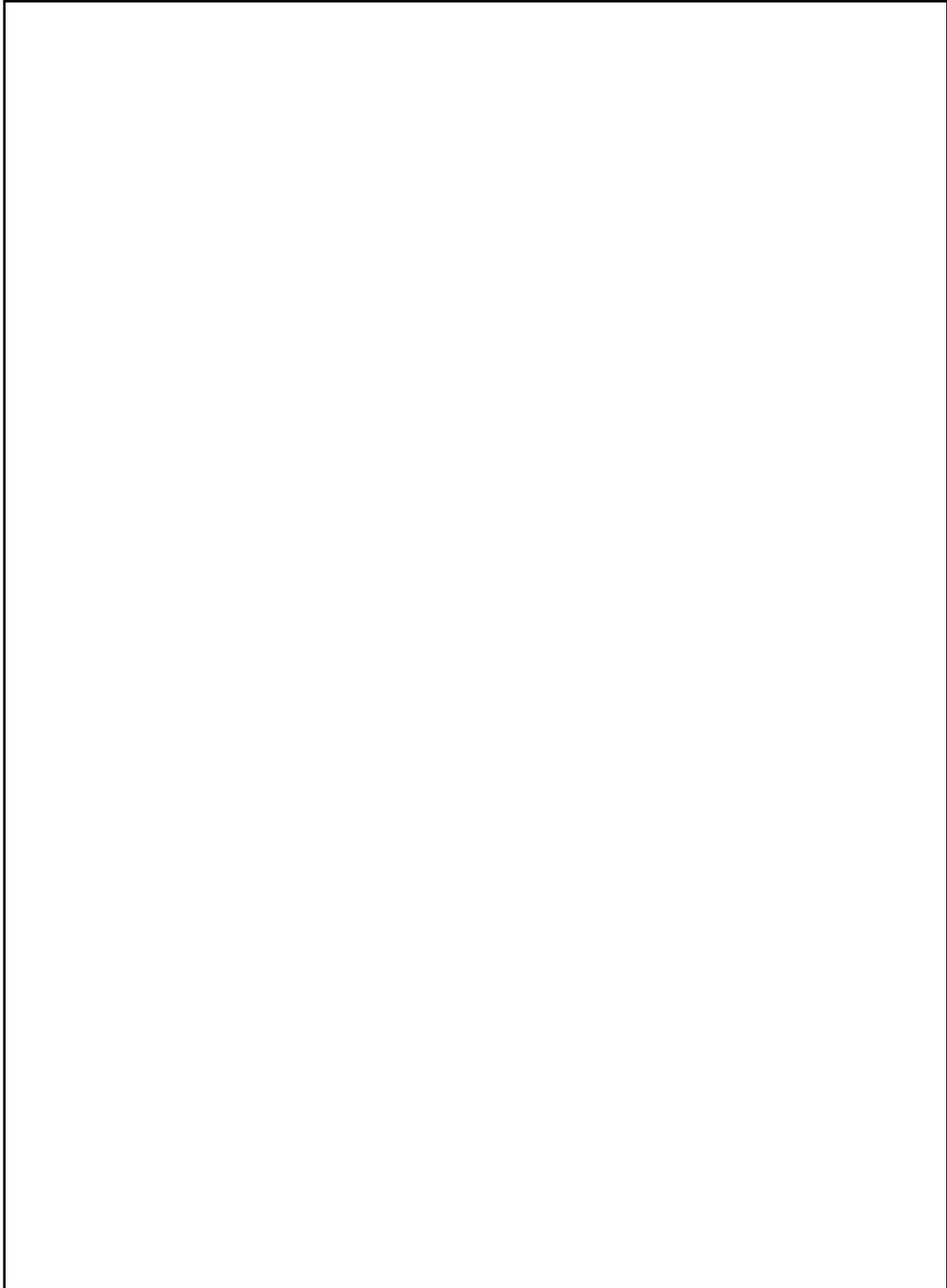


Figure 20: STP Map Showing Testing Adjacent to Site 7NC-E-149 (USDA 2011).



Photo 37: View of Project Area Adjacent to Site 7NC-E-149, Facing South.



Photo 38: View of Project Area Adjacent to Site 7NC-E-149, Facing East.



Photo 39: View of Project Area Adjacent to Site 7NC-E-149, Facing North.



Photo 40: View of Small Outbuilding in Project Area, Facing East.



Photo 41: View of Small Outbuilding in Project Area, Facing South.

Though it is named after John T. Simmons, the farm's owner as identified on Beers and Pomeroy's 1868 map of New Castle County, the land in Area 3 is thought to have been first occupied by William and Jane Wilson in the mid-eighteenth century (Figure 21, p. 70). The Wilsons first appear in connection with this property in a 1771 mortgage to Zachariah Vanleuvenigh, a tanner from the town of New Castle, but were noted to be residing upon the 74.9-hectare (185-ac) farm at that time (NCCDB Z1:281). That same year, William Wilson is listed among taxable residents of New Castle Hundred with a second line for "his estate in W. C.C. (White Clay Creek Hundred)" and assessed £10 and £8, respectively (New Castle County Collection, Historical Society of Delaware). Zachariah Vanleuvenigh was assessed £36 for his taxable property in 1771 as part of the one percent of taxable citizens assessed more than £20. Wilson's property in New Castle Hundred was closer to the median value of £8 (New Castle County Collection, Historical Society of Delaware). Little additional archival information was uncovered to detail William Wilson's life or impacts upon the property in Area 3.

In 1776, the Wilsons sold their farm to James Partridge (NCCDB C2:224). The extant farm dwelling and cemetery on the property is believed to date between 1776 and 1813, both of which were created by an entrepreneur-turned-gentleman-farmer, James Partridge. Partridge was a shipping merchant who moved his wife and younger children to Christiana Bridge from Cecil County, Maryland, just prior to the Revolutionary War. Before his death in 1793, James Partridge had expanded upon Wilson's 74.9 hectares (185 ac) to contain more than 121.4 hectares (300 ac) and renamed the property "Hedge Hill Farm" (NCCDB G2:102, L2:443).

As early as 1767, James Partridge is noted in area tax records in association with a tenement in Christiana Bridge. An advertisement in *The Pennsylvania Gazette* that same year reveals that Partridge was operating a general store in the village in partnership with a man named George Adams, and that this store was one of several stops catering to the shipment of goods and passengers from Philadelphia to Baltimore (*The Pennsylvania Gazette*, 2 April 1767). Tax Assessments from the 1780s indicate that James Partridge was one of New Castle Hundred's elite—falling in the top 10 percent of taxable residents. In 1785, the median tax assessment of land owners was a little over £8 and James Partridge was assessed more than £55 (NCCTA, New Castle Hundred 1785). At least two of James Partridge's sons were active in the shipping industry, residing in other important port towns of Elkton and Baltimore, Maryland. One of his sons, James Partridge (Jr.) married Hannah Hollingsworth, the daughter of Col. Henry Hollingsworth from a prominent merchant family.

Probate records for James Partridge note the presence of several buildings on his farm in New Castle Hundred including “an old house and a new house, with both houses having a second floor and one having a cellar and kitchen” as well as a “...barn, smoke house, and a barrack where wheat was stored” (Traver 2000:I-4). He also owned eight slaves reported to be living in the kitchen at the time of his death in 1793. After James Partridge died, his family appears to have rented his farm outside of Christiana Bridge for more than a decade. In 1804, New Castle Hundred tax records valued Partridge's estate at \$2500 including 123 hectares (304 ac), 107.2 hectares (265 ac) of which were considered improved, along with a frame house, barn, log kitchen, and other outbuildings (NCCTA, New Castle Hundred).

James' son, John Partridge, sold Hedge Hill Farm in 1813 and the property repeatedly exchanged hands during the next decade during which it was divided into two pieces (one 80.1-hectare [198-ac] and one 42.9-hectare [106-ac] farm). In 1821, the 80.1-acre property was purchased by Richard Simmons who appears to have resided in another hundred and rented out this property (NCCDB Y3:177). Tax records from 1822 indicate that the ground rent on this farm was paid by Henry Morton (NCCTA, New Castle Hundred 1822). Simmons died in 1825 at age 33 and was buried in the Christiana Presbyterian Church cemetery. It is not certain where he was living at the time of his death, but the inventory of his estate details a house with four bedrooms, a store room, dining, room, parlor, and cellar, as well as a kitchen, granary, carriage house, and barn (New Castle County [NCC] Probate Records, Richard Simmons, 1825). Though Morton had paid rent on the farm in New Castle Hundred two years earlier, the inventory suggests that Simmons lived on a farm, noting the presence of horses, cattle, oxen, hogs, and sheep, along with a grinding stone and stacks of wheat, oats, rye, clover and corn. This document also revealed that Simmons owned five slaves valued between \$120 and \$200 (NCC Probate Records, Richard Simmons, 1825).

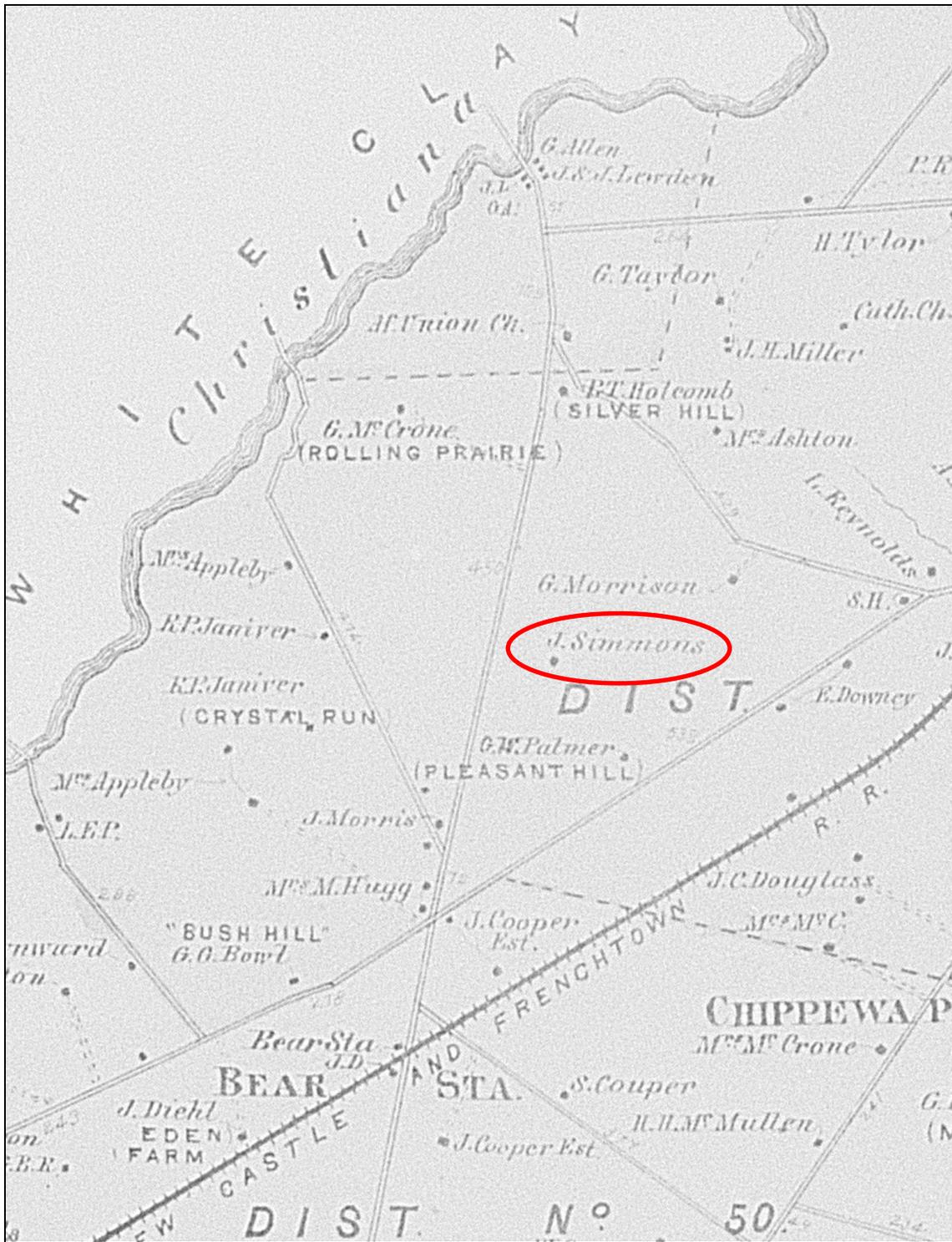


Figure 21: Detail of Beers and Pomeroy's 1868 Map of New Castle County, New Castle Hundred. Red circle highlights John T. Simmons House located just north of Area 3.

In a further account of Richard Simmons estate presented by Mary to the Orphans Court, the property where they lived as described and assessed as such:

one dwelling house & kitchen adjoining in good repair, except the porch which wants a new roof; two granaries, one of which is new, the other in decay; one barrick and one smoke house in order; one stable & carriage house adj in good order, except one half part of the roof which is required to be new; one hen house in order; one old orchard on the decline... good fences, scarcity of woodland... valued at \$260/year (NCC Orphans Court case files, Richard Simmons).

By the time of the 1830 Federal Census, his widow, Mary Turner Simmons, and their young children more clearly appear to be residing on the farm in Area 3. This census noted Mary, age 30 to 39, and five children in her household along with two slaves and three free blacks among the names of adjacent property owners including heads of the Shields, Caulk, and Lewden families (Ancestry.com [Ancestry] 2009). By the mid-nineteenth century, the property in Area 3 appears to have operated as the farm of Richard's son, John T. Simmons. In 1840, the population census records note Mary's son, John Simmons, as the only white male in a full household populated with three white women under 30, two white females age 40 to 50, and seven free blacks (Ancestry 2009). The 1860 Census reveals that the size of his household had decreased considerably by the eve of the Civil War, consisting of just his wife, Catherine, their three young daughters, two white farm laborers and a black female servant (Ancestry 2009).

In 1869, Simmons retired from farming and sold the property to George Lee, moving his family to White Clay Creek Hundred (Ancestry; NCCDB X8:379). Lee defaulted on his mortgage in the early 1870s and the property reverted to Simmons' daughters, Catherine and Sarah, who later sold it to John Janvier in 1879 (NCCDB C10:390, H11:230). Though he resided in the town of New Castle, Janvier expanded the farm and modernized its operations, constructing a sizable granary on the property in the 1880s (Janvier n.d.). After his death in 1890, Janvier left this farm—one of several that he owned—to his daughter Margaret. Margaret Janvier also inherited a house in the town of New Castle and does not appear to have lived on the farm during her tenure. In 1919, Margaret sold Simmons' farm to Walter and Mary Rash of the town of Leipsic in Kent County (NCCDB A29:63). In March 1929, the County seized the land along with several other tracts from the Rashses, and the farm was sold at auction to Richard C. McMullen (NCCDB A29:63, N35:91). McMullen was an experienced farmer with several large farm properties in the area. His family owned and managed the land in Area 3 until 1999 (NCCDB 2689:163).

Although a handful of the buildings remain extant on the Simmons Farm, Area 3 is located south side of the historic dwelling and barn, but encompasses land that was historically a part of the farm's cemetery. A recent archaeological investigation conducted by MAAR identified roughly 15 burials in the Partridge cemetery (Traver 2000:i). James Partridge and several members of his family are believed to have been buried here in the late-eighteenth century. The large memorial marker that historically marked the cemetery in Area 3 was erected after the death of his son, John Partridge, in 1839 (Traver 2000:I-6). John Simmons and his

immediate family members are buried in the Presbyterian Church cemetery in the village at Christiana Bridge.

**Shovel Tests**

Shovel testing adjacent to site 7NC-E-149 resulted in the recovery of 30 historic artifacts from 17 positive shovel tests. Stratigraphy in these shovel tests appeared intact and generally consisted of two strata, extending to an average depth of 45 centimeters (1.49 ft) and ranging between 34 and 61 centimeters (1.1 and 2.0 ft). The A horizon, which averaged 34 centimeters (1.1 ft) deep and ranged between 24 and 49 centimeters (0.8 and 1.6 ft), consisted of a brown (10YR 4/3) silty clay loam. This layer sealed a yellowish brown (10YR 5/6) to dark yellowish brown (10YR 4/6) silty clay subsoil (Figure 22).

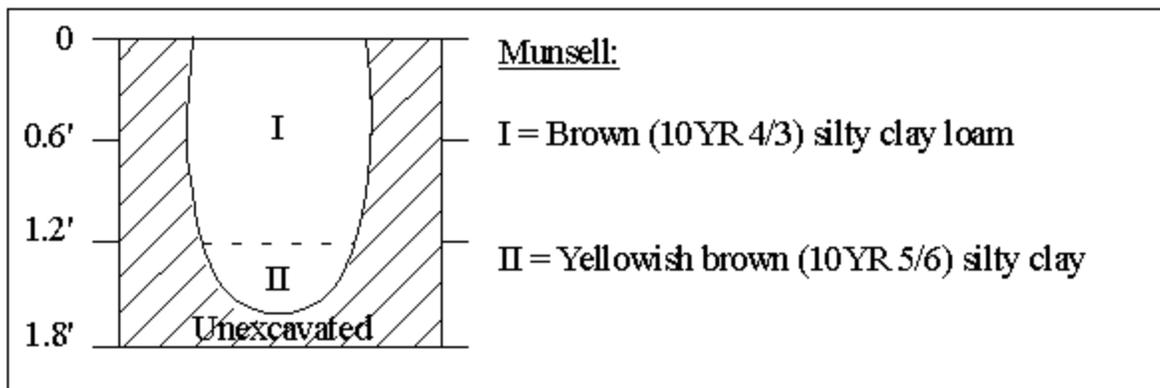


Figure 22: Profile Drawing of STP 3-H-09.

The artifact assemblage recovered adjacent to site 7NC-E-149 during this survey was composed primarily of architectural remains, which accounted for 63 percent of the total assemblage (Table 3). These architectural materials included handmade brick fragments, cut nails, and an ungalvanized wire nail. Other artifacts recovered from the site include American stoneware, whiteware, redware, bottle glass, a clam shell, and plastic (Photo 42, p. 73). All of these artifacts were recovered from the A horizon and did not appear to show any distinct concentrations, but were distributed relatively randomly across the site. The presence of whiteware, cut nails, and bottle glass indicate a mid- to late-nineteenth-century date for this portion of the site, corresponding with the Simmons occupation of the property.

Table 3: Comparison of Artifact Categories Recovered from STPs Adjacent to Site 7NC-E-149.

| Artifact Category | Count | Percentage |
|-------------------|-------|------------|
| Architectural     | 19    | 63%        |
| Ceramic           | 5     | 17%        |
| Glass             | 4     | 13%        |
| Organic           | 1     | 3%         |
| Other             | 1     | 3%         |



Photo 42: Example of Artifacts Recovered adjacent to 7NC-E-149, Including a Nail Fragment, Redware, and Aqua Bottle Glass.

### ***Evaluation and Recommendations***

Site 7NC-E-149 was identified during the removal of remains from the Partridge Memorial Cemetery (Traver 2000). Aside from the human remains, which dated from the 1770s to the 1810s, a cellar hole dating from 1700–1760 was also encountered, likely representing the remains of the early eighteenth-century occupation of the site. Shovel testing during the course of the current project examined a swath between the boundaries of 7NC-E-149 and the Simmons Farm. The close-interval shovel testing revealed a relatively light and even scatter of artifacts within this corridor, all of which dated to the mid- to late-nineteenth century. These artifacts are likely associated with the Simmons occupation of the site, which spanned much of the nineteenth century. It is likely the artifacts recovered from this corridor represent field scatter and general light refuse discard from the Simmons period of occupation. No subsurface features were encountered, but the Simmons house, kitchen, and several outbuildings were noted in and around the survey area. Due to the paucity of artifacts, their lack of concentration, and the former use of this area as an orchard, this section of the project area does not appear to be within the boundaries of 7NC-E-149 or the Simmons Farm. The project, as it is currently designed, does not impact either the Simmons Farm or 7NC-E-149.

## Field Scatters

Three field scatters were identified during the course of the survey in three of the seven survey areas. Field scatter is a historic phenomenon caused by the manuring of farm field in order to increase soil fertility. Generally, this practice began in the early decades of the nineteenth century and was common throughout much of Delaware. While field scatters do provide evidence of the specific farming practice of manuring, they are relatively common and their research potential is limited. As such, **field scatters do not require site numbers or CRS numbers, and are not eligible for listing on the NRHP**. The following sections address the three field scatters encountered during this survey based upon the survey areas in which they were encountered.

### *Area 1*

The field scatter in Area 1 was composed of a total of 76 artifacts recovered from 25 shovel tests. These artifacts included brick, aqua, green, and clear bottle glass, window glass, nail shaft fragments, redware, creamware, pearlware, English porcelain, porcellaneous ware, whiteware, a horseshoe, and a crown bottle cap (Table 4). Additionally, two fragments of lithic debitage were also recovered from this field scatter. While this field scatter is represented by a large number of artifacts, they are widely distributed across the survey area and are sparsely concentrated. The majority of the artifacts that have diagnostic features also indicate a mid- to late-nineteenth-century date. As a result, these artifacts were likely deposited due to manuring practices that were common in Delaware during the nineteenth century. The two prehistoric artifacts were also likely deposited by this process, considering their low concentration and close spatial relationship. Based upon all of this, all of the artifacts recovered from Area 1 likely represent an historic field scatter resulting from manuring agricultural fields in the nineteenth century. This scatter is likely associated with the Lewden and/or Allen families, who are listed as the owners of the property in the 1868 Beers and Pomeroy and Beers map of New Castle Hundred (Figure 23, p. 76).

Table 4: Artifacts Recovered from Field Scatter in Area 1.

| Provenience | Artifact               | Count |
|-------------|------------------------|-------|
| 1-B-10 West | Brick                  | 2     |
| 1-B-10 West | Aqua Bottle Glass      | 1     |
| 1-B-10      | Brick                  | 3     |
| 1-B-9 North | Creamware              | 1     |
| 1-B-9 North | Clear Bottle Glass     | 1     |
| 1-B-9 South | Brick                  | 2     |
| 1-B-9 South | Wire                   | 1     |
| 1-B-9       | Brick                  | 1     |
| 1-B-9       | Green Wine Bottle Base | 1     |
| 1-C-13 East | Green Bottle Glass     | 1     |
| 1-C-13 East | Jasper Tertiary Flake  | 1     |

| Provenience  | Artifact               | Count |
|--------------|------------------------|-------|
| 1-C-13 North | Window Glass           | 1     |
| 1-C-13       | Chert Tertiary Flake   | 1     |
| 1-E-1        | Brick                  | 1     |
| 1-E-1        | Creamware              | 1     |
| 1-E-1        | Pearlware              | 1     |
| 1-E-6 North  | Brick                  | 1     |
| 1-E-6 North  | Nail Shaft             | 5     |
| 1-E-6 North  | Redware                | 1     |
| 1-E-6        | Brick                  | 2     |
| 1-F-4 North  | Brick                  | 1     |
| 1-F-4 West   | Redware                | 1     |
| 1-F-4        | English Porcelain      | 1     |
| 1-F-7 West   | Horseshoe              | 1     |
| 1-F-7        | Clear Bottle Glass     | 2     |
| 1-F-7        | Solarized Bottle Glass | 1     |
| 1-G-2 West   | Green Bottle Glass     | 1     |
| 1-G-2        | Redware                | 1     |
| 1-G-2        | Clear Bottle Glass     | 1     |
| 1-G-2        | Crown Cap              | 1     |
| 1-H-5 East   | Creamware              | 1     |
| 1-H-5 East   | Refined Earthenware    | 2     |
| 1-H-5 South  | Brick                  | 1     |
| 1-H-5 South  | Redware                | 1     |
| 1-H-5 South  | Porcellaneous          | 1     |
| 1-H-5 West   | Brick                  | 4     |
| 1-H-5 West   | Redware                | 1     |
| 1-H-5 West   | Whiteware              | 1     |
| 1-H-5        | Redware                | 1     |
| 1-H-5        | Whiteware              | 2     |
| 1-H-6 North  | Brick                  | 3     |
| 1-H-6 North  | Nail Shaft             | 3     |
| 1-H-6 North  | Redware                | 3     |
| 1-H-6 North  | Aqua Bottle Glass      | 1     |
| 1-H-6 West   | Brick                  | 2     |
| 1-H-6 West   | Window Glass           | 1     |
| 1-H-6        | Brick                  | 8     |

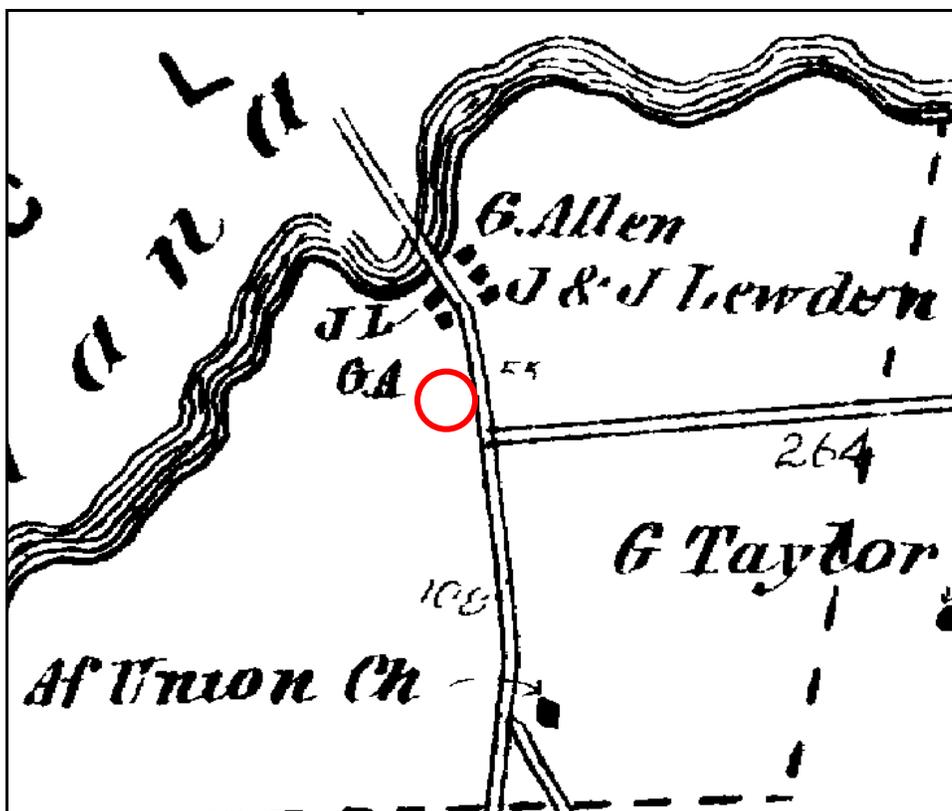


Figure 23: Detail of 1868 Pomeroy and Beers Atlas of New Castle Hundred with Approximate Boundaries of Field Scatter in Area 1 Outlined in Red.

### *Area 3*

A total of 50 artifacts, recovered from 29 STPs, comprised the field scatter in Area 3. Artifacts recovered from this field scatter included window glass, clear and aqua vessel glass, whiteware, redware, brick, and a fence staple (Table 5, p. 77). The few diagnostic materials recovered from this field scatter indicate a mid- to late-nineteenth-century date. Additionally, the artifacts are spread over a relatively large area and show no evidence of concentration. Therefore, the artifacts recovered from Area 3 likely represent an historic field scatter resulting from manuring practices in the nineteenth century. This field scatter is almost certainly associated with the ownership of the property by either the Simmons, Janvier, or Leipsic families, as discussed above in relation to Site 7NC-E-149.

### *Area 6*

The field scatter in Area 6 was represented by a total of 13 artifacts recovered from five shovel tests. The artifact assemblage for this scatter consisted of brick fragments, whiteware, redware, creamware, ironstone, terracotta, clear vessel glass, and coal (Table 6, p. 78). Diagnostic materials indicate a mid- to late-nineteenth-century date. This date coupled with the composition of the assemblage, and the fact that artifacts were spread over a relatively large area with little evidence of concentration, indicates that the majority of the artifacts in Area 6 are a historic field scatter resulting from the nineteenth-century practice of manuring.

Table 5: Artifacts Recovered from Field Scatter in Area 3.

| Provenience  | Artifact                     | Count |
|--------------|------------------------------|-------|
| 3-A-17 West  | Window Glass                 | 1     |
| 3-A-17       | Clear Bottle Glass           | 1     |
| 3-A-3        | Redware                      | 1     |
| 3-B-11       | Redware                      | 1     |
| 3-B-11       | Clear Bottle Glass           | 1     |
| 3-B-13 East  | Redware                      | 1     |
| 3-B-13 South | Clear Bottle Glass           | 1     |
| 3-B-13 South | Aqua Bottle Glass            | 1     |
| 3-B-13       | Aqua Bottle Glass            | 1     |
| 3-B-13       | Clear Vessel Glass           | 1     |
| 3-C-9 East   | Brick                        | 2     |
| 3-C-9 East   | Whiteware                    | 1     |
| 3-C-9        | Whiteware                    | 1     |
| 3-D-9 North  | Brick                        | 1     |
| 3-D-9 North  | Redware                      | 1     |
| 3-D-9        | Redware                      | 1     |
| 3-D-9        | Aqua Bottle Glass            | 1     |
| 3-E-11       | Fence Staple                 | 2     |
| 3-H-9        | American Stoneware           | 1     |
| 3-I-9        | Whiteware                    | 1     |
| 3-I-9        | Clear Vessel Glass           | 1     |
| 3-J-7        | Redware                      | 1     |
| 3-K-2        | Aqua Bottle Glass            | 1     |
| 3-K-4        | Aqua Bottle Glass            | 1     |
| 3-M-9        | Unidentified Nail Shaft      | 6     |
| 3-M-9        | Cut Nail Shaft               | 2     |
| 3-M-9        | Ungalvanized Wire Nail Shaft | 1     |
| 3-M-9        | Plastic                      | 1     |
| 3-N-4        | Brick                        | 1     |
| 3-P-2        | Brick                        | 2     |
| 3-P-3        | Brown Bottle Glass           | 1     |
| 3-Q-4        | Brick                        | 1     |
| 3-Q-11       | Brick                        | 1     |
| 3-Q-11       | Redware                      | 1     |
| 3-Q-12       | Brick                        | 2     |

| Provenience | Artifact       | Count |
|-------------|----------------|-------|
| 3-Q-12      | Clamshell      | 1     |
| 3-R-4       | Redware        | 1     |
| 3-T-11      | Brick          | 1     |
| 3-V-13      | Cut Nail Shaft | 1     |
| 3-W-13      | Brick          | 1     |

Table 6: Artifacts Recovered from Field Scatter in Area 6.

| Provenience | Artifact           | Count |
|-------------|--------------------|-------|
| 6-F-4 West  | Brick              | 1     |
| 6-F-4 West  | Ironstone          | 1     |
| 6-F-4       | Whiteware          | 1     |
| 6-G-3       | Redware            | 1     |
| 6-G-3       | Creamware          | 1     |
| 6-G-3       | Clear Bottle Glass | 1     |
| 6-H-3       | Brick              | 1     |
| 6-H-3       | Terracotta         | 1     |
| 6-H-3       | Clear Bottle Glass | 2     |
| 6-H-3       | Clear Vessel Glass | 1     |
| 6-H-3       | Coal               | 1     |
| 6-K-13      | Clear Bottle Glass | 1     |

Background research for Area 6 revealed that the field scatter is likely related to the Start House (7NC-E-102). The property on which the house was located was likely occupied from the 1790s to the present and is located in the northeastern portion of the survey area. The dwelling was constructed around 1820 and stood until 2001, when it was burned. Prior to its destruction, the Start House had been listed on the NRHP. Historic maps and aerial photographs from as early as 1849 show the location of the house and the surrounding agricultural fields, through which the project area travels (Figure 24, p. 79).

## Isolated Finds

Three isolated finds were identified during STP survey within two of the seven survey areas (Table 7, p. 79). Isolated finds refer to spatially discrete areas marked by surface indications and little else or limited to simple loss or casual or single-episode discard. Typically, artifacts from a single STP, three or fewer related artifacts from several STPs, or unrelated artifacts recovered from one or a few shovel tests are designated isolated finds. The probability that further work at isolated finds will contribute significant information is extremely low; therefore, **isolated finds, by definition, are not eligible for listing on the NRHP.**

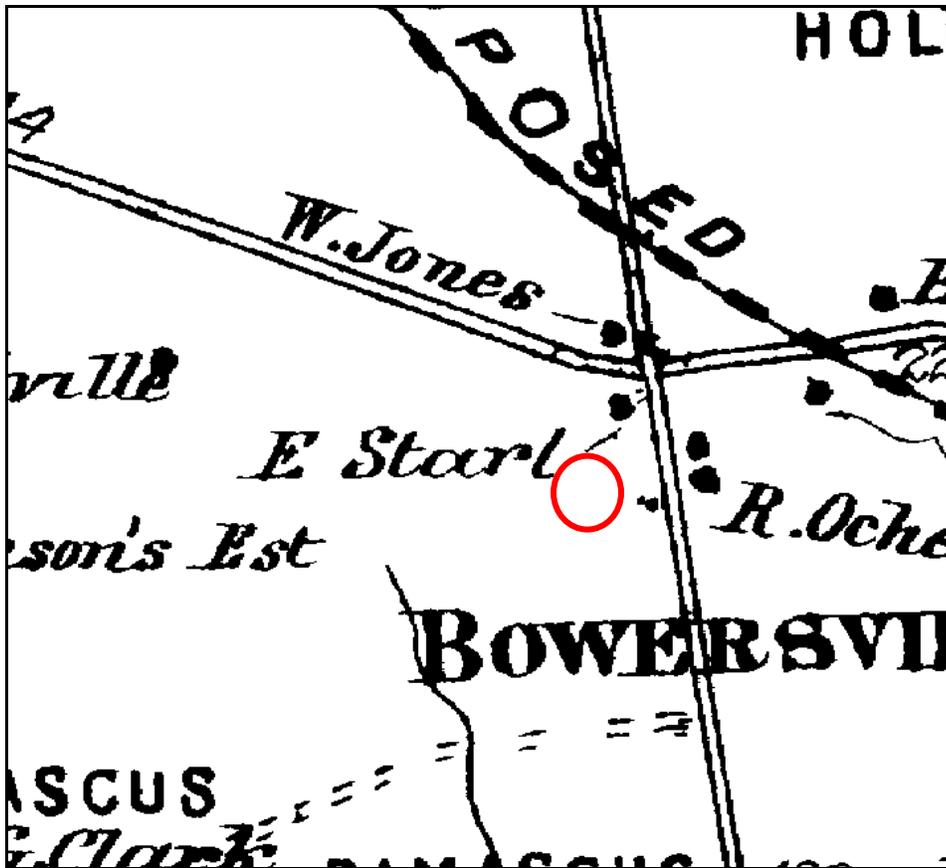


Figure 24: Detail of 1868 Pomeroy and Beers Atlas of Red Lion Hundred Showing Location of Start House, Location of Field Scatter Outlined in Red.

Table 7: Table Showing Isolated Finds Recovered in the Project Area.

| Isolated Find Number | Provenience  | Artifact           | Count |
|----------------------|--------------|--------------------|-------|
| ISF 1                | 2-A-41       | Pearlware          | 1     |
| ISF 1                | 2-A-41 North | Creamware          | 1     |
| ISF 2                | 2-G-38       | Amber Bottle Glass | 1     |
| ISF 3                | 5-A-4        | Creamware          | 1     |

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## SUMMARY AND RECOMMENDATIONS

From January to March 2014, Dovetail conducted a Phase IB archaeological survey and archival research at the request of DelDOT for the SR 1 Widening project. Over the past 20 years, rapid growth in the New Castle County area and a significant increase in traffic along SR 1 have caused DelDOT to propose widening SR 1 from the current six-lane configuration to an eight-lane roadway. This project would also include modified intersections and connector roads. As part of the SR 1 Road Widening project, Berger conducted a Phase IA archaeological investigation of the APE and concluded that 70 percent of the total APE had been disturbed, previously surveyed, or otherwise contained low potential for intact stratigraphy (Bedell et al. 2012). Based on the Berger report and additional data received from DelDOT, Dovetail conducted a Phase IB archaeological study of testable areas along the SR 1 corridor. Using Berger's survey as a guide, the goals of Dovetail's Phase IB archaeological survey were to identify any archaeological sites older than 50 years in the project area and make recommendations on their NRHP eligibility.

The Phase IB archaeological survey included a pedestrian reconnaissance to identify areas within the project area with the potential for intact deposits and subsurface investigations of these testable areas. The project area was defined as the portion of the APE determined to be undisturbed by Berger's Phase IA survey and Dovetail's pedestrian reconnaissance. The archaeological survey subjected the majority of the 25.1-hectare (62-ac) project area to subsurface testing, resulting in the excavation of 1,001 STPs and the recovery of 168 artifacts. Prior to the excavation of test units in areas of distinct artifact concentration, funding for the larger SR 1 project was withdrawn. Therefore, the results of this work were only based upon shovel testing. The survey identified one potential site, three field scatters, and three isolated finds. 7NC-E-051 Locus B is an historic scatter dating to the late-nineteenth or early-twentieth century. The three field scatters and three isolated finds are, by definition, not archaeological sites and, therefore, **do not warrant CRS numbers or archaeological site number.** 7NC-E-051 Locus B, the field scatters, and the isolated finds are **recommended not eligible for listing on the NRHP.**

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## REFERENCES

Adams, William Hampton

- 2002 Machine Cut Nail and Wire Nail: American Production and Use for Dating 19<sup>th</sup>-Century and Early-20<sup>th</sup> Century Sites. *Historical Archaeology* 36(4):66–88.

Ames, David L., Mary Helen Callahan, Bernard L. Herman, and Rebecca J. Siders

- 1989 *Delaware Comprehensive Historic Preservation Plan*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy, University of Delaware, Newark, Delaware.

Ancestry.com (Ancestry)

- 2009 *United States Federal Census, 1800–1930* [database on-line]. Provo, UT, USA: Ancestry.com Operations. Electronic document, <http://www.ancestry.com>, accessed July 2013.

Andrefsky, William, Jr.

- 1998 *Lithics: Macroscopic Approaches to Analysis*. Cambridge University Press, Cambridge.

Archibald, Lauren, Betty Zebooker, and Ron Thomas

- 1999 *Level 1 Documentation, Development Application 99-0190(S), McMullen Tract*. MAAR Associates, Inc. Newark, Delaware.

Bartoviks, Albert F.

- 1980 *The Archaeology of Daniels Village: an Experiment in Settlement Archaeology*. Ph.D. Dissertation, Department of Anthropology. Brown University, Providence, Rhode Island.

Bedell, John

- 2002 *Historic Context: The Archaeology of Farm and Rural Dwelling Sites in New Castle and Kent Counties, Delaware, 1730–1770 and 1770–1830*. Delaware State Historic Preservation Office, Division of Historical and Cultural Affairs, Dover, Delaware.

Bedell, John, Charles LeeDecker, Patti Kuhn, and Jason Shellenhamer

- 2012 *Phase IA Archaeological Investigations State Route 1 Widening New Castle County, Delaware*. The Louis Berger Group, Inc. Washington, D.C.

Bromberg, Francine W.

- 1988 *Archaeological Resources Management Plan, Volume II: Block-by-Block Archaeological Analysis of the Waterfront Management Unit*. Wilmington Department of Planning, Wilmington, Delaware.

Callahan, Errett

- 1979 The Basics of Biface Knapping in the Eastern Fluted Point Tradition. *Archaeology of Eastern North America* 7:1–180.

Catts, Wade P., and Lu Ann De Cunzo

- 1999 “Down on the Farm”: Questions, Directions, and Interpretations of the Archaeology of Delaware Agricultural Farm Life, 1800-1950. *Bulletin of the Archaeological Society of Delaware* 36:19–27.

Center for Historic Architecture and Design (CHAD)

- 1999 *Level II: Partial Intensive, John T. Simmons Farmstead (N-4039), Documentation in New Castle County*. Center for Historic Architecture and Design, University of Delaware. Electronic copy on file at CHAD digital collections, <http://udspace.udel.edu/handle/19716/420>, accessed February 2014.

City of Wilmington

- 2003 *A City-Wide Plan of Land Use: A Component of the Comprehensive Development Plan for Wilmington, Delaware*. Department of Planning. Electronic document, <http://www.wilmingtonde.gov/docs/171/Citywide-Plan-of-Land-Use.pdf>, accessed September 2013.

Coe, Joffre L.

- 1964 *The Formative Cultures of the North Carolina Piedmont*. Transactions of the American Philosophical Society 54, no. 5. Philadelphia.

Coverdale and Colpitts

- 1946 *The Pennsylvania Railroad Company: Corporate, Financial and Construction History of Lines Owned, Operated and Controlled To December 31, 1945*. Pennsylvania Railroad Company. Copy on file at Hagley Museum and Library. Electronic document, <http://digital.hagley.org/cdm/about/collection/p16038coll12>, accessed September 2013.

Coxe, Tench

- 1814 *A Statement of the Arts and Manufactures of the United States for the Year 1810*. A Cornman, Philadelphia, Pennsylvania.

Custer, Jay F.

- 1984 *Delaware Prehistoric Archaeology*. University of Delaware Press, Newark, Delaware.
- 1986 A Management Plan for the Prehistoric Archaeological Resources of Delaware. *University of Delaware Center for Archaeological Research Monograph No. 2*. Newark, Delaware.
- 1989 *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*. University of Delaware Press, Newark, Delaware.

Custer, Jay F., and David C. Bachman

- 1986 *An Archaeological Planning Survey of Selected Portions of the Proposed Route 13 Corridor, New Castle County, Delaware*. Delaware Department of Transportation Archaeology Series No. 44, Dover, Delaware.

De Cunzo, Lu Ann

- 2004 *A Historical Archaeology of Delaware: People, Contexts, and the Cultures of Agriculture*. The University of Tennessee Press, Knoxville, Tennessee.

De Cunzo, Lu Ann, and Wade P. Catts

- 1990 *Management Plan for Delaware's Historical Archaeological Resources*. University of Delaware Center for Archaeological Research, Newark, Delaware.

Delaware Division of Historical and Cultural Affairs (DHCA)

- 2014 "Cultural and Historical Resource Information System: Aerial Imagery." Electronic database, <http://chris.delaware.gov/CHRIS/faces/main.html>, accessed August 2014.

Dixon, Stuart Paul

- 1992 *The Wilmington Waterfront Analysis Area Intensive Level Architectural Survey*. Copy on file at City of Wilmington Office of Planning and DelDOT. Electronic document, [http://www.deldot.gov/archaeology/wilm\\_waterfront/index.shtml](http://www.deldot.gov/archaeology/wilm_waterfront/index.shtml), accessed September 2013.

Egnal, Marc

- 1975 The Economic Development of the Thirteen Continental Colonies, 1720–1775. *William and Mary Quarterly* 32(2):191–222.

Fisher, Caroline C., Allison W. Elterich, Bernard L. Herman, and Rebecca J. Siders

- 1993 *Marshland Resources in the Delaware Estuary, 1830–1950: An Historic Context*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy. Newark.

Frederick, Barbara, Catherine Dluzak, Emma Young, Lauren Archibald, Elizabeth Amisson, Paul Schopp, Daniel Bailey, and Christine Tate

- 2006 *US 301 Project Development Historic Context and Reconnaissance Survey Report, St. Georges, Pencader, and Appoquinimink Hundreds, New Castle County, Delaware*. July. A. D. Marble & Company, Conshohocken, Pennsylvania.

Goodyear, Albert C.

- 1979 *A Hypothesis for the Use of Cryptocrystalline Raw Materials among Paleoindian Groups of North America*. Research Manuscript Series, University of South Carolina, Institute of Archaeology and Anthropology, Columbia, South Carolina.

Greer, Georgianna H.

- 1970 Preliminary Information on the Use of Alkaline Glaze in the South, 1800–1970. *The Conference on Historic Sites Archaeology Papers 1970*, Volume 5, edited by

S. South. South Carolina Institute of Archaeology and Anthropology, Columbia, South Carolina.

Heald, Henry

1820 *Roads of New Castle County*. Copy on file at Historical Society of Delaware, Wilmington.

Herman, Bernard

1979 John Lewden House, National Register of Historic Places Nomination. Copy on file at Delaware Division of Historical and Cultural Affairs, Dover, Delaware.

Hodny, Jay, David C. Bachman, and Jay F. Custer

1989 *Phase I Archaeological Survey of the Chesapeake and Delaware Canal Section, Odessa Segment, of the US Route 13 Corridor, New Castle County, Delaware*. Delaware Department of Transportation Archaeology Series No. 73, Dover, Delaware.

Hunter, Richard, Brooke Blades, Michael Tomkins, Ernest Bower, and Patricia Madrigal

1995 *A Phase IA and IB Cultural Resources Survey Little Mill Creek Drainage, The Amtrak Railroad Bridge to Robert Kirkwood Highway (State Highway 2), city of Elsmere and Christina Hundred, New Castle County, Delaware*. Hunter Research, July 1993, September 1994, and March 1995. Copy on file at Delaware State Historic Preservation Office, Dover.

Hyland, Matthew G. and Gerald Kuncio

2004 *New Castle County, Delaware, New Castle Hundred, School Bell Road (SR1 to US40) Improvements, Historic Architecture Survey and Determination of Eligibility*. Skelley and Loy, Inc. Harrisburg, Pennsylvania.

Janvier, John

n.d. John Janvier Account Books (1836–1885), University of Delaware Special Collections. Morris Library, Newark, Delaware.

Jordan, Robert. R.

1964 *Columbia (Pleistocene) Sediments of Delaware*. Delaware Geological Survey Bulletin No. 12.

Kent, Barry C.

1989 *Susquehanna's Indians*. Anthropological Series No. 6, Pennsylvania historical and Museum Commission, Harrisburg, Pennsylvania.

Kellogg, Douglas C.

1990 *Guide to Archaeological Site Prediction Using Landsat Satellite Data and Logistic Regression*. Manuscript on file, University of Delaware Center for Archaeological Research, Newark, Delaware.

- Kuhn, Patti, Sarah Groesbeck, and Megan Rupnik  
 2012 *Architectural Survey Report, SRI Widening, New Castle County, Delaware*. The Louis Berger Group, Inc. Washington, D.C.
- Kurtze, Peter E.  
 1992 *Survey Report: Historic and Architectural Resources of Newport, Delaware*. July. Town of Newport. Copy on file at Delaware State Historic Preservation Office, Dover.
- LeeDecker, Charles, Patti Kuhn, and Gregory Katz  
 2011 *Phase IA Archaeological Investigation of the Christina River Bridge, New Castle County, Delaware*. October. Louis Berger Group, Washington, D.C. Copy on file at DelDOT.
- Lowery, Darrin  
 2007 *Phase I Archaeological Investigations at Miles Point in Talbot County, Maryland*. Chesapeake Watershed Archaeological Research Foundation, Inc., Easton, Maryland.
- Lowery, Darrin, Margaret Jodry, and Dennis Stanford  
 2012 Clovis Coastal Zone Width Variation: A Possible Solution for Early Paleoindian Population Disparity along the Mid-Atlantic Coast, USA. *Journal of Island & Coastal Archaeology* 7:53–63.
- Lukezic, Craig  
 1990 Soils and Settlement Location in 18<sup>th</sup> Century Colonial Tidewater Virginia. *Historical Archaeology* 24(1):1–17.
- Main, Jackson T.  
 1973 *The Social Structure of Revolutionary America*. Princeton University Press, Princeton, New Jersey.
- Munroe, John A.  
 1984 *History of Delaware* (2<sup>nd</sup> edition). University of Delaware Press, Newark, Delaware.
- Nelson, Lee H.  
 1968 Nail Chronology as an Aid to Dating Old Buildings. *Technical Leaflet 48*. American Association for State and Local History, Nashville, Tennessee.
- New Castle County Archived Deeds  
 n.d. New Castle County Archived Deeds. Misc. years. Microfilm edition, Delaware Public Archives, Dover.
- New Castle County Deed Book (NCCDB)  
 n.d. New Castle County Deed Books. Misc. years. On file at New Castle County Recorder of Deeds Office, Wilmington. Microfilm edition, Delaware Public Archives, Dover.

New Castle County Probate Records

- n.d. New Castle County Probate Records. Misc. years. Microfilm edition, Delaware Public Archives, Dover.

New Castle County Road Papers

- n.d. Road Papers, New Castle County, Delaware. Misc. years. Documents on file at Delaware Public Archives, Dover.

New Castle County Tax Assessments

- n.d. New Castle County Tax Assessments. Misc. years. Microfilm edition, Delaware Public Archives, Dover.

New Castle County Tax Parcel Data

- 2014 New Castle County Geographic Information System, Parcel Search. Electronic document, <http://www3.nccde.org/parcel/search/>, accessed March 2014.

New Castle County Warrants and Surveys

- n.d. New Castle County Warrants and Surveys. Misc. years. Microfilm edition, Delaware Public Archives, Dover.

Noël-Hume, Ivor

- 1991 *A Guide to Artifacts of Colonial America*. Reprinted from 1969. Vintage Books, New York, New York.

Odell, George H.

- 2004 *Manuals in Archaeological Method, Theory, and Technique: Lithic Analysis*. Springer Science Business Media. New York, New York.

Pennsylvania Railroad Company Corporate Records (PRRCCR)

- n.d. *Corporate records (1828–1968), Pennsylvania Railroad Company*. Misc. years. Hagley Museum and Library, Manuscript and Archives Department. Greenville, Delaware.

*Pennsylvania Gazette, The* (Philadelphia, Pennsylvania)

- 1767 Advertisement placed by Hollingsworth and Rudolph, Adams and Partridge, and Griskt. 2 April 1767. Electronic document, <http://www.newspapers.com>, accessed March 2014.

Petraglia, Michael, Dennis Knepper, John Rutherford, Philip LaPorta, Kathryn Puseman, Joseph Schuldenrein, and Noreen Tuross

- 1998 *The Prehistory of Lums Pond: The Formation of An Archaeological Site in Delaware*. Parsons Engineering Science, Inc. Fairfax, Virginia.

Pittman, William, Leslie McFaden, and George Miller

- 1987 *Laboratory Manual of the Office of Archaeological Excavation*. Department of Archaeology, Colonial Williamsburg Foundation, Williamsburg, Virginia.

Pomeroy and Beers

1868 *Atlas of the State of Delaware*. Philadelphia. Copy on file at Delaware Public Archives, Dover, Delaware.

Potter, Stephen R.

1993 *Commoners, Tribute, and Chiefs: The Development of Algonquian Culture in the Potomac Valley*. University of Virginia Press, Charlottesville, Virginia.

Ritchie, William A.

1971 A Typology and Nomenclature for New York Projectile Points. New York State Museum and Science Service, *Bulletin 384*, Albany.

Rummel, Klepper, & Kahl (RK&K)

1993 *Delaware Turnpike Improvements Project Phase I Analysis: Historical and Archaeological Resources Technical Study, Delaware Turnpike Service Area to the Christiana Interchange, New Castle County, Delaware*. Louis Berger & Associates and Kise Franks & Straw. Copy on file at DelDOT. Electronic document, [http://www.deldot.gov/archaeology/historic\\_pres/turnpike/series121/index.shtml](http://www.deldot.gov/archaeology/historic_pres/turnpike/series121/index.shtml), accessed September 2013.

Siders, Rebecca. J., Bernard L. Herman, David L. Ames, Andrea L. Marth, Gabrielle M. Lanier, Margret H. Watson, Elizabeth M. Bellingrath, Nancy I. Van Dolsen, Leslie D. Bashman, and Susan M. Chase

1991 *Agricultural Tenancy in Central Delaware 1770–1990: A Historic Context*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy. University of Delaware, Newark, Delaware.

Soil Survey Staff

2015 Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Electronic document, <http://websoilsurvey.nrcs.usda.gov/>, accessed March 2015.

South, Stanley

1977 *Methods and Theory in Historical Archaeology*. Academic Press, New York.

Traver, Jerome

2000 *Archaeological Excavation of the Partridge Memorial Cemetery, New Castle County, Delaware*. MAAR Associates, Inc. Newark, Delaware.

Turner, E. Randolph

1976 *An Archaeological and Ethnohistorical Study on the Evolution of Rank Societies in the Virginia Coastal Plain*. Ph.D. dissertation, Pennsylvania State University, State College, Pennsylvania.

United States Department of Agriculture (USDA)

2001 *US Geological Survey. Delaware, Digital Raster Graphic Mosaic of New Castle County, Delaware*. Electronic Document, <http://datagateway.nrcs.usda.gov/>, accessed July 2012.

2011 *National Agricultural Imagery Program. New Castle County, Delaware 2011.*  
Electronic Document, <http://datagateway.nrcs.usda.gov/>, accessed July 2012.

Ward, H. Trawick

1965 Correlation of Mississippian Sites and Soil Types. *Southeastern Archaeological Conference Bulletin* 3:42–48.

Weslager, C. A.

1947 *Delaware's Forgotten River: The Story of the Christiana.* Hambleton Company, Inc., Wilmington.

1961 *Dutch Explorers. Traders and Settlers in the Delaware Valley, 1609–1664.* University of Pennsylvania Press, Philadelphia, Pennsylvania.

Whittaker, John C.

1994 *Flintknapping: Making and Understanding Stone Tools.* University of Texas Press, Austin, Texas.

## **APPENDIX A: CHAIN OF TITLE, AREAS 2 & 3**

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**Chain of Title: Area 2**

| INSTR. TYPE      | DB   | PG  | DATE         | GRANTOR  | GRANTEE   | AC    | NOTES   | COMMENTS  |
|------------------|------|-----|--------------|--|---|-------|---|---|
| Subdivision Plat |      |     | June 1995    | David M. Cantera Trustee (TR)                      |   | 18+ A | Subdivision/ development restrictions placed on property known as Exhibit A... 1) total # of dwellings not to exceed a gross density equal to 12.99 units per acre. 2) if requested by DelDOT will put in traffic signal on Rte 7-School Bell Rd intersection. 3) vehicular access restricted to a single pt on School Bell Rd, 4) existing wooded area located in northern portion shall remain natural, undisturbed except for clearance required for utility or ped/bike path purposes... etc. | Survey plan of lands of Commonwealth Trust, containing approximately 18.6149 A prepared by Zeigler Inc. Drawing No. 8802568-3420 bearing date of Jan 5 1989 |
| Deed             | 1447 | 84  | 25 Sept 1992 | Charles D. Cantera of New Castle County (NCC)      | Daivd M. Cantera TR                             | 35.58 | Trustee under the Irrevocable Trust of Charles D. Cantera dated 9/25/92... For \$10.00... all that tract in New Castle Hundred [NCH], NCC, at intersection, more particularly described in a survey by Marvin S. Smith dated June 25, 1956 and revised June 29, 1956.   |   |
| Deed             | 1428 | 106 | 25 Sept 1992 | Commonwealth Trust Co., TR of the Christiana Trust | Charles D. Cantera                              |       | for \$10...that parcel described in survey of Smith rev. 1956. (Same descript as above), being part of lands which Francis Hospital Inc, of DE, in a deed dated Feb 12, 1988, recorded in DB 660 p. 24, conveyed to Commonwealth Trust Co., Trustee for Christiana Trust. Excepting land in four deeds (see written description).   |   |
| Deed             | 660  | 24  | 12 Feb 1988  | St. Francis Hospital, Inc.                         | Commonwealth Trust Co., TR for Christiana Trust |       | for \$1.6 million....that tract in NCH described in survey of Smith rev 1956... same descript. Being part of land which Arthur C. Vande Poele & Lena Vande Peole (wife) sold on July 13, 1956 (Y57 p. 248) unto St. Francis Hospital Inc. Excepting land in 3 deeds: E63:32; L66:518; E118:310.   | St Francis Hospital President: Paul C. King Jr.   |

**Chain of Title: Area 2**

| INSTR. TYPE | DB   | PG  | DATE         | GRANTOR   | GRANTEE                                   | AC            | NOTES  | COMMENTS   |
|-------------|------|-----|--------------|---|---|---------------|--|--|
| Deed        | Y 57 | 248 | 13 July 1956 | Arthur C. & Lena Vande Peole                            | St. Francis Hospital Inc.                 |               | For \$10... certain tract surveyed by Smith rev in 1956... same lands conveyed by Clara Weingarten & Winfield her hubby on 28 Nov 1948 (F42:368) to Leane Vande Peole... excepting land Lena sold to Thomas Stafford on Dec 6, 1952 (A53:448).   |  |
| Deed        | A 53 | 448 | 6 Dec 1952   | Leane Vande Peole, of White Clay Creek Hd               | Thomas Stafford                           | Lot           | For \$10... begin at cor on N side of public rd from Christ Bridge to New Castle & Frenchtown turnpike in line of lands of Sarah F. Whitten widow about to be conveyed to 2nd party herein... part of lands Weingarten conveyed to VandePoele (F42 p. 368)   |  |
| Deed        | F 42 | 368 | 28 Nov 1948  | Clara E. & Winfield C. Weingarten, of Wilmington        | Leane Vande Peole, of White Clay Creek Hd | Lot 3         | For \$10... all that parcel or tract known as No. 3 on survey made March 1900 of real estate of Josiah Lewden, decd... containing 87A 3R 38P... excepting 1.22A sold to State of DE on 9 Nov 1928 (Y35:241). Being same lands Louisa Hancke, Executrix of LWT of Caroline Walther, dec'd, sold on 27 Sept 1940 (A42:372) to Clara. |  |
| Deed        | A 42 | 372 | 27 Sept 1940 | Louisa Hancke TR (Estate of Caroline Walther) of Philly | Clara E. Wiengarten of Wilmington         | 87+ A (No. 3) | For \$4,000... land in New Castle Hd designated as No. 3 on survey of March 1900 of real estate of Josiah Lewis... containing 87A 3R and 38P   | Caroline Walter died on 29 Apr 1940, leaving a LWT (Will Record O6 p. 59) and gave property to Louisa Hancke, her daughter & Executrix |
| Deed        | M 39 | 265 | 11 Mar 1935  | Marian V. and Gladys Walther                            | Caroline Walther of New Castle Hd         | 87A 3R 38P    | For \$10.00... all that tract designated at Parcel No. 3 on Mar 1900 survey of Josiah Lewden Estate  |  |

**Chain of Title: Area 2**

| <b>INSTR. TYPE</b>               | <b>DB</b> | <b>PG</b> | <b>DATE</b> | <b>GRANTOR</b>                                 | <b>GRANTEE</b>                             | <b>AC</b> | <b>NOTES</b>   | <b>COMMENTS</b>  |
|----------------------------------|-----------|-----------|-------------|--|--|-----------|--|--|
| Probate                          |           |           | 1 May 1933  | Arthur Walther                                 | Marian V. and Gladys Walther               |           | Arthur died intestate... was legally divorced... left two daughters (Gladys and Marian) to survive him. On 11 March 1935, both single women. His daughters conveyed property to Caroline Walther   |  |
| Deed of Trust/<br>Mortgage (MTG) | Y 35      | 241       | 27 Dec 1922 | Arthur H. Walther, of Philadelphia             | Caroline Walther                           |           | Arthur H. & Margaret W. Walther made a mortgage to Caroline Walther, promising all that tract of land in NCH to secure sum of \$5,500 with 6% interest (Mort Rec F19 p. 381)... Now Caroline Walther for \$1 presents herself with a portion of the land - more specifically the ROW to be purchased by the State of DE along Rd to Hares Cor... contain 1.22 A. |  |
| Deed                             | K 31      | 589       | 27 Dec 1922 | William D. Nelson, single man of New Castle Hd | Arthur H. Walther, of Philadelphia         | 87+ A     | For \$5500... tract in NCH designated No. 3 in survey of Est of Josiah Lewden... contain 87A 3R 38P. Being same land Wm D. Nelson JR purchased from George J. Tobin, Jr. & wife on 22 Aug 1921 (L30 p.278).  |  |
| Deed                             | Q 30      | 278       | 22-Aug-21   | George J. Tobin                                | William D. Nelson, Jr.                     | 87+ A     | For \$5,000... Lot designated as No. 3 in March 1900 survey of Josiah Lewden estate...87+A. Being same lands Turbin purchased from John C. and Ethel W. Singles on 16 Jan 1911 (B23 p. 287).   |  |
| Deed                             | B 23      | 287       | 16 Jan 1911 | John & Ethel Singles of New Castle Hd          | George J. Tobin, Jr. of City of New Castle | 87+ A     | For \$2195.00...Lot No. 3 of Josiah Lewden Est (87+A). Being part of same land conveyed to Singles by Harry C. Conrad, Admin of Josiah Lewden Est on 22 Dec 1900 (K 18 p. 376).  |  |
| Deed                             | K 18      | 376       | 22 Nov 1900 | Henry C. Conrad, Admin of Josiah Lewden        | John C. Singles                            |           | For \$4,080... Entire property of Josiah Lewden was surveyed at 248A 3R, and 23 P. [Josiah Lewden died on 2 Feb 1900. He had inherited the 248 A that comprised his estate from family members who have owned land in Area 1 & 2 since the early 18 <sup>th</sup> century.]  | Josiah Lewden's LWT named sole devisee as Laura A. Baldwin |

**Chain of Title: Area 3**

| INSTR. TYPE | DB   | PG  | DATE         | GRANTOR  | GRANTEE   | AC      | NOTES   | COMMENTS  |
|-------------|------|-----|--------------|--|---|---------|---|---|
| Deed        | 2689 | 163 | 5 Aug 1999   | McMullen Farm Associates, a DE gen partnership | First USA Bank, a nat'l banking assoc. HQ in Louisville, KY | 75.76 A | for \$10...all that parcel or tract & buildings thereon in New Castle Hundred (NCH) on SE side of DE Rte 7, NE of Rte 40... being same lands conveyed to McMullen Farm Assoc. in 2 deeds (DB 808:228 & 429:114). Parcel #1003300056   | Several mortgages and exchanges were made between First USA Bank and J.P. Morgan Bank over the past decade, but First USA Bank still holds title to this property                           |
| Deed        | 808  | 228 | 29 June 1988 | Delaware Trust Company                         | McMullen Farm Assoc.  | 198+ A  | for \$10... 60% interest (int.) in a certain plantation in NCH Containing 179.34A & another adjoining tract contain 6A+/- & another adj tract contain 13A 2 Quarters... The whole contain 198+ A. Also a parcel in NCH adj. lands of John Janvier & Delia Sharpe contain 49+ A, excepting 5.443 A conveyed to State of DE by Walter Rash, Oct 20, 1924 (M32 p. 291). Another parcel in NCH, bounded by Road from Christiana to Bear Tavern... contain 1.5 A... conveyed by Exec of R. McMullen's Will in 1974 (B89, p. 716) these lands described in Exhibit A. Being part of lands conveyed by Elisabeth O'Neill, single woman on Nov. 5, 1952 to Richard H. McMullen (V52, p. 459). | Richard H. McMullen died on July 29, 1973 and appointed DE Trust Co TR under his will (see Register of Wills Folio No. 62750).  |
| Deed        | 429  | 114 | 5 Sept 1986  | Phyllis Wynn, Nancy Miller, and Mary Lou Woods | McMullen Farm Assoc.  |         | For \$10... 40 % int. in that plantation in NCH and w/ buildings thereon... Same descript as above... being same lands with Ruth McIntyre McMullen by deed of Sept 5, 1986 did grant 40% int. to Phyllis, Nancy and Mary Lou  | Ruth Macintyre McMullen of NCCC 40% of int. to Phyllis Nancy & Mary Lou (DB 129 p. 108). Being same lands which DE Trust Co. TR of Will of R. McMullen by deed of Sept 4, 1986 sold to Ruth |
| Deed        | 426  | 235 | 4 Sept 1986  | Delaware Trust Co, TR                          | Ruth MacIntyre McMullen                                     |         | For \$10... 40% int. in plantation... Part of lands Elizabeth O'Neill sold to Richard McMullen (DB V52 p. 459).   |   |

**Chain of Title: Area 3**

| INSTR. TYPE | DB   | PG  | DATE        | GRANTOR  | GRANTEE  | AC                            | NOTES  | COMMENTS |
|-------------|------|-----|-------------|--|--|-------------------------------|--|----------|
| Deed        | V 52 | 459 | 4 Nov 1952  | Elizabeth O'Neil                                       | Richard McMullen H.                                    | 4 tracts including 198+ acres | For \$10... three parcels in NCH containing 198A +/- and another 22A tract adj. Janvier & Sharpe (minus 5.433 A sold to Rash (M32:291) and 1.5 A sold to State of DE... lands conveyed to O'Neill by McMullen, Whitfield, and Taylor on Oct 22, 1952.  |          |
| Deed        | Z 52 | 182 | 22-Oct-1952 | Richard McMullen, Laura Whitfield, and Florence Taylor | Elizabeth O'Neill                                      |                               | No book or page reference given in previous deed, but 4 tracts of land sold to Richard McMullen were noted as "part of lands and premises which Richard H. McMullen, Laura Whitfield, and Florence Taylor sold to Elizabeth O'Neil on Oct. 22, 1952.   |          |
| Deed        | R 44 | 401 | 11-Oct-1944 | Florence McMullen, widow                               | Richard McMullen, Laura Whitfield, and Florence Taylor | numerous tracts               | For \$10... many parcels of land presumably from the Richard C. McMullen Estate. No. 1: all those parcels in NCH containing in aggregate 207+A; No. 2: several parcels combined to 328+A (incl. 198A Simmons Farm); No. 3: 55A; No. 4: 3+A; No. 5: 1.5A... Richard McMullen died on 18 Feb 1944, and these tracts became property of his wife, Florence. |          |
| Deed        | N 35 | 91  | 9-Mar-1929  | Delaware S. Wright, Sheriff                            | Richard McMullen C.                                    |                               | For \$4,350.00... several tracts of land seized from Walter & Mary Rash... land purchased from Margaret Janvier in on Oct 20, 1919 (A29:63).   |          |

**Chain of Title: Area 3**

| <b>INSTR. TYPE</b> | <b>DB</b> | <b>PG</b> | <b>DATE</b>  | <b>GRANTOR</b>   | <b>GRANTEE</b>                            | <b>AC</b>                  | <b>NOTES</b>  | <b>COMMENTS</b>   |
|--------------------|-----------|-----------|--------------|--|---|----------------------------|---|---|
| Deed               | A 29      | 63        | 20-Oct-1919  | Margaret Janvier, single woman of town of New Castle                       | Walter & Mary E. Rash of Leipsic, Kent Co | 198+ A tract & 49+ A tract | For \$27,500...that plantation in NCH adj. John Hill, Vanlieuvaneigh, Garretson, Donaldson, King's Rd...containing 179A 34P; ALSO a small piece... contain 6+A; ALSO small lot adj above mentioned tracts on E side of Great Road from Christiana Bridge to Red Lion in line of land belonging to est of Sam'l Patterson... contain 13A. This land totalling 198+ A... Being Same lands conveyed to John Janvier in 2 transactions: 1) from Sarah Ann Simmons et al. Jan 6 1879 (H11 p. 230) & by 2) Joseph Sharpe and wife on July 30, 1881 (C12 p. 496)... and John Janvier 's will (filed June 7, 1890 (M2 p. 321) did leave to Margaret W. Janvier. | ALSO another tract (No. 2) land in NCH adj other lands of sd John Janvier and Delia Sharpe on the NW side of the public Rd from Bear to Christiana corner to other prop of John Janvier... then by new dividing line b/w Janvier & Delia Sharpe... then to Road from Bear to Smalley's Mill Pond then down rd. to cor of John Janvier... 49A 1R 22P |
| Deed               | C 12      | 496       | 13 July 1881 | Joseph Sharpe of Wilm  | John Janvier of City of New Castle        | 49A 1R 22P                 | For \$1967.00.... Land in NCH adj John Janvier and Delia Sharpe, public road from Bear to Christiana.... Being part of larger tract conveyed to Delia Sharpe, wife of said Joseph, by Patrick Kenney on Dec 8, 1874 (H10 p. 330) with buildings thereon...  | NW side of said road  |
| Deed               | H 11      | 230       | 6 Jan 1879   | Sarah Ann Simmons and Catharine A. Simmons of Wilm and Philly respectively | John Janvier of City of New Castle        | 198A 114P                  | For \$11,000... a certain plantation in NCH... adj line of John Hill, Zach Vanlieuvanaugh, Garretson, Donaldson, Kings Rd... 179A 34P, also adj lot of 6A; also 13A 2Q lot. The whole contain 198A 114P. Being same land conveyed to Sarah & Catherine by Robert L. Armstrong, Sheriff on Dec 15, 1873 (C10 p. 390).  |   |

**Chain of Title: Area 3**

| INSTR. TYPE | DB   | PG  | DATE        | GRANTOR  | GRANTEE                        | AC        | NOTES  | COMMENTS   |
|-------------|------|-----|-------------|--|--------------------------------|-----------|--|--|
| Deed        | C 10 | 390 | 15 Dec 1873 | Armstrong, Sheriff of NCC                                | Sarah Ann & Catharine Simmons  | 198A 114P | Catherine A. Simmons, Phillip C. Clark, and Benj. S. Booth, Execs of John T. Simmons Est lately in Superior Ct of DE, by writ & judgment, recovered against George A. & Mary H. Lee and terre tenants as well a certain debt of \$13,500 + interest from Sept 1872... and were also granted all that plantation in NCH contain 179A+; also small lot of 6A; also 13A... Being same land conveyed to George A. Lee by John T. Simmons and wife, same date as the mortgage... and on 25 Sept 1873, Sarah Ann & Catherine Simmons purchased property for \$3,450. |  |
| Deed        | X 8  | 379 | 26 Mar 1869 | John T. & Catharine Simmons White Creek Hd<br>A. of Clay | George A. Lee of New Castle Hd | 198+ A    | For \$24,500... all that plantation in NCH bounded by John Hill, Vanleiuvenigh, Donaldson, etc...179A; Also 6A; Also 13A = total 198A... Being same land conveyed to Richard Simmons by Sallie Norris Dickinson on 22 March 1821 (Y3 p. 177)... Said Richard Simmons died intestate leaving widow, Mary, and 4 kids... and Sarah Simmons sold her right & title to John T. on 19 Mar 1866 (E8 p. 339)... and now all to Geo Lee for mortgage of \$8,000 by March 1869.   | Four kids - Sarah Ann, John T., Mary Ellen & Sophia. Mary Ellen & Sophia having since past without issue & without having sold their int. in the whole of these lands. |
| Deed        | E 8  | 322 | 20 Mar 1866 | John T. and Catherine A. (wf) Simmons                    | Sarah Ann Simmons of Wilm      | INT       | For \$1... all their int. in property in Wilmington at 8th and King Street. This being the same land conveyed to Mary Simmons the mother of Sarah/John, and Sarah too, by deed from James Morrow on 5 Mar 1861 (M7 p.479). Mary died intestate...  |  |

**Chain of Title: Area 3**

| INSTR. TYPE          | DB  | PG  | DATE          | GRANTOR   | GRANTEE                           | AC     | NOTES  | COMMENTS  |
|----------------------|-----|-----|---------------|---|-----------------------------------|--------|--|---|
| Probate & Orphans CT |     |     | Dec 1825-1829 | Richard Simmons   |                                   |        | Mary Simmons, admin. Orphans Court indicated that Richard's property included "one dwelling house & kitchen adjoining in good repair, except the porch which wants a new roof; two granaries, one of which is new, the other in decay; one barrick and one smoke house in order; one stable & carriage house adj in good order, except one half part of the roof which is required to be new; one hen house in order; one old orchard on the decline... good fences, scarcity of woodland... valued at \$260/year" | Mary Simmons' probate (1877) indicates that Bauduy Simmons handled her estate |
| MTG                  | Y 3 | 177 | 1821          | Richard Simmons of New Castle Hd  | Sallie Norris Dickinson of Philly |        | Richard Simmons entered into a mortgage with Ms. Dickinson for \$5452 (1821)   |   |
| Deed                 | Y 3 | 177 | 22 Mar 1821   | Sallie Norris Dickinson of Philadelphia (Levari Facias - land as payment of debt) | Richard Simmons of New Castle Hd  | 198+ A | Whereas Sally obtained land by Deed Poll from Sheriff of NCC... that plantation in NCH partic described in deed from William & Jane Wilson TO James Partridge, and from Robert & Hannah Sheilds to James Partridge, and contain on the whole 198A 114P of land... (see DB C2 p. 224 dated 5 Feb 1776 & G2 p. 102 dated 6 Nov 1786). Now this indenture... for \$4,726... begin walnut tree, John Hill, Vanleuvenigh, Donaldson, Rd, etc... total of 198+A  | Lands sold to James Partridge and later sold by Sheriff to Dickinson.         |
| Deed                 |     |     |               | John Moody, Sheriff   | Sallie Norris Dickinson           |        | Deed was not located during the current investigation, but referenced in Y3 p. 177   |   |
| MTG                  | R 3 | 471 | 22 May 1816   | James & Sarah Roberts of NCH  | James M. Broom of Wilmington      |        | To secure a debt of \$1,550 owed Mr. Broom... all that plantation purchased form Jemina Richards   |   |

**Chain of Title: Area 3**

| <b>INSTR. TYPE</b> | <b>DB</b> | <b>PG</b> | <b>DATE</b>  | <b>GRANTOR</b>   | <b>GRANTEE</b>                                | <b>AC</b> | <b>NOTES</b>   | <b>COMMENTS</b>                                   |
|--------------------|-----------|-----------|--------------|--|---|-----------|--|---|
| Agreement (AGMT)   | P 3       | 601       | 6 Apr 1815   | Jermina Richards & Estate of James Richards                  | James Roberts                                 | 198+ A    | Several tracts in New Castle Hundred... said premises under the encumbrance of a mortgage to Isaac Price which the said James Roberts is to discharge...   |   |
| Deed & MTG         | Q 3       | 17        | 25 Mar 1815  | Isaac Price, merchant, & wife Martha, of Christiana Bridge   | James Richards, Farmer of NCH                 | 198+ A    | For \$7,021.27... Three tracts of land, two of which were conveyed by William Wilson, and wife, Jane, to Jas Partridge in 1776, and the third by Robert Sheilds to Jas Partridge in 1786   | For Mortgage, see P3:270                          |
| Deed               | O 3       | 543       | 8 May 1815   | Isaac Price, Merchant of Christiana Bridge                   | William Silver, merchant of Christiana Bridge | 106 A     | For \$2,180... Same two parcels purchased from Patterson Estate, contain on the whole 106A 4P  | For Mortgage, see P3:281                          |
| Deed               | N 3       | 532       | 20 Dec 1813  | John Partridge of town of Elkton, MD                         | Isaac Price                                   | 305 A     | For \$8000... Property known as Hedge Hill Farm (5 tracts of land)   |   |
| Deed               | K 3       | 56        | 17 June 1811 | Eaton R. Partridge, Merchant of Baltimore, MD                | John Partridge of Elkton, MD                  | INT       | for \$3,000... His share in his father's estate (that plantation and lot of marsh devised by James Partridge to John & Eaton by last will and testament (LWT)  |   |
| LWT & Probate      |           |           | 1793-1794    | James Partridge  | Eaton & John Partridge                        |           | Sons Eaton & John devisees of the plantation in NCH  |   |
| Deed               | L 2       | 443       | 13 Dec 1788  | William Patterson, Gentleman & Susanna, of New Castle County | James Partridge, Farmer                       | 105+ A    | For the sum of 161 pounds... land in New Castle County adj Morris Williams (dec'd), John Lewden, and Red Lion Road containing 74 A 20P... being same parcel of land bought from Execs of Samuel Patterson Estate & another parcel adj heirs of Morris Williams, previous parcel, the same road, & other land of Partridge, containing 31 A 44P | Not in transcribed book.. Maybe filed after 1789? |

**Chain of Title: Area 3**

| INSTR. TYPE | DB  | PG  | DATE        | GRANTOR                                      | GRANTEE   | AC          | NOTES   | COMMENTS  |
|-------------|-----|-----|-------------|--|---|-------------|---|---|
| Deed        | G 2 | 102 | 6 Nov 1786  | Robert & Hannah Shields                      | James Partridge                                       | 13 A        | For 78 pounds... 13 A on E side of great road from Christiana Bridge to Red Lyon and in line of land belonging to est of Saml Patterson.... Being part of larger tract conveyed to Sheilds by Zachariah Vanleuvenigh & wife Ann on 16 Apr 1781 (D2 p. 339)  | Deed witnessed by John Partridge and Jos Baldwin, recorded Mar 7, 1788.   |
| Deed        | D 2 | 339 | 16 Apr 1781 | Zachariah Vanleuvenigh of town of New Castle | Robert & Ann Shields of NCH, yeoman                   | 328 A       | Previous agreement dated 21 Jan 1775 between these same parties (D2 p. 102) set sum required... now this deed conveys a plantation on S side of Christiana Creek in NCH... corner to Doctor Spry, by line of Alex'dr Montgomery Esq. and also Robert Sheilds...to marked walnut...by line of James Partridge... lands of Robert Means...Mill dam of Sam'l Patterson Esq... then with Christiana Creek to place of begin. Contain 328 A. (Rec 18 July 1781). | This land owned by Samuel Land late of NCC who died intestate w/o issue. Real Estate to brother, John, and representative of four sisters, then dec'd. Petition to Orphans Ct in 1762 for division of lands... Zach inherited in right of Ann Armitage, his wife, dau of Mary Armitage, wife of James & sister of sd Samuel Land. |
| Deed        | C 2 | 224 | 5 Feb 1776  | William & Jane Wilson, NCH                   | James Partridge, gentleman, White Clay Creek Hd       | 179 + 6 A   | For 1,000 pounds... the tract of land in New Castle Hundred where Wilson now resides.   | mentions money due Vanleuvenigh on property   |
| AGRMT       | D 2 | 102 | 21 Jan 1775 | Zachariah Vanleuvenigh of town of New Castle | Robert & Ann Shields of NCH, yeoman                   |             | Agreement for land clearing in exchange for payments... land adjoining property formerly owned by John Garretson and Samuel Paterson. Land of Samuel Land in NCH.   |   |
| Deed & MTG  | Z 1 | 281 | 22 Jan 1771 | William & Jane Wilson, of NCH                | Zachariah Vanleuvenigh of town of New Castle (tanner) | 179+ A & 6A | For 365 pounds... parcel of land situate in NCH now occupied by said Wilson. Bounds land of John Hill, said VanLeuvenigh, J Garretson, and Maj John Donaldson, dec'd, contain 179A 34p. Also another piece adj contain 6A bounded by land of Hill (rec. 10 Jan 1772). Later side note Zach. acknowledged money received from James Partridge, who purchased mortgage premises in full satisfaction).  | Terms were that Wilson shall pay VanL sum of 118 pounds with int. on Aug 6, 1772; further sum of 100 pounds +int on Aug 6, 1773; 100+int on Aug 6, 1774, and 47 pounds, 10 shil +int on Feb 6, 1775.  |

**Chain of Title: Area 3**

| INSTR.<br>TYPE | DB | PG | DATE | GRANTOR | GRANTEE        | AC | NOTES  | COMMENTS   |
|----------------|----|----|------|---------|----------------|----|--|--|
|                |    |    |      |         | William Wilson |    | No William Wilson was noted in grantee index to NCC deeds, warrants and surveys, probate records, or orphans court records to detail this transaction. | A will for William Wilson, yeoman of White Clay Creek Hundred, was filed on Sept 16, 1778 and noted a wife Jean, and daughter of 3rd wife, Jean Pugh; daughter Mary Reynolds, wife of John, as well as her children, William and Ann (Will Book L p. 71). It is possible that this was the same Wilson, but uncertain. Marriage records index at DE Public Archives noted a Wm. Wilson marrying Jane Canby on May 30, 1757 in the Old Swedes records of New Castle County. |

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## **APPENDIX B: ARTIFACT CATALOG**

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| Site/<br>Field Scatter/ ISF | Accession No. | Flat<br>No. | Area | STP | Radial | Strat | Lvl  | Type | Subtype         | Form              | Material                       | Decoration | Size/Comments                      | Count           |
|-----------------------------|---------------|-------------|------|-----|--------|-------|------|------|-----------------|-------------------|--------------------------------|------------|------------------------------------|-----------------|
| 7NC-E-051 Locus B           | 2014.0015     | 1.A         | 1    | 2   | 2-A-19 |       | I/II | 1    | Nail            | Ungalvanized Wire |                                |            | Complete                           | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 1.B         | 1    | 2   | 2-A-19 |       | I/II | 1    | Clamp           |                   | Circle                         | Iron Alloy | Complete                           | 2               |
| 7NC-E-051 Locus B           | 2014.0015     | 2.A         | 1    | 2   | 2-C-07 |       | I    | 1    | Earthenware     | Redware           | Rim                            |            | Iron Glaze                         | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 2.B         | 1    | 2   | 2-C-07 |       | I    | 1    | Earthenware     | Redware           | Body                           |            | Iron Glaze                         | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 3.A         | 1    | 2   | 2-C-09 |       | I    | 1    | Earthenware     | Redware           | Base And<br>Body               |            | Brown Lead Glaze With<br>Manganese | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 4.A         | 1    | 2   | 2-D-15 | South | I    | 1    | Window<br>Glass | Clear             |                                |            |                                    | 6               |
| 7NC-E-051 Locus B           | 2014.0015     | 5.A         | 1    | 2   | 2-F-06 |       | I    | 1    | Brick           | Hand-Made         |                                |            | 2.6 g                              | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 6.A         | 1    | 2   | 2-F-09 | North | I    | 1    | Earthenware     | Redware           | Base                           |            | Clear Lead Glaze With<br>Slip      | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 7.A         | 1    | 2   | 2-F-09 |       | I    | 1    | Earthenware     | Redware           | Body                           |            | Black Lead Glaze                   | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 7.B         | 1    | 2   | 2-F-09 |       | I    | 1    | Earthenware     | Redware           | Body                           |            | Ribbed/Iron Glaze                  | 2               |
| 7NC-E-051 Locus B           | 2014.0015     | 8.A         | 1    | 2   | 2-F-10 | West  | I    | 1    | Bottle          | Light Green       | Body                           |            |                                    | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 9.A         | 1    | 2   | 2-G-08 | East  | I    | 1    | Earthenware     | Redware           | Body                           |            | Iron Glaze                         | Exposed To Heat |
| 7NC-E-051 Locus B           | 2014.0015     | 10.A        | 1    | 2   | 2-G-08 |       | I    | 1    | Earthenware     | Redware           | Body                           |            | Black Lead Glaze                   | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 11.A        | 1    | 2   | 2-G-10 | North | I    | 1    | Earthenware     | Redware           | Body                           |            | Brown Lead Glaze                   | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 12.A        | 1    | 2   | 2-G-10 | South | I    | 1    | Earthenware     | Redware           | Body                           |            | Iron Glaze                         | Burned          |
| 7NC-E-051 Locus B           | 2014.0015     | 13.A        | 1    | 2   | 2-G-10 | West  | I    | 1    | Earthenware     | Redware           | Body                           |            | Iron Glaze                         | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 14.A        | 1    | 2   | 2-G-10 |       | II   | 1    | Earthenware     | Redware           | Handle<br>Termination/<br>Body |            | Iron Glaze                         | 1               |
| 7NC-E-051 Locus B           | 2014.0015     | 15.A        | 1    | 2   | 2-H-08 |       | I    | 1    | Earthenware     | Redware           | Body                           |            | Iron Glaze                         | 1               |
| Area 1 Field Scatter        | 2014.0016     | 1.A         | 1    | 1   | 1-B-09 | North | I    | 1    | Earthenware     | Creamware         | Body                           |            | Plain                              | 1               |
| Area 1 Field Scatter        | 2014.0016     | 1.B         | 1    | 1   | 1-B-09 | North | I    | 1    | Bottle          | Clear             | Body                           |            |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 2.A         | 1    | 1   | 1-B-09 | South | I    | 1    | Brick           | Hand-Made         |                                |            | 5.5 g                              | 2               |
| Area 1 Field Scatter        | 2014.0016     | 2.B         | 1    | 1   | 1-B-09 | South | I    | 1    | Wire            | Ungalvanized      |                                | Iron Alloy |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 3.A         | 1    | 1   | 1-B-09 |       | I    | 1    | Bottle          | Green             | Base                           |            | Wine Bottle/Kick                   | 1               |
| Area 1 Field Scatter        | 2014.0016     | 3.B         | 1    | 1   | 1-B-09 |       | I    | 1    | Brick           | Hand-Made         |                                |            | 0.6 g                              | 1               |
| Area 1 Field Scatter        | 2014.0016     | 4.A         | 1    | 1   | 1-B-10 | West  | I    | 1    | Brick           | Hand-Made         |                                |            | 3.1 g                              | 2               |
| Area 1 Field Scatter        | 2014.0016     | 4.B         | 1    | 1   | 1-B-10 | West  | I    | 1    | Bottle          | Aqua              | Body                           |            |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 5.A         | 1    | 1   | 1-B-10 |       | I    | 1    | Brick           | Hand-Made         |                                |            | 13.6 g                             | 3               |
| Area 1 Field Scatter        | 2014.0016     | 6.A         | 1    | 1   | 1-C-13 | East  | I    | 1    | Bottle          | Green             | Body                           |            |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 6.B         | 1    | 1   | 1-C-13 | East  | I    | 1    | Debitage        | Tertiary          | Fragment                       | Jasper     |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 7.A         | 1    | 1   | 1-C-13 | North | II   | 1    | Window<br>Glass | Light Green       |                                |            |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 8.A         | 1    | 1   | 1-C-13 |       | I    | 1    | Debitage        | Tertiary          | Fragment                       | Chert      |                                    | 1               |
| Area 1 Field Scatter        | 2014.0016     | 9.A         | 1    | 1   | 1-E-01 |       | I    | 1    | Brick           | Hand-Made         |                                |            | Glazed                             | 20.6 g          |
| Area 1 Field Scatter        | 2014.0016     | 9.B         | 1    | 1   | 1-E-01 |       | I    | 1    | Earthenware     | Creamware         | Body                           |            | Plain                              | 1               |
| Area 1 Field Scatter        | 2014.0016     | 9.C         | 1    | 1   | 1-E-01 |       | I    | 1    | Earthenware     | Pearlware         | Body                           |            | Plain                              | 1               |
| Area 1 Field Scatter        | 2014.0016     | 10.A        | 1    | 1   | 1-E-06 | North | I    | 1    | Brick           | Hand-Made         |                                |            | 8.3 g                              | 1               |
| Area 1 Field Scatter        | 2014.0016     | 10.B        | 1    | 1   | 1-E-06 | North | I    | 1    | Earthenware     | Redware           | Body                           |            | Unglazed                           | 1               |
| Area 1 Field Scatter        | 2014.0016     | 10.C        | 1    | 1   | 1-E-06 | North | I    | 1    | Nail            | Unidentifiable    | No Head                        |            | Shaft                              | 5               |
| Area 1 Field Scatter        | 2014.0016     | 11.A        | 1    | 1   | 1-E-06 |       | I    | 1    | Brick           | Hand-Made         |                                |            | 60.8 g                             | 2               |
| Area 1 Field Scatter        | 2014.0016     | 12.A        | 1    | 1   | 1-F-04 | North | I    | 1    | Brick           | Hand-Made         |                                |            | 3.7 g                              | 1               |

| Site/<br>Field Scatter/ ISF | Accession No. | Flat<br>No. | Area | STP | Radial | Strat | Lvl | Type | Subtype       | Form            | Material   | Decoration                    | Size/Comments | Count |
|-----------------------------|---------------|-------------|------|-----|--------|-------|-----|------|---------------|-----------------|------------|-------------------------------|---------------|-------|
| Area 1 Field Scatter        | 2014.0016     | 13.A        | 1    | 1   | 1-F-04 | West  | I   | 1    | Earthenware   | Redware         | Body       | Black Lead Glaze              |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 14.A        | 1    | 1   | 1-F-04 |       | I   | 1    | Porcelain     | English         | Body       |                               |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 15.A        | 1    | 1   | 1-F-07 | West  | I   | 1    | Horseshoe     |                 | Iron Alloy |                               | Complete      | 1     |
| Area 1 Field Scatter        | 2014.0016     | 16.A        | 1    | 1   | 1-F-07 |       | I   | 1    | Bottle        | Clear           | Body       |                               |               | 2     |
| Area 1 Field Scatter        | 2014.0016     | 16.B        | 1    | 1   | 1-F-07 |       | I   | 1    | Bottle        | Solarized       | Body       |                               |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 17.A        | 1    | 1   | 1-G-02 | West  | I   | 1    | Bottle        | Brilliant Green | Body       |                               |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 18.A        | 1    | 1   | 1-G-02 |       | I   | 1    | Crown Cap     |                 | Iron Alloy |                               | Fragment      | 1     |
| Area 1 Field Scatter        | 2014.0016     | 18.B        | 1    | 1   | 1-G-02 |       | I   | 1    | Earthenware   | Redware         | Body       | Clear Lead Glaze              |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 18.C        | 1    | 1   | 1-G-02 |       | I   | 1    | Bottle        | Clear           | Body       |                               |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 19.A        | 1    | 1   | 1-H-05 | East  | I   | 1    | Earthenware   | Creamware       | Body       | Plain                         |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 19.B        | 1    | 1   | 1-H-05 | East  | I   | 1    | Earthenware   | Refined         | Body       | Blue And Pink Glaze           |               | 2     |
| Area 1 Field Scatter        | 2014.0016     | 20.A        | 1    | 1   | 1-H-05 | South | II  | 1    | Brick         | Hand-Made       |            |                               | 5.9 g         | 1     |
| Area 1 Field Scatter        | 2014.0016     | 20.B        | 1    | 1   | 1-H-05 | South | II  | 1    | Earthenware   | Redware         | Body       | Clear Lead Glaze              |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 20.C        | 1    | 1   | 1-H-05 | South | II  | 1    | Porcellaneous |                 | Rim        | Plain                         |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 21.A        | 1    | 1   | 1-H-05 | West  | I   | 1    | Brick         | Hand-Made       |            |                               | 2.3 g         | 4     |
| Area 1 Field Scatter        | 2014.0016     | 21.B        | 1    | 1   | 1-H-05 | West  | I   | 1    | Earthenware   | Whiteware       | Body       | Blue Transferprint/Underglaze |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 21.C        | 1    | 1   | 1-H-05 | West  | I   | 1    | Earthenware   | Redware         | Body       | Black Lead Glaze              |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 22.A        | 1    | 1   | 1-H-05 |       | II  | 1    | Earthenware   | Redware         | Body       | Brown Lead Glaze              |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 22.B        | 1    | 1   | 1-H-05 |       | II  | 1    | Earthenware   | Whiteware       | Body       | Plain                         |               | 2     |
| Area 1 Field Scatter        | 2014.0016     | 23.A        | 1    | 1   | 1-H-06 | North | I   | 1    | Brick         | Hand-Made       |            |                               | 32.8 g        | 3     |
| Area 1 Field Scatter        | 2014.0016     | 23.B        | 1    | 1   | 1-H-06 | North | I   | 1    | Earthenware   | Redware         | Handle     | Brown Lead Glaze              |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 23.C        | 1    | 1   | 1-H-06 | North | I   | 1    | Earthenware   | Redware         | Body       | Glaze Missing                 |               | 2     |
| Area 1 Field Scatter        | 2014.0016     | 23.D        | 1    | 1   | 1-H-06 | North | I   | 1    | Bottle        | Aqua            | Body       |                               |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 23.E        | 1    | 1   | 1-H-06 | North | I   | 1    | Nail          | Unidentifiable  | No Head    |                               | Shaft         | 3     |
| Area 1 Field Scatter        | 2014.0016     | 24.A        | 1    | 1   | 1-H-06 | West  | I   | 1    | Window Glass  | Aqua            |            |                               |               | 1     |
| Area 1 Field Scatter        | 2014.0016     | 24.B        | 1    | 1   | 1-H-06 | West  | I   | 1    | Brick         | Hand-Made       |            |                               | 2.6 g         | 2     |
| Area 1 Field Scatter        | 2014.0016     | 25.A        | 1    | 1   | 1-H-06 |       | I   | 1    | Brick         | Hand-Made       |            |                               | 10.5 g        | 8     |
| Area 3 Field Scatter        | 2014.0017     | 1.A         | 1    | 3   | 3-A-03 |       | I   | 1    | Earthenware   | Redware         | Body       | Iron Glaze                    |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 2.A         | 1    | 3   | 3-A-17 | West  | I   | 1    | Window Glass  | Aqua            |            |                               |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 3.A         | 1    | 3   | 3-A-17 |       | I   | 1    | Bottle        | Clear           | Body       | Embossed "E"                  |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 4.A         | 1    | 3   | 3-B-11 |       | I   | 1    | Earthenware   | Redware         | Body       | Unglazed                      |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 4.B         | 1    | 3   | 3-B-11 |       | I   | 1    | Bottle        | Clear           | Body       |                               |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 5.A         | 1    | 3   | 3-B-13 | East  | I   | 1    | Earthenware   | Redware         | Body       | Glaze Missing                 | Underfired    | 1     |
| Area 3 Field Scatter        | 2014.0017     | 6.A         | 1    | 3   | 3-B-13 | South | I   | 1    | Bottle        | Clear           | Body       |                               |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 6.B         | 1    | 3   | 3-B-13 | South | I   | 1    | Bottle        | Aqua            | Body       | Embossed                      |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 7.A         | 1    | 3   | 3-B-13 |       | I   | 1    | Bottle        | Aqua            | Base       | Embossed "P" On Base          |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 7.B         | 1    | 3   | 3-B-13 |       | I   | 1    | Vessel        | Clear           | Body       |                               | Thin Bodied   | 1     |
| Area 3 Field Scatter        | 2014.0017     | 8.A         | 1    | 3   | 3-C-09 | East  | I   | 1    | Earthenware   | Whiteware       | Body       | Plain                         |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 8.B         | 1    | 3   | 3-C-09 | East  | I   | 1    | Brick         | Hand-Made       |            |                               | 0.4 g         | 2     |
| Area 3 Field Scatter        | 2014.0017     | 9.A         | 1    | 3   | 3-C-09 |       | I   | 1    | Earthenware   | Whiteware       | Body       | Plain                         |               | 1     |
| Area 3 Field Scatter        | 2014.0017     | 10.A        | 1    | 3   | 3-D-09 | North | I   | 1    | Brick         | Hand-Made       |            |                               | 3.6 g         | 1     |
| Area 3 Field Scatter        | 2014.0017     | 10.B        | 1    | 3   | 3-D-09 | North | I   | 1    | Earthenware   | Redware         | Body       | Iron Glaze                    |               | 1     |

| Site/<br>Field Scatter/ ISF | Accession No. | Flat<br>No. | Area | STP | Radial | Strat | Lvl | Type | Subtype     | Form              | Material | Decoration                                    | Size/Comments             | Count |
|-----------------------------|---------------|-------------|------|-----|--------|-------|-----|------|-------------|-------------------|----------|---|---------------------------|-------|
| Area 3 Field Scatter        | 2014.0017     | 11.A        | 1    | 3   | 3-D-09 |       | I   | 1    | Bottle      | Aqua              | Body     |   |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 11.B        | 1    | 3   | 3-D-09 |       | I   | 1    | Earthenware | Redware           | Body     | Brown Lead Glaze With Manganese               |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 12.A        | 1    | 3   | 3-E-11 |       | I   | 1    | Staple      | Fence             |          | Iron Alloy                                    |                           | 2     |
| Area 3 Field Scatter        | 2014.0017     | 13.A        | 1    | 3   | 3-H-09 |       | I   | 1    | Stoneware   | American          | Body     | Gray Salt-Glazed Exterior/Tan Glazed Interior | Burned                    | 1     |
| Area 3 Field Scatter        | 2014.0017     | 14.A        | 1    | 3   | 3-I-09 |       | I   | 1    | Earthenware | Whiteware         | Body     | Plain   |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 14.B        | 1    | 3   | 3-I-09 |       | I   | 1    | Bottle      | Clear             | Body     |   | Partial Base/Machine-Made | 1     |
| Area 3 Field Scatter        | 2014.0017     | 15.A        | 1    | 3   | 3-J-07 |       | I   | 1    | Earthenware | Redware           | Body     | Brown Lead Glaze With Manganese Mo            |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 16.A        | 1    | 3   | 3-K-02 |       | I   | 1    | Bottle      | Aqua              | Body     |   |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 17.A        | 1    | 3   | 3-K-04 |       | I   | 1    | Bottle      | Blue Aqua         | Body     |   |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 18.A        | 1    | 3   | 3-M-09 |       | I   | 1    | Plastic     | Unidentifiable    |          | Black   |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 18B         | 1    | 3   | 3-M-09 |       | I   | 1    | Nail        | Unidentifiable    | No Head  |   | Shaft                     | 6     |
| Area 3 Field Scatter        | 2014.0017     | 18.C        | 1    | 3   | 3-M-09 |       | I   | 1    | Nail        | Cut               | No Head  |   | Shaft                     | 2     |
| Area 3 Field Scatter        | 2014.0017     | 18.D        | 1    | 3   | 3-M-09 |       | I   | 1    | Nail        | Ungalvanized Wire |          |   | Shaft                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 19A         | 1    | 3   | 3-N-04 |       | I   | 1    | Brick       | Hand-Made         |          |   | 4.3 g                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 20.A        | 1    | 3   | 3-P-02 |       | I   | 1    | Brick       | Hand-Made         |          |   | 7.7 g                     | 2     |
| Area 3 Field Scatter        | 2014.0017     | 21.A        | 1    | 3   | 3-P-03 |       | I   | 1    | Bottle      | Brown             | Base     | Embossed "126" On Base                        | Stippled/ Machine-Made    | 1     |
| Area 3 Field Scatter        | 2014.0017     | 22.A        | 1    | 3   | 3-Q-04 |       | I   | 1    | Brick       | Hand-Made         |          |   | 3.1 g                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 23.A        | 1    | 3   | 3-Q-11 |       | I   | 1    | Brick       | Hand-Made         |          |   | 0.4 g                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 23.B        | 1    | 3   | 3-Q-11 |       | I   | 1    | Earthenware | Redware           | Body     | Glaze Missing                                 | Very Small Fragment       | 1     |
| Area 3 Field Scatter        | 2014.0017     | 24.A        | 1    | 3   | 3-Q-12 |       | I   | 1    | Brick       | Hand-Made         |          |   | 0.8 g                     | 2     |
| Area 3 Field Scatter        | 2014.0017     | 24.B        | 1    | 3   | 3-Q-12 |       | I   | 1    | Clam Shell  |                   |          |   | 0.9 g                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 25.A        | 1    | 3   | 3-R-04 |       | I   | 1    | Earthenware | Redware           | Base     | Unglazed                                      |                           | 1     |
| Area 3 Field Scatter        | 2014.0017     | 26.A        | 1    | 3   | 3-T-11 |       | I   | 1    | Brick       | Hand-Made         |          |   | 1.0 g                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 27.A        | 1    | 3   | 3-V-13 |       | I   | 1    | Nail        | Cut               | No Head  |   | Shaft                     | 1     |
| Area 3 Field Scatter        | 2014.0017     | 28.A        | 1    | 3   | 3-W-13 |       | I   | 1    | Brick       | Hand-Made         |          |   | 179.9 g                   | 1     |
| Area 6 Field Scatter        | 2014.0018     | 1.A         | 1    | 6   | 6-F-04 | West  | II  | 1    | Brick       | Hand-Made         |          |   | 1.6 g                     | 1     |
| Area 6 Field Scatter        | 2014.0018     | 1.B         | 1    | 6   | 6-F-04 | West  | II  | 1    | Earthenware | Ironstone         | Base     | Plain   |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 2.A         | 1    | 6   | 6-F-04 |       | I   | 1    | Earthenware | Whiteware         | Body     | Plain   |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 3.A         | 1    | 6   | 6-G-03 |       | I   | 1    | Bottle      | Clear             | Body     |   |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 3.B         | 1    | 6   | 6-G-03 |       | I   | 1    | Earthenware | Redware           | Body     | Iron Glaze                                    |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 3.C         | 1    | 6   | 6-G-03 |       | I   | 1    | Earthenware | Creamware         | Body     | Plain   |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 4.A         | 1    | 6   | 6-H-03 |       | I   | 1    | Coal        |                   |          |   |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 4.B         | 1    | 6   | 6-H-03 |       | I   | 1    | Bottle      | Clear             | Body     |   |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 4.C         | 1    | 6   | 6-H-03 |       | I   | 1    | Bottle      | Clear             | Body     |   | Seam Present              | 1     |
| Area 6 Field Scatter        | 2014.0018     | 4.D         | 1    | 6   | 6-H-03 |       | I   | 1    | Vessel      | Clear             | Body     | Molded Verticle Lines                         |                           | 1     |
| Area 6 Field Scatter        | 2014.0018     | 4.E         | 1    | 6   | 6-H-03 |       | I   | 1    | Brick       | Hand-Made         |          |   | 106.8 g                   | 1     |
| Area 6 Field Scatter        | 2014.0018     | 4.F         | 1    | 6   | 6-H-03 |       | I   | 1    | Earthenware | Coarse            | Body     | Terracotta                                    |                           | 1     |

| Site/<br>Field Scatter/ ISF | Accession No. |     | Flat<br>No. | Area | STP    | Radial | Strat | Lvl | Type        | Subtype   | Form | Material | Decoration | Size/Comments | Count |
|-----------------------------|---------------|-----|-------------|------|--------|--------|-------|-----|-------------|-----------|------|----------|------------|---------------|-------|
| Area 6 Field Scatter        | 2014.0018     | 5.A | 1           | 6    | 6-K-13 |        | II    | 1   | Bottle      | Clear     | Body |          |            |               | 1     |
| ISF-1                       | 2014.0019     | 1.A | 1           | 2    | 2-A-41 | North  | I     | 1   | Earthenware | Creamware | Body |          | Plain      |               | 1     |
| ISF-1                       | 2014.0019     | 2.A | 1           | 2    | 2-A-41 |        | I     | 1   | Earthenware | Pearlware | Body |          | Plain      |               | 1     |
| ISF-2                       | 2014.0020     | 1.A | 1           | 2    | 2-G-38 |        | I     | 1   | Bottle      | Amber     | Body |          |            |               | 1     |
| ISF-3                       | 2014.0021     | 1.A | 1           | 5    | 5-A-04 |        | I     | 1   | Earthenware | Creamware | Body |          | Plain      |               | 1     |

## **APPENDIX C: STP CATALOG**

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| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments   |
|------|------|--------|-------|-------------|-----------|---|--|
| 1    | A-1  |        | I     | 0           | 0.2       | 10YR 4/2 dark grayish brown silty loam  |  |
| 1    | A-1  |        | II    | 0.2         | 0.5       | 10YR 4/4 dark yellowish brown mottled with 50% 10YR 5/6 yellowish brown sandy loam  | heavily disturbed  |
| 1    | A-2  |        | I     | 0           | 0.9       | 10YR 4/2 dark grayish brown with modern disturbances and asphalt  | modern artifacts (glass, screws) discarded, excavation halted due to disturbed soils |
| 1    | A-3  |        | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown silty loam  | disturbed fill, artifacts (glass, brick) discarded                                   |
| 1    | A-3  |        | II    | 0.5         | 1.1       | 10YR 4/4 dark yellowish brown mottled with 20% 10YR 5/6 yellowish brown   |  |
| 1    | A-3  |        | III   | 1.1         | 1.3       | 10YR 5/6 yellowish brown sand   |  |
| 1    | A-3  |        | IV    | 1.3         | 1.6       | 10YR 4/4 dark yellowish brown silty loam  | compact, disturbed   |
| 1    | A-3  |        | V     | 1.6         | 1.8       | 10YR 6/6 brownish yellow silty sandy loam   |  |
| 1    | A-4  |        | I     | 0           | 0.8       | 30% 10YR 4/4 dark yellowish brown, 30% 10YR 5/6 yellowish brown silty loam, 15% 10YR 7/1 light gray, and 15% 10YR 3/1 very dark gray sandy loam | disturbed fill, 10% gravel   |
| 1    | A-5  |        | I     | 0           | 1         | 30% 10YR 4/4 dark yellowish brown, 30% 10YR 5/6 yellowish brown silty loam, 15% 10YR 7/1 light gray, and 15% 10YR 3/1 very dark gray sandy loam | disturbed fill, 10% gravel   |
| 1    | A-6  |        | I     | 0           | 0.8       | 30% 10YR 4/4 dark yellowish brown, 30% 10YR 5/6 yellowish brown silty loam, 15% 10YR 7/1 light gray, and 15% 10YR 3/1 very dark gray sandy loam | disturbed fill, flooding in STP  |
| 1    | A-7  |        | I     | 0           | 0.2       | 10YR 4/2 dark grayish brown silty loam  |  |
| 1    | A-7  |        | II    | 0.2         | 0.6       | 10YR 5/6 yellowish brown silty clay   |  |
| 1    | A-8  |        | I     | 0           | 0.2       | 10YR 4/2 dark grayish brown silty loam  | end of transect  |
| 1    | A-8  |        | II    | 0.2         | 0.6       | 10YR 5/6 yellowish brown silty clay   |  |
| 1    | B-1  |        | I     | 0           | 0.3       | 10YR 4/4 dark yellowish brown silty clay loam   | modern trash, asphalt chunks, big piece of concrete in base of test- fill            |
| 1    | B-1  |        | II    | 0.3         | 0.7       | 10YR 5/6 yellowish brown silty clay   |  |
| 1    | B-1  |        | III   | 0.7         | 0.93      | 10YR 7/1 light gray clay  |  |
| 1    | B-1  |        | IV    | 0.93        | 1.45      | 10YR 4/4 dark yellowish brown mottled with 10YR 3/6 dark yellowish brown sandy clay   |  |
| 1    | B-10 |        | I     | 0           | 1.7       | 10YR 3/4 dark yellowish brown clay silt   | heavy roots present  |
| 1    | B-10 |        | II    | 1.7         | 1.71      | 10YR 7/1 light gray clay  |  |
| 1    | B-10 | North  | I     | 0           | 0.85      | 10YR 3/4 dark yellowish brown silty loam  | offset slightly due to tree, dense ground cover                                      |
| 1    | B-10 | North  | II    | 0.85        | 1.1       | 10YR 5/6 yellowish brown mottled with 10YR 7/1 light gray clay  |  |
| 1    | B-10 | East   |       |             |           | !!NO DIG!!  | standing water, in creek along drainage ditch  |
| 1    | B-10 | West   | I     | 0           | 0.8       | 10YR 4/2 dark grayish brown silty loam  |  |
| 1    | B-10 | West   | II    | 0.8         | 1.4       | 10YR 5/6 yellowish brown mottled with 10YR 6/1 gray silty clay  |  |
| 1    | B-11 |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty clay  | next to slope and creek drainage   |
| 1    | B-11 |        | II    | 0.9         | 1.1       | 10YR 5/6 yellowish brown silty clay   |  |
| 1    | B-13 |        |       |             |           | !!NO DIG!!  | in creek   |
| 1    | B-13 | East   |       |             |           | !!NO DIG!!  | slope  |
| 1    | B-2  |        | I     | 0           | 1.87      | 10YR 4/4 dark yellowish brown mottled with 10YR 5/6 yellowish brown silty clay  | in wetland area, near drainage ditch   |
| 1    | B-2  |        | II    | 1.87        | 1.88      | 10YR 7/1 light gray clay  |  |
| 1    | B-3  |        |       |             |           | !!NO DIG!!  | in drainage cut/ creek on steep slope  |
| 1    | B-4  |        |       |             |           | !!NO DIG!!  | in drainage cut/ creek on steep slope  |
| 1    | B-5  |        |       |             |           | !!NO DIG!!  | in drainage cut/ creek on steep slope  |
| 1    | B-6  |        |       |             |           | !!NO DIG!!  | in drainage cut/ creek on steep slope  |
| 1    | B-7  |        | I     | 0           | 0.85      | 10YR 3/4 dark yellowish brown clay silt   | adjacent to drainage   |
| 1    | B-7  |        | II    | 0.85        | 1.28      | 10YR 3/3 dark brown silty clay  |  |
| 1    | B-7  |        | III   | 1.28        | 1.53      | 10YR 5/6 yellowish brown mottled with 10YR 7/1 light gray silty clay  |  |
| 1    | B-8  |        | I     | 0           | 0.8       | 10YR 3/4 dark yellowish brown clay silt   | offset approximately 8' to northwest due to heavy roots, wetland soils               |
| 1    | B-8  |        | II    | 0.8         | 1.2       | 10YR 3/3 dark brown silty clay  |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments                                |
|------|------|--------|-------|-------------|-----------|--|---|
| 1    | B-8  |        | III   | 1.2         | 1.3       | 10YR 5/6 yellowish brown mottled with 10YR 7/1 light gray silty clay                             |   |
| 1    | B-9  |        | I     | 0           | 1.2       | 10YR 3/4 dark yellowish brown clay silt  | hit water table at 1.2'                 |
| 1    | B-9  | East   |       |             |           | !!NO DIG!!   | standing water, in creek along drainage |
| 1    | B-9  | West   |       |             |           | !!NO DIG!!   | standing water, in creek along drainage |
| 1    | B-9  | South  | I     | 0           | 0.9       | 10YR 4/3 brown mottled with 10YR 5/6 yellowish brown (20%) silty loam                            | hit standing water at 1.5'              |
| 1    | B-9  | South  | II    | 0.9         | 1.5       | 10YR 3/2 very dark grayish brown mottled with 10YR 5/6 yellowish brown silty clay                |   |
| 1    | B-9  | North  | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown silty loam  |   |
| 1    | B-9  | North  | II    | 0.8         | 1.1       | 10YR 4/1 dark gray silty clay  |   |
| 1    | C-1  |        | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown silty clay loam   |   |
| 1    | C-1  |        | II    | 0.8         | 1.1       | 10YR 6/4 light yellowish brown silt mottled with 30% 10YR 5/6 yellowish brown silty clay         |   |
| 1    | C-1  |        | III   | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay  |   |
| 1    | C-10 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam   | root impasse, STP terminated            |
| 1    | C-10 |        | II    | 0.4         | 0.9       | 10YR 7/2 light gray silt   |   |
| 1    | C-11 |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown silty loam  |   |
| 1    | C-11 |        | II    | 0.3         | 0.9       | 10YR 7/2 light gray silt   |   |
| 1    | C-11 |        | III   | 0.9         | 1.4       | 10YR 5/4 yellowish brown sand (60%) mottled with 10YR 5/6 yellowish brown sandy clay (40%)       |   |
| 1    | C-12 |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown silty loam  |   |
| 1    | C-12 |        | II    | 0.5         | 1.3       | 10YR 7/2 light gray silt   |   |
| 1    | C-12 |        | III   | 1.3         | 1.6       | 10YR 5/4 yellowish brown sand (60%) mottled with 10YR 5/6 yellowish brown sandy clay (40%)       |   |
| 1    | C-13 |        | I     | 0           | 1.1       | 10YR 5/4 yellowish brown silty sandy loam  | East of drainage                        |
| 1    | C-13 |        | II    | 1.1         | 1.6       | 10YR 6/3 pale brown sandy clay   |   |
| 1    | C-13 | North  | I     | 0           | 0.3       | 10YR 3/4 dark yellowish brown silty sandy loam   |   |
| 1    | C-13 | North  | II    | 0.3         | 1         | 10YR 5/4 yellowish brown silty sand  |   |
| 1    | C-13 | North  | III   | 1           | 1.4       | 5YR 4/8 yellowish red sandy clay   |   |
| 1    | C-13 | East   | I     | 0           | 0.7       | 10YR 5/4 yellowish brown silty sandy loam  | West of main drainage                   |
| 1    | C-13 | East   | II    | 0.7         | 1.1       | 5YR 4/6 yellowish red sandy clay   |   |
| 1    | C-13 | South  | I     | 0           | 0.6       | 10YR 3/4 dark yellowish brown silty loam   |   |
| 1    | C-13 | South  | II    | 0.6         | 1.2       | 10YR 7/2 light gray silt   |   |
| 1    | C-13 | South  | III   | 1.2         | 1.6       | 10YR 5/4 yellowish brown (60%) mottled with 10YR 5/6 yellowish brown sandy clay (40%)            |   |
| 1    | C-13 | West   |       |             |           | !!NO DIG!!   | in creek                                |
| 1    | C-14 |        | I     | 0           | 0.5       | 10YR 3/4 dark yellowish brown silty loam   |   |
| 1    | C-14 |        | II    | 0.5         | 1.2       | 10YR 7/2 light gray silt   |   |
| 1    | C-14 |        | III   | 1.2         | 1.5       | 10YR 5/4 yellowish brown (60%) mottled with 10YR 5/6 yellowish brown sandy clay (40%)            |   |
| 1    | C-2  |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown silty clay loam   |   |
| 1    | C-2  |        | II    | 0.3         | 0.7       | 10YR 6/4 light yellowish brown silt  |   |
| 1    | C-2  |        | III   | 0.7         | 1.1       | 10YR 6/4 light yellowish brown silt (60%) mottled with 10YR 5/6 yellowish brown silty clay (40%) |   |
| 1    | C-3  |        | I     | 0           | 0.2       | 10YR 3/2 very dark grayish brown silty clay loam   |   |
| 1    | C-3  |        | II    | 0.2         | 0.5       | 10YR 6/4 light yellowish brown silt  |   |
| 1    | C-3  |        | III   | 0.5         | 0.9       | GLE Y with water   |   |
| 1    | C-4  |        |       |             |           | !!NO DIG!!   | water at surface                        |
| 1    | C-5  |        | I     | 0           | 0.8       | 10YR 6/4 light yellowish brown silt  |   |
| 1    | C-5  |        | II    | 0.8         | 1.2       | GLE Y  |   |
| 1    | C-6  |        | I     | 0           | 0.4       | 10YR 3/2 very dark grayish brown silty clay loam   |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments   |
|------|------|--------|-------|-------------|-----------|--|--|
| 1    | C-6  |        | II    | 0.4         | 1.1       | 10YR 6/4 light yellowish brown silt  |  |
| 1    | C-6  |        | III   | 1.1         | 1.5       | GLEYS with water   |  |
| 1    | C-7  |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown silty clay loam   |  |
| 1    | C-7  |        | II    | 0.5         | 1.1       | 10YR 6/4 light yellowish brown silt mottled with 30% 10YR 5/6 yellowish brown silty clay   |  |
| 1    | C-7  |        | III   | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay  |  |
| 1    | C-8  |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown silty loam  |  |
| 1    | C-8  |        | II    | 0.5         | 1         | 10YR 7/2 light gray silt   |  |
| 1    | C-8  |        | III   | 1           | 1.4       | 10YR 5/4 yellowish brown sand (60%) mottled with 10YR 5/6 yellowish brown sandy clay (40%) |  |
| 1    | C-9  |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown silty loam  |  |
| 1    | C-9  |        | II    | 0.3         | 0.7       | 10YR 7/2 light gray silt   |  |
| 1    | C-9  |        | III   | 0.7         | 1.1       | 10YR 5/4 yellowish brown sand (60%) mottled with 10YR 5/6 yellowish brown sandy clay (40%) |  |
| 1    | D-1  |        | I     | 0           | 0.2       | 10YR 3/2 very dark grayish brown silty loam with roots and leaves                          | modern glass, car decal discarded                        |
| 1    | D-1  |        | II    | 0.2         | 0.6       | 10YR 5/3 brown silty loam  |  |
| 1    | D-1  |        | III   | 0.6         | 1         | 2.5Y 5/3 light olive brown silty loam  |  |
| 1    | D-1  |        | IV    | 1           | 1.42      | 10YR 6/4 light yellowish brown silty sandy loam  |  |
| 1    | D-10 |        | I     | 0           | 0.3       | flooded  | excavation halted, end of transect                       |
| 1    | D-13 |        |       |             |           | !!NO DIG!!   | out of bounds  |
| 1    | D-2  |        | I     | 0           | 0.2       | 10YR 3/2 very dark grayish brown silty loam with roots and leaves                          | hit water table at 2'                                    |
| 1    | D-2  |        | II    | 0.2         | 0.6       | 10YR 5/3 brown silty loam  |  |
| 1    | D-2  |        | III   | 0.6         | 1.3       | 2.5Y 5/3 light olive brown silty loam  |  |
| 1    | D-2  |        | IV    | 1.3         | 2         | 2.5Y 6/1 gray GLEY   |  |
| 1    | D-3  |        | I     | 0           | 0.8       | 2.5Y 5/3 light olive brown silty loam  | in floodplain  |
| 1    | D-3  |        | II    | 0.8         | 1         | 2.5Y 6/1 gray GLEY   |  |
| 1    | D-4  |        | I     | 0           | 0.91      | 2.5Y 5/3 light olive brown silty loam  |  |
| 1    | D-4  |        | II    | 0.91        | 1.15      | 2.5Y 6/1 gray GLEY   |  |
| 1    | D-5  |        | I     | 0           | 0.85      | 2.5Y 5/3 light olive brown silty loam  |  |
| 1    | D-5  |        | II    | 0.85        | 1.4       | 2.5Y 6/1 gray GLEY   |  |
| 1    | D-6  |        | I     | 0           | 1.25      | 10YR 4/4 dark yellowish brown silty loam   | within boundaries of wetland/ floodplain; disturbed fill |
| 1    | D-6  |        | II    | 1.25        | 1.55      | 2.5Y 5/3 light olive brown silty loam  |  |
| 1    | D-6  |        | III   | 1.55        | 2         | 10YR 5/6 yellowish brown sand  |  |
| 1    | D-7  |        | I     | 0           | 0.1       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 1    | D-7  |        | II    | 0.1         | 1.4       | 10YR 4/4 dark yellowish brown with 10% 10YR 5/6 yellowish brown silty loam                 |  |
| 1    | D-7  |        | III   | 1.4         | 2         | 2.5Y 6/2 light brownish gray GLEY and 10YR 5/6 yellowish brown sand deposits               |  |
| 1    | D-8  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam   |  |
| 1    | D-8  |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown sandy loam  |  |
| 1    | D-9  |        | I     | 0           | 0.2       | flooded  | excavation halted  |
| 1    | E-1  |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam   |  |
| 1    | E-1  |        | II    | 0.8         | 1.6       | 10YR 6/2 light brownish gray silty clay  |  |
| 1    | E-1  | East   | I     | 0           | 0.4       | 10YR 3/1 very dark gray silty clay loam  |  |
| 1    | E-1  | East   | II    | 0.4         | 1.1       | 10YR 6/6 brownish yellow clay silt   |  |
| 1    | E-1  | East   | III   | 1.1         | 1.4       | 7.5YR 5/6 strong brown silty clay  |  |
| 1    | E-1  | North  | I     | 0           | 0.3       | 10YR 3/1 very dark gray silty clay loam  |  |
| 1    | E-1  | North  | II    | 0.3         | 1         | 10YR 6/6 brownish yellow clay silt   |  |
| 1    | E-1  | North  | III   | 1           | 1.4       | 7.5YR 5/6 strong brown silty clay  |  |
| 1    | E-1  | West   | I     | 0           | 0.8       | 10YR 6/6 brownish yellow silty loam  |  |
| 1    | E-1  | West   | II    | 0.8         | 2.1       | 10YR 6/3 pale brown silt   |  |

| Area | STP | Radial | Level | Start Depth | End Depth | Soil Description  | Comments                             |
|------|-----|--------|-------|-------------|-----------|---|--------------------------------------|
| 1    | E-1 | West   | III   | 2.1         | 2.4       | 7.5YR 5/6 strong brown silty clay   |                                      |
| 1    | E-1 | South  |       |             |           | !!NO DIG!!  | parking lot                          |
| 1    | E-2 |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam  |                                      |
| 1    | E-2 |        | II    | 0.7         | 1.2       | 10YR 4/4 dark yellowish brown silty clay                                  |                                      |
| 1    | E-2 |        | III   | 1.2         | 2.2       | 10YR 4/1 dark gray silty clay   |                                      |
| 1    | E-3 |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam  |                                      |
| 1    | E-3 |        | II    | 0.7         | 1.2       | 10YR 4/4 dark yellowish brown silty clay                                  |                                      |
| 1    | E-3 |        | III   | 1.2         | 1.5       | 10YR 4/1 dark gray silty clay   |                                      |
| 1    | E-4 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown silty loam  | water in bottom of STP               |
| 1    | E-4 |        | II    | 0.5         | 1         | 10YR 4/4 dark yellowish brown silty clay                                  |                                      |
| 1    | E-4 |        | III   | 1           | 1.2       | 10YR 4/1 dark gray silty clay   |                                      |
| 1    | E-5 |        | I     | 0           | 1         | 10YR 3/3 dark brown silty loam  |                                      |
| 1    | E-5 |        | II    | 1           | 1.3       | 10YR 6/2 light brownish gray silty clay with heavy mottling               |                                      |
| 1    | E-6 |        | I     | 0           | 1         | 10YR 3/3 dark brown silty loam  |                                      |
| 1    | E-6 |        | II    | 1           | 1.3       | 10YR 6/2 light brownish gray silty clay with heavy mottling               |                                      |
| 1    | E-6 | South  | I     | 0           | 1.41      | 10YR 4/4 dark yellowish brown silty loam                                  | excavation halted due to water table |
| 1    | E-6 | South  | II    | 1.41        | 1.73      | 10YR 6/2 light brownish gray with 15% 10YR 5/6 yellowish brown sandy loam |                                      |
| 1    | E-6 | East   | I     | 0           | 0.83      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | E-6 | East   | II    | 0.83        | 1.11      | 10YR 6/2 light brownish gray with 15% 10YR 5/6 yellowish brown sandy loam |                                      |
| 1    | E-6 | North  | I     | 0           | 0.75      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | E-6 | North  | II    | 0.75        | 1.02      | 10YR 6/2 light brownish gray with 15% 10YR 5/6 yellowish brown sandy loam |                                      |
| 1    | E-6 | West   | I     | 0           | 1.04      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | E-6 | West   | II    | 1.04        | 1.45      | 10YR 6/2 light brownish gray with 15% 10YR 5/6 yellowish brown sandy loam |                                      |
| 1    | E-7 |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam  |                                      |
| 1    | E-7 |        | II    | 0.7         | 1.2       | 10YR 4/6 dark yellowish brown silty sand                                  |                                      |
| 1    | E-7 |        | III   | 1.2         | 1.4       | 10YR 6/2 light brownish gray sandy clay                                   |                                      |
| 1    | E-8 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam  | hole filled with water               |
| 1    | E-8 |        | II    | 0.4         | 0.6       | GLEYS with iron oxide   |                                      |
| 1    | F-1 |        | I     | 0           | 0.21      | 10YR 3/2 very dark grayish brown  |                                      |
| 1    | F-1 |        | II    | 0.21        | 2         | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | F-2 |        | I     | 0           | 0.26      | 10YR 3/2 very dark grayish brown  |                                      |
| 1    | F-2 |        | II    | 0.26        | 1.14      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | F-2 |        | III   | 1.14        | 1.63      | 2.5Y 6/4 light yellowish brown sand                                       |                                      |
| 1    | F-3 |        | I     | 0           | 0.21      | 10YR 3/2 very dark grayish brown silty loam                               |                                      |
| 1    | F-3 |        | II    | 0.21        | 1.33      | 10YR 4/4 dark yellowish brown sandy loam                                  |                                      |
| 1    | F-3 |        | III   | 1.33        | 1.52      | 10YR 5/6 yellowish brown sandy clay loam                                  |                                      |
| 1    | F-4 | South  | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | F-4 | South  | II    | 0.5         | 1.32      | 10YR 5/6 yellowish brown silty sandy loam                                 |                                      |
| 1    | F-4 | South  | III   | 1.32        | 1.51      | 10YR 6/6 brownish yellow sand   |                                      |
| 1    | F-4 | East   | I     | 0           | 2         | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | F-4 | East   | II    | 2           | 2.3       | 10YR 5/6 yellowish brown mottled with 10% 10YR 6/6 brownish yellow sand   |                                      |
| 1    | F-4 | North  | I     | 0           | 0.92      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | F-4 | North  | II    | 0.92        | 1.24      | 10YR 5/6 yellowish brown sandy loam                                       |                                      |
| 1    | F-4 | West   | I     | 0           | 0.95      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |
| 1    | F-4 | West   | II    | 0.95        | 1.26      | 10YR 6/6 brownish yellow sandy loam                                       |                                      |
| 1    | F-4 |        | I     | 0           | 0.31      | 10YR 4/4 dark yellowish brown silty loam                                  |                                      |

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|------|-----|--------|-------|-------------|-----------|---|---------------------------------------|
| 1    | F-4 |        | II    | 0.31        | 3         | 10YR 5/6 yellowish brown sand mottled with 50% 10YR 4/4 dark yellowish brown silty loam | level II heavily disturbed            |
| 1    | F-5 |        | I     | 0           | 1.03      | 10YR 4/4 dark yellowish brown silty loam  |                                       |
| 1    | F-5 |        | II    | 1.03        | 1.4       | 10YR 5/6 yellowish brown sand   |                                       |
| 1    | F-6 |        | I     | 0           | 1.12      | 10YR 4/4 dark yellowish brown silty loam  |                                       |
| 1    | F-6 |        | II    | 1.12        | 1.44      | 10YR 5/6 yellowish brown sand   |                                       |
| 1    | F-7 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam  |                                       |
| 1    | F-7 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |                                       |
| 1    | F-7 | South  | I     | 0           | 1.05      | 10YR 4/4 dark yellowish brown silty loam  |                                       |
| 1    | F-7 | South  | II    | 1.05        | 1.5       | 10YR 5/8 yellowish brown sandy clay loam  |                                       |
| 1    | F-7 | North  | I     | 0           | 1.3       | 10YR 3/2 very dark grayish brown silty clay   |                                       |
| 1    | F-7 | North  | II    | 1.3         | 1.7       | 7.5YR 5/6 strong brown clay   |                                       |
| 1    | F-7 | East   | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |                                       |
| 1    | F-7 | East   | II    | 0.8         | 1.2       | 10YR 5/8 yellowish brown sandy clay   |                                       |
| 1    | F-7 | West   | I     | 0           | 1         | 10YR 3/2 very dark grayish brown silty clay loam  |                                       |
| 1    | F-7 | West   | II    | 1           | 1.4       | 7.5YR 5/8 strong brown clay   |                                       |
| 1    | F-8 |        | I     | 0           | 0.83      | 10YR 4/4 dark yellowish brown silty loam  |                                       |
| 1    | F-8 |        | II    | 0.83        | 1.12      | GLEYS sandy loam  |                                       |
| 1    | G-1 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown loam  | in chain link fence, modern berm fill |
| 1    | G-2 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam  |                                       |
| 1    | G-2 |        | II    | 0.8         | 1.1       | 10YR 6/2 light brownish gray silty clay   |                                       |
| 1    | G-2 | West   | I     | 0           | 0.9       | 10YR 3/2 very dark grayish brown clay sand  |                                       |
| 1    | G-2 | West   | II    | 0.9         | 1.2       | 7.5YR 5/6 strong brown sandy clay   |                                       |
| 1    | G-2 | North  | I     | 0           | 1.4       | 10YR 3/2 very dark grayish brown clay sand  |                                       |
| 1    | G-2 | North  | II    | 1.4         | 1.8       | 7.5YR 5/6 strong brown sandy clay   |                                       |
| 1    | G-2 | East   | I     | 0           | 1         | 10YR 3/2 very dark grayish brown clay sand  |                                       |
| 1    | G-2 | East   | II    | 1           | 1.4       | 7.5YR 5/6 strong brown sandy clay   |                                       |
| 1    | G-2 | South  | I     | 0           | 0.6       | 10YR 3/2 very dark grayish brown clay sand  |                                       |
| 1    | G-2 | South  | II    | 0.6         | 0.8       | 7.5YR 5/6 strong brown sandy clay   |                                       |
| 1    | G-2 | South  | III   | 0.8         | 1.2       | 10YR 7/2 light gray silty clay  |                                       |
| 1    | G-3 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam  |                                       |
| 1    | G-3 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |                                       |
| 1    | G-4 |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam  |                                       |
| 1    | G-4 |        | II    | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |                                       |
| 1    | G-5 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam  |                                       |
| 1    | G-5 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |                                       |
| 1    | G-6 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam  |                                       |
| 1    | G-6 |        | II    | 0.8         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |                                       |
| 1    | G-7 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam  | end of transect                       |
| 1    | G-7 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |                                       |
| 1    | H-1 |        |       |             |           | !!NO DIG!!  | in paved roadway                      |
| 1    | H-2 |        | I     | 0           | 0.4       | 10YR 3/4 dark yellowish brown silty loam  | hit asphalt- STP terminated           |
| 1    | H-2 |        | II    | 0.4         | 0.7       | 10YR 5/4 yellowish brown silty sand   |                                       |
| 1    | H-3 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam  | directly under power lines            |
| 1    | H-3 |        | II    | 1.1         | 1.11      | 10YR 5/4 yellowish brown silty clay   |                                       |
| 1    | H-4 |        | I     | 0           | 0.3       | 10YR 3/4 dark yellowish brown silty sandy loam  |                                       |
| 1    | H-4 |        | II    | 0.3         | 1         | 10YR 5/4 yellowish brown silty sand   |                                       |
| 1    | H-4 |        | III   | 1           | 1.4       | 5YR 4/8 yellowish red sandy clay  |                                       |
| 1    | H-5 |        | I     | 0           | 0.3       | 10YR 4/3 brown silty loam   |                                       |
| 1    | H-5 |        | II    | 0.3         | 1.8       | 10YR 6/4 light yellowish brown silty sandy clay   |                                       |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments  |
|------|------|--------|-------|-------------|-----------|--|---|
| 1    | H-5  |        | III   | 1.8         | 2.3       | 10YR 7/2 light gray silty clay   |   |
| 1    | H-5  | West   | I     | 0           | 1.35      | 10YR 4/3 brown silty loam  |   |
| 1    | H-5  | West   | II    | 1.35        | 1.55      | 10YR 6/6 brownish yellow silty clay  |   |
| 1    | H-5  | East   | I     | 0           | 0.45      | 10YR 4/3 brown silty loam  |   |
| 1    | H-5  | East   | II    | 0.45        | 1.1       | 10YR 4/4 dark yellowish brown silty clay   |   |
| 1    | H-5  | East   | III   | 1.1         | 1.9       | 10YR 6/6 brownish yellow sandy clay  |   |
| 1    | H-5  | South  | I     | 0           | 0.8       | 10YR 4/3 brown silty loam  |   |
| 1    | H-5  | South  | II    | 0.8         | 1.1       | 10YR 5/6 yellowish brown silty clay  |   |
| 1    | H-6  |        | I     | 1           | 0.9       | 10YR 4/4 dark yellowish brown loam   | in historic district                                      |
| 1    | H-6  |        | II    | 0.9         | 1.3       | 10YR 6/6 brownish yellow silty clay  |   |
| 1    | H-6  | North  | I     | 0           | 0.95      | 10YR 4/3 brown silty loam  | roots throughout STP                                      |
| 1    | H-6  | North  | II    | 0.95        | 1.2       | 10YR 6/6 brownish yellow silty clay  |   |
| 1    | H-6  | West   | I     | 0           | 0.96      | 10YR 4/3 brown silty loam  | STP began filling with water at 1.4'                      |
| 1    | H-6  | West   | II    | 0.96        | 1.4       | 10YR 6/6 brownish yellow silty clay  |   |
| 1    | H-6  | East   | I     | 0           | 1         | 10YR 4/3 brown silty loam  | one small piece of coal present in layer I                |
| 1    | H-6  | East   | II    | 1           | 1.42      | 10YR 6/6 brownish yellow silty clay  |   |
| 1    | H-6  | South  | I     | 0           | 0.83      | 10YR 4/3 brown silty loam  | layer I had a small piece of charcoal and brick discarded |
| 1    | H-6  | South  | II    | 0.83        | 1.21      | 10YR 6/6 brownish yellow silty clay  |   |
| 1    | I-1  |        |       |             |           | !!NO DIG!!   | in paved roadway  |
| 1    | I-2  |        |       |             |           | !!NO DIG!!   | water drain   |
| 1    | I-3  |        |       |             |           | !!NO DIG!!   | next to drain in drainage ditch                           |
| 1    | I-4  |        |       |             |           | !!NO DIG!!   | water line  |
| 1    | I-5  |        |       |             |           | !!NO DIG!!   | water line  |
| 1    | I-6  |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam  |   |
| 1    | I-6  |        | II    | 0.8         | 1.3       | 5YR 4/6 yellowish red silty clay   |   |
| 2    | A-1  |        | I     | 0           | 0.1       | 10YR 2/2 very dark brown silty loam  | Thin organic layer with very low decomposition.           |
| 2    | A-1  |        | II    | 0.1         | 0.72      | 10YR 3/2 very dark grayish brown silty loam  | A-horizon appears intact                                  |
| 2    | A-1  |        | III   | 0.72        | 1.54      | 2.5Y 6/3 light yellowish brown mottled with 35% 10YR 5/8 yellowish brown silty clay loam |   |
| 2    | A-10 |        | I     | 0           | 0.85      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-10 |        | II    | 0.85        | 1.11      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-11 |        | I     | 0           | 0.81      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-11 |        | II    | 0.81        | 1.03      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-12 |        | I     | 0           | 0.75      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-12 |        | II    | 0.75        | 1.01      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-13 |        | I     | 0           | 0.81      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-13 |        | II    | 0.81        | 1.21      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-14 |        | I     | 0           | 0.95      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-14 |        | II    | 0.95        | 1.33      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-15 |        | I     | 0           | 0.91      | 10YR 4/4 dark yellowish brown silty loam   | disturbed with modern debris                              |
| 2    | A-16 |        | I     | 0           | 0.83      | 10YR 4/4 dark yellowish brown silty loam   | disturbed with modern debris                              |
| 2    | A-17 |        | I     | 0           | 0.91      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-17 |        | II    | 0.91        | 1.31      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-18 |        | I     | 0           | 1.8       | 10YR 4/3 brown silty loam  |   |
| 2    | A-18 |        | II    | 1.8         | 1.81      | 10YR 5/6 yellowish brown silty clay  |   |
| 2    | A-19 | South  | I     | 0           | 1.05      | 10YR 4/4 dark yellowish brown silty loam   |   |
| 2    | A-19 | South  | II    | 1.05        | 1.29      | 10YR 5/6 yellowish brown silty sandy loam  |   |
| 2    | A-19 | West   | I     | 0           | 1.1       | disturbed modern debris  |   |
| 2    | A-19 | West   | II    | 1.1         | 1.32      | 10YR 5/6 yellowish brown silty sandy loam  |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments  |
|------|------|--------|-------|-------------|-----------|---|---|
| 2    | A-19 | North  | I     | 0           | 0.84      | disturbed 10YR 4/4 dark yellowish brown silty loam mottled with 30% 10YR 5/6 yellowish brown sandy loam with 50% gravel and cobbles |   |
| 2    | A-19 | East   |       |             |           | !!NO DIG!!  | wetland   |
| 2    | A-19 |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown silty loam   | located near cinder block line where possible structure may have been located |
| 2    | A-19 |        | II    | 0.3         | 0.8       | 10YR 4/3 brown silty clay loam  |   |
| 2    | A-19 |        | III   | 0.8         | 1.2       | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-2  |        | I     | 0           | 0.3       | 10YR 2/2 very dark brown silty loam   |   |
| 2    | A-2  |        | II    | 0.3         | 0.87      | 10YR 3/2 very dark grayish brown silty loam   |   |
| 2    | A-2  |        | III   | 0.87        | 1.52      | 2.5Y 6/3 light yellowish brown mottled with 35% 10YR 5/8 yellowish brown silty clay loam  |   |
| 2    | A-20 |        | I     | 0           | 1.01      | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | A-20 |        | II    | 1.01        | 1.35      | 10YR 5/6 yellowish brown silty sandy loam   |   |
| 2    | A-20 |        |       |             |           | !!NO DIG!!  | in wetland area   |
| 2    | A-21 |        |       |             |           | !!NO DIG!!  | in wetland area   |
| 2    | A-22 |        |       |             |           | !!NO DIG!!  | in wetland area   |
| 2    | A-23 |        |       |             |           | !!NO DIG!!  | in wetland area   |
| 2    | A-24 |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | A-24 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-25 |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | A-25 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-26 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 2    | A-26 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-27 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | A-27 |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay  |   |
| 2    | A-28 |        | I     | 0           | 0.9       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-28 |        | II    | 0.9         | 91        | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-29 |        | I     | 0           | 1         | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-29 |        | II    | 1           | 1.01      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-3  |        | I     | 0           | 0.11      | 10YR 2/2 very dark brown silty loam   |   |
| 2    | A-3  |        | II    | 0.11        | 0.7       | 10YR 3/2 very dark grayish brown silty loam   |   |
| 2    | A-3  |        | III   | 0.7         | 1.47      | 2.5Y 5/3 light olive brown mottled with 10YR 5/8 yellowish brown silty clay loam with iron concentration, early mineralization      |   |
| 2    | A-30 |        | I     | 0           | 0.9       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-30 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-31 |        | I     | 0           | 0.9       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-31 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-32 |        | I     | 0           | 0.9       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-32 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-33 |        | I     | 0           | 1         | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-33 |        | II    | 1           | 1.01      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-34 |        | I     | 0           | 0.9       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-34 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-35 |        | I     | 0           | 0.3       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-35 |        | II    | 0.3         | 0.31      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-36 |        | I     | 0           | 0.8       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-36 |        | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-37 |        | I     | 0           | 0.7       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-37 |        | II    | 0.7         | 0.71      | 10YR 5/6 yellowish brown silty clay   |   |
| 2    | A-38 |        | I     | 0           | 0.7       | 10YR 4/6 dark yellowish brown silty loam  |   |
| 2    | A-38 |        | II    | 0.7         | 0.71      | 10YR 5/6 yellowish brown silty clay   |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                              | Comments   |
|------|------|--------|-------|-------------|-----------|---|--|
| 2    | A-39 |        | I     | 0           | 0.7       | 10YR 4/6 dark yellowish brown silty loam      |  |
| 2    | A-39 |        | II    | 0.7         | 0.71      | 10YR 5/6 yellowish brown silty clay           |  |
| 2    | A-40 |        | I     | 0           | 0.8       | 10YR 4/6 dark yellowish brown silty loam      |  |
| 2    | A-40 |        | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay           |  |
| 2    | A-41 |        | I     | 0           | 1.3       | 10YR 4/6 dark yellowish brown silty loam      |  |
| 2    | A-41 |        | II    | 1.3         | 1.4       | 10YR 5/6 yellowish brown silty clay           |  |
| 2    | A-41 | South  |       |             |           | !!NO DIG!!                                    | driveway   |
| 2    | A-41 | East   |       |             |           | !!NO DIG!!                                    | buried fiber optic cable line  |
| 2    | A-41 | West   |       |             |           | !!NO DIG!!                                    | buried fiber optic cable line  |
| 2    | A-41 | North  | I     | 0           | 1.2       | 10YR 4/6 dark yellowish brown silty loam      |  |
| 2    | A-41 | North  | II    | 1.2         | 1.21      | 10YR 5/6 yellowish brown silty clay           |  |
| 2    | A-42 |        |       |             |           | !!NO DIG!!                                    | power pole, buried wire  |
| 2    | A-5  |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | A-5  |        | II    | 1.1         | 1.31      | 10YR 5/6 yellowish brown silty sandy loam     |  |
| 2    | A-6  |        | I     | 0           | 0.09      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | A-6  |        | II    | 1.09        | 1.33      | 10YR 5/6 yellowish brown silty sandy loam     |  |
| 2    | A-7  |        | I     | 0           | 1.03      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | A-7  |        | II    | 1.03        | 1.33      | 10YR 5/6 yellowish brown silty sandy loam     |  |
| 2    | A-8  |        | I     | 0           | 1.01      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | A-8  |        | II    | 1.01        | 1.31      | 10YR 5/6 yellowish brown silty sandy loam     |  |
| 2    | A-9  |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | A-9  |        | II    | 0.9         | 1.12      | 10YR 5/6 yellowish brown silty sandy loam     |  |
| 2    | B-1  |        | I     | 0           | 0.12      | 10YR 2/2 very dark brown silty loam           |  |
| 2    | B-1  |        | II    | 0.12        | 0.52      | 10YR 3/2 very dark grayish brown silty loam   |  |
| 2    | B-1  |        | III   | 0.52        | 1.9       | 10YR 4/6 dark yellowish brown clay sandy loam |  |
| 2    | B-10 |        | I     | 0           | 0.13      | 10YR 2/2 very dark brown silty loam           |  |
| 2    | B-10 |        | II    | 0.13        | 0.92      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-10 |        | III   | 0.92        | 1.31      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-11 |        | I     | 0           | 0.11      | 10YR 2/2 very dark brown silty loam           |  |
| 2    | B-11 |        | II    | 0.11        | 0.87      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-11 |        | III   | 0.87        | 1.28      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-12 |        | I     | 0           | 0.07      | 10YR 2/2 very dark brown silty loam           |  |
| 2    | B-12 |        | II    | 0.07        | 0.85      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-12 |        | III   | 0.85        | 1.5       | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-13 |        | I     | 0           | 0.13      | 10YR 2/2 very dark brown silty loam           |  |
| 2    | B-13 |        | II    | 0.13        | 0.9       | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-13 |        | III   | 0.9         | 1.32      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-14 |        |       |             |           | !!NO DIG!!                                    | massive tree root intrusion, offset at 5 feet South, where there was also another large root intrusion |
| 2    | B-15 |        | I     | 0           | 0.21      | 10YR 2/2 very dark brown silty loam           |  |
| 2    | B-15 |        | II    | 0.21        | 1.11      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-15 |        | III   | 1.11        | 1.56      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-16 |        | I     | 0           | 1.15      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-16 |        | II    | 1.15        | 1.53      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-17 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-17 |        | II    | 1.1         | 1.43      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-18 |        | I     | 0           | 1.09      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-18 |        | II    | 1.09        | 1.32      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 2    | B-19 |        | I     | 0           | 1.13      | 10YR 4/4 dark yellowish brown silty loam      |  |
| 2    | B-19 |        | II    | 1.13        | 1.35      | 10YR 5/8 yellowish brown silty clay loam      |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                              | Comments  |
|------|------|--------|-------|-------------|-----------|---|---|
| 2    | B-2  |        | I     | 0           | 0.11      | 10YR 2/2 very dark brown silty loam           |   |
| 2    | B-2  |        | II    | 0.11        | 0.6       | 10YR 3/2 very dark grayish brown silty loam   |   |
| 2    | B-2  |        | III   | 0.66        | 1.05      | 10YR 4/6 dark yellowish brown clay sandy loam |   |
| 2    | B-20 |        | I     | 0           | 1.15      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-20 |        | II    | 1.15        | 1.41      | 10YR 5/8 yellowish brown silty clay loam      |   |
| 2    | B-21 |        | I     | 0           | 1.32      | 10YR 4/4 dark yellowish brown silty loam      | proximity to the drainage pond to the South (about 20') would explain the GLEYed soil in level II   |
| 2    | B-21 |        | II    | 1.32        | 1.61      | 10YR 6/2 light brownish gray silty clay loam  |   |
| 2    | B-22 |        |       |             |           | !!NO DIG!!                                    | frozen pond, end of transect  |
| 2    | B-23 |        |       |             |           | !!NO DIG!!                                    | wetlands  |
| 2    | B-23 |        |       |             |           | !!NO DIG!!                                    | wetlands  |
| 2    | B-24 |        |       |             |           | !!NO DIG!!                                    | wetlands  |
| 2    | B-25 |        |       |             |           | !!NO DIG!!                                    | wetlands  |
| 2    | B-26 |        | I     | 0           | 1.01      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-26 |        | II    | 1.01        | 1.21      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-27 |        | I     | 0           | 1.05      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-27 |        | II    | 1.05        | 1.39      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-28 |        | I     | 0           | 1.41      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-28 |        | II    | 1.41        | 1.6       | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-29 |        | I     | 0           | 1.35      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-29 |        | II    | 1.35        | 1.58      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-3  |        | I     | 0           | 0.05      | 10YR 2/2 very dark brown silty loam           |   |
| 2    | B-3  |        | II    | 0.05        | 0.33      | 10YR 3/2 very dark grayish brown silty loam   |   |
| 2    | B-3  |        | III   | 0.33        | 1.35      | 10YR 4/6 dark yellowish brown clay sandy loam |   |
| 2    | B-30 |        | I     | 0           | 1.23      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-30 |        | II    | 1.23        | 1.28      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-31 |        | I     | 0           | 1.15      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-31 |        | II    | 1.15        | 1.38      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-32 |        | I     | 0           | 1.21      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-32 |        | II    | 1.21        | 1.5       | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-33 |        | I     | 0           | 1.37      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-33 |        | II    | 1.37        | 1.51      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-34 |        | I     | 0           | 1.28      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-34 |        | II    | 1.28        | 1.43      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-35 |        | I     | 0           | 0.98      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-35 |        | II    | 0.98        | 1.31      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-36 |        | I     | 0           | 1.02      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-36 |        | II    | 1.02        | 1.32      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-37 |        | I     | 0           | 1.05      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-37 |        | II    | 1.05        | 1.3       | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-38 |        | I     | 0           | 0.95      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-38 |        | II    | 0.95        | 1.28      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-39 |        | I     | 0           | 0.98      | 10YR 4/4 dark yellowish brown silty loam      |   |
| 2    | B-39 |        | II    | 0.98        | 1.34      | 10YR 5/6 yellowish brown silty sandy loam     |   |
| 2    | B-40 |        |       |             |           | !!NO DIG!!                                    | not excavated due to the proximity of transect C - transect C was shot in at 186 degrees, causing it to close in on transect B towards the southern portion of the survey |
| 2    | B-4  |        | I     | 0           | 0.11      | 10YR 2/2 very dark brown silty loam           |   |
| 2    | B-4  |        | II    | 0.11        | 0.46      | 10YR 3/2 very dark grayish brown silty loam   |   |
| 2    | B-4  |        | III   | 0.46        | 1.33      | 2.5Y 5/3 light olive brown silty sandy loam   |   |
| 2    | B-41 |        |       |             |           | !!NO DIG!!                                    | hill and outbuilding  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments   |
|------|------|--------|-------|-------------|-----------|---|--|
| 2    | B-42 |        |       |             |           | !!NO DIG!!  | on house/ graded landform  |
| 2    | B-43 |        |       |             |           | !!NO DIG!!  | on house/ graded landform  |
| 2    | B-44 |        | I     | 0           | 1.8       | 7.5YR 4/4 brown silty clay loam mottled with 5YR 5/8 yellowish red silty clay   | located in front yard of house, halted excavation due to disturbed layer matrix, lenses of clay are seen throughout, end of transect |
| 2    | B-5  |        | I     | 0           | 0.09      | 10YR 2/2 very dark brown silty loam   |  |
| 2    | B-5  |        | II    | 0.09        | 0.51      | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | B-5  |        | III   | 0.51        | 1.12      | 10YR 6/8 brownish yellow silty loam   |  |
| 2    | B-5  |        | IV    | 1.12        | 1.43      | 10YR 5/8 yellowish brown silty sandy loam   |  |
| 2    | B-6  |        | I     | 0           | 0.05      | 10YR 2/2 very dark brown silty loam   |  |
| 2    | B-6  |        | II    | 0.05        | 0.72      | 10YR 3/2 very dark grayish brown silty loam   |  |
| 2    | B-6  |        | III   | 0.72        | 1.35      | 2.5Y 5/3 light olive brown silty sandy loam   |  |
| 2    | B-7  |        | I     | 0           | 0.1       | 10YR 2/2 very dark brown silty loam   |  |
| 2    | B-7  |        | II    | 0.1         | 0.75      | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | B-7  |        | III   | 0.75        | 1.35      | 10YR 5/8 yellowish brown silty clay loam  |  |
| 2    | B-8  |        | I     | 0           | 0.1       | 10YR 2/2 very dark brown silty loam   |  |
| 2    | B-8  |        | II    | 0.1         | 0.81      | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | B-8  |        | III   | 0.81        | 1.12      | 10YR 5/8 yellowish brown silty clay loam  |  |
| 2    | B-9  |        | I     | 0           | 0.12      | 10YR 2/2 very dark brown silty loam   |  |
| 2    | B-9  |        | II    | 0.12        | 0.83      | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | B-9  |        | III   | 0.83        | 1.2       | 10YR 5/8 yellowish brown silty clay loam  |  |
| 2    | C-1  |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |  |
| 2    | C-1  |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | C-10 |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-10 |        | II    | 0.2         | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | C-10 |        | III   | 0.8         | 1.6       | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-11 |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-11 |        | II    | 0.2         | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | C-11 |        | III   | 0.8         | 1.6       | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-12 |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-12 |        | II    | 0.2         | 1.1       | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | C-12 |        | III   | 1.1         | 1.9       | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-13 |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-13 |        | II    | 0.2         | 1.5       | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | C-13 |        | III   | 1.5         | 2.2       | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-14 |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-14 |        | II    | 0.2         | 1.5       | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | C-14 |        | III   | 1.5         | 2.2       | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-15 |        | I     | 0           | 2.9       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown, and 10YR 4/2 dark grayish brown with large cobbles and small pebbles | disturbed  |
| 2    | C-2  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-2  |        | II    | 0.2         | 1         | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | C-2  |        | III   | 1           | 1.3       | 2.5Y 5/3 light olive brown silty clay   |  |
| 2    | C-28 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-28 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | C-28 |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | C-29 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-29 |        | II    | 0.2         | 0.8       | 10YR 4/3 brown silty loam   |  |
| 2    | C-29 |        | III   | 0.8         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | C-3  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter  |  |
| 2    | C-3  |        | II    | 0.2         | 1.3       | 10YR 4/4 dark yellowish brown silty loam  |  |

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|------|------|--------|-------|-------------|-----------|---|--|
| 2    | C-3  |        | III   | 1.3         | 1.6       | 2.5Y 5/3 light olive brown silty clay   |  |
| 2    | C-30 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-30 |        | II    | 0.3         | 1.1       | 10YR 4/3 brown silty loam   |  |
| 2    | C-30 |        | III   | 1.1         | 1.5       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-31 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-31 |        | II    | 0.3         | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | C-31 |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-32 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-32 |        | II    | 0.4         | 1.4       | 10YR 4/3 brown silty loam   |  |
| 2    | C-32 |        | III   | 1.4         | 1.8       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-33 |        | I     | 0           | 0.2       | 10YR 5/3 brown silty loam   |  |
| 2    | C-33 |        | II    | 0.2         | 1.3       | 10YR 4/3 brown silty loam   |  |
| 2    | C-33 |        | III   | 1.3         | 1.9       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-34 |        | I     | 0           | 0.2       | 10YR 5/3 brown silty loam   |  |
| 2    | C-34 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam   |  |
| 2    | C-34 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-35 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-35 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam   |  |
| 2    | C-35 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-36 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-36 |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam   |  |
| 2    | C-36 |        | III   | 1.1         | 1.8       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-37 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-37 |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam   |  |
| 2    | C-37 |        | III   | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-38 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-38 |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam   |  |
| 2    | C-38 |        | III   | 1.1         | 1.6       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-39 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-39 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam   |  |
| 2    | C-39 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-4  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter                                    |  |
| 2    | C-4  |        | II    | 0.2         | 0.8       | 10YR 4/4 dark yellowish brown silty loam                                      |  |
| 2    | C-4  |        | III   | 0.8         | 1.1       | 2.5Y 5/3 light olive brown silty clay   |  |
| 2    | C-40 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | C-40 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam   |  |
| 2    | C-40 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay                                      |  |
| 2    | C-41 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | C-41 |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay with 50% gravels                     |  |
| 2    | C-42 |        |       |             |           | !!NO DIG!!  | on house/ graded landform  |
| 2    | C-43 |        |       |             |           | !!NO DIG!!  | on house/ graded landform  |
| 2    | C-44 |        | I     | 0           | 1.4       | 7.5YR 4/4 brown silty clay loam mottled with 5YR 5/8 yellowish red silty clay | located in front yard of house, halted excavation due to disturbed layer matrix, lenses of clay are seen throughout, end of transect |
| 2    | C-5  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter                                    |  |
| 2    | C-5  |        | II    | 0.2         | 0.7       | 10YR 4/4 dark yellowish brown silty loam                                      |  |
| 2    | C-5  |        | III   | 0.7         | 1         | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-6  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter                                    |  |
| 2    | C-6  |        | II    | 0.2         | 0.8       | 10YR 4/4 dark yellowish brown silty loam                                      |  |
| 2    | C-6  |        | III   | 0.8         | 1.1       | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | C-7  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter                                    |  |

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|------|------|--------|-------|-------------|-----------|--|--|
| 2    | C-7  |        | II    | 0.2         | 1         | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-7  |        | III   | 1           | 1.3       | 7.5YR 5/6 strong brown silty clay  |  |
| 2    | C-7  | South  | I     | 0           | 0.7       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-7  | South  | II    | 0.7         | 1         | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-7  | East   | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-7  | East   | II    | 0.6         | 1         | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-7  | North  | I     | 0           | 0.7       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-7  | North  | II    | 0.7         | 1.2       | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-7  | West   | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-7  | West   | II    | 0.9         | 1.4       | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-8  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter                                       |  |
| 2    | C-8  |        | II    | 0.2         | 1         | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-8  |        | III   | 1           | 1.8       | 7.5YR 5/6 strong brown silty clay  |  |
| 2    | C-9  |        | I     | 0           | 0.2       | 7.5YR 2.5/3 very dark brown organic matter                                       |  |
| 2    | C-9  |        | II    | 0.2         | 0.9       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-9  |        | III   | 0.9         | 1.4       | 7.5YR 5/6 strong brown silty clay  |  |
| 2    | C-9  | South  | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-9  | South  | II    | 0.6         | 1         | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-9  | West   | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-9  | West   | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-9  | North  | I     | 0           | 0.7       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-9  | North  | II    | 0.7         | 1.2       | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | C-9  | East   | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | C-9  | East   | II    | 0.6         | 1         | 10YR 5/6 yellowish brown silty clay loam   |  |
| 2    | D-1  |        | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown sandy loam   |  |
| 2    | D-1  |        | II    | 0.5         | 2.5       | 7.5YR 4/4 brown silty clay   |  |
| 2    | D-10 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam   |  |
| 2    | D-10 |        | II    | 1           | 1.01      | 7.5YR 5/6 strong brown silty clay  |  |
| 2    | D-11 |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown silty loam                                      | in drainage cut  |
| 2    | D-11 |        | II    | 0.5         | 1.2       | 7.5YR 5/6 strong brown sandy clay  |  |
| 2    | D-11 |        | III   | 1.2         | 1.21      | 7.5YR 5/6 strong brown clay  |  |
| 2    | D-12 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown loam   |  |
| 2    | D-12 |        | II    | 0.5         | 2.6       | 10YR 5/6 yellowish brown clay sand   |  |
| 2    | D-12 |        | III   | 2.6         | 2.61      | 7.5YR 5/6 strong brown sandy clay  |  |
| 2    | D-13 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam   | many rocks present   |
| 2    | D-13 |        | II    | 1.1         | 1.11      | 7.5YR 5/6 strong brown silty clay  |  |
| 2    | D-14 |        | I     | 0           | 0.8       | 10YR 3/3 dark brown loam   |  |
| 2    | D-14 |        | II    | 0.8         | 1         | 5YR 4/4 reddish brown clay   |  |
| 2    | D-15 | North  | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam   |  |
| 2    | D-15 | North  | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam  |  |
| 2    | D-15 | North  | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay   |  |
| 2    | D-15 | East   | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam   |  |
| 2    | D-15 | East   | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam  |  |
| 2    | D-15 | East   | III   | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay   |  |
| 2    | D-15 | South  | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam   | This test is located in a somewhat rectangular 20x30' depression. The positive test was located on the North side of the depression. |
| 2    | D-15 | South  | II    | 0.2         | 2.1       | 2.5Y 5/4 light olive brown mottled with 10YR 4/6 dark yellowish brown silty loam |  |
| 2    | D-15 | South  | III   | 2.1         | 2.5       | 10YR 3/4 dark yellowish brown silty loam with heavy organics                     |  |

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| 2    | D-15 | South  | IV    | 2.5         | 3.3       | 2.5Y 5/4 light olive brown mottled with 10YR 3/4 dark yellowish brown and 60% small pebbles |  |
| 2    | D-15 | West   | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-15 | West   | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | D-15 | West   | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | D-15 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown loam  | approximately 7 feet North of rectilinear depression |
| 2    | D-15 |        | II    | 0.8         | 1.2       | 10YR 5/4 yellowish brown clay loam  |  |
| 2    | D-15 |        | III   | 1.2         | 2         | 10YR 4/4 dark yellowish brown silty clay  |  |
| 2    | D-15 |        | IV    | 2           | 2.01      | 10YR 3/4 dark yellowish brown silty clay  |  |
| 2    | D-16 |        | I     | 0           | 2         | 10YR 4/4 dark yellowish brown loam  | buried modern trash                                  |
| 2    | D-16 |        | II    | 2           | 2.01      | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | D-17 |        | I     | 0           | 0.6       | 10YR 3/2 very dark grayish brown loam   |  |
| 2    | D-17 |        | II    | 0.6         | 1         | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | D-17 |        | III   | 1           | 1.01      | 10YR 5/6 yellowish brown clay   |  |
| 2    | D-18 |        | I     | 0           | 2         | 10YR 4/3 brown loam   |  |
| 2    | D-18 |        | II    | 2           | 2.01      | 10YR 6/6 brownish yellow silty clay   |  |
| 2    | D-19 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown loam  |  |
| 2    | D-19 |        | II    | 0.5         | 2         | 10YR 4/4 dark yellowish brown clay loam   |  |
| 2    | D-19 |        | III   | 2           | 2.01      | 10YR 6/6 brownish yellow silty clay   |  |
| 2    | D-2  |        | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown sandy loam  |  |
| 2    | D-2  |        | II    | 0.5         | 2         | 7.5YR 4/4 brown silty clay  |  |
| 2    | D-20 |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown loam   |  |
| 2    | D-20 |        | II    | 0.5         | 1.6       | 10YR 4/4 dark yellowish brown clay loam   |  |
| 2    | D-20 |        | III   | 1.6         | 1.61      | 10YR 6/6 brownish yellow silty clay   |  |
| 2    | D-21 |        | I     | 0           | 0.4       | 10YR 2/2 very dark brown loam   |  |
| 2    | D-21 |        | II    | 0.4         | 1.3       | 10YR 5/6 yellowish brown clay loam  |  |
| 2    | D-21 |        | III   | 1.3         | 1.31      | 7.5YR 5/6 strong brown silty clay   |  |
| 2    | D-22 |        |       |             |           | !!NO DIG!!  | wetland areas  |
| 2    | D-28 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty loam   |  |
| 2    | D-28 |        | II    | 0.7         | 1.5       | 10YR 4/6 dark yellowish brown silty loam  |  |
| 2    | D-29 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-29 |        | II    | 0.2         | 0.8       | 10YR 4/3 brown silty loam   |  |
| 2    | D-29 |        | III   | 0.8         | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | D-3  |        | I     | 0           | 0.5       | 10YR 3/3 dark brown loam  |  |
| 2    | D-3  |        | II    | 0.5         | 2         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | D-3  |        | III   | 2           | 2.01      | 7.5YR 4/4 brown silty clay  |  |
| 2    | D-30 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-30 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | D-30 |        | III   | 0.9         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | D-31 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-31 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | D-31 |        | III   | 0.9         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | D-32 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-32 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam   |  |
| 2    | D-32 |        | III   | 1           | 1.8       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | D-33 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-33 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam   |  |
| 2    | D-33 |        | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | D-34 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | D-34 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam   |  |

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| 2    | D-34 |        | III   | 0.9         | 1.8       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-35 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-35 |        | II    | 0.2         | 0.8       | 10YR 4/3 brown silty loam                |          |
| 2    | D-35 |        | III   | 0.8         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-36 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-36 |        | II    | 0.2         | 0.8       | 10YR 4/3 brown silty loam                |          |
| 2    | D-36 |        | III   | 0.8         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-37 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-37 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |          |
| 2    | D-37 |        | III   | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-38 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-38 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam                |          |
| 2    | D-38 |        | III   | 1           | 1.8       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-39 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-39 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |          |
| 2    | D-39 |        | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-4  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam       |          |
| 2    | D-4  |        | II    | 1           | 1.0.1     | 7.5YR 4/4 brown silty clay               |          |
| 2    | D-40 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-40 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam                |          |
| 2    | D-40 |        | III   | 1           | 1.4       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-41 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-41 |        | II    | 0.2         | 0.7       | 10YR 4/3 brown silty loam                |          |
| 2    | D-41 |        | III   | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-42 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-42 |        | II    | 0.3         | 0.7       | 10YR 4/3 brown silty loam                |          |
| 2    | D-42 |        | III   | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | D-5  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam       |          |
| 2    | D-5  |        | II    | 1           | 1.01      | 10YR 5/6 yellowish brown silty clay      |          |
| 2    | D-6  |        | I     | 0           | 1.5       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-6  |        | II    | 1.5         | 1.51      | 7.5YR 5/6 strong brown sandy clay        |          |
| 2    | D-7  |        | I     | 0           | 1         | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-7  |        | II    | 1           | 1.1       | 7.5YR 4/4 brown silty clay               |          |
| 2    | D-8  |        | I     | 0           | 1.1       | 10YR 3/3 dark brown silty loam           |          |
| 2    | D-8  |        | II    | 1.1         | 1.11      | 7.5YR 5/6 strong brown silty clay        |          |
| 2    | D-9  |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam |          |
| 2    | D-9  |        | II    | 0.9         | 0.91      | 7.5YR 5/6 strong brown silty clay        |          |
| 2    | E-1  |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam           |          |
| 2    | E-1  |        | II    | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | E-10 |        | I     | 0           | 0.1       | 10YR 3/3 dark brown silty loam           |          |
| 2    | E-10 |        | II    | 0.1         | 0.5       | 10YR 5/4 yellowish brown silty loam      |          |
| 2    | E-10 |        | III   | 0.5         | 1         | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | E-11 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown silty loam           |          |
| 2    | E-11 |        | II    | 0.5         | 1.2       | 10YR 5/4 yellowish brown silty loam      |          |
| 2    | E-11 |        | III   | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | E-12 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown silty loam           |          |
| 2    | E-12 |        | II    | 0.5         | 1.2       | 10YR 5/4 yellowish brown silty loam      |          |
| 2    | E-12 |        | III   | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |          |
| 2    | E-13 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam           |          |
| 2    | E-13 |        | II    | 0.4         | 0.8       | 10YR 5/4 yellowish brown silty loam      |          |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                         | Comments                                 |
|------|------|--------|-------|-------------|-----------|--|--|
| 2    | E-13 |        | III   | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-14 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-14 |        | II    | 0.4         | 1.1       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-14 |        | III   | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-15 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-15 |        | II    | 0.2         | 0.6       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-15 |        | III   | 0.6         | 1         | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-16 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-16 |        | II    | 0.5         | 1.7       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-16 |        | III   | 1.7         | 2         | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-17 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-17 |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-17 |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-18 |        | I     | 0           | 0.5       | 10YR 3/3 dark brown silty loam           | in barbed wire fence, near manmade ditch |
| 2    | E-18 |        | II    | 0.5         | 1.1       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-18 |        | III   | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-19 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-19 |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-19 |        | III   | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-2  |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-2  |        | II    | 0.7         | 2.3       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-2  |        | III   | 2.3         | 2.7       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-20 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-20 |        | II    | 0.4         | 1         | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-20 |        | III   | 1           | 1.3       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-21 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-21 |        | II    | 0.4         | 1.6       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-21 |        | III   | 1.6         | 2         | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-22 |        |       |             |           | !!NO DIG!!                               | wetland                                  |
| 2    | E-23 |        |       |             |           | !!NO DIG!!                               | wetland                                  |
| 2    | E-24 |        |       |             |           | !!NO DIG!!                               | wetland                                  |
| 2    | E-25 |        |       |             |           | !!NO DIG!!                               | wetland                                  |
| 2    | E-26 |        |       |             |           | !!NO DIG!!                               | wetland                                  |
| 2    | E-27 |        |       |             |           | !!NO DIG!!                               | wetland                                  |
| 2    | E-28 |        | I     | 0           | 0.43      | 10YR 3/3 dark brown silty loam           | terminated due to root impasse           |
| 2    | E-28 |        | II    | 0.43        | 1.55      | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-29 |        | I     | 0           | 0.15      | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-29 |        | II    | 0.15        | 0.7       | 10YR 5/6 yellowish brown silty clay loam |  |
| 2    | E-29 |        | III   | 0.7         | 1.02      | 10YR 5/8 yellowish brown silty clay      |  |
| 2    | E-3  |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-3  |        | II    | 0.4         | 0.8       | 10YR 5/4 yellowish brown silty loam      |  |
| 2    | E-3  |        | III   | 0.8         | 1.3       | 10YR 4/6 dark yellowish brown silty clay |  |
| 2    | E-30 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam |  |
| 2    | E-30 |        | II    | 1           | 1.35      | 10YR 5/8 yellowish brown silty clay      |  |
| 2    | E-31 |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam                |  |
| 2    | E-31 |        | II    | 1.5         | 1.9       | 10YR 6/6 brownish yellow silty clay      |  |
| 2    | E-32 |        | I     | 0           | 0.35      | 10YR 3/3 dark brown silty loam           |  |
| 2    | E-32 |        | II    | 0.35        | 1.8       | 10YR 4/3 brown silty clay loam           |  |
| 2    | E-32 |        | III   | 1.8         | 2.2       | 10YR 5/8 yellowish brown silty clay      |  |
| 2    | E-33 |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam                |  |

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|------|------|--------|-------|-------------|-----------|--|---------------------------|
| 2    | E-33 |        | II    | 1.4         | 1.75      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-34 |        | I     | 0           | 0.97      | 10YR 4/3 brown silty loam                            |                           |
| 2    | E-34 |        | II    | 0.97        | 1.36      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-35 |        | I     | 0           | 2.5       | 10YR 4/3 brown silty loam with large root present    |                           |
| 2    | E-35 |        | II    | 2.5         | 2.87      | 10YR 5/6 yellowish brown silty clay                  |                           |
| 2    | E-36 |        | I     | 0           | 1.05      | 10YR 4/3 brown silty loam with 10% gravel            |                           |
| 2    | E-36 |        | II    | 1.05        | 1.36      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-37 |        | I     | 0           | 0.85      | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-37 |        | II    | 0.85        | 1.23      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-38 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                            |                           |
| 2    | E-38 |        | II    | 1.2         | 1.53      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-39 |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam                       |                           |
| 2    | E-39 |        | II    | 0.7         | 1.3       | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-4  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                       |                           |
| 2    | E-4  |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-4  |        | III   | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | E-40 |        | I     | 0           | 0.6       | 10YR 3/3 dark brown silty loam                       |                           |
| 2    | E-40 |        | II    | 0.6         | 1.3       | 10YR 5/4 yellowish brown silty clay loam             |                           |
| 2    | E-40 |        | III   | 1.3         | 1.65      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-41 |        | I     | 0           | 0.6       | 10YR 3/3 dark brown silty loam                       | modern plastic in level I |
| 2    | E-41 |        | II    | 0.6         | 0.95      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-42 |        | I     | 0           | 1.02      | 10YR 4/3 brown silty loam                            |                           |
| 2    | E-42 |        | II    | 1.02        | 1.36      | 10YR 5/8 yellowish brown silty clay                  |                           |
| 2    | E-43 |        | I     | 0           | 0.85      | 10YR 4/3 brown silty loam                            |                           |
| 2    | E-43 |        | II    | 0.85        | 1.3       | 10YR 5/4 yellowish brown silty loam with 45% gravels |                           |
| 2    | E-44 |        |       |             |           | !!NO DIG!!   | slope                     |
| 2    | E-5  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                       |                           |
| 2    | E-5  |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-5  |        | III   | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | E-6  |        | I     | 0           | 0.5       | 10YR 3/3 dark brown silty loam                       | medium gravel content     |
| 2    | E-6  |        | II    | 0.5         | 1.1       | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-6  |        | III   | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | E-7  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam with heavy gravel     |                           |
| 2    | E-7  |        | II    | 0.3         | 1         | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-7  |        | III   | 1           | 1.3       | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | E-8  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                       |                           |
| 2    | E-8  |        | II    | 0.3         | 1         | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-8  |        | III   | 1           | 1.3       | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | E-9  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                       |                           |
| 2    | E-9  |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam                  |                           |
| 2    | E-9  |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | F-1  |        | I     | 0           | 0.4       | 10YR 3/2 very dark grayish brown loam                |                           |
| 2    | F-1  |        | II    | 0.4         | 1.5       | 10YR 4/4 dark yellowish brown clay loam              |                           |
| 2    | F-1  |        | III   | 1.5         | 1.6       | 10YR 4/6 dark yellowish brown silty loam             |                           |
| 2    | F-10 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam                   |                           |
| 2    | F-10 |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay             |                           |
| 2    | F-10 | South  | I     | 0           | 1.3       | 10YR 4/4 dark yellowish brown silty loam             |                           |
| 2    | F-10 | South  | II    | 1.3         | 1.4       | 10YR 5/6 yellowish brown silty clay                  |                           |
| 2    | F-10 | North  | I     | 0           | 0.7       | 10YR 4/3 brown silty loam                            | 1 brick discarded         |
| 2    | F-10 | North  | II    | 0.7         | 0.8       | 10YR 5/6 yellowish brown silty clay                  |                           |

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|------|------|--------|-------|-------------|-----------|---|--|
| 2    | F-10 | West   | I     | 0           | 0.8       | 10YR 4/2 dark grayish brown silty loam                                      |  |
| 2    | F-10 | West   | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-11 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-11 |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-12 |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-12 |        | II    | 1.2         | 1.4       | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-13 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-13 |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-14 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-14 |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-15 |        | I     | 0           | 1         | damp 10YR 4/4 dark yellowish brown clay loam                                |  |
| 2    | F-15 |        | II    | 1           | 1.1       | damp 10YR 5/2 grayish brown clay mottled with 10YR 5/6 yellowish brown clay |  |
| 2    | F-16 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-16 |        | II    | 1.1         | 1.11      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-17 |        |       |             |           | !!NO DIG!!  |  |
| 2    | F-18 |        | I     | 0           | 0.2       | 10YR 2/2 very dark brown detritus/ loam                                     |  |
| 2    | F-18 |        | II    | 0.2         | 0.7       | 10YR 5/2 grayish brown clay mottled with 10YR 5/6 yellowish brown clay      |  |
| 2    | F-19 |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown clay loam                                     |  |
| 2    | F-19 |        | II    | 0.9         | 1         | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-2  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-2  |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-20 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown clay loam                                     |  |
| 2    | F-20 |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-21 |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown clay loam                                     |  |
| 2    | F-21 |        | II    | 0.9         | 1         | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-22 |        | I     | 0           | 2         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-22 |        | II    | 2           | 2.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-3  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-3  |        | II    | 1           | 1.01      | 10YR 4/6 dark yellowish brown silty clay                                    |  |
| 2    | F-32 |        | I     | 0           | 1         | 10YR 4/3 brown clay loam  |  |
| 2    | F-32 |        | II    | 1           | 1.1       | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-33 |        | I     | 0           | 1.2       | 10YR 4/3 brown clay loam  |  |
| 2    | F-33 |        | II    | 1.2         | 1.4       | 10YR 5/6 yellowish brown clay   |  |
| 2    | F-34 |        | I     | 0           | 1.1       | 10YR 4/3 brown clay loam  |  |
| 2    | F-34 |        | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-35 |        | I     | 0           | 2.1       | 10YR 4/3 brown clay loam  |  |
| 2    | F-35 |        | II    | 2.1         | 2.11      | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-36 |        | I     | 0           | 0.5       | 10YR 4/3 brown clay loam  |  |
| 2    | F-36 |        | II    | 0.5         | 0.8       | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-37 |        | I     | 0           | 0.2       | 10YR 4/3 brown clay loam  |  |
| 2    | F-37 |        | II    | 0.2         | 0.5       | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-38 |        | I     | 0           | 0.4       | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-39 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown clay loam                                     |  |
| 2    | F-39 |        | II    | 1           | 1.1       | 10YR 5/6 yellowish brown silty clay   |  |
| 2    | F-4  |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown loam  |  |
| 2    | F-4  |        | II    | 1.2         | 1.21      | 10YR 6/6 brownish yellow silty clay   |  |
| 2    | F-40 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown loam  | excavation halted due to proximity of buried fiber optic cable, by brick pile and antique farm machinery |

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|------|------|--------|-------|-------------|-----------|--|---|
| 2    | F-41 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-41 |        | II    | 1.1         | 1.11      | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-42 |        | I     | 0           | 1.4       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-42 |        | II    | 1.4         | 1.41      | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-43 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-43 |        | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-44 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-44 |        | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-45 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-45 |        | II    | 1.1         | 1.2       | 10YR 6/6 brownish yellow silty clay      |   |
| 2    | F-46 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-46 |        | II    | 1.1         | 1.2       | 10YR 6/6 brownish yellow silty clay      |   |
| 2    | F-47 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay loam  |   |
| 2    | F-47 |        | II    | 1.1         | 1.2       | 10YR 6/6 brownish yellow silty clay      |   |
| 2    | F-48 |        |       |             |           | !!NO DIG!!                               | power pole, push/junk pile, end of transect |
| 2    | F-5  |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown loam       |   |
| 2    | F-5  |        | II    | 0.9         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |   |
| 2    | F-6  |        | I     | 0           | 1.5       | 10YR 4/4 dark yellowish brown loam       |   |
| 2    | F-6  |        | II    | 1.5         | 1.51      | 10YR 6/6 brownish yellow silty clay      |   |
| 2    | F-7  |        | I     | 0           | 1.7       | 10YR 4/4 dark yellowish brown loam       |   |
| 2    | F-7  |        | II    | 1.7         | 1.9       | 10YR 4/6 dark yellowish brown silty clay |   |
| 2    | F-8  |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam       |   |
| 2    | F-8  |        | II    | 1.1         | 1.11      | 10YR 4/6 dark yellowish brown silty clay |   |
| 2    | F-9  |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam       |   |
| 2    | F-9  |        | II    | 1.1         | 1.11      | 10YR 4/6 dark yellowish brown silty clay |   |
| 2    | F-9  | South  | I     | 0           | 0.7       | 10YR 4/3 brown silty loam                |   |
| 2    | F-9  | South  | II    | 0.7         | 0.8       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-9  | North  | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam |   |
| 2    | F-9  | North  | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-9  | East   | I     | 0           | 0.7       | 10YR 4/2 dark grayish brown silty loam   |   |
| 2    | F-9  | East   | II    | 0.7         | 0.8       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | F-9  | West   | I     | 0           | 1.1       | 10YR 4/2 dark grayish brown silty loam   |   |
| 2    | F-9  | West   | II    | 1.1         | 1.3       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | G-1  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |   |
| 2    | G-1  |        | II    | 0.2         | 1.6       | 10YR 5/4 yellowish brown silty loam      |   |
| 2    | G-1  |        | III   | 1.6         | 2         | 10YR 4/6 dark yellowish brown silty clay |   |
| 2    | G-10 |        | I     | 0           | 0.1       | 10YR 3/3 dark brown silty loam           |   |
| 2    | G-10 |        | II    | 0.1         | 0.9       | 10YR 5/4 yellowish brown silty loam      |   |
| 2    | G-10 |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay |   |
| 2    | G-10 | West   | I     | 0           | 1.1       | 10YR 4/3 brown loam                      |   |
| 2    | G-10 | West   | II    | 1.1         | 1.3       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | G-10 | North  | I     | 0           | 1         | 10YR 4/2 dark grayish brown loam         |   |
| 2    | G-10 | North  | II    | 1           | 1.1       | 5YR 4/4 reddish brown clay               |   |
| 2    | G-10 | East   | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                |   |
| 2    | G-10 | East   | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | G-10 | South  | I     | 0           | 1         | 10YR 4/3 brown silty loam                |   |
| 2    | G-10 | South  | II    | 1           | 1.1       | 10YR 5/6 yellowish brown silty clay      |   |
| 2    | G-11 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |   |
| 2    | G-11 |        | II    | 0.2         | 0.9       | 10YR 5/4 yellowish brown silty loam      |   |
| 2    | G-11 |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments   |
|------|------|--------|-------|-------------|-----------|---|--|
| 2    | G-12 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  | about 15 degrees North of human-made drainage, very moist soils throughout |
| 2    | G-12 |        | II    | 0.2         | 1.3       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-12 |        | III   | 1.3         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | G-13 |        | I     | 0           | 0.1       | 10YR 3/3 dark brown silty loam  |  |
| 2    | G-13 |        | II    | 0.1         | 0.3       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-13 |        | III   | 0.3         | 1         | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | G-14 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  | level III frequently flooded   |
| 2    | G-14 |        | II    | 0.2         | 1.3       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-14 |        | III   | 1.3         | 1.7       | 50% 10YR 4/6 dark yellowish brown silty clay mottled with 50%<br>10YR 5/8 yellowish brown silty clay                  |  |
| 2    | G-15 |        |       |             |           | !!NO DIG!!  | in center of human-made ditch crossing area of 45 degrees                  |
| 2    | G-16 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam  |  |
| 2    | G-16 |        | II    | 0.4         | 1.1       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-16 |        | III   | 1.1         | 1.5       | 50% 10YR 4/6 dark yellowish brown silty clay mottled with 50%<br>10YR 5/8 yellowish brown silty clay                  |  |
| 2    | G-2  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam  |  |
| 2    | G-2  |        | II    | 0.3         | 0.7       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-2  |        | III   | 0.7         | 1         | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | G-3  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam  |  |
| 2    | G-3  |        | II    | 0.3         | 0.6       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-3  |        | III   | 0.6         | 1         | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | G-34 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |  |
| 2    | G-34 |        | II    | 0.2         | 1.12      | 10YR 4/3 brown silty loam   |  |
| 2    | G-34 |        | III   | 1.12        | 1.46      | 10YR 5/6 yellowish brown silty clay loam  |  |
| 2    | G-35 |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 2    | G-35 |        | II    | 1           | 1.41      | 10YR 5/6 yellowish brown silty clay loam  |  |
| 2    | G-36 |        | I     | 0           | 0.6       | 10YR 3/4 dark yellowish brown silty loam  |  |
| 2    | G-36 |        | II    | 0.6         | 1.02      | 10YR 5/8 yellowish brown silty clay loam  |  |
| 2    | G-37 |        | I     | 0           | 0.93      | 10YR 4/3 brown silty loam with large root present   |  |
| 2    | G-37 |        | II    | 0.93        | 1.3       | 10YR 5/8 yellowish brown silty clay loam  |  |
| 2    | G-38 |        | I     | 0           | 0.95      | 10YR 4/3 brown silty loam with minor roots  |  |
| 2    | G-38 |        | II    | 0.95        | 1.27      | 10YR 5/8 yellowish brown silty clay loam  |  |
| 2    | G-38 | North  | I     | 0           | 0.72      | 10YR 4/4 dark yellowish brown silty loam mottled with 30% 10YR<br>5/6 yellowish brown silty sandy loam disturbed fill |  |
| 2    | G-38 | North  | II    | 0.72        | 1         | 10YR 5/6 yellowish brown silty sandy loam   |  |
| 2    | G-38 | South  | I     | 0           | 0.95      | 10YR 4/4 dark yellowish brown silty loam  |  |
| 2    | G-38 | South  | II    | 0.95        | 1.33      | 10YR 5/6 yellowish brown silty sandy loam   |  |
| 2    | G-39 |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam   |  |
| 2    | G-39 |        | II    | 1.5         | 1.83      | 10YR 5/6 yellowish brown silty clay loam  |  |
| 2    | G-4  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam  |  |
| 2    | G-4  |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam   |  |
| 2    | G-4  |        | III   | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 2    | G-40 |        |       |             |           | !!NO DIG!!  | directly on marked fiber optic cable line                                  |
| 2    | G-41 |        |       |             |           | !!NO DIG!!  | in the middle of the tenant's garden                                       |
| 2    | G-42 |        | I     | 0           | 0.91      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 2    | G-42 |        | II    | 1.3         | 1.27      | 10YR 5/8 yellowish brown silty clay   |  |
| 2    | G-43 |        | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam with 35% gravels/ cobbles  |  |
| 2    | G-43 |        | II    | 0.91        | 1.33      | 10YR 5/8 yellowish brown silty clay   |  |
| 2    | G-44 |        | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam with 10% gravels   |  |
| 2    | G-44 |        | II    | 0.95        | 1.33      | 10YR 5/6 yellowish brown silty clay   |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments                |
|------|------|--------|-------|-------------|-----------|--|-------------------------|
| 2    | G-45 |        | I     | 0           | 1.37      | 10YR 3/4 dark yellowish brown silty loam                     | end of transect         |
| 2    | G-45 |        | II    | 1.37        | 1.62      | 10YR 5/6 yellowish brown silty clay                          |                         |
| 2    | G-46 |        | I     | 0           | 1.3       | 10YR 3/4 dark yellowish brown silty loam                     |                         |
| 2    | G-46 |        | II    | 1.3         | 1.62      | 10YR 5/6 yellowish brown silty clay                          |                         |
| 2    | G-47 |        | I     | 0           | 1.25      | 10YR 3/4 dark yellowish brown silty loam                     |                         |
| 2    | G-47 |        | II    | 1.25        | 1.57      | 10YR 5/6 yellowish brown silty clay                          |                         |
| 2    | G-48 |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty loam                     | end of transect         |
| 2    | G-48 |        | II    | 1.1         | 1.52      | 10YR 5/6 yellowish brown silty clay                          |                         |
| 2    | G-5  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | G-5  |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam                          |                         |
| 2    | G-5  |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | G-6  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | G-6  |        | II    | 0.3         | 1.1       | 10YR 5/4 yellowish brown silty loam                          |                         |
| 2    | G-6  |        | III   | 1.1         | 1.5       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | G-7  |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | G-7  |        | II    | 0.4         | 1         | 10YR 5/4 yellowish brown silty loam                          |                         |
| 2    | G-7  |        | III   | 1           | 1.3       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | G-8  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | G-8  |        | II    | 0.3         | 0.9       | 10YR 5/4 yellowish brown silty loam                          |                         |
| 2    | G-8  |        | III   | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | G-8  | North  | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam                           |                         |
| 2    | G-8  | North  | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay                          |                         |
| 2    | G-8  | South  | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown loam                           |                         |
| 2    | G-8  | South  | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay                          |                         |
| 2    | G-8  | West   | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown silty loam with 40% gravels |                         |
| 2    | G-8  | West   | II    | 0.8         | 1.1       | 5YR 4/4 reddish brown sand with heavy gravel                 |                         |
| 2    | G-8  | East   | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam with 20% gravel               |                         |
| 2    | G-8  | East   | II    | 0.7         | 1         | 5YR 4/4 reddish brown silty clay                             |                         |
| 2    | G-9  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | G-9  |        | II    | 0.3         | 0.8       | 10YR 5/4 yellowish brown silty loam                          |                         |
| 2    | G-9  |        | III   | 0.8         | 1.2       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | H-1  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | H-1  |        | II    | 0.2         | 2.1       | 10YR 4/3 brown silty loam                                    |                         |
| 2    | H-1  |        | III   | 2.1         | 2.5       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | H-10 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | H-10 |        | II    | 0.3         | 0.8       | 10YR 4/3 brown silty clay loam                               |                         |
| 2    | H-10 |        | III   | 0.8         | 1.2       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | H-11 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | H-11 |        | II    | 0.7         | 0.7       | 10YR 4/3 brown silty clay loam                               |                         |
| 2    | H-11 |        | III   | 1.1         | 1.1       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | H-12 |        |       |             |           | !!NO DIG!!   | wetland                 |
| 2    | H-13 |        |       |             |           | !!NO DIG!!   | wetland                 |
| 2    | H-14 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam                               | hit water table at 1'   |
| 2    | H-14 |        | II    | 0.4         | 1         | 10YR 4/3 brown silty clay loam                               |                         |
| 2    | H-15 |        | I     | 0           | 0.2       | 10YR 2/1 black silty loam                                    | hit water table at 0.9' |
| 2    | H-15 |        | II    | 0.2         | 0.9       | 2.5Y 5/4 light olive brown silty clay                        |                         |
| 2    | H-2  |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                               |                         |
| 2    | H-2  |        | II    | 0.3         | 0.7       | 10YR 4/3 brown silty loam                                    |                         |
| 2    | H-2  |        | III   | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay                     |                         |
| 2    | H-3  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                               |                         |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                               | Comments                   |
|------|------|--------|-------|-------------|-----------|--|----------------------------|
| 2    | H-3  |        | II    | 0.2         | 0.6       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-3  |        | III   | 0.6         | 1         | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-36 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-36 |        | II    | 0.2         | 1.9       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-36 |        | III   | 1.9         | 2.6       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-37 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-37 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-37 |        | III   | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-38 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-38 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-38 |        | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-39 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 | end of wooded area         |
| 2    | H-39 |        | II    | 0.2         | 1.2       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-39 |        | III   | 1.2         | 2.7       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-4  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-4  |        | II    | 0.2         | 0.6       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-4  |        | III   | 0.6         | 1         | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-40 |        |       |             |           | !!NO DIG!!                                     | underground cable          |
| 2    | H-41 |        | I     | 0           | 1         | 10YR 4/3 brown silty clay                      |                            |
| 2    | H-41 |        | II    | 1           | 1.6       | 10YR 4/4 dark yellowish brown silty clay       |                            |
| 2    | H-42 |        | I     | 0           | 1.5       | 10YR 4/3 brown silty clay                      |                            |
| 2    | H-42 |        | II    | 1.5         | 2.1       | 10YR 4/4 dark yellowish brown silty clay       |                            |
| 2    | H-43 |        | I     | 0           | 0.5       | 10YR 4/3 brown silty loam                      | root impasse               |
| 2    | H-5  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-5  |        | II    | 0.2         | 0.5       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-5  |        | III   | 0.5         | 0.9       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-6  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-6  |        | II    | 0.2         | 0.4       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-6  |        | III   | 0.4         | 0.8       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-7  |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-7  |        | II    | 0.4         | 0.9       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-7  |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-8  | South  | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam with 20% gravel |                            |
| 2    | H-8  | South  | II    | 0.8         | 1         | 5YR 4/4 reddish brown silty clay               |                            |
| 2    | H-8  | North  | I     | 0           | 1.3       | 10YR 3/3 dark brown silty loam with 20% gravel |                            |
| 2    | H-8  | North  | II    | 1.3         | 1.31      | 5YR 4/4 reddish brown silty clay               |                            |
| 2    | H-8  | East   | I     | 0           | 0.8       | 10YR 3/3 dark brown silty loam with 20% gravel |                            |
| 2    | H-8  | East   | II    | 0.8         | 1         | 5YR 4/4 reddish brown silty clay               |                            |
| 2    | H-8  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-8  |        | II    | 0.2         | 1.3       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-8  |        | III   | 1.3         | 1.7       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | H-9  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |                            |
| 2    | H-9  |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam                      |                            |
| 2    | H-9  |        | III   | 1.1         | 1.5       | 10YR 4/6 dark yellowish brown silty clay       |                            |
| 2    | I-1  |        | I     | 0           | 0.25      | 7.5YR 2.5/2 very dark brown organic silty loam |                            |
| 2    | I-1  |        | II    | 0.25        | 0.8       | 10YR 3/4 dark yellowish brown silty loam       |                            |
| 2    | I-1  |        | III   | 0.8         | 1.2       | 10YR 5/4 yellowish brown sandy silty loam      |                            |
| 2    | I-10 |        | I     | 0           | 0.85      | 10YR 3/4 dark yellowish brown silty loam       |                            |
| 2    | I-10 |        | II    | 0.85        | 1.32      | 7.5YR 5/6 strong brown sandy silty loam        |                            |
| 2    | I-11 |        | I     | 0           | 0.2       | 10YR 3/4 dark yellowish brown silty loam       | offset from transect J 36' |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                               | Comments   |
|------|------|--------|-------|-------------|-----------|--|--|
| 2    | I-11 |        | II    | 0.2         | 0.43      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-12 |        |       |             |           | !!NO DIG!!                                     | flood plain, water table, offset from transect J 36' |
| 2    | I-13 |        |       |             |           | !!NO DIG!!                                     | flood plain, water table, offset from transect J 36' |
| 2    | I-14 |        | I     | 0           | 0.86      | 10YR 3/4 dark yellowish brown silty loam       | offset about 36'                                     |
| 2    | I-14 |        | II    | 0.86        | 1.33      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-2  |        | I     | 0           | 0.2       | 7.5YR 2.5/2 very dark brown organic silty loam |  |
| 2    | I-2  |        | II    | 0.2         | 0.85      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-2  |        | III   | 0.85        | 1.35      | 10YR 5/4 yellowish brown sandy silty loam      |  |
| 2    | I-3  |        | I     | 0           | 0.2       | 7.5YR 2.5/2 very dark brown organic silty loam |  |
| 2    | I-3  |        | II    | 0.2         | 0.8       | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-3  |        | III   | 0.8         | 1.3       | 10YR 5/4 yellowish brown sandy silty loam      |  |
| 2    | I-38 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |  |
| 2    | I-38 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                      |  |
| 2    | I-38 |        | III   | 0.9         | 1.7       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 2    | I-39 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                 |  |
| 2    | I-39 |        | II    | 0.3         | 1.1       | 10YR 4/3 brown silty loam                      |  |
| 2    | I-39 |        | III   | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 2    | I-4  |        | I     | 0           | 0.61      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-4  |        | II    | 0.61        | 1.02      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-40 |        |       |             |           | !!NO DIG!!                                     | buried cables  |
| 2    | I-41 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                      | end of transect, in grass                            |
| 2    | I-41 |        | II    | 1.2         | 1.9       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 2    | I-5  |        | I     | 0           | 0.59      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-5  |        | II    | 0.59        | 1.05      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-6  |        | I     | 0           | 0.61      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-6  |        | II    | 0.61        | 1.13      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-7  |        | I     | 0           | 0.63      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-7  |        | II    | 0.63        | 1.11      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-8  |        | I     | 0           | 0.6       | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-8  |        | II    | 0.6         | 1.03      | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | I-9  |        | I     | 0           | 1.01      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 2    | I-9  |        | II    | 1.01        | 1.4       | 7.5YR 5/6 strong brown sandy silty loam        |  |
| 2    | J-1  |        | I     | 0           | 2.5       | 10YR 4/3 brown loam                            |  |
| 2    | J-1  |        | II    | 2.5         | 2.51      | 10YR 6/4 light yellowish brown silty clay      |  |
| 2    | J-10 |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam                      |  |
| 2    | J-10 |        | II    | 0.6         | 1         | 10YR 5/6 yellowish brown silty clay            |  |
| 2    | J-11 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty loam                      |  |
| 2    | J-11 |        | II    | 0.7         | 0.8       | 7.5YR 5/8 strong brown silty clay              |  |
| 2    | J-12 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown clay loam        |  |
| 2    | J-12 |        | II    | 0.6         | 1         | 10YR 6/6 brownish yellow silty clay            |  |
| 2    | J-13 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown clay loam        |  |
| 2    | J-13 |        | II    | 0.6         | 0.8       | 7.5YR 5/8 strong brown silty clay              |  |
| 2    | J-2  |        | I     | 0           | 1.7       | 10YR 4/3 brown loam                            |  |
| 2    | J-2  |        | II    | 1.7         | 1.71      | 10YR 5/6 yellowish brown sand                  |  |
| 2    | J-3  |        | I     | 0           | 3.5       | 10YR 4/4 dark yellowish brown loam             |  |
| 2    | J-3  |        | II    | 3.5         | 3.51      | 10YR 5/6 yellowish brown sand                  |  |
| 2    | J-4  |        | I     | 0           | 0.7       | 10YR 4/3 brown loam                            |  |
| 2    | J-4  |        | II    | 0.7         | 2         | 10YR 4/4 dark yellowish brown clay loam        |  |
| 2    | J-4  |        | III   | 2           | 2.01      | 10YR 5/6 yellowish brown clay sand             |  |
| 2    | J-5  |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown loam             |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                               | Comments  |
|------|------|--------|-------|-------------|-----------|--|---|
| 2    | J-5  |        | II    | 1.1         | 1.11      | 10YR 5/6 yellowish brown silty clay            |   |
| 2    | J-6  |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown loam             | high gravel, soap stone, brick discarded  |
| 2    | J-6  |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay            |   |
| 2    | J-7  |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam                      |   |
| 2    | J-7  |        | II    | 0.6         | 1.6       | 7.5YR 5/6 strong brown sand                    |   |
| 2    | J-8  |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam                      |   |
| 2    | J-8  |        | II    | 0.6         | 1         | 10YR 5/6 yellowish brown silty clay            |   |
| 2    | J-9  |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam                      | 1 brick fragment discarded  |
| 2    | J-9  |        | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown silty clay            |   |
| 2    | K-10 |        | I     | 0           | 1.02      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-10 |        | II    | 1.02        | 1.41      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-11 |        | I     | 0           | 0.89      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-11 |        | II    | 0.89        | 1.2       | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-4  | East   | I     | 0           | 0.21      | 7.5YR 2.5/2 very dark brown organic silty loam |   |
| 2    | K-4  | East   | II    | 0.21        | 0.87      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-4  | East   | III   | 0.87        | 1.41      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-5  |        | I     | 0           | 1.03      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-5  |        | II    | 1.03        | 1.37      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-6  |        | I     | 0           | 1.05      | 10YR 3/4 dark yellowish brown silty loam       | 1 brick fragment discarded  |
| 2    | K-6  |        | II    | 1.05        | 1.38      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-7  |        | I     | 0           | 0.63      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-7  |        | II    | 0.63        | 1.03      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-8  |        | I     | 0           | 0.65      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-8  |        | II    | 0.65        | 1.02      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | K-9  |        | I     | 0           | 1.07      | 10YR 3/4 dark yellowish brown silty loam       |   |
| 2    | K-9  |        | II    | 1.07        | 1.39      | 10YR 5/4 yellowish brown silty sandy loam      |   |
| 2    | X-38 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty clay loam                 | end of transect, located adjacent to fence, halted excavation due to impenetrable rocks and roots     |
| 2    | X-39 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam                 |   |
| 2    | X-40 |        | I     | 0           | 0.6       | 10YR 4/3 brown silty clay loam                 | end of transect, located near edge of artificial drain channel, no more STPs on transect to the North |
| 2    | X-40 |        | II    | 0.6         | 1.3       | 10YR 5/6 yellowish brown silty clay            |   |
| 2    | Y-19 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |   |
| 2    | Y-19 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam                      |   |
| 2    | Y-19 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay       |   |
| 2    | Y-20 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |   |
| 2    | Y-20 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty loam                      |   |
| 2    | Y-20 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay       |   |
| 2    | Y-23 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |   |
| 2    | Y-23 |        | II    | 0.2         | 0.6       | 10YR 4/3 brown silty clay loam                 |   |
| 2    | Y-23 |        | III   | 0.6         | 1         | 2.5YR 5/8 red clay loam                        |   |
| 2    | Y-24 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |   |
| 2    | Y-24 |        | II    | 0.2         | 1         | 10YR 4/3 brown silty clay loam                 |   |
| 2    | Y-24 |        | III   | 1           | 1.4       | 10YR 4/6 dark yellowish brown silty clay       |   |
| 2    | Y-25 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam                 |   |
| 2    | Y-25 |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty clay loam                 |   |
| 2    | Y-25 |        | III   | 1.1         | 1.3       | 10YR 4/6 dark yellowish brown silty clay       |   |
| 2    | Y-26 |        | I     | 0           | 0.1       | 10YR 3/3 dark brown silty loam                 |   |
| 2    | Y-26 |        | II    | 0.1         | 1         | 10YR 4/3 brown silty clay loam                 |   |
| 2    | Y-26 |        | III   | 1           | 1.3       | 10YR 4/6 dark yellowish brown silty clay       |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                         | Comments              |
|------|------|--------|-------|-------------|-----------|--|-----------------------|
| 2    | Y-27 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-27 |        | II    | 0.2         | 0.8       | 10YR 4/3 brown silty clay loam           |                       |
| 2    | Y-27 |        | III   | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-28 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-28 |        | II    | 0.2         | 0.7       | 10YR 4/3 brown silty clay loam           |                       |
| 2    | Y-28 |        | III   | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-29 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-29 |        | II    | 0.3         | 0.8       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-29 |        | III   | 0.8         | 1.2       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-30 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-30 |        | II    | 0.3         | 1         | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-30 |        | III   | 1           | 1.4       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-31 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-31 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-31 |        | III   | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-32 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-32 |        | II    | 0.2         | 0.6       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-32 |        | III   | 0.6         | 1         | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-33 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-33 |        | II    | 0.2         | 0.6       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-33 |        | III   | 0.6         | 1         | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-34 |        | I     | 0           | 0.1       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-34 |        | II    | 0.1         | 0.7       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-34 |        | III   | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-35 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-35 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-35 |        | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-36 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-36 |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-36 |        | III   | 1.1         | 1.8       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-37 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-37 |        | II    | 0.2         | 1.1       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-37 |        | III   | 1.1         | 1.8       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-38 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-38 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-38 |        | III   | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-39 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-39 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-39 |        | III   | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-40 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-40 |        | II    | 0.2         | 0.8       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-40 |        | III   | 0.8         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Y-41 |        |       |             |           | !!NO DIG!!                               | underground utility   |
| 2    | Y-42 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam           |                       |
| 2    | Y-42 |        | II    | 0.2         | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 2    | Y-42 |        | III   | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 2    | Z-12 |        | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown silty loam | beginning of transect |
| 2    | Z-12 |        | II    | 0.5         | 1.1       | 10YR 5/6 yellowish brown silty clay loam |                       |
| 2    | Z-13 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam |                       |
| 2    | Z-13 |        | II    | 0.6         | 1.2       | 10YR 5/6 yellowish brown silty clay loam |                       |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                          | Comments  |
|------|------|--------|-------|-------------|-----------|---|---|
| 2    | Z-14 |        | I     | 0           | 0.4       | 10YR 4/4 dark yellowish brown silty loam  | halted due to root impasse  |
| 2    | Z-14 |        | II    | 0.4         | 0.7       | 10YR 5/6 yellowish brown silty clay loam  |   |
| 2    | Z-15 |        | I     | 0           | 0.7       | 10YR 4/4 dark yellowish brown silty loam  | located near sewer pipes  |
| 2    | Z-15 |        | II    | 0.7         | 1.2       | 10YR 5/6 yellowish brown silty clay loam  |   |
| 2    | Z-16 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown silty loam  | some modern debris observed in top of STP, bottle caps                                |
| 2    | Z-16 |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay loam  |   |
| 2    | Z-17 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam  | modern trash not collected, additional debris on surface near STP location            |
| 2    | Z-17 |        | II    | 0.6         | 1.2       | 10YR 5/6 yellowish brown silty clay loam  |   |
| 2    | Z-18 |        | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown silty loam  | located near cattle shuttle/ fence entrance   |
| 2    | Z-18 |        | II    | 0.5         | 1.1       | 10YR 5/6 yellowish brown silty clay loam  |   |
| 2    | Z-19 |        | I     | 0           | 1.13      | 10YR 4/4 dark yellowish brown silty loam  | fairly new growth forest, no evidence of disturbance since initial completion of SR 1 |
| 2    | Z-19 |        | II    | 1.13        | 1.38      | 10YR 5/6 yellowish brown silty sandy loam |   |
| 2    | Z-20 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam  | located about 30 feet North of fence encompassing wetland area                        |
| 2    | Z-20 |        | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown silty clay loam  |   |
| 2    | Z-24 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam            |   |
| 2    | Z-24 |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-25 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty clay loam            |   |
| 2    | Z-25 |        | II    | 0.7         | 1.1       | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-26 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-26 |        | II    | 1.1         | 1.11      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-27 |        | I     | 0           | 0.6       | 10YR 4/3 brown silty clay loam            |   |
| 2    | Z-27 |        | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-28 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-28 |        | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-29 |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-29 |        | II    | 0.9         | 0.91      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-30 |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-30 |        | II    | 1.2         | 1.21      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-31 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-31 |        | II    | 1           | 1.01      | 10YR 6/6 brownish yellow silty clay       |   |
| 2    | Z-32 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-32 |        | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-33 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-33 |        | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-34 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-34 |        | II    | 0.8         | 0.81      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-35 |        | I     | 0           | 0.7       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 2    | Z-35 |        | II    | 0.7         | 0.71      | 10YR 5/6 yellowish brown silty clay       |   |
| 2    | Z-36 |        | I     | 0           | 0.6       | 10YR 3/3 dark brown silty loam            |   |
| 2    | Z-36 |        | II    | 0.6         | 1         | 10YR 4/4 dark yellowish brown silty clay  |   |
| 2    | Z-37 |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam            |   |
| 2    | Z-37 |        | II    | 0.7         | 1         | 10YR 4/4 dark yellowish brown silty clay  |   |
| 2    | Z-38 |        | I     | 0           | 0.6       | 10YR 3/3 dark brown silty loam            |   |
| 2    | Z-38 |        | II    | 0.6         | 1         | 10YR 4/4 dark yellowish brown silty clay  |   |
| 2    | Z-39 |        | I     | 0           | 0.6       | 10YR 3/3 dark brown silty loam            |   |
| 2    | Z-39 |        | II    | 0.6         | 1         | 10YR 4/4 dark yellowish brown silty clay  |   |
| 2    | Z-40 |        | I     | 0           | 0.7       | 10YR 3/3 dark brown silty loam            |   |
| 2    | Z-40 |        | II    | 0.7         | 1         | 10YR 4/4 dark yellowish brown silty clay  |   |
| 2    | Z-41 |        |       |             |           | !!NO DIG!!                                | utility line running East to West   |
| 2    | Z-42 |        | I     | 0           | 1.2       | 10YR 3/3 dark brown silty loam            |   |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description   | Comments  |
|------|-------|--------|-------|-------------|-----------|--|---|
| 2    | Z-42  |        | II    | 1.2         | 1.21      | 10YR 4/4 dark yellowish brown silty clay   |   |
| 2    | Z-43  |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam   | end of transect, halted due to impenetrable roots |
| 3    | A-11  |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam  |   |
| 3    | A-11  |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-13  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam  |   |
| 3    | A-13  |        | II    | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty loam   |   |
| 3    | A-15  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam  |   |
| 3    | A-15  |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty loam   |   |
| 3    | A-17  |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam  |   |
| 3    | A-17  |        | II    | 0.8         | 1.6       | 10YR 4/6 dark yellowish brown silty sand   |   |
| 3    | A-17  | North  | I     | 0           | 1.1       | 10YR 4/3 brown silty loam  |   |
| 3    | A-17  | North  | II    | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-17  | West   | I     | 0           | 1.4       | 10YR 4/3 brown silty loam  |   |
| 3    | A-17  | West   | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-17  | South  | I     | 0           | 1.2       | 10YR 4/3 brown silty loam  |   |
| 3    | A-17  | South  | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-19  |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam  |   |
| 3    | A-19  |        | II    | 0.8         | 1.4       | 10YR 4/6 dark yellowish brown silty sand   |   |
| 3    | A-21  |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam  | end of transect                                   |
| 3    | A-21  |        | II    | 1.3         | 1.7       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-3   |        | I     | 0           | 0.8       | 10YR 4/2 dark grayish brown silty loam   |   |
| 3    | A-3   |        | II    | 0.8         | 1.4       | 10YR 4/6 dark yellowish brown silty loam   |   |
| 3    | A-5   |        | I     | 0           | 0.9       | 10YR 4/2 dark grayish brown silty loam   |   |
| 3    | A-5   |        | II    | 0.9         | 1.4       | 10YR 4/6 dark yellowish brown silty loam   |   |
| 3    | A-7   |        | I     | 0           | 1         | 10YR 4/2 dark grayish brown silty loam   |   |
| 3    | A-7   |        | II    | 1           | 1.5       | 10YR 4/6 dark yellowish brown silty loam   |   |
| 3    | A-7   | North  | I     | 0           | 1.3       | 10YR 4/3 brown silty loam  |   |
| 3    | A-7   | North  | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-7   | West   | I     | 0           | 1.1       | 10YR 4/3 brown silty loam  |   |
| 3    | A-7   | West   | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-7   | South  | I     | 0           | 1.1       | 10YR 4/3 brown silty loam  |   |
| 3    | A-7   | South  | II    | 1.1         | 1.6       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | A-9   |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam  |   |
| 3    | A-9   |        | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay   |   |
| 3    | AA-12 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty loam (70%) mottled with 10YR 6/8 brownish yellow silty clay (30%) | disturbed   |
| 3    | AA-12 |        | II    | 0.7         | 1.5       | 10YR 4/3 brown silty loam  |   |
| 3    | AA-12 |        | III   | 1.5         | 1.9       | 10YR 5/6 yellowish brown silty clay  |   |
| 3    | AA-13 |        | I     | 0           | 1         | 10YR 4/3 brown silty loam (70%) mottled with 10YR 6/8 brownish yellow silty clay (30%) | disturbed   |
| 3    | AA-13 |        | II    | 1           | 1.9       | 10YR 4/3 brown silty loam  |   |
| 3    | AA-13 |        | III   | 1.9         | 2.3       | 10YR 5/6 yellowish brown silty clay  |   |
| 3    | AA-14 |        |       |             |           | !!NO DIG!!   | rubble pile (cinder block, concrete)              |
| 3    | AA-15 |        |       |             |           | !!NO DIG!!   | rubble pile (asphalt, branches)                   |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description                                  | Comments                      |
|------|-------|--------|-------|-------------|-----------|---|-------------------------------|
| 3    | AA-16 |        |       |             |           | !!NO DIG!!  | push piles (gravel, branches) |
| 3    | AA-17 |        | I     | 0           | 1.1       | 10YR 4/3 brown clay loam                          |                               |
| 3    | AA-17 |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay               |                               |
| 3    | AA-18 |        |       |             |           | !!NO DIG!!  | gravel road                   |
| 3    | AA-19 |        |       |             |           | !!NO DIG!!  | gravel road                   |
| 3    | B-1   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam                         | some coal present in STP      |
| 3    | B-1   |        | II    | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-11  | West   | I     | 0           | 1.3       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-11  | West   | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-11  | East   | I     | 0           | 1.5       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-11  | East   | II    | 1.5         | 1.9       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-11  | South  | I     | 0           | 1.4       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-11  | South  | II    | 1.4         | 1.9       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-11  |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-11  |        | II    | 1.5         | 1.8       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-13  |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-13  |        | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-13  | North  | I     | 0           | 1.4       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-13  | North  | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-13  | West   | I     | 0           | 1.5       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-13  | West   | II    | 1.5         | 1.8       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-13  | East   | I     | 0           | 1.4       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-13  | East   | II    | 1.4         | 1.8       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-13  | South  | I     | 0           | 1.3       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-13  | South  | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-15  |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-15  |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-3   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-3   |        | II    | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-5   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-5   |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-7   |        | I     | 0           | 1.6       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-7   |        | II    | 1.6         | 1.9       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | B-9   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                         |                               |
| 3    | B-9   |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | BB-11 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam with 50% medium gravels | end of transect               |
| 3    | BB-11 |        | II    | 1.2         | 1.8       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | BB-13 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                         |                               |
| 3    | BB-13 |        | II    | 1.2         | 1.8       | 10YR 4/6 dark yellowish brown silty clay          |                               |
| 3    | BB-15 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam                         | geotech fabric                |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description  | Comments  |
|------|-------|--------|-------|-------------|-----------|---|---|
| 3    | BB-17 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam   |   |
| 3    | BB-17 |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | BB-19 |        | I     | 0           | 0.3       | 10YR 4/3 brown with heavy compact gravels   | near roadway  |
| 3    | BB-21 |        | I     | 0           | 1.6       | 10YR 4/3 brown mottled with 10YR 5/6 yellowish brown silty clay with 60% medium gravels | disturbed compaction increasing with depth, near dirt/ gravel road                |
| 3    | C-1   |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |   |
| 3    | C-1   |        | II    | 0.8         | 1.4       | 10YR 4/6 dark yellowish brown silty sand  |   |
| 3    | C-11  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | C-11  |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-13  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | C-13  |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-15  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   | end of transect   |
| 3    | C-15  |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-3   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay   |   |
| 3    | C-3   |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-5   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay   |   |
| 3    | C-5   |        | II    | 1.2         | 1.8       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-7   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay   |   |
| 3    | C-7   |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-9   |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |   |
| 3    | C-9   |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-9   | East   | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | C-9   | East   | II    | 0.9         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-9   | South  | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | C-9   | South  | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | C-9   | North  | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | C-9   | North  | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | CC-11 |        | I     | 0           | 1.8       | 10YR 4/3 brown silty loam   | end of transect   |
| 3    | CC-11 |        | II    | 1.8         | 2.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | CC-13 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam   |   |
| 3    | CC-13 |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | CC-15 |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   | modern trash in level I discarded   |
| 3    | CC-15 |        | II    | 1           | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | CC-17 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam with 40% medium gravels fill                             | There was some ceramic tile and modern glass found in level I that was discarded. |
| 3    | CC-17 |        | II    | 0.4         | 1         | 10YR 4/3 brown silty loam   |   |
| 3    | CC-17 |        | III   | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | CC-19 |        |       |             |           | !!NO DIG!!  | road  |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description  | Comments   |
|------|-------|--------|-------|-------------|-----------|---|--|
| 3    | CC-21 |        | I     | 0           | 1.4       | disturbed fill 10YR 4/3 brown mottled with 10YR 5/6 yellowish brown silty clay with 60% medium gravels              | compaction increases with depth  |
| 3    | D-1   |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 3    | D-1   |        | II    | 1           | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-11  |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 3    | D-11  |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-13  |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 3    | D-13  |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-3   |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam   |  |
| 3    | D-3   |        | II    | 1.3         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-5   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam   |  |
| 3    | D-5   |        | II    | 1.1         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-7   |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 3    | D-7   |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D9    | East   | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 3    | D9    | East   | II    | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-9   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 3    | D-9   |        | II    | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-9   | West   | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 3    | D-9   | West   | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-9   | South  | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |  |
| 3    | D-9   | South  | II    | 0.8         | 1.4       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | D-9   | North  | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 3    | D-9   | North  | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | DD-13 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam   | end of transect  |
| 3    | DD-13 |        | II    | 1.2         | 1.8       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | DD-15 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam   |  |
| 3    | DD-15 |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | DD-17 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 3    | DD-17 |        | II    | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | DD-19 |        |       |             |           | !!NO DIG!!  | road   |
| 3    | DD-21 |        | I     | 0           | 1         | fill consisting of 10YR 4/3 brown mottled with 10YR 5/6 yellowish brown silty clay with 50% gravels and 10% asphalt | compaction increases with depth  |
| 3    | DD-23 |        | I     | 0           | 0.9       | fill consisting of 10YR 4/3 brown mottled with 10YR 5/6 yellowish brown silty clay with 50% gravels and 10% asphalt | cement present in test, parking lot located approximately 150' northeast of test                 |
| 3    | DD-25 |        | I     | 0           | 1         | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty clay with 40% gravels and asphalt                   | modern trash present in STP, parking lot is approximately 100' northeast of STP, end of transect |
| 3    | E-1   |        | I     | 0           | 1.25      | 10YR 3/4 dark yellowish brown silty loam  | less than 5% pebbles   |
| 3    | E-1   |        | II    | 1.25        | 1.57      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-11  |        | I     | 0           | 1.05      | 10YR 3/4 dark yellowish brown silty loam  | end of transect  |
| 3    | E-11  |        | II    | 1.05        | 1.45      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-11  | East   | I     | 0           | 0.82      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | E-11  | East   | II    | 0.82        | 1.22      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-11  | South  | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam  |  |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description  | Comments   |
|------|-------|--------|-------|-------------|-----------|---|--|
| 3    | E-11  | South  | II    | 0.95        | 1.35      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-11  | West   | I     | 0           | 1.4       | 10YR 3/4 dark yellowish brown silty loam  | water began to fill the STP at 1.8'  |
| 3    | E-11  | West   | II    | 1.4         | 1.8       | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-3   |        | I     | 0           | 1.3       | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | E-3   |        | II    | 1.3         | 1.66      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-5   |        | I     | 0           | 1.05      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | E-5   |        | II    | 1.05        | 1.43      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-7   |        | I     | 0           | 1.2       | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | E-7   |        | II    | 1.2         | 1.6       | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | E-9   |        | I     | 0           | 1.25      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | E-9   |        | II    | 1.25        | 1.65      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | EE-15 |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam  |  |
| 3    | EE-15 |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay loam  |  |
| 3    | EE-17 |        | I     | 0           | 1.2       | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | EE-17 |        | II    | 1.2         | 1.6       | 10YR 5/8 yellowish brown silty clay loam  |  |
| 3    | EE-19 |        |       |             |           | !!NO DIG!!  | in road bed  |
| 3    | EE-21 |        | I     | 0           | 1.3       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty clay with 40% gravels and asphalt |  |
| 3    | EE-23 |        | I     | 0           | 1.2       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty clay with 40% gravels and asphalt |  |
| 3    | EE-25 |        | I     | 0           | 1.1       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty clay with 40% gravels and asphalt |  |
| 3    | F-1   |        | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | F-1   |        | II    | 0.95        | 1.35      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | F-3   |        | I     | 0           | 0.92      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | F-3   |        | II    | 0.92        | 1.32      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | F-5   |        | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | F-5   |        | II    | 0.95        | 1.35      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | F-7   |        | I     | 0           | 0.9       | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | F-7   |        | II    | 0.9         | 1.3       | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | F-9   |        | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam  | on the fringe of formerly standing water, now frozen over, end of transect |
| 3    | F-9   |        | II    | 0.95        | 1.35      | 7.5YR 4/6 strong brown silty clay   |  |
| 3    | FF-17 |        | I     | 0           | 0.95      | 10YR 3/3 dark brown silty loam  |  |
| 3    | FF-17 |        | II    | 0.95        | 1.35      | 7.5YR 4/6 strong brown silty clay loam  |  |
| 3    | FF-19 |        |       |             |           | !!NO DIG!!  | in roadway along tree line   |
| 3    | FF-21 |        |       |             |           | !!NO DIG!!  | on slope in drainage ditch   |
| 3    | FF-23 |        | I     | 0           | 1.4       | 10YR 3/4 dark yellowish brown silty loam  |  |
| 3    | FF-23 |        | II    | 1.4         | 1.8       | 7.5YR 4/6 strong brown silty clay loam  |  |
| 3    | FF-25 |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty loam  |  |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description                         | Comments          |
|------|-------|--------|-------|-------------|-----------|--|-------------------|
| 3    | FF-25 |        | II    | 1.1         | 1.5       | 10YR 5/4 yellowish brown silty clay loam |                   |
| 3    | FF-27 |        | I     | 0           | 1.3       | 10YR 3/3 dark brown silty loam           |                   |
| 3    | FF-27 |        | II    | 1.3         | 1.7       | 10YR 5/6 yellowish brown silty clay loam |                   |
| 3    | G-1   |        | I     | 0           | 0.75      | 10YR 3/4 dark grayish brown silty loam   |                   |
| 3    | G-1   |        | II    | 0.75        | 1.2       | 7.5YR 4/6 strong brown silty clay        |                   |
| 3    | G-3   |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam           |                   |
| 3    | G-3   |        | II    | 0.9         | 1.3       | 7.5YR 4/6 strong brown silty clay        |                   |
| 3    | G-5   |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam           |                   |
| 3    | G-5   |        | II    | 0.9         | 1.2       | 7.5YR 4/6 strong brown silty clay        |                   |
| 3    | G-7   |        | I     | 0           | 0.93      | 10YR 3/3 dark brown silty loam           |                   |
| 3    | G-7   |        | II    | 0.93        | 1.33      | 7.5YR 4/6 strong brown silty clay        |                   |
| 3    | G-9   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam           |                   |
| 3    | G-9   |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | GG-17 |        | I     | 0           | 1.2       | 10YR 3/4 dark yellowish brown silty loam |                   |
| 3    | GG-17 |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay loam |                   |
| 3    | GG-19 |        |       |             |           | !!NO DIG!!                               | in road bed       |
| 3    | GG-21 |        |       |             |           | !!NO DIG!!                               | in drainage ditch |
| 3    | GG-23 |        | I     | 0           | 0.85      | 10YR 3/4 dark yellowish brown silty loam |                   |
| 3    | GG-23 |        | II    | 0.85        | 1.25      | 10YR 5/6 yellowish brown silty clay loam |                   |
| 3    | GG-25 |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty loam |                   |
| 3    | GG-25 |        | II    | 1.1         | 1.5       | 10YR 5/4 yellowish brown silty clay loam |                   |
| 3    | GG-27 |        | I     | 0           | 1.4       | 10YR 3/4 dark yellowish brown silty loam |                   |
| 3    | GG-27 |        | II    | 1.4         | 1.8       | 10YR 5/4 yellowish brown silty clay loam |                   |
| 3    | H-1   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-1   |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | H-3   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-3   |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | H-5   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-5   |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | H-7   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-7   |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | H-9   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-9   |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | H-9   | North  |       |             |           | !!NO DIG!!                               | out of bounds     |
| 3    | H-9   | South  | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-9   | South  | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay      |                   |
| 3    | H-9   | East   | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam           |                   |
| 3    | H-9   | East   | II    | 0.9         | 1.2       | 10YR 5/6 yellowish brown silty clay      |                   |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description                              | Comments   |
|------|-------|--------|-------|-------------|-----------|---|--|
| 3    | HH-19 |        | I     | 0           | 0.8       | 10YR 3/4 dark yellowish brown silty loam      |  |
| 3    | HH-19 |        | II    | 0.8         | 1.2       | 10YR 5/6 yellowish brown silty clay loam      |  |
| 3    | HH-21 |        |       |             |           | !!NO DIG!!                                    | in drainage ditch  |
| 3    | HH-23 |        | I     | 0           | 1.15      | 10YR 3/3 dark brown silty loam                |  |
| 3    | HH-23 |        | II    | 1.15        | 1.55      | 10YR 5/8 yellowish brown silty clay loam      |  |
| 3    | HH-25 |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam                |  |
| 3    | HH-25 |        | II    | 0.9         | 1.3       | 7.5YR 5/4 brown silty clay loam               |  |
| 3    | HH-27 |        | I     | 0           | 1.63      | 10YR 3/4 dark yellowish brown silty loam      | end of transect  |
| 3    | HH-27 |        | II    | 1.63        | 2         | 7.5YR 5/4 brown silty clay loam               |  |
| 3    | I-1   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-1   |        | II    | 0.9         | 1.2       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-3   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-3   |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-5   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-5   |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-7   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-7   |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-9   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                | very light brick flecking present  |
| 3    | I-9   |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-9   | North  |       |             |           | !!NO DIG!!                                    | out of bounds  |
| 3    | I-9   | South  | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-9   | South  | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-9   | West   | I     | 0           | 1.3       | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-9   | West   | II    | 1.3         | 1.6       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | I-9   | East   | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                |  |
| 3    | I-9   | East   | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | II-19 |        | I     | 0           | 1.3       | 10YR 3/3 dark brown silty loam                | end of transect  |
| 3    | II-19 |        | II    | 1.3         | 1.7       | 10YR 5/6 yellowish brown silty clay loam      |  |
| 3    | II-21 |        |       |             |           | !!NO DIG!!                                    | in road bed  |
| 3    | II-23 |        | I     | 0           | 0.3       | 10YR 3/3 dark brown silty loam                | rock impasse   |
| 3    | II-25 |        | I     | 0           | 0.4       | 10YR 3/3 dark brown silty loam                | rock impasse   |
| 3    | II-27 |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam                | hit rock impasse (pebbles and cobbles), near gated opening, likely used as a road at one time, also adjacent is manmade hill and landscape |
| 3    | II-29 |        | I     | 0           | 0.87      | 10YR 3/3 dark brown silty loam                |  |
| 3    | II-29 |        | II    | 0.87        | 1.27      | 10YR 4/6 dark yellowish brown silty clay loam |  |
| 3    | J-1   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                |  |
| 3    | J-1   |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | J-3   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam                |  |
| 3    | J-3   |        | II    | 1.1         | 1.4       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | J-5   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                |  |
| 3    | J-5   |        | II    | 1           | 1.3       | 10YR 5/6 yellowish brown silty clay           |  |
| 3    | J-7   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                |  |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description                       | Comments   |
|------|-------|--------|-------|-------------|-----------|--|--|
| 3    | J-7   |        | II    | 1           | 1.3       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | J-7   | South  | I     | 0           | 1         | 10YR 4/3 brown silty clay loam         |  |
| 3    | J-7   | South  | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | J-7   | East   | I     | 0           | 1         | 10YR 4/3 brown silty clay loam         |  |
| 3    | J-7   | East   | II    | 1           | 1.3       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | J-7   | North  | I     | 0           | 1         | 10YR 4/3 brown silty clay loam         | terminated due to water                                |
| 3    | J-9   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam         | edge of woods, southwest of house                      |
| 3    | J-9   |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | JJ-19 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam         |  |
| 3    | JJ-19 |        | II    | 1.1         | 1.4       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | JJ-21 |        |       |             |           | !!NO DIG!!                             | road   |
| 3    | JJ-23 |        |       |             |           | !!NO DIG!!                             | gravel push pile                                       |
| 3    | JJ-25 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty clay loam         |  |
| 3    | JJ-25 |        | II    | 0.7         | 1.1       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | JJ-27 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam         |  |
| 3    | JJ-27 |        | II    | 0.8         | 1.2       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | JJ-29 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam         |  |
| 3    | JJ-29 |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | K-2   |        | I     | 0           | 0.9       | 10YR 3/4 dark grayish brown silty loam |  |
| 3    | K-2   |        | II    | 0.9         | 1.35      | 7.5YR 4/6 strong brown silty clay      |  |
| 3    | K-3   |        | I     | 0           | 0.75      | 10YR 3/4 dark grayish brown silty loam |  |
| 3    | K-3   |        | II    | 0.75        | 1.15      | 7.5YR 4/6 strong brown silty clay      |  |
| 3    | K-4   |        | I     | 0           | 0.75      | 10YR 3/4 dark grayish brown silty loam |  |
| 3    | K-4   |        | II    | 0.75        | 1.1       | 7.5YR 4/6 strong brown silty clay      |  |
| 3    | K-5   |        | I     | 0           | 0.65      | 10YR 3/4 dark grayish brown silty loam |  |
| 3    | K-5   |        | II    | 0.65        | 1.05      | 7.5YR 4/6 strong brown silty clay      |  |
| 3    | K-6   |        | I     | 0           | 0.95      | 10YR 3/4 dark grayish brown silty loam | immediately East of barbed wire fence                  |
| 3    | K-6   |        | II    | 0.95        | 1.15      | 7.5YR 4/6 strong brown silty clay      |  |
| 3    | K-7   |        | I     | 0           | 0.9       | 10YR 3/3 dark brown silty loam         | STP filled with water, East of barbed wire/ wire fence |
| 3    | K-7   |        | II    | 0.9         | 1.2       | 7.5YR 4/6 strong brown silty clay      |  |
| 3    | K-8   |        |       |             |           | !!NO DIG!!                             | low spot- standing water                               |
| 3    | K-9   |        | I     | 0           | 1.4       | 10YR 3/3 dark brown silty loam         |  |
| 3    | K-9   |        | II    | 1.4         | 1.65      | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | KK-19 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam         |  |
| 3    | KK-19 |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | KK-21 |        | I     | 0           | 0.6       | 10YR 4/3 brown silty clay loam         |  |
| 3    | KK-21 |        | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | KK-23 |        |       |             |           | !!NO DIG!!                             | push piles/ ditch                                      |
| 3    | KK-25 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam         |  |
| 3    | KK-25 |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay    |  |
| 3    | KK-27 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam         |  |
| 3    | KK-27 |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay    |  |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description                                  | Comments  |
|------|-------|--------|-------|-------------|-----------|---|---|
| 3    | KK-29 |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                    |   |
| 3    | KK-29 |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-1   |        | I     | 0           | 1.7       | 10YR 4/3 brown silty clay loam                    |   |
| 3    | L-1   |        | II    | 1.7         | 2         | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-2   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam                    | modern fence post, wire, modern debris discarded  |
| 3    | L-2   |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-3   |        | I     | 0           | 2         | 10YR 4/3 brown silty clay loam                    |   |
| 3    | L-3   |        | II    | 2           | 2.3       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-4   |        | I     | 0           | 1.4       | 10YR 3/3 dark brown silty loam                    | next to metal fence post  |
| 3    | L-4   |        | II    | 1.4         | 1.65      | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-5   |        | I     | 0           | 1         | 10YR 3/3 dark brown silty loam                    |   |
| 3    | L-5   |        | II    | 1           | 1.3       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-6   |        | I     | 0           | 1.05      | 10YR 3/3 dark brown silty loam                    | brick flecking present in STP   |
| 3    | L-6   |        | II    | 1.05        | 1.3       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-7   |        | I     | 0           | 1.1       | 10YR 3/3 dark brown silty loam                    | 1 brick discarded, very wet soils, standing water in the bottom, one fist sized rock at the base of level I |
| 3    | L-7   |        | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-8   |        | I     | 0           | 0.95      | 10YR 3/3 dark brown silty loam                    |   |
| 3    | L-8   |        | II    | 0.95        | 1.25      | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | L-9   |        |       |             |           | !!NO DIG!!  | large area of standing water  |
| 3    | LL-19 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam                    |   |
| 3    | LL-19 |        | II    | 1.1         | 1.4       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | LL-21 |        | I     | 0           | 0.5       | 10YR 4/3 brown silty clay loam                    |   |
| 3    | LL-21 |        | II    | 0.5         | 1         | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | LL-23 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam                    |   |
| 3    | LL-23 |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | LL-25 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam                    |   |
| 3    | LL-25 |        | II    | 0.8         | 1.2       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | LL-27 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty clay loam with large gravels |   |
| 3    | LL-27 |        | II    | 0.7         | 1.1       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | LL-29 |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                    | offset 10' East due to utilities  |
| 3    | LL-29 |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay               |   |
| 3    | M-1   |        | I     | 0           | 1.9       | 10YR 4/3 brown silty loam                         |   |
| 3    | M-1   |        | II    | 1.9         | 2.3       | 10YR 4/6 dark yellowish brown silty clay          |   |
| 3    | M-2   |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam                         |   |
| 3    | M-2   |        | II    | 1.5         | 1.8       | 10YR 4/6 dark yellowish brown silty clay          |   |
| 3    | M-3   |        | I     | 0           | 1.6       | 10YR 4/3 brown silty loam                         | many large gravels present in STP   |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description  | Comments                                     |
|------|-------|--------|-------|-------------|-----------|---|--|
| 3    | M-3   |        | II    | 1.6         | 1.9       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | M-4   |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam   |  |
| 3    | M-4   |        | II    | 1.5         | 1.8       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | M-5   |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam   |  |
| 3    | M-5   |        | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | M-6   |        | I     | 0           | 1         | 10YR 4/2 dark grayish brown wet silty loam  |  |
| 3    | M-6   |        | II    | 1           | 1.6       | 10YR 5/8 yellowish brown wet silty clay   |  |
| 3    | M-7   |        | I     | 0           | 0.8       | 10YR 4/2 dark grayish brown silty loam  | terminated due to water filling STP          |
| 3    | M-8   |        | I     | 0           | 1         | 10YR 4/2 dark grayish brown wet silty loam  |  |
| 3    | M-8   |        | II    | 1           | 1.7       | 10YR 5/8 yellowish brown wet silty clay   |  |
| 3    | M-9   |        | I     | 0           | 0.6       | 10YR 4/2 dark grayish brown wet silty loam  |  |
| 3    | M-9   |        | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown wet silty clay   |  |
| 3    | M-9   |        | III   | 1.1         | 1.6       | 10YR 5/8 yellowish brown wet silty clay   |  |
| 3    | MM-19 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 3    | MM-19 |        | II    | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty loam  |  |
| 3    | MM-21 |        | I     | 0           | 0.4       | 10YR 4/3 brown silty loam   |  |
| 3    | MM-21 |        | II    | 0.4         | 1.2       | 10YR 4/6 dark yellowish brown silty loam  |  |
| 3    | MM-23 |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam   |  |
| 3    | MM-23 |        | II    | 1.3         | 1.9       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | MM-25 |        | I     | 0           | 1.2       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty clay with 40% gravels and asphalt | plastic and shell discarded, disturbed soils |
| 3    | MM-27 |        | I     | 0           | 0.6       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty clay with 40% gravels and asphalt |  |
| 3    | MM-27 |        | II    | 0.6         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | MM-29 |        |       |             |           | !!NO DIG!!  | electrical line                              |
| 3    | N-2   |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam   |  |
| 3    | N-2   |        | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | N-3   |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam   |  |
| 3    | N-3   |        | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | N-4   |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam   |  |
| 3    | N-4   |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | N-5   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam   |  |
| 3    | N-5   |        | II    | 1.2         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | N-6   |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam   |  |
| 3    | N-6   |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | N-7   |        |       |             |           | !!NO DIG!!  | standing water                               |
| 3    | N-8   |        |       |             |           | !!NO DIG!!  | standing water                               |
| 3    | N-9   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |  |
| 3    | N-9   |        | II    | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |  |
| 3    | NN-19 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam with 40% gravels  | plastic discarded, end of transect           |
| 3    | NN-19 |        | II    | 0.9         | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |  |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description  | Comments         |
|------|-------|--------|-------|-------------|-----------|---|------------------|
| 3    | NN-21 |        | I     | 0           | 0.4       | 10YR 4/3 brown silty loam with 30% gravels  |                  |
| 3    | NN-21 |        | II    | 0.4         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | NN-23 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |                  |
| 3    | NN-23 |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | NN-25 |        | I     | 0           | 1.2       | 10YR 4/3 brown mottled with compact 10YR 4/6 dark yellowish brown with 40% gravels- fill            |                  |
| 3    | NN-27 |        | I     | 0           | 1.1       | 10YR 4/3 brown mottled with compact 10YR 4/6 dark yellowish brown with 40% gravels- fill            |                  |
| 3    | O-2   |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam   |                  |
| 3    | O-2   |        | II    | 1.5         | 1.8       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | O-3   |        | I     | 0           | 1.6       | 10YR 4/3 brown silty loam   |                  |
| 3    | O-3   |        | II    | 1.6         | 1.9       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | O-4   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam   |                  |
| 3    | O-4   |        | II    | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | O-5   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam   |                  |
| 3    | O-5   |        | II    | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | O-6   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam   |                  |
| 3    | O-6   |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | O-7   |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam   |                  |
| 3    | O-7   |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | O-8   |        |       |             |           | !!NO DIG!!  | standing water   |
| 3    | O-9   |        |       |             |           | !!NO DIG!!  | standing water   |
| 3    | OO-19 |        | I     | 0           | 0.4       | 10YR 4/4 dark yellowish brown fill with 40% road gravels  | end of transect  |
| 3    | OO-19 |        | II    | 0.4         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | OO-21 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown mottled with 60% 10YR 4/6 dark yellowish brown fill with road gravels |                  |
| 3    | OO-23 |        |       |             |           | !!NO DIG!!  | driveway         |
| 3    | OO-25 |        |       |             |           | !!NO DIG!!  | utility line     |
| 3    | P-10  |        |       |             |           | !!NO DIG!!  | water on surface |
| 3    | P-2   |        | I     | 0           | 1.5       | 10YR 4/3 brown silty loam   |                  |
| 3    | P-2   |        | II    | 1.5         | 1.8       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | P-3   |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |                  |
| 3    | P-3   |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | P-4   |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |                  |
| 3    | P-4   |        | II    | 0.8         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | P-5   |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |                  |
| 3    | P-5   |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | P-6   |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |                  |
| 3    | P-6   |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | P-7   |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |                  |
| 3    | P-7   |        | II    | 0.9         | 1.6       | 10YR 4/6 dark yellowish brown silty clay  |                  |
| 3    | P-8   |        |       |             |           | !!NO DIG!!  | water on surface |
| 3    | P-9   |        |       |             |           | !!NO DIG!!  | water on surface |

| Area | STP   | Radial | Level | Start Depth | End Depth | Soil Description  | Comments                              |
|------|-------|--------|-------|-------------|-----------|---|---------------------------------------|
| 3    | PP-19 |        | I     | 0           | 1.5       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown fill with 40% gravels | end of transect                       |
| 3    | PP-21 |        | I     | 0           | 1.4       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown fill with 40% gravels |                                       |
| 3    | PP-23 |        |       |             |           | !!NO DIG!!  | gravel road                           |
| 3    | Q-10  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-10  |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-11  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-11  |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-12  |        | I     | 0           | 1         | 10YR 3/3 dark brown silty loam  |                                       |
| 3    | Q-12  |        | II    | 1           | 1.3       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-3   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-3   |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-4   |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-4   |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-5   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-5   |        | II    | 1.1         | 1.4       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-6   |        | I     | 0           | 1.3       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-6   |        | II    | 1.3         | 1.6       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-7   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-7   |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-8   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-8   |        | II    | 1.1         | 1.4       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | Q-9   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | Q-9   |        | II    | 1.1         | 1.4       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | QQ-19 |        | I     | 0           | 1.5       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown fill with 40% gravels |                                       |
| 3    | QQ-21 |        | I     | 0           | 1.5       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown fill with 40% gravels |                                       |
| 3    | R-10  |        | I     | 0           | 1.3       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-10  |        | II    | 1.3         | 1.7       | 10YR 5/4 yellowish brown silty clay   |                                       |
| 3    | R-11  |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-11  |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-12  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-12  |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-4   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  | beginning of transect                 |
| 3    | R-4   |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-5   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-5   |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-6   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-6   |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-7   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-7   |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-8   |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |                                       |
| 3    | R-8   |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | R-9   |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  | offset 5'                             |
| 3    | R-9   |        | II    | 1.1         | 1.4       | 10YR 5/4 yellowish brown silty clay   |                                       |
| 3    | S-10  |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |                                       |
| 3    | S-10  |        | II    | 1           | 1.31      | 10YR 5/6 yellowish brown silty clay   |                                       |
| 3    | S-11  |        | I     | 0           | 1.4       | 10YR 3/4 dark yellowish brown moist silty loam                                  | water began filling into STP at 1.52' |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                               | Comments                                   |
|------|------|--------|-------|-------------|-----------|--|--|
| 3    | S-11 |        | II    | 1.4         | 1.77      | 10YR 5/6 yellowish brown moist silty clay loam |  |
| 3    | S-12 |        | I     | 0           | 2.03      | 10YR 3/4 dark yellowish brown silty loam       | end of transect                            |
| 3    | S-12 |        | II    | 2.03        | 2.43      | 10YR 5/6 yellowish brown silty clay loam       |  |
| 3    | S-4  |        | I     | 0           | 1.6       | 10YR 4/3 brown silty loam                      |  |
| 3    | S-4  |        | II    | 1.6         | 1.97      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | S-5  |        | I     | 0           | 0.94      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | S-5  |        | II    | 0.94        | 1.34      | 10YR 5/4 yellowish brown silty clay            |  |
| 3    | S-6  |        | I     | 0           | 1         | 10YR 4/3 brown silty loam                      |  |
| 3    | S-6  |        | II    | 1           | 1.42      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | S-7  |        | I     | 0           | 0.95      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | S-7  |        | II    | 0.95        | 1.35      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | S-8  |        | I     | 0           | 1.05      | 10YR 4/3 brown silty loam                      |  |
| 3    | S-8  |        | II    | 1.05        | 1.45      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | S-9  |        | I     | 0           | 1.03      | 10YR 4/3 brown silty loam                      |  |
| 3    | S-9  |        | II    | 1.03        | 1.43      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | T-10 |        | I     | 0           | 1.51      | 10YR 4/3 brown silty loam                      |  |
| 3    | T-10 |        | II    | 1.51        | 1.91      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | T-11 |        | I     | 0           | 1.56      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-11 |        | II    | 1.56        | 1.96      | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | T-12 |        | I     | 0           | 1.52      | 10YR 3/4 dark yellowish brown silty loam       | modern trash scattered throughout the area |
| 3    | T-12 |        | II    | 1.52        | 1.86      | 10YR 5/6 yellowish brown silty clay loam       |  |
| 3    | T-4  |        | I     | 0           | 0.87      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-4  |        | II    | 0.87        | 1.27      | 7.5YR 4/6 strong brown silty clay              |  |
| 3    | T-5  |        | I     | 0           | 0.85      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-5  |        | II    | 0.85        | 1.25      | 7.5YR 4/6 strong brown silty clay              |  |
| 3    | T-6  |        | I     | 0           | 0.93      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-6  |        | II    | 0.93        | 1.33      | 7.5YR 4/6 strong brown silty clay              |  |
| 3    | T-7  |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-7  |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | T-8  |        | I     | 0           | 0.85      | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-8  |        | II    | 0.85        | 1.25      | 10YR 6/6 brownish yellow silty clay            |  |
| 3    | T-9  |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty loam       |  |
| 3    | T-9  |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay            |  |
| 3    | U-10 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                      |  |
| 3    | U-10 |        | II    | 1.1         | 1.6       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-11 |        | I     | 0           | 1         | 10YR 4/3 brown silty loam                      |  |
| 3    | U-11 |        | II    | 1           | 1.5       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-12 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                      |  |
| 3    | U-12 |        | II    | 1.1         | 1.8       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-13 |        | I     | 0           | 1         | 10YR 4/3 brown silty loam                      |  |
| 3    | U-13 |        | II    | 1           | 1.7       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-14 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                      | end of transect                            |
| 3    | U-14 |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-5  |        | I     | 0           | 1         | 10YR 4/3 brown silty loam                      | beginning of transect                      |
| 3    | U-5  |        | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-6  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                      |  |
| 3    | U-6  |        | II    | 1.2         | 1.7       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-7  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                      |  |
| 3    | U-7  |        | II    | 1.2         | 1.8       | 10YR 4/6 dark yellowish brown silty clay       |  |
| 3    | U-8  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                      |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                         | Comments              |
|------|------|--------|-------|-------------|-----------|--|-----------------------|
| 3    | U-8  |        | II    | 1.2         | 1.8       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | U-9  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                |                       |
| 3    | U-9  |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-10 |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-10 |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-11 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-11 |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-12 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-12 |        | II    | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-13 |        | I     | 0           | 1.4       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-13 |        | II    | 1.4         | 1.7       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-14 |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-14 |        | II    | 1.3         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-15 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-15 |        | II    | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-5  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                | beginning of transect |
| 3    | V-5  |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-6  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-6  |        | II    | 1.1         | 1.6       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-7  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-7  |        | II    | 1.1         | 1.7       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-8  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-8  |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | V-9  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                |                       |
| 3    | V-9  |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | W-11 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                | end of transect       |
| 3    | W-11 |        | II    | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | W-12 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam                |                       |
| 3    | W-12 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | W-13 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam                |                       |
| 3    | W-13 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | W-14 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam                |                       |
| 3    | W-14 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | W-15 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam                |                       |
| 3    | W-15 |        | II    | 0.9         | 1.1       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | W-16 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam                |                       |
| 3    | W-16 |        | II    | 1.1         | 1.4       | 10YR 4/6 dark yellowish brown silty clay |                       |
| 3    | X-12 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty loam                |                       |
| 3    | X-12 |        | II    | 1.2         | 1.5       | 10YR 4/6 dark yellowish brown silty clay |                       |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments  |
|------|------|--------|-------|-------------|-----------|---|---|
| 3    | X-13 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |   |
| 3    | X-13 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | X-14 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty loam   |   |
| 3    | X-14 |        | II    | 0.7         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | X-15 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |   |
| 3    | X-15 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | X-16 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam   |   |
| 3    | X-16 |        | II    | 0.8         | 1.1       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | X-17 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   | end of transect   |
| 3    | X-17 |        | II    | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | Y-12 |        | I     | 0           | 1.3       | 10YR 4/3 brown silty clay loam  |   |
| 3    | Y-12 |        | II    | 1.3         | 1.7       | 10YR 5/6 yellowish brown silty clay   |   |
| 3    | Y-13 |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam  |   |
| 3    | Y-13 |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay   |   |
| 3    | Y-14 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam  |   |
| 3    | Y-14 |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay   |   |
| 3    | Y-15 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | Y-15 |        | II    | 0.9         | 1.2       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | Y-16 |        | I     | 0           | 1         | 10YR 4/3 brown silty loam   |   |
| 3    | Y-16 |        | II    | 1           | 1.3       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | Y-17 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty loam   |   |
| 3    | Y-17 |        | II    | 0.9         | 1.3       | 10YR 4/6 dark yellowish brown silty clay  |   |
| 3    | Y-18 |        |       |             |           | !!NO DIG!!  | in a driveway   |
| 3    | Z-12 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  | terminated due to roots                                   |
| 3    | Z-13 |        | I     | 0           | 1.5       | 10YR 4/3 brown silty clay loam  |   |
| 3    | Z-13 |        | II    | 1.5         | 1.9       | 10YR 5/6 yellowish brown silty clay   |   |
| 3    | Z-14 |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |   |
| 3    | Z-14 |        | II    | 1.2         | 1.6       | 10YR 5/6 yellowish brown silty clay   |   |
| 3    | Z-15 |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam  | terminated due to root impasse                            |
| 3    | Z-16 |        |       |             |           | !!NO DIG!!  | gravel push pile  |
| 3    | Z-17 |        | I     | 0           | 1.3       | 10YR 4/3 brown clay loam  |   |
| 3    | Z-17 |        | II    | 1.3         | 1.6       | 10YR 5/6 yellowish brown silty clay   |   |
| 3    | Z-18 |        |       |             |           | !!NO DIG!!  | gravel road   |
| 3    | Z-19 |        |       |             |           | !!NO DIG!!  | gravel road   |
| 4    | A-1  |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam mottled with 10YR 5/6 yellowish brown silty loam | hit root impasse, disturbed with modern trash (discarded) |
| 4    | A-2  |        | I     | 0           | 0.5       | 10YR 4/3 brown sandy loam   |   |
| 4    | A-2  |        | II    | 0.5         | 1.5       | 10YR 5/2 grayish brown sand   |   |
| 4    | A-3  |        | I     | 0           | 0.9       | 10YR 2/1 black burnt clay loam  | evidence of trash burning, disturbed fill                 |
| 4    | A-3  |        | II    | 0.9         | 1.9       | 7.5YR 5/8 strong brown sandy clay mottled with 5YR 6/4 light reddish brown clay           |   |
| 4    | A-4  |        | I     | 0           | 0.3       | 10YR 4/3 brown silty loam   |   |
| 4    | A-4  |        | II    | 0.3         | 0.93      | 10YR 5/6 yellowish brown clay sandy loam  |   |
| 4    | A-4  |        | III   | 0.93        | 1.25      | GLEYS sandy clay loam   |   |
| 4    | A-5  |        | I     | 0           | 0.3       | 10YR 4/1 dark gray sandy loam   |   |
| 4    | A-5  |        | II    | 0.3         | 0.8       | 10YR 6/2 light brownish gray sandy clay loam  |   |
| 4    | A-6  |        | I     | 0           | 0.6       | 2.5Y 3/2 very dark grayish brown silty clay   |   |
| 4    | A-6  |        | II    | 0.6         | 1         | 2.5Y 5/6 light olive brown sandy clay   |   |
| 4    | A-7  |        | I     | 0           | 0.4       | 2.5Y 3/2 very dark grayish brown silty clay   | approaching wetlands, directly under powerlines           |
| 4    | A-7  |        | II    | 0.4         | 0.8       | 2.5Y 5/6 light olive brown sandy clay   |   |

| Area | STP | Radial | Level | Start Depth | End Depth | Soil Description  | Comments  |
|------|-----|--------|-------|-------------|-----------|---|---|
| 4    | A-7 |        | III   | 0.8         | 0.9       | 7.5YR 5/8 strong brown mottled with 5YR 6/4 light reddish brown clay      |   |
| 4    | A-8 |        | I     | 0           | 0.55      | 10YR 4/2 dark grayish brown silty loam                                    | modern artifacts discarded, likely present due to highway dump, very likely intact stratigraphy |
| 4    | A-8 |        | II    | 0.55        | 1.1       | 10YR 5/4 yellowish brown silty loam with 1% brick flecking                |   |
| 4    | A-8 |        | III   | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty sandy loam                                 |   |
| 4    | A-9 |        |       |             |           | !!NO DIG!!  | wetlands  |
| 4    | B-1 |        |       |             |           | !!NO DIG!!  | slope   |
| 4    | B-2 |        |       |             |           | !!NO DIG!!  | slope   |
| 4    | B-3 |        | I     | 0           | 1.4       | 10YR 6/6 brownish yellow clay sand  | high gravel content   |
| 4    | B-3 |        | II    | 1.4         | 1.8       | 10YR 5/8 yellowish brown sandy clay                                       |   |
| 4    | B-4 |        | I     | 0           | 0.5       | 10YR 6/6 brownish yellow clay sand  | disturbed, extremely compact, high gravel   |
| 4    | B-4 |        | II    | 0.5         | 1         | 10YR 5/8 yellowish brown sandy clay                                       |   |
| 4    | B-5 |        | I     | 0           | 1.8       | 10YR 6/6 brownish yellow clay sand  | disturbed, extremely compact, high gravel   |
| 4    | B-5 |        | II    | 1.8         | 2.2       | 10YR 5/8 yellowish brown sandy clay                                       |   |
| 4    | B-6 |        | I     | 0           | 1.5       | 10YR 6/6 brownish yellow mottled with 10YR 5/8 yellowish brown sandy clay | hit water table at 1.5', extremely disturbed  |
| 4    | B-7 |        |       |             |           | !!NO DIG!!  | rocky drainage  |
| 4    | C-7 |        | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown sandy loam                               | low gravel content  |
| 4    | C-7 |        | II    | 0.8         | 1         | 10YR 4/3 brown sand   |   |
| 4    | C-7 |        | III   | 1           | 1.4       | 10YR 6/8 brownish yellow clay   |   |
| 4    | C-8 |        | I     | 0           | 0.7       | 10YR 3/2 very dark grayish brown sandy loam                               | low gravel content  |
| 4    | C-8 |        | II    | 0.7         | 1.6       | 10YR 4/3 brown sand   |   |
| 4    | C-8 |        | III   | 1.6         | 2         | 10YR 6/8 brownish yellow clay   |   |
| 4    | C-9 |        | I     | 0           | 0.6       | 10YR 3/2 very dark grayish brown sandy loam                               | low gravel content  |
| 4    | C-9 |        | II    | 0.6         | 2.8       | 10YR 4/3 brown sand   |   |
| 4    | C-9 |        | III   | 2.8         | 3         | 10YR 6/8 brownish yellow clay   |   |
| 4    | D-1 |        |       |             |           | !!NO DIG!!  | marsh   |
| 4    | D-2 |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown sandy loam                               | moderate gravel content, terminated at 3', end of transect                                      |
| 4    | D-2 |        | II    | 0.3         | 2.1       | 10YR 4/3 brown sand   |   |
| 4    | D-2 |        | III   | 2.1         | 3         | 10YR 5/6 yellowish brown sand   |   |
| 4    | D-3 |        | I     | 0           | 3         | 10YR 4/3 brown sand   | terminated at 3', medium gravel content   |
| 4    | D-4 |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown sandy loam                               | moderate gravel content, terminated at 3'   |
| 4    | D-4 |        | II    | 0.3         | 3         | 10YR 4/3 brown sand   |   |
| 4    | D-5 |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown sandy loam                               | terminated at 3', moderate gravel content   |
| 4    | D-5 |        | II    | 0.3         | 3         | 10YR 4/3 brown sand   |   |
| 4    | D-6 |        | I     | 0           | 3         | 10YR 4/3 brown sand   | terminated at 3', moderate gravel content   |
| 4    | D-7 |        | I     | 0           | 0.3       | 10YR 3/2 very dark grayish brown sandy loam                               | terminated at 3', moderate gravel content   |
| 4    | D-7 |        | II    | 0.3         | 3         | 10YR 4/3 brown sand   |   |
| 4    | D-8 |        | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown sandy loam                               | hit water table at 1'   |
| 4    | D-8 |        | II    | 0.8         | 1         | 10YR 4/3 brown sandy clay   |   |
| 4    | D-9 |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown sandy loam                               |   |
| 4    | D-9 |        | II    | 0.5         | 1.4       | 10YR 4/3 brown sandy clay   |   |
| 4    | D-9 |        | III   | 1.4         | 1.8       | 10YR 6/8 brownish yellow clay   |   |
| 4    | E-1 |        | I     | 0           | 0.5       | 10YR 3/2 very dark grayish brown sandy loam                               | high cobble and gravel content, terminated at water table at 1.5'                               |
| 4    | E-1 |        | II    | 0.5         | 1.5       | 10YR 4/3 brown sand   |   |
| 4    | E-2 |        | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown sandy loam                               | hit water table at 1.7'   |
| 4    | E-2 |        | II    | 0.8         | 1.7       | 10YR 4/3 brown sand   |   |
| 5    | A-1 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam  |   |
| 5    | A-1 |        | II    | 0.8         | 1.2       | 10YR 5/6 yellowish brown silty clay                                       |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                                       | Comments   |
|------|------|--------|-------|-------------|-----------|--|--|
| 5    | A-10 |        | I     | 0           | 2.1       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-10 |        | II    | 2.1         | 2.4       | 10YR 5/4 yellowish brown silty clay                    |  |
| 5    | A-11 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam                              |  |
| 5    | A-11 |        | II    | 0.8         | 1.1       | 10YR 5/6 yellowish brown sandy loam                    |  |
| 5    | A-12 |        | I     | 0           | 0.7       | 10YR 5/4 yellowish brown wet silty loam                | located on edge of plowed field with wet drainage and slope to the West          |
| 5    | A-12 |        | II    | 0.7         | 1.3       | 10YR 5/6 yellowish brown wet silty clay                |  |
| 5    | A-13 |        | I     | 0           | 0.7       | 10YR 5/4 yellowish brown wet silty loam                |  |
| 5    | A-13 |        | II    | 0.7         | 1.3       | 10YR 5/6 yellowish brown wet silty clay                |  |
| 5    | A-14 |        | I     | 0           | 0.95      | 10YR 4/3 brown silty loam                              |  |
| 5    | A-14 |        | II    | 0.95        | 1.2       | 10YR 5/6 yellowish brown sandy loam                    |  |
| 5    | A-16 |        | I     | 0           | 1         | 10YR 5/4 yellowish brown wet silty loam                |  |
| 5    | A-16 |        | II    | 1           | 1.6       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-17 |        | I     | 0           | 0.75      | 10YR 4/3 brown silty loam                              |  |
| 5    | A-17 |        | II    | 0.75        | 1.1       | 10YR 5/6 yellowish brown sandy loam                    |  |
| 5    | A-18 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty loam                              |  |
| 5    | A-18 |        | II    | 0.8         | 1.1       | 10YR 5/6 yellowish brown sandy loam                    |  |
| 5    | A-19 |        | I     | 0           | 0.2       | 10YR 5/4 yellowish brown silty loam                    |  |
| 5    | A-19 |        | II    | 0.2         | 0.9       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-2  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-2  |        | II    | 0.9         | 1.2       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-20 |        | I     | 0           | 0.5       | 10YR 5/2 grayish brown silty loam                      |  |
| 5    | A-20 |        | II    | 0.5         | 1         | 10YR 5/4 yellowish brown silty loam                    |  |
| 5    | A-20 |        | III   | 1           | 1.8       | 10YR 5/6 yellowish brown silty loam                    |  |
| 5    | A-21 |        | I     | 0           | 0.5       | 10YR 4/3 brown silty loam                              |  |
| 5    | A-21 |        | II    | 0.5         | 0.8       | 10YR 5/6 yellowish brown sandy loam                    |  |
| 5    | A-22 |        |       |             |           | disturbed  | disturbed gravel from road of drainage construction- subsoil reached immediately |
| 5    | A-23 |        |       |             |           | !!NO DIG!!   | wetlands/ utilities, end of transect   |
| 5    | A-3  |        | I     | 0           | 1.7       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-3  |        | II    | 1.7         | 2.1       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-4  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-4  |        | II    | 1.2         | 1.5       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-4  | South  | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-4  | South  | II    | 0.9         | 1.2       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-4  | North  | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-4  | North  | II    | 1           | 1.3       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-4  | East   |       |             |           | !!NO DIG!!   | out of project area  |
| 5    | A-4  | West   |       |             |           | !!NO DIG!!   | drainage   |
| 5    | A-5  |        | I     | 0           | 1.3       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-5  |        | II    | 1.3         | 1.7       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-6  |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-6  |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-7  |        | I     | 0           | 0.9       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-7  |        | II    | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay                    |  |
| 5    | A-8  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-8  |        | II    | 1.1         | 1.5       | 10YR 5/6 yellowish brown silty clay with heavy gravels |  |
| 5    | A-9  |        | I     | 0           | 2.1       | 10YR 4/3 brown silty clay loam                         |  |
| 5    | A-9  |        | II    | 2.1         | 2.4       | 10YR 5/4 yellowish brown silty clay                    |  |
| 5    | B-11 |        |       |             |           | !!NO DIG!!   | standing water   |
| 5    | B-12 |        |       |             |           | !!NO DIG!!   | standing water   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments   |
|------|------|--------|-------|-------------|-----------|--|--|
| 5    | B-13 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam   | STP located at base of Route 1 slope, the topsoil was likely removed during construction                           |
| 5    | B-13 |        | II    | 0.2         | 0.8       | 10YR 5/6 yellowish brown silty loam  |  |
| 5    | B-15 |        |       |             |           | disturbed  | subsoil reached immediately upon penetration   |
| 5    | B-21 |        |       |             |           | disturbed  | 1950s style Pepsi can discarded, subsoil immediately reached   |
| 5    | B-22 |        |       |             |           | disturbed / water table  |  |
| 5    | C-13 |        | I     | 0           | 1.8       | 10YR 3/4 dark yellowish brown clay sand  |  |
| 5    | C-13 |        | II    | 1.8         | 2.2       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-14 |        | I     | 0           | 0.5       | 10YR 3/4 dark yellowish brown clay sand  |  |
| 5    | C-14 |        | II    | 0.5         | 1.2       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-15 |        | I     | 0           | 0.9       | 10YR 3/4 dark yellowish brown clay sand  |  |
| 5    | C-15 |        | II    | 0.9         | 1.4       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-16 |        | I     | 0           | 0.8       | 10YR 5/4 yellowish brown silty clay  |  |
| 5    | C-16 |        | II    | 0.8         | 1.2       | 10YR 5/2 grayish brown silty clay  |  |
| 5    | C-16 |        | III   | 1.2         | 1.5       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-16 |        | I     | 0           | 0.4       | 10YR 3/4 dark yellowish brown clay sand  | wet soils  |
| 5    | C-16 |        | II    | 0.4         | 0.8       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-17 |        | I     | 0           | 2         | 10YR 3/4 dark yellowish brown clay sand  | high gravel content  |
| 5    | C-17 |        | II    | 2           | 2.4       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-18 |        | I     | 0           | 0.8       | 10YR 3/4 dark yellowish brown sandy clay                                       |  |
| 5    | C-18 |        | II    | 0.8         | 1.4       | 10YR 3/3 dark brown clay sand  |  |
| 5    | C-18 |        | III   | 1.4         | 1.8       | 10YR 5/6 yellowish brown clay  |  |
| 5    | C-19 |        | I     | 0           | 0.6       | 10YR 5/4 yellowish brown silty clay  | disturbed- in highway berm   |
| 5    | C-19 |        | II    | 0.6         | 0.61      | 10YR 5/4 yellowish brown silty clay mottled with 10YR 5/6 yellowish brown clay |  |
| 5    | C-20 |        | I     | 0           | 0.5       | 10YR 4/3 brown silty sandy loam  | terminated due to depth- subsoil not reached   |
| 5    | C-20 |        | II    | 0.5         | 0.95      | 10YR 5/6 yellowish brown sand  |  |
| 5    | C-20 |        | III   | 0.95        | 3         | 10YR 4/4 dark yellowish brown sandy loam                                       |  |
| 5    | C-21 |        | I     | 0           | 0.7       | 10YR 4/3 brown silty sandy loam  |  |
| 5    | C-21 |        | II    | 0.7         | 1.1       | 10YR 5/6 yellowish brown sandy clay  |  |
| 5    | D-1  |        | I     | 0           | 0.7       | 10YR 4/4 dark yellowish brown silty loam disturbed fill                        | end of transect, shallow berm feature approximately 25' from Route 1, subsoil was not reached due to compact soils |
| 5    | D-1  |        | II    | 0.7         | 1.37      | 10YR 4/4 yellowish brown mottled with 10% 10YR 5/6 yellowish brown             | disturbed fill   |
| 5    | D-1  |        | III   | 1.37        | 1.96      | 10YR 4/4 dark yellowish brown compact silty loam                               |  |
| 5    | D-10 |        | I     | 0           | 1.5       | 10YR 5/6 yellowish brown wet silty clay  |  |
| 5    | D-10 |        | II    | 1.5         | 1.51      | 7.5YR 5/6 strong brown clay  |  |
| 5    | D-11 |        | I     | 0           | 1.4       | 10YR 5/6 yellowish brown wet silty clay  |  |
| 5    | D-11 |        | II    | 1.4         | 1.5       | 7.5YR 5/6 strong brown clay  |  |
| 5    | D-12 |        |       |             |           | !!NO DIG!!   | pile of boulders likely used for drainage  |
| 5    | D-13 |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown silty loam                                       | intact stratigraphy  |
| 5    | D-13 |        | II    | 1.2         | 1.65      | 10YR 5/6 yellowish brown sandy loam  |  |
| 5    | D-14 |        | I     | 0           | 0.4       | 10YR 5/4 yellowish brown silty clay  | near wire fence  |
| 5    | D-14 |        | II    | 0.4         | 1.7       | 10YR 5/6 yellowish brown silty clay  |  |
| 5    | D-15 |        | I     | 0           | 0.4       | 10YR 5/4 yellowish brown sandy loam  | disturbed- excavation halted   |
| 5    | D-17 |        | I     | 0           | 1.05      | 10YR 4/3 brown silty sandy loam with 10-15% lithic content                     |  |
| 5    | D-17 |        | II    | 1.05        | 1.45      | 10YR 5/4 yellowish brown sandy loam  |  |
| 5    | D-18 |        | I     | 0           | 1.06      | 10YR 4/3 brown silty sandy loam with 10-15% lithic content                     |  |
| 5    | D-18 |        | II    | 1.06        | 1.6       | 10YR 5/4 yellowish brown sandy loam  |  |
| 5    | D-19 |        | I     | 0           | 1.33      | 10YR 4/3 brown silty sandy loam with 10-15% lithic content                     |  |
| 5    | D-19 |        | II    | 1.33        | 1.6       | 10YR 5/4 yellowish brown sandy loam  |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments  |
|------|------|--------|-------|-------------|-----------|---|---|
| 5    | D-2  |        | I     | 0           | 1.3       | 10YR 4/4 dark yellowish brown silty loam with 5% 10YR 5/6 yellowish brown sandy loam mottling- disturbed  |   |
| 5    | D-2  |        | II    | 1.3         | 1.62      | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | D-20 |        | I     | 0           | 3.3       | 10YR 5/4 yellowish brown silty loam   | terminated due to depth- appears to be flood plain soils  |
| 5    | D-21 |        | I     | 0           | 0.43      | 10YR 4/4 dark yellowish brown silty loam  | subsoil was not reached- too compact to excavate  |
| 5    | D-21 |        | II    | 0.43        | 1.04      | 10YR 4/4 dark yellowish brown silty sandy loam with 5% gravel content                                     |   |
| 5    | D-21 |        | III   | 1.04        | 2.02      | 10YR 5/4 yellowish brown compact silty sandy loam   |   |
| 5    | D-22 |        | I     | 0           | 0.5       | 10YR 5/2 grayish brown silty loam   |   |
| 5    | D-22 |        | II    | 0.5         | 1         | 10YR 5/4 yellowish brown silty loam   |   |
| 5    | D-22 |        | III   | 1           | 1.9       | 10YR 5/6 yellowish brown silty clay   |   |
| 5    | D-3  |        | I     | 0           | 2         | 10YR 4/4 dark yellowish brown silty loam with 10% 10YR 5/6 yellowish brown sandy loam mottling- disturbed | likely disturbed from berm/ road construction- redistributed A-horizon, much thicker than intact stratigraphy, location prime for sedimentation with overgrowth and close proximity to SR 1 run off |
| 5    | D-4  |        | I     | 0           | 0.84      | 10YR 4/4 dark yellowish brown silty loam  |   |
| 5    | D-4  |        | II    | 0.84        | 1.44      | 10YR 4/3 brown sandy loam   |   |
| 5    | D-4  |        | III   | 1.44        | 1.73      | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | D-5  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam with 10% subsoil mottling- disturbed fill                        |   |
| 5    | D-5  |        | II    | 1           | 1.33      | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | D-6  |        | I     | 0           | 1.5       | 10YR 5/4 yellowish brown silty clay   |   |
| 5    | D-6  |        | II    | 1.5         | 1.51      | 10YR 5/6 yellowish brown clay with gravels  |   |
| 5    | D-7  |        | I     | 0           | 0.9       | 10YR 5/4 yellowish brown silty clay   | water seeping into test at 0.9', between sewer line corridor and drainage ditch and highway berm  |
| 5    | D-8  |        | I     | 0           | 0.9       | 10YR 5/4 yellowish brown silty clay   | wet and sticky soils  |
| 5    | D-8  |        | II    | 0.9         | 0.91      | 10YR 5/4 yellowish brown clay   |   |
| 5    | D-9  |        | I     | 0           | 1.5       | 10YR 5/4 yellowish brown silty clay   | in sewer line corridor near drainage ditch for highway, hydric soils  |
| 5    | D-9  |        | II    | 1.5         | 1.51      | 10YR 5/4 yellowish brown clay   |   |
| 5    | E-1  |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam  | located in a cultivated corn field  |
| 5    | E-1  |        | II    | 0.6         | 1.54      | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | E-2  |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam  |   |
| 5    | E-2  |        | II    | 0.8         | 1         | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | E-3  |        | I     | 0           | 0.82      | 10YR 4/4 dark yellowish brown silty loam  |   |
| 5    | E-3  |        | II    | 0.82        | 1.03      | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | E-4  |        | I     | 0           | 1.62      | 10YR 4/4 dark yellowish brown silty loam  | thicker than previous STPs  |
| 5    | E-4  |        | II    | 1.62        | 1.8       | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | E-5  |        | I     | 0           | 1.23      | 10YR 4/4 dark yellowish brown silty loam  |   |
| 5    | E-5  |        | II    | 1.23        | 1.6       | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | E-6  |        | I     | 0           | 0.65      | 10YR 4/4 dark yellowish brown silty loam  |   |
| 5    | E-6  |        | II    | 0.65        | 1         | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | E-7  |        | I     | 0           | 1.22      | 10YR 4/4 dark yellowish brown silty loam  | end of transect   |
| 5    | E-7  |        | II    | 1.22        | 1.55      | 10YR 5/6 yellowish brown sandy loam   |   |
| 5    | F-1  |        | I     | 0           | 0.6       | 10YR 5/3 brown clay sand  | close to highway berm and train tracks and train underpass  |
| 5    | F-1  |        | II    | 0.6         | 0.8       | 10YR 5/6 yellowish brown sandy clay   |   |
| 5    | F-2  |        | I     | 0           | 0.3       | 10YR 4/3 brown sandy loam   | close to highway berm   |
| 5    | F-2  |        | II    | 0.3         | 0.75      | 10YR 5/6 yellowish brown sandy clay   |   |
| 5    | F-3  |        | I     | 0           | 0.86      | 10YR 5/6 yellowish brown sandy clay   | disturbed fill, along highway berm  |
| 5    | F-4  |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown sandy loam mottled with 10YR 5/6 yellowish brown sandy clay                 | disturbed fill, along highway berm  |
| 5    | F-5  |        | I     | 0           | 0.93      | 10YR 5/6 yellowish brown sandy clay   | disturbed fill, along highway berm  |
| 5    | F-6  |        | I     | 0           | 0.25      | 10YR 4/3 brown sandy loam   | mottled, disturbed fill, along highway berm   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments  |
|------|------|--------|-------|-------------|-----------|---|---|
| 5    | F-6  |        | II    | 0.25        | 1.23      | 10YR 5/6 yellowish brown sandy clay with 10YR 4/3 brown sandy loam        |   |
| 5    | F-7  |        | I     | 0           | 0.87      | 10YR 3/3 dark brown mottled with 10YR 5/6 yellowish brown sandy clay loam | completely disturbed; sitting directly in manmade drainage- water drain with rip-rap throughout area, end of transect |
| 5    | F-8  |        |       |             |           | heavily mottled fill  | STP terminated  |
| 5    | G-10 |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam  |   |
| 5    | G-10 |        | II    | 0.8         | 1.1       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-11 |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam  | 1 piece of coal discarded   |
| 5    | G-11 |        | II    | 1           | 1.1       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-12 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown wet silty loam                              |   |
| 5    | G-12 |        | II    | 1.1         | 1.8       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-13 |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam  |   |
| 5    | G-13 |        | II    | 1           | 1.1       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-14 |        | I     | 0           | 1         | 10YR 4/3 brown silty clay loam  |   |
| 5    | G-14 |        | II    | 1           | 1.4       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-2  |        | I     | 0           | 1.6       | 10YR 4/4 dark yellowish brown silty loam                                  | hit standing water at 1.6'  |
| 5    | G-3  |        | I     | 0           | 1.05      | 10YR 4/4 dark yellowish brown wet silty loam                              | directly next to highway drainage with trash  |
| 5    | G-3  |        | II    | 1.05        | 1.4       | 10YR 5/6 yellowish brown wet silty clay                                   |   |
| 5    | G-4  |        | I     | 0           | 0.8       | 10YR 4/3 brown sandy loam   |   |
| 5    | G-4  |        | II    | 0.8         | 1.1       | 10YR 5/6 yellowish brown sandy clay                                       |   |
| 5    | G-5  |        | I     | 0           | 0.65      | 10YR 4/3 brown silty loam   | on edge of plowed corn field  |
| 5    | G-5  |        | II    | 0.65        | 1.05      | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-6  |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown clay silt                                   |   |
| 5    | G-6  |        | II    | 0.6         | 1.4       | 7.5YR 5/6 strong brown sand   |   |
| 5    | G-7  |        | I     | 0           | 1.2       | 10YR 4/3 brown silty clay loam  |   |
| 5    | G-7  |        | II    | 1.2         | 1.21      | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | G-8  |        | I     | 0           | 3         | 10YR 4/4 dark yellowish brown clay silt                                   |   |
| 5    | G-9  |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown wet silty loam                              | located in corn field   |
| 5    | G-9  |        | II    | 0.9         | 1.6       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-1  |        | I     | 0           | 0.3       | 10YR 4/6 dark yellowish brown silty loam                                  |   |
| 5    | H-1  |        | II    | 0.3         | 0.9       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-10 |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam  |   |
| 5    | H-10 |        | II    | 0.2         | 1         | 10YR 4/4 dark yellowish brown silty loam                                  |   |
| 5    | H-10 |        | III   | 1           | 1.8       | 10YR 5/6 yellowish brown silty sand                                       |   |
| 5    | H-11 |        |       |             |           | !!NO DIG!!  | drainage ditch  |
| 5    | H-12 |        |       |             |           | !!NO DIG!!  | drainage ditch  |
| 5    | H-13 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty                                       |   |
| 5    | H-13 |        | II    | 1           | 1.8       | 10YR 5/6 yellowish brown silty sand                                       |   |
| 5    | H-14 |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown silty loam                                  |   |
| 5    | H-14 |        | II    | 1           | 1.8       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-15 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown silty loam                                  |   |
| 5    | H-15 |        | II    | 1.1         | 1.8       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-2  |        | I     | 0           | 1.5       | 10YR 4/3 brown silty clay loam  |   |
| 5    | H-2  |        | II    | 1.5         | 1.9       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-3  |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown silty loam with asphalt                     |   |
| 5    | H-3  |        | II    | 1.1         | 1.7       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-4  |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam                                  |   |
| 5    | H-4  |        | II    | 0.8         | 1.6       | 10YR 5/6 yellowish brown silty clay                                       |   |
| 5    | H-5  |        | I     | 0           | 0.7       | 10YR 4/3 brown silty clay loam  |   |
| 5    | H-5  |        | II    | 0.7         | 1         | 10YR 5/6 yellowish brown silty clay                                       |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description                           | Comments                          |
|------|------|--------|-------|-------------|-----------|--|-----------------------------------|
| 5    | H-6  |        | I     | 0           | 0.2       | 10YR 3/3 dark brown silty loam             |                                   |
| 5    | H-6  |        | II    | 0.2         | 0.9       | 10YR 4/4 dark yellowish brown silty loam   |                                   |
| 5    | H-6  |        | III   | 0.9         | 1.3       | 10YR 5/6 yellowish brown silty clay        |                                   |
| 5    | H-7  |        | I     | 0           | 0.8       | 10YR 4/3 brown silty clay loam             |                                   |
| 5    | H-7  |        | II    | 0.8         | 1.1       | 10YR 5/6 yellowish brown silty clay        |                                   |
| 5    | H-8  |        | I     | 0           | 2.8       | 10YR 4/4 dark yellowish brown silty loam   |                                   |
| 5    | H-9  |        |       |             |           | !!NO DIG!!                                 | drainage ditch                    |
| 5    | I-10 |        | I     | 0           | 1.1       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-10 |        | II    | 1.1         | 1.5       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-11 |        | I     | 0           | 1.2       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-11 |        | II    | 1.2         | 1.6       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-12 |        | I     | 0           | 0.8       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-12 |        | II    | 0.8         | 3         | 7.5YR 6/8 reddish yellow silty clay        |                                   |
| 5    | I-13 |        | I     | 0           | 0.4       | 10YR 4/4 dark yellowish brown silty        |                                   |
| 5    | I-13 |        | II    | 0.4         | 1         | 10YR 5/6 yellowish brown silty sand        |                                   |
| 5    | I-14 |        | I     | 0           | 0.4       | 10YR 4/4 dark yellowish brown silty        |                                   |
| 5    | I-14 |        | II    | 0.4         | 1         | 10YR 5/6 yellowish brown silty sand        |                                   |
| 5    | I-15 |        | I     | 0           | 0.3       | 10YR 4/4 dark yellowish brown silty        |                                   |
| 5    | I-15 |        | II    | 0.3         | 0.9       | 10YR 5/6 yellowish brown silty sand        |                                   |
| 5    | I-16 |        | I     | 0           | 0.3       | 10YR 4/4 dark yellowish brown silty        |                                   |
| 5    | I-16 |        | II    | 0.3         | 0.9       | 10YR 5/6 yellowish brown silty sand        |                                   |
| 5    | I-17 |        |       |             |           | !!NO DIG!!                                 | rock drain                        |
| 5    | I-18 |        | I     | 0           | 1.2       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-18 |        | II    | 1.2         | 1.5       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-19 |        | I     | 0           | 1.1       | 10YR 4/4 dark yellowish brown clay silt    |                                   |
| 5    | I-19 |        | II    | 1.1         | 1.3       | 7.5YR 5/6 strong brown sand                |                                   |
| 5    | I-20 |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown clay silt    |                                   |
| 5    | I-20 |        | II    | 1.2         | 1.5       | 7.5YR 5/6 strong brown sand                |                                   |
| 5    | I-3  |        | I     | 0           | 0.9       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-3  |        | II    | 0.9         | 1.3       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-4  |        | I     | 0           | 0.45      | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-4  |        | II    | 0.45        | 0.9       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-5  |        | I     | 0           | 1.1       | 10YR 3/2 very dark grayish brown clay silt | modern plastic discarded          |
| 5    | I-5  |        | II    | 1.1         | 1.4       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-6  |        |       |             |           | !!NO DIG!!                                 | drainage                          |
| 5    | I-7  |        | I     | 0           | 1.4       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-7  |        | II    | 1.4         | 1.7       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-8  |        | I     | 0           | 1.2       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-8  |        | II    | 1.2         | 1.6       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | I-9  |        | I     | 0           | 1.2       | 10YR 3/2 very dark grayish brown clay silt |                                   |
| 5    | I-9  |        | II    | 1.2         | 1.6       | 7.5YR 4/6 strong brown silty clay          |                                   |
| 5    | J-1  |        |       |             |           | !!NO DIG!!                                 | wetland                           |
| 5    | J-10 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam   |                                   |
| 5    | J-10 |        | II    | 0.8         | 1.12      | 10YR 5/6 yellowish brown silty sand        |                                   |
| 5    | J-11 |        | I     | 0           | 0.6       | 10YR 4/4 dark yellowish brown silty loam   |                                   |
| 5    | J-11 |        | II    | 0.6         | 1.1       | 10YR 5/6 yellowish brown silty sand        |                                   |
| 5    | J-12 |        | I     | 0           | 0.9       | 10YR 4/3 brown wet clay sand with gravels  | contains a few pieces of charcoal |
| 5    | J-12 |        | II    | 0.9         | 1         | 10YR 5/6 yellowish brown sandy clay        |                                   |
| 5    | J-13 |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam   |                                   |
| 5    | J-13 |        | II    | 0.8         | 1.6       | 10YR 5/6 yellowish brown silty sand        |                                   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments  |
|------|------|--------|-------|-------------|-----------|--|---|
| 5    | J-14 |        | I     | 0           | 3         | 10YR 4/3 brown clay silt   | in drainage area for cement pipes 50 yards East   |
| 5    | J-14 |        | II    | 3           | 3.01      | 10YR 4/6 dark yellowish brown silty clay   |   |
| 5    | J-15 |        | I     | 0           | 3.3       | redeposited 10YR 4/4 dark yellowish brown silty loam   | This test is located in a low spot soils from the deflated rise were deposited here making it impossible to hit subsoil                 |
| 5    | J-16 |        | I     | 0           | 1.3       | 10YR 4/3 brown clay silt   |   |
| 5    | J-16 |        | II    | 1.3         | 1.31      | 10YR 5/6 yellowish brown sandy clay  |   |
| 5    | J-2  |        |       |             |           | !!NO DIG!!   | wetland   |
| 5    | J-3  |        | I     | 0           | 1.03      | 10YR 4/4 dark yellowish brown silty sandy loam   | disturbed soil, cultivated field  |
| 5    | J-3  |        | II    | 1.03        | 3         | 10YR 4/4 dark yellowish brown mottled with 10% 10YR 5/6 yellowish brown subsoil                          |   |
| 5    | J-4  |        | I     | 0           | 1.15      | 10YR 4/3 brown wet silty loam with 15% gravels   | this transect is in a plowed corn field   |
| 5    | J-4  |        | II    | 1.15        | 1.5       | 10YR 5/4 yellowish brown wet silty clay  |   |
| 5    | J-5  |        | I     | 0           | 0.85      | 10YR 4/4 dark yellowish brown mottled with 5% 10YR 5/6 yellowish brown silty loam                        | in cultivated field   |
| 5    | J-5  |        | II    | 0.85        | 1.05      | 10YR 5/6 yellowish brown sandy loam  |   |
| 5    | J-6  |        | I     | 0           | 0.97      | 10YR 4/3 brown silty loam with 10% gravel  |   |
| 5    | J-6  |        | II    | 0.97        | 1.3       | 10YR 5/6 yellowish brown silty clay  |   |
| 5    | J-7  |        | I     | 0           | 0.8       | 10YR 4/4 dark yellowish brown silty loam   |   |
| 5    | J-7  |        | II    | 0.8         | 1.12      | 10YR 5/6 yellowish brown silty sand  |   |
| 5    | J-8  |        | I     | 0           | 0.9       | 10YR 4/4 dark yellowish brown silty loam   |   |
| 5    | J-8  |        | II    | 0.9         | 1.2       | 10YR 5/6 yellowish brown silty sand  |   |
| 5    | J-9  |        | I     | 0           | 1.1       | 10YR 4/3 brown silty loam with 10% gravel  |   |
| 5    | J-9  |        | II    | 1.1         | 1.2       | 10YR 5/6 yellowish brown silty clay  |   |
| 6    | A-1  |        | I     | 0           | 0.5       | 10YR 4/3 brown sandy loam  | STP consists of gravel fill and 75% modern disturbance  |
| 6    | B-1  |        | I     | 0           | 0.4       | 10YR 5/6 yellowish brown sandy loam  |   |
| 6    | B-1  |        | II    | 0.4         | 1.97      | 10YR 4/3 brown sandy loam  |   |
| 6    | C-1  |        | I     | 0           | 1.1       | 10YR 4/3 brown sandy loam with 20% mottling of 10YR 5/6 yellowish brown and 10% gravel content           | disturbed soils   |
| 6    | D-1  |        | I     | 0           | 1.24      | 10YR 4/3 brown sandy loam with 10% mottling of 10YR 5/6 yellowish brown with gravels and asphalt content | disturbed soils   |
| 6    | E-1  |        | I     | 0           | 1         | 10YR 4/3 brown sandy loam with 20% mottling of 10YR 5/6 yellowish brown and 5% gravel content            | disturbed soils   |
| 6    | F-1  |        |       |             |           | !!NO DIG!!   | on paved access road next to Route 72   |
| 6    | F-2  |        |       |             |           | !!NO DIG!!   | on paved access road next to Route 72   |
| 6    | F-3  |        |       |             |           | !!NO DIG!!   | on paved access road next to Route 72   |
| 6    | F-4  |        | I     | 0           | 1.22      | 10YR 4/3 brown disturbed sandy loam  | first layer is disturbed as indicated by subsoil mottling (5-10%). Whiteware found in level I possibly present due to modern relocation |
| 6    | F-4  |        | II    | 1.22        | 1.4       | 10YR 5/6 yellowish brown sandy loam  |   |
| 6    | F-4  | North  |       |             |           | !!NO DIG!!   | asphalt   |
| 6    | F-4  | East   | I     | 0           | 1.05      | 10YR 4/3 brown sandy loam mottled with 15% 10YR 5/6 yellowish brown                                      | radial is located approximately 3' West of curb, road construction gravel present   |
| 6    | F-4  | West   | I     | 0           | 0.54      | 10YR 4/3 brown sandy loam  | level II plowed and disturbed- could not excavate further as disturbed soils continue   |
| 6    | F-4  | West   | II    | 0.54        | 1.65      | 10YR 4/3 brown sandy loam mottled with 15% 10YR 5/6 yellowish brown                                      |   |
| 6    | F-4  | South  | I     | 0           | 0.2       | 10YR 4/3 brown sandy loam  | excavation halted due to rodent burrow  |
| 6    | F-4  | South  | II    | 0.2         | 1.36      | 10YR 4/3 brown silty clay with 20% 10YR 5/6 yellowish brown  |   |
| 6    | F-5  |        |       |             |           | !!NO DIG!!   | modern drainage   |
| 6    | F-6  |        | I     | 0           | 1.68      | 10YR 4/3 brown disturbed sandy loam with 5% 10YR 5/6 yellowish brown mottling                            | end of transect, deeper A-horizon than previous STP   |
| 6    | F-6  |        | II    | 1.68        | 1.82      | 10YR 5/6 yellowish brown sandy loam  |   |
| 6    | G-1  |        |       |             |           | !!NO DIG!!   |   |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments   |
|------|------|--------|-------|-------------|-----------|---|--|
| 6    | G-2  |        | I     | 0           | 1.8       | 10YR 4/4 dark yellowish brown clay loam   | disturbed  |
| 6    | G-2  |        | II    | 1.8         | 1.81      | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown loamy clay                                |  |
| 6    | G-3  |        | I     | 0           | 1.6       | 10YR 4/4 dark yellowish brown clay loam   |  |
| 6    | G-3  |        | II    | 1.6         | 1.61      | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown loamy clay                                |  |
| 6    | G-3  | North  | I     | 0           | 1.7       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty loam                                | soils became very compact for the last 0.7', the STP was offset 8' West due to push pile on edge of asphalt pad, modern artifacts discarded (brick, glass)   |
| 6    | G-3  | South  | I     | 0           | 1.8       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty loam                                | compaction increases with depth, disturbed soils, modern artifacts discarded (brick, glass)  |
| 6    | G-3  | West   | I     | 0           | 1.9       | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty loam                                | disturbed soils, modern artifacts discarded (brick, plastic, Styrofoam)  |
| 6    | G-3  | East   |       |             |           | !!NO DIG!!  | asphalt  |
| 6    | G-4  |        | I     | 0           | 1.3       | 7.5YR 5/3 brown clay loam   |  |
| 6    | G-4  |        | II    | 1.3         | 1.31      | 7.5YR 4/6 strong brown clay   |  |
| 6    | G-5  |        | I     | 0           | 1.4       | 7.5YR 5/3 brown clay loam   |  |
| 6    | G-5  |        | II    | 1.4         | 1.41      | 7.5YR 4/6 strong brown clay   |  |
| 6    | G-6  |        | I     | 0           | 1.2       | 7.5YR 5/3 brown clay loam   |  |
| 6    | G-6  |        | II    | 1.2         | 1.21      | 7.5YR 4/6 strong brown clay   |  |
| 6    | G-7  |        | I     | 0           | 0.6       | extremely compacted gravel and asphalt with 10YR 4/4 dark yellowish brown loam                      |  |
| 6    | G-8  |        | I     | 0           | 0.7       | 2.5Y 5/4 light olive brown silty clay   | at end of paved road   |
| 6    | G-8  |        | II    | 0.7         | 0.71      | compacted gravel and asphalt with 10YR 5/8 yellowish brown silty clay                               |  |
| 6    | G-9  |        | I     | 0           | 0.35      | 10YR 4/3 brown silty loam   | end of transect  |
| 6    | G-9  |        | II    | 0.35        | 1.35      | 10YR 5/6 yellowish brown silty sandy loam   |  |
| 6    | H-1  |        |       |             |           | !!NO DIG!!  | on top of gas line along side road (Route 72)  |
| 6    | H-10 |        |       |             |           | !!NO DIG!!  |  |
| 6    | H-11 |        |       |             |           | !!NO DIG!!  |  |
| 6    | H-2  |        |       |             |           | !!NO DIG!!  | heavily compacted disturbed fill   |
| 6    | H-3  |        | I     | 0           | 1         | 10YR 4/3 brown silty loam with brick flecking   | level I appears to be disturbed cultural fill, level II possible historic feature or fill with 1% brick flecking and 1 charcoal found; Overall very solid and distinct breaks in the stratigraphy, and very compact. Usually by this depth subsoil is reached- excavation halted at 1.6' |
| 6    | H-3  |        | II    | 1           | 1.3       | 10YR 5/3 brown compact silty loam with lensing  |  |
| 6    | H-3  |        | III   | 1.3         | 1.6       | 10YR 4/3 brown compact silty loam   |  |
| 6    | H-3  | North  | I     | 0           | 2         | 10YR 4/3 brown mottled with 10YR 4/6 dark yellowish brown silty loam                                | compaction increases with depth, disturbed soils, modern artifacts discarded (brick, glass, redware)   |
| 6    | H-3  | West   | I     | 0           | 1         | 10YR 4/3 brown silty loam   |  |
| 6    | H-3  | West   | II    | 1           | 1.6       | 10YR 4/6 dark yellowish brown silty loam  |  |
| 6    | H-3  | South  | I     | 0           | 1.4       | 10YR 4/3 brown silty loam   |  |
| 6    | H-3  | South  | II    | 1.4         | 1.9       | 10YR 4/6 dark yellowish brown silty loam  |  |
| 6    | H-4  |        | I     | 0           | 1.08      | disturbed 10YR 4/4 dark yellowish brown sandy loam with 5% 10YR 5/6 yellowish brown clay sandy loam |  |
| 6    | H-4  |        | II    | 1.08        | 1.4       | 10YR 5/6 yellowish brown clay sandy loam  |  |
| 6    | H-5  |        | I     | 0           | 0.75      | mix of road gravels, asphalt fragments, and about 35% soil  |  |
| 6    | H-6  |        |       |             |           | !!NO DIG!!  | terminated due to modern tarp with road gravels and cobbles  |
| 6    | H-7  |        | I     | 0           | 0.5       | 10YR 4/4 dark yellowish brown sandy loam  | First layer was typical disturbed, then a clean break to a thick sand layer. Then a possible intact A-horizon all the way down to 2' where the STP was terminated, plastic discarded   |
| 6    | H-7  |        | II    | 0.5         | 0.8       | 10YR 6/6 brownish yellow sand   |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description   | Comments   |
|------|------|--------|-------|-------------|-----------|--|--|
| 6    | H-7  |        | III   | 0.8         | 2         | 10YR 4/3 brown silty loam  |  |
| 6    | H-7  | North  | I     | 0           | 1.33      | 10YR 4/4 dark yellowish brown silty loam   |  |
| 6    | H-7  | North  | II    | 1.33        | 1.52      | 10YR 5/4 yellowish brown clay silty loam   |  |
| 6    | H-7  | West   |       |             |           | !!NO DIG!!   |  |
| 6    | H-7  | South  | I     | 0           | 1.41      | 10YR 4/4 dark yellowish brown silty loam- disturbed  |  |
| 6    | H-7  | South  | II    | 1.41        | 1.57      | 10YR 5/4 yellowish brown sandy loam with 10% gravels   |  |
| 6    | H-7  | East   | I     | 0           | 0.8       | disturbed with modern made machine brick, asphalt chunks, and road gravels                   | excavation halted at 0.8'                          |
| 6    | H-8  |        |       |             |           | !!NO DIG!!   | asphalt  |
| 6    | H-9  |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam  | disturbed fill                                     |
| 6    | H-9  |        | II    | 0.6         | 1.67      | 10YR 5/6 yellowish brown sand  |  |
| 6    | I-1  |        |       |             |           | !!NO DIG!!   | power lines/ utilities                             |
| 6    | I-10 |        |       |             |           | !!NO DIG!!   | drainage   |
| 6    | I-11 |        | I     | 0           | 0.4       | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-11 |        | II    | 0.4         | 0.7       | 7.5YR 5/6 strong brown sand  |  |
| 6    | I-11 |        | III   | 0.7         | 1.1       | 5YR 4/6 yellowish red silty clay   |  |
| 6    | I-12 |        | I     | 0           | 0.6       | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-12 |        | II    | 0.6         | 1         | 5YR 4/6 dark yellowish brown silty clay (90%) mottled with 7.5YR 5/6 strong brown sand (10%) |  |
| 6    | I-13 |        |       |             |           | !!NO DIG!!   | gravel road  |
| 6    | I-14 |        |       |             |           | !!NO DIG!!   | gravel road, end of transect                       |
| 6    | I-2  |        | I     | 0           | 0.5       | 7.5YR 5/6 strong brown silty clay  | disturbed  |
| 6    | I-2  |        | II    | 0.5         | 1.2       | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-2  |        | III   | 1.2         | 1.6       | 7.5YR 5/6 strong brown silty clay  |  |
| 6    | I-3  |        | I     | 0           | 0.8       | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-3  |        | II    | 0.8         | 1.35      | 7.5YR 5/6 strong brown silty clay  |  |
| 6    | I-4  |        | I     | 0           | 0.9       | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-4  |        | II    | 0.9         | 1.4       | 5YR 4/6 yellowish red silty clay with heavy gravel   |  |
| 6    | I-5  |        | I     | 0           | 0.5       | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-5  |        | II    | 0.5         | 0.9       | 5YR 4/6 yellowish red silty clay with heavy gravel   |  |
| 6    | I-6  |        | I     | 0           | 0         | 10YR 3/4 dark yellowish brown silty clay loam  |  |
| 6    | I-6  |        | II    | 0.5         | 0.5       | 5YR 4/6 yellowish red silty clay (70%) mottled with 7.5YR 5/6 strong brown sand (30%)        |  |
| 6    | I-7  |        |       |             |           | !!NO DIG!!   | paved road   |
| 6    | I-8  |        |       |             |           | !!NO DIG!!   | drainage   |
| 6    | I-9  |        |       |             |           | !!NO DIG!!   | drainage   |
| 6    | J-1  |        |       |             |           | !!NO DIG!!   | utilities  |
| 6    | J-10 |        | I     | 0           | 0.3       | 10YR 4/3 brown very compact with 80% gravels   |  |
| 6    | J-11 |        |       |             |           | !!NO DIG!!   | disturbed wet land- test was located in drainage   |
| 6    | J-12 |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam with 10% gravels   |  |
| 6    | J-12 |        | II    | 0.6         | 1         | 10YR 4/6 dark yellowish brown mottled with hydric soils                                      | disturbed  |
| 6    | J-13 |        | I     | 0           | 1.5       | 10YR 4/3 brown mottled with hydric soils   | disturbed  |
| 6    | J-14 |        | I     | 0           | 0.4       | 10YR 4/3 brown silty loam with gravels   | hit solid concrete at 0.4', sewer line in vicinity |
| 6    | J-15 |        |       |             |           | !!NO DIG!!   | in standing frozen water                           |
| 6    | J-16 |        | I     | 0           | 1.5       | 10YR 4/3 brown loamy clay fill with gravel and asphalt                                       |  |
| 6    | J-16 |        | II    | 1.5         | 1.51      | 10YR 4/3 brown loamy clay mottled with wet hydric soils                                      |  |
| 6    | J-17 |        | I     | 0           | 1.3       | 10YR 4/3 brown silty loam and gravel fill and asphalt  | end of transect                                    |
| 6    | J-17 |        | II    | 1.3         | 1.31      | 10YR 4/6 dark yellowish brown clay with hydric soils   |  |
| 6    | J-2  |        |       |             |           | !!NO DIG!!   | asphalt parking area                               |
| 6    | J-3  |        | I     | 0           | 0.6       | 7.5YR 5/3 brown clay loam  |  |

| Area | STP  | Radial | Level | Start Depth | End Depth | Soil Description  | Comments                    |
|------|------|--------|-------|-------------|-----------|---|-----------------------------|
| 6    | J-3  |        | II    | 0.6         | 1         | 7.5YR 4/6 strong brown clay   |                             |
| 6    | J-4  |        | I     | 0           | 0.4       | 10YR 4/3 brown silty loam   |                             |
| 6    | J-4  |        | II    | 0.4         | 0.6       | 10YR 4/3 brown with heavy road gravels  | disturbed                   |
| 6    | J-5  |        | I     | 0           | 0.6       | 10YR 4/3 brown silty loam   |                             |
| 6    | J-5  |        | II    | 0.6         | 0.8       | 10YR 4/3 brown with heavy compact gravels   | disturbed                   |
| 6    | J-6  |        | I     | 0           | 0.4       | 10YR 4/3 brown silty loam   |                             |
| 6    | J-6  |        | II    | 0.4         | 0.6       | 10YR 4/3 brown with heavy compact gravels   | disturbed                   |
| 6    | J-7  |        |       |             |           | !!NO DIG!!  | road                        |
| 6    | J-8  |        | I     | 0           | 0.3       | 10YR 4/3 brown very compact with 80% gravels  | disturbed                   |
| 6    | J-9  |        | I     | 0           | 0.4       | 10YR 4/3 brown silty loam with 10% gravels  |                             |
| 6    | J-9  |        | II    | 0.4         | 1.5       | 10YR 4/6 dark yellowish brown mottled with 10YR 4/3 brown with 20% gravels  |                             |
| 6    | K-10 |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty clay loam (70%) mottled with 5YR 4/6 yellowish red silty clay (30%)                   | disturbed                   |
| 6    | K-10 |        | II    | 1.1         | 1.4       | 10YR 3/4 dark yellowish brown silty clay loam   |                             |
| 6    | K-10 |        | III   | 1.4         | 1.8       | 5YR 4/6 yellowish red silty clay  |                             |
| 6    | K-11 |        | I     | 0           | 1.1       | 10YR 3/4 dark yellowish brown silty clay loam (70%) mottled with 5YR 4/6 yellowish red silty clay (30%)                   | disturbed                   |
| 6    | K-11 |        | II    | 1.1         | 1.4       | 10YR 3/4 dark yellowish brown silty clay loam   |                             |
| 6    | K-11 |        | III   | 1.4         | 1.8       | 5YR 4/6 yellowish red silty clay  |                             |
| 6    | K-12 |        |       |             |           | !!NO DIG!!  | drainage                    |
| 6    | K-13 |        | I     | 0           | 0.4       | 10YR 3/4 dark yellowish brown silty clay loam   |                             |
| 6    | K-13 |        | II    | 0.4         | 1.2       | 10YR 5/4 yellowish brown silty sandy loam with brick flecking   |                             |
| 6    | K-13 |        | III   | 1.2         | 1.85      | 5YR 4/6 yellowish red silty clay (60%) mottled with 10YR 5/4 yellowish brown silty clay (40%) with moderate cobbles       |                             |
| 6    | K-13 | North  |       |             |           | !!NO DIG!!  |                             |
| 6    | K-13 | West   |       |             |           | !!NO DIG!!  |                             |
| 6    | K-13 | South  | I     | 0           | 1.1       | 5YR 4/6 yellowish red silty clay (60%) mottled with 10YR 3/4 dark yellowish brown silty clay loam (40%) with heavy gravel |                             |
| 6    | K-13 | South  | II    | 1.1         | 1.6       | 5YR 4/6 yellowish red silty clay  |                             |
| 6    | K-13 | East   | I     | 0           | 1.03      | 5YR 4/6 yellowish red silty clay (60%) mottled with 10YR 3/4 dark yellowish brown silty clay loam (40%) with heavy gravel |                             |
| 6    | K-13 | East   | II    | 1.03        | 1.3       | 5YR 4/6 yellowish red silty clay  |                             |
| 6    | K-14 |        | I     | 0           | 1         | 10YR 3/4 dark yellowish brown silty clay loam   |                             |
| 6    | K-14 |        | II    | 1           | 1.8       | 10YR 3/3 dark brown silty clay (80%) mottled with 5YR 4/6 yellowish red silty clay (20%)                                  |                             |
| 6    | K-15 |        |       |             |           | !!NO DIG!!  | drainage                    |
| 6    | K-16 |        |       |             |           | !!NO DIG!!  | drainage                    |
| 6    | K-17 |        |       |             |           | !!NO DIG!!  | drainage                    |
| 6    | K-18 |        | I     | 0           | 0.8       | 5YR 4/6 yellowish red silty clay (70%) mottled with 10YR 3/4 dark yellowish brown silty clay loam (30%) with heavy gravel | terminated due to gravel    |
| 6    | K-19 |        | I     | 0           | 0.8       | 5YR 4/6 yellowish red silty clay (70%) mottled with 10YR 3/4 dark yellowish brown silty clay loam (30%) with heavy gravel | terminated due to gravel    |
| 6    | K-20 |        | I     | 0           | 1.3       | 5YR 4/6 yellowish red silty clay (60%) mottled with 10YR 3/4 dark yellowish brown silty clay loam (40%) with heavy gravel | in wetland, end of transect |
| 6    | K-20 |        | II    | 1.3         | 1.7       | 5YR 4/6 yellowish red silty clay  |                             |
| 6    | K-7  |        | I     | 0           | 0.6       | 10YR 3/4 dark yellowish brown silty clay loam   |                             |
| 6    | K-7  |        | II    | 0.6         | 1.1       | 5YR 4/6 yellowish red silty clay  |                             |
| 6    | K-8  |        | I     | 0           | 1.3       | 10YR 3/4 dark yellowish brown silty clay loam (60%) mottled with 5YR 4/6 yellowish red silty clay (40%)                   |                             |
| 6    | K-8  |        | II    | 1.3         | 1.7       | 5YR 4/6 yellowish red silty clay  |                             |

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|------|------|--------|-------|-------------|-----------|---|--|
| 6    | K-9  |        | I     | 0           | 1.9       | 10YR 3/4 dark yellowish brown silty clay loam (60%) mottled with 5YR 4/6 yellowish red silty clay (40%) | disturbed berm, STP terminated   |
| 7    | A-1  |        | I     | 0           | 1.8       | 10YR 4/3 brown sandy loam   |  |
| 7    | A-1  |        | II    | 1.8         | 2.2       | 10YR 5/6 yellowish brown sandy clay   |  |
| 7    | A-10 |        |       |             |           | !!NO DIG!!  | wetlands, end of transect  |
| 7    | A-2  |        | I     | 0           | 0.8       | 10YR 3/3 dark brown sandy loam  |  |
| 7    | A-2  |        | II    | 0.8         | 1.3       | 2.5Y 7/6 yellow sandy clay  |  |
| 7    | A-3  |        | I     | 0           | 1.05      | 10YR 4/3 brown sandy loam with 15% quartz   |  |
| 7    | A-3  |        | II    | 1.05        | 1.35      | 10YR 4/4 dark yellowish brown sandy loam  |  |
| 7    | A-4  |        | I     | 0           | 1         | 10YR 3/3 dark brown sandy loam  |  |
| 7    | A-4  |        | II    | 1           | 1.5       | 2.5Y 7/6 yellow sandy clay  |  |
| 7    | A-5  |        |       |             |           | !!NO DIG!!  |  |
| 7    | A-6  |        |       |             |           | !!NO DIG!!  |  |
| 7    | A-7  |        | I     | 0           | 1.2       | 10YR 4/4 dark yellowish brown sand  | heavily disturbed with 10% quartz                                      |
| 7    | A-7  |        | II    | 1.2         | 1.54      | 10YR 5/6 yellowish brown sand   |  |
| 7    | A-8  |        | I     | 0           | 1.2       | 10YR 4/3 brown sandy loam   |  |
| 7    | A-8  |        | II    | 1.2         | 2.3       | 10YR 5/6 yellowish brown sandy clay   |  |
| 7    | A-9  |        |       |             |           | !!NO DIG!!  | slope and wetland  |
| 7    | B-1  |        |       |             |           | !!NO DIG!!  |  |
| 7    | B-5  |        | I     | 0           | 0.4       | heavily disturbed/compacted soil  | STP terminated, along embankment                                       |
| 7    | C-1  |        |       |             |           | !!NO DIG!!  |  |
| 7    | C-2  |        | I     | 0           | 0.6       | 10YR 4/3 brown sandy clay   | almost no gravel   |
| 7    | C-2  |        | II    | 0.6         | 1.2       | 10YR 5/6 yellowish brown sandy clay   |  |
| 7    | C-3  |        | I     | 0           | 1         | 10YR 4/4 dark yellowish brown clay sand with road cinders   | large gravel throughout  |
| 7    | C-3  |        | II    | 1           | 1.6       | 10YR 5/6 yellowish brown sandy clay   |  |
| 7    | D-1  |        |       |             |           | !!NO DIG!!  | rock road drainage   |
| 7    | D-2  |        | I     | 0           | 0.8       | 10YR 5/6 yellowish brown sandy clay   | moderate gravels, 40' from 7-C-3 due to road berm, disturbed from SR 2 |
| 7    | D-3  |        | I     | 0           | 0.8       | 10YR 5/6 yellowish brown sandy clay   | moderate gravels, 40' from 7-C-3 due to road berm, disturbed from SR 1 |
| 7    | E-1  |        |       |             |           | !!NO DIG!!  | marsh/ disturbed   |
| 7    | E-2  |        | I     | 0           | 0.8       | 10YR 4/6 dark yellowish brown sandy clay  | moderate gravels throughout  |
| 7    | E-2  |        | II    | 0.8         | 1         | 10YR 5/8 yellowish brown clay   |  |
| 7    | E-3  |        | I     | 0           | 0.8       | 10YR 4/6 dark yellowish brown sandy clay  | moderate gravels   |
| 7    | E-3  |        | II    | 0.8         | 1.1       | 10YR 5/8 yellowish brown clay   |  |
| 7    | E-4  |        | I     | 0           | 0.4       | 10YR 4/6 dark yellowish brown sandy clay  |  |
| 7    | E-4  |        | II    | 0.4         | 0.8       | 10YR 5/8 yellowish brown clay   |  |
| 7    | E-5  |        | I     | 0           | 0.7       | 10YR 4/6 dark yellowish brown sandy clay  | moderate to low gravels  |
| 7    | E-5  |        | II    | 0.7         | 1         | 10YR 5/8 yellowish brown clay   |  |