

**PHASE I ARCHAEOLOGICAL INVESTIGATION
OF THE PROPOSED WEST LITTLE PIMMIT
RUN PHASE I STORM DRAINAGE
IMPROVEMENT PROJECT,
ARLINGTON COUNTY, VIRGINIA**

by

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Prepared for

Arlington County

Prepared by

DOVETAIL
CULTURAL RESOURCE GROUP

February 2015



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ABSTRACT

On behalf of Arlington County, Dovetail Cultural Resource Group (Dovetail) conducted a Phase I archaeological survey of a portion of the proposed West Little Pimmit Run Phase I storm drainage improvement project area located in Arlington County, Virginia, during January 2015. The West Little Pimmit Run Phase I storm drain improvement project includes 1,450 feet (442 m) of storm sewer pipe installation, along with water main re-location and construction of four bioretention facilities. Based on public comment and a preliminary study by Arlington County staff, it was determined that only the portion of the line crossing John Marshall Drive Island had the potential for archaeological deposits. The archaeological project area for the current study is therefore defined as the project construction footprint within John Marshall Drive Island. The archaeological investigations included a visual inspection of the entire 13,000 square foot (3,962.4 sq. m) archaeological project area to identify surface features, areas likely to contain intact soils, and disturbed areas, followed by judgmental shovel test pit (STP) survey in areas that had the potential for intact soils, and archival research concerning the land use history of the project area. The goals of the survey, which was requested by the Arlington County historic preservation planner, were to identify any archaeological resources over 50 years in age and to make recommendations concerning the National Register of Historic Places (NRHP) eligibility for all identified resources.

Archaeological fieldwork included pedestrian survey and the excavation of four shovel tests. Disturbance related to paving, landscaping, grading, and filling prevented the excavation of additional shovel tests. Shovel tests demonstrated that soils in this area were heavily disturbed by road and utility construction activities. No artifacts were recovered during the survey, but the location of a possible springhead was identified. Archival research indicated that the frequent historical use of this springhead likely began in the early- to mid-nineteenth-century and was associated with a house occupied by member of the Minor family into the early-twentieth century. The Minors appear to have constructed a stone well house at the spring, which was frequented during the Civil War. By the early 1950s, when the area was subdivided and developed, the stone well house was demolished and the natural stream was piped into a storm sewer. Due to the heavy disturbance and lack of artifacts, however, this springhead does not constitute an archaeological site and **no further work is recommended.**

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INTRODUCTION

Dovetail Cultural Resource Group (Dovetail) conducted a Phase I archaeological survey of a portion of the proposed West Little Pimmit Run Phase I storm drainage improvement project area located in Arlington County, Virginia, during January 2015 (Figure 1). The West Little Pimmit Run Phase I storm drain improvement project includes 1,450 feet (442 m) of storm sewer pipe installation, along with water main re-location and construction of four bioretention facilities. Part of this project will require the installation of a new storm drain and two bioretention facilities within the John Marshall Drive Island. Based on public comment and a preliminary study by Arlington County staff, it was determined that only the portion of the line crossing John Marshall Drive Island had the potential for archaeological deposits. The archaeological project area for the current study is therefore defined as the project construction footprint within John Marshall Drive Island. The archaeological survey included a visual inspection of the entire 13,000 square foot (3,962.4 sq. m) John Marshall Drive Island to identify surface features, areas likely to contain intact soils, and disturbed areas, followed by judgmental shovel test pit (STP) survey in areas that had the potential for intact soils. The goals of the survey, which was requested by the Arlington County historic preservation planner, were to identify any archaeological resources over 50 years in age and to make recommendations concerning the National Register of Historic Places (NRHP) eligibility for all identified resources.

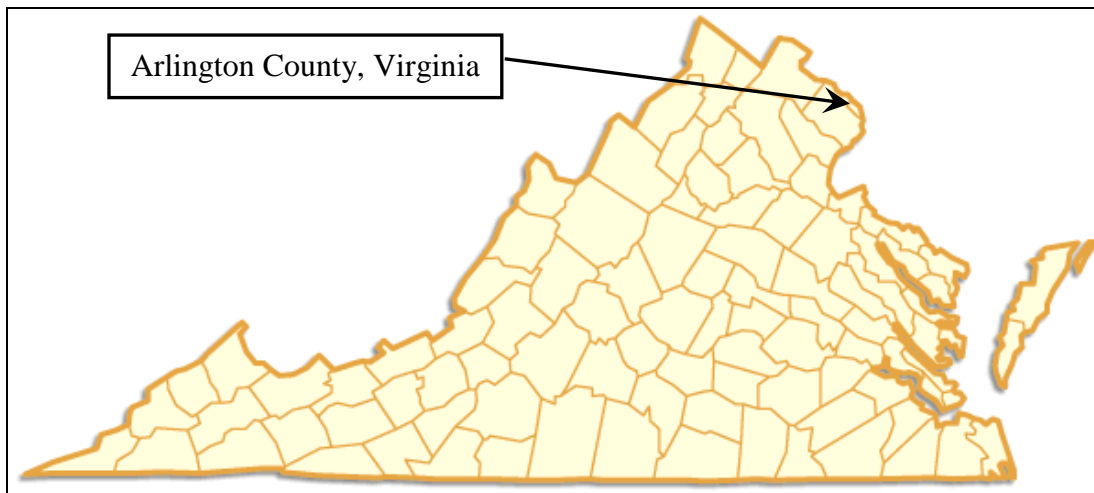


Figure 1: Map of Virginia and Arlington County.

The project area is located in Arlington County, Virginia, near East Falls Church (Figure 2, p. 2). The footprint of the project area is within the public right of way, consisting of a portion of the median island on North John Marshall Drive and the adjacent pavement (Figure 3, p. 2). The archaeological survey area was limited to those areas recommended for survey by the County and not within paved road corridors (Figure 4, p. 3).

The archaeological survey was conducted on January 22, 2015 by D. Brad Hatch. Kerri S. Barile served as Principal Investigator. Dr. Barile and Mr. Hatch meet or exceed the standards established for archaeologist by the Secretary of the Interior (SOI).

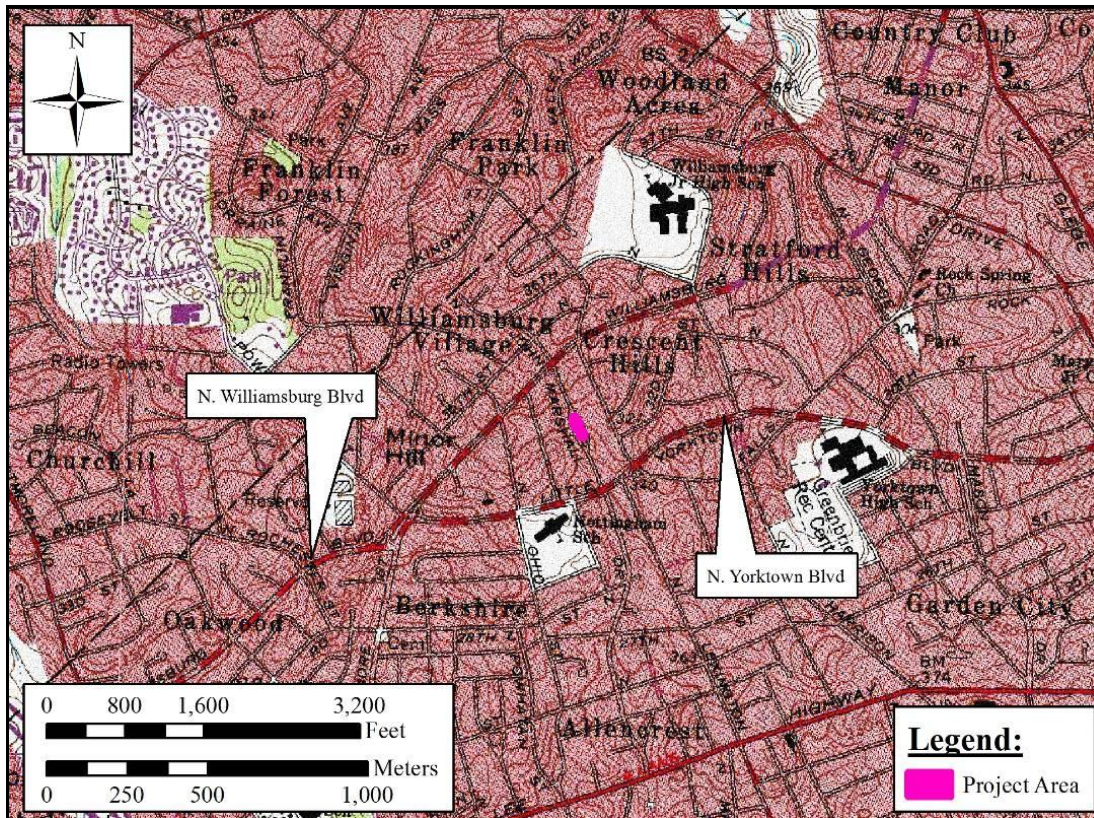


Figure 2: Location of Project Area on the United States Geological Survey (USGS) Arlington County, Virginia 7.5-Minute Digital Raster Graphic Mosaic (United States Department of Agriculture [USDA] 2001).

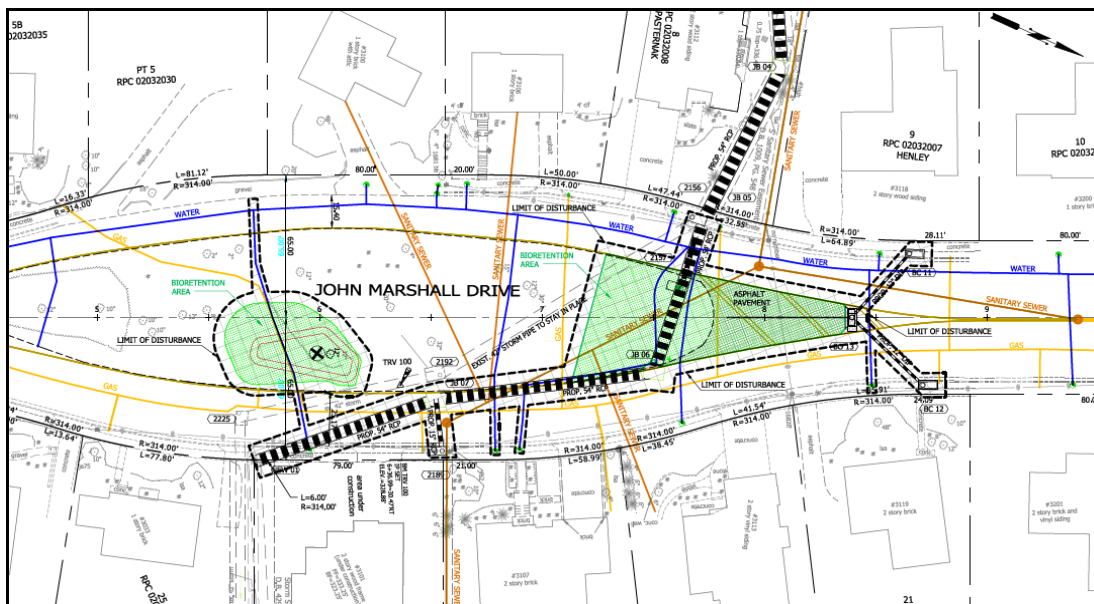


Figure 3: Map Showing the Limits of Disturbance for the Project Area (Arlington Department of Environmental Services 2014).



Figure 4: Location of the Archaeological Survey Area on the National Agricultural Imagery Program Aerial Imagery (USDA 2011).

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ENVIRONMENTAL SETTING

The project area is located in Arlington County, in Virginia's Coastal Plain physiographic region. The surrounding landscape is predominantly urban in character. More specifically, the current project area is located in a median island surrounded by residential development. The landscape of the project area has been heavily modified by the construction of roads, utilities, and houses. The median in which the project area is located slopes down toward the east, following the surrounding topography, and is defined by manicured grass to the north with a mix of small to medium deciduous trees to the south (Photo 1). Additionally, the median is disturbed by two storm water drains, sewer lines, and water lines (Photo 2, p. 6).



Photo 1: Overview of Project Area Showing Slope and Condition at Time of Survey, Facing South.

Geology and Topography

Situated near the northeastern tip of Virginia, Arlington County is bordered by Maryland's Montgomery County to the north, the Potomac River and District of Columbia to the east, the City of Alexandria to the south, and Fairfax County to the west. Geologically, Arlington lies within the western-most section of the Coastal Plain province. Underlying bedrock is composed primarily of igneous and metamorphic rock which originated between 300,000 and over 1 billion years ago (Harper 2007; Natural Resource Conservation Service [NRCS] 2007). Topography in Arlington County varies, with elevations ranging from approximately

350 feet (106.68 m) above mean sea level (amsl) in the western portion of the county to 80 feet (24.38 m) amsl near the Potomac River. The sloping project area ranges from 320 feet (97.54 m) amsl to 340 feet (103.63 m) amsl.



Photo 2: Overview of Project Area Showing Storm Water Drain, Facing North.

Hydrology

Currently, Little Pimmit Run drains the project area. Little Pimmit Run joins the main channel Pimmit Run northeast of the project area and then flows southeast, emptying into the Potomac River near Chain Bridge. The Potomac then flows south and east before emptying into the Chesapeake Bay, which joins the Atlantic Ocean between Cape Charles and Cape Henry.

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.

Well-drained soils, which occur throughout the project area, appear to be likely settings for prehistoric through historic settlement. The well-drained Class 2e Glenelg-Urban land complex soils represent a likely setting for prehistoric and historic sites. Landscape clearing, grading, construction, paving, and other disturbance processes, however, have altered the entire project area (Table 1).

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

Soil Name	Class	Slope	Characteristics
Glenelg-Urban land complex	2e	3–8%	Well-drained; Residuum weathered from mica schist

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HISTORIC CONTEXT

The prehistoric cultural sequence of Virginia's Coastal Plain parallels that of the other areas of Virginia and the Middle Atlantic Region. It is generally broken into three periods, Paleoindian (13,000–10,000 B.P.), Archaic (10,000–3200 B.P.) and Woodland (3200–400 B.P.). These periods are often divided into Early, Middle, and Late periods. Recent work, however, has indicated the possible presence of occupations predating 13,000 B.P.; therefore, a pre-Clovis context has been added. While this sequence represents a cultural continuum, archaeologists have noted that periods of adaptational stability are punctuated by periods of rapid change that do not necessarily correlate with the traditional cultural periods (Custer 1984; Smith 1986).

Prehistoric Period

Pre-Clovis (?–13,000 B.P.)

The 1927 discovery, at Folsom, New Mexico, of a fluted point in the ribs of an extinct species of bison proved that ancient North Americans had immigrated during the Pleistocene. It did not, however, establish the precise timing of the arrival of humans in the Americas, nor did it adequately resolve questions about the lifestyle of those societies (Meltzer 1988:2–3). Recent discoveries suggest humans possibly occupied the Americas, including Virginia, prior to the appearance of Clovis fluted points in the archaeological record. Both the stratigraphic record and the radiocarbon assays from the recently excavated Cactus Hill site in Sussex County suggest the possibility of human occupation of Virginia well before the fluted point makers appeared on the scene (McAvoy and McAvoy 1997). Buried strata at the Cactus Hill Site, in Sussex County, Virginia, have returned radiocarbon dates of 15,000 years ago from sandy strata situated below levels containing fluted points (McAvoy and McAvoy 1997:165). The Cactus Hill data suggest pre-Clovis peoples relied on unfluted knives, prismatic blade-like flakes chipped from prepared cobbles and sandstone grinding and abrading tools, possibly indicating production of wood and bone tools.

Paleoindian (13,000 to 10,000 B.P.)

The Native American occupation of the eastern portion of North America dates to approximately 13,000 to 10,000 B.P. The Paleoindian settlement-subsistence pattern revolved around hunting and foraging in small nomadic bands. These bands focused on hunting caribou, elk, deer, and now extinct mega-fauna (Goodyear et al. 1979; Meltzer 1988; Smith 1986). Evidence for this occupation is manifest in fluted projectile points used for hunting. Fluted points are rare and often identified as isolated occurrences. While these discoveries are infrequent, the eastern half of the United States has some of the highest concentrations of these finds. Almost 1,000 known fluted projectile points have been discovered in Virginia (Anderson and Faught 1998). While the fluted Clovis and Folsom projectile points are the best known of the Paleoindian point types, others include Hardaway-

Dalton and Hardaway Side-Notched (Barber and Barfield 1989). Paleoindian stone tools are usually made from high quality cryptocrystalline lithic material. The Paleo tool kit included scrapers, graters, unifacial tools, wedges, hammerstones, abraders, and other tools used for chopping and smashing (Gardner 1989).

Archaic (10,000 to 3200 B.P.)

The Archaic Period is generally divided into three phases, Early (10,000–8800 B.P.), Middle (8800–5500 B.P.), and Late (5500–3200 B.P.). There does not appear to be a dramatic change in the tool kits of the Early Archaic and their Paleoindian predecessors. Actually, their settlement and subsistence patterns appear to be very similar (Anderson et al. 1996; Cable 1996). The transition into the Archaic Period is marked by an increase in site size and artifact quantity, as well as an increase in the number of sites (Egloff and McAvoy 1990). Diagnostic artifacts of the Early Archaic Period include the Kirk Corner-Notched and Palmer Corner-Notched projectile points (Coe 1964; Custer 1990). In addition, some bifurcated stem points such as St. Albans and LeCroy appear to be associated with the increased use of hafted endscapers (Coe 1964). The Early Archaic also marks the first appearance of ground stone tools such as axes, celts, adzes and grinding stones.

While there appears to be a relatively high degree of cultural continuity between the Early and Middle Archaic Periods, sites dating to the Middle Archaic Period are more numerous suggesting an increase in population, and sites appear to be occupied for longer Periods of time. The Middle Archaic Period coincides with a relatively warm and dry Period that may have resulted in widespread population movements (Delcourt and Delcourt 1987; Stoltman and Baerreis 1983). Mouer (1991:10) sees the primary cultural attributes of the Middle Archaic as “small-group band organization, impermanent settlement systems, infrequent aggregation phases, and low levels of regional or areal integration and interaction.” Projectile points diagnostic of the Middle Archaic Period include Stanley Stemmed, Morrow Mountain Stemmed, Guilford Lanceolate, and Halifax Side-Notched.

The Late Archaic Period is often seen as the culmination of trends that began during the Early and Middle Archaic (Dent 1995:178). Dent (1995:178) suggests that the Late Archaic is “a time that contains both the ends of one way of life and the beginnings of a significant redirection.” The artifact assemblage is dominated by bifacial tools; however, expedient flake scrapers, drills, perforators and utilized flakes are characteristic of these assemblages. Groundstone tools, including adzes, celts, gouges, and axes are seen during this period, with the grooved axe making its first appearance during the Late Archaic (Dent 1995:181–182). Diagnostic projectile points of the narrow blade tradition, often viewed as the early portion of the Late Archaic Period, include the Vernon, Bare Island/Lackawaxen, Claggett, and Holmes (Dent 1995; Mouer 1991).

The period of time from approximately 4500 B.P. to 3200 B.P. is referred to as the Transitional Period by some (Mouer 1991), while others argue that due to the lack of pottery it is more accurately classified as an extension of the Late Archaic (Dent 1995:180). By the early portion of this time period, glacial retreat had led to higher sea levels on the Atlantic seaboard. This allowed for the development of large estuaries and tidal wetlands that were conducive to the development of coastal resources such as fish and shellfish. Sites dating to

this time period are often located in areas where populations can exploit these types of resources, such as river valleys, the lower portion of the coastal plain tributaries of major rivers, and near swamps.

Transitional Period sites tend to be larger than those of the Archaic Periods, likely reflecting an increase in population, however, there is still no evidence for year-round occupation. Dent (1995) argues that the larger sites may be misinterpreted as reflecting longer term occupation and may simply be sites that were revisited for short period on many occasions. Material culture associated with the Transitional Period includes steatite or soapstone vessels as well as the groundstone tools discussed above. Broad-bladed points associated with the later portion of the Late Archaic or Transitional Period include the Savannah River, Susquehanna, Perkiomen, Dry Brook, and Orient Fishtail projectile points (Dent 1995; Mouer 1991).

Woodland (3200 to 350 B.P.)

The Woodland Period is divided into three phases, Early (3200 B.P.–2300 B.P.), Middle Woodland (2300–1100 B.P.), and Late (1100–400 B.P.). The introduction of pottery, agriculture, and a more sedentary lifestyle mark the emergence of the Woodland Period. The population surge that began in the Archaic continues in this period. The concurrent development of agriculture and pottery led early theorists to posit that they were linked; however few still support this position. Alternatively, the evolution of technological and subsistence systems as well as various aspects of pan-Eastern interaction are currently believed to underlie the evolution of ceramic vessels (Egloff 1991).

Steatite-tempered Marcey Creek pottery, dating to the Early Woodland Period, is thought to be the earliest ceramic ware in Virginia. Marcey Creek wares, considered experimental, are typically shallow, slab built forms (Dent 1995; McLearen 1991). Another steatite-tempered ware, Selden Island, followed Marcey Creek and soon other temper types appear in the archaeological record (McLearen 1991). Approximately 1100 B.P. there is a shift from the earlier slab construction techniques to coil and conoidal or globular vessels. This shift is accompanied by the introduction of surface treatments such as cord marking and net impression (Dent 1995; McLearen 1991). Projectile points associated with the Early Woodland Period include Rossville Stemmed and possibly Piscataway Stemmed (Dent 1995).

The Middle Woodland is marked by the rise of certain sociocultural characteristics that include “interregional interaction spheres, including the spread of religious and ritual behaviors which appear in locally transformed ways; localized stylistic developments that sprung up independently alongside interregional styles increased sedentism and evidence of ranked societies or incipient ranked societies” (McLearen 1992:55). While there is a degree of commonality among Middle Woodland peoples, one of the striking characteristics of this period is the rise of regional trends, particularly in pottery. Coastal Plain and Piedmont ceramic styles can be distinguished, as well as north-south differences that correspond to river drainages that drain into the Chesapeake Bay or Albemarle Sound. The Middle Woodland Period also sees the introduction of the triangular or Levanna projectile point.

The Late Woodland Period is marked by an increased reliance on agriculture, attendant population growth, larger villages and increased sociocultural complexity (Turner 1992). Ceramic types of the Late Woodland Period in the Coastal Plain include the sand- or quartz-tempered Potomac Creek and shell-tempered Townsend fabric-impressed pottery (Potter 1993; Turner 1992). The trend towards sedentary settlements continues throughout the Late Woodland Period. In the early portion of this period, settlements consist of small clusters of houses with little to no internal organization. However, by 300 B.P., larger villages are observed. Features associated with these villages include palisades, houses, hearths, storage pits, and burials (Hantman and Klein 1992). The smaller Madison triangular projectile point is generally associated with the Late Woodland Period.

Contact Period

The Contact and early historic period refer to the time period during which the native groups had their first contact with Europeans and European goods. The material culture of the period is characterized by sand- and grit-tempered pottery decorated with simple stamped decorative motifs, often similar and likely derived from Late Woodland styles (Potter 1993). The introduction of European goods is a distinguishing characteristic of this period. Depopulation related to European born disease and changed trade dynamics are the two primary factors often cited in cultural changes during this period.

Historic Period

Frontier Settlement to District Gateway (Mid-1600s to 1870)

Threats of hostile Indians and a general preference for lands in and around the York and James Rivers initially discouraged settlement in the Potomac River region. By the mid-seventeenth century, as more and more of the area had been explored and mapped, and hostilities with local Native American groups slowly subsided, growing numbers of would-be residents started to arrive. By 1680, the growing number of new settlers had completely displaced the local Native American population beyond the Blue Ridge Mountains to the west.

Lands in the area of Northern Virginia were divided into several large patents. In the mid-1600s, Robert Howson, a former ship captain, acquired a 6,000-acre (2,428.12-ha) tract that ran northward from a point on Hunting Creek, south of present-day Alexandria, to the current northern boundary of the Arlington National Cemetery (Kitchens 2001; Traceries 1996). In 1669, Howson sold this property to John Alexander.

Early commercial development in Northern Virginia was largely based, as it was throughout Virginia, on the growing, selling and consumption of tobacco. Many of Virginia's earliest and largest plantation estates, along with many small and medium-sized farmsteads, were built with tobacco production in mind. In the 1730's the Hunting Creek tobacco warehouse was established near what became the town of Falls Church (established 1733). The venture proved successful, and in 1740 an official tobacco inspection station was built. A number of farmsteads were settled during the early 1700s in the area of present-day Arlington County.

These too relied heavily on tobacco as the central cash crop. Though the market for harvested tobacco existed, and profits could be had, its cultivation, particularly without crop rotation, often overtaxed the local soils. As the soil failed so too did the farmers who subsequently headed westward to try again (Lee 1946 *cf* Traceries 1996).

In addition to plantation and farmstead settlement, and the depletion of local soils, tobacco farming left its mark on the landscape in other important ways as well. Local road systems were required to move the product to and from nearby markets and ports. A number of these 'rolling' roads as they were called, still exist in Northern Virginia today. Glebe Road, Lee Highway, Jefferson Davis Highway, and Little Falls Road are just a few examples (Lee 1946 *cf* Traceries 1996; Pratt 1997:494).

With the area's social, commercial, and economic growth came the need for a more formal delineation of political and jurisdictional boundaries. The first county established in the area that encompasses present-day Arlington was Northumberland. Founded in 1648, it extended all the way from the Rappahannock to the Potomac River. Over the next century, the lands of present-day Arlington County were assigned and re-assigned to a series of county designations including: Westmoreland County (1653–1664), Stafford County (1664–1730), Prince William County (1730–1742), Fairfax County (1742–1791), Alexandria County (1791–1920), and Arlington County (1920–present). In 1765, the first parish in Fairfax was established. Its purview included all of Fairfax County north of Hunting Creek and two churches, Christ Church in Alexandria and Falls Church. In 1775, the rector of this Parish was granted a 500-acre (202.34-ha) farm complete with glebe house. The latter, built in 1753 and subsequently reconfigured several times, still stands today at 4527 17th Street in Arlington County (Loth 1999). In 1791, President George Washington ordered that a survey be conducted on a 10-acre (4.05-ha) tract of land that encompassed the Town of Alexandria and points south, and parts of Fairfax County. This land, organized and renamed Alexandria County, was ceded by Virginia to Federal Government when the District of Columbia was officially formed in 1801. Arlington, then still just a small settlement, fell within the boundaries of this new county and subsequently Federal jurisdiction (Kitchens 2001; Traceries 1996).

In the early 1800s, in hopes of expanding trade with areas to the west and spurring further commercial development in and around the port of Alexandria, a number of prominent citizens and leaders from the surrounding counties began calling for a canal system. George Washington and several of his contemporaries had established the Patowmack Canal Company in the eighteenth century for just this purpose. Though their effort had ultimately failed, it did not dissuade others from trying. In 1828, the Chesapeake and Ohio Canal Company was formed to build a canal along the north shore of the Potomac. Another enterprise, the Alexandria Canal Company, was also formed around this time to build a local extension of this canal to terminate in Alexandria. Work on the Aqueduct Bridge and the Alexandria Canal was begun in 1833. Though the project was successfully completed in 1844, the cost of the effort had far exceeded initial projections. The federal government provided some funding but not nearly enough. Alexandria County then turned to the Virginia Government for help but were denied because Alexandria was still geographically and politically bound to the District. Seeing no other options, the residents of Alexandria began petitioning for retrocession to Virginia. The U.S. Congress acquiesced, and in 1847 voted to

return Alexandria County to the Commonwealth of Virginia. At the time, the County's population stood at around 10,000, with over 8,500 of those residents living in or near the port of Alexandria. The remainder was spread throughout the still primarily rural countryside. In 1870, the City of Alexandria was established as a municipality separate from the County. After the Civil War, people continued to flock to the area. Its proximity to the District and its abundance of undeveloped countryside, made Alexandria County a very popular destination and cemented its role as gateway to downtown Washington (Kitchens 2001; Traceries 1996).

Arlington County (1920 to Present)

In 1920, the name of Alexandria County was officially changed to Arlington. The move proved practical as it helped mitigate any confusion between the county and the City of Alexandria. It was also symbolic in that the new name honored one of the area's most prominent citizens, General Robert E. Lee, and the property he had called home, the Arlington House estate. This change in identity also ushered in one of the most intense periods of growth and development in the county's history. Over the next half century the local population would grow from 16,000 in 1920 to over 170,000 by 1990 (Department of Planning, Housing & Development [DPHD] 2007; Kitchens 2001). With the influx of new residents came expanding residential and commercial development, new mass transit systems, and an expanding social, economic, and political infrastructure.

The years after World War II were particularly crucial in terms of defining Arlington's current landscape. The federal government expanded, bringing lobbying groups and research and development enterprises to Arlington and the surrounding counties. In 1942, construction began on the Pentagon Complex to house the headquarters offices of the U.S. Department of Defense. Since its completion in 1943, it has remained one of Arlington's leading employers and one of its most character-defining landmarks (Kitchens 2001; Koskie-Karell 1988; Traceries 1996).

The invention and broad appeal of the automobile also proved a significant agent for change in Arlington. The increasing affordability of automobiles facilitated travel over areas of the County that had been previously unreachable by trolley and only practically traversed by horse and wagon. As automobiles opened up new settlement and development opportunities, the population began to grow beyond existing town and hamlet, eventually merging them into one unit. Construction on the Washington area Metrorail system began in 1969, and in July 1976 the first lines connecting D.C. with Arlington and other surrounding communities opened for commuters (Washington Metropolitan Area Transit Authority [WMATA] 2007). In the following years, much of the commercial and, to a certain extent, residential development was focused along and near these Metrorail corridors and station locations (DPHD 2007).

Today, with a total area of 26 square miles (67.34 sq. km), Arlington is the smallest self-governing county in the U.S. With an estimated 227,146 local residents as of January 1, 2013, roughly 8,309 people per square mile, it is also among the mostly densely populated (DPHD 2007). Though Arlington still serves as a vital gateway into downtown Washington it has evolved a very unique and visible identity of its own.

SURVEY METHODOLOGY

This project consisted of a Phase I archaeological investigation. The goals of the survey were to identify and evaluate archaeological sites more than 50 years old within the project area. The survey methods employed to meet these goals were chosen with regard to the project's scope (i.e., the project's potential to affect significant resources, should they be present), the potential of the project area to contain significant archaeological resources, and local field conditions. Based on the environmental setting of the project area, the previously recorded archaeological sites and architectural resources within 1 mile (1.6 km), and the identification of a springhead in the project area by informants, the probability of discovering archaeological resources within the project area was thought to be moderate to high.

Archaeology Survey

The archaeological survey consisted of a pedestrian survey and subsurface testing. Pedestrian survey identified disturbed portions of the project area. Subsurface testing involved the excavation of STPs within the undisturbed portion of the project area. STPs were not excavated in areas of known disturbance, standing water, or excessive slope. Due to the small size of the project area and the presence of a potentially historic springhead, shovel tests were placed judgmentally in order to maximize the potential for identifying archaeological materials associated with the springhead. Shovel tests were given alphanumeric designations (e.g., STP JM1). Shovel tests tended to parallel North John Marshall Drive, running north-south. STPs measured approximately 15 inches (38.1 cm) in diameter and were excavated to penetrate at least 0.3 feet (10.2 cm) into sterile subsoil or to the practical limits of excavation. Radial shovel tests were excavated at 25-foot (7.6-m) intervals in cardinal directions from shovel tests that produced cultural materials. All soils excavated from STPs were passed through 0.25-inch (0.6-cm) hardware mesh cloth. Distinct soil strata were given sequential stratum designations that increased with depth (e.g., Stratum I, II, III). All artifacts were recovered and bagged by stratum to the extent possible. The STP alphanumeric designation, level, excavator, date and material recovered were recorded on field tags for each level. Soil conditions, weather information, and notations on disturbances were recorded within field notes.

Laboratory Analysis

Any archaeological specimens collected during the Phase I 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).

Archival Research

Due to the possible presence of a historic springhead in the project area, limited archival research was also conducted on the project area. During the course of this research several resources were utilized in order to determine the land use history of the project area, its associated owners, and the potential location of cultural resources. These sources included, but were not limited to, historic maps, historic aerial photographs, genealogy websites, local historical publications, and local informants. Particularly useful for this project were the historical resources contained within the Center for Local History at the Arlington Public Library, which included historic maps and publications related to the project area. Additionally, Arlington County's GIS website provided access to almost eighty years of historic aerial photographs of the area. Census record, accessed through Ancestry.com, were used to confirm and identify property owners listed on historic maps. Finally, Jim Lunson, a local historian, provided valuable information about the history of the springhead located in the project area.

BACKGROUND RESEARCH

Prior to conducting fieldwork, the potential of the project area to contain significant archaeological resources and NRHP-eligible architectural properties was assessed by searching the Virginia Department of Historic Resources (DHR) site and survey file records, as well as examining the Civil War Sites Advisory Commission (CWSAC) maps for the area. Although Arlington County was the location for several of the forts relating to the defenses around Washington, DC, the CWSAC maps show no notable Civil War engagements within the project area (CWSAC 2009).

No previously identified cultural resources exist within the project area. However, there are 348 previously identified architectural resources and two archaeological sites located within a 1-mile (1.6-km) radius of the project area. Most were recorded by informant reporting, but some appear to have been identified during cultural resource surveys associated with development and infrastructure improvements resulting from the growing population of the area.

Previous Cultural Resource Surveys

Only one cultural resource survey has been conducted within 1 mile (1.6 km) of the project area. This survey was conducted by Archeological Testing and Consulting, Inc. and examined a small section of the Reserve Hill Farm at 5115 Little Falls Road prior to the construction of a cell tower (Hill et al. 2000). During the course of the survey historical research was conducted on the property in order to trace its ownership history and shovel tests were excavated. Archaeological fieldwork identified a single site, 44AR0035, which consisted of a small transient resource procurement camp dating to the late Woodland Period and a late-nineteenth- to early-twentieth-century historic artifact scatter. Archeological Testing and Consulting, Inc. recommended that the site was not eligible for listing on the NRHP due to disturbance from twentieth-century construction of a nearby basketball court, driveway, and picnic shelter, and DHR concurred.

Previously Recorded Architectural Resources

No previously recorded architectural resources exist within the Little Pimmit Run project area. However, a total of 348 previously-identified architectural properties were identified within a 1-mile (1.6-km) radius of the project area. Due to the high amount of resources within 1 mile (1.6 km), the size of the architectural resource buffer was reduced to 0.5 mile (0.8 km), which resulted in the identification of 10 previously identified properties (Table 2, p. 18). These properties included an historic district, boundary stones, a cemetery, a well, and houses, with houses making up the majority of properties. The four buildings for which data on style is available comprise Colonial Revival and Greek Revival examples, with the former being most common.

Four of the properties located within a 0.5 mile (0.8 km) of the project area were either listed on the NRHP or determined potentially eligible for listing. The Boundary Markers of the

District of Columbia (000-0022), and specifically the Benjamin Banneker SW-9 Intermediate Boundary Stone, are the oldest architectural resources that have been identified near the project area. Originally placed to mark the boundaries of the District of Columbia, the stones are constructed of Aquia sandstone and have their locational information carved on their faces. The boundary markers, as a group, are listed on the NRHP and the Virginia Landmarks Register (VLR), while the Benjamin Banneker Intermediate Boundary Stone is listed as a National Historic Landmark (NHL), in addition to being listed on the NRHP and VLR.

Table 2: Table of Architectural Properties within a 0.5-Mile (0.8-km) Radius of the Project Area.

DHR #	Name	Date	NRHP Status
000-0015	Benjamin Banneker: SW-9 Intermediate Boundary Stone of the District of Columbia	1792	NHL Listed, NRHP Listed, VLR Listed
000-0022	Boundary Markers of the Original District of Columbia	1792	NRHP Listed, VLR Listed
000-4102	Single Dwelling, 2726 North Harrison Street	ca. 1936	Not Evaluated
000-4103	Single Dwelling, 2820 North Jefferson Street	ca. 1930	Not Evaluated
000-4104	Single Dwelling, 2911 North Harrison Street	ca. 1910	Not Evaluated
000-4209	Leeway-Overlee Historic District	ca. 1851	DHR Board Det. Eligible
000-5776	Minor House	No Date	Not Evaluated
000-5777	Roosevelt Oaks and Well site	No Date	Not Evaluated
000-5778	Dr. Johnson Family Cemetery	No Date	Not Evaluated
000-5779	Reserve Hill	1904	DHR Staff: Potentially Eligible

The Leeway-Overlee historic district (000-4209) consists of a neighborhood that is composed of several subdivisions developed throughout the twentieth century. The district's period of significance spans from 1851 to 1958 and stems from the fact that it is the only neighborhood in Arlington to be subdivided by the original agrarian family that owned it since 1849. The district was determined eligible due to its contributions to the understanding of community planning and development in the area (Criterion A) and its distinctive architecture (Criterion C). Ultimately, this district serves as a good example of the development that defined Arlington County increasing in the 1930s to 1950s time period, and defining much of the current project area.

The remaining previously identified architectural resources within 0.5 mile (0.8 km) of the project area consist of six dwellings, an associated well, and a cemetery. No data is available on the Virginia Cultural Resource Information System (V-CRIS) records for the Minor House (000-5776), Roosevelt Oaks and Well site (000-5777), or the Dr. Johnson Family Cemetery (000-5778), making details difficult to discern. However, the Minor House is

almost certainly associated with the Minor family that owned the parcel containing the project area in the late-nineteenth and early-twentieth century due to its close geographical proximity to the project area. Three of the remaining houses are early-twentieth-century Colonial Revival style dwellings that have not been evaluated for NRHP, but are likely typical of that style and time period in the vicinity of the project area. Finally, Reserve Hill (000-5779), is a 1904 “Greek Revival” dwelling that has been determined potentially eligible for listing on the NRHP. The house is a replica of the original Greek Revival-style structure that stood on the parcel and was destroyed by a fire in 1892. The 1904 dwelling was constructed by the chairman of the Arlington Board of Supervisors and would have been located on the parcel immediately adjacent to the parcel containing the project area in the early 1900s.

Previously Recorded Archaeological Sites

No previously identified archaeological sites exist within the Little Pimmit Run project area. Two previously recorded archaeological sites, however, are located within a 1-mile (1.6-km) radius of the project area (Table 3). Neither of these sites possess detailed records in the V-CRIS files, although one appears to be a historic site and the other a multi-component site. Site 44AR0014 is a historic site of unknown date that was identified based upon historic map projections. Site 44AR0035 is a multi-component site containing both prehistoric and historic components of unknown dates that was identified during a Phase I cultural resource survey by Archeological Testing and Consulting, Inc. The prehistoric component of this site likely represents a short term camp, while the historic component represents a domestic scatter of artifacts. Site 44AR0014 has not been evaluated for listing on the NRHP and 44AR0035 was found to be not eligible for listing on the NRHP.

Table 3: Table of Archaeological Resources within a 1-Mile (1.6-km) Radius of the Project Area.

DHR #	Type	Period	NRHP Status
44AR0014	Unknown	Historic, unknown	Not Evaluated
44AR0035	Camp, temporary, Other	Prehistoric, unknown; Historic, unknown	Not Eligible

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RESULTS OF THE ARCHAEOLOGICAL INVESTIGATION AND ARCHIVAL RESEARCH

The archaeological investigation of the project area comprised pedestrian inspection of the entire John Marshall Drive Island landscape, STP survey of undisturbed portions of the project area, and archival research concerning the land use history of the project area. STP survey was not conducted in paved or clearly disturbed areas. No archaeological sites were discovered during the fieldwork, but the presence of a springhead was noted, which archival research suggested might have been related to the occupation of the area from after the Civil War until the early 1950s.

Pedestrian Survey and Shovel Testing

Archaeological fieldwork included pedestrian survey of the entire project area and the excavation of four shovel tests within those areas found to intact, notably the proposed bioretention areas (Figure 5, p. 22). Shovel tests were spaced at regular intervals of approximately 35 feet (10.67 m) within both proposed bioretention areas. This spacing was significantly closer than the 50-foot (15.24 m) interval required by the Commonwealth of Virginia, but was thought appropriate due to the known presence of a potentially historic springhead. The presence of a filled springhead or possible well was noted within the project area, but no artifacts were recovered during testing. The possible well or springhead location was defined by a shallow round depression that appeared to have some evidence of slumping. Additionally, a large concrete fragment that possibly served as a well liner, or cover, was noted next to the depression (Photo 3–Photo 5, pp. 22–23).

STP survey examined the areas of disturbance within the project area, specifically those associated with the proposed bioretention areas. Shovel tests demonstrated disturbance from landscaping, grading, and filling likely associated with road and residential construction activities over the past six decades. No artifacts were recovered during shovel testing. The average depth of STPs was 1.3 feet (0.40 m), ranging from a depth of 0.5 feet (0.15 m) to 2.0 feet (0.61 m). In general, shovel test profiles were comprised of multiple fill and disturbance layers extending to depths of around 1.5 feet (0.46 m) or more. The variation in these disturbances throughout the project area can be seen in the stratigraphy of the shovel tests. JM-1 was defined by a brown (10YR 4/3) micaceous clay loam overlying a dark yellowish brown (10YR 4/6) clay loam mottled with 15 percent pinkish white (5YR 8/2) clay that was terminated at a depth of 1.3 feet (0.40 m) (Figure 6, p. 24; Photo 6, p. 24). STP JM-2 shared a similar profile to JM-1. The nature of the disturbance in these shovel tests was likely the result of construction and filling associated with the development of the area starting in the 1950s as indicated by the mixed soils and presence of plastic, asphalt, and modern vessel glass throughout the strata.

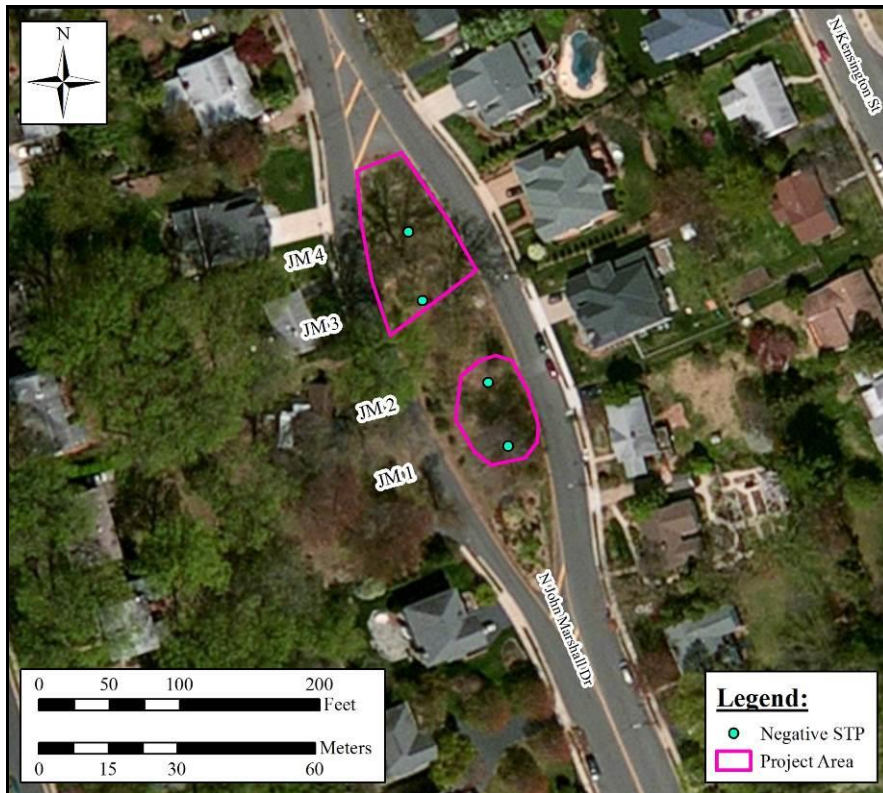


Figure 5: Shovel Test Map of the Archaeological Survey Area on the National Agricultural Imagery Program Aerial Imagery (USDA 2011)



Photo 3: View of Possible Springhead Location, in Red, Facing West.



Photo 4: View of Possible Springhead Cleared of Leaf Litter and Showing Large Concrete Fragment in Association, Facing North.



Photo 5: View of Possible Springhead Location, in Red, Facing North.

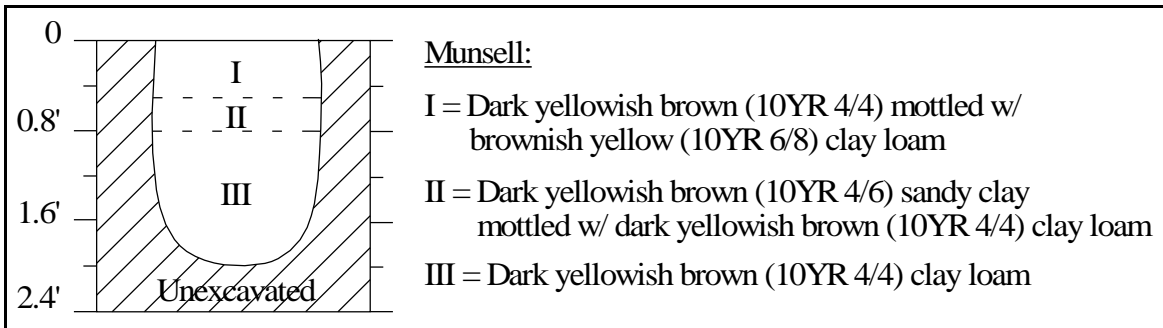


Figure 6: Profile Drawing of STP JM-1.



Photo 6: View of Disturbed Stratigraphy in STP JM-1.

The stratigraphy in JM-3 consisted of a dark yellowish brown (10YR 4/4) clay loam mottled with a brownish yellow (10YR 6/8) clay loam overlying a dark yellowish brown (10YR 4/6) sandy clay mottled with dark yellowish brown (10YR 4/4) clay loam. These two mixed layers, which extended to a depth of 0.8 feet (0.24 m), sealed a dark yellowish brown (10YR 4/4) clay loam subsoil (Figure 7, p. 25). STP JM-4 also displayed extensive disturbance, but it was likely related to the placement of a nearby storm water drain. This shovel test, which was terminated at a depth of 0.5 feet (0.15 m), consisted of a dark gray (10YR 4/2) silty loam mottled with 30 percent brownish yellow (10YR 6/8) clay loam and containing 20 percent gravel inclusions.

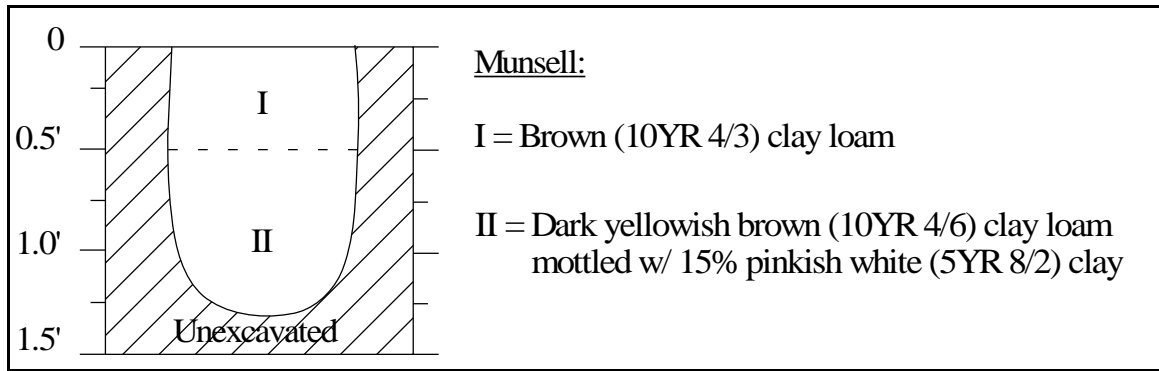


Figure 7: Profile Drawing of STP JM-3.

Archival Research

The lack of artifacts concentrated in the area of the springhead and the presence of heavy disturbance was not altogether unexpected based upon the land use history of the project area. An examination of historic maps and aerials indicated that the project area was unoccupied farmland until after the Civil War, then was lightly occupied until after World War II when it began to be heavily developed (Figure 8, p. 26). Research by local historian, Jim Lunson, indicates that a dwelling could have been constructed on the ridge above the project area by Fairfax Minor as early as the first half of the nineteenth century (personal communication 2015). There is evidence that a stone well house was constructed near the project area at that time, which served the needs of the house and Union soldiers during the Civil War (Jim Lunson, personal communication 2015).

The first visual indication of a dwelling near the project area, however, stems from an 1879 map showing a building owned by William Minor located on the higher ground immediately west of the project area between what is today Nottingham Street and North John Marshall Drive (Figure 9, p. 26). William Minor's family had been seated at Minor Hill since the eighteenth century, and he was likely a close relative of Jonathan R. Minor, who had a house located just north of the project area (Pratt 1997:495–496). Census records for the year 1870 indicate that Jonathan Minor was a farmer, an occupation that he would have shared with many people in the surrounding area at that time, likely including William Minor (United States Census 1870).

By 1900, when the next map of the area identifying property holders was made, the parcel containing the project area was still in the possession of the Minor family, specifically Roberta Minor (Figure 10, p. 27). The 1900 Census lists Minor as a 43-year old widow who had been born in Washington, D.C. (United States Census 1900). Minor, whose maiden name was West, was from a relatively well-to-do family, as the 1870 Census indicates that her father, William West, was a treasury clerk, the household had two servants, and Roberta was away at boarding school (United States Census 1870). Prior to her marriage to Jay Minor, likely in the 1880s judging from her age and the age of her son, she was already a member of the Minor family since both her mother, Gertrude, and her stepmother, Elizabeth were Minors (Ancestry 2015; United States Census 1870). By 1910, Roberta Minor had left the

property in Arlington County, and perhaps sold it, because the Census for that year lists her as residing in a lodging house in Washington, D.C. (United States Census 1910).



Figure 8: 1865 Map of Project Area, in Red, Showing Lack of Development in Area (United States War Department 1865).



Figure 9: 1879 Map Showing Location of William Minor's House near the Project Area, in Red (Hopkins 1879).

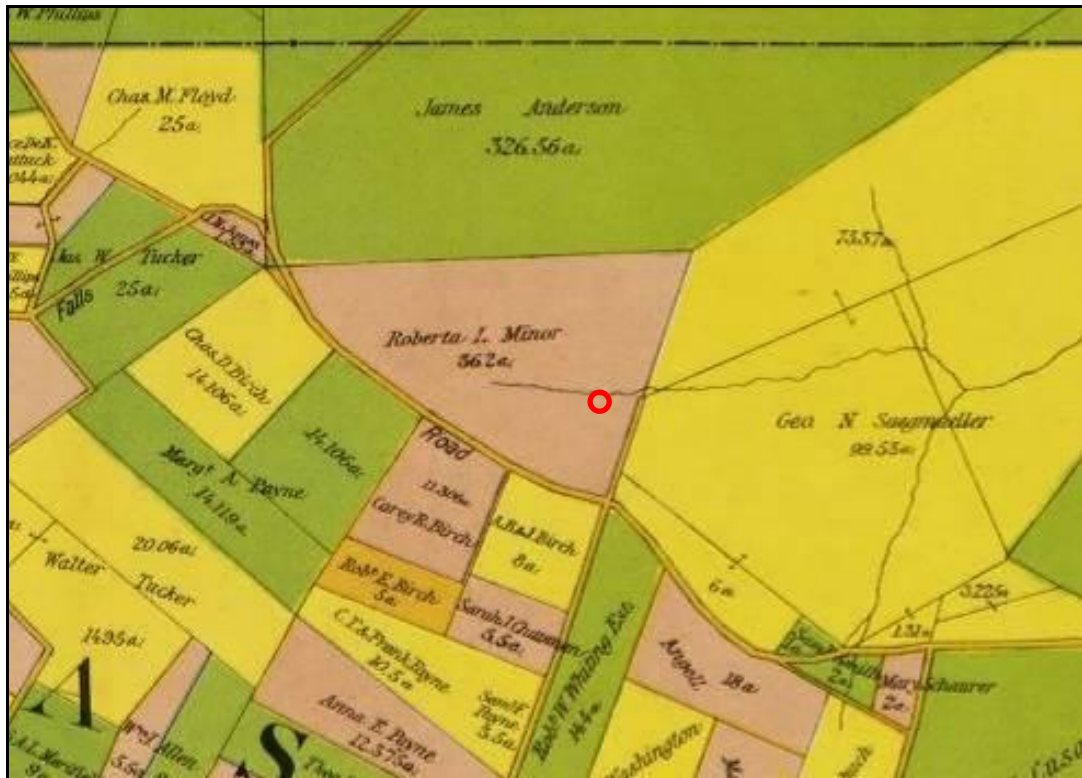


Figure 10: 1900 Map Showing Location of Project Area, in Red, on Parcel Owned by Roberta Minor (Howell and Taylor 1900).

A 1945 map of Arlington lists the owner of the parcel on which the project area is located as N. Jewett (Figure 11, p. 28). This is likely Nelson Jewett, who resided elsewhere in Arlington County and probably purchased the property to rent it or for speculative purposes (United States Census 1940). Until 1950, aerial photographs of the project area show that it remained relatively rural in character with the only buildings or structures present in the vicinity being those likely constructed by William Minor and his heirs on the ridge above the springhead (Figure 12–Figure 13, pp. 29–30). In general, much of northwestern Arlington County was rural during this period, reflecting the character of much of the region prior to the explosion of development around Washington, D.C. after World War II.

Starting in the early 1950s, development surrounding the current project area began to expand rapidly. The developer split John Marshall Drive around the location of the old well, and donated the island to the County, but demolished the well house and had the water flow piped into a storm sewer when the road was constructed (Jim Lunson, personal communication 2015). By August, 1952, a Sanborn Fire Insurance Map indicates that the area surrounding the springhead had been completely subdivided and seated, appearing much as it does today (Figure 14, p. 31). The map also designates the island in North John Marshall Drive as a park. While the island is not officially a park today, it does appear to serve a recreational purpose for people in the neighborhood, indicating a continuity in land use since the mid-twentieth century. The 1957 and 1989 aerial photographs of the project area show that little has changed in terms of the layout of the neighborhood since the early 1950s (Figure 15–Figure 16, pp. 31–32). Based upon this, it appears that the majority of the

disturbance identified during shovel testing likely stems from the initial subdivision of the property in the early 1950s, with smaller episodes of disturbance related to the construction and maintenance of North John Marshall Drive and utility lines serving the neighborhood.

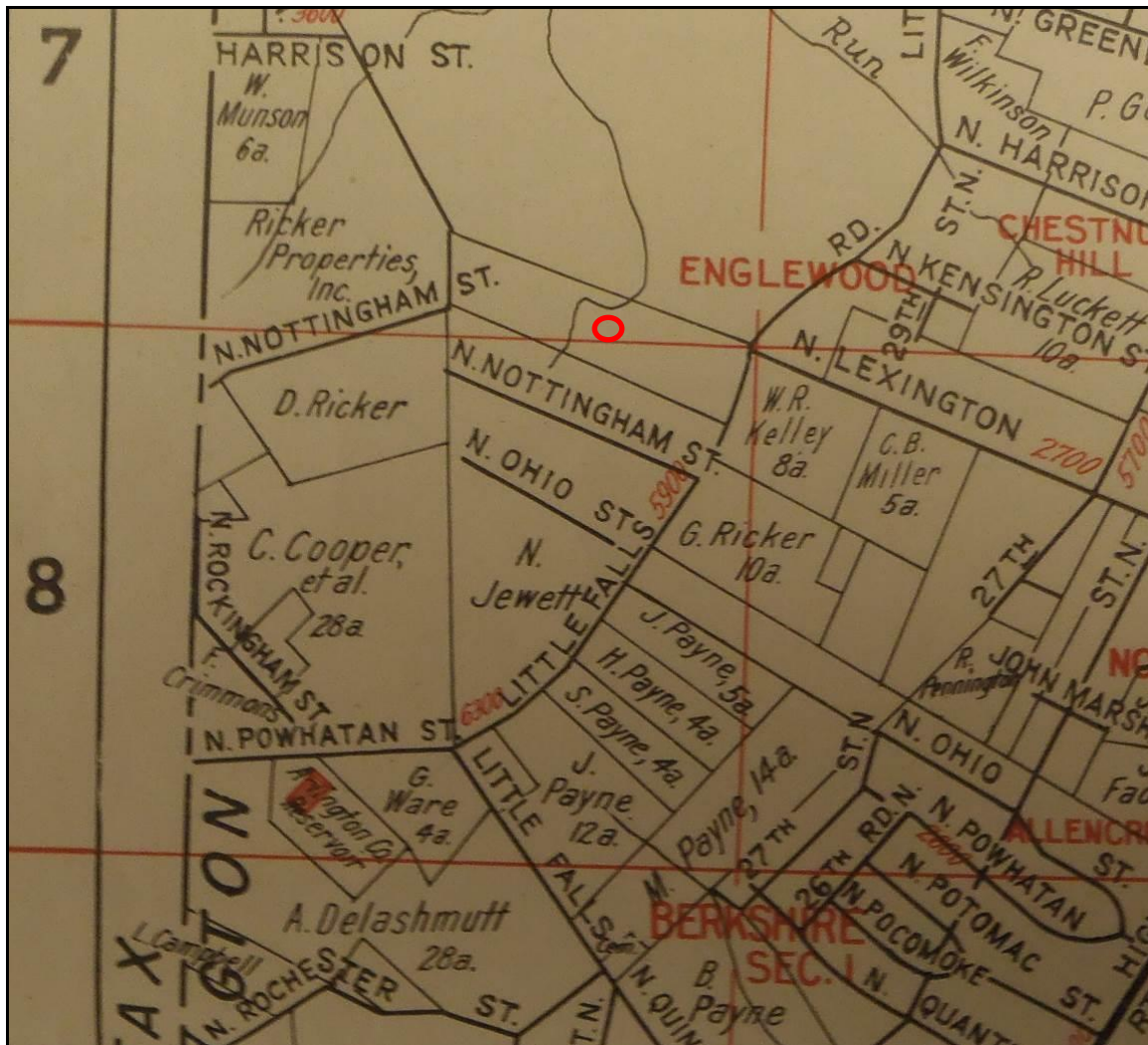


Figure 11: 1945 Map of Arlington County Showing Location of Project Area, in Red, on Parcel Owned by N. Jewett (Franklin Survey Company 1945).

Although an examination of land use history in the vicinity of the project area indicates that the Minor family, and others, lived near the springhead from after the Civil War until the early 1950s, there is no archaeological evidence indicating their use of this natural landscape feature. Judging from the proximity of the late-nineteenth- and early-twentieth-century house on the ridge above the spring, it is quite likely that the occupants of the house took advantage of the springhead as a source of fresh water, possibly even constructing a well in that location. The major development of the surrounding area starting in the early 1950s, however, caused significant ground disturbance around the springhead compromising the integrity of any archaeological or architectural remains that might have existed. As such, **Dovetail recommends that no further work is necessary.**



Figure 12: 1934 Aerial Photograph of Project Area, Outlined in Red, Showing the Rural Setting of the Region and Lack of Any Visible Buildings or Structures Associated with the Springhead (Arlington County GIS 2015).



Figure 13: 1949 Aerial Photograph of Project Area, Outlined in Red, Showing a Lack of Buildings, Structures or Paths Associated with the Springhead (Arlington County GIS 2015).

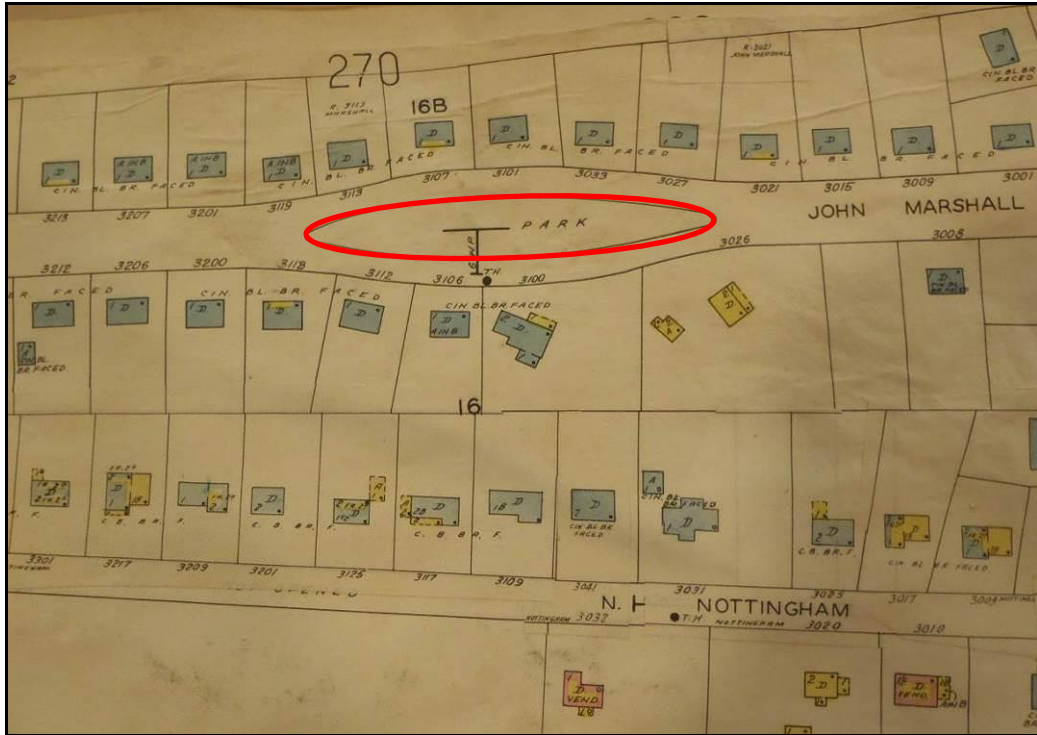


Figure 14: 1952 Map Showing Project Area's, in Red, Designation as a Park and Surrounding Development (Sanborn Map Company 1952).



Figure 15: 1957 Aerial Photograph of Project Area, in Red, Showing Surrounding Development (Arlington County GIS 2015).



Figure 16: 1989 Aerial Photograph of Project Area, in Red, Showing Continuity in Landscape since Early 1950s (Arlington County GIS 2015).

SUMMARY AND RECOMMENDATIONS

Dovetail conducted a Phase I archaeological survey of the proposed Arlington County Government's West Little Pimmit Run Phase I storm drainage improvement project area located in Arlington County, Virginia, during January 2015. The West Little Pimmit Run Phase I storm drain improvement project includes 1,450 feet (442 m) of storm sewer pipe installation, along with water main re-location and construction of four bioretention facilities. Part of this project will require the installation of a new storm drain and two bioretention facilities within the John Marshall Drive Island. Based on public comment and a preliminary study by Arlington County staff, it was determined that only the portion of the line crossing John Marshall Drive Island had the potential for archaeological deposits. The archaeological project area is therefore defined as the project construction footprint within John Marshall Drive Island. The archaeological survey included a visual inspection of the entire 13,000 square foot (3,962.4 sq. m) project area to identify surface features, areas likely to contain intact soils, and disturbed areas, followed by judgmental STP survey in areas that had the potential for intact soils, and archival research concerning the land use history of the project area. The goals of the survey, which was requested by the Arlington County historic preservation Planner, were to identify any archaeological resources over 50 years in age and to make recommendations concerning the NRHP eligibility for all identified resources.

A total of four shovel tests was excavated in the project area which demonstrated that soils were heavily disturbed by road and utility construction activities. No artifacts were recovered during the survey, but the location of a possible springhead was identified. Due to the heavy disturbance and lack of associated cultural material, however, this springhead does not constitute an archaeological site and **no further work is recommended.**

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APPENDIX A: SHOVEL TEST RECORD

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STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
JM-01		I	0	0.5	10YR 4/3 brown clay loam	Micaceous
JM-01		II	0.5	1.3	10YR 4/6 dark yellowish brown clay loam mottled w/ 15% 5YR 8/2 pinkish white clay	Disturbed
JM-02		I	0	0.4	10YR 4/3 brown clay loam	Located ~ 2' S of spring head
JM-02		II	0.4	1.4	10YR 4/6 dark yellowish brown clay loam mottled w/ 15% 5YR 8/2 pinkish white clay	
JM-03		I	0	0.5	10YR 4/4 dark yellowish brown mottled w/ 10YR 6/8 brownish yellow clay loam	
JM-03		II	0.5	0.8	10YR 4/6 dark yellowish brown sandy clay mottled w/ 10YR 4/4 dark yellowish brown clay loam	
JM-03		III	0.8	2	10YR 4/4 dark yellowish brown clay loam	Disturbed
JM-04		I	0	0.5	10YR 4/2 dark gray silty loam w/ 20% gravel & 30% 10YR 6/8 brownish yellow clay loam mottling	Disturbed, near stormwater drain