PHASE I ARCHAEOLOGICAL RESOURCE INVESTIGATION

FENCE LINE SECURITY IMPROVEMENTS

JOINT BASE MYER HENDERSON HALL

ARLINGTON, VIRGINIA

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February 2017

ABSTRACT

This report describes the findings of a Phase I-level archaeological investigation conducted at Joint Base Myer Henderson Hall (JBM-HH) in Arlington, Virginia. The cultural resource investigation was conducted to identify potentially significant archaeological sites that could be affected by the proposed construction of a new security fence along the boundary between JBM-HH and Arlington National Cemetery (ANC).

The archaeological investigation involved a pedestrian inspection of the project area and the excavation of shovel test pits (STPs). A total of 44 STPs were excavated within the footprint of the proposed new security fence, which is approximately 10,119 linear feet in length and an average of 40 feet in width. The total area tested is approximately 9.3 acres.

No significant archaeological resources were encountered. The majority of the project area has been heavily disturbed. Artifacts that were found are primarily modern debris from disturbed contexts or artifacts that are not particularly diagnostic of any age except the general historic period. None of the artifacts recovered were found in a quantity or density that would signify an intact, significant archaeological site.

Implementation of the proposed security fence project will have no effect on archaeological resources, and no further archaeological investigations are recommended.

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The purpose of this report is to describe the findings of a Phase I-level archeological investigation conducted at JBM-HH in Arlington, Virginia (Figure 1). The investigation was conducted to identify potentially significant archaeological resources that could be impacted by construction of a new security fence at JBM-HH.

In accordance with Federal Regulation 36 CFR 800.4(a)(i), and on behalf of JBM-HH, the U.S. Army Corps of Engineers, Baltimore District (USACE), performed a review of existing information and conducted a Phase I-level archaeological investigation to determine the likelihood of archaeological properties existing in the area of potential effect (APE) for the proposed undertaking. For the archaeological study, the APE is defined as the location of all ground disturbance resulting from the installation of the new security fence. The investigation included a review of site files maintained by JBM-HH, previous cultural resource investigations conducted at the facility, and historic maps and atlases. An archaeological field investigation of the project area, including the excavation of STPs, was also completed. The goals of the Phase I survey were to locate and identify all archaeological resources in the survey area, to estimate the size and boundaries of any identified sites, and to assess the need for additional investigation.

DESCRIPTION OF THE UNDERTAKING

The purpose of the proposed undertaking is to enhance perimeter security features along the JBM-HH/ANC property line (Figure 2). These enhancements include improvements to the JBM-HH/ANC border through the installation of security fencing and other Anti-Terrorism Force Protection (AT/FP) security features. The border between JBM-HH and ANC is currently demarcated by a historic stone wall. The wall was originally constructed in the late 1800's, and portions are eligible for the National Register of Historic Places (NRHP) as a contributing resource to the ANC Historic District (U.S. Department of the Interior, National Park Service 2014). The wall was originally constructed to a variable height of four feet, which leaves JBM-HH vulnerable to unauthorized pedestrian access from the adjacent ANC. The historic wall does not meet Department of Defense (DoD) standards as outlined in the Unified Facilities Criteria 4-010-01, which outlines security guidance for Army installations. Implementation of the undertaking will aid JBM-HH in meeting current AT/FP standards and in providing a secured or controlled perimeter with access control measures and procedures.

ENVIRONMENTAL SETTING

Physiographic Setting and Geology

The following is adapted from the existing Archaeological Resources Management Plan (ARMP) for JBM-HH (URS 2004). The Fort Myer and Henderson Hall components of JBM-HH are located at the Fall Line transition between the Piedmont Uplands and the unconsolidated soils of the Coastal Plain (Smith 1976). Historically, several small drainages ran through the post, but most have been either channeled in culverts or filled in. Among the tributaries of the Potomac River that flow in and around Fort Myer, Wampakin Run originates in the former Fort Meyer picnic area and flows south through ANC. Long Branch extends along the western and southern boundary of Fort Myer and the southern boundary of Henderson Hall, but has been channelized and flows through a series of culverts. Several intermittent drainages can be seen around Whipple Field and along the steep slopes and ravines north of the former picnic area.

Soils

Soils at JBM-HH are developed from ancient terraces of the Potomac River as well as from weathered bedrock of the Piedmont. The topography in this area includes upland knolls and steep slopes, with elevations ranging between approximately 140 and 250 feet above mean sea level. Many of the remnant terraces of the Potomac River within the area contain superficial deposits of varying-sized cobbles and gravels of Pleistocene age that form a thin layer over both bedrock and ancient, weathered-in-place upland soils (Kise, Franks & Straw [KFS]1991:13). Soil within the boundaries of the installation (Figure 3) is characterized by the Soil Conservation Service as a single type: Urban land-Udorthents complex, 2-15 percent slope (Harper 2007:4). In general, this classification describes highly disturbed or developed land. Urban land is described as areas more than 80 percent of which are covered by impervious surfaces (such as concrete or asphalt) or buildings (Smith 1976:50). Udorthents consist of mixed earthy fills including a mixture of organic and inorganic waste from human activity and sandy, gravelly, clayey, silty, and micaceous soil material. Udorthents are typically located on poorly drained soils as a base for development (Smith 1976:45).

Vegetation

Functioning terrestrial and aquatic ecological systems exist within both installations, although natural land and water environments that were present before urbanization have been severely disturbed. Although now masked by the many changes along the shoreline, a number of different ecological zones would have been present near the sites in early historic and late prehistoric times. These zones can be characterized as estuarine, marshy, floodplain, and Coastal Plain upland habitats.

The upper end of the Potomac basin, including the tidal Anacostia River, is considered a mid-estuary habitat. This area is described as a tidal freshwater zone with salinity levels of less than 0.5 parts per thousand both at surface and bottom throughout the year (Lippson et al. 1979). Silting and chemical pollutants have until lately rendered area watercourses virtually devoid of life, but recent cleanup efforts have resulted in the return of a number of species (Bandler 1989). A variety

of freshwater fish species have been recorded in the area, including carp, largemouth bass, gar, blue gill, catfish, and crappie. Anadromous and semi- anadromous species (those running upstream from saltwater environments to spawn in freshwater) are present in the form of striped bass, white perch, alewife, and several varieties of herring and shad (Lippson et al. 1979).

Tidal freshwater marshes have formed along the Potomac estuary at various confluences with tributary streams. These wetland areas are normally rich in natural resources, attracting plant species such as cattail, smartweed, bulrush, and cordgrass, as well as various tubers (Lippson et al. 1979). The marshes harbor a large number of both native resident and migratory bird species, along with a variety of reptile and mammal species.

JBM-HH lies within the oak-hickory forest as defined by Shelford (1963). Naturally occurring arboreal species include several sub-species of oak, hickory, and chestnut, along with maple, walnut, poplar, sycamore, gum, and pine, many occupying the more poorly drained ground represented by flats, toe slopes, depressions, or stream and wetland margins. Understory species included dogwood, holly, laurel, birch, ash, willow, and hornbeam, along with various shrubs and vines (Hitchcock and Standley 1919; Smith 1976).

In their natural condition, the marshes along the Potomac and Anacostia rivers and the wooded ground on terraces above would have harbored numerous mammal species, including black bear, bobcat, white-tailed deer, and smaller mammals, such as raccoon, opossum, rabbit, and squirrel, that inhabit the forest edge environment. The present-day, highly urbanized character of the area has meant a considerable decline in the number of plant and animal species actually observed. Land reclamation and filling have altered pre-existing topographic contours, often at the expense of the ecologically rich tidal marshes along shorelines. Open ground now typically containes planted grasses or trees and shrubs. Animals are mostly small, seen in the form of rodent or insect populations, or as scavenger species, such as raccoon or opossum, that are especially suited to an urban parkland setting.

PREHISTORIC PERIOD CONTEXT

The following summary of the prehistory of the project area was compiled from JBM-HH's Integrated Cultural Resource Management Plan (U.S. Army Corps of Engineers 2015), site reports, and other sources containing information on the prehistoric and historic period occupation in or near the installations.

JBM-HH is situated in the Middle Atlantic region of the Eastern U.S. The prehistory of this region is traditionally divided into three major periods: the Paleoindian Period (circa 10,000 B.C. to 8000 B.C.), the Archaic Period (circa 8000 B.C. to 1000 B.C.), and the Woodland Period (circa 1000 B.C. to A.D. 1600). The Contact Period (circa A.D. 1600 to 1730) represents the transitional period when Native American cultures of the Mid-Atlantic region were exposed to the material culture of European traders, explorers, and settlers.

Paleoindian Period (10,000 to 8000 B.C.) – The earliest record of human habitation in northern Virginia is concurrent with the final retreat of the Wisconsin polar ice sheet some 12,000 years ago (Carbone 1976). The region's most intensively studied Paleoindian sites are in the

Shenandoah Valley of western Virginia. The reason for this apparent focus of Paleoindian sites is likely related to the maximum overlap of environmental sources for cryptocrystalline lithic sources and rich ecological zones in that region (Gardner 1974, 1978). A small number of fluted projectile points with Paleoindian attributes have been found in Fairfax County, but the paucity of diagnostic artifacts for this period makes interpretation difficult (Johnson 1986). Given the nature of these finds, it is likely that occupations in the northern Virginia region during the Paleoindian Period were sparse or ephemeral at best (Bromberg 1987; Johnson 1986).

Local environments of the Paleoindian period were different from those that are observed today. Prior to circa 9500 B.C., a mosaic of deciduous and boreal forests and grasslands would have been present. Wetter climatic conditions would have caused the widespread distribution of freshwater wetlands throughout interior areas (KFS 1991:7). These environments would have provided ample habitat for a variety of game animals including now-extinct mastodon, mammoth, and moose (KFS 1991:7).

The tool kit of the Paleoindian groups indicates a focus on the procurement and processing of animal resources. This focus is suggested by the distinct projectile points and lithic bifacial cutting tools that were highly efficient for the hunting and processing of animals for meat, skins, bone, and antler. These early groups usually made the tools from high quality jasper or chert, whose physical characteristics enabled re-sharpening, reshaping, and otherwise continual use.

Archaeologists have deduced a number of possible scenarios from the paucity of Paleoindian sites. Paleoindian groups were highly mobile, moving throughout the environment as the need for natural resources demanded. Social organization for these mobile groups was most likely based upon single or multiple family bands, similar to modem gatherer-hunter societies (KFS 1991:7). The main type of Paleoindian site was the base camp. Secondary sites included resource procurement and processing sites.

Archaic Period (8000 to 1000 B.C.) – The grasslands and boreal forests of the Paleoindian Period gradually receded from the region as temperatures and climates changed. The environment of the Paleoindian Period gave way to oak, hickory, and hemlock forests that increased as the Wisconsin ice sheet continued its retreat far to the north. The mesic forests that developed during this period flourished in the warm and wet climatic conditions of the region (KFS 1991:8). The Pleistocene period megafuana, such as the mammoth and mastodon, became extinct during the transition from the Paleoindian Period to the Archaic Period. A foraging pattern among the human occupants of the region soon emerged. This pattern was a slow adaptive process in response to the gradual ecological shift that had begun during the Paleoindian Period.

As the Native Americans spread out in search of floral and faunal resources within smaller territories, they also began to utilize locally available lithic materials such as quartz and quartzite. The toolkit was a primary difference between the earlier Paleoindian peoples and the Archaic Period inhabitants. Archaic Period tool kits included prepared stone tools for the processing of plant foods. These tools included grinding stones, pestles, and tools for woodworking, such as grooved axes, celts, and gouges (KFS 1991:8). The increased reliance upon plant resources is evidenced by the presence of these types of tools, as opposed to the focus on hunting tools in the Paleoindian Period.

Projectile point forms also changed during the Archaic Period. This period is characterized by the increased use of locally available, but generally poorer quality, lithic types, such as quartz.

Woodland Period (1000 B.C. to A.D 1600) – The most pronounced shifts in human societies in the Middle Atlantic region occurred during the Woodland Period. A dramatic change in climate and environment occurred during the Early Woodland period, affecting the Native American groups living then (KFS 1991:9).

Probably the most significant change that occurred between the Paleoindian Period and the Woodland Period was the extensive melting of the Wisconsin ice sheet. The result was an increase in sea level that continued until around 3,000 B.C. After that time, the sea level rise slowed, allowing for the development of the estuarine wetlands that now characterize the Chesapeake Bay watershed. This development of an estuarine environment allowed for the influx of anadramous fish species, which spend their life in salt water only returning to fresh water to spawn. Anadramous fish such as the Atlantic sturgeon, American shad, alewife, and Blueback herring were each a seasonal visitor to the far reaches of the Chesapeake Bay, including the Potomac River as far up as the beginning of the Fall Line.

While subsistence during the Early and Middle Woodland periods continued to focus on hunting animals and gathering plant resources, fishing became as important to local Native Americans in the northern Virginia region as previous land-based subsistence practices. The rich resources that developed in the estuarial environment must have been a major attraction to these prehistoric groups, as site locations during this period become increasingly focused on areas adjacent to primary rivers of the Chesapeake Bay. Estuarine base camps further indicate the level of reliance upon aquatic resources, as shown through the appearance of extensive oyster and clam shell middens that have been recorded as comprising more than several acres in size.

The Late Woodland Period is marked by the appearance of agricultural food production systems and settled village life (KFS 1991:10). Around A.D. 1000, the natural environment of northern Virginia had assumed its "modern" characteristics that were eventually encountered by European settlers (KFS 1991:10). These characteristics included average temperature, seasonal cycles, and the increased sea level. In association with increased agricultural reliance was the development of pottery. The appearance of pottery in prehistoric societies in the Middle Atlantic region is probably one of the most significant and noticeable differences in the prehistoric artifact assemblage recovered from archaeological sites of this period.

HISTORIC PERIOD CONTEXT

Contact Period (A.D. 1600 to 1730) – Early in the 17th century, the Late Woodland period merges with the period of European contact, the later beginning regionally in 1608, when Captain John Smith first sailed up the Potomac River. At least four Native American villages from this time are thought to have been located within the Washington, D.C. city limits (Humphrey and Chambers 1985). One of them, called Nacochtanke or Anacostank, was described by Smith as a large palisaded village near the confluence of the Anacostia and Potomac Rivers. Nacochtanke may in fact have been a dispersed settlement including agricultural fields and numbering about 80 families. The village has not been located with certainty archaeologically, although several

sites from that time period have been identified along the river in the area of modern-day Bolling Air Force Base at Giesboro Point, and near the Sousa Bridge (Proudfit 1890; Powell 1966; Evans 1978). Two ossuaries (secondary burials containing the remains of multiple individuals) were found on Bolling Air Force Base, and these features may date from the occupation of Nacochtanke (Stewart and Wedel 1937; Evans 1978). Nacochtanke was occupied by members of the Conoy or Piscataway, an Algonquian-speaking tribal confederation related to the Nanticoke on the Eastern Shore of the Chesapeake Bay (Feest 1978). Potomac Creek pottery, associated archaeologically with the Piscataway, is prevalent in the area (Clark 1980).

For a period of time, life for the Native American populations in the Anacostia Valley continued as it had before Smith's visit, as evidenced by the persistence of locally manufactured ceramics and stone tools. However, as European settlers arrived, trading relationships were established, and items of European origin began to displace traditional tools: iron axes and hoes replaced stone tools; metal pots replaced ceramic vessels; brass and copper ornaments appeared in place of traditional stone, shell, or bone. Meanwhile, indigenous groups suffered extensive loss of population through warfare, disease, and migration. By 1700, few Native Americans remained in the area (Feest 1978).

Early National Period (1789 to 1830) – ***Antebellum Period (1830 to 1860)*** – Little changed at what is now JBM-HH from the end of the Contact Period in 1730 to the start of the Early National Period. The land was part of the Arlington estate owned by George Washington Park Custis during the first half of the nineteenth century. His father, John Park Custis, who was George Washington's stepson, purchased what was known as the Abingdon Estate along with a few lesser tracts from Gerard Alexander. Following John Park Custis' death in 1781, his son and heir, George Washington Park Custis, inherited 1100 acres of his father's estate located along the Potomac River, immediately opposite the site of the city of Washington (Arlington Historical Society n.d.).

George Washington Park Custis constructed Arlington House on a bluff overlooking the city of Washington as a memorial to George Washington, who became his guardian following the death of his father. Custis inherited many of Washington's personal effects following the death of Martha Washington in 1802 and desired a building to house these artifacts fitting to the memory of George Washington. The Greek revival house he constructed was one of the first such designs in the United States to incorporate the Colossal type columns that were a distinctive trademark of the style. Custis wanted the monumental columns to be seen across the Potomac River from the city of Washington. Work began on the house in 1802. The north wing was completed near the end of 1802, and the south wing was completed in 1804. The west or rear side of the house was not entirely completed until 1818. Originally named Mount Washington, Custis changed the name of the estate to Arlington, after the first Custis family estate in Northampton County, Virginia (Arlington Historical Society n.d.).

The Arlington estate was more than a memorial to George Washington, it was a fully functional nineteenth-century plantation. Slave quarters for the house servants were located immediately behind the mansion house. Other quarters for field hands were located at other remote parts of the plantation away from the house. Arlington was part of the plantation economy of antebellum society. Slaves cultivated and harvested the crops in the field, processed and stored the crops, and

even assisted in their marketing. Specialized laborers such as blacksmiths, barrel makers, and others also operated shops on the estate to support the plantation operations.

Custis had only one child that survived to adulthood, Mary Anna Randolph Custis. In 1831, Mary married a young Army Lieutenant named Robert E. Lee. The Lees lived at Arlington during most of their marriage, even though Robert E. Lee was often away during the course of his Army career. Their children were raised at Arlington. Following the death of George Washington Park Custis in 1857, Mary and his grandchildren inherited the estate. After this time, Robert E. Lee spent more time at Arlington managing the estate. It was at Arlington that he made his fateful decision in the spring of 1861 to resign his commission with the United States Army. He soon accepted a commission in the Confederacy representing his native state of Virginia. With this decision and the proximity of the estate to the city of Washington, the Lees expected to lose the estate, at least for the duration of the war; in fact, Union forces crossed the river and occupied the Arlington estate less than two months after the Confederate firing on Fort Sumter (Hanbury, Evans, Newill Vlattas & Company 2000:37).

Civil War (1861 to 1865) – The Union Army used the Arlington estate as a headquarters and hospital and only late in the war used it as a burial ground. Quartermaster General Montgomery Meigs provided the orders to start burying Union dead in the rose garden of the estate in 1864. The cemetery soon expanded beyond the rose garden and remained in the government's possession after the war, eventually becoming the nation's most renowned military cemetery. Lee's sons however won the final battle over the property through a court settlement over the seizure of the estate.

The U.S. government established a freedman's village on the grounds in 1863 for freed slaves. After Abraham Lincoln issued the Emancipation Proclamation, thousands of former slaves flocked to the city of Washington. The government established what were termed as "freedman's villages" to house all the newly arrived freedmen. The villages were also designed to provide the newly freed men and women with labor skills and to educate their children. The freedman's village at Arlington was near the present day Southgate Road between Henderson Hall and Arlington National Cemetery. It contained about 50 one-story houses that each accommodated two families (Cornibert 2004).

The freedman's village itself was not located on any of the Arlington parcels that are part of the present day site of Fort Myer. However, many of the freedmen may have had an impact on the development of the military site. It has been recorded that many of the freedmen worked as laborers in the construction of the earthworks and supporting structures in the vicinity that were part of the defenses of Washington (Hanbury, Evans, Newill Vlattas & Company 2000:40).

The defenses of Washington became an immediate concern at the commencement of the Civil War in 1861. This concern was only exacerbated following the Confederate victory at the First Battle of Manassas in July 1861. By August of 1862, the city was encircled by a string of forts and fortifications. Union engineers carefully located the forts on high points with good converging fields of fire to cover all approaches to the city. Forts Cass, Tillinghast, and Craig were all located on the outskirts of the Arlington property (Hanbury, Evans, Newill Vlattas & Company 2000:39). Fort Cass was located on land currently part of Fort Myer. The caisson stables now

occupy the site of Fort Cass. Diagrams of the fort show earthworks with officer quarters, barracks, and mess halls located behind the fort (URS 2004:2-10).

In October of 1862, military authorities determined that the federal capital required even more protection, which prompted the construction of a second ring of forts (Hanbury, Evans, Newill Vlattas & Company 2000:39). Among the new fortifications was Fort Whipple, also on property now part of Fort Myer. Fort Whipple was located east of Fort Cass and was the more substantial of the two earthworks. Union engineers completed the fort in May 1863 and named it after Major General A. W. Whipple, who died from wounds received at the Battle of Chancellorsville at around the time the fort was completed.

Reconstruction and Growth (1865 to 1914) – With the end of the Civil War the government no longer needed the defensive works around the City of Washington and many were abandoned. Fort Whipple, however continued as an active military post. By the late 1860s, new barracks, a kitchen, storerooms, and offices were constructed at the site (Bell 1981:9). Sometime after the Civil War and shortly before the site was occupied by the Signal School, a hospital was established at the fort. Photographs show the hospital as a two-story wood-frame structure (URS 2004:2-12). The Army leveled the original earthen Civil War fortification sometime between 1868 and 1871 (Batzli 1997:14).

In 1869, the Army made Fort Whipple the home of the U.S. Signal School. The Signal Corps was created during the Civil War largely from the leadership and ideas of the corps' first commander, Albert James Myer. Myer was originally part of the Army's medical corps, having entered service in 1854 as an assistant surgeon. Dr. Myer had an interest in sign language and the use of the telegraph, which he applied to the military arts. By 1856, he had developed a system of signal communication for military use and in that same year he drafted his first memorandum promoting the use of a signal system for the Army. In an era where communication was difficult on the battlefield, Myer believed that such a system was necessary for an effective Army. The War Department, however, was slow to agree. Not until 1860 did Congress create such a title/position. The Army promoted Myer to the rank of Major and gave him the office of "Signal Officer". In the beginning there was no corps, only the Signal Officer and his small staff. It was not until 1863 that the Army finally established the Signal Corps (Glassford n.d.).

The first test for the Signal Corps ironically did not take place in combat with Confederate forces, but rather with American Indians in New Mexico. Myer participated in the campaigns of Colonel Canby's command against the Navajo nation. Here he established a system of signal communication that was included among the instructional schools for newly arrived officers in the Department of the Southwest. Myer's system relied upon both flag and torch signals (Glassford n.d.).

Following the Civil War, the Army continued to advance the training and development of the Signal Corps through the permanent establishment of a Signal School at Fort Whipple. Myer was assigned to head the school. The Army chose Fort Whipple because of its geographic location at the top of a bluff, a very advantageous site for signal exercises (URS 2004:2-16).

The physical features of Fort Whipple were in declining condition by the time Myer arrived on the site in 1869. A report by the Surgeon General's Office noted that the only buildings at the site were a two-story officers' quarters, the hospital, a dispensary, guardhouse, and small office. The condition of these buildings was reported as "decidedly bad" (URS 2004:2-16). The fort's condition at this time reflects in part the original purpose as an earthwork designed as only a temporary defensive fortification. The supporting buildings were constructed hastily and were suitable for only what time and nature allowed. The fort and the supporting buildings were never intended for permanent use.

The Signal Corps peacetime activities conducted during this period included the development of new techniques utilizing state-of-the-art technology. In 1877, Meyer installed the Army's first telephone line between his Washington office and Fort Whipple (Batzli 1997:22). The Corps also improved procedures for the field telegraph. The new procedures, experiments, and lessons learned were incorporated into the instruction at the Signal School (Netherton and Netherton 1987:217).

Myer died unexpectedly in 1880, having achieved the rank of Brigadier General. In recognition of his contributions, the Army renamed Fort Whipple after him. It was not long after Myer's death that Fort Myer would cease to be the home of the U.S. Army Signal School.

In 1886, the U.S. Army re-designated Fort Myer as a cavalry post and the signal school was moved off the post. The senior ranking commander in the U.S. Army, General Philip H. Sheridan, was primarily responsible for this change in the mission at Fort Myer. A former cavalry officer of distinction during the Civil War, Sheridan envisioned Fort Myer as a showplace for the Army's equestrian skill and talent. The War Department allocated $25,000 for new construction at Fort Myer, so that the post could better accommodate its new role. There were also aesthetic reasons. Many of the buildings that had been part of the Signal School were out-of-date and consisted of aging frame construction that did not correspond with the Army's improved building standards (Netherton and Netherton 1987:218).

Prior to the arrival of the cavalry, the Adjutant General's Office conducted an inventory of Fort Myer. The Adjutant General's Office identified the post as containing 33 buildings located on 152 acres of land. Most of the buildings dated to the 1870s. Contemporary descriptions characterize the post as more of a residential community than an Army fort.

Another important addition to the post was the construction of a spur of the Washington, Arlington & Falls Church Railway in 1894 (Figure 4). For the first time Fort Myer had a railroad link. The line entered the post near the present-day Wright Gate and extended along much of what are today McNair Road and the Arlington National Cemetery wall before arriving at a station constructed on post. The station was located at the intersection of McNair Road and Lee Avenue (Batzli 1997:27). The railroad was located to the west and outside of the current security fence project's APE.

Sheridan intended Fort Myer to become the showplace of the cavalry wing of the U.S. Army. The reputation of the installation grew steadily throughout the 1890s for the caliber of its horsemanship.

The riding hall was the site of some of the Army's grandest displays and training in mounted drills and shows (Netherton and Netherton 1987:219).

During their time at Fort Myer, the 9th Calvary participated in the various drills, demonstrations, parades, and shows that were normally conducted at the fort. Equestrian riding shows were commonly held in the riding hall on post. In August of 1893, Troop K was chosen to escort the President of the United States during a parade event. On October 3rd 1894, the Army redeployed all of the 9th Cavalry back to Fort Robinson. However, other Buffalo Soldiers of the 10th Cavalry were deployed to Fort Myer over 30 years later in October of 1931 (Fort Myer Equal Opportunity Office n.d.:7-9).

Return of the Signal Corps and Early Aviation (1899 to 1909) – The Signal Corps returned to Fort Myer in 1899. Quarters 1 and 2, a barracks (Building 305), a storehouse (Building 308), a balloon house, stables, and an administration building (Building 317) were all constructed for the Signal Corps. The balloon house, which is no longer extant, was necessary because the Signal Corps used Fort Myer as its base of operations for its balloon flights (URS 2004:2-20). The building was a simple wood-frame structure clad with sheets of corrugated metal that stood 40 feet in height and was 100 feet long and 40 feet wide. Balloons became a focus of the Signal Corps operations during the late nineteenth century and were used for military observations during the Spanish-American War. The Army housed most of its balloons during this period at Fort Myer. The Army formed a Balloon Detachment in charge of the safe keeping and operation of the balloons. The detachment consisted of one lieutenant and 12 to 24 enlisted men (Netherton and Netherton 1987:220).

Advances in aviation technology led the Army to investigate the use of new aircraft: the dirigible and the airplane. The Signal Corps began testing both of these aircraft types at Fort Myer. The Army signed a contract with Thomas Baldwin for the construction of a dirigible which was delivered to Fort Myer in July 1908. The dirigible was 88 feet long when filled with 20,000 cubic feet of gas. The dirigible set atop a propeller and navigation shaft that was powered by a gasoline-driven propeller engine designed by Glenn Curtiss (Netherton and Netherton 1987:220).

The first official test flights of the dirigible were made on August 14 and 15, 1908, between Fort Myer and West Cherrydale. Although only a round trip of four miles, the dirigible successfully navigated the trip at a top speed of 20 miles per hour. The successful tests convinced the Army to officially purchase the dirigible, which became known as Signal Corps Airship No. 1 (Netherton and Netherton 1987:220).

Later in 1908, the Signal Corps began experiments on an aircraft of a different kind, the Wright Flyer. In 1908 the Army took a serious interest in the Wright Flyer and invited Orville and Wilber Wright to conduct demonstrations at Fort Myer. The Wright brothers, eager to acquire a lucrative Army contract for their flyer, eagerly accepted the offer. In May 1908, Orville and Wilber trained for the demonstration at the Outer Banks in North Carolina, where they had made their historic first flight at Kitty Hawk. Orville Wright came to Fort Myer in early September for the demonstrations. His brother Wilbert decided to represent the interests of the brothers by performing demonstrations in Europe at the same time Orville was at Fort Myer. The Army

wanted a plane that could hold one passenger, stay airborne for over an hour, and meet designed speed tests. The demonstrations took place at Summerall Field.

The first successful test occurred on September 3rd with Orville flying repeatedly over Summerall Field and setting a new record for sustained flight in the process. During the next few days, Orville continued to better his own record for sustained flight (The Arlington Historical Magazine October 2008:47). On September 9th, the Wright Flyer passed 57 times over Summerall Field. Later that day, he carried his first passenger and the first Army officer to ever fly in a plane, Lieutenant Frank Lahm, during another demonstration flight over Fort Myer that lasted six minutes and twenty-four seconds (The Arlington Historical Magazine October 2008:51). That time was bested three days later with a flight that lasted an hour and fifteen minutes (The Arlington Historical Magazine October 2008:47).

The flight that day as well as the flights during the preceding days and the days that followed were all successful. But then tragedy struck. On 17 September 1908, Wright conducted another passenger flight. This time Lt. Thomas Selfridge was the assigned passenger. The plane took off normally from Summerall Field and stayed airborne for three to four minutes. Then without warning, the plane took a nose dive. Wright tried to gain control, but the plane violently struck the ground. Wright survived the crash and was immediately transported to the hospital where he would spend several weeks recuperating. Selfridge was not so lucky, sustaining a fractured skull. He later died of that injury, becoming the first ever casualty resulting from an airplane crash (The Arlington Historical Magazine October 2008:52). Selfridge was buried at Arlington National Cemetery and one of the west gates of the cemetery was named in his honor (Netherton and Netherton 1987:221).

On one flight the Wright Flyer maintained an average speed of 42.7 mph, exceeding the 40 mph minimum desired by the Army. On August 2nd 1909, the Army formally awarded a $25,000 contract to the Wrights for their airplane (The Arlington Historical Magazine October 2008:54).

World War I to World War II (1914 to 1941) – With the onset of World War I, Fort Myer remained a cavalry post. Over 1,500 horses stayed at Fort Myer during this time (Hanbury, Evans, Newill Vlattas & Company 2000:43). During World War I, Fort Myer served as the home of one of the first Reserve Officer Training camps for the Army. The officer training camp remained at Fort Myer through the 1920s.

In 1919, the U.S. 3rd Cavalry Regiment returned to Fort Myer. The cavalry units stationed at Fort Myer continued to hold exhibitions and shows. During the 1920s and 1930s, Fort Myer's horsemen held a reputation as being among the finest in the country (Netherton and Netherton 1987:222). Fort Myer's equestrian reputation also rose significantly when it became the official training site of the U.S. Olympic equestrian team during the 1920s. The Olympic training facility was located south of Building 59 (Batzli 1997:30).

Among the men of the 3rd Cavalry Regiment were Colonels Jonathan Wainwright and George S. Patton, both of whom served as post commanders during the 1930s. Patton, who was known to have a passion for horses, held horse shows on the post that were more like lavish pageants and spectacles. His shows were often filled with leading members of governments and

Washington, D.C.'s social and business elite. Patton's shows themselves were full of colorful costumes and often were based on historical and patriotic themes (Netherton and Netherton 1987:222).

Brilliant horse shows, mounted reviews, and escorts for the President of the United States and foreign dignitaries were often the order of the day at Fort Myer under the commands of Wainwright and Patton. Fort Myer was more or less a "show place" rather than a training ground for modern warfare, even though some in the cavalry seemed to refuse to acknowledge that the day of the horse in warfare was over. However, the serious business of war remained part of the post's mission. Because of the availability of rugged land, the Army chose Fort Myer as the testing ground for a new vehicle first officially known as the "Truck, General Purpose, ¼ ton (4x4)" which became better known as the "Jeep." The name supposedly derived from the abbreviation of its designation as General Purpose vehicle or GP. The Army intended to use the new vehicle as a scout vehicle (Netherton and Netherton 1987:225).

One of the last "official" cavalry units stationed at Fort Myer was the Machine Gun Troop of the 10th Cavalry, which arrived in 1931 and remained on post until 1949, after which the 703rd Military Police Battalion replaced the last cavalry units (Hanbury, Evans, Newill Vlattas & Company 2000:43). The 10th Cavalry was primarily a machine gun unit at this time. It was also the last of the African-American units serving at Fort Myer before integration of the U.S. Army following President Truman's signing of Executive Order 9981 in 1948. The 10th Cavalry was housed in the Lower Post area, which was separated from the major portions of the post in accordance with the Army's segregation practices of this time.

Much of the construction at Fort Myer during the 1930s was funded through New Deal programs. Works Progress Administration (WPA) monies funded much of the general maintenance on post during the mid and late 1930s. Repairs of roofs, gutters, and downspouts; chimney cleaning; sidewalk construction; general masonry repair; and plumbing repair were all funded through WPA programs (United States Army Quartermaster 1934, 1935). Major construction on the post during the 1930s included the erection of non-commissioned officers (NCO) quarters, a new riding hall, and one of the two current post chapels.

World War II (1941 to 1945) – With Japan's attack on Pearl Harbor on December 7, 1941, the military dominion of Fort Myer also expanded with the U.S. entry into World War II. The Army converted 210 acres of Arlington Farms into the Arlington Cantonment. It was anticipated that this area would be needed for troop training, but a lot of the area was used by military personnel employed at the newly constructed Pentagon. The entire camp consisted of temporary cantonment constructions. These were standardized designs for barracks, mess halls, post exchanges and other training and recreational buildings that were built at camps throughout the country for military readiness. This area was known later as Fort Myer's South Post (Netherton and Netherton 1987:225).

The South Post also became the home of units of the Women's Army Corps (WAC). The 2525th Service Unit, WAC, was stationed at the South Post. This unit contained 1,900 enlisted women who served in over 60 War Department agencies (Grahn 1993:195). The WAC evolved from the Women's Army Auxiliary Corps (WAAC), which was formed by Congress on May 14th, 1942.

The WAAC was only designated as an auxiliary unit and was not officially part of the Army, unlike the WAC which was part of the Army. The WAC served in many different capacities within the Army, but primarily in administrative and clerical duties. The Signal Corps trained WAC personnel in the operation of radio functions (Treadwell 1991:307, 309).

The New Dominion (1946 to Present) – In 1951, the Army consolidated the North and South Posts in an attempt at better administration and maintenance throughout the post. The 3rd Infantry was officially stationed at Fort Myer by orders of President Truman in 1948. The 3rd Infantry is the oldest active infantry unit in the U.S. Army. The unit serves as the Army's official ceremonial and security unit and often escorts the President and Vice President of the United States. The 3rd Infantry also provides the guards for the Tomb of the Unknown Soldiers and color guards and military escorts for public events, including military funerals (Netherton and Netherton 1987:226).

The South Post continued to be used after World War II. However, because the South Post was a temporary part of Fort Myer, all of the buildings were demolished over time. The last of the World War II temporary buildings were demolished in 1975. The demand for additional burial areas resulting from the increase casualties from the Vietnam War led to the cemetery acquiring portions of the South Post between 1968 and 1975. The South Post eventually became Section 60 of ANC. Today this area is used as a burial place for service men and women who have been killed in Iraq and Afghanistan (Netherton and Netherton 1987).

Since the end of World War II, Fort Myer has continued to serve a ceremonial role as part of its mission for the Army. During World War II, the post officially ended its affiliation with the cavalry, since the mechanized era made the cavalry obsolete. However, its proximity to Arlington National Cemetery and the Pentagon has defined its use up to the present day. The installation houses the Chairman of the Joint Chiefs of Staff, the Vice Chairman of the Joints Chiefs of Staff, the Chief of Staff of the Army, and the Chief of Staff of the Air Force. The post's geographic relationship with ANC makes the post highly symbolic as the site of thousands of military funerals every year (URS 2004:2-24).

During the Cold War era, the south end of the present-day post was the most heavily developed. The entire southern area, which consists of troop support buildings, was constructed during the mid-to-late twentieth century (URS 2004:2-21).

PREVIOUS INVESTIGATIONS

Archaeological Investigations – No formal archaeological survey or testing was conducted at JBM-HH until the early 1990s, when work was carried out in association with the facility's first Cultural Resource Management Plan (CRMP) and the Base Realignment and Closure process (KSF 1991, 1992). Archaeological survey was conducted in several areas as part of the field investigation associated with the CRMP. The general site map from that study shows six areas that were surveyed: Transient Housing; Commissary; AAFES PX Expansion; AAFES Shoppette; Logistics Complex – Hollow Site; Logistics Complex – Munitions Bunker. A summary from the 2004 ARMP notes that auger holes and shovel tests were excavated across a wide area in the south part of the post near the Radar Clinic, helipad, and athletic fields (the Commissary survey area), where a dump from the 1950s containing demolition debris from remodeling of the White House was

located. Evidence of cut-and-fill indicated that the area had been disturbed, and no further work was recommended. Other areas noted include expansion of the Officer's Club along Jackson Avenue, which testing indicated was disturbed; and expansion of the Post Exchange and Shoppette (AAFES survey areas), where visual inspection indicated no potential for undisturbed deposits.

Limited testing was also conducted in association with restoration of Building 42, on Washington Avenue north of Whipple Field Housing. The building dates to 1877 and is the oldest structure on the post, listed in the NRHP for "its unique construction type, its relationship to the evolution of military housing and its relationship to Quartermaster General Montgomery C. Meigs" (Einhorn Yaffee Prescott 1993:1-1). Further testing was recommended if ground-disturbing activities were to be carried out (Boyd 1993). An archaeological survey of portions of Henderson Hall was conducted by Thunderbird Archeological Associates, Inc., in 1999 that included pedestrian survey and shovel testing in two areas: one near the former Abbey Mausoleum; the other near the Dade Family memorial. No archaeological potential was noted in either area (U.S. Army Corps of Engineers 2015).

A Phase II archaeological investigation of Site 44AR0043 was conducted in 2010 (U.S. Army Corps of Engineers 2010). At the time of the Phase II investigation, Site 44AR0043 was located on JBM-HH property, although this land has since been transferred to ANC. The area investigated in the Phase II project lies directly adjacent to the area of potential effect investigated for the current security fence project, in the vicinity of the Millennium Project. The Phase II investigation involved the excavation of close-interval STPs across the knoll and bench landforms that comprised the site. Recovered artifacts were limited to low densities of debitage related to cobble reduction. Due to the low artifact densities, relatively poor preservation, absence of stratification, and lack of temporally diagnostic artifacts, the site had little research potential and was determined ineligible for inclusion in the NRHP.

A 2011 archaeological survey of three areas at Fort Myer identified archaeological site 44AR0045, a cobble lined drain (Versar, Inc. 2011). Geophysical testing using ground penetrating radar identified anomalies (likely foundations) in the northwest corner of Summerall Field. Additional field investigations were recommended.

Another 2011 archaeological investigation failed to identify any archaeological resources due to extensive disturbance within the proposed locations of a transmission line and substation (John Milner and Associates 2011).

Archaeological Sites – The Virginia Department of Historic Resources (VDHR) lists one site, 44AR0045 within JBM-HH. This historic period site, a cobble lined drain possibly dating to the nineteenth century, was identified during an archaeological investigation in 2011 (Versar, Inc. 2011). Four sites are listed adjacent to the post: 44AR0017, Arlington House, a nineteenth-century domestic site; 44AR0019, a small artifact scatter with prehistoric and late-nineteenth-century components; 44AR0032, Arlington House Ravine, a nineteenth-century domestic site and Late Archaic lithic quarry; and 44AR0043 (Millis et al. 1998), a prehistoric site located on the property recently transferred from JBM-HH to ANC. The ARMP assessed the effects of the latter site on site potential at JBM-HH: "While not within the bounds of Fort Myer, the proximity of a prehistoric

site to the eastern sections of the post suggests that other prehistoric period resources may be present within undisturbed portions in the picnic/pasture area" (URS 2004:3-3). A small lithic scatter was reported by KSF in the 1991 CRMP, although the location of the site is unclear and the site was not reported to the VDHR.

PREHISTORIC AND HISTORIC PERIOD ARCHAEOLOGICAL POTENTIAL

Background research on the project area did not identify any known archaeological sites in the APE, although no known archaeological surveys have taken place in this location. A series of undated prehistoric lithic scatters have been identified in the vicinity, none of which were found eligible for listing in the NRHP. No historic period buildings, structures, or archaeological resources are known for the APE, and the proximity of the APE to both the historic ANC boundary wall and McNair, Carpenter, and Hobson Roads suggests a low likelihood of any built resources being once located in this area. Soils in the APE are mapped as Urban land-Udorthents, which are consistent with the use of the area, which includes parking lots, mature ornamental trees, and the existing ANC boundary wall. However, there was a potential for undisturbed pockets of soil between the wall and improved areas that might contain intact archaeological deposits. Therefore, the APE was considered to have a low to moderate probability of containing significant archaeological resources.

PHASE I INVESTIGATION METHODOLOGY

Background Research

Background research was conducted to develop the preceding prehistoric and historic period contexts of the project area, and to trace land usage over time. Background research included a review of JBM-HH's Integrated Cultural Resource and Archaeological Management Plans, cartographic sources, archaeological investigations conducted at JBM-HH and ANC, site reports, and other sources containing information on the prehistoric and historic period occupation in or near the project area.

Historic maps of the project area were examined to determine past use of the property (Figures 4 and 5). These maps include the 1888 map of the Arlington Estate (U.S. Department of the Interior, National Park Service 2014; Figure 5), and a 1900 map of Fort Myer showing a portion of the project APE and the spur of the Washington, Arlington & Falls Church Railway (Strum 1900; Figure 4). None of the historic maps consulted for the project show any buildings or structures in the APE.

Field Methods

A Phase I-level archaeological survey of the project's APE was conducted on October 4-6, 2016 to determine the presence or absence of archaeological resources. The Phase I investigation was geared towards 1) identifying the presence or absence of any archaeological resources within the project area, 2) providing an understanding of the vertical and horizontal dimensions of any located archaeological resources, 3) assessing the contextual integrity of cultural deposits, 4) identifying the cultural affiliation of components if possible, 5) providing a preliminary assessment of the NRHP eligibility

of any cultural material, and 6) providing management recommendations for additional investigations. The fieldwork was performed in accordance with the procedures outlined in the VDHR's *Guidelines for Conducting Cultural Resource Survey in Virginia* (2011).

The Phase I fieldwork used STPs to identify archaeological resources located in the APE. The project's APE was defined as a 40-foot wide corridor extending westward from ANC's boundary wall, which is the proposed limit of construction for the new security fence. STPs excavated in the APE were placed at 50 foot intervals along the centerline of the 40-foot wide corridor (i.e, at 20 feet west of the ANC boundary wall). In some areas this interval was increased to 100 feet due to the disturbed nature of the soil. Small diameter excavation tools, including posthole diggers and soil spoon samplers were used to confirm cases where observable site conditions suggested heavily eroded or truncated soil profiles. Soil spoon probe testing was conducted between the 100-foot interval STPs to confirm the continuity of the erosion or disturbance. STPs were 15 inches in diameter. If cultural material was identified that may have indicated the presence of an intact archaeological site, a maximum of four additional test pits were excavated at one meter (five-foot) intervals in the cardinal directions around the positive STP.

A sufficient number of STPs were excavated to provide a delineation of the extent of any archaeological resources, both vertically and horizontally, and to identify the nature of any buried soils. All soil was screened through ¼" mesh. All STPs were excavated to a depth sufficient to have examined all cultural deposits. The STPs were recorded through the use of profiles, and their locations identified on the project plans.

All artifacts or cultural materials collected and any notes, photographs, or other data generated during the field investigations were curated by USACE. All materials were properly curated in a manner consistent with the curation guidelines set forth by the VDHR (2011).

RESULTS OF FIELD INVESTIGATION

Due to disturbance and modern urbanization, STPs could not be excavated along the entire length of the project area. As a result, 44 STPs were excavated in suitable areas, including sections north of the future Millennium Project, along the walking path between the two Post Chapels, and in a small area northeast of Henderson Hall. Figure 6 shows the project area sections. Figures 7 - 13 show the specific locations of the STPs.

Soil profiles were fairly consistent across the entire project area. The general soil profile consisted of a thin humus layer or root mat above mottled fill material with gravel. In some instances, such as the location of the walking path, the soil was heavily compacted, warranting the use of a post-hole digger or narrow-bladed shovel. Utility trenches are also located in some portions of the project area. The presence of compacted and disturbed soils consisting of fill material was not surprising, due to modern development and the nature of the udorthent complex featured at JBM-HH (Figure 3).

Table 1 contains a summary catalog of the artifacts recovered from the STPs, as well as soil description and excavation depth. A total of 48 artifacts were collected during the Phase I investigation, over half of which were brick fragments. The remainder of the artifacts included plastic, coal slag, metal fragments, and flat and curved glass. After careful inspection and analysis, it was

determined that these artifacts were either modern debris and/or were recovered from clearly disturbed contexts.

STPs 1 through 9 were excavated in the northern-most portion of the project area (Figure 8; Plate 1). Soil profiles in this area included a thin humus above a yellow brown/dark brown mottled clay loam fill with gravel (up to 40 percent) and cobbles up to six inches in diameter. These gravels are visible at ground surface at some locations in this area (Plate 2). Artifacts were recovered from three STPs, including brick fragments, a metal strap fragment, and a piece of blue flagging tape. All of these artifacts were from the fill deposits. STP 8 was not excavated due to the presence of a manhole and extensive disturbance from subsurface utilities.

No STPs were excavated behind the existing electrical substation and adjacent buildings just north of the Millennium Project area; this section is heavily disturbed (Plate 3). No STPs were excavated along the border of JBM-HH and ANC's Millennium Project, which is under construction (Figure 6; Plates 4 and 5). This area was previously investigated by JBM-HH for archaeological resources prior to its transfer to ANC. The one archaeological site located in the Millennium Project area (Site 44AR0043) was found to be ineligible for inclusion in the NRHP.

STP 10 was excavated in a grassy area just south of the Old Post Chapel (Figure 9; Plate 6). Soils in this STP contained mottled loam fill with approximately 20 percent gravel.

STPs 11 through 44 were excavated along the ANC boundary wall along McNair and Carpenter Roads (Figures 9, 10, 11, and 12; Plates 7 to 10). STPs 11 and 12 were excavated at 50-foot intervals, but this interval was expanded to 100 feet from STP 13 through 28 when it became clear that this section of the project area was composed of extremely compacted, disturbed soil and fill material. STP 15 was not excavated due to the presence of underground electrical conduit. Soil spoon probe testing was performed at 50-foot intervals between the STPs to confirm the continuing presence of fill material. The STP interval returned to 50 feet for STPs 29 through 32. No STP was mapped at the disturbed location of a gate and access road into ANC (Figure 12).

In STPs 11 through 27, soils consisted of fill material similar to that encountered in STPs 1 through 9, although containing less gravel (approximately 20 percent content; Figures 9, 10, and 11; Plate 11). A thin (5 – 7.5cm) humus was present in some STPs. The fill material was excavated to a maximum depth of 30cm below ground surface. Artifacts recovered from this soil include plastic fragments, and window and bottle glass (Table 1). In STPs 11 and 12, the fill material was so compacted that a post hole digger and narrow-bladed shovel were employed.

STPs 28 through 32 contained the only continuous section of potentially "undisturbed" soils in the project area, excluding the fact that the upper soil horizon appears to consist of a remnant Ap (plowzone) horizon. The STP interval was reduced to 50 feet due to the presence of these soils and the increased likelihood for finding significant archaeological resources. The Ap soil is a dark brown silt loam that ranged in depth from 7.5 to 12cm below ground surface. Artifacts recovered from this soil include flat and curved glass, plastic, brick, and nail fragments. Below the Ap horizon is a B horizon consisting of a compacted, grey, micaceous silt loam with fracture rock. No artifacts were recovered from this soil which was excavated to a depth of 30.5cm below ground surface.

STPs 33 through 44 were the last STPs excavated along McNair and Carpenter Roads (Figure 12). STPs 33 and 35 were entirely composed of fill material. STPs 34 and 38 did contain the Ap/B horizon sequence seen in other STPs to the north, but all the other STPs contained a yellow brown mottled clay fill below a shallow humus. Brick fragments were recovered from this fill material in STP 41. The micaceous B horizon soils were found at the bottom of STPs 43 and 44. No STPs were excavated from STP 44 to the intersection of Carpenter Road and Hobson Drive. The APE in this section is very narrow and steeply sloped, and has been disturbed by subsurface utility installation and large trees (Plates 12 and 13).

No STPs were excavated along west side of Hobson Drive as it turns northeastward into Henderson Hall; this area is disturbed from the construction of the existing parking lots and road at this location (Plates 14-15). The final two STPs excavated for the project were located on a grassy median between the ANC boundary wall and the northern portion of Hobson Drive at Henderson Hall (Figure 13; Plate 16). STPs 45 and 46 contained a yellow brown clay fill to an excavated depth of 25.5cm below ground surface, and contained glass and brick fragments.

SUMMARY AND RECOMMENDATIONS

No significant archaeological resources were identified in the Phase I investigation of the proposed APE. No prehistoric period artifacts were recovered, and the historic period artifacts that were found are primarily modern debris from disturbed contexts or artifacts that are not particularly diagnostic of any age except the general historic period. A cut nail fragment found in STP 36 consisted of only the moderately corroded shank, but it appears to be a "modern" machine cut nail which date from the 1830's to the present day (Nelson 1968). None of the artifacts recovered were found in a quantity or density that would signify an intact, significant archaeological site.

Implementation of the proposed project will have no effect on significant archaeological resources, and no further archaeological investigations are recommended.

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FIGURES

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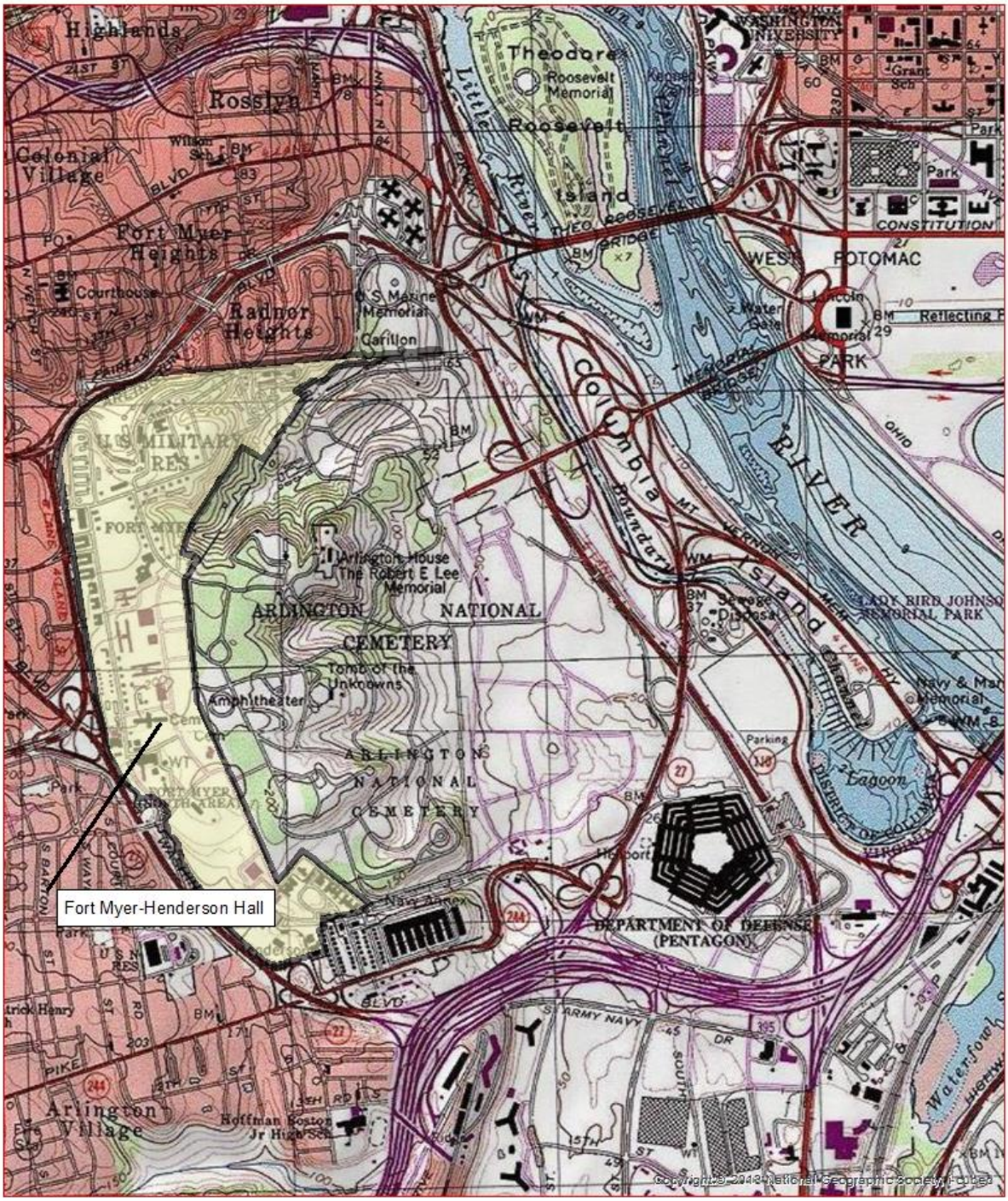

FIGURE 1: JBM-HH LOCATION

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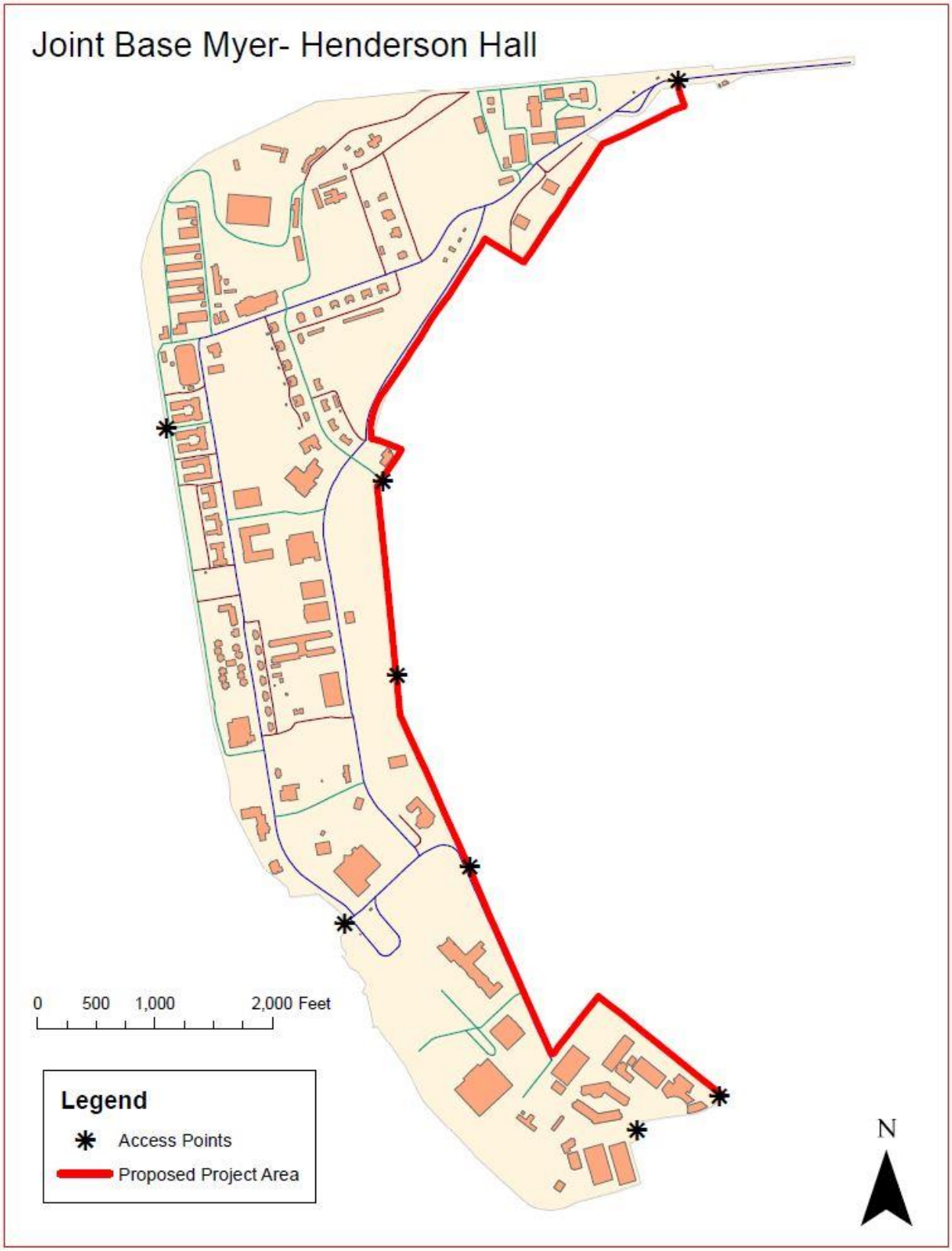

FIGURE 2: PROPOSED PROJECT AREA

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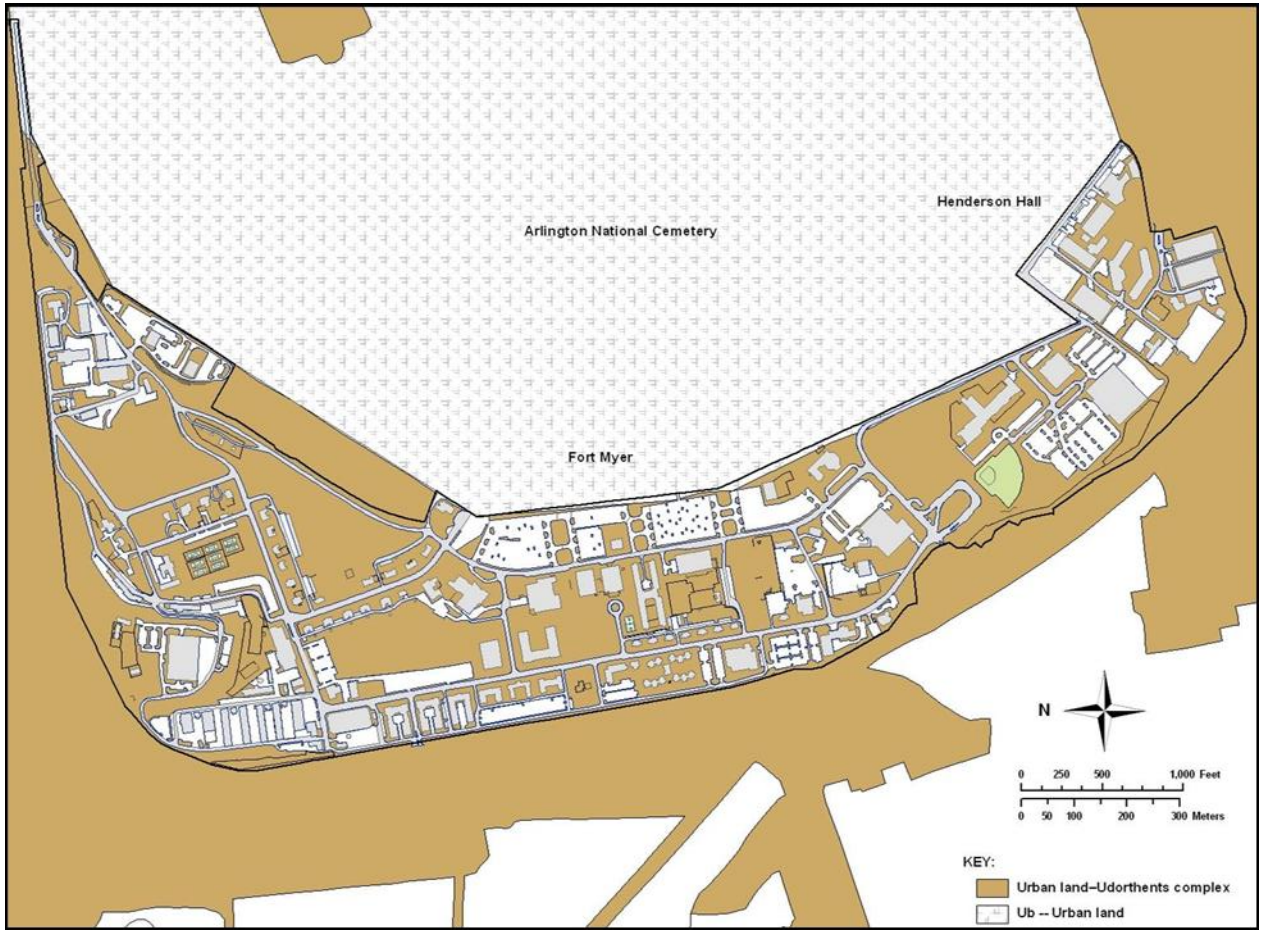

FIGURE 3: SOILS MAP OF FORT MYER (HARPER 2007:4)

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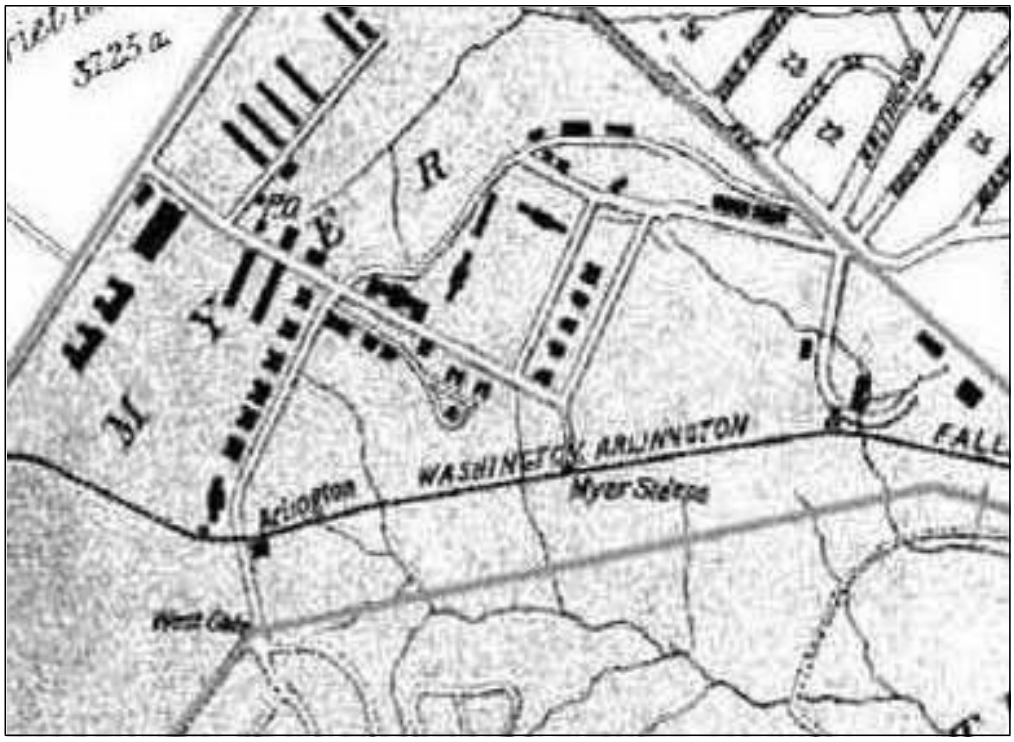

FIGURE 4: FORT MYER 1900 (STRUM 1900; FIG 4)

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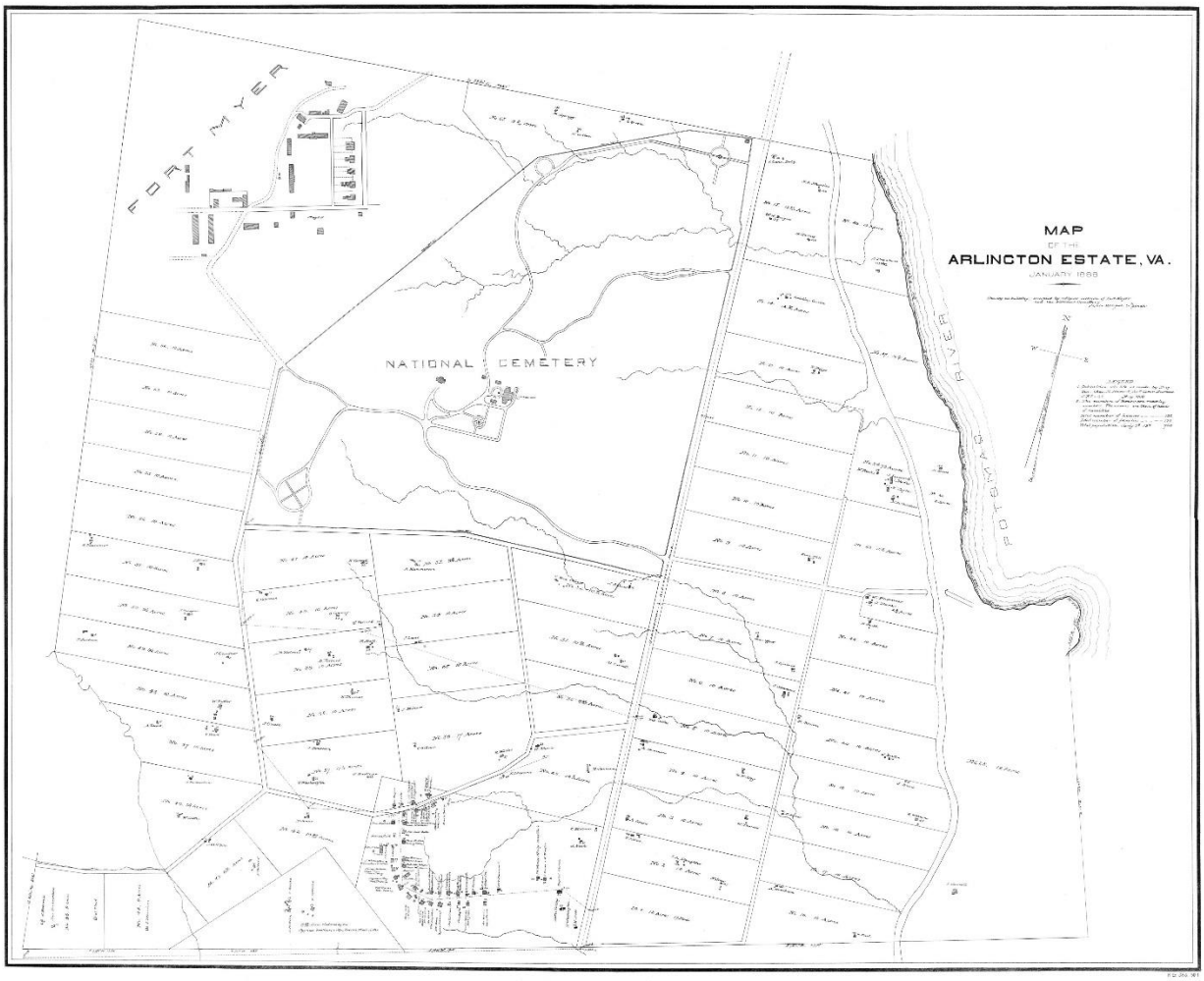

FIGURE 5: ARLINGTON ESTATE 1888 (US DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE 2014; FIG 5)

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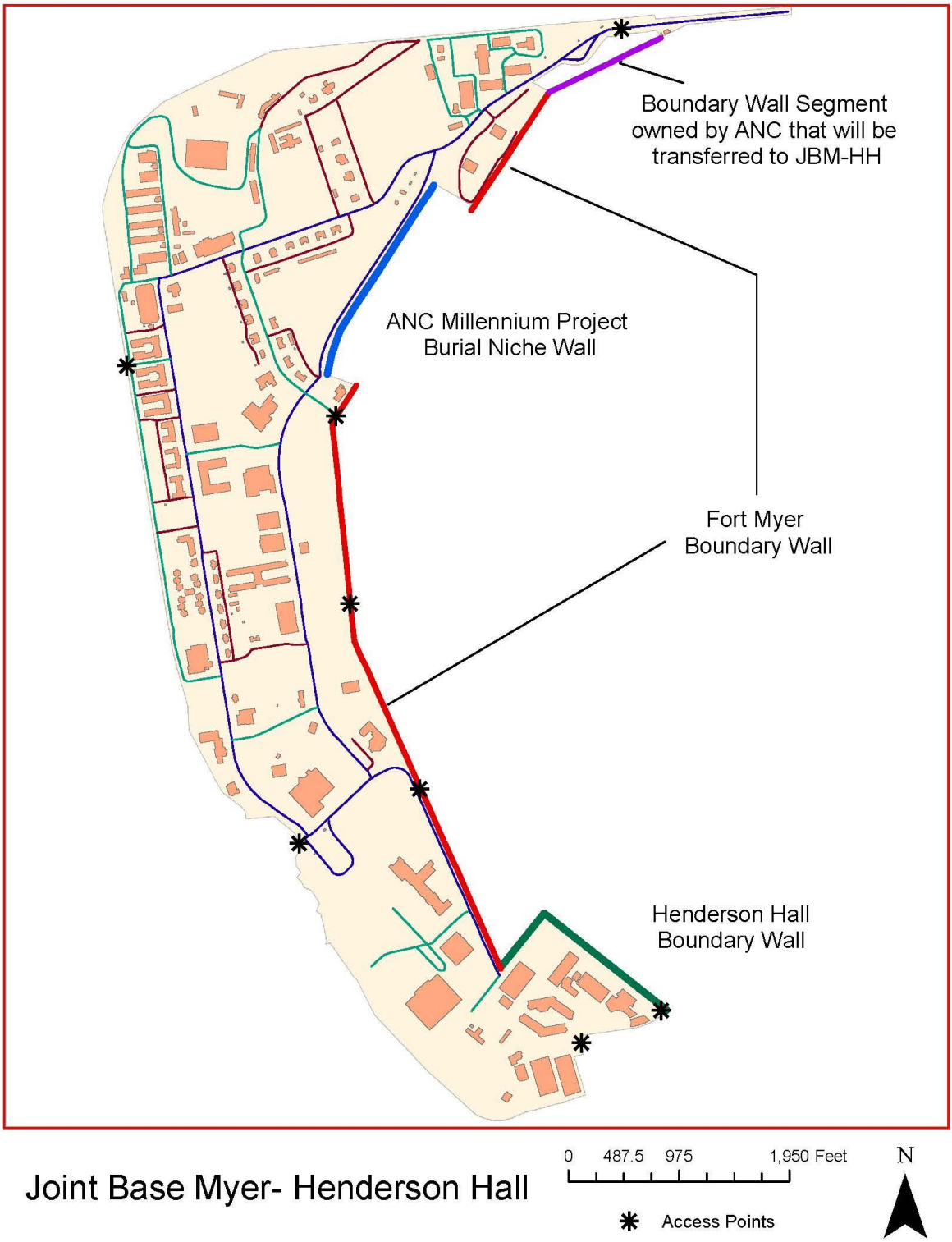

FIGURE 6: BOUNDARY WALL SECTIONS

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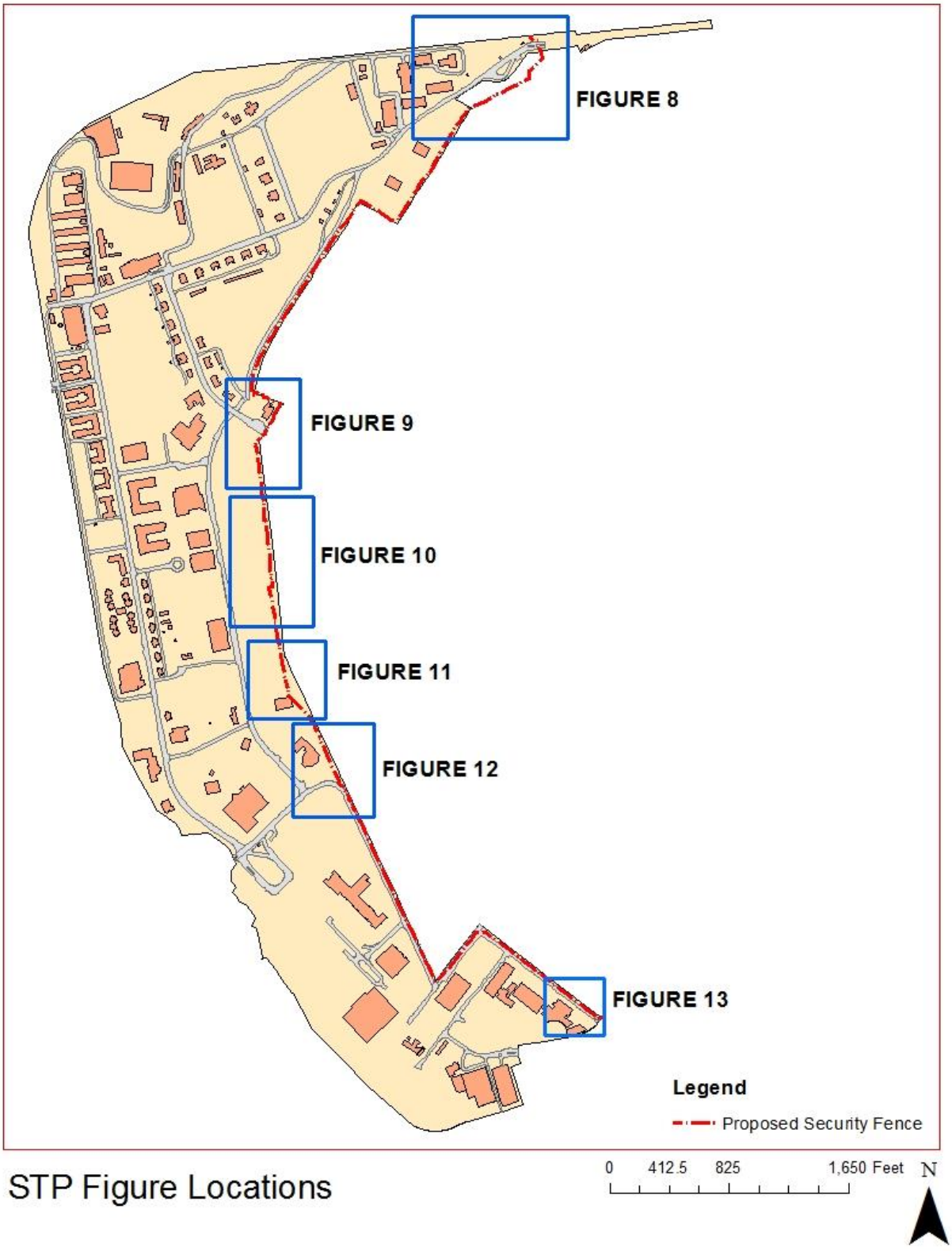

FIGURE 7: STP FIGURE LOCATIONS

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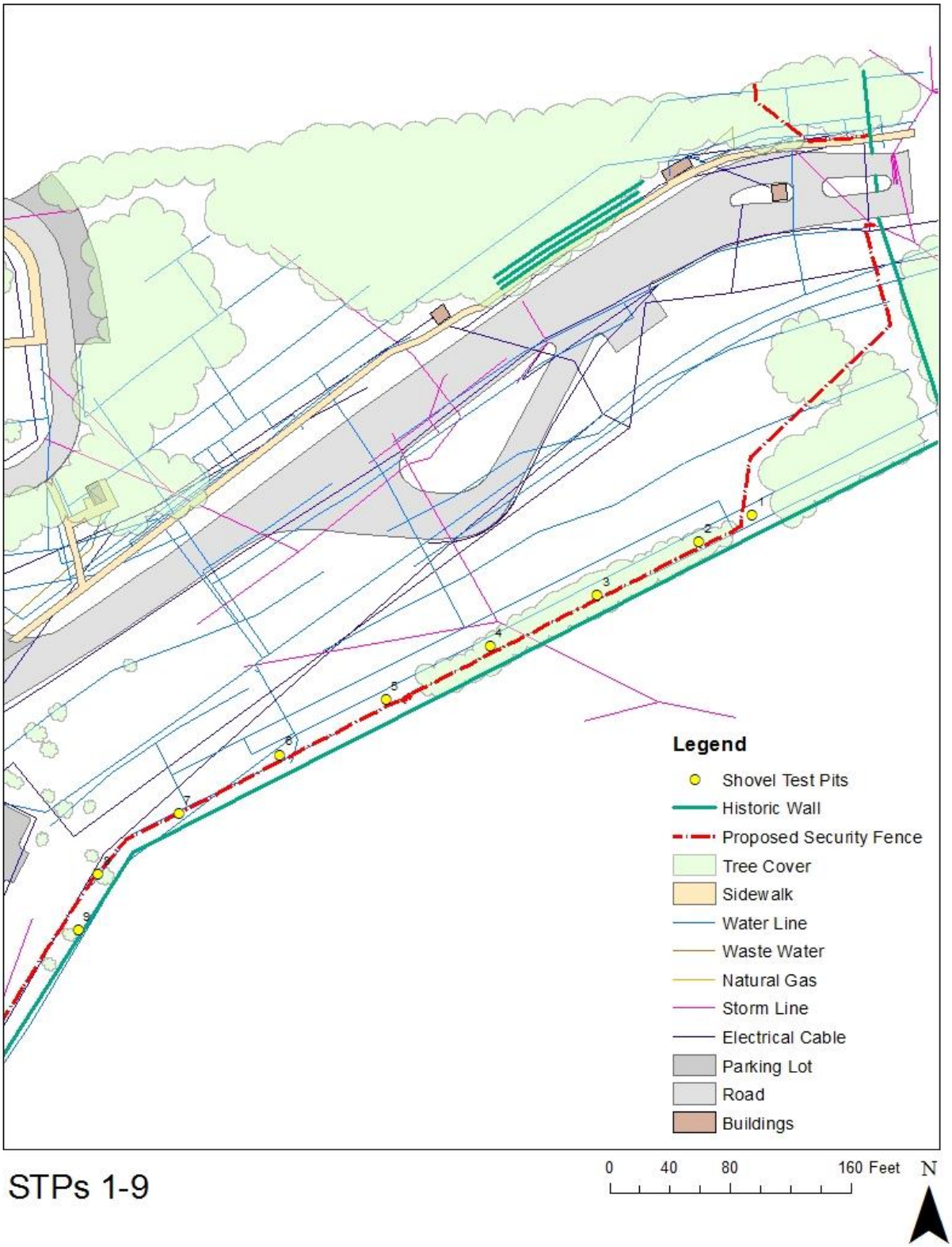

FIGURE 8: STP LOCATIONS 1 - 9

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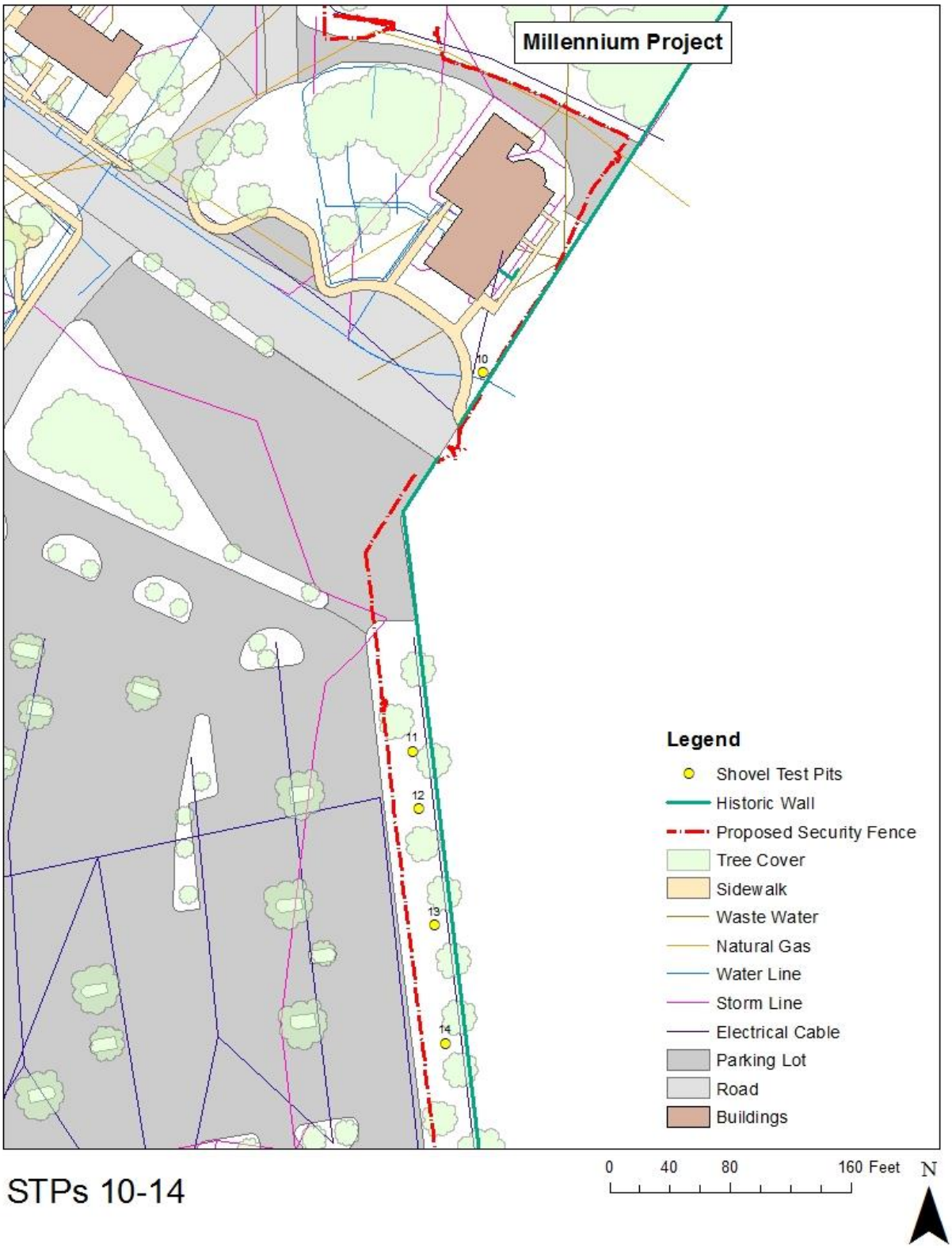

FIGURE 9: STP LOCATIONS 10 - 14

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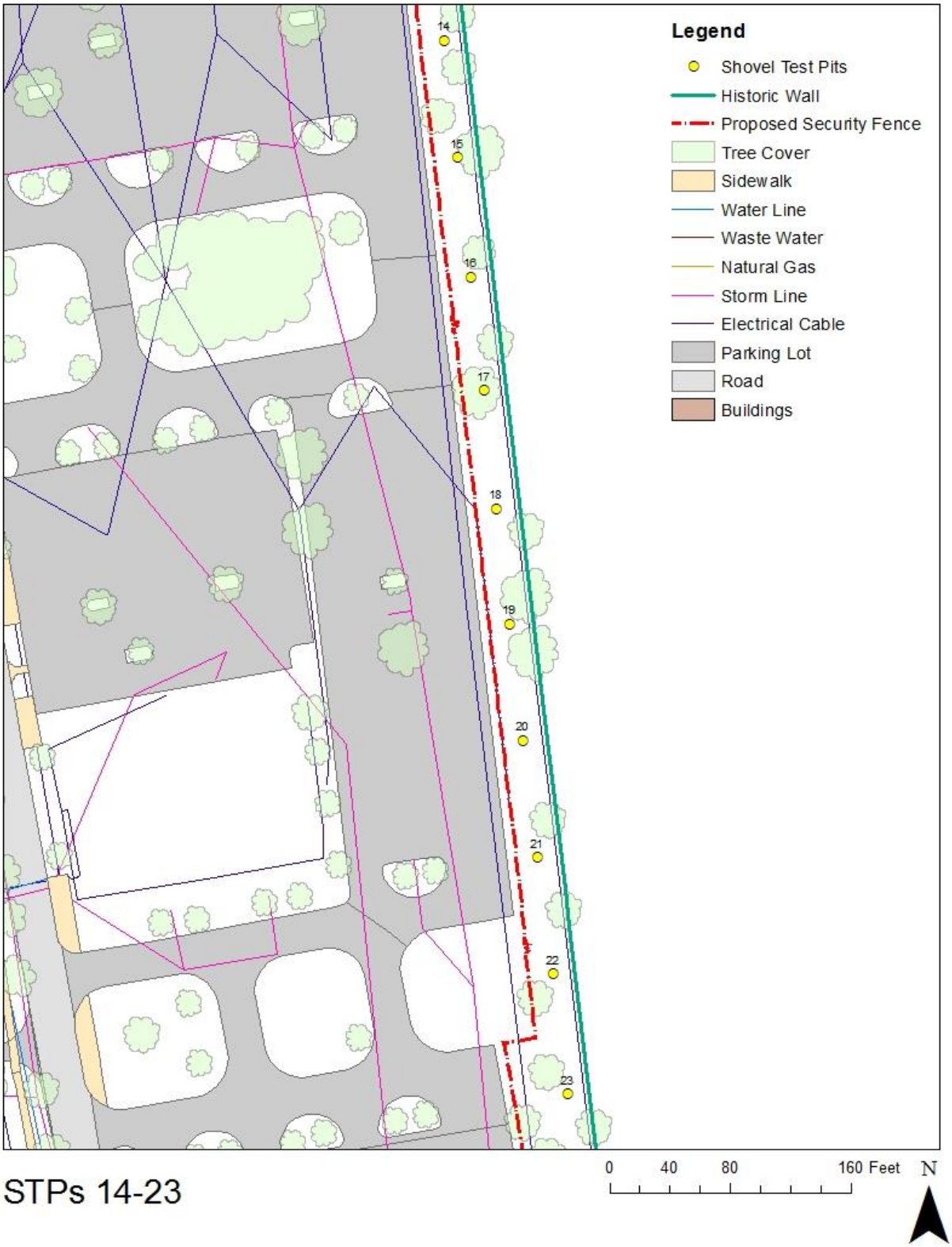

FIGURE 10: STP LOCATIONS 14 - 23

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FIGURE 11: STP LOCATIONS 24 - 34

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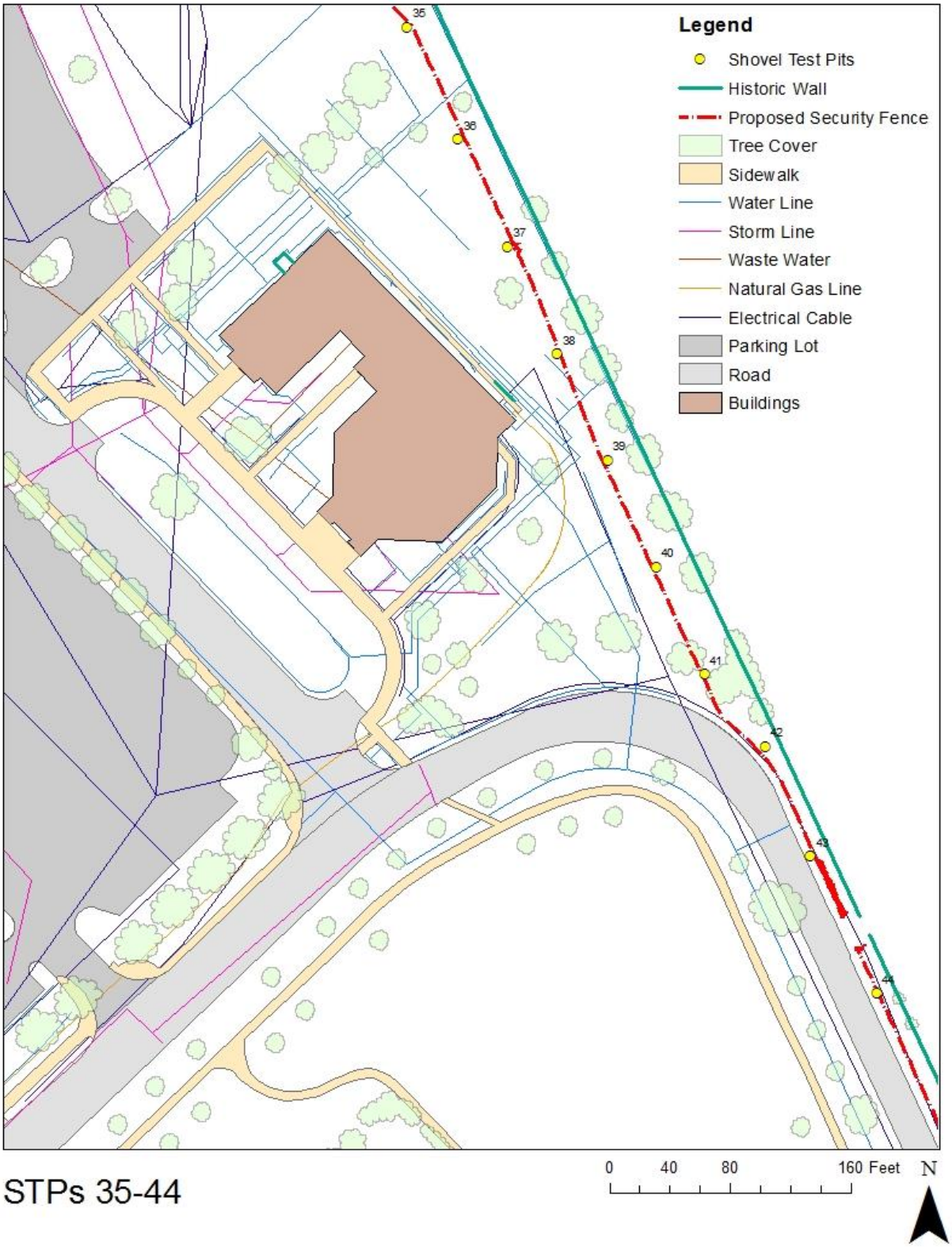

FIGURE 12: STP LOCATIONS 35 - 44

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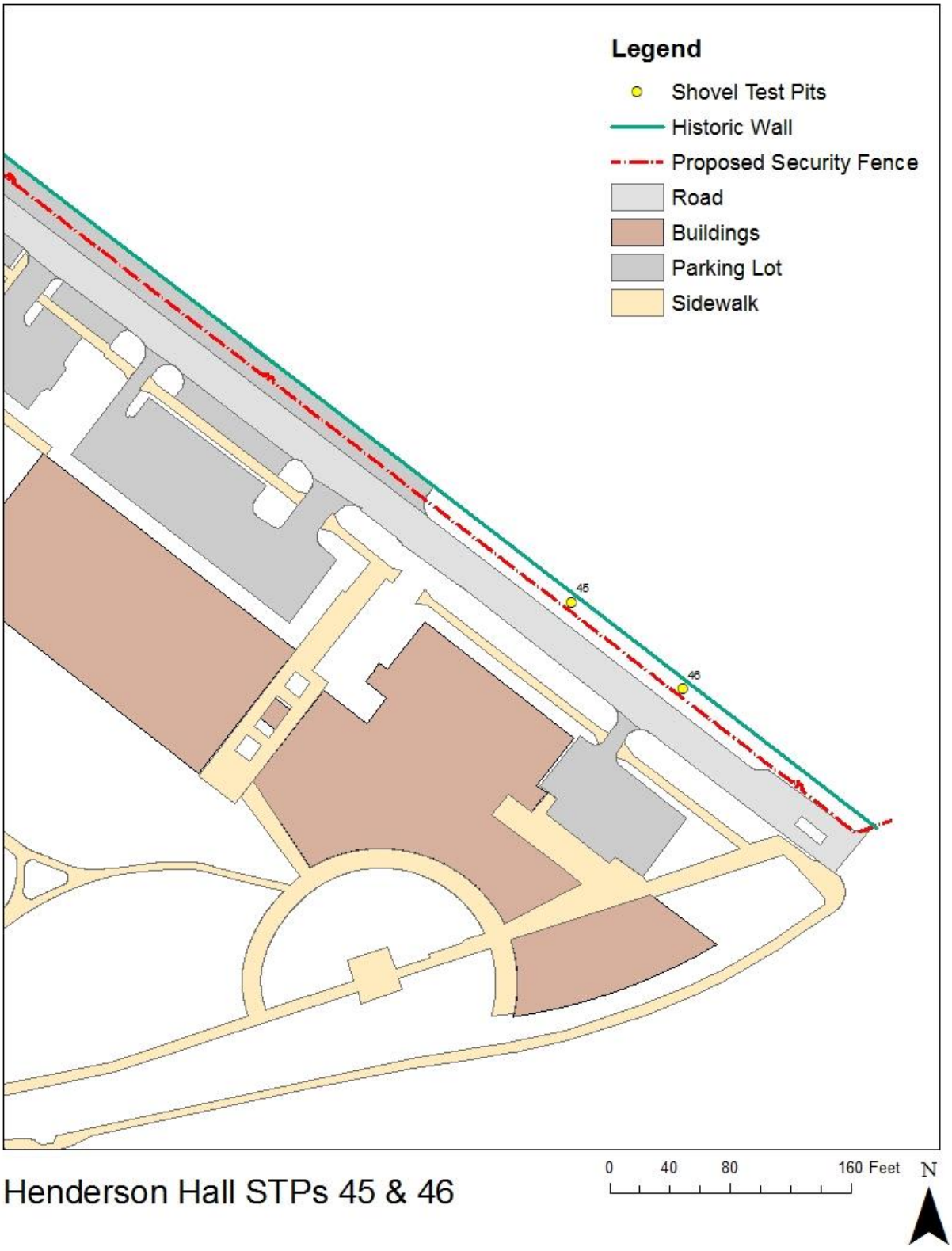

FIGURE 13: STP LOCATIONS 45 - 46

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TABLES

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Table 1: Shovel Test Pit Table

STPs			
STP #	**Depth (cm)**	**Soil Description**	**Artifacts Recovered/Comments**
STP 1	0-7.5	Dark Brown Silt Loam (humus 7.5 YR 3/2	
	7.5-20	Mottled Yellow Brown 2.5 YR 6/8 Dark Brown (7.5 YR 3/2) Clay Loam Fill w/ Gravel (40%)	
STP 2	0-2.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	2.5-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (40%)	Brick Fragments (2)
STP 3	0-2.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	Metal Tab (1)
	2.5-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/Gravel (40%)	
STP 4	0-2.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	2.5-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (40%)	Fragment of Blue Flagging Tape (1)
STP 5	0-2.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	2.5-25.5	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (40%)	
STP 6	0-23	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (40%)	
STP 7	0-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (40%)	
STP 8	N/A	N/A	Not Excavated
STP 9	0-30.5	Dark Brown (7.5 YR 3/2) Loam Fill w/ Gravel (40%)	
STP 10	0-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	

STP 11	0-25.5	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	20-25.5 cm excavated with post hole digger
STP 12	0-30.5	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	20-30.5 cm excavated with "Sharp Shooter" shovel
STP 13	0-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	Fragment of Black Plastic Sheeting (1)
STP 14	0-7.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	7.5-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	
STP 15	N/A	N/A	Not Excavated
STP 16	0-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	
STP 17	0-18	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	Clear Flat Glass (1)
STP 18	0-15	Dark Brown (7.5 YR 3/2) Clay Loam	
	15-30.5	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	Clear Curved Glass (1), Coal (1), Plastic Wrapper (1)
STP 19	0-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	Clear Flat Glass (1)
STP 20	0-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	
STP 21	0-10	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	10-23	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%)	
STP 22	0-16	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown	

		(7.5YR6/4) Clay Loam Fill w/ Gravel (20%), Extremely Compacted	
STP 23	0-16	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%), Extremely Compacted	
STP 24	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	5-20	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%), Extremely Compacted	
STP 25	0-7.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	7.5-28	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%), Extremely Compacted	Brown Curved Glass (1)
STP 26	0-15	Dark Brown (7.5 YR 3/2) Silt Loam, Disturbance	
	15-25.5	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%), Extremely Compacted	
STP 27	0-10	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	
	10-25.5	Mottled Yellow Brown (2.5 YR 6/8) Dark Brown (7.5 YR 3/2) Light Brown (7.5YR6/4) Clay Loam Fill w/ Gravel (20%), Extremely Compacted	
	25.5-30.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam B Horizon	
STP 28	0-10	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	Clear Flat Glass (1), Plastic Fragment (1)
	10-25.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 29	0-10	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	
	10-25.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 30	0-7.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	Brown Curved Glass (1)
	7.5-25.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 31	0-13	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	

	13-25.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 32	0-10	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon), with 13cm diameter cobble	Brick Fragments(2), Brown Curved Glass (2), Clear Curved Glass (1), Clear Ornamental Flat Glass with Waffle Pattern Mold on One Side (1)
	10-30.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 33	0-2.5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	2.5-5	Yellow Brown (2.5 YR 6/8) Clay Fill	
	5-10	Dark Brown 7.5 YR 3/2 Sily Loam Fill	Brick Fragments (8)
	10-18	Yellow Brown (2.5 YR 6/8) Clay Fill	
	18-25.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 34	0-13	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	Clear Flat Glass (1)
	13-28	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 35	0-2.5	Root Mat	
	2.5-25.5	Yellow Brown (2.5 YR 6/8) Clay Fill	Nail Fragments (2), Clear Curved Glass (1)
STP 36	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	Brick Fragment (1), Cut Nail Fragment (1)
	5-20	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 37	0-10	Compacted Yellow Brown (2.5 YR 6/8) Clay Fill	
STP 38	0-10	Dark Brown (7.5 YR 3/2) Silt Loam (humus/remnant Ap Horizon)	Clear Curved Glass Bottle Base Fragment (1),
	10-18	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 39	0-10	Compacted Yellow Brown (2.5 YR 6/8) Clay Fill	
STP 40	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	5-20	Compacted Yellow Brown (2.5 YR 6/8) Clay Fill	
STP 41	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	5-20	Yellow Brown (2.5 YR 6/8) Clay Fill	Brick Fragments (10)

STP 42	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	5-20	Yellow Brown (2.5 YR 6/8) Clay Fill	
STP 43	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	5-20	Yellow Brown (2.5 YR 6/8) Clay Fill	
	20-25-5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 44	0-5	Dark Brown (7.5 YR 3/2) Silt Loam (humus)	
	5-20	Yellow Brown (2.5 YR 6/8) Clay Fill	
	20-25.5	Compacted Micaceous Grey (10 YR 7/2) Silt Loam with Fractured Rock, B Horizon	
STP 45	0-25.5	Yellow Brown (2.5 YR 6/8) Clay Fill	Clear Curved Glass (1)
STP 46	0-20	Yellow Brown (2.5 YR 6/8) Clay Fill	Clear Curved Glass (1), Brick Fragment (1)

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PLATES

Plate 1: Northern Portion of the Project Area; Looking North

Plate 2: Northern Portion of the Project Area; Cobbles

Plate 3: Behind the Substation; Looking North

Plate 4: Millennium Project at ANC; Looking North

Plate 5: Millennium Project at ANC, along path; Looking Northwest

Plate 6: Behind the Old Post Chapel; Looking North

Plate 7: North End of McNair Rd; Looking North

Plate 8: McNair Rd, Center Area; Looking North

Plate 9: McNair Rd, ANC Wall Corner; Looking Northeast

Plate 10: McNair Road, South End; Looking North

Plate 11: Gravel and Cobbles at Ground Surface Along Center Section of McNair Road Footpath

Plate 12: North Section of Carpenter Road; Looking North

Plate 13: South Section of Carpenter Road; Looking North

Plate 14: Henderson Hall, Hobson Road; Looking Southwest

Plate 15: Henderson Hall; Hobson Road; Looking Northwest

Plate 16: Henderson Hall, Hobson Rd; Looking Northwest