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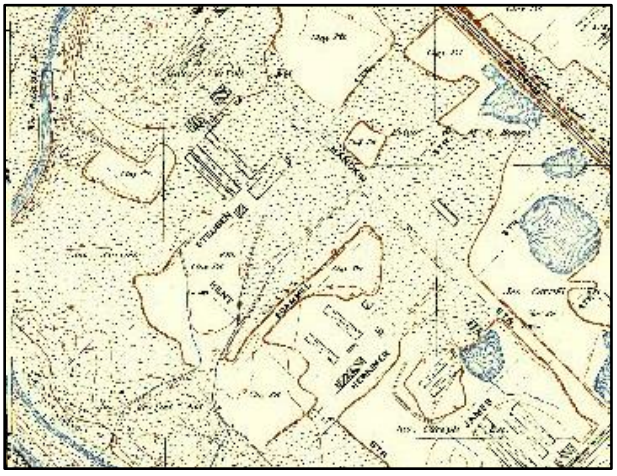
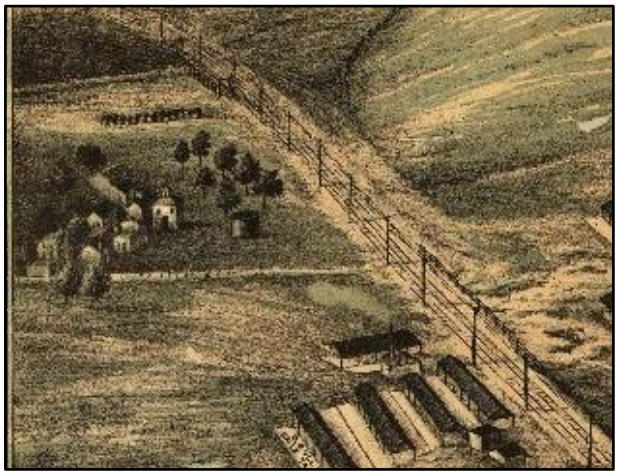
Phase 1A
Archaeological Assessments

Maryland Stadium Authority Phase IA Archaeological Assessment: Carroll Park Study Area

Baltimore City, Maryland





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September 2024

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September 2024

ABSTRACT

In September 2024, Applied Archaeology and History Associates, Inc (AAHA) conducted a Phase IA archaeological assessment of the Carroll Park Study Area (Study Area) in Baltimore City, Maryland. The Carroll Park Study Area is one of two locations in the city of Baltimore under review for the construction of a new sports stadium by the Maryland Stadium Authority (MSA). This Phase IA assessment is intended to partially satisfy the requirement for an Archaeological Impact Analysis (AIA) stated in Section 3.3 Scope of Work—Preliminary Design in a request for proposals issued by MSA on March 12, 2024. The principal goal of a Phase IA archaeological assessment is to assess the likelihood that archaeological resources may be present within the Study Area. This investigation consisted of background research and a pedestrian reconnaissance. All work was conducted by a qualified professional archaeologist in compliance with the Maryland Historical Trust (MHT) *Standards and Guidelines for Archeological Investigations in Maryland*.

The Study Area is located west of South Baltimore and is bounded to the north by a railroad right-of-way, to the west and south by the Gwynns Falls Trail, and to the east by industrial properties. The entire Study Area is currently maintained as an operating public golf course. Gwynns Run and Gwynns Falls are located in close proximity to the Study Area. No previously identified archaeological sites or historic resources are located within the Study Area while three archaeological surveys include small portions of the current Study Area.

Significant landform modification has occurred in portions of the Study Area during the nineteenth and twentieth centuries including clay extraction for local brick manufacturers and the construction of the golf course along with the artificial leveling of the landscape. The Study Area is in a location that would have been conducive to precontact occupation and historic activity is documented on the property from the eighteenth century to the present. While significant landform modification has occurred, portions of the Study Area with minimal evidence for disturbance are considered to have a high probability for precontact and historic archaeological resources.

A 23.6-acre portion of the Study Area is considered to have high probability for precontact and historic archaeological resources. **A Phase IB survey is recommended in this area prior to ground disturbance.** The remainder of the Study Area has been subjected to multiple documented disturbances or has been shown by elevation comparisons to have been cut more than 3 feet from its original surface or filled over to the point that archaeological deposits could not be reached by conventional shovel testing. **Judgmental testing is recommended in these areas to confirm the degree of disturbance as part of the Phase IB survey.**

The brick structures in the southeastern portion of the Study Area appear to exceed 50 years of age while the Carroll Park Golf Course, founded in 1923, likewise exceeds 50 years of age. The brick structures may be remnants of the former brick industries common in the area, examples of which no longer exist in the immediate area. The Carroll Park Golf Course is related to important Civil Rights activity in Baltimore in the mid-twentieth century. **Documentation of the Carroll Park Golf Course and other structures exceeding 50 years of age within the Study Area for the Maryland Inventory of Historic Properties (MIHP) is recommended.**

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1. INTRODUCTION

In September 2024, Applied Archaeology and History Associates, Inc (AAHA) conducted a Phase IA archaeological assessment of the Carroll Park Study Area (Study Area) in Baltimore City, Maryland. The Carroll Park Study Area is one of two locations in the city of Baltimore under review for the construction of a new sports stadium by the Maryland Stadium Authority (MSA). This Phase IA assessment is intended to partially satisfy the requirement for an Archaeological Impact Analysis (AIA) stated in Section 3.3 Scope of Work—Preliminary Design in a request for proposals issued by MSA on March 12, 2024.

The principal goal of a Phase IA archaeological assessment is to assess the likelihood that archaeological resources may be present within the Study Area. This investigation consisted of background research and a pedestrian reconnaissance. All work was conducted by a qualified professional archaeologist in compliance with the Maryland Historical Trust (MHT) *Standards and Guidelines for Archeological Investigations in Maryland*.

The archaeological assessment was conducted by Jasmine Gollup, RPA, with assistance from Celia Engel. W. Brett Arnold, RPA served as project manager and principal investigator.

The Study Area is located west of South Baltimore and is bounded to the north by a railroad right-of-way, to the west and south by the Gwynns Falls Trail, and to the east by industrial properties (Figure 1-1 through Figure 1-3). The entire Study Area is currently maintained as an operating public golf course. Two streams, Gwynns Run and Gwynns Falls, are located in close proximity to the Study Area. Access to the property is provided by a road connecting to Washington Boulevard and parking and maintenance facilities are located in the southern portion of the property. It falls within Maryland Archaeological Research Unit 7: The Gunpowder-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West Drainages (Figure 1-4).

Organization of the Report

This report presents four (4) chapters and a list of references cited. Following this introduction, which includes a brief description of the project, Chapter 2 provides an overview of the environmental conditions. Chapter 3 discusses the cultural context and previous research within and in the vicinity of the Study Area as well as the results of the sensitivity analysis. Chapter 4 summarizes the findings and provides recommendations. References cited are followed by the qualifications of the investigators (Appendix A).

Figure 1-1. Location of the Study Area on the 2024 Open Street Map (Open Street Map 2024).

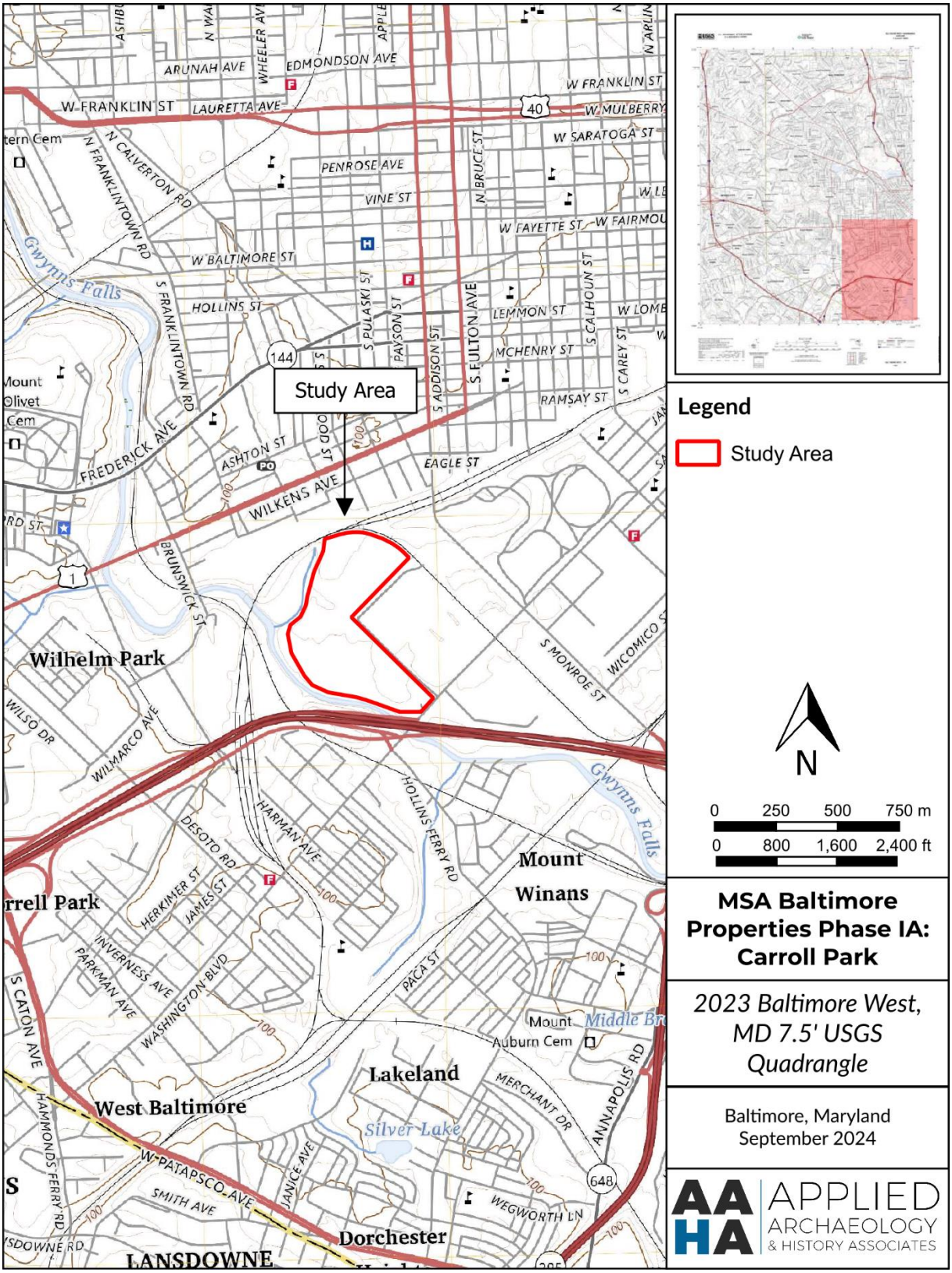

Figure 1-2. Detail of the 2023 USGS *Baltimore West, MD* 7.5-minute topographic quadrangle showing the location of the Study Area (USGS 2023).

Figure 1-3. Aerial photograph showing the current conditions of the Study Area.

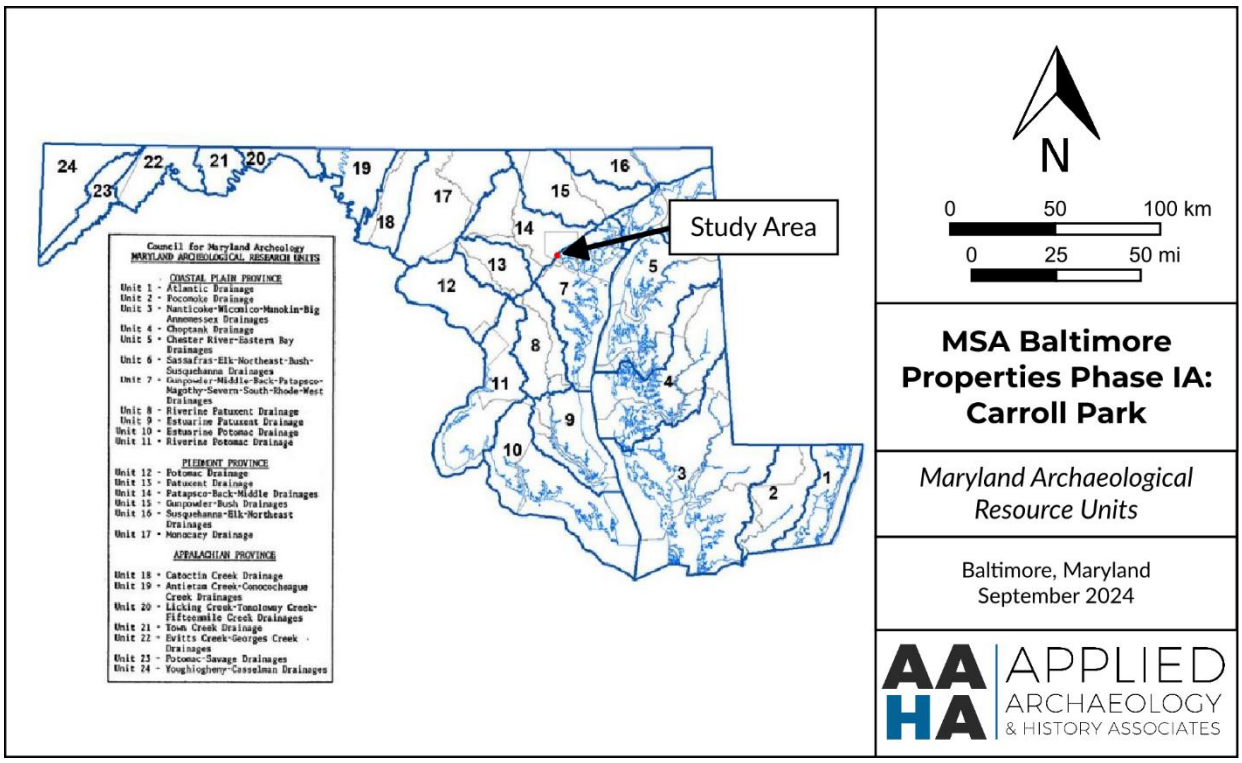

Figure 1-4. Map of the Maryland Archaeological Research Units showing the location of the Study Area.

2. ENVIRONMENTAL CONTEXT

The Study Area occupies an operating public golf course west of South Baltimore and is bounded to the north by a railroad right-of-way, to the west and south by the Gwynns Falls Trail, and to the east by industrial properties. The Study Area consists of an upland in the northern portion giving way to modified terraces with small interstream divides in the central portion. The terraces slope to a narrow floodplain associated with Gwynns Falls along the southwestern boundary. Artificial rises and depressions associated with the golf course are present throughout the Study Area. Elevations range from 7.6 meters (m; 25 feet [ft]) to 22 m (72 ft). Two streams, Gwynns Run and Gwynns Falls, are located in close proximity to the Study Area.

Physiography and Geology

The Study Area falls within the Fall Zone, an area roughly one mile wide separating the Eastern Piedmont and Atlantic Coastal Plain physiographic provinces (Figure 2-1). The Fall Zone is characterized by a rapid decrease in elevation and the transition from the Piedmont's narrow, rocky stream valleys to the broad, shallow tidal rivers and estuaries feeding the Chesapeake Bay. The area to the west of the Study Area contains narrow, deeply-incised stream valleys characteristic of waterways within the Eastern Piedmont, including Gwynns Falls and Gwynns Run.

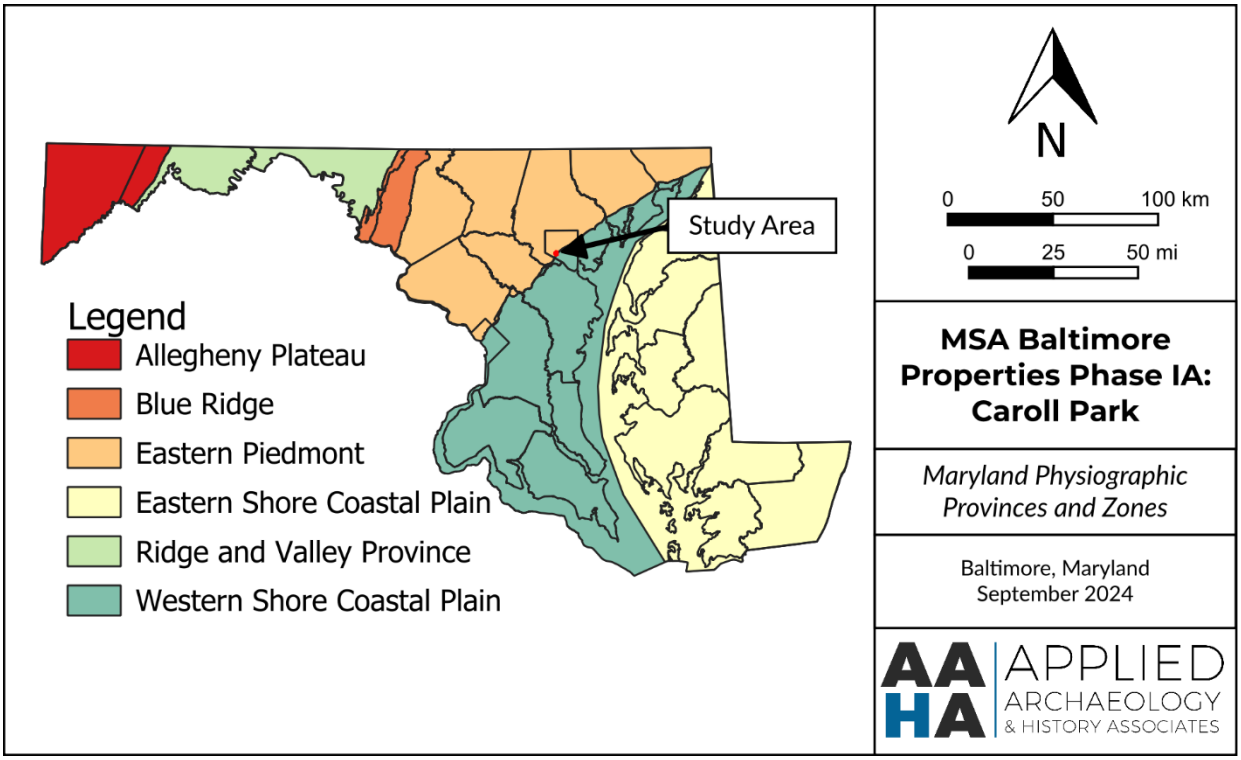

Figure 2-1. Map of the physiographic provinces in Maryland showing the location of the Study Area.

Geologic strata underlying the Study Area belong to the Lowland Deposits, which consist of medium to coarse grained sand and gravel, silt and clay with cobbles and boulders near the base. The Lowland Deposits formed during the Quaternary period and range in thickness from 0 to 150 ft (Cleaves et al. 1968).

Though quartz, quartzite, and rhyolite predominate on many western Coastal Plain and Eastern Piedmont precontact sites, cherts and jaspers are not uncommon. In many areas, jaspers occur principally in secondary deposits of stream cobbles (Custer and Galasso 1980). Rhyolite distributions on archaeological sites have been thoroughly documented by Stewart (1984) for areas in central and eastern Maryland. Stewart's studies include an examination of trends in rhyolite usage at various distances from outcrops. The use of rhyolite is evident in assemblages from the Late Archaic in the Coastal Plain and the Piedmont, when the first clear evidence of trade is found in the region.

Soils

Soil analysis utilized the United States Department of Agriculture (USDA) Web Soil Survey (WSS) as depicted in Figure 2-2. The Study Area incorporates nine soil types including the Elkton-Urban land complex (9UB), the Keyport-Urban land complex (15UB), the Urban land-Udorthents complex (43U), Udorthents (42E), Keyport loam (15B), Legore loam (17B and 17C), and Sunnyside fine sandy loam (35B and 35C).

Elkton series soils (9UB) are poorly drained soils found on coastal plains with minimal slopes formed by silty eolian material underlain by loamy alluvial or marine sediments. Elkton soils are typically woodland but when adequately drained can be used for grain crops.

Keyport series soils (15UB and 15B) are moderately well drained soils found on coastal plains with minimal slope formed from moderately fine textured fluviomarine sediments. Keyport loams are used for agriculture and pasture.

Legore series soils (17B and 17C) are well drained soils found on uplands with slopes ranging from minimal to steep. Legore soils are formed in material weathered from diabase, diorite, and related rocks and are used for agriculture, orchards, and pasture.

Sunnyside series soils (35B and 35C) are well drained with minimal to moderate slopes that are found on uplands of the Atlantic Coastal Plain. Sunnyside soils are formed in unconsolidated sandy fluvial sediments and are used for agriculture.

Both Urban land and Udorthents have been subjected to extensive anthropomorphic disturbance resulting in the partial or complete removal of the natural soil column. Parent materials generally consist of artificially deposited fill soils. While it is extremely unlikely for a precontact site to survive in areas identified with Urban land and Udorthents, historic sites are known to survive, especially in highly developed areas occupied over many decades.

Figure 2-2. Aerial photograph showing soils and soil complexes within the Study Area.

Paleoenvironment

Approximately 15,000 years ago, sea levels began rising and transgressing the exposed Atlantic continental shelf. By 10,000 BP ocean waters extended to the Cape Charles paleochannel located at the mouth of the Chesapeake Bay (Dent 1995:75). During this same time period, the vegetational landscape consisting of coniferous forests associated with the late Pleistocene was being displaced by a mixed coniferous-deciduous forest with reduced open character (Owens 1974:399–400). Pollen cores obtained from the Dismal Swamp in the southern margins of the Chesapeake region show a transition from pine and spruce trees to oak, chestnut, and hickory around 8,200 years ago (Whitehead 1972:308). After 3,500 years ago the local flora and fauna assume a relatively modern character.

Before the arrival of Europeans, the environment was primarily wooded in deciduous hardwoods (Hall 1973:73). The dominant tree species included red and white oak, sweetgum, swamp maple, holly, beech, white cedar, and bald cypress. Following European settlement, the area gained an evergreen component, including Virginia, shortleaf, and loblolly pines. Dominant species in this habitat included white and southern red oak, tulip poplar, loblolly pine, American holly, sweet pepper bush, arrowwood, Japanese honeysuckle, poison ivy, and Virginia creeper.

Food sources available to precontact inhabitants in the late summer, fall, and early winter of this region include fruits, seeds, greens, and tubers (Steponaitis 1986:79). Tubers, fruits, greens, and seeds would have been available in the spring, summer, and fall seasons, with dominant species of silky dogwood, bald cypress, seaside alder, narrow-leaved cattail, spotted touch-me-not, buttonbush, sedges, and skunk cabbage.

Flora and Fauna

Animal life along the Chesapeake Bay region reported by early explorers at the time of contact included deer, squirrels, badgers, opossums, rabbits, bears, beavers, otters, foxes, martens, minks, weasels, and numerous fish and bird species (Hughes 1980:66). At present, the region is characterized by three different habitats: terrestrial, wetland, and aquatic. Wildlife commonly found in the terrestrial habitats includes songbirds, red fox, white-tailed deer, woodchuck, raccoon, gray squirrel, eastern chipmunk, Virginia opossum, and black rat snake. The aquatic and wetland habitats are home to a variety of birds (great blue heron, mallard, wood duck, red-winged black bird), muskrat, bullfrog, common musk turtle, and northern water snake. Freshwater streams provide a spawning environment for migratory fish species such as white and yellow perch, herring, and alewife. Resident species include largemouth bass, chain pickerel, and blue spotted sunfish. Seasonally abundant species such as migratory waterfowl were also common.

Modern Climate

Baltimore, Maryland experiences an average of 42 inches (in) of precipitation per year. Snowfall averages 19 in. The temperature throughout the year typically varies from 27 to 88 degrees Fahrenheit (Best Places 2024). The growing season lasts for an average of 244 days (Weather Spark 2024).

3. CULTURAL CONTEXT

Precontact Context

The precontact chronology of eastern North America traditionally has been divided into three major cultural/temporal periods: Paleo-Indian, Archaic, and Woodland. These broad designations in turn have been divided into various sub-periods. The generalized periods approximately correspond to differing cultural configurations that became manifest because of adaptations to natural and social environments at a particular time. The following section briefly outlines the cultural and environmental changes associated with the prehistoric and contact period cultures of the Middle Atlantic region.

Paleoindian Period (ca. 12,000-8000 BC)

Paleoindian populations (ca. 12,000-8000 BC) began to migrate into the region at the end of the Late Glacial to early Post Glacial climate episodes. Climatic conditions at that time differed significantly from those of today, and Paleoindian people would have adapted to a tundra or Jack Pine-Spruce forest (Hatch et al. 1986:100). The traditional view of Paleoindians has been of highly mobile hunters who tracked the large game that inhabited the region, but research in recent decades have shown that they exploited a wide variety of food resources (Ebright 1992:410).

It has been suggested, based on the current distribution of Paleoindian materials, that upland areas were preferred for occupation. The prevalence of Paleoindian artifacts in upland settings may, however, be due to contemporaneous sea levels, which were approximately 30 m above their Late Glacial levels, causing riverine or estuarine Paleoindians sites to become inundated. Most documented sites that have yielded Paleoindian material consist only of isolated fluted projectile points, which is the prime diagnostic artifact of the period (Adovasio et al. 1977; Dent and Kauffman 1978; Funk et al. 1969; Gardner 1974). These points are almost always recovered from the surface of plowed fields.

Stratified Paleoindian materials have come to light in recent years in Anne Arundel County (Ebright 1992), Prince George's County (Gibb 2004), and on the Delmarva Peninsula (Lowery et al. 2010). Along with similarly stratified Clovis sites in Virginia (e.g., Cactus Hill) (Wagner and McAvoy 2004), these sites have contributed significantly to scholarship on the earliest peopling of the Mid-Atlantic Coastal Plain.

Archaic Period (ca. 8000-1000 BC)

The beginning of the Archaic Period (ca. 8000-1000 BC) is approximately coeval with the shift from cool, wet Pleistocene climates and environments to those of the essentially modern Holocene. Climatic conditions did fluctuate during the period, however, resulting in changes in the forest composition and faunal communities. By ca. 3000 BC, essentially modern climatic conditions were established with the onset of the Sub-Atlantic episode, although minor fluctuations persisted.

Archaic groups modified their adaptive strategies in response to environmental changes. These changes are reflected in the archaeological record by the appearance of more diverse tool styles. Included among these are specialized tools such as manos, metates, and pitted stones that indicate a more intensive exploitation of edible plant foods, and netsinkers and fishhooks, which signify a greater dependence on anadromous fish resources (Bryan 1980:363; Thomas 1980:II–5). Archaic peoples also procured an increased quantity of smaller mammals, as well as birds. Diagnostic projectile point forms recognized for the Early, Middle, and Late Archaic periods include notched-, bifurcated-, and stemmed-base styles.

Woodland Period (ca. 1000 BC-Contact)

The appearance of ceramic technology traditionally has marked the beginning of the Woodland Period (ca. 1000 BC-Contact) (Gardner 1980:3). The Early Woodland Period was characterized by a continuation of terminal Late Archaic settlement/subsistence systems, but with added capacity for food storage and preparation afforded by pottery. The earliest ceramic vessels on the Coastal Plain were tempered with crushed steatite and are thought to copy forms from Late Archaic steatite bowls (Klein 1997). A period of rapid experimentation was followed by the widespread adoption of sand-tempered wares in the Coastal Plain that continued into the subsequent Middle Woodland Period.

Expanding populations during this period became increasingly sedentary, likely following a fusion-fission settlement model with populations that consolidated and dispersed based on the time of year. The Coastal Plain's rivers and estuaries became the primary focus of settlement. Shell middens, which have recently been shown to date as far back as 2800 BC in the Chesapeake region (Rick and Waselkov 2015), began appearing along Maryland's rivers in great numbers during the Early Woodland. This indicates an increased reliance on marine food sources, most notably oyster.

The Middle Woodland is marked by an expansion of regional and extra-regional exchange networks and the apparent development of ethnic boundaries based on regional variations in pottery styles. Extra-regional exchange systems are seen in the prevalence of exotic lithic materials such as rhyolite in the Coastal Plain during this period. Archaeologists in Maryland generally identify two phases of Middle Woodland development, the first being characterized by a sand-tempered ceramic ware called the Popes Creek series and the second being characterized by a shell-tempered ware called the Mockley series (Sperling 2008:26). Mockley ceramics are widely distributed across the Coastal Plain from Delaware to Virginia, as well as in parts of the Piedmont, suggesting frequent contact among Middle Woodland groups in the Mid-Atlantic region. The slow transition toward sedentism continued during this period, with major settlements tending toward low-lying wetland and estuarine environments (Sperling 2008:25).

By the Late Woodland Period (ca. AD 900-1630) there is evidence for the cultivation of corn, beans, and squash, and also for the establishment of semi-permanent villages. Despite this, the long-range trade between the Coastal Plain and the Ohio Valley seems to have broken down by this point. Horticulture played a major role in subsistence, and while gathering and fishing

remained important, these activities were scheduled around the horticultural cycle (Hatch et al. 1986:103).

During this period, settlements were generally positioned to take advantage of productive agricultural soils on floodplains, with smaller satellite camps established near waterways and wetlands to exploit deer, fowl, fish, and shellfish (Strickland et al. 2015:63). Some village sites were fortified with stockades, and smaller hamlets were usually dispersed no more than a few kilometers from the main village. This pattern of land use was observed at the time of European contact. Material culture influences during this time reflect the development of ceramic and cultural traditions specific to localized geographic areas.

The three centuries preceding sustained European contact may have witnessed the development of political organizations spanning multiple Native American groups. Oral traditions recorded by the Colonial government in 1660 indicate that the Piscataway paramount chiefdom, which dominated the Potomac Drainage when European settlers arrived, may have united under an Eastern Shore ruler as early as AD 1300 (Strickland et al. 2015:15–16). This roughly coincides with the appearance of ossuary burials in the Potomac Drainage, a mortuary practice that originated on the Eastern Shore. Additionally, pottery types prevalent in the Maryland and Virginia Piedmont began appearing in Coastal Plain settlements concurrent with the abandonment of palisaded villages in that region. It has been suggested that these changes in material culture in the latter half of the Late Woodland Period reflect mass migration into the Potomac Drainage from the Piedmont, the Eastern Shore, or both (Potter 1993).

After AD 1500, there was an increase in social and political action among native tribes in Maryland and Virginia. Spanish missionaries may have explored parts of southern Maryland during the sixteenth century, but it was not until John Smith's voyages on the Potomac in 1608 that documented contact occurred between Europeans and Native Americans in the region. At this time, the material culture of the natives began to shift away from stone and bone tools, toward brass arrow points, glass trade beads, and other iron and brass objects.

The Susquehannocks, an Iroquoian-speaking group, dominated the upper Chesapeake Bay and Susquehanna River. By the late seventeenth and the early eighteenth centuries, the combined effects of internal conflict and externally introduced diseases and destabilizing influences resulted in the significant reduction in the Native American population and many Native Americans chose to relocate from the Chesapeake Bay area (Jennings 1978). Those that remained in Maryland typically assimilated into European society.

There are three state-recognized Native American groups in Maryland, two of which are associated with the Piscataway of southern Maryland and one of which is associated with the Accomac of Virginia. The relations between Native Americans and Europeans in Maryland were strained and deteriorated as colonists continually encroached upon the land of the Native Americans. By the beginning of the eighteenth century most local Native American tribes had either migrated out of Maryland or had been decimated by disease.

Historic Context

In 1588, Captain Vincente Gonzales, believed to be the earliest European to enter the Chesapeake Bay, sailed from Florida to survey areas thought to be English settlements. While none were observed in the Chesapeake, Gonzales did locate the remnants of the Roanoke Colony along the Carolina Outer Banks (Quinn 1977). In 1608, John Smith sailed along the Chesapeake Bay and documented the surrounding land and a number of Native American villages. Trade was established with these groups, most of which spoke Algonquian languages.

The colony of Maryland was established in 1634, when 150 English colonists settled at St. Mary's City in the lower tidewater area of Maryland (Fausz 1984:12). Cecilius Calvert, second Lord Baltimore, was proprietor of the colony. In 1632, he inherited the charter for the region from his father, George Calvert, who had secured the Maryland grant from Charles I. The success of tobacco cultivation in the colony of Virginia encouraged early Maryland colonists to adopt this agricultural focus, requiring a large labor force of indentured servants and slaves.

The first recorded European exploration of what is now Baltimore County was by Captain John Smith in the first years of the seventeenth century. The county of Baltimore was formed ca. 1660 by the executive power of the Lord Proprietary. Early settlement centered on the areas to the north and east, near the mouth of the Susquehanna River. Between 1650 and 1667, settlement in the county greatly increased, with most estuarine sites occupied by 1664 (Wesler et al. 1981). A gradual shift in settlement during the eighteenth century from the northern and eastern portions of the county to the south and west favored the growth of Baltimore (Scharf 1971:40). Baltimore County was divided into four parishes in 1766 and 13 districts in 1779. Baltimore County grew rapidly during the eighteenth and nineteenth centuries; population tripled between 1790 and 1840, from roughly 39,000 to 135,000 (Hopkins 1878).

The Town of Baltimore was established in 1729 on the north side of the Inner Basin of the Patapsco River. The original town consisted of 60 one-acre lots with an economic focus on tobacco trading. Growth was initially slow, with only 25 buildings constructed within the town by 1752. The growth of the wheat markets in the mid- to late eighteenth century transformed the Baltimore County countryside and the nascent port of Baltimore (McGrain 1990:3). Wharves and warehouses transformed the harbor and roads were built to funnel wheat to the port. Turnpikes were built from Baltimore to Cumberland, connecting the city to the Ohio Valley via the National Road. The economic opportunities attracted large numbers of immigrants of various nationalities and classes. In 1797, Baltimore was officially incorporated as a city and by 1827 Baltimore had become the largest flour market in the world (City of Baltimore 2006:20–22).

The economy of Baltimore diversified as the city grew. Textile mills were constructed in the early nineteenth century along with shipyards, brick kilns, copper and iron works, and glass factories. The "Baltimore Clipper" ship type was one of the fastest available at the time and has been credited with helping American merchants break British naval blockades during the American Revolution and War of 1812. During the War of 1812, Baltimore was threatened by the British after the burning of Washington, D.C. (City of Baltimore 2006:23). The defense of Fort McHenry during the Battle of Baltimore on September 13-14, 1814 stopped the attempted British invasion

of Baltimore and inspired Francis Scott Key to write a poem that would become the U.S. national anthem: The Star-Spangled Banner (National Park Service 2020).

Baltimore City continued to see tremendous growth throughout the first half of the nineteenth century. By 1820, Baltimore was the second largest city in the United States and featured urban improvements such as a water system, gas street lighting, and a garbage collecting system. The threat to Baltimore's economic hegemony posed by the construction of the Erie Canal and subsequent canal systems linking the Midwest to northeastern sea ports led to the creation of the Baltimore & Ohio (B&O) Railway Company in 1827.

By 1852, the B&O connected Baltimore to Wheeling, Virginia (now West Virginia) (City of Baltimore 2006:24–25). Technological advances kickstarted by the development of the railroad led to innovations and increases in large-scale manufacturing and metal manufacturing during the mid to late nineteenth century. Other notable industries in Baltimore at this time included oyster farming and shipping, fruit and vegetable canning, and clothing, umbrella, and fertilizer manufacturing. By 1888, Baltimore had expanded from 10 to 30 square miles, with previously suburban or rural areas connected to the city by horsecar and, later, streetcars (City of Baltimore 2006:28–29).

By 1900, Baltimore was a large, industrial city with a population of over half a million. A fire in 1904 decimated much of downtown Baltimore, burning 140 acres and destroying thousands of buildings. Within 10 years, downtown was completely rebuilt with significant improvements to the layout of the area and stricter fire codes enforced throughout the city. In 1918, Baltimore was again expanded, now encompassing almost 80 square miles. Baltimore was hit hard by the Great Depression; the dissolution of numerous companies and banks left tens of thousands of city residents unemployed.

The onset of World War II helped restart the United States and Baltimore economy. The end of the war saw the population of Baltimore decline as suburbanization led both people and companies to vacate the downtown area. Major public works projects reshaped the city with the construction of expressways, new schools, public housing, and a revitalization of downtown Baltimore featuring modernized office buildings, hotels, restaurants, residences, theaters, and plazas. These changes continued through the late twentieth century with the creation of the Inner Harbor, an area featuring museums, hotels, marinas, parks, and restaurants catering to both tourists and residents (City of Baltimore 2006:32–42).

The Carroll Park Study Area

The Study Area includes land that was originally owned by the Carroll family. The Carrolls were involved with early industrial development in the area, supporting iron furnaces on Sparrows Point to the east of the Study Area, and grist mills on their property along Gwynns Falls. In 1754, John Henry Carroll, son of Dr. Charles Carroll, built a cottage on land that would become Mount Clare. His brother, Charles Carroll, inherited the estate in 1763 and began construction of the large plantation house. Charles Carroll was a barrister and a distant cousin to the Charles Carroll who signed the Declaration of Independence.

During the time the property was owned by Charles Carroll and his wife Margaret, the majority of the property was farmed by indentured and enslaved workers. Upon her death in 1817, Margaret planned through her will to free the 49 slaves she owned; however, the executors of her will instead resold 34 individuals (Mount Clare Museum 2024). The house passed to James Maccubbin Carroll in 1817. The Carroll family moved to Pratt Street around 1836 and rented out the property until 1890 (Mount Clare Museum 2024).

During the Civil War, Mount Clare was used as quarters for Union officers, with Camp Carroll (or Chesebrough) located to the west, between the house and the railroad. Camp Carroll was established in the summer of 1861 in the western pasture of Mount Clare to protect the railroad between Washington, DC and the northern states. In 1863, the First Connecticut Calvary rebuilt the camp with permanent structures and renamed it Camp Chesebrough. The name was changed back to Camp Carroll in 1864 (Mount Clare Museum 2024). An 1862 print of Camp Carroll shows the tents and wooden structures within the camp with Mount Clare in the back right of the image and the B&O railroad to the immediate left (north) of the camp (Figure 3-1). The Study Area is located west of the camp.

Inspired by the City Beautiful movement, the City of Baltimore began purchasing portions of the Mount Clare property with the goal of creating a park. The earliest acquisitions centered around the Mount Clare house and the surrounding 70 acres, with the park opening in 1898. The portion of the park containing the Study Area was acquired between 1906 and 1907.

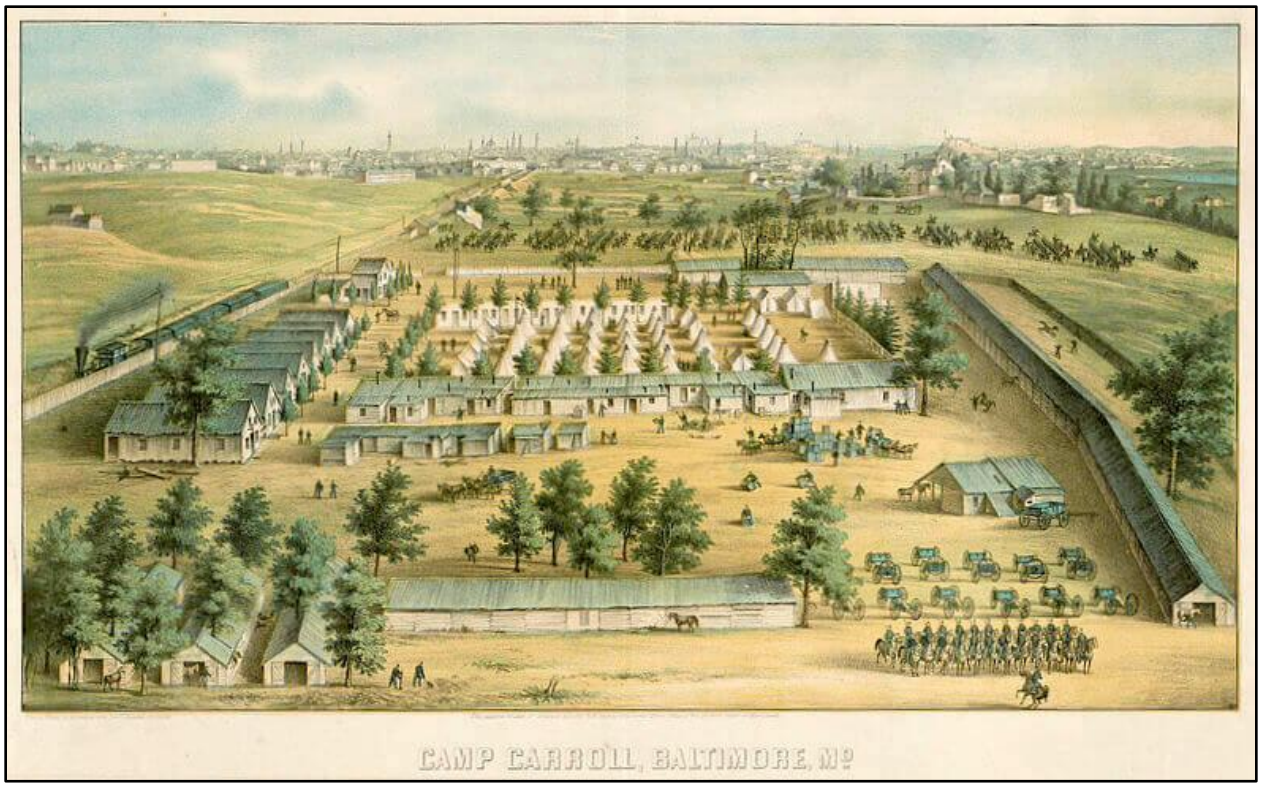

Figure 3-1. Print of Camp Carroll (Sachse, E. & Co. (publisher) 1862).

Although the Study Area was acquired by Baltimore City in 1906, few changes were made until 1923, when a 9-hole golf course was opened as a “Whites Only” course. Efforts by African Americans to use the course began in the early 1930s. From 1934 to 1936, a schedule of alternating days allowed segregated use of the course. In 1936, the course became exclusively African American. Poor conditions on the course led to a lawsuit by African American golfers against the Park Board. After a brief period of desegregation, the course was closed for renovations. On its reopening in 1945, the course was again the only municipal course available to African American golfers. In 1951, the Park Board ended segregation at four courses, including at Carroll Park Golf Course, with segregation in all Baltimore parks officially ending in 1955 with the passage of *Brown v. Board of Education* (Mount Clare Museum 2024).

Industries in the Study Area Vicinity

Grist mills were constructed on Carroll property in 1731 by Dr. Charles Carroll. The southernmost of these mills, known as the Mount Clare Mill, is located to the immediate southwest of the Study Area (Figure 3-2) (Mount Clare Museum 2024). Much of the history of the Mount Clare Mill was recorded in an undated Maryland State Archives manuscript on the Mills of Baltimore City and Baltimore County (Maryland State Archives n.d.). The earliest iteration of the Mount Clare Mill was likely established by Dr. Charles Carroll. In 1800, James Maccubbin Carroll placed an advertisement for stonemasons for the construction of a new mill, and by 1801 he was advertising for a new head miller.

Figure 3-2. Photograph of the Mount Clare Mill, circa 1900 (Mount Clare Museum 2024).

According to the 1820 census, Samuel Byrnes was the tenant of the mill. By 1822, Carroll listed the mill for rent in *American*: "This merchant mill has three pair of six feet burr stones, is improved with all the machinery for the manufacture of merchant flour and competent to grind seventy or eighty thousand bushels of grain per year. Attached thereto is a miller's house, stable and other outhouses". The mill suffered a fire in 1835, as reported in the Annapolis *Republican* (Maryland State Archives n.d.:68–69).

According to the manuscript, William E. Woodyear began leasing the mill in 1849. In 1850, Woodyear began advertising "mill feed, brown stuff, ship stuff, and middlings" for sale in *The Baltimore* Sun (1850). An 1853 lease was identified, in which Woodyear acquired the 28.25-acre mill property for $1,400 and the assumption of an annual ground rent of $900 (Baltimore City Land Records ED46:43). By 1862, Woodyear purchased the property in fee simple for $15,000 (Baltimore City Land Records GES220:540). An 1880 census listed Woodyear's mill with "$65,000 investment, 18 employees, 12 run of stones, and 1600 bu/diem maximum, engaged in 'market and shipment' trade. An 18-foot fall drove 2 overshot wheels, 13.5 ft broad by 16 and 15.5 ft in diameter, at 5 rpm, developing 25 hp. Output was 54,886 bbl flour, 2.89 million lb feed ($387,319). The mill was also equipped with 3 boilers and a 130 hp engine" (Maryland State Archives n.d.:69).

The operation of the mill appears to have ceased following Woodyear's death in 1893. A 1900 photograph shows the Mount Clare Mill on the banks of Gwynns Falls (Mount Clare Museum 2024). In 1905, Woodyear & Company listed the 27-acre property for sale as a "splendid opportunity for manufacturer or capitalist" (The Baltimore Sun 1905). In 1906, Woodyear's heirs, his widow Rosa, son William, and daughter Elizabeth, sold their remaining portions of the property to the Mayor and City Council of Baltimore (Baltimore City Land Records 2281:209). By 1908, the mill was described as being in ruin as it had been out of operation for 15 years (The Baltimore Sun 1908). The dam abutments remained until 1975 and were destroyed with the construction of the I-95 interchange (Mount Clare Museum 2024).

James Maccubbin Carroll rented the fields around Mount Clare to brickmakers to extract clay. Bricks quickly became a major export in Baltimore as early as 1790 and were also heavily used within the city due to a 1799 ordinance outlawing wood-frame houses. Baltimore bricks were renowned worldwide and often took top honors at international building expositions. More than 85 million bricks were produced from Carroll's field clay, with the majority used locally (Mehr 2023; Mount Clare Museum 2024). The majority of the brick kilns appear to have been located outside of the Study Area, although an 1897 Atlas demonstrates various clay pits scarring the landscape within. No information was available about which brick manufacturers would have been excavating clay from within the bounds of the Study Area.

James invested in the B&O and eventually served as company director. He gave the new B&O permission to construct a line through his property as well as 25 acres for a station and maintenance yard. Mount Clare shops, the oldest railroad manufacturing complex in the United States, was established in 1829 on Carroll property. The Carrollton Viaduct, built 1829, was the first masonry railroad bridge built in the United States (Figure 3-3). It spans Gwynns Falls west of Mount Clare and the Study Area and remains in use in the twenty-first century. The Carrollton Viaduct is listed on the NRHP (NR 71001032).

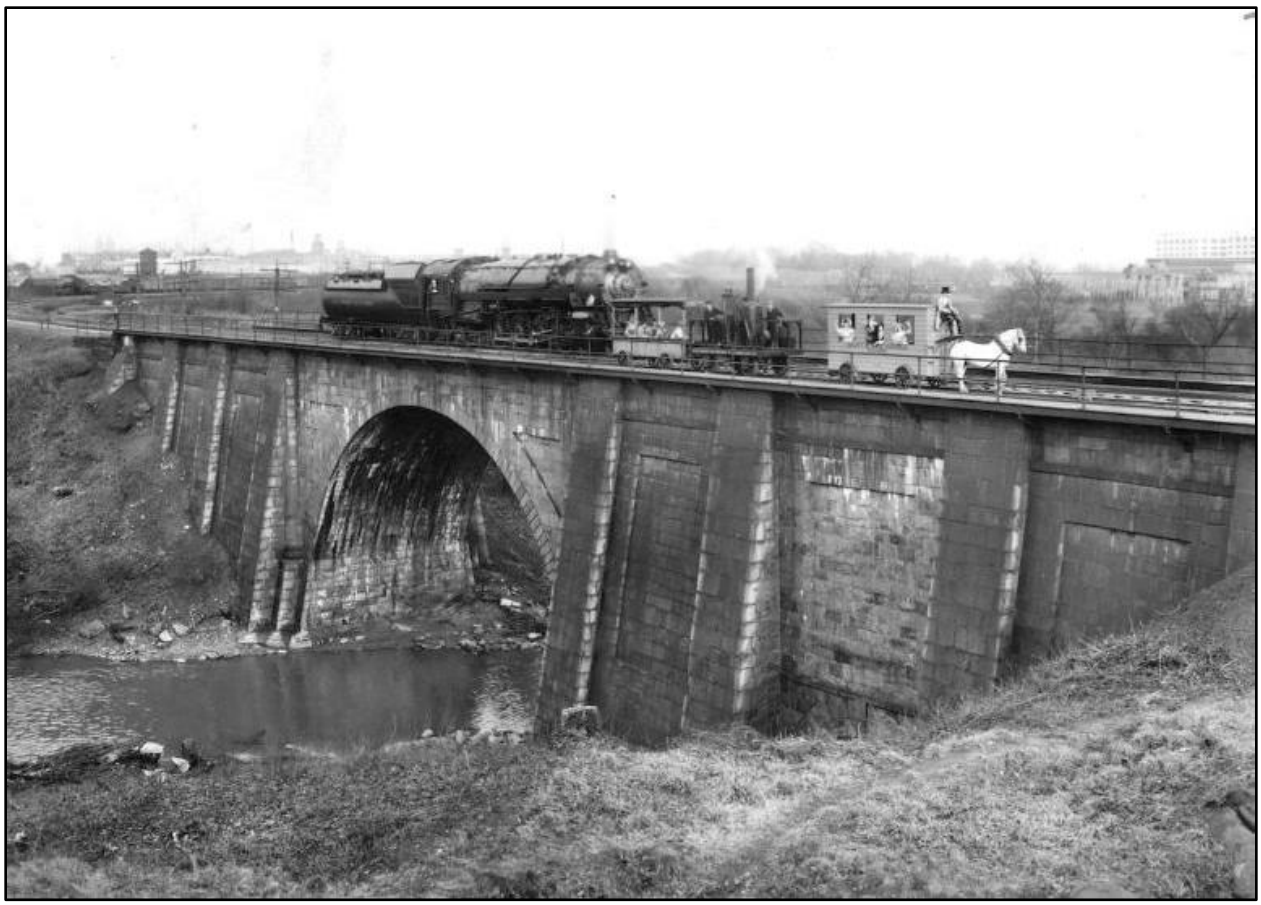

Figure 3-3. Photograph taken in 1926 to mark the 100th anniversary of the Carrollton Viaduct (Mount Clare Museum 2024).

In 1830 the first B&O rolling stock, a horse-drawn passenger car, made its first run from Mount Clare Station to Ellicott's Mills. In 1844, Samuel Morse sent the first telegraph message from the Supreme Court in Washington, DC to Mount Clare train station (Maryland State Archives 2022; Mount Clare Museum 2024).

Historic Maps

On the 1608 *Map of Virginia* by John Smith, the Study Area vicinity is depicted west of the "Chesapeack Bay" (Chesapeake Bay) and north of the "Bolus flu[men]" (Patapsco River) (Figure 3-4). No towns are noted in the Study Area vicinity or anywhere on the Western Shore of the Chesapeake Bay, which is thought to have been depopulated in the early seventeenth century due to conflict between the Susquehannock of southeastern Pennsylvania and the Algonquian polities of southern Maryland and eastern Virginia. The map shows that Native American settlement at contact was focused along the Patuxent and Potomac Rivers.

Augustine Herrman's 1673 *Map of Virginia and Maryland* depicts "Baltemore County" along the western shore of the Chesapeake Bay near the Patapsco River (Figure 3-5). The Study Area vicinity is located north of the river. Boals Creek is located east of the Study Area. No settlements are noted in the Study Area vicinity.

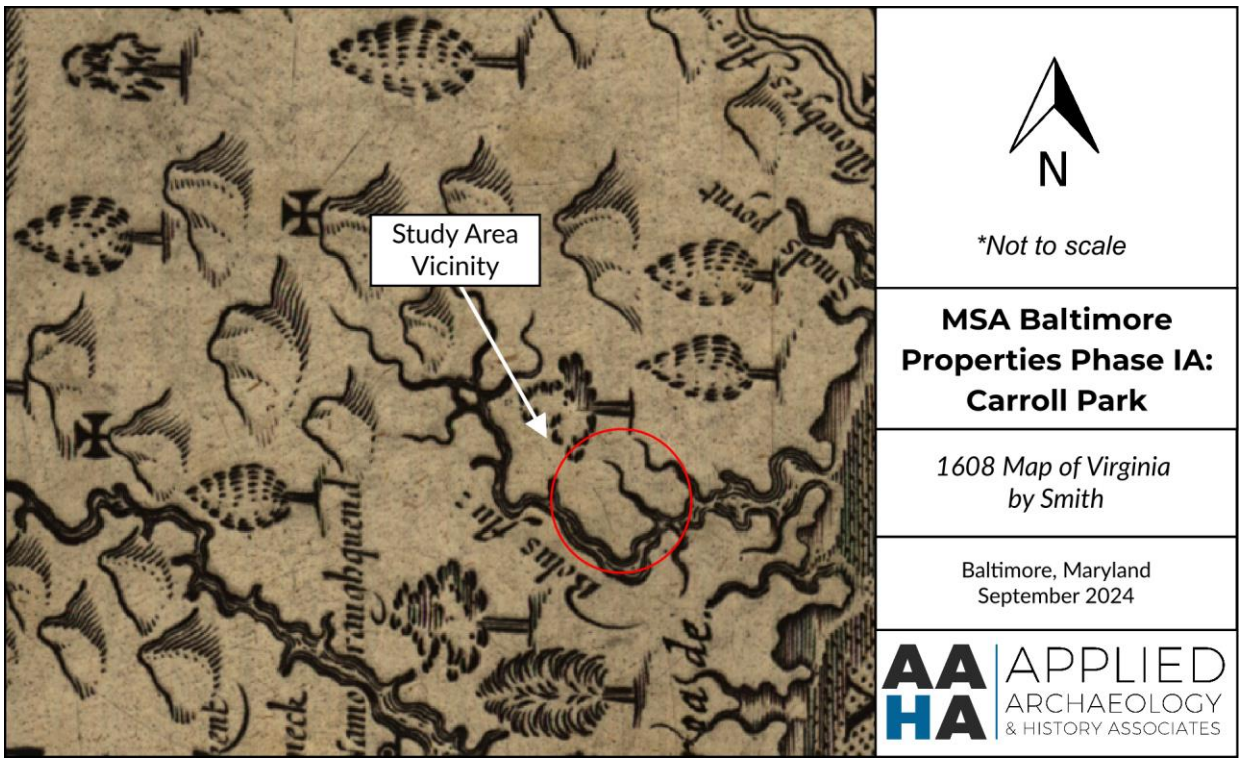

Figure 3-4. Detail of the 1608 *Map of Virginia* by Smith showing the Study Area vicinity (Smith and Hole 1624).

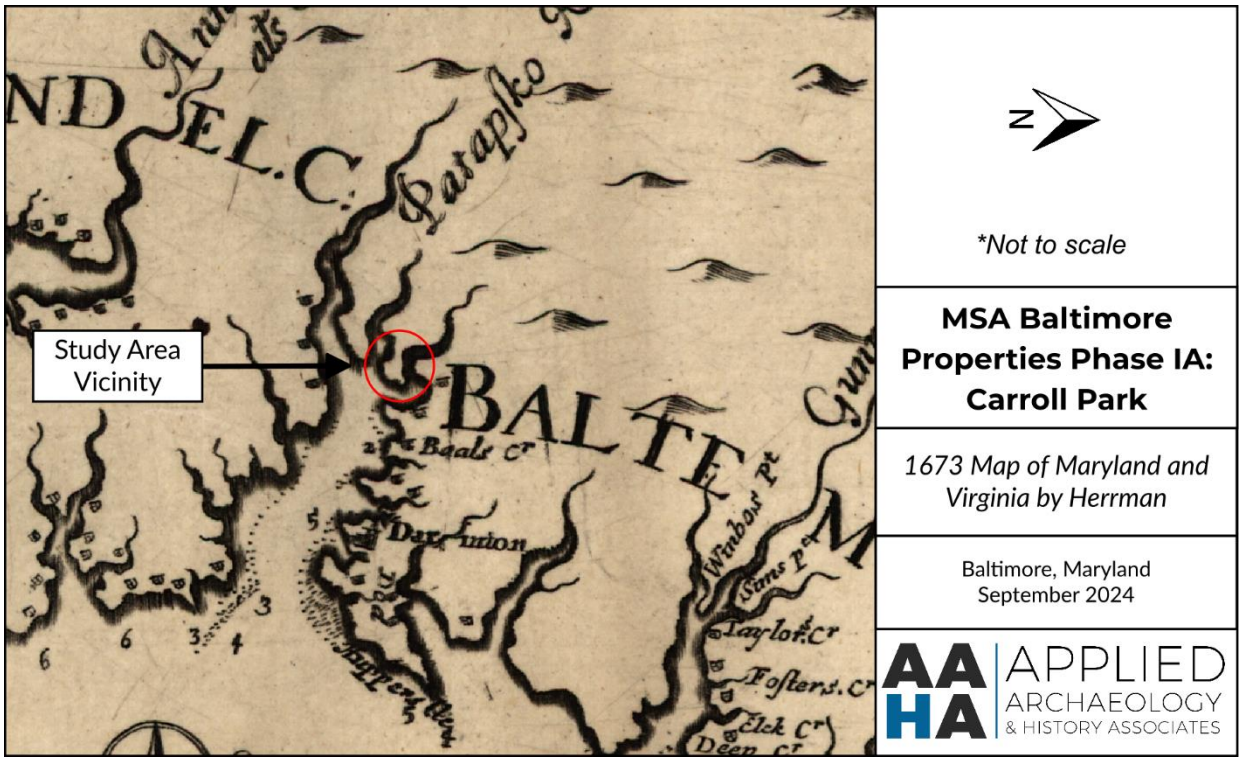

Figure 3-5. Detail of the 1673 *Map of Maryland and Virginia* by Herrman showing the location of the Study Area vicinity (Herrman 1673).

The Dennis Griffith 1795 *Map of Maryland* depicts Baltimore City shortly after the establishment of the United States (Figure 3-6). The Study Area is located south of Baltimore. Fort Whetstone, the earthen precursor to Fort McHenry, is located east of the Study Area. Fort Whetstone was expanded and improved in 1798 (National Park Service 2020). Industries are depicted in the area, including a mill to the immediate southeast of the Study Area. Hammonds Ferry crosses a branch of the Patapsco to the southwest. A roadway runs through the Study Area to a tributary of the Patapsco River.

The 1857 *Map of the City and County of Baltimore* by Sidney depicts the Study Area vicinity at the southwestern extent of the limits of Baltimore (Figure 3-7). The B&O is located to the west, north, and east of the Study Area vicinity, with a road located to the south. The Study Area vicinity includes the residence of C. Carroll and a mill. Several other landowners named Carroll are noted in the area, as are several taverns and a toll house on the northern terminus of a bridge spanning Middle Branch. The area north of the Study Area is known as Clare Mount and is the plantation home of the Carroll family.

The 1863 *Military Map of Baltimore* by Kaiser depicts the Study Area southwest of Baltimore (Figure 3-8). The city of Baltimore continues to expand, with industries and ports concentrated in south Baltimore along the Patapsco River. Several roadways are noted throughout the area as are railroads, including the B&O, which curves around the northern boundary of the Study Area.

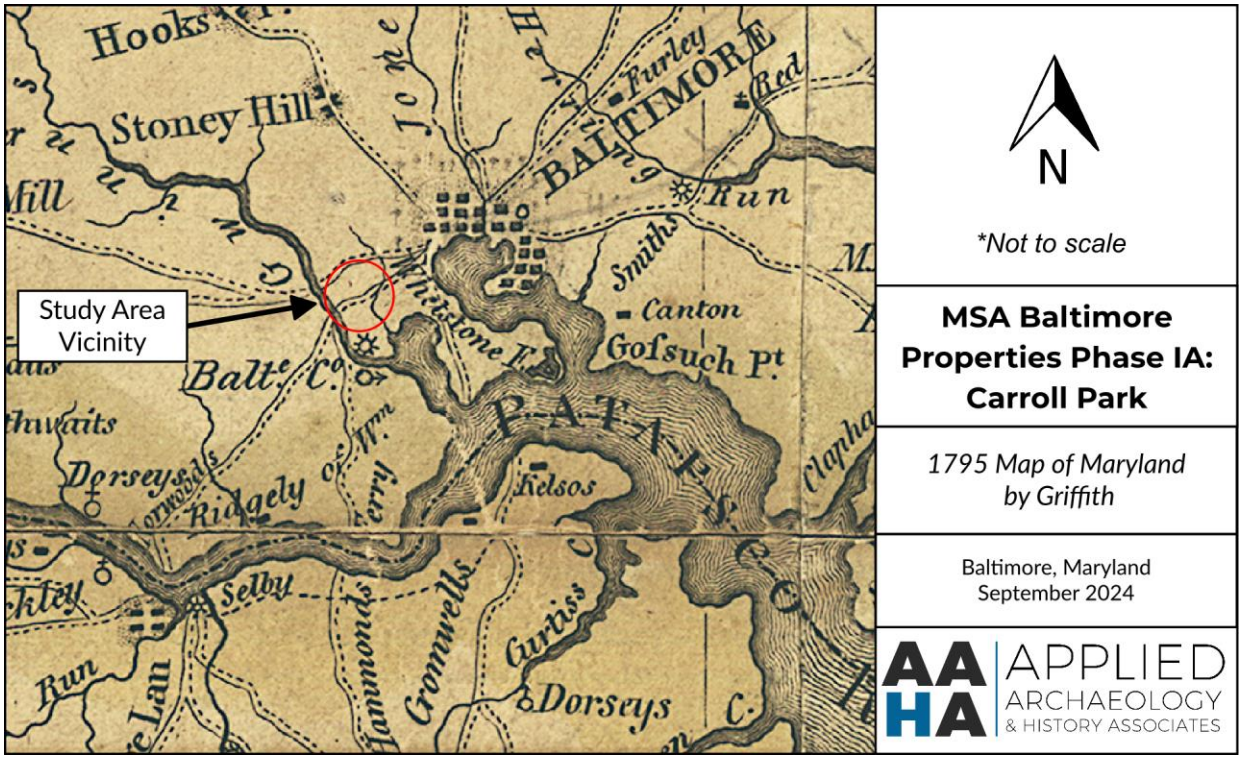

Figure 3-6. Detail of the 1795 *Map of Maryland* by Griffith showing the location of the Study Area vicinity (Griffith 1795).

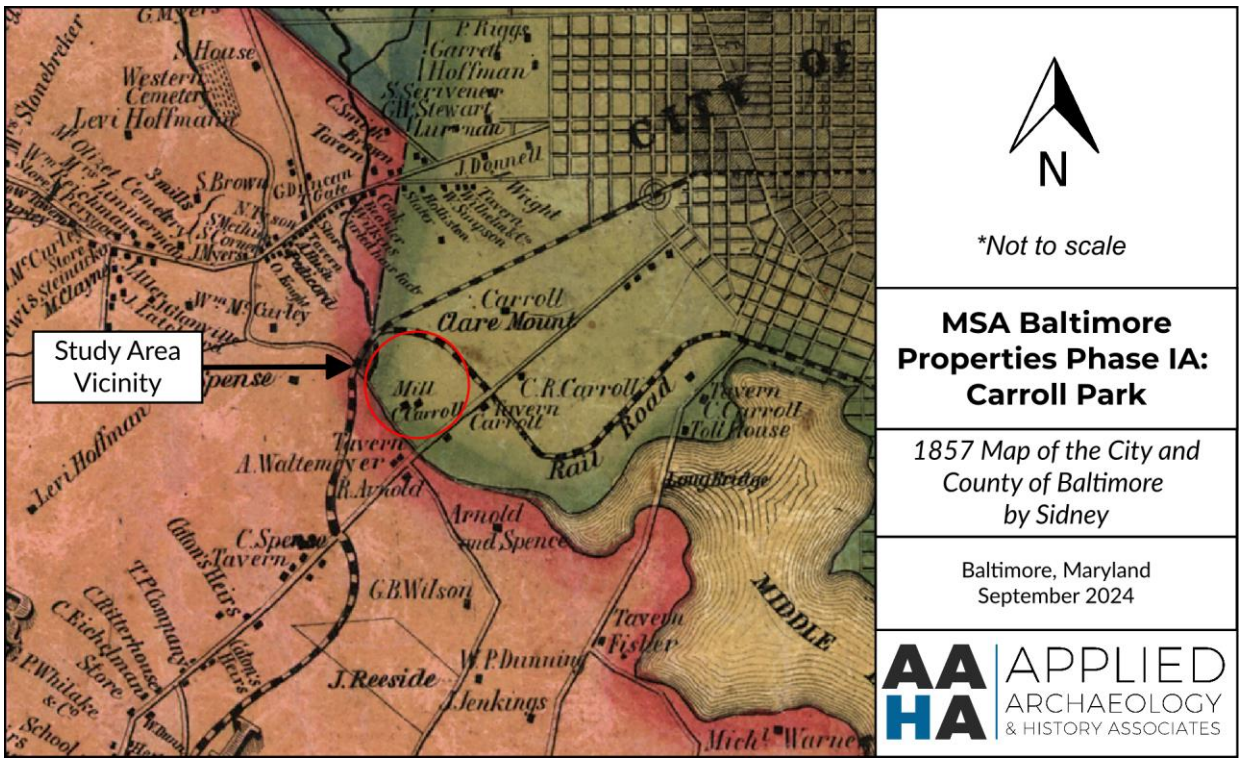

Figure 3-7. Detail of the 1857 *Map of the City and County of Baltimore* by Sidney showing the location of the Study Area vicinity (Sidney 1857).

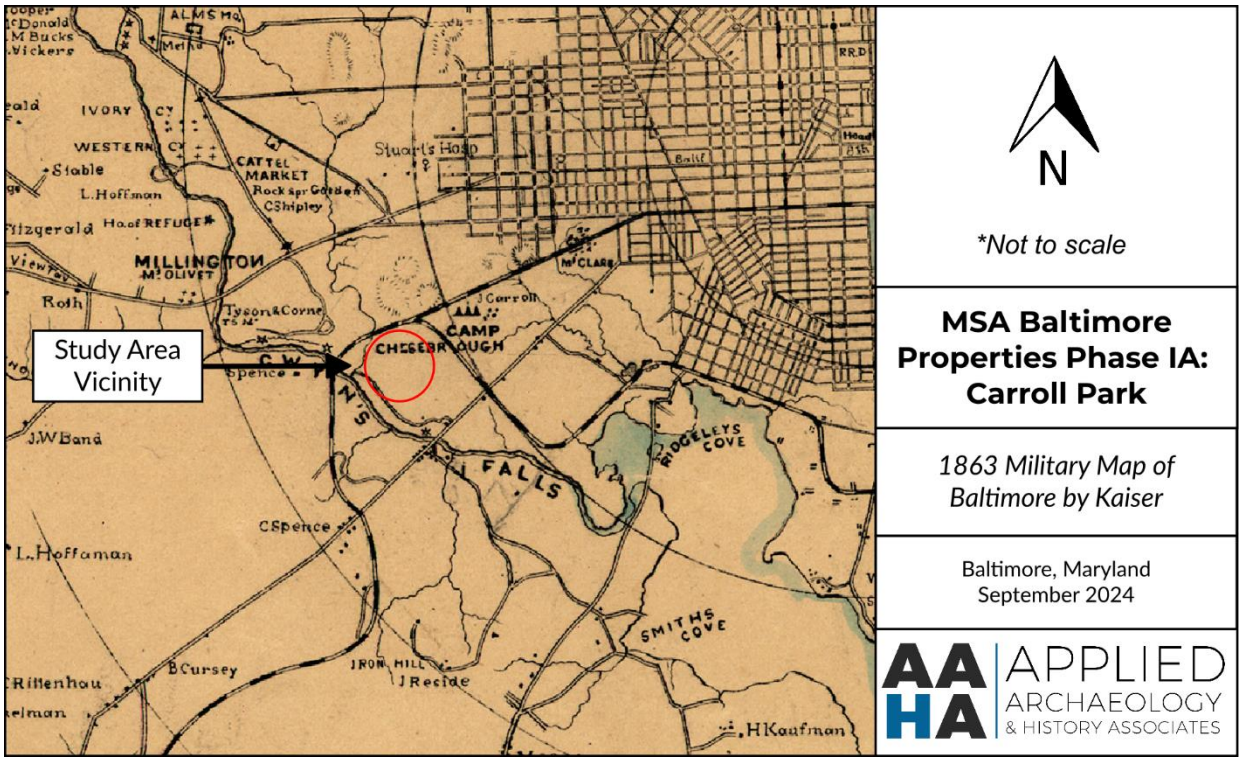

Figure 3-8. Detail of the 1863 *Military Map of Baltimore* by Kaiser showing the location of the Study Area vicinity (Kaiser 1863).

The Study Area vicinity is southwest of Camp Chesebrough and north of Gwyn's Falls. A mill is depicted southwest of the Study Area vicinity, along Gwyn's Falls and Mount Clare is depicted to the northeast. No structures or communities are shown in the Study Area vicinity.

The 1869 *Birds Eye View of the City of Baltimore* by Sachse provides an artistic depiction of the city, illustrating land use not seen on historic maps (Figure 3-9). The Study Area is located in southwestern Baltimore north of Washington Road and is partially shown on the illustration. It falls within a rural area outside the densely-populated city center, with industrial and infrastructure buildings located along Gwinns Falls and Washington Road. Many of the industrial structures in the vicinity are labeled as brick yards. One of these brick yards, labeled D. Bull's, falls just outside the Study Area vicinity. Both Mount Clare and the B&O are shown outside the Study Area vicinity.

The birds eye illustration depicts a collection of structures in the northern portion of the Study Area vicinity that are difficult to interpret. It is unclear what the collection of buildings represents, and they are located on the north side of a road that connects to the railroad line but not to other roads in the vicinity. A large cylindrical structure and a line of barrels or hay bales are depicted near the structures. A handwritten label on the road leading to these structures, barely visible, reads "T^{h} Ritchie's College". Archival searches for information on these structures or a potential college owned or operated by a Thomas Ritchie were unsuccessful. Given that these structures do not appear on any other historic map, it is possible they represent structures located outside the Study Area vicinity that appear in this location because they were outside the illustration frame, or were used as artistic filler in an area where no structures actually existed at the time.

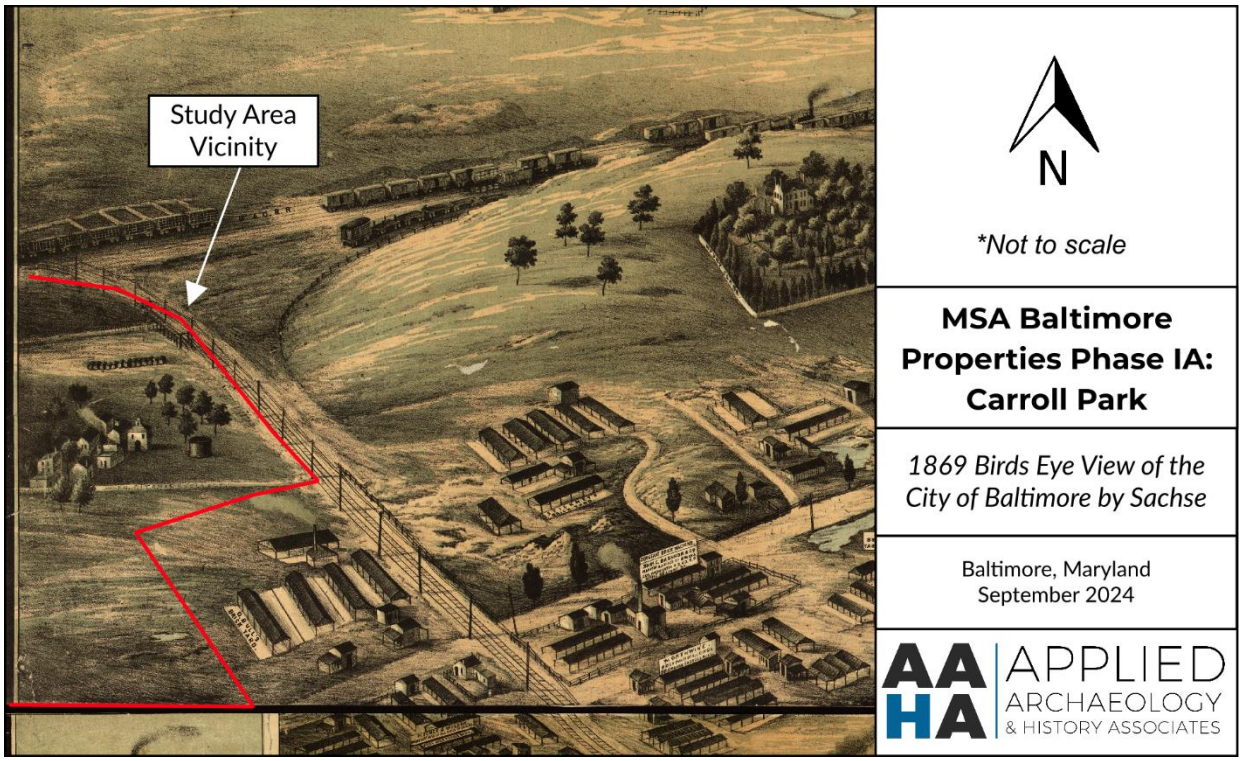

Figure 3-9. Detail of the 1869 *Birds Eye View of the City of Baltimore* by Sachse showing the location of the Study Area vicinity (Sachse, E. & Co. (publisher) 1869).

The 1894 *Baltimore, MD* 15-minute topographic quadrangle shows increased development in south Baltimore (Figure 3-10). The Study Area is located south of the major development of Baltimore. The B&O is located west, north, and east of the Study Area, connecting to the Mount Clare Junction at the northern border of the Study Area. Washington Boulevard is located south of the Study Area. The community of Claremont is located west of the Study Area, across Gwynn's Falls. Early USGS maps do not typically show structures in rural areas and no structures are noted within the Study Area.

The 1897 *Atlas of the City of Baltimore* by the Baltimore City Topographical Survey provides additional detail of the use and landform modifications in the Study Area (Figure 3-11). Clay pits and brick yards are scattered throughout the Study Area. Smaller structures, noted as iron buildings on the key, are present throughout the Study Area. A mill race is located to the immediate west, leading to the Mount Clare Mill. Two small agricultural fields are located in the northern portion of the Study Area. Former landowners are identified, with the Mount Clare mills to the immediate south of the Study Area within the estate of William E. Woodyear and much of the remainder of the Study Area noted as the estate of James Carroll. A projected continuation of the city's grid is shown overlaid onto the Study Area's existing conditions.

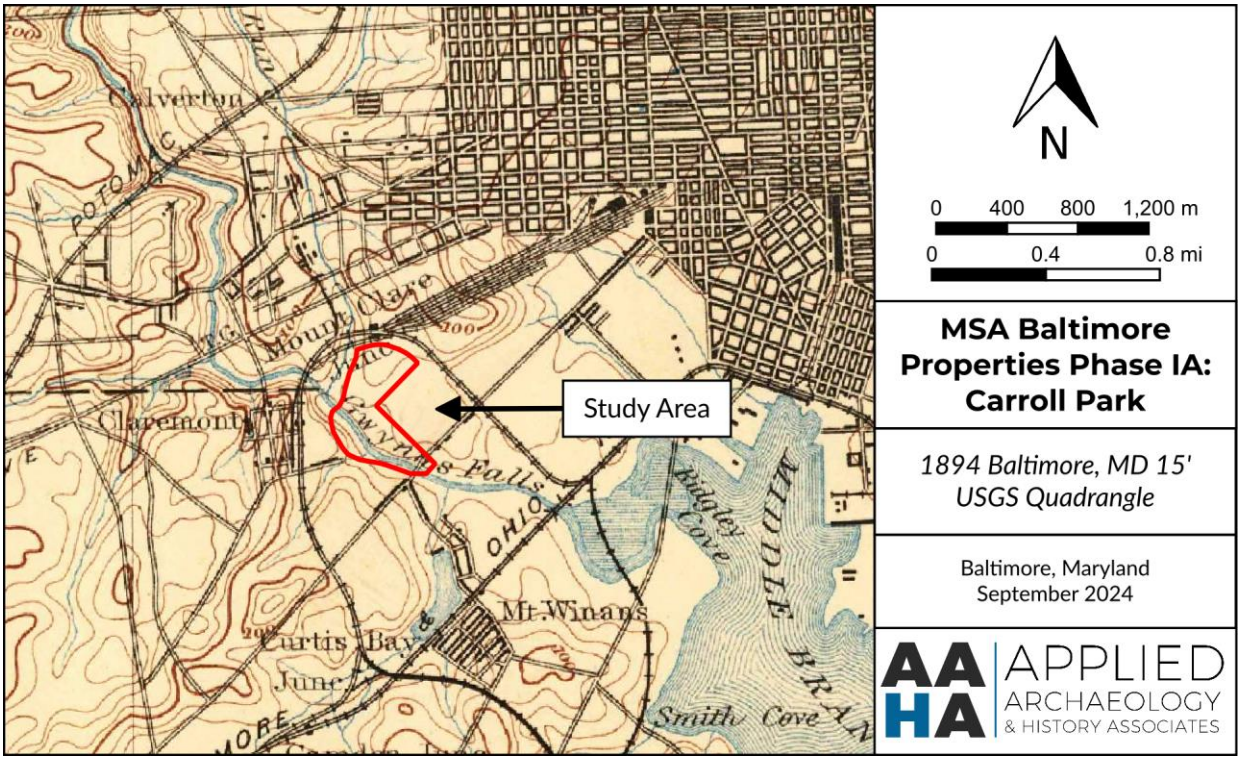

Figure 3-10. Detail of the USGS 1894 *Baltimore, MD* 15-minute topographic quadrangle showing the location of the Study Area (USGS 1894).

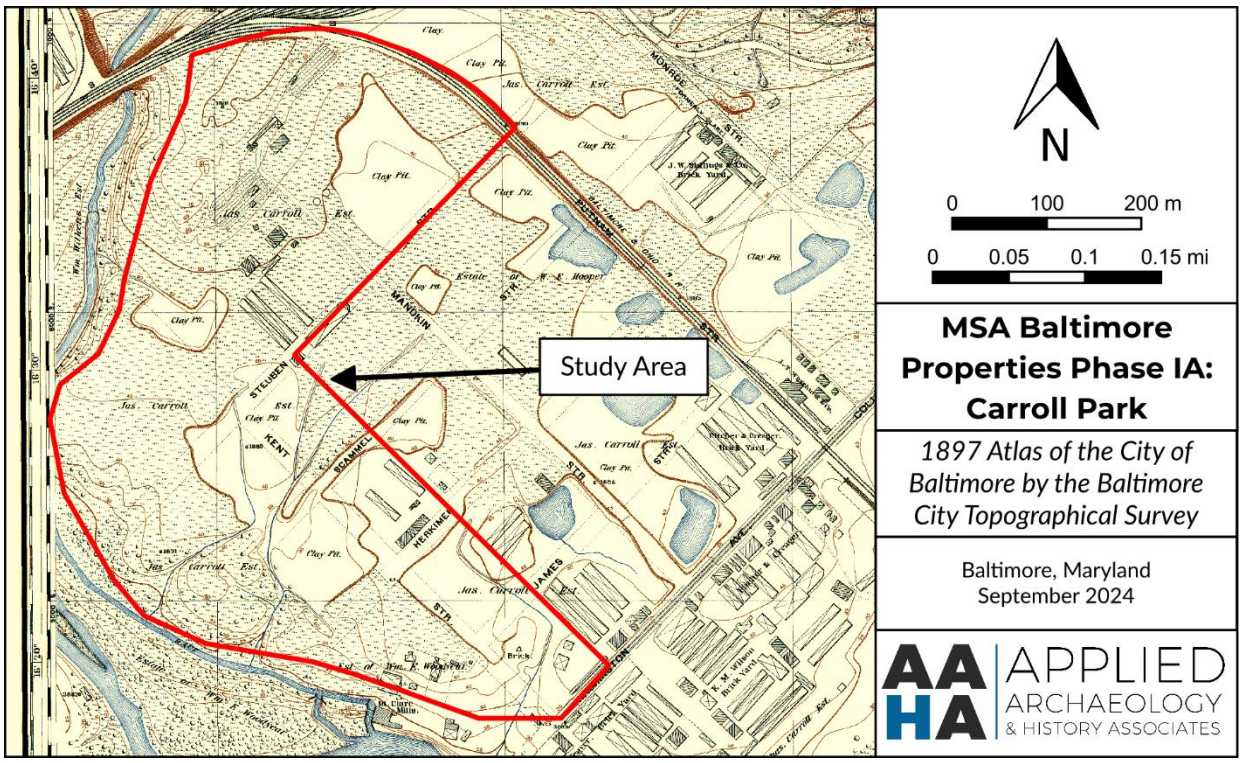

Figure 3-11. Detail of the 1897 Atlas of the City of Baltimore by the Baltimore City Topographical Survey showing the location of the Study Area (Duncan et al. 1897).

By 1899, the area had seen rapid expansion, with several structures shown within and in the vicinity of the Study Area (Figure 3-12). The city of Baltimore continues to expand south and west, while the neighboring communities of Claremont to the west and Curtis Bay to the south likewise expand. The structures present roughly correspond with the brick yard structures present on the 1897 map. The B&O continues to operate, with several lines in the area. Landform modifications caused by clay extraction are evident through the changes in topographic lines within the Study Area between the 1894 and 1899 maps. Clusters of structures are noted in the northern and southern portions of the Study Area, with additional structures located along Washington Blvd to the east of the Study Area.

Substantial changes had occurred in the Study Area and surrounding area by the mid-twentieth century. The 1943 *Baltimore, MD* 15-minute topographic quadrangle shows significant development in the general area (Figure 3-13). The Study Area is located near the neighborhood of Claremont. The B&O continues to operate. The structures noted on the previous USGS map in the northern portion of the Study Area are no longer extant, while one large structure, the golf course club house, is present in the southern portion. A road to the clubhouse and an unimproved road are located in the southern portion of the Study Area. Several roads are depicted to the immediate east of the Study Area.

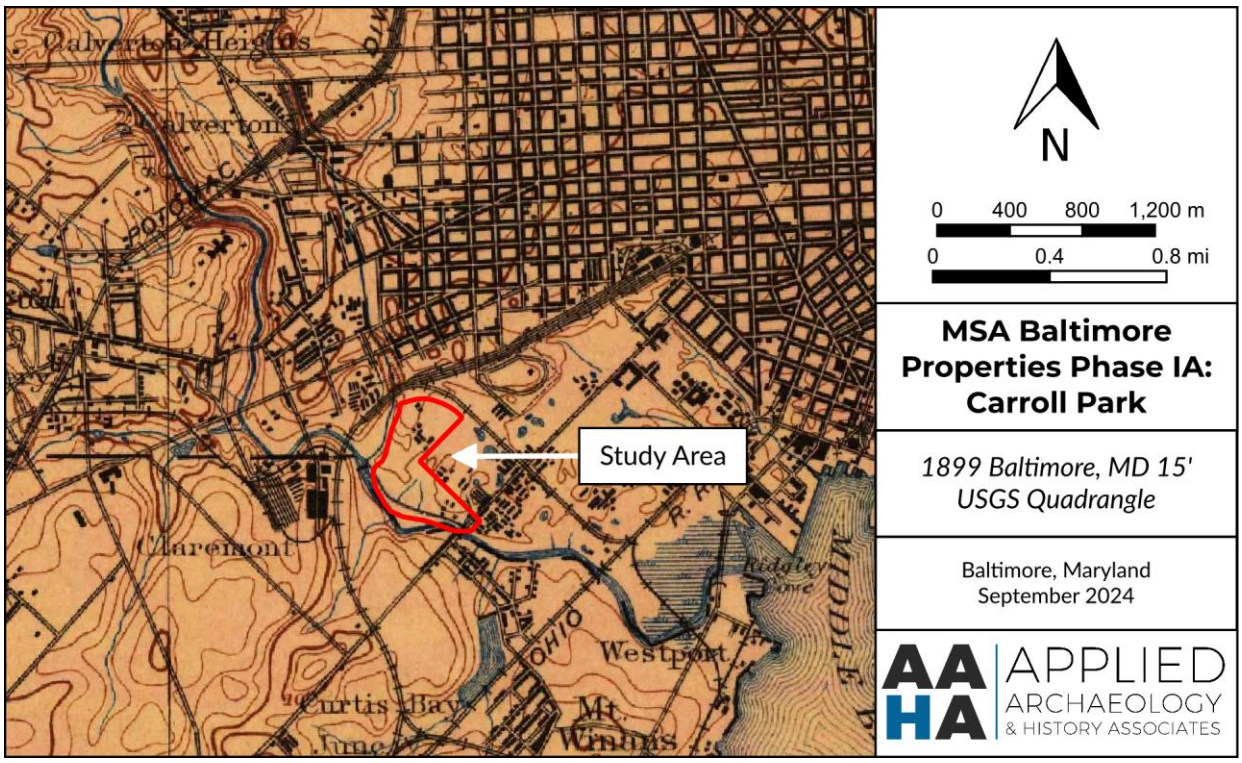

Figure 3-12. Detail of the USGS 1899 *Baltimore, MD* 15-minute topographic quadrangle showing the location of the Study Area (USGS 1899).

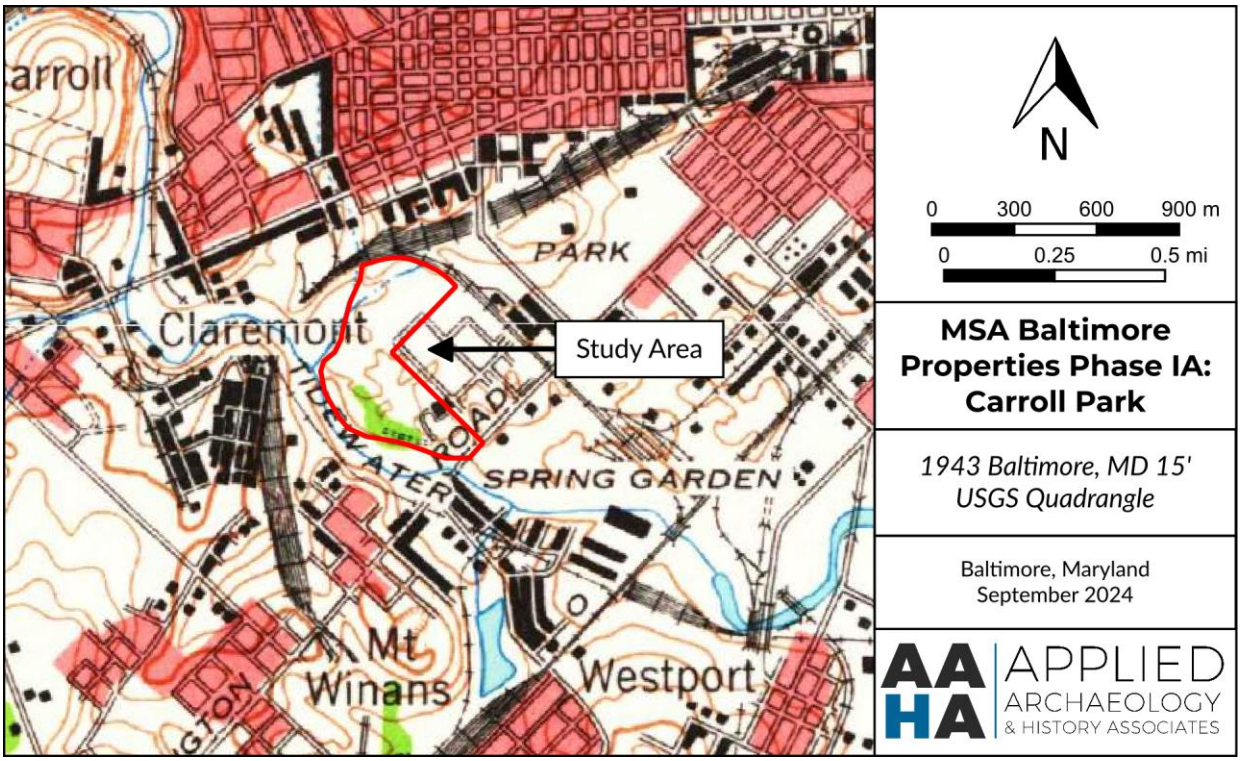

Figure 3-13. Detail of the USGS 1943 *Baltimore, MD* 15-minute topographic quadrangle showing the location of the Study Area (USGS 1943).

The 1953 *Baltimore West* 7.5-minute topographic quadrangle shows increasing development in the general area (Figure 3-14). The city has continued to expand south, with dense habitation surrounding the Study Area. The structure within the Study Area noted on previous maps is no longer depicted. A road loop is present in the southern portion of the Study Area. The railroad continues to operate.

Historic aerial photographs provide additional detail not available on historic maps. The earliest photo of the Study Area is from 1957 and shows the entirety of the Study Area as an open area with scattered trees (Figure 3-15). The presence of sand traps and cart tracks throughout the area confirms its use as a golf course. In the southern portion of the Study Area is a large structure with associated roadways, likely the golf course club house.

By 1964, few changes are noted within the Study Area (Figure 3-16). The golf course continues to operate, with the only notable changes in the layout of the clubhouse and parking lot in the southern portion of the Study Area.

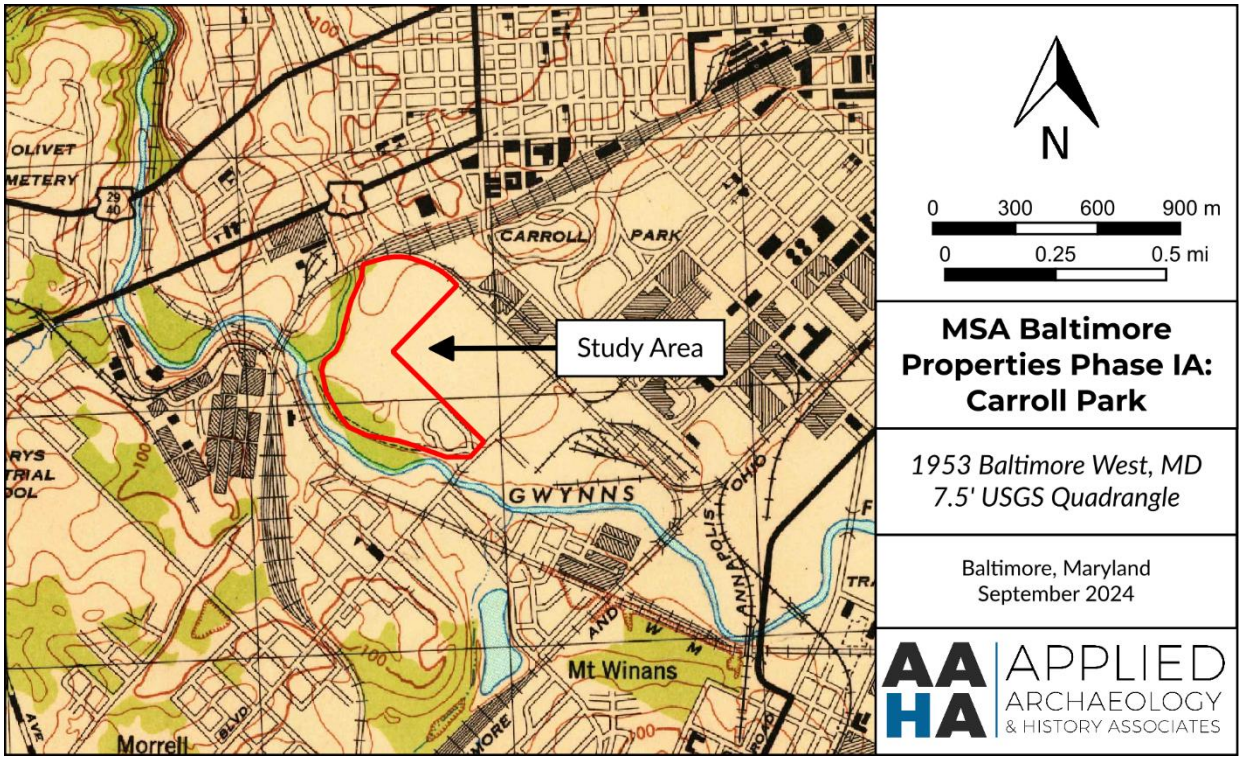

Figure 3-14. Detail of the USGS 1953 *Baltimore West, MD* 7.5-minute topographic quadrangle showing the location of the Study Area (USGS 1953).

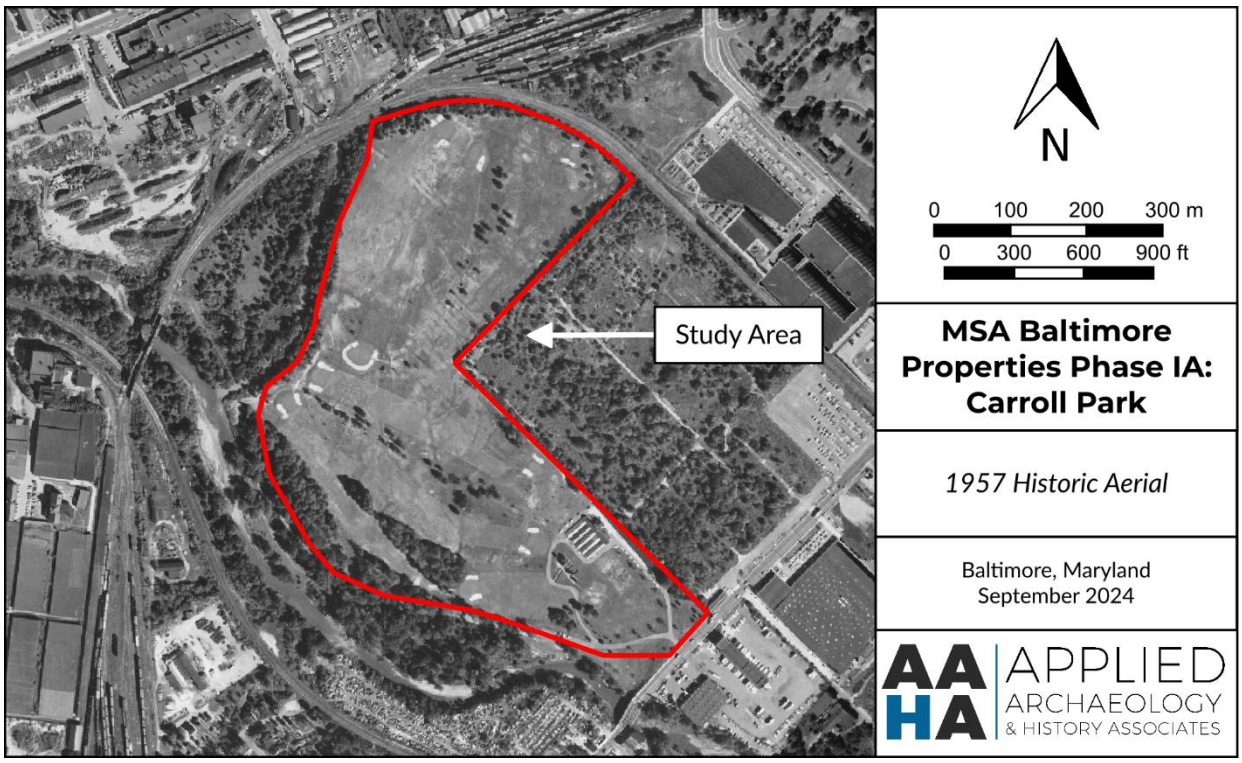

Figure 3-15. Aerial photograph taken in 1957 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

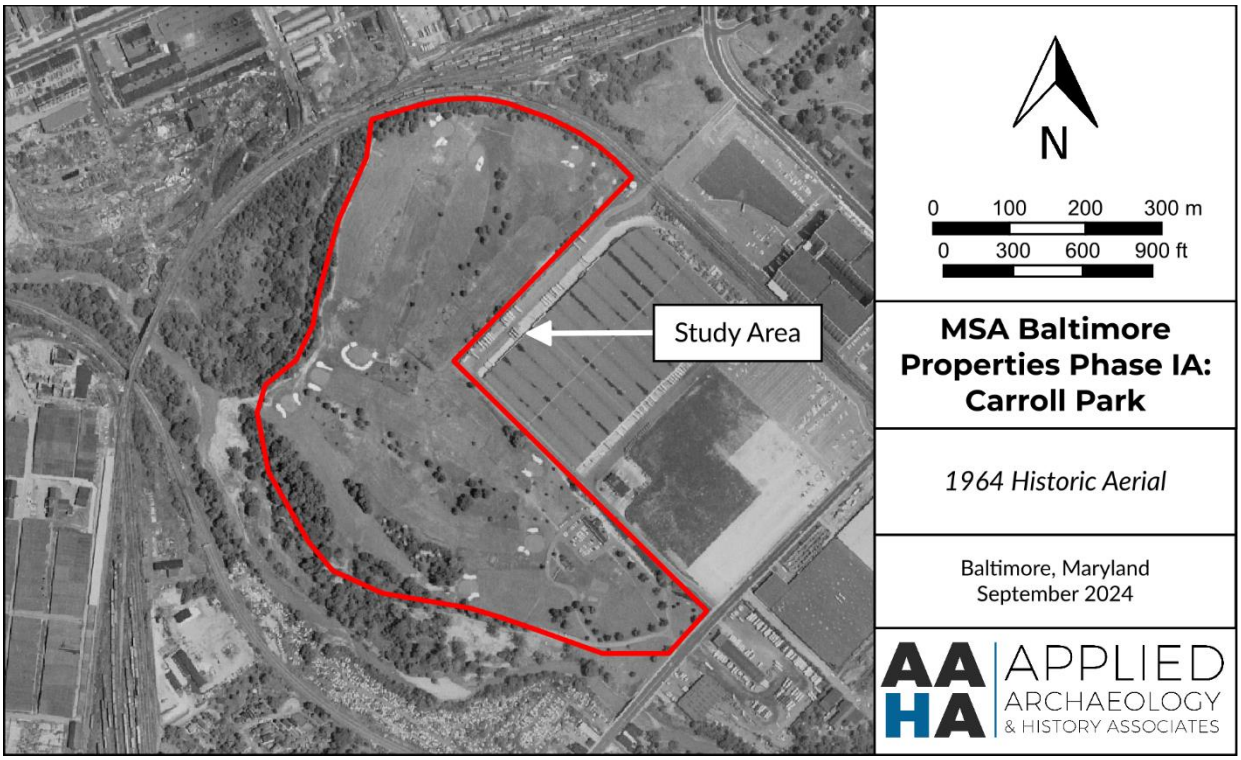

Figure 3-16. Aerial photograph taken in 1964 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

Previous Research and Recorded Sites

Nine archaeological surveys have been conducted within one mile of the Study Area, three of which include small portions of the Study Area (Table 3-1). The remaining surveys were conducted between 1982 and 2008 in advance of infrastructure or transportation improvements or for research at Mount Clare.

In 1991, an archaeological reconnaissance and Phase II archaeological survey was conducted for the Carroll Park Golf Course expansion (Ballweber 1991). An archaeological reconnaissance was conducted and a Phase II survey was conducted at site 18BC34. Subsurface excavations failed to relocate the site, with the only artifacts found consisting of late twentieth-century dumps. The site was determined to be insignificant and no further work was recommended. This survey includes a small portion of the northwestern Study Area.

In 1997, a Phase IA archaeological investigation was conducted of the Mount Clare maintenance facility (Read 1997). The archival review was meant to inventory, locate, and predict archaeological resources. Originally part of Georgia Plantation, owned by Dr. Charles Carroll, the property was sold by the Carroll family in 1906 to add to the new Carroll Park owned and operated by the city of Baltimore. The land was further subdivided in 1924 and sold to industrial firms including a brick manufacturer and foundry. This survey includes a small portion of the southeastern Study Area.

In 1999 and 2000, Phase IA and I archaeological surveys and an architectural survey were conducted along the proposed Gwynns Falls pathway (Hill et al. 1999). The Phase I survey recovered artifacts from the twentieth century in disturbed deposits and determined that the area lacked significance and recommended no further work. The architectural survey identified properties eligible for listing in the National Register of Historic Places (NRHP). This survey included a small portion of the west-central Study Area.

TABLE 3-1. PREVIOUS ARCHAEOLOGICAL SURVEYS WITHIN ONE MILE OF THE STUDY AREA

CALL #	REPORT TITLE	AUTHOR, YEAR	COMPANY	SURVEY TYPE
BC 6	A Phase I Reconnaissance Survey of the Archeological Resources in the Proposed I-595 Corridor Between I-95 and I-170, Baltimore City, Maryland	(Dinnel 1982)	MD Geologic Survey, Division of Archaeology	Phase I
BC 34C	A Phase I/II Archaeological Reconnaissance Survey for the Gwynns Falls Sewer Interceptor, Baltimore, Maryland	(Weber et al. 1984)	Baltimore Center for Urban Archaeology	Phase I/II

CALL #	REPORT TITLE	AUTHOR, YEAR	COMPANY	SURVEY TYPE
BC 72*	Preliminary Archaeological Survey of Carroll Park Golf Course Expansion and Phase II Testing of Site 18BC34, Baltimore, Maryland	(Ballweber 1991)	Hettie Ballweber, Columbia Maryland	Phase I/II
BC 103	The 1984 Shovel Test Pit Survey of Mount Clare, in Carroll Park	(Logan and Seidel 1995)	Carroll Park Restoration Foundation, Inc.	Phase I
BC 118	Assessment of Architectural/Historical Resources and Phase IA Archaeological Assessment Proposed Penn-Camden Connection, Baltimore City, Maryland	(Slater and Ward 1997)	Parsons Brinkerhoff Quade & Douglas, Inc.	Phase IA
BC 120*	Phase IA Archaeological Investigation of Cultural Resources Associated with Mount Claire Maintenance Facility, Baltimore, Maryland	(Read and Lane 1997)	Baltimore Center for Urban Archaeology	Phase IA
BC 126*	A Phase I Archeological Survey of the Proposed 3.03 Mile Phase II Gwynns Falls Pathway Located in Baltimore City, Maryland.	(Hill 2000)	Archeological Testing and Consulting, Inc.	Phase I
BC 178	Cultural Resource Survey of 1300 Bush Street, Bus Maintenance Facility, Baltimore City, Maryland.	(Silber et al. 2008)	McCormick Taylor, Inc.	Phase I
BC 189	Archaeological Assessment of proposed Gwynns Falls Greenway Properties.	(Read 1993)	Baltimore Center for Urban Archaeology	Phase I

** - Survey includes portions of the current Study Area*

Three archaeological sites have been identified within one mile of the Study Area, none of which is located within the Study Area (Table 3-2). The Three Mill site (18BC35) is an eighteenth- to twentieth-century mill that was first built by members of the Ellicott family of Ellicott City. It has not been evaluated for inclusion in the NRHP. The Gwin Site (18BC34) is a multicomponent site located 0.06 miles west of the Study Area with a low-density artifacts scatter of both precontact and historic artifacts. The site has been determined not eligible for inclusion in the NRHP.

The Mount Clare Site (18BC10) is an eighteenth-century industrial plantation with an Early and Middle Woodland short term resource procurement camp component located 0.13 miles east of the Study Area. The plantation was originally owned by Charles Carroll. The site has been subjected to multiple archaeological investigations between 1968 and 2001. While the site has not been evaluated for inclusion in the NRHP, the house is a NRHP-listed historic resource (NR 70000860).

TABLE 3-2. PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE OF THE STUDY AREA

SITE #	SITE NAME	SITE TYPE	TOPOGRAPHIC SETTING	INVESTIGATION SUMMARY	NRHP STATUS
18BC10	Mount Clare	Precontact – Early and Middle Woodland shell midden; Historic – 18th century estate	Low Terrace	Phase II/III	Not Evaluated
18BC34	Gwin	Precontact – lithic scatter; Historic – artifact scatter	Floodplain	Phase I/II	Not Eligible (10/22/1991)
18BC35	Three Mill	Historic – late 18th to early 20th century mill site	Floodplain/ Low Terrace	Phase I	Not Evaluated

One hundred and eighty-one (181) architectural resources have been identified within one mile of the Study Area, none of which are within the Study Area. One resource, the Gwynn's Run Culvert (MIHP B-4635), is a stone arch culvert, built ca. 1829, and located to the immediate northwest of the Study Area where the railroad track crosses Gwynn's Run (see Figure 3-3). It has been determined eligible for inclusion in the NRHP.

Of the identified resources, six have been listed in the NRHP (Table 3-3). Three of the resources are historic districts all dating to the 1830s: Franklin Square Historic District, Union Square-Hollins Market Historic District and Pigtown Historic District. The remaining listed resources include the Montgomery Ward Warehouse and Retail store, located across the B&O east of the Study Area, the Carrollton Viaduct located on the B&O as it crosses Gwynn's Falls to the west of the Study Area, and the eighteenth-century Mount Clare mansion, located 0.25 miles east of the Study Area.

TABLE 3-3. PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE OF THE STUDY AREA

RESOURCE #	SITE NAME	DATE	TYPE	NRHP STATUS
NR 82001585	Franklin Square Historic District	1839 to early 20th century	Community planning	Listed (12/10/1982)
NR 71001032	Carrollton Viaduct	1829	Transportation	Listed (02/20/1972)
NR 70000860	Mount Clare	c. 1763	Residential	Listed (05/10/1970)
NR 00001085	Montgomery Ward Warehouse and Retail Store	1925	Commerce/ warehouse	Listed (09/14/2000)
NR 83002941	Union Square-Hollins Market Historic District	c. 1830-present	Industry	Listed (09/15/1983)

RESOURCE #	SITE NAME	DATE	TYPE	NRHP STATUS
NR 06001177	Pigtown Historic District	1830-1915	Domestic; Religion; Commerce/trade; Government; Industry	Listed (12/28/2006)
B-4635*	Gwynn's Run Culvert	c. 1829	Transportation	Eligible

* *Resource located immediately adjacent to the Study Area.*

Pedestrian Survey

A pedestrian reconnaissance survey was conducted on September 6, 2024. The majority of the Study Area occupies an undulating landform modified by golf course features including tee boxes, fairways, greens, and cart roads that generally slopes west and north toward Gwynns Falls and Gwynns Run. An upland finger ridge extends from the north in the northern portion of the Study Area. The central portion appears to occupy modified stream terraces with small associated interstream divides that slope sharply to the narrow floodplain for Gwynns Falls along the southeastern boundary. Course related features appear to be artificial, though the areas between and on the periphery of the features do not exhibit signs of landscaping on the surface.

Impervious surfaces and structures are located in the southeastern portion of the Study Area and include the club house and associated parking lots and roads. A one-story brick storage building and a small brick structure with an attached chimney are also present in this area, along with a row of single-story brick storage bays that may be related to former nineteenth-century brickyards lining the course's driveway.

Gwynns Falls trail runs along the southwestern border of the property and a railroad bed is immediately adjacent to the northwestern border. Deciduous and evergreen trees tangled with dense undergrowth are present along the southeastern border of the Study Area. Mature hardwood trees were noted near the club house, as well as in the northeastern section. Most vegetation in the Study Area are landscaped elements associated with the golf course, including short grasses on the tees, fairways, and greens, as well as ornamental plantings of small trees, shrubs, and high grasses bordering the course features.

In the northeastern section, just north of the warehouses, a denuded ground surface located between oak trees was observed containing numerous artifacts on the surface, including ceramics, glass, oyster shell, and coal fragments. The visible surface artifacts fall within a 10-x-5 m area and may correspond to a cluster of structures noted on the 1869 map (see Figure 3-9), although subsequent maps depict this area within a late nineteenth-century clay pit. No other visible surface artifacts or potential archaeological features were noted.

GIS Analysis

To assist in identifying portions of the Study Area with high archaeological potential, a GIS analysis of available environmental data was conducted. The GIS analysis included a cut-and-fill analysis of the Study Area, vectorization of clay borrow pit features drawn on historic mapping, and projection of soils in the Study Area classifying areas as having high, moderate, or low potential for potentially significant archaeological resources.

Cut-and-Fill Analysis

A cut-and-fill analysis was undertaken to assess the degree to which elevation within the Study Area has changed between the late nineteenth century and the present. A GIS cut-and-fill analysis assesses the integrity of a landform as it relates to historic modifications by calculating changes to a landscape's elevation over a period of time.

The "Interpolation" and "Raster Calculator" tools in QGIS 3.34.4 were used to compare elevations from the 1897 *Atlas of the City of Baltimore* by the Baltimore City Topographic Survey, with five (5) foot contour lines, against a current two (2) foot topographic contour lines data layer. The 1897 dataset was adjusted to account for changes to the twentieth-century vertical datum. A Digital Elevation Model (DEM) was interpolated for each dataset and the difference was taken, showing values of change between the two periods. This highlights areas of cutting, filling, or little change. The resulting raster was then reclassified to identify areas within and outside a +/- 3-foot margin of error to account for natural erosion or survey errors. The reclassified raster was vectorized to show discrete areas where elevations changed by less than -3 feet or more than +3 feet. Elevation changes of -3 feet or less are unlikely to contain potentially significant archaeological deposits, which are usually located within the upper 3 feet of the soil column. Elevation changes of +3 feet or more are unlikely to contain archaeological resources within the range of standard testing. It is important to note that little to no elevation change does not necessarily mean no disturbance has occurred, it simply indicates that the current level could have been achieved without significant manipulation.

The cut-and-fill analysis revealed that the majority of the Study Area currently occupies elevations comparable to those documented in 1897 (Figure 3-17; and see Figure 3-11). Elevation gain within the margin of error is noted throughout the Study Area, most prevalently within flat areas in its central, northern, and southern portions. Elevation loss is noted in bands in various places across the Study Area, with most elevation loss occurring along slopes. This is likely due in part to natural erosion, which has probably accelerated since the golf course was constructed due to a relative lack of stabilizing vegetation.

Projecting the results as vector features and filtering out the areas within the margin of error, it becomes clear that the modern golf course closely follows the natural landform, with pockets of cutting present in the southern and western portions of the Study Area and somewhat larger areas of infilling present throughout (Figure 3-18). The largest of the filled areas fall within the northern half of the Study Area. The greatest amount of infilled material, with an elevation gain exceeding +10 feet, is present along the Study Area's southern boundary, where a drainage swale was filled. Overall, the cut-and-fill analysis suggests that archaeological sites across much of the Study Area could maintain archaeological integrity.

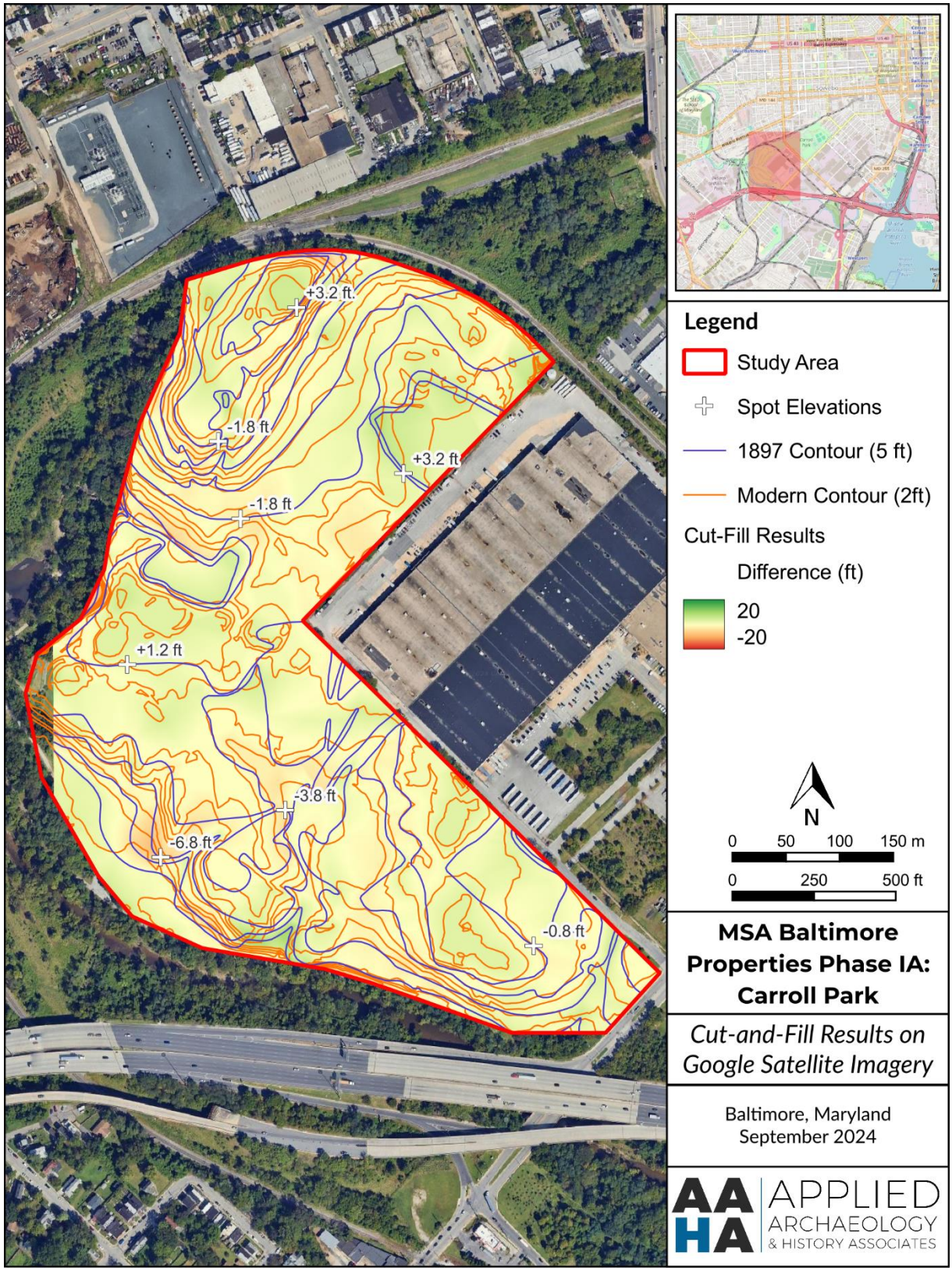

Figure 3-17. Results of the cut-and-fill analysis on Google satellite imagery.

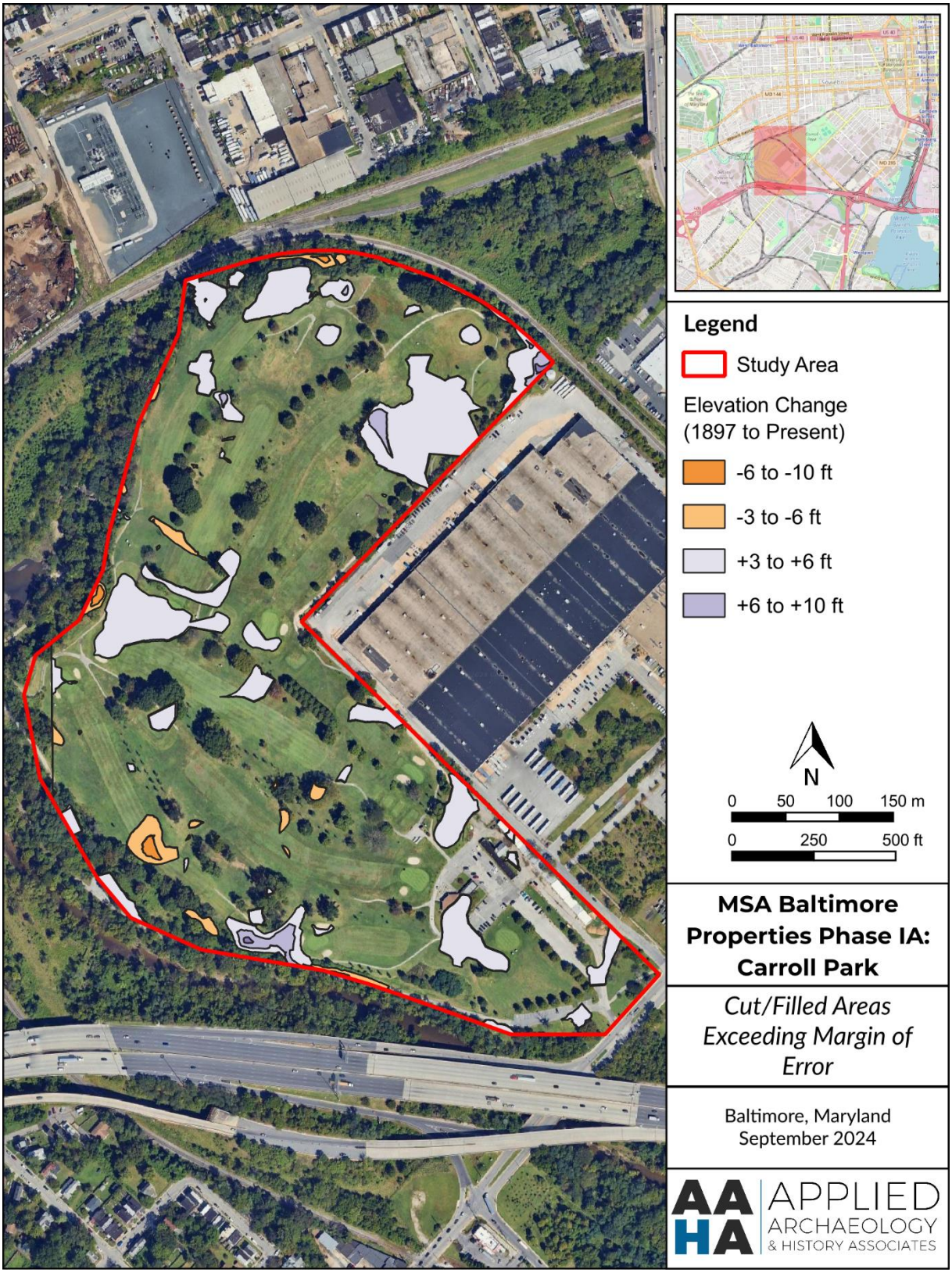

Figure 3-18. Results of the cut-and-fill analysis showing areas that have been modified beyond the margin of error.

Soil and Clay Pit Projection

Soils are considered one of the most important predictors of archaeological potential. In general, the soil's drainage classification is the variable that corresponds most significantly to the presence or absence of archaeological sites, particularly during the precontact period. Soils within the Study Area were projected and classified as having High, Moderate, or Low probability for precontact archaeological resources based on their drainage classification. Soils that demonstrate heavy disturbance, such as udorthents and urban land, are also classified as Low probability.

Soil analysis demonstrates that most of the Study Area's southern half falls within soils classified as having High probability and most of its northern half falls within soils classified as having Low probability (Figure 3-19). High probability soils are also present in the northwestern corner of the Study Area and Low probability soils are present along the Study Area's southern periphery. These Low probability soils are classified as udorthents or urban land, which are unlikely to contain significant archaeological resources outside of downtown areas occupied over hundreds of years. An area with soils classified as having Moderate probability is present along the eastern boundary of the Study Area. These soils are less well drained than surrounding soils, making them slightly less desirable for precontact occupation. They are also further removed from fresh water sources.

The pits opened to extract clay for nearby nineteenth-century brick yards represent a unique challenge in assessing the archaeological potential of the Study Area. Historic mapping indicates that brick yards were present along modern Washington Boulevard by 1869 and that a brick yard had been constructed within the Study Area between 1869 and 1897 (see Figure 3-9 and Figure 3-11). Clay extraction results in a high degree of ground disturbance as clay-rich soils are removed, usually resulting in the destruction of the upper soil column down to culturally sterile subsoil. The 1897 *Atlas of the City of Baltimore* shows and labels the clay pits present within the Study Area and its vicinity. These clay pits were vectorized and projected onto modern maps, showing the extent to which the Study Area has been impacted by clay extraction. Three clay pits are present, with one in the northeastern portion of the Study Area, one in the west-central portion of the Study Area, and one in the southern portion of the Study Area.

Results Summary

These analyses were combined for the overall sensitivity assessment. A map of archaeological potential based on environmental factors was overlaid with figures including the cut-and-fill analysis and the location of clay borrow pits. Areas that were noted as less than -3 feet or more than +3 feet in the cut-and-fill analysis, areas of low soil probability, and the locations of clay borrow pits were noted as low probability and eliminated, leaving approximately 23.6 acres of high probability to contain potentially significant archaeological resources.

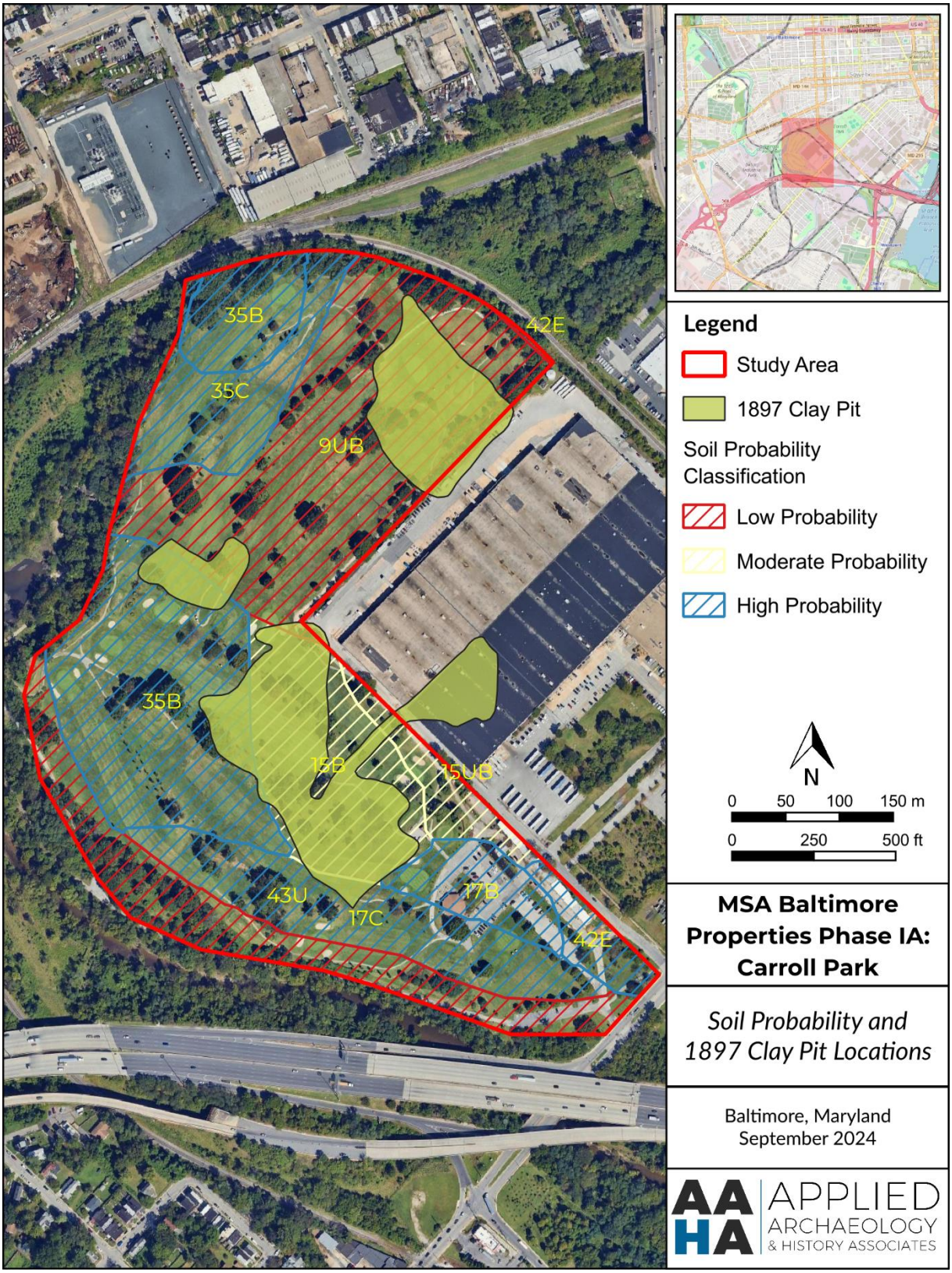

Figure 3-19. Aerial map of the Study Area showing the location of clay pits as noted on the 1897 map and soil classification by probability.

4. SUMMARY AND RECOMMENDATIONS

In September 2024, Applied Archaeology and History Associates, Inc (AAHA) conducted a Phase IA archaeological assessment of the Carroll Park Study Area (Study Area) in Baltimore City, Maryland. The Carroll Park Study Area is one of two locations in the city of Baltimore under review for the construction of a new sports stadium by the Maryland Stadium Authority (MSA). This Phase IA assessment is intended to partially satisfy the requirement for an Archaeological Impact Analysis (AIA) stated in Section 3.3 Scope of Work—Preliminary Design in a request for proposals issued by MSA on March 12, 2024. The principal goal of a Phase IA archaeological assessment is to assess the likelihood that archaeological resources may be present within the Study Area. This investigation consisted of background research. All work was conducted by a qualified professional archaeologist in compliance with the MHT *Standards and Guidelines for Archeological Investigations in Maryland*.

The Study Area is located west of South Baltimore and is bounded to the north by a railroad right-of-way, to the west and south by the Gwynns Falls Trail, and to the east by industrial properties. The entire Study Area is currently maintained as an operating public golf course. Two streams, Gwynns Run and Gwynns Falls, are located in close proximity to the Study Area. Access to the property is provided by a road connecting to Washington Boulevard and parking and maintenance facilities are located in the southern portion of the property. No previously identified archaeological sites or historic resources are located within the Study Area while three archaeological surveys include small portions of the current Study Area.

Summary

Precontact Resources

The Study Area includes an upland, modified terraces, and interstream divides that slope down toward Gwynns Falls to the south and west. Natural soils across the Study Area are well-drained and characteristic of stable landforms that could support intensive occupation. Two precontact archaeological sites have been recorded within one mile of the Study Area, including the Gwin Site, located to the immediate west. The environmental setting of the eastern and northern portions of the Study Area on terraces near the fall line of the Patapsco River and along Gwynns Falls would have provided an attractive environment for precontact occupation due to their proximity to fresh water, terrestrial and riverine food resources, and proximity to navigable waterways.

Significant landform modification has occurred in portions of the Study Area during the nineteenth and twentieth centuries. Clay extraction occurred for an unknown length of time during the late nineteenth century, with three clay pits and a brick manufacturer within the Study Area on an 1897 topographic survey map. The construction of the golf course included the installation of tee boxes, fairways, greens, sand traps, and cart roads, along with the artificial leveling of the landscape in some areas. The cut-and-fill analysis highlighted areas modified by the clay pits and landscape modification of the golf course. While significant landform modification has occurred in portions of the Study Area, approximately 23.6 acres possess conditions that are conducive to precontact occupation and may not have been significantly modified (Figure 4-1).

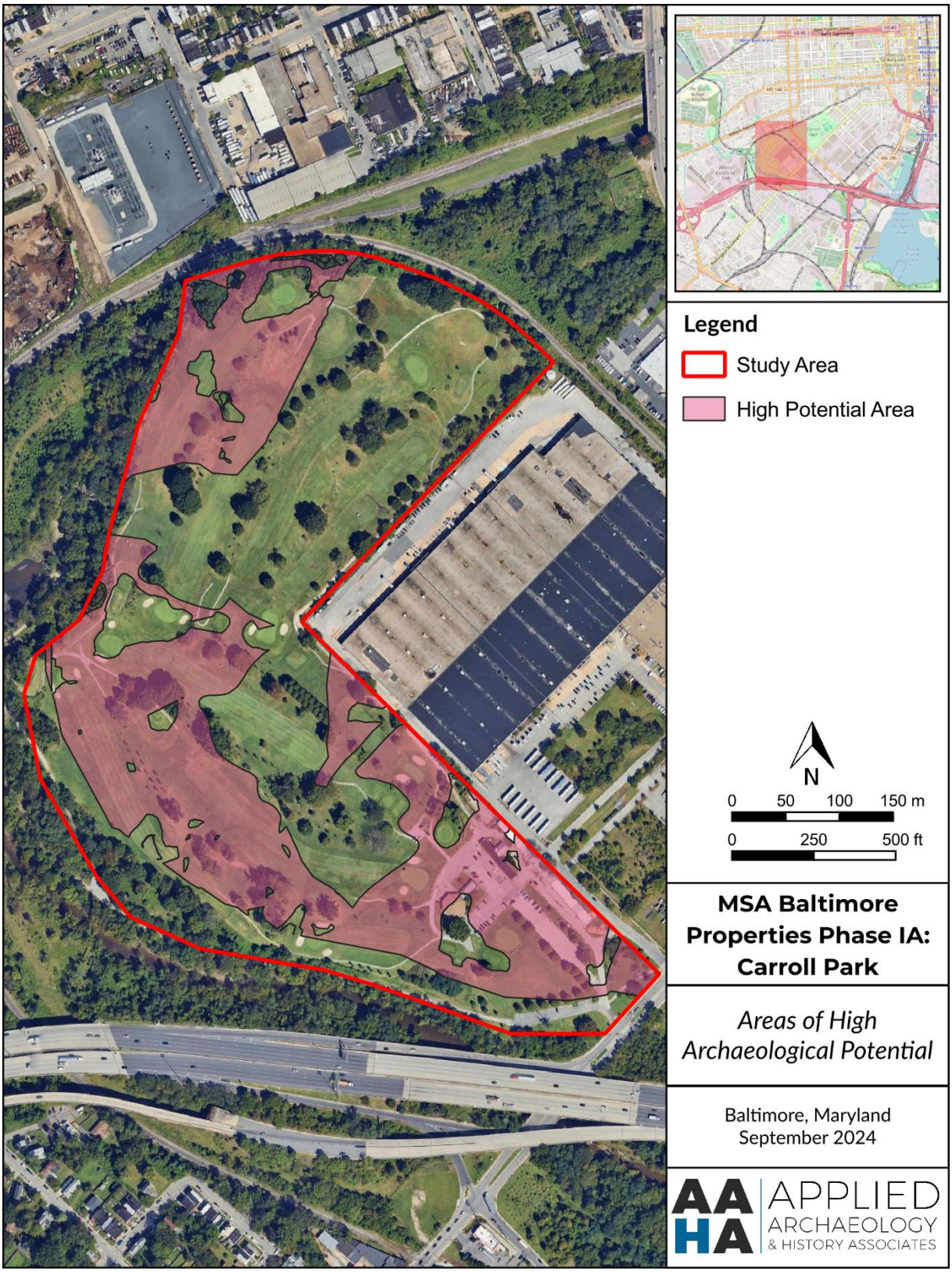

Figure 4-1. Aerial photograph showing areas of high archaeological potential within the Study Area.

Portions of the Study Area with minimal evidence for disturbance are considered to have a high probability for precontact archaeological resources. Portions of the Study Area with documented disturbance are considered to have a low probability for historic archaeological resources.

Historic Resources

The Study Area was part of a large plantation owned by the Carroll family from the mid-eighteenth century through 1890. Mount Clare, the original plantation house, is located on a low rise east of the Study Area and Mount Clare Mill, a grist mill built in 1731, was located immediately outside the Study Area to the southwest. The B&O right-of-way, station, and maintenance yard were constructed on the Carroll property, with the Mount Clare station located to the immediate north of the Study Area. The B&O makes a broad curve around the northern boundary of the Study Area. Camp Carroll, a Civil War-era encampment, was located west of Mount Clare across the B&O right-of-way from the Study Area. The 1869 Sachse map shows a brick yard to the immediate south and a collection of structures in the northeastern portion of the Study Area. Clay extraction occurred in the Study Area in the mid- to late-nineteenth century, with several brickyards located within and in the vicinity. The Carroll Park Golf Course currently occupies the Study Area. Founded in 1923, the Carroll Park Golf Course was a nexus for Civil Rights activities in the city of Baltimore in the mid-twentieth century. In addition to the golf course, a one-story brick storage building and a small brick structure with an attached chimney are also present along with a row of single-story brick storage bays that may be related to former nineteenth-century brickyards lining the course's driveway.

Archaeological evidence from the property's agricultural or industrial outbuildings, the adjacent Civil War encampment, or the late nineteenth-century brick yards may be present within the Study Area. The disturbances from late nineteenth-century clay mining and the construction of the golf course could have impacted historical archaeological deposits, but the 23.6-acre portion of the Study Area that appears to have been minimally disturbed is considered to have a high probability for historic archaeological resources.

Recommendations

A 23.6-acre portion of the Study Area is considered to have high probability for precontact and historic archaeological resources. **A Phase IB survey is recommended in this area prior to ground disturbance.** The remainder of the Study Area has been subjected to multiple documented disturbances, or has been shown by elevation comparisons to have been cut more than 3 feet from its original surface or filled over to the point that archaeological deposits could not be reached by conventional shovel testing. **Judgmental testing is recommended in these areas to confirm the degree of disturbance as part of the Phase IB survey.**

The brick structures in the southeastern portion of the Study Area appear to exceed 50 years of age. The Carroll Park Golf Course, founded in 1923, likewise exceeds 50 years of age. The brick structures may be remnants of the former brick industries common in the area, examples of which no longer exist in the immediate area. The Carroll Park Golf Course is related to important Civil Rights activity in Baltimore in the mid-twentieth century. **Documentation of the Carroll Park Golf**

Course and other structures exceeding 50 years of age within the Study Area for the MIHP is recommended.

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APPENDIX A:

Qualifications of the Investigators

Jasmine Gollup, M.A., RPA

Laboratory Director

Jasmine Gollup is the Laboratory Director for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Gollup has 13 years of professional experience in cultural resource management and research projects in the Mid-Atlantic and Northeast regions. Ms. Gollup has conducted archaeological laboratory work for 12 years and has been a contributing or primary author on technical reports for eight years. Her experience includes cultural material recovered from Phase I through III excavations conducted for compliance surveys for state and federal agencies. Ms. Gollup's professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and she is a Registered Professional Archaeologist. Ms. Gollup excels in the identification of cultural materials, the preparation of collections for curation at state, local, or private repositories, and historic archival research.

Representative Projects

Morton Farm – Prince George's County, MD:
Laboratory Director for Phase I archaeological investigation. Two multi-component archaeological sites were identified. Site 18PR1252 included a potentially stratified Archaic period component and was recommended for additional work. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

East Pat Lofts Property – Frederick County, MD:
Laboratory Director for Phase I and II archaeological investigations. Phase I survey identified site 18FR1155 which was further investigated during Phase II excavation. The site was recommended eligible for inclusion in the NRHP. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

Melrod – Stafford County, VA:
Laboratory Director for Phase II archaeological investigations at two multicomponent sites – 44ST1277 and 44ST1278. Neither were recommended for further work. Conducted laboratory analysis, supervised technicians in the lab, prepared collections and documentation for curation, conducted comparative analysis of regional sites, and contributed to technical report.

FirstLight Northfield Mountain and Turners Falls Project – Franklin County, MA:
Laboratory Director for Phase II archaeological investigations at 17 sites along the Connecticut River. Conducted laboratory analysis, historic research, and contributed to technical report. Prepared artifacts and documentation for curation.

Pig Point, Anne Arundel County, Maryland: Phase III investigations of the deeply stratified Pig Point prehistoric site on the Patuxent River with Anne Arundel County Department of Planning and Zoning. Included field and laboratory work, as well as supervision of volunteers and interns in the lab.

Historic St. Mary's City/St. Mary's College of Maryland, St. Mary's County, Maryland:
Phase III level archaeological investigations for St. Mary's College of Maryland. Mitigation of several seventeenth century sites prior to construction. Tasks included field and laboratory work, as well as supervision of technicians in the lab.

Applied Archaeology and History Associates, Inc.

Education

M.A., 2011, Archaeology, Cornell University

B.A., 2009, Sociology/Anthropology and History, Elizabethtown College

Registrations

Register of Professional Archaeologists #39454409

Skills

Artifact Identification
Curation and Collections Management
Technical Writing
Historic Research

Years of Experience

Total: 13 With Firm: 3

Contact

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Celia Engel

Assistant Project Manager

Celia Engel is a crew chief, historian, and technical writer at Applied Archaeology and History Associates, Inc. Ms. Engel has five years of professional experience in cultural resource management and research projects in the Mid-Atlantic region. She has contributed to more than 80 technical reports and assisted in Phase I, Phase II, and Phase III archaeological fieldwork. Her experience ranges from privately funded research projects to compliance surveys for state and federal agencies. Ms. Engel is also experienced in using GPS and GIS in archaeological contexts. Ms. Engel excels in the collection of historic materials, both primary and secondary sources, required for the preparation of the historic background documentation including historic maps, chains of title that reach back to original land grants, census data, genealogies, tax records, and various secondary sources. This documentation has informed the recordation of multiple properties on the Maryland Inventory of Historic Places and eligibility recommendations for various archaeological sites in the National Register of Historic Places.

Representative Projects

Archaeological Investigations of Cloverfields (18QU868) House Excavations, Queen Anne's County, MD: Field Technician and report coauthor for project investigating and documenting the Cloverfields house and surrounding environs. The project resulted in the recovery of over 100,000 artifacts and the identification of 375 features, representing the material remains of centuries of occupation at Cloverfields. The excavations documented features related to various configurations of the house as they were altered through time.

Phase II Investigations of Sites 44ST1277 and 44ST1278, Melrod Property, Stafford County, VA: Assistant Project Manager responsible for conducting and synthesizing drainage analysis research. Study included fieldwork and a broad-based data consolidation project assessing precontact occupation of the Lower Potomac Creek Drainage, along with extensive research into the Contact Period Patawomeck, who occupied the drainage in the early seventeenth century.

Historic Background Research Task 3 of the Aquasco-Woodville Cultural Resources Inventory Project, Prince George's County, MD: Title researcher and report coauthor for research project assessing potential contributing resources in nine properties in the village of Aquasco. The research uncovered documentary evidence that the African American community was historically centered in the southern part of the village, while properties in the northern part were historically owned by white families.

Phase IA Archaeological Assessment of the Silent City Cemetery, Dorchester, County, Maryland: Title researcher and report coauthor for a Phase IA of the Silent City Cemetery in Dorchester County, Maryland. Research corroborated local history positing that a local Black undertaker purchased property to create a cemetery for the Black community in Cambridge. Archival documents also revealed surnames of prominent Nanticoke or Choptank families, suggesting possible internment of individuals with mixed Black/indigenous ancestry.

Applied Archaeology and History Associates, Inc.

Education

BA, 2017, Anthropology and Sociology, Towson University

Skills

Technical Writing
Graphics Generation
GIS
Soil Identification
Title Research

Years of Experience

Total: 5 With Firm: 5

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W. Brett Arnold, MS, RPA

Chief Executive Officer, Principal Investigator

Mr. William Brett Arnold is a historian, archaeologist, and business manager. Mr. Arnold has twelve years of professional experience, with ten years' experience in cultural resource management Mid-Atlantic region. He has contributed to technical reports and directed archaeological fieldwork for eight years. His experience ranges from privately funded research projects to compliance surveys for state and federal agencies. Mr. Arnold is also experienced in using GPS, total station data, and GIS in archaeological contexts. His professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and he is a member of the Register of Professional Archaeologists. Mr. Arnold excels in the collection of historic materials, both primary and secondary sources, and the development of archaeological probability assessments. His research interests include the Tidewater region during the Contact Period, the development of religion in the United States, and the American Civil War. Mr. Arnold also possesses training in financial and managerial accounting, operations process generation, human resources, and small business development.

Representative Projects

Phase IA Archaeological Assessment for the Noah Hillman Garage and Annapolis City Dock, City of Annapolis, MD: Project Archaeologist for research project assessing archaeological potential of two city-owned parcels in Annapolis. The research uncovered documentary evidence for lumber yards, oyster packing plants, and an ice factory at the Annapolis City Dock and frame structures related to the City Hotel at the Noah Hillman Garage.

Aquasco Background Research, Prince George's County, MD: Historic research specialist supporting efforts to better understand the development of a late nineteenth- and early twentieth-century Black community in Aquasco, Maryland. Responsible for background research, title research, and coauthoring report.

I-495/I-270 Managed Lane Survey, Prince George's and Montgomery Counties, MD: Project Archaeologist responsible for directing multiple crews in a Phase I survey of areas within a proposed expansion of the I-495/I-270 right-of-way and coauthoring report. The survey included pedestrian survey and shovel testing across over two dozen discontinuous areas throughout the corridor.

Archaeological Assessment of the Rising Sun Inn and Vicinity, Anne Arundel County, MD: Consultant responsible for coauthoring research design and assisting in fieldwork at the eighteenth-century Rising Sun Inn in Millersville, Maryland. Survey consisted of shovel testing and intensive background research into the inn.

Archaeological Survey for the Rural Plains House Precinct, Richmond National Battlefield Park, Hanover County, Virginia: Project Archaeologist for a survey around the eighteenth-century Rural Plains house on the Totopotomoy Creek Battlefield for the National Park Service Northeastern Division. The survey included shovel testing and test unit excavations in and around the Rural Plains house and identified nineteenth-century features related to the house's postbellum occupation.

Applied Archaeology and History Associates, Inc.

Education

AAS, 2024 (anticipated), Accounting, Prince George's Community College

MS, 2014, Anthropology, University of Wisconsin--Milwaukee

BA, 2011, Archaeology and German Studies, College of Wooster

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Managerial Accounting
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Years of Experience

Total: 12 With Firm: 5

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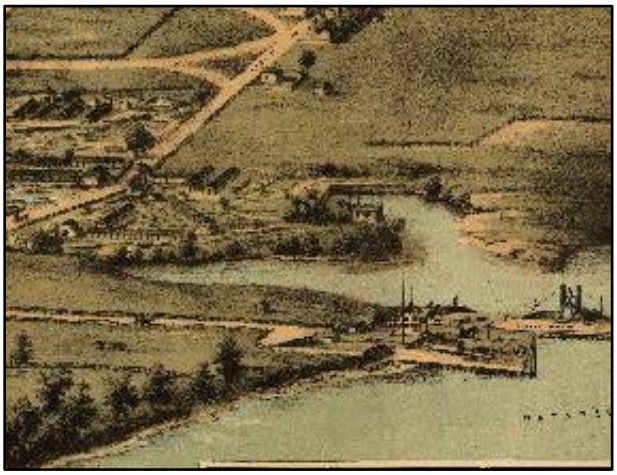
Maryland Stadium Authority Phase IA Archaeological Assessment: Baltimore Peninsula Study Area

Baltimore City, Maryland



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Draft

September 2024

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Draft

Maryland Stadium Authority

Phase IA Archaeological Assessment:

Baltimore Peninsula Study Area

Baltimore City, Maryland

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Authored By:

Jasmine Gollup, MA, RPA, Celia Engel, and W. Brett Arnold, MS, RPA

September 2024

ABSTRACT

In August and September 2024, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase IA archaeological assessment of the Baltimore Peninsula Study Area (Study Area) in Baltimore City, Maryland. The Baltimore Peninsula Study Area is one of two locations in the city of Baltimore under review for the construction of a new sports stadium by the Maryland Stadium Authority (MSA). This Phase IA assessment is intended to partially satisfy the requirement for an Archaeological Impact Analysis (AIA) stated in Section 3.3 Scope of Work—Preliminary Design in a request for proposals issued by MSA on March 12, 2024.

The principal goal of a Phase IA archaeological assessment is to assess the likelihood that archaeological resources may be present within the Study Area. This investigation consisted of background research. All work was conducted by a qualified professional archaeologist in compliance with the Maryland Historical Trust (MHT) *Standards and Guidelines for Archeological Investigations in Maryland*.

The Study Area is located south of I-95 in a formerly industrial part of Baltimore that has recently been redeveloped to include residential apartment buildings and associated amenities. It falls within Maryland Archaeological Research Unit 7: The Gunpowder-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West Drainages. The property primarily contains an industrial building and associated parking lots. At the time of the assessment, the Study Area contained a large, extant structure and associated roads and parking lots. No previously identified archaeological sites or historic resources are located within the Study Area. One archaeological survey that includes the boundaries of the current Study Area was conducted in 1990.

Due to continuous development in the Study Area, including extensive landform modification in the late 1980s, it is unlikely that significant archaeological resources exist within the Study Area. Any archaeological deposits that may have existed within the Study Area have likely been impacted by mid-nineteenth-century clay mining, the late nineteenth-century expansion of an inlet extending northwest from the Patapsco River, the twentieth-century infilling of that inlet and subsequent construction of a rail yard, and regrading after the rail yard's demolition. **The Study Area has low potential for archaeological resources. No further work is recommended.**

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1. INTRODUCTION

In August and September 2024, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase IA archaeological assessment of the Baltimore Peninsula Study Area (Study Area) in Baltimore City, Maryland. The Baltimore Peninsula Study Area is one of two locations in the city of Baltimore under review for the construction of a new sports stadium by the Maryland Stadium Authority (MSA). This Phase IA assessment is intended to partially satisfy the requirement for an Archaeological Impact Analysis (AIA) stated in Section 3.3 Scope of Work—Preliminary Design in a request for proposals issued by MSA on March 12, 2024.

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The archaeological assessment was conducted by Jasmine Gollup, RPA with assistance from Celia Engel and W. Brett Arnold, RPA. W. Brett Arnold served as project manager and principal investigator.

The Study Area is located south of I-95 in a formerly industrial part of Baltimore that has recently been redeveloped to include residential apartment buildings and associated amenities (Figure 1-1 through Figure 1-3). The property primarily contains an industrial building and associated parking lots. It falls within Maryland Archaeological Research Unit 7: The Gunpowder-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West Drainages (Figure 1-4).

Organization of the Report

This report presents four (4) chapters and a list of references cited. Following this introduction, which includes a brief description of the project, Chapter 2 provides an overview of the environmental conditions. Chapter 3 discusses the cultural context and previous research within and in the vicinity of the Study Area as well as the results of the sensitivity analysis. Chapter 4 summarizes the findings and provides recommendations. References cited are followed by the qualifications of the investigators (Appendix A).

Figure 1-1. Location of the Study Area on the 2024 Open Street Map (Open Street Map 2024).

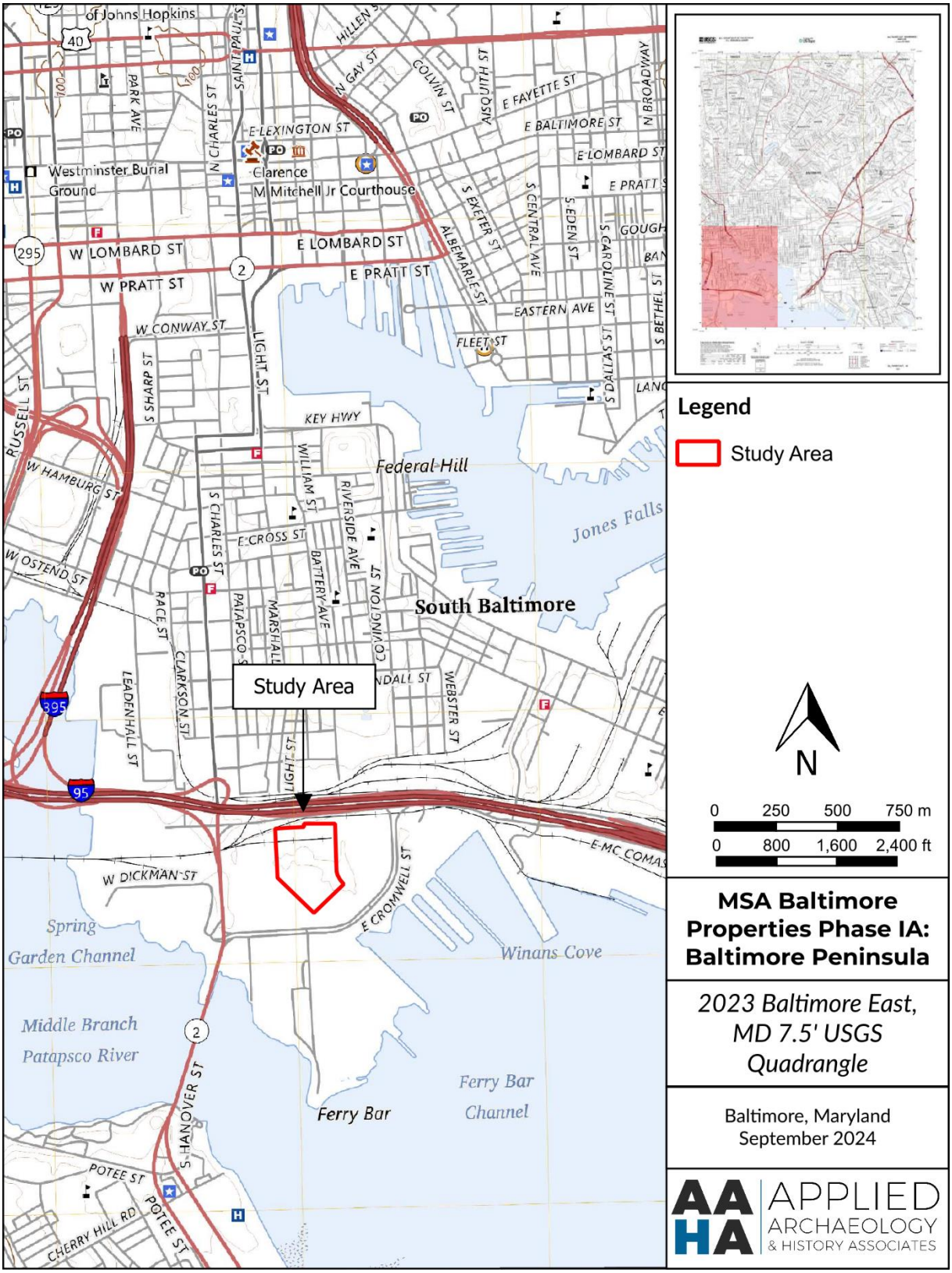

Figure 1-2. Detail of the 2023 USGS *Baltimore East, MD* 7.5-minute topographic quadrangle showing the location of the Study Area (USGS 2023).

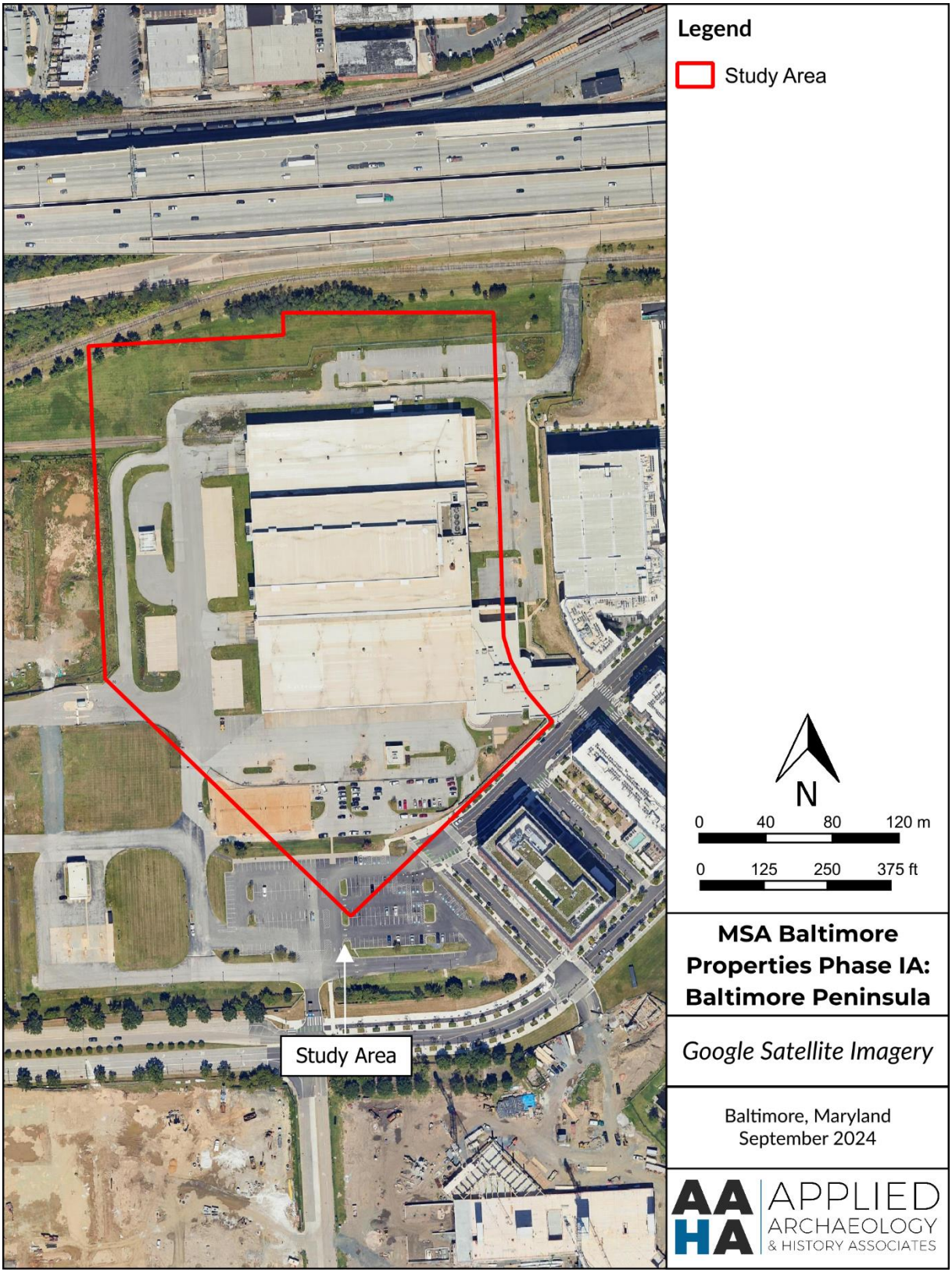

Figure 1-3. Aerial photograph showing the current conditions of the Study Area.

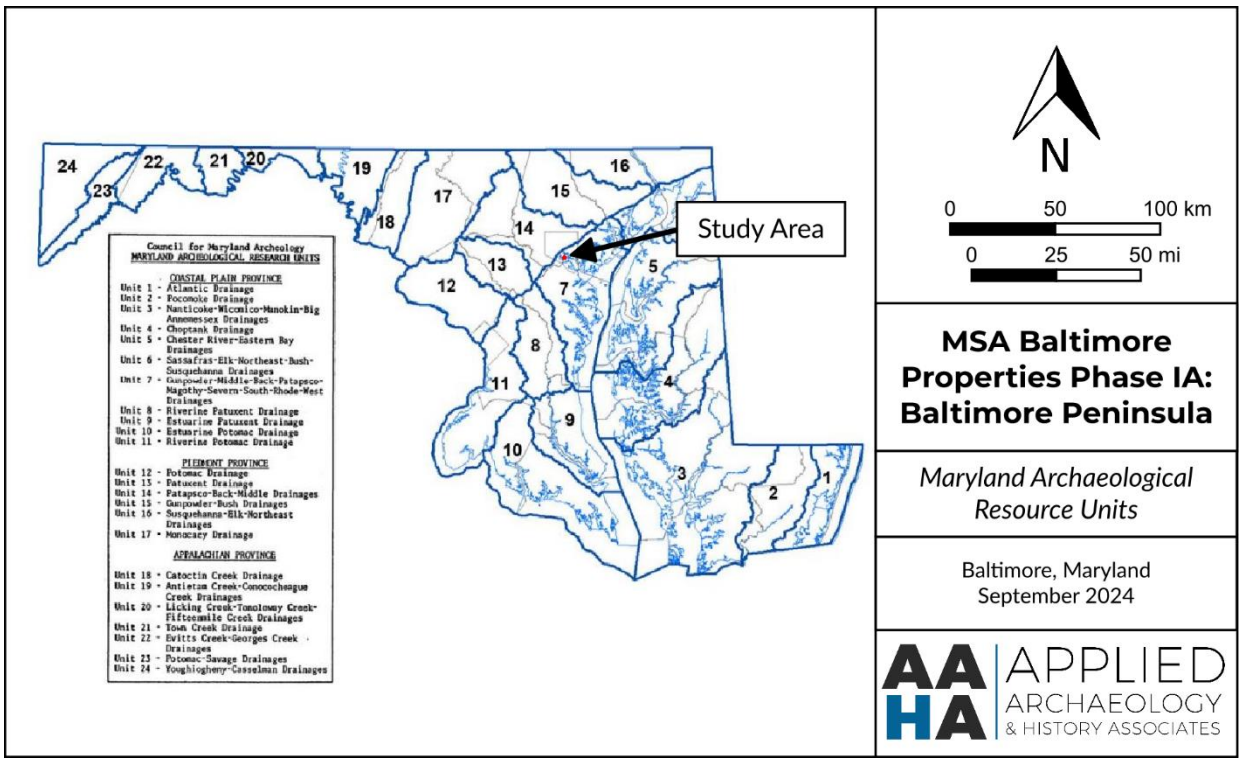

Figure 1-4. Map of the Maryland Archaeological Research Units showing the location of the Study Area.

2. ENVIRONMENTAL CONTEXT

The Study Area occupies 17.8 acres on the Baltimore Peninsula in South Baltimore. It is bounded to the north by I-95 and East McComas Street and to the southeast by Mission Boulevard, with paved parking lots and roadways and commercial and residential structures located to the east, south, and west. The Baltimore Peninsula extends into the Patapsco River, with Winans Cove located to the southeast of the Study Area. Elevations in the Study Area range from 4.5 meters (m; 15 feet [ft]) to 7 m (23 ft).

Physiography and Geology

The Study Area is located in the Atlantic Coastal Plain, Western Shore physiographic province, which is characterized by gently sloping upland surfaces dissected by broad stream terraces (Dent 1995:75) (Figure 2-1). Geologic strata underlying the Study Area belong to the Lowland Deposits, which consist of medium to coarse grained sand and gravel, silt and clay with cobbles and boulders near the base. The Lowland Deposits formed during the Quaternary period and range in thickness from zero to 150 feet (Cleaves et al. 1968).

Though quartz, quartzite, and rhyolite predominate on many western Coastal Plain precontact sites, cherts and jaspers are not uncommon. In many areas of the Coastal Plain, jaspers occur principally in secondary deposits of stream cobbles (Custer and Galasso 1980). Rhyolite distributions on archaeological sites have been thoroughly documented by Stewart (1984) for areas in central and eastern Maryland.

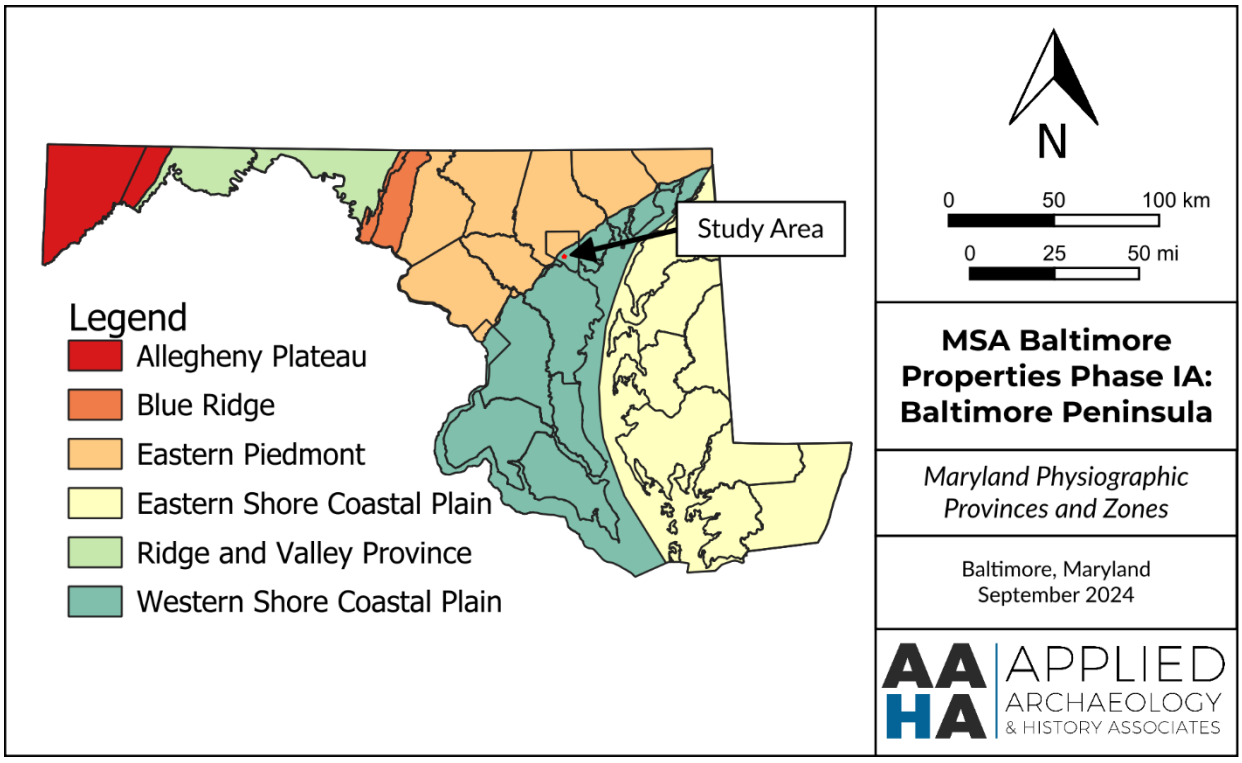

Figure 2-1. Map of the physiographic provinces in Maryland showing the location of the Study Area.

Stewart's studies include an examination of trends in rhyolite usage at various distances from outcrops. The use of rhyolite is evident in assemblages from the Late Archaic in the Coastal Plain and the Piedmont, when the first clear evidence of trade is found in the region.

Soils

Soil analysis utilized the USDA Web Soil Survey (WSS) as depicted in Figure 2-2. The soils in the Study Area are composed of Udorthents (42E; 0-35% slopes). Udorthents have been subjected to extensive anthropomorphic disturbance resulting in the partial or complete removal of the natural soil column. Parent materials generally consist of artificially deposited fill soils.

Paleoenvironment

Approximately 15,000 years ago, sea levels began rising and transgressing the exposed Atlantic continental shelf. By 10,000 BP ocean waters extended to the Cape Charles paleochannel located at the mouth of the Chesapeake Bay (Dent 1995:75). During this same time period, the vegetational landscape consisting of coniferous forests associated with the late Pleistocene was being displaced by a mixed coniferous-deciduous forest with reduced open character (Owens 1974:399–400). Pollen cores obtained from the Dismal Swamp in the southern margins of the Chesapeake region show a transition from pine and spruce trees to oak, chestnut, and hickory around 8,200 years ago (Whitehead 1972:308). After 3,500 years ago the local flora and fauna assume a relatively modern character.

Before the arrival of Europeans, the environment was primarily wooded in deciduous hardwoods (Hall 1973:73). The dominant tree species included red and white oak, sweetgum, swamp maple, holly, beech, white cedar, and bald cypress. Following European settlement, the area gained an evergreen component, including Virginia, shortleaf, and loblolly pines. Dominant species in this habitat included white and southern red oak, tulip poplar, loblolly pine, American holly, sweet pepper bush, arrowwood, Japanese honeysuckle, poison ivy, and Virginia creeper. Food sources available to precontact inhabitants in the late summer, fall, and early winter of this region include fruits, seeds, greens, and tubers (Steponaitis 1986:79). Tubers, fruits, greens, and seeds would have been available in the spring, summer, and fall seasons, with dominant species of silky dogwood, bald cypress, seaside alder, narrow-leaved cattail, spotted touch-me-not, buttonbush, sedges, and skunk cabbage.

Flora and Fauna

Animal life along the Chesapeake Bay region reported by early explorers at the time of contact included deer, squirrels, badgers, opossums, rabbits, bears, beavers, otters, foxes, martens, minks, weasels, and numerous fish and bird species (Hughes 1980:66). At present, the region is characterized by three different habitats: terrestrial, wetland, and aquatic. Wildlife commonly found in the terrestrial habitats includes songbirds, red fox, white-tailed deer, woodchuck, raccoon, gray squirrel, eastern chipmunk, Virginia opossum, and black rat snake. The aquatic and wetland habitats are home to a variety of birds (great blue heron, mallard, wood duck, red-winged black bird), muskrat, bullfrog, common musk turtle, and northern water snake.

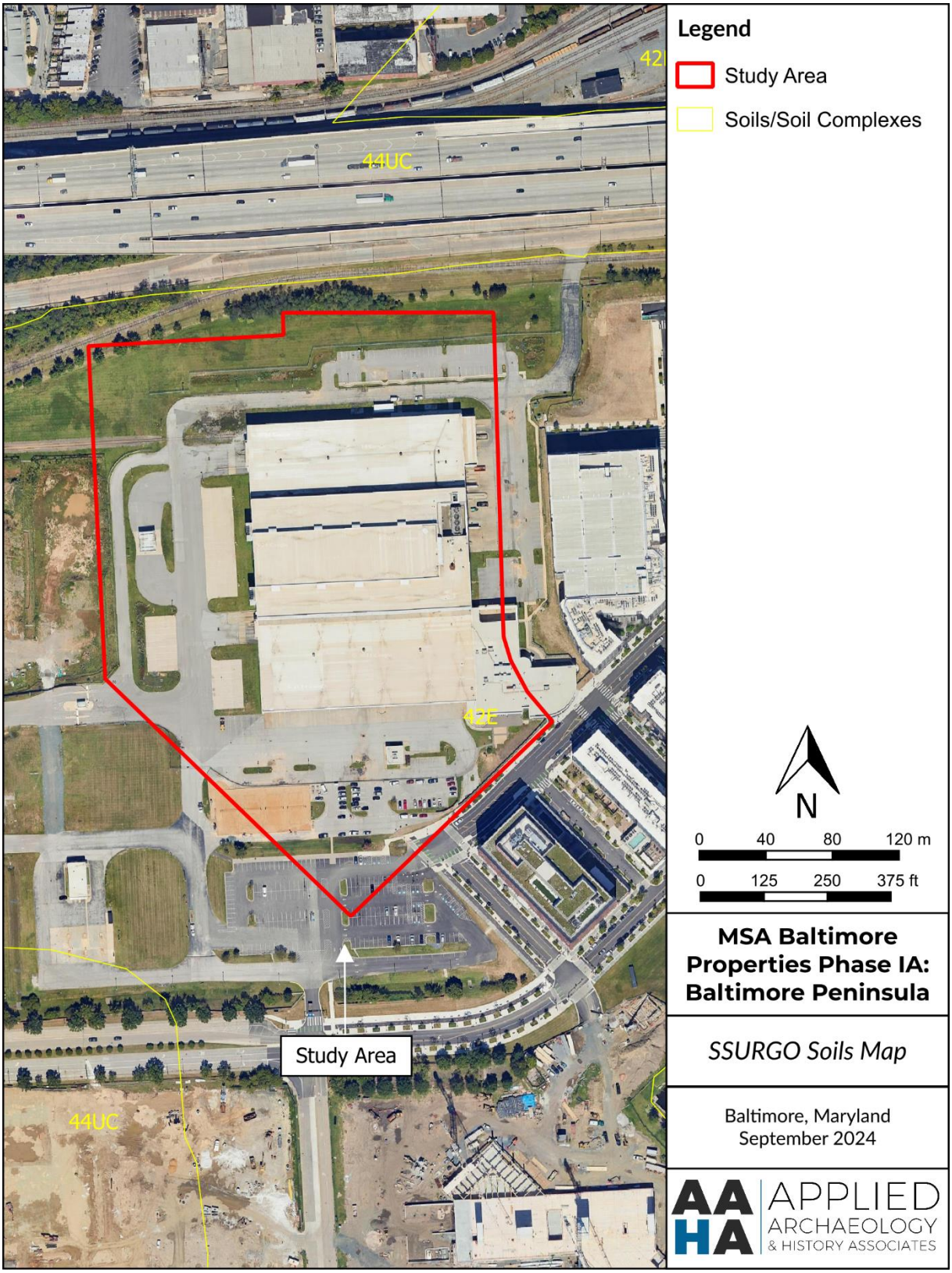

Figure 2-2. Aerial photograph showing soils and soil complexes within the Study Area.

Freshwater streams provide a spawning environment for migratory fish species such as white and yellow perch, herring, and alewife. Resident species include largemouth bass, chain pickerel, and blue spotted sunfish. Seasonally abundant species such as migratory waterfowl were also common.

Modern Climate

Baltimore, Maryland experiences an average of 42 inches (in) of precipitation per year. Snowfall averages 19 in. The temperature throughout the year typically varies from 27 to 88 degrees Fahrenheit (Best Places 2024). The growing season lasts for an average of 244 days (Weather Spark 2024).

3. CULTURAL CONTEXT

Precontact Context

The precontact chronology of eastern North America traditionally has been divided into three major cultural/temporal periods: Paleo-Indian, Archaic, and Woodland. These broad designations in turn have been divided into various sub-periods. The generalized periods approximately correspond to differing cultural configurations that became manifest because of adaptations to natural and social environments at a particular time. The following section briefly outlines the cultural and environmental changes associated with the prehistoric and contact period cultures of the Middle Atlantic region.

Paleoindian Period (ca. 12,000-8000 BC)

Paleoindian populations (ca. 12,000-8000 BC) began to migrate into the region at the end of the Late Glacial to early Post Glacial climate episodes. Climatic conditions at that time differed significantly from those of today, and Paleoindian people would have adapted to a tundra or Jack Pine-Spruce forest (Hatch et al. 1986:100). The traditional view of Paleoindians has been of highly mobile hunters who tracked the large game that inhabited the region, but research in recent decades have shown that they exploited a wide variety of food resources (Ebright 1992:410).

It has been suggested, based on the current distribution of Paleoindian materials, that upland areas were preferred for occupation. The prevalence of Paleoindian artifacts in upland settings may, however, be due to contemporaneous sea levels, which were approximately 30 m above their Late Glacial levels, causing riverine or estuarine Paleoindians sites to become inundated. Most documented sites that have yielded Paleoindian material consist only of isolated fluted projectile points, which is the prime diagnostic artifact of the period (Adovasio et al. 1977; Dent and Kauffman 1978; Funk et al. 1969; Gardner 1974). These points are almost always recovered from the surface of plowed fields.

Stratified Paleoindian materials have come to light in recent years in Anne Arundel County (Ebright 1992), Prince George's County (Gibb 2004), and on the Delmarva Peninsula (Lowery et al. 2010). Along with similarly stratified Clovis sites in Virginia (e.g., Cactus Hill) (Wagner and McAvoy 2004), these sites have contributed significantly to scholarship on the earliest peopling of the Mid-Atlantic Coastal Plain.

Archaic Period (ca. 8000-1000 BC)

The beginning of the Archaic Period (ca. 8000-1000 BC) is approximately coeval with the shift from cool, wet Pleistocene climates and environments to those of the essentially modern Holocene. Climatic conditions did fluctuate during the period, however, resulting in changes in the forest composition and faunal communities. By ca. 3,000 BC, essentially modern climatic conditions were established with the onset of the Sub-Atlantic episode, although minor fluctuations persisted.

Archaic groups modified their adaptive strategies in response to environmental changes. These changes are reflected in the archaeological record by the appearance of more diverse tool styles. Included among these are specialized tools such as manos, metates, and pitted stones that indicate a more intensive exploitation of edible plant foods, and netsinkers and fishhooks, which signify a greater dependence on anadromous fish resources (Bryan 1980:363; Thomas 1980:II–5). Archaic peoples also procured an increased quantity of smaller mammals, as well as birds. Diagnostic projectile point forms recognized for the Early, Middle, and Late Archaic periods include notched-, bifurcated-, and stemmed-base styles.

Woodland Period (ca. 1000 BC-Contact)

The appearance of ceramic technology traditionally has marked the beginning of the Woodland Period (ca. 1000 BC-Contact) (Gardner 1980:3). The Early Woodland Period was characterized by a continuation of terminal Late Archaic settlement/subsistence systems, but with added capacity for food storage and preparation afforded by pottery. The earliest ceramic vessels on the Coastal Plain were tempered with crushed steatite and are thought to copy forms from Late Archaic steatite bowls (Klein 1997). A period of rapid experimentation was followed by the widespread adoption of sand-tempered wares in the Coastal Plain that continued into the subsequent Middle Woodland Period.

Expanding populations during this period became increasingly sedentary, likely following a fusion-fission settlement model with populations that consolidated and dispersed based on the time of year. The Coastal Plain's rivers and estuaries became the primary focus of settlement. Shell middens, which have recently been shown to date as far back as 2,800 BC in the Chesapeake region (Rick and Waselkov 2015), began appearing along Maryland's rivers in great numbers during the Early Woodland. This indicates an increased reliance on marine food sources, most notably oyster.

The Middle Woodland is marked by an expansion of regional and extra-regional exchange networks and the apparent development of ethnic boundaries based on regional variations in pottery styles. Extra-regional exchange systems are seen in the prevalence of exotic lithic materials such as rhyolite in the Coastal Plain during this period.

Archaeologists in Maryland generally identify two phases of Middle Woodland development, the first being characterized by a sand-tempered ceramic ware called the Popes Creek series and the second being characterized by a shell-tempered ware called the Mockley series (Sperling 2008:26). Mockley ceramics are widely distributed across the Coastal Plain from Delaware to Virginia, as well as in parts of the Piedmont, suggesting frequent contact among Middle Woodland groups in the Mid-Atlantic region. The slow transition toward sedentism continued during this period, with major settlements tending toward low-lying wetland and estuarine environments (Sperling 2008:25).

By the Late Woodland Period (ca. AD 900-1630) there is evidence for the cultivation of corn, beans, and squash, and also for the establishment of semi-permanent villages. Despite this, the long-range trade between the Coastal Plain and the Ohio Valley seems to have broken down by this point. Horticulture played a major role in subsistence, and while gathering and fishing

remained important, these activities were scheduled around the horticultural cycle (Hatch et al. 1986:103).

During this period, settlements were generally positioned to take advantage of productive agricultural soils on floodplains, with smaller satellite camps established near waterways and wetlands to exploit deer, fowl, fish, and shellfish (Strickland et al. 2015:63). Some village sites were fortified with stockades, and smaller hamlets were usually dispersed no more than a few kilometers from the main village. This pattern of land use was observed at the time of European contact. Material culture influences during this time reflect the development of ceramic and cultural traditions specific to localized geographic areas.

The three centuries preceding sustained European contact may have witnessed the development of political organizations spanning multiple Native American groups. Oral traditions recorded by the Colonial government in 1660 indicate that the Piscataway paramount chiefdom, which dominated the Potomac Drainage when European settlers arrived, may have united under an Eastern Shore ruler as early as AD 1300 (Strickland et al. 2015:15–16). This roughly coincides with the appearance of ossuary burials in the Potomac Drainage, a mortuary practice that originated on the Eastern Shore. Additionally, pottery types prevalent in the Maryland and Virginia Piedmont began appearing in Coastal Plain settlements concurrent with the abandonment of palisaded villages in that region. It has been suggested that these changes in material culture in the latter half of the Late Woodland Period reflect mass migration into the Potomac Drainage from the Piedmont, the Eastern Shore, or both (Potter 1993).

After AD 1500, there was an increase in social and political action among native tribes in Maryland and Virginia. Spanish missionaries may have explored parts of southern Maryland during the sixteenth century, but it was not until John Smith's voyages on the Potomac in 1608 that documented contact occurred between Europeans and Native Americans in the region. At this time, the material culture of the natives began to shift away from stone and bone tools, toward brass arrow points, glass trade beads, and other iron and brass objects.

The Susquehannocks, an Iroquoian-speaking group, dominated the upper Chesapeake Bay and Susquehanna River. By the late seventeenth and the early eighteenth centuries, the combined effects of internal conflict and externally introduced diseases and destabilizing influences resulted in the significant reduction in the Native American population and many Native Americans chose to relocate from the Chesapeake Bay area (Jennings 1978). Those that remained in Maryland typically assimilated into European society. There are three state-recognized Native American groups in Maryland, two of which are associated with the Piscataway of southern Maryland and one of which is associated with the Accomac of Virginia. The relations between Native Americans and Europeans in Maryland were strained and deteriorated as colonists continually encroached upon the land of the Native Americans. By the beginning of the eighteenth century most local Native American tribes had either migrated out of Maryland or had been decimated by disease.

Historic Context

In 1588, Captain Vincente Gonzales, believed to be the earliest European to enter the Chesapeake Bay, sailed from Florida to survey areas thought to be English settlements. While

none were observed in the Chesapeake, Gonzales did locate the remnants of the Roanoke Colony along the Carolina Outer Banks (Quinn 1977). In 1608, John Smith sailed along the Chesapeake Bay and documented the surrounding land and a number of Native American villages. Trade was established with these groups, most of which spoke Algonquian languages.

The colony of Maryland was established in 1634, when 150 English colonists settled at St. Mary's City in the lower tidewater area of Maryland (Fausz 1984:12). Cecilius Calvert, second Lord Baltimore, was proprietor of the colony. In 1632, he inherited the charter for the region from his father, George Calvert, who had secured the Maryland grant from Charles I. The success of tobacco cultivation in the colony of Virginia encouraged early Maryland colonists to adopt this agricultural focus, requiring a large labor force of indentured servants and slaves.

The first recorded European exploration of what is now Baltimore County was by Captain John Smith in the first years of the seventeenth century. The county of Baltimore was formed ca. 1660 by the executive power of the Lord Proprietary. Early settlement centered on the areas to the north and east, near the mouth of the Susquehanna River. Between 1650 and 1667, settlement in the county greatly increased, with most estuarine sites occupied by 1664 (Wesler et al. 1981). A gradual shift in settlement during the eighteenth century from the northern and eastern portions of the county to the south and west favored the growth of Baltimore (Scharf 1971:40). Baltimore County was divided into four parishes in 1766 and 13 districts in 1779. Baltimore County grew rapidly during the eighteenth and nineteenth centuries; population tripled between 1790 and 1840, from roughly 39,000 to 135,000 (Hopkins 1878).

The Town of Baltimore was established in 1729 on the north side of the Inner Basin of the Patapsco River. The original town consisted of 60 one-acre lots with an economic focus on tobacco trading. Growth was initially slow, with only 25 buildings constructed within the town by 1752. The growth of the wheat markets in the mid- to late eighteenth century transformed the Baltimore County countryside and the nascent port of Baltimore (McGrain 1990:3). Wharves and warehouses transformed the harbor and roads were built to funnel wheat to the port. Turnpikes were built from Baltimore to Cumberland, connecting the city to the Ohio Valley via the National Road. The economic opportunities attracted large numbers of immigrants of various nationalities and classes. In 1797, Baltimore was officially incorporated as a city and by 1827 Baltimore had become the largest flour market in the world (City of Baltimore 2006:20–22).

The economy of Baltimore diversified as the city grew. Textile mills were constructed in the early nineteenth century along with shipyards, brick kilns, copper and iron works, and glass factories. The "Baltimore Clipper" ship type was one of the fastest available at the time and has been credited with helping American merchants break British naval blockades during the American Revolution and War of 1812. During the War of 1812, Baltimore was threatened by the British after the burning of Washington, D.C. (City of Baltimore 2006:23). The defense of Fort McHenry during the Battle of Baltimore on September 13-14, 1814 stopped the attempted British invasion of Baltimore and inspired Francis Scott Key to write a poem that would become the U.S. national anthem: The Star-Spangled Banner (National Park Service 2020).

Baltimore City continued to see tremendous growth throughout the first half of the nineteenth century. By 1820, Baltimore was the second largest city in the United States and featured urban improvements such as a water system, gas street lighting, and a garbage collecting system. The threat to Baltimore's economic hegemony posed by the construction of the Erie Canal and subsequent canal systems linking the Midwest to northeastern sea ports led to the creation of the Baltimore & Ohio (B&O) Railway Company in 1827.

By 1852, the B&O connected Baltimore to Wheeling, Virginia (now West Virginia) (City of Baltimore 2006:24–25). Technological advances kickstarted by the development of the railroad led to innovations and increases in large-scale manufacturing and metal manufacturing during the mid to late nineteenth century. Other notable industries in Baltimore at this time included oyster farming and shipping, fruit and vegetable canning, and clothing, umbrella, and fertilizer manufacturing. By 1888, Baltimore had expanded from 10 to 30 square miles, with previously suburban or rural areas connected to the city by horsecar and, later, streetcars (City of Baltimore 2006:28–29).

By 1900, Baltimore was a large, industrial city with a population of over half a million. A fire in 1904 decimated much of downtown Baltimore, burning 140 acres and destroying thousands of buildings. Within 10 years, downtown was completely rebuilt with significant improvements to the layout of the area and stricter fire codes enforced throughout the city. In 1918, Baltimore was again expanded, now encompassing almost 80 square miles. Baltimore was hit hard by the Great Depression; the dissolution of numerous companies and banks left tens of thousands of city residents unemployed.

The onset of World War II helped restart the United States and Baltimore economy. The end of the war saw the population of Baltimore decline as suburbanization led both people and companies to vacate the downtown area. Major public works projects reshaped the city with the construction of expressways, new schools, public housing, and a revitalization of downtown Baltimore featuring modernized office buildings, hotels, restaurants, residences, theaters, and plazas. These changes continued through the late twentieth century with the creation of the Inner Harbor, an area featuring museums, hotels, marinas, parks, and restaurants catering to both tourists and residents (City of Baltimore 2006:32–42).

The Port Covington Area has served as an industrial hub for South Baltimore since the mid-nineteenth century. The Winans purchased 100+ acres in the late 1850's in the general vicinity of the Study Area to establish a locomotive manufacturing plant and shipyard. Their venture quickly failed and they abandoned the property which was later used as a brickyard and a trash dump. A cottage built by the Winans and used by local rowing clubs burnt down in 1913. The Western Maryland Railway constructed a railroad terminal in Port Covington in 1904. The terminal encompassed 95+ acres and necessitated extensive landform modification with hundreds of thousands of cubic yards of soil removed to level the area and used to fill in waterways and low-lying areas. The terminal was expanded by an additional 90 acres in 1913. By the 1970s, demand for the terminal and port had substantially decreased and both were shut down by the late 1970s, with much of the land sold in the 1980s. The Baltimore Sun printing plant was constructed in the Study Area by the 1990s (Maryland Center for History and Culture 2016).

The Baltimore Peninsula Study Area

Historic Maps

On the 1608 *Map of Virginia* by John Smith, the Study Area vicinity is depicted west of the "Chesapeack Bay" (Chesapeake Bay) and north of the "Bolus flu[men]" (Patapsco River) (Figure 3-1). While no Native American towns are noted in the vicinity of the Project Sites, numerous towns are depicted to the south and west along the "Pawtuxunt flu[men]" (Patuxent River) and "Patawomeck flu[men]" (Potomac River). No settlements are noted in the Study Area vicinity.

Augustine Herrman's 1673 *Map of Virginia and Maryland* depicts "Baltemore County" along the western shore of the Chesapeake Bay near the Patapsco River (Figure 3-2). The Study Area vicinity is located north of the river. Boals Creek is shown east of the Study Area vicinity. No settlements are noted in the Study Area vicinity.

The Dennis Griffith 1795 *Map of Maryland* depicts Baltimore City shortly after the establishment of the United States (Figure 3-3). The Study Area is located on the southern tip of a peninsula south of Baltimore. Fort Whetstone, the earthen precursor to Fort McHenry, is shown on the eastern tip of the peninsula, east of the Study Area vicinity. Fort Whetstone was expanded and improved in 1798 (National Park Service 2020). Industries are depicted in the area, as is Hammonds Ferry to the southwest. A road runs across the peninsula through the Study Area to the Patapsco River.

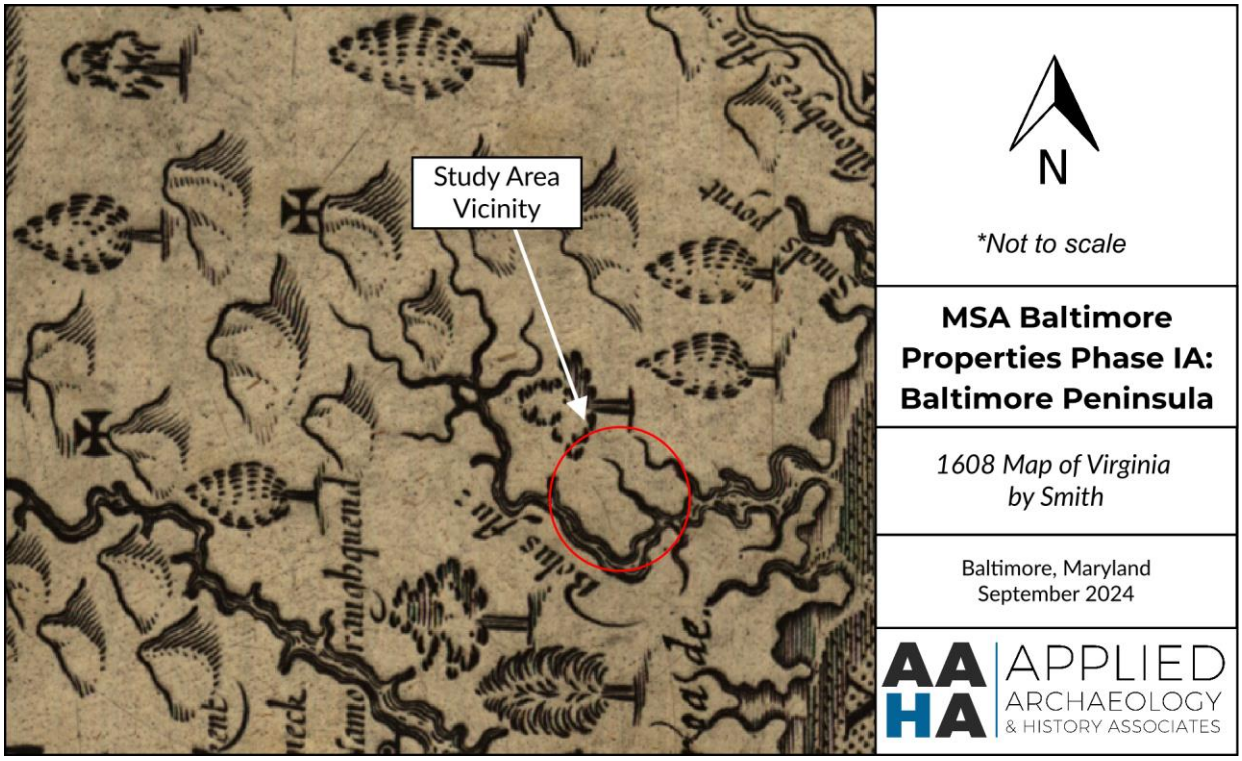

Figure 3-1. Detail of the 1608 *Map of Virginia* by Smith showing the Study Area vicinity (Smith and Hole 1624)

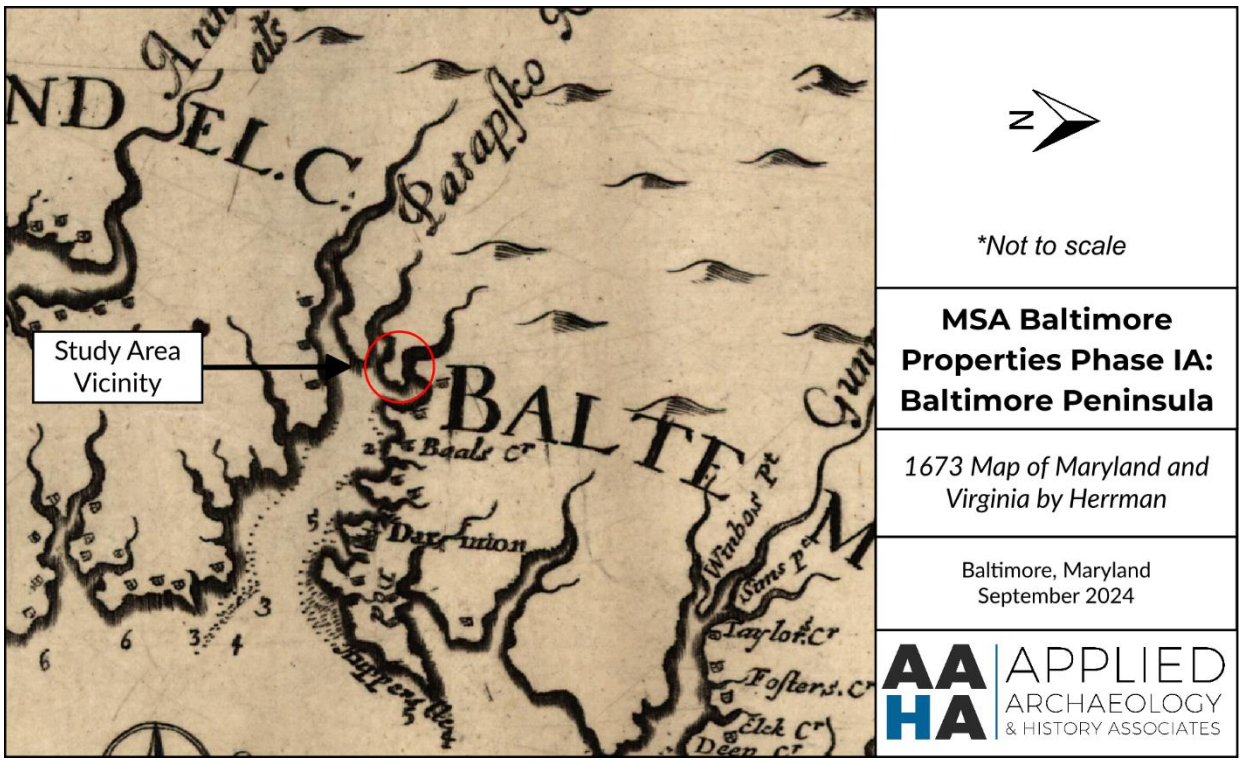

Figure 3-2. Detail of the 1673 *Map of Maryland and Virginia* by Herrman showing the location of the Study Area vicinity (Herrman 1673).

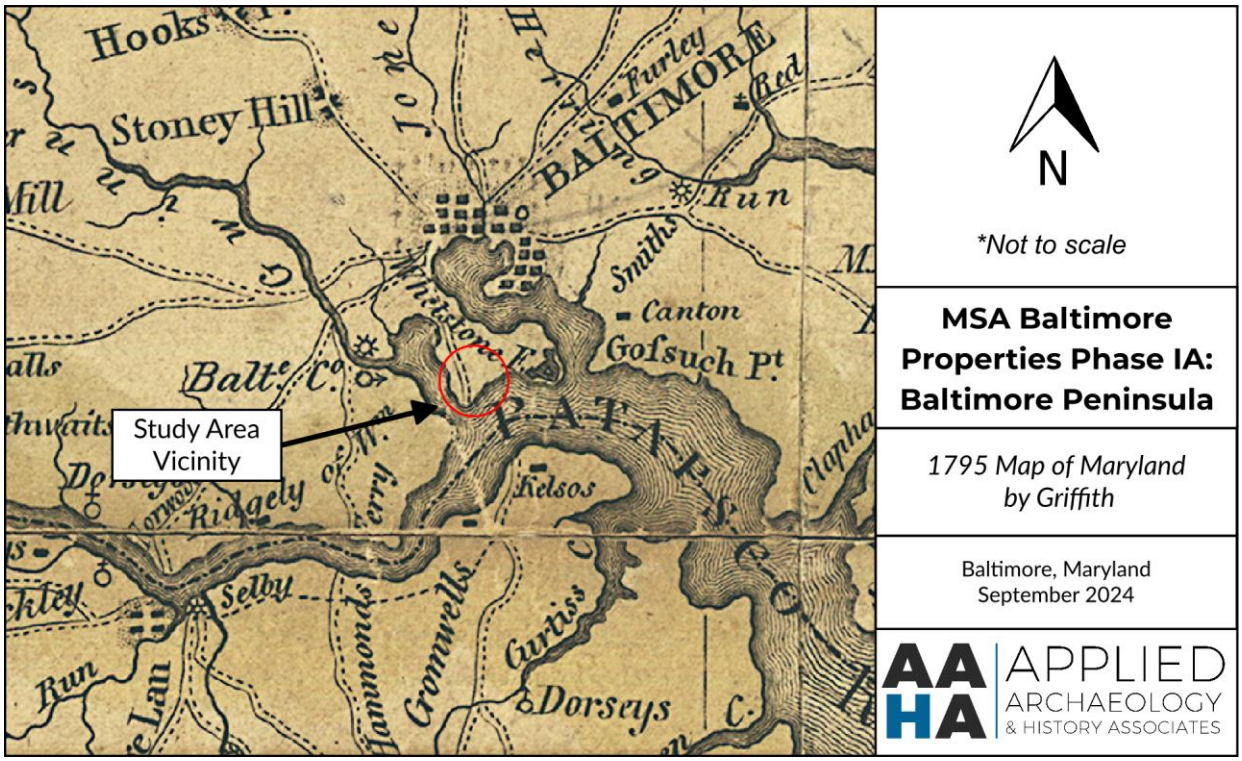

Figure 3-3. Detail of the 1795 *Map of Maryland* by Griffith showing the location of the Study Area vicinity (Griffith 1795).

The 1863 *Military Map of Baltimore* by Kaiser depicts the Study Area in an industrial area south of Baltimore (Figure 3-4). The city of Baltimore continues to expand, with industries concentrated in south Baltimore along the Patapsco River. Fort McHenry is noted to the east and Ferry Point to the south of the Study Area vicinity. A road runs north-south through the peninsula. A possible ferry crosses the West Branch of the Patapsco River at Ferry Point. Winnonds Shipyard is located at the end of a small waterway within the Study Area vicinity.

The 1869 *Birds Eye View of the City of Baltimore* by Sachse provides an artistic depiction of the city, illustrating land use not seen on typical historic maps (Figure 3-5). The Study Area is located near the southern tip of a peninsula south of Baltimore between Light Street to the west and the Patapsco River to the east. Winans Shipyard is noted on the bank of the Patapsco and several industrial buildings, associated with the shipyard or nearby brickyards, are located in the Study Area vicinity. The small waterway noted on the 1863 map is more substantial, indicating possible dredging either for resources or for the shipyard.

The 1894 *Baltimore, MD* 15-minute topographic quadrangle shows increased development in south Baltimore (Figure 3-6). The Baltimore & Ohio Railroad is shown north of the Study Area, running east-west through the peninsula to the docks on North West Harbor. A drawbridge is now depicted running south from Ferry Point. Dense development is noted to the north of the railroad. The Study Area is located east of current South Hanover Street. The majority of the Study Area is occupied by the waterway, enlarged through the years by dredging.

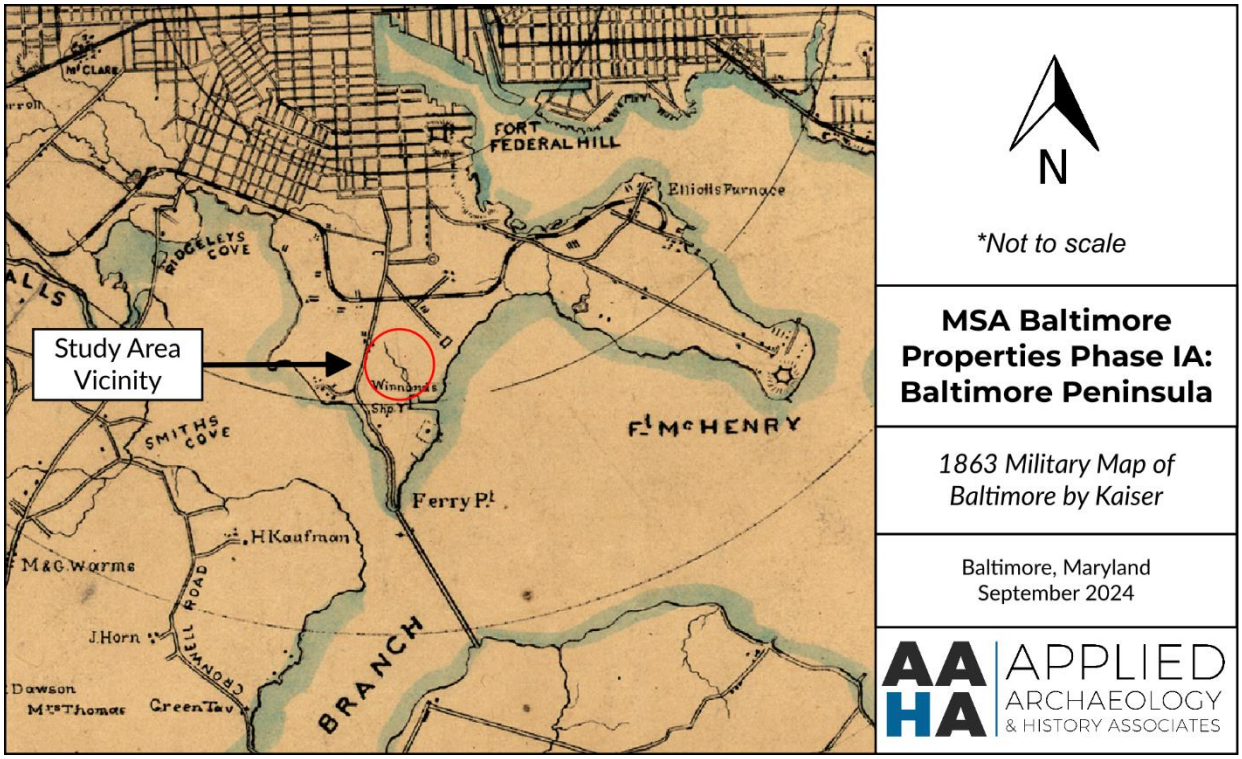

Figure 3-4. Detail of the 1863 *Military Map of Baltimore* by Kaiser showing the location of the Study Area vicinity (Kaiser 1863).

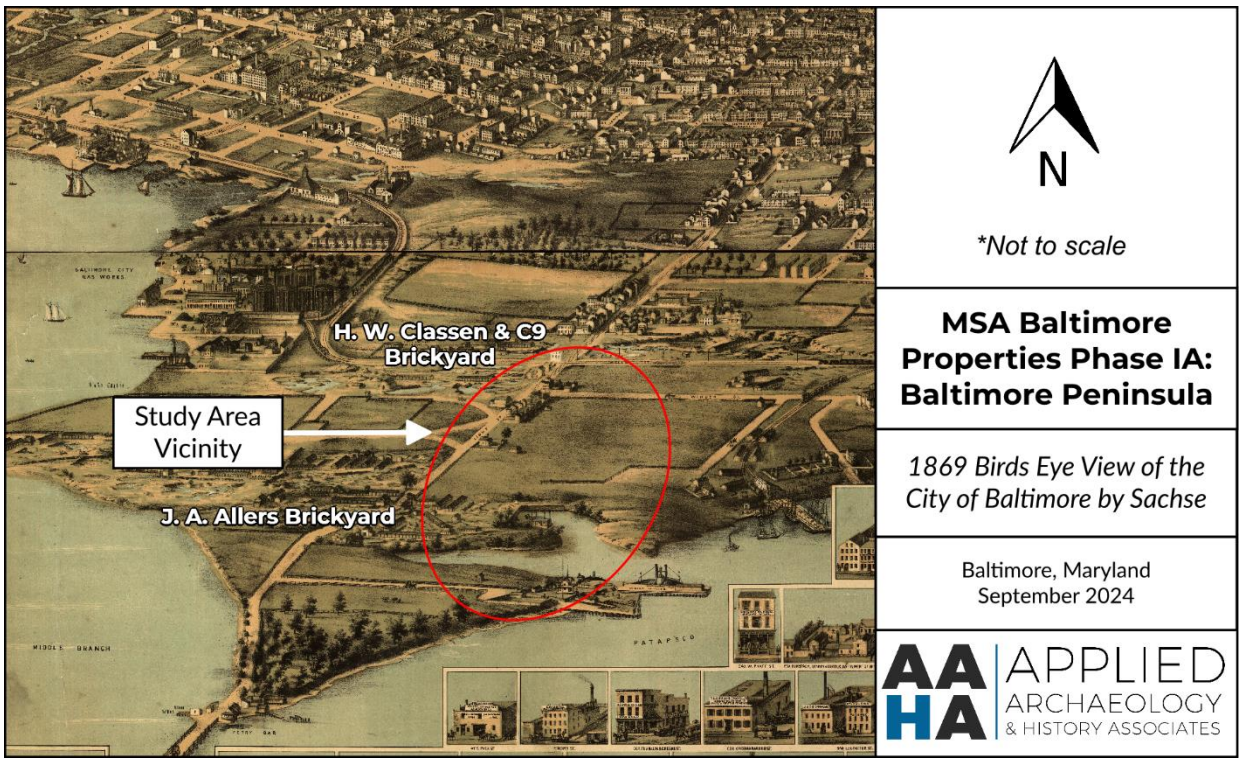

Figure 3-5. Detail of the 1869 *Birds Eye View of the City of Baltimore* by Sachse showing the location of the Study Area vicinity and annotations of nearby industries (Sachse, E. & Co. (publisher) 1869).

By 1899, the area has seen rapid expansion, with additional roadways built to the east and west of the Study Area (Figure 3-7). The waterway within the Study Area, now noted as Winans Cove, appears to be smaller at its northern extent, indicating that the area was beginning to be filled in. The Baltimore & Ohio Railroad and the drawbridge at Ferry Point continue to operate. While no structures are noted in the Study Area, the surrounding area contains roads, railroads, and industries.

Significant changes have occurred in the Study Area and surrounding area by the mid-twentieth century. The 1943 *Baltimore, MD* 15-minute topographic quadrangle shows significant development in south Baltimore (Figure 3-8). The Study Area is located on the southern portion of the peninsula, west of Winans Cove, in a railyard. The waterway noted in previous maps has been filled in for development. The drawbridge to the south of the Study Area is no longer present, though a bridge has been built to the west. The Study Area includes an active railyard.

The railyard and local industries have further expanded on the 1953 *Baltimore East* 7.5-minute topographic quadrangle (Figure 3-9). The city has continued to expand south, with dense habitation located just north of the B&O Railroad. The Study Area is located in the Port Covington Yard, a large railyard located east of MD-2 and west of Winans Cove. The landform of the southern peninsula has been extensively modified to accommodate the railyard and associated port.

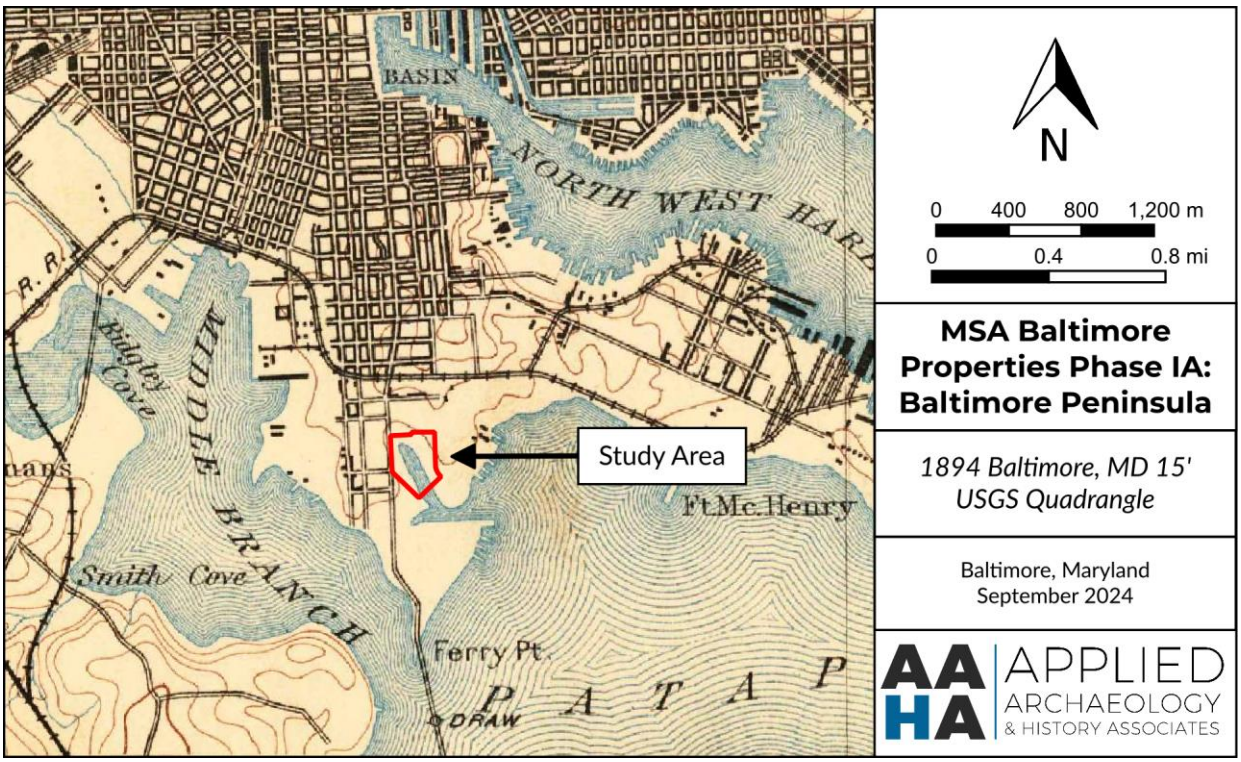

Figure 3-6. Detail of the USGS 1894 *Baltimore, MD* 15-minute topographic quadrangle showing the location of the Study Area (USGS 1894).

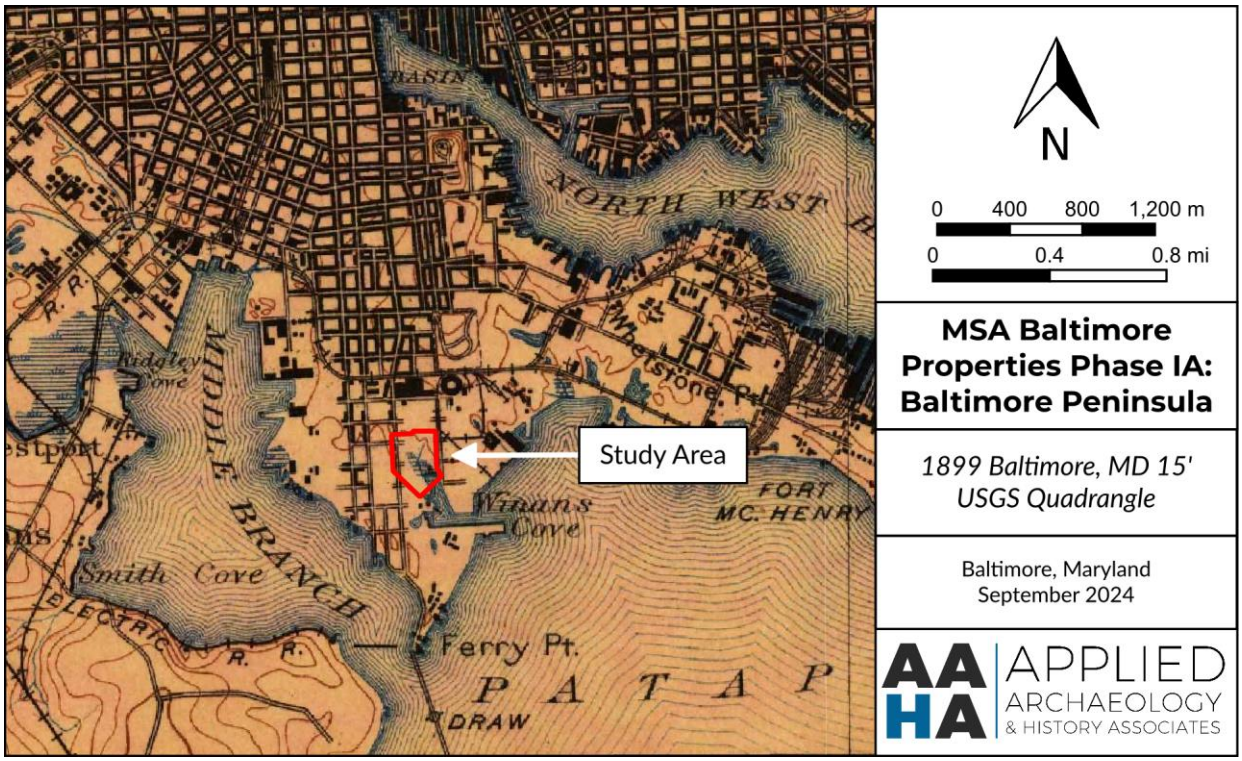

Figure 3-7. Detail of the USGS 1899 *Baltimore, MD* 15-minute topographic quadrangle showing the location of the Study Area (USGS 1899).

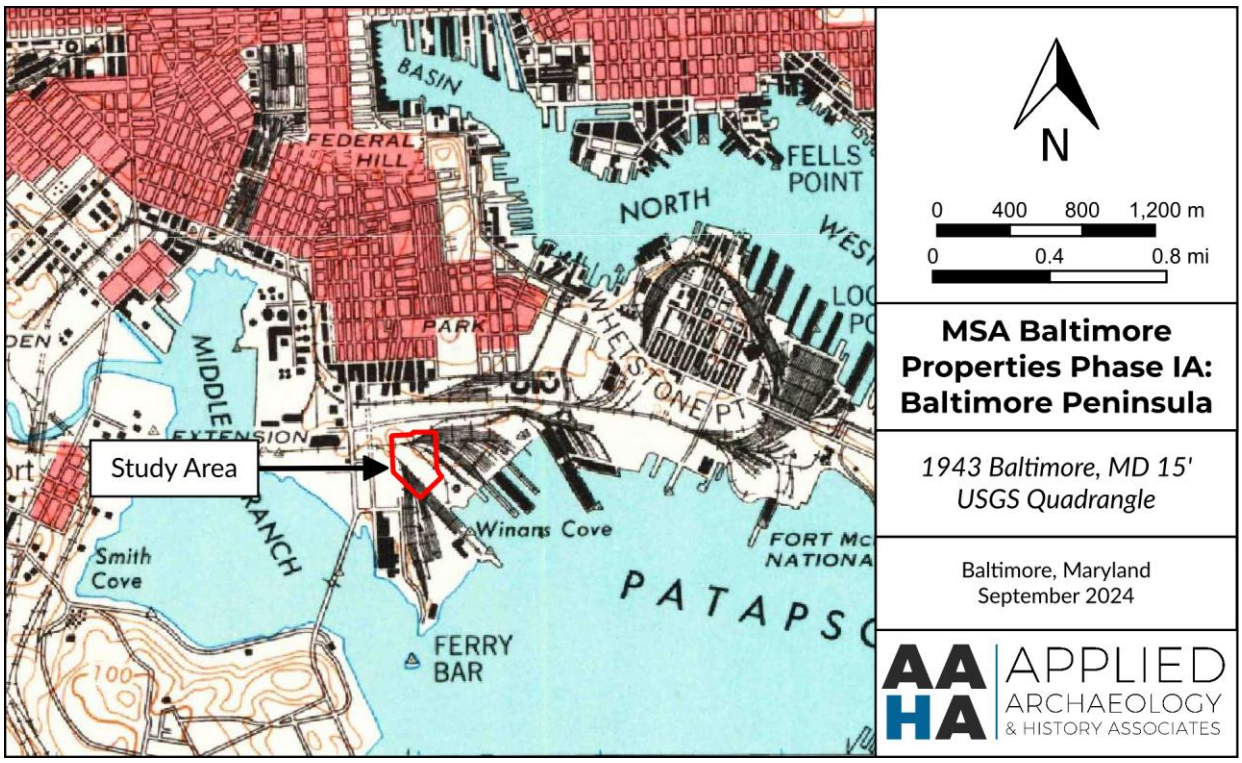

Figure 3-8. Detail of the USGS 1943 *Baltimore, MD* 15-minute topographic quadrangle showing the location of the Study Area (USGS 1943).

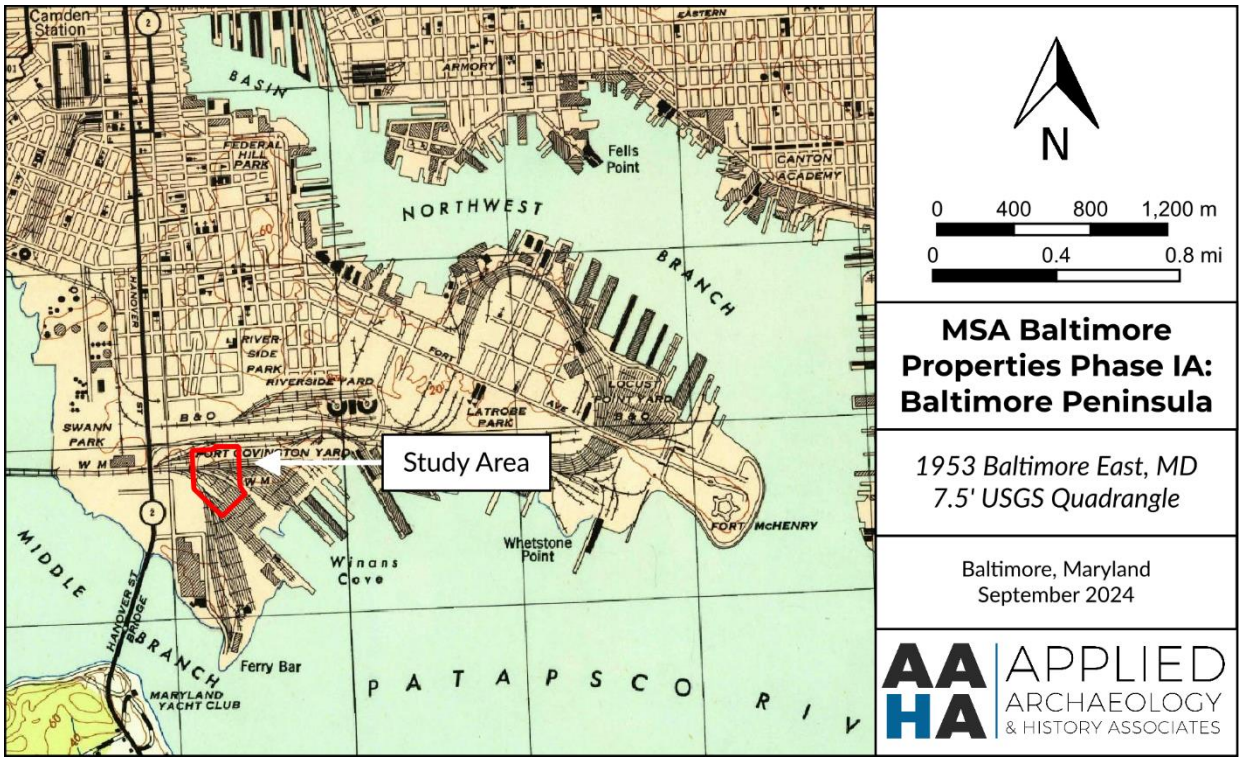

Figure 3-9. Detail of the USGS 1953 *Baltimore East, MD* 7.5-minute topographic quadrangle showing the location of the Study Area (USGS 1953).

Historic aerial photographs provide additional detail not available on historic maps. The earliest photo of the Study Area is from 1957 and shows the entirety of the Study Area within the Port Covington railyard (Figure 3-10). Dozens of railroad cars are visible west of the docks. The surrounding area is heavily developed by the railyard and adjacent industries. Little change is noted in 1981; the Study Area remains within the railyard (Figure 3-11).

By 1989, the railyard has been demolished, with the entire area either stripped to subsoil or displaying cleared fill (Figure 3-12). Construction of a large building in the center of the Study Area, the present extant structure, has begun. By 1994, the current structure had been completed, with associated parking lots to the south (Figure 3-13). Roads had been built in the surrounding area and the old railyard and industrial structures had been demolished.

By 2021, the Study Area includes a large commercial structure with associated roadways and parking lots (Figure 3-14). Additional commercial or industrial structures are present in the vicinity, with the immediate vicinity, both to the west and east, under active construction. The large residential and commercial structures currently present to the southeast of the Study Area were constructed after 2021 (see Figure 1-3).

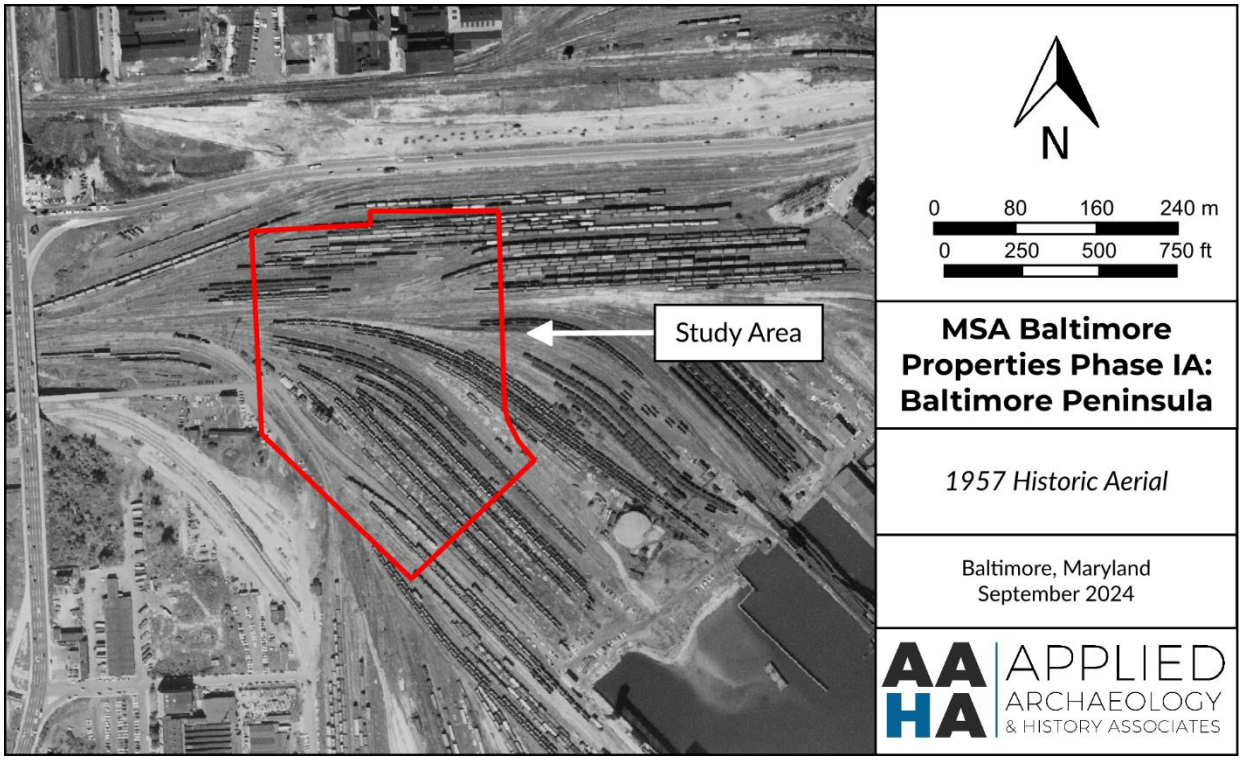

Figure 3-10. Aerial photograph taken in 1957 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

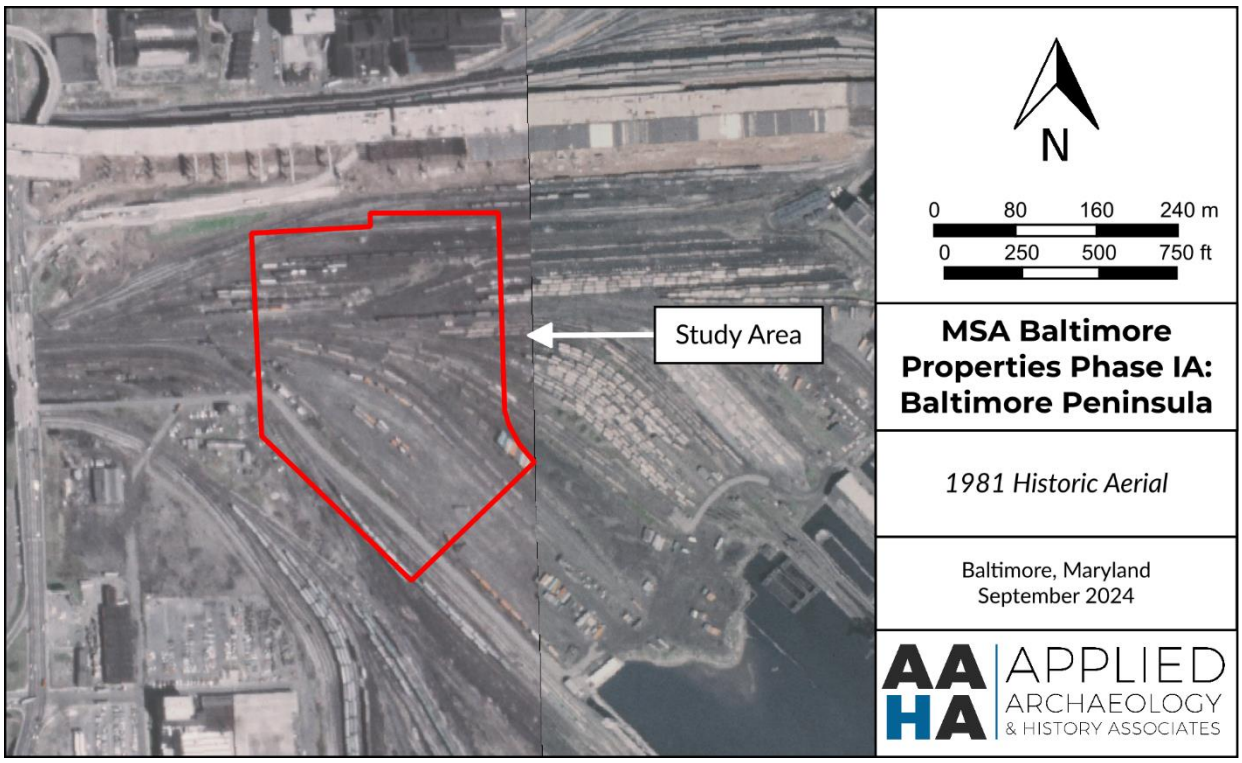

Figure 3-11. Aerial photograph taken in 1981 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

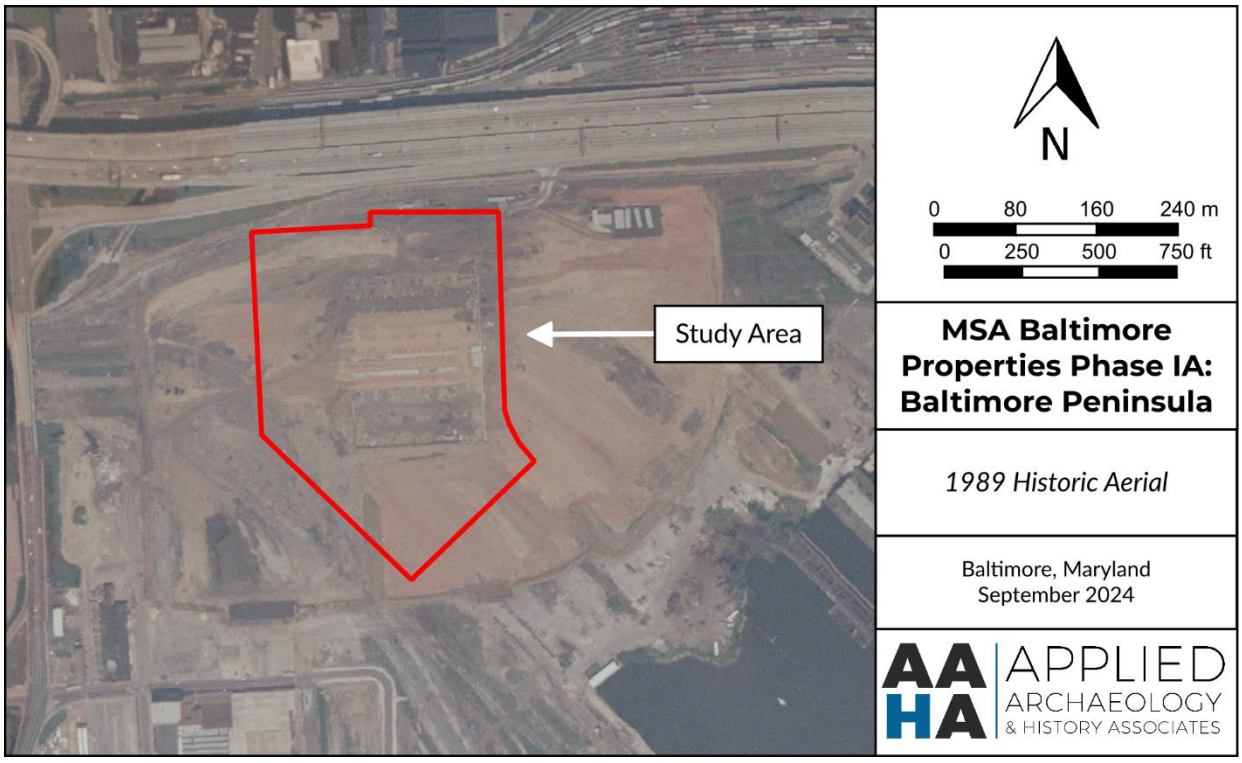

Figure 3-12. Aerial photograph taken in 1989 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

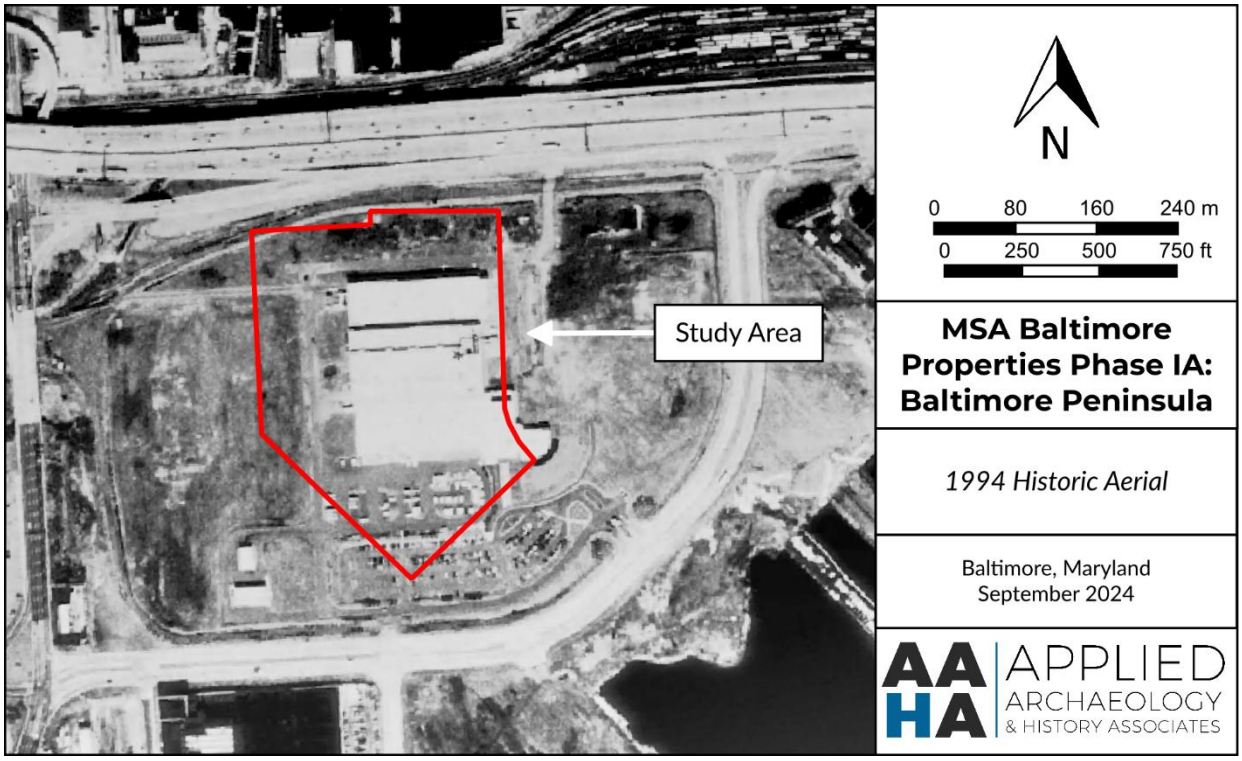

Figure 3-13. Aerial photograph taken in 1994 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

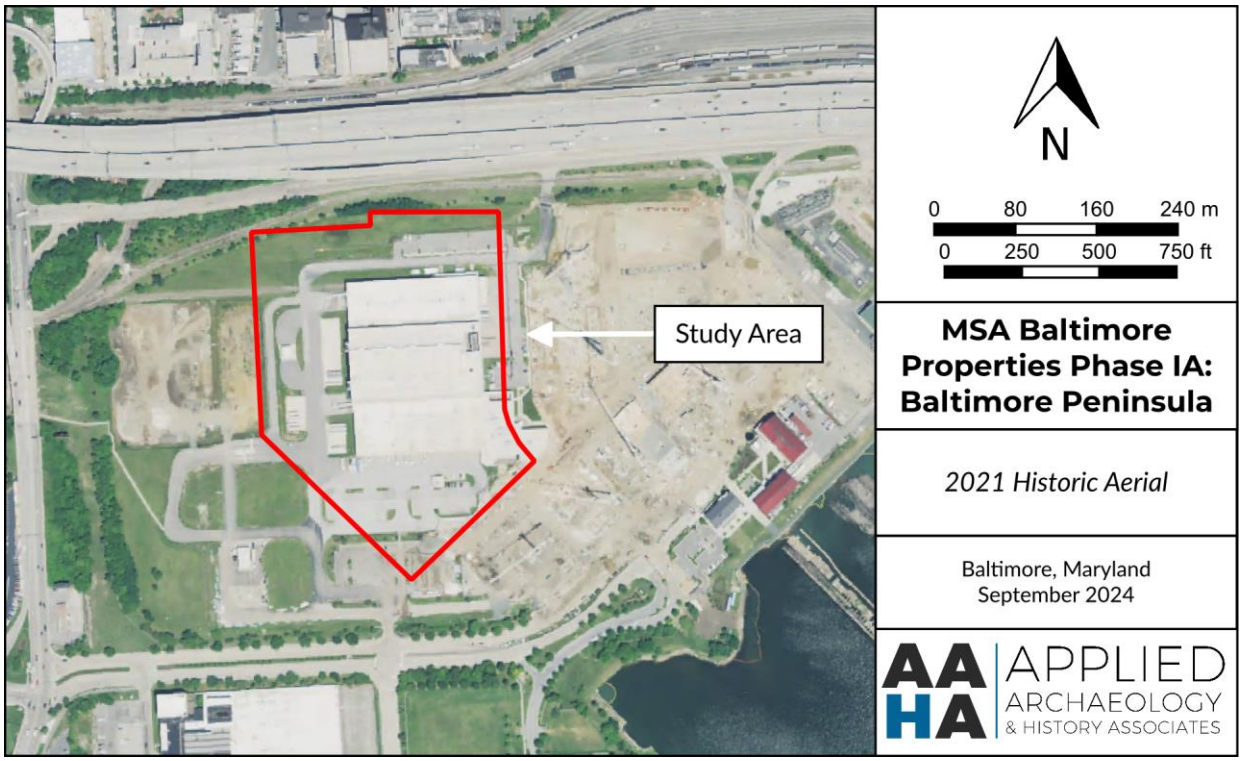

Figure 3-14. Aerial photograph taken in 2021 showing the location of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

Previous Research and Recorded Sites

Nine Phase I archaeological surveys and one Phase II investigation have been conducted within one mile of the Study Area (Table 3-1). One survey (BC 69) includes a portion of the current Study Area. This survey was conducted in 1990 to investigate archaeological resources associated with the Port Covington Commons Business Park redevelopment project (Austin 1990). While no archaeological sites were identified, remains of a mid-nineteenth century structure and wharf were noted and subsequent assessment indicates that nineteenth-century industrial sites may have remained in the area included in that survey. Further archaeological research was recommended.

Surveys were conducted between 1990 and 2017. Two of the surveys were conducted in advance of development along Baltimore Harbor, two as part of recreational improvements. One survey was conducted at former Camden Yards Industrial Park prior to the construction of the football stadium (BC 74). Four surveys investigated underwater cultural resources within Baltimore Harbor and the Patapsco River. One of the surveys (BC 175) documented the remains of seven submerged vessels, including the nineteenth-century steam tug Governor R.M. McLane.

TABLE 3-1. PREVIOUS ARCHAEOLOGICAL SURVEYS WITHIN ONE MILE OF THE STUDY AREA

CALL #	REPORT TITLE	AUTHOR, YEAR	COMPANY	SURVEY TYPE
BC 69*	An Investigation of the Archaeological Resources Associated with the Port Covington Commons Business Park Site (18BC72) Baltimore, Maryland	(Austin 1990)	Baltimore Center for Urban Archaeology	Phase I
BC 74	Archeological and Architectural Investigations at Camden Yards, Baltimore, Maryland, Vol. I.	(Goodwin et al. 1992)	R. Christopher Goodwin & Assoc., Inc.	Phase I
BC 102	An Archaeological Investigation of the Proposed Renovation for the Hilltop of Federal Hill Park, Baltimore, Maryland	(Collier 1995)	Baltimore Center for Urban Archaeology	Phase I
BC 108	Archeological Investigation and Archival Research Associated with the Harborwalk Southern Terminus, Property Acquisition at 1425-1435 Key Highway, Baltimore City, Maryland	(Ervin 1996)	Archeology Group, Maryland State Highway Administration	Phase I
BC 112	Phase I Submerged Cultural Resources Survey, Baltimore Harbor and Anchorages Project, Baltimore, Maryland	(Irion and Hirrel 1994)	R. Christopher Goodwin & Assoc., Inc.	Phase I UW
BC 135	Phase I Archaeological Investigation for the Gwynns Falls Trail, Phase 3 Baltimore City, Maryland	(Comer and Comer 2001)	Elizabeth Anderson Comer/ Archaeology	Phase I
BC 160	Underwater Archeological Survey in the Vicinity of Masonville, Sparrows Point and Sollers Point in the Baltimore Harbor, Maryland	(Pelletier et al. 2005)	R. Christopher Goodwin & Assoc., Inc.	Phase I UW

CALL #	REPORT TITLE	AUTHOR, YEAR	COMPANY	SURVEY TYPE
BC 175	Phase I & II Underwater Archaeological Investigations at the Baltimore Museum of Industry Baltimore, Maryland	(Morris and Tubby 1998)	Tidewater Atlantic Research, Inc.	Phase I/II
BC 201	Phase IA, Underwater Archaeological Remote Sensing Survey Report, I-95 Access Improvements from Caton	(Morris and Daniel 2017)	Geomar Research, LLC	Phase I

** - Survey includes the current Study Area.*

Nine archaeological sites have been identified within one mile of the Study Area, none of which are located within the Study Area (Table 3-2). All are historic sites dating from the late eighteenth to twentieth centuries, and include four rowhouses, two factories, an industrial building, shipwrecks and a shipyard, a military fort, and a nineteenth-century park. Port Covington (18BC72) is a nineteenth-century industrial building that was identified east of the current Study Area and is located on the Baltimore Peninsula. One archaeological site was evaluated for inclusion in the National Register of Historic Places (NRHP), the Governor McLane Shipwreck (18BC1110), which was determined to be eligible for inclusion in 1994.

TABLE 3-2. PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE OF THE STUDY AREA

SITE #	SITE NAME	SITE TYPE	TOPOGRAPHIC SETTING	INVESTIGATION SUMMARY	NRHP STATUS
18BC39	Baltimore Clay Pipe Works	Historic – late 19th century clay tobacco pipe factory	Floodplain	Informant	Not Evaluated
18BC72	Port Covington	Historic – mid- to late 19th century industrial building	Floodplain	Phase I Mechanical Excavation	Not Evaluated
18BC97	New Southern H.S. Tunnel	Historic – late 19th to early 20th century possible sand mine	Hilltop/Bluff	Informant	Not Evaluated
18BC109	Federal Hill Park	Historic – late 18th century glass factory, late 18th century – mid 19th century military fort, late 19th century park	Hilltop/Bluff	Phase I systematic	Not Evaluated
18BC110	Governor McLane Shipwreck	Historic – late 19th to early 20th century shipwrecks and shipyard	Submerged	Phase I non-systematic	Eligible (12/9/1994)
18BC212	1027 S. Sharp Street	Historic – mid-19th to 20th century rowhouse	Interior Flat	Monitoring	Not Evaluated
18BC213	1017 Peach Alley	Historic – mid-19th to 20th century rowhouse	Interior Flat	Monitoring	Not Evaluated
18BC214	1028 Peach Alley	Historic – mid-19th to 20th century rowhouse	Interior Flat	Monitoring	Not Evaluated
18BC215	1106 Peach Alley	Historic – mid-19th to 20th century rowhouse	Interior Flat	Monitoring	Not Evaluated

Five hundred and twenty-eight (528) architectural resources have been identified within one mile of the Study Area. Of those, thirteen have been listed in the NRHP (Table 3-3). No architectural resources have been identified within the Study Area. Most of the NRHP-listed resources are industrial and date to the nineteenth and twentieth centuries. Four of the NRHP-listed resources are historic districts: Locust Point Historic District, Federal Hill Historic District, Federal Hill South Historic District, and Riverside Historic District. The earliest of the historic districts is the Federal Hill Historic District, dating to the eighteenth century. Two of the resources are related to religion and one is related to transportation.

TABLE 3-3. PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE OF THE STUDY AREA

RESOURCE #	SITE NAME	DATE	TYPE	NRHP STATUS
NR 01000407	Coca-Cola Company Baltimore Branch	1921; 1935	Industry	Listed (05/04/2001)
NR 02001604	Maryland White Lead Works	1867-1896	Industry	Listed (12/27/2002)
NR 00001391	Parker Metal Decorating Company Plant	1921-1949	Industry	Listed (11/22/2000)
NR 01001373	Southern District Police Station	1896	Government	Listed (12/28/2001)
NR 12001084	Locust Point Historic District	1845-1928	Domestic; Religion; Commerce/trade; Industry; Government; Recreation and culture; Social	Listed (12/26/2012)
NR 70000859	Federal Hill Historic District	18th, 19th, 20th centuries	Domestic; Religion; Commerce/trade; Industry; Government; Recreation and culture; Social	Listed (04/17/1970)
NR 02001583	National Enameling & Stamping Company	1887	Industry; Commerce/trade	Listed (12/27/2002)
NR RS100001959	Union Brothers Furniture Company	1923-1955	Industry; Commerce/trade	Listed (02/07/2018)
NR 03001331	Federal Hill South Historic District	c. 1830-1945	Domestic; Commerce/trade; Social; Government; Education; Religion; Recreation and culture; Health care	Listed (12/22/2003)
NR 93001613	Baltimore (tug)	1906-1922	Transportation	Listed (11/04/1993)
NR 08000358	Riverside Historic District	1845-1910	Domestic; Religion; Commerce/trade; Industry; Government	Listed (03/05/2021)
NR 79003218	Leadenhall Street Baptist Church	1873	Religion	Listed (03/16/1979)
NR 02001578	Holy Cross Church Complex	1860; 1871; 1885; 1903; 1907; 1928	Religion	Listed (12/30/2002)

Pedestrian Survey

Due to the extensive disturbance within the Study Area and its vicinity visible on historic maps and aerial photographs, a pedestrian survey was not conducted.

4. SUMMARY AND RECOMMENDATIONS

In August and September 2024, AAHA conducted a Phase IA archaeological assessment of the Baltimore Peninsula Study Area (Study Area) in Baltimore City, Maryland. The Baltimore Peninsula Study Area is one of two locations in the city of Baltimore under review for the construction of a new sports stadium by the MSA. This Phase IA assessment is intended to partially satisfy the requirement for an Archaeological Impact Analysis (AIA) stated in Section 3.3 Scope of Work—Preliminary Design in a request for proposals issued by MSA on March 12, 2024.

The principal goal of a Phase IA archaeological assessment is to assess the likelihood that archaeological resources may be present within the Study Area. This investigation consisted of background research. All work was conducted by a qualified professional archaeologist in compliance with the MHT *Standards and Guidelines for Archeological Investigations in Maryland*.

The Study Area is located south of I-95 in a formerly industrial part of Baltimore that has recently been redeveloped to include residential apartment buildings and associated amenities. The property primarily contains an industrial building and associated parking lots. At the time of the assessment, the Study Area contained a large, extant structure and associated roadways and parking lots. No previously identified archaeological sites or historic resources are located within the Study Area. One archaeological survey that includes the boundaries of the current Study Area was conducted in 1990.

Recommendations

Due to continuous development in the Study Area, including extensive landform modification in the late 1980s, it is unlikely that significant archaeological resources exist within the Study Area. Any archaeological deposits that may have existed within the Study Area have likely been impacted by mid-nineteenth-century clay mining, the late nineteenth-century expansion of an inlet extending northwest from the Patapsco River, the twentieth-century infilling of that inlet and subsequent construction of a rail yard, and regrading after the rail yard's demolition. **The Study Area has low potential for archaeological resources. No further work is recommended.**

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APPENDIX A:

Qualifications of Investigators

Jasmine Gollup, M.A., RPA

Laboratory Director

Jasmine Gollup is the Laboratory Director for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Gollup has 13 years of professional experience in cultural resource management and research projects in the Mid-Atlantic and Northeast regions. Ms. Gollup has conducted archaeological laboratory work for 12 years and has been a contributing or primary author on technical reports for eight years. Her experience includes cultural material recovered from Phase I through III excavations conducted for compliance surveys for state and federal agencies. Ms. Gollup's professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and she is a Registered Professional Archaeologist. Ms. Gollup excels in the identification of cultural materials, the preparation of collections for curation at state, local, or private repositories, and historic archival research.

Representative Projects

Morton Farm – Prince George's County, MD:
Laboratory Director for Phase I archaeological investigation. Two multi-component archaeological sites were identified. Site 18PR1252 included a potentially stratified Archaic period component and was recommended for additional work. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

East Pat Lofts Property – Frederick County, MD:
Laboratory Director for Phase I and II archaeological investigations. Phase I survey identified site 18FR1155 which was further investigated during Phase II excavation. The site was recommended eligible for inclusion in the NRHP. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

Melrod – Stafford County, VA:
Laboratory Director for Phase II archaeological investigations at two multicomponent sites – 44ST1277 and 44ST1278. Neither were recommended for further work. Conducted laboratory analysis, supervised technicians in the lab, prepared collections and documentation for curation, conducted comparative analysis of regional sites, and contributed to technical report.

FirstLight Northfield Mountain and Turners Falls Project – Franklin County, MA:
Laboratory Director for Phase II archaeological investigations at 17 sites along the Connecticut River. Conducted laboratory analysis, historic research, and contributed to technical report. Prepared artifacts and documentation for curation.

Pig Point, Anne Arundel County, Maryland: Phase III investigations of the deeply stratified Pig Point prehistoric site on the Patuxent River with Anne Arundel County Department of Planning and Zoning. Included field and laboratory work, as well as supervision of volunteers and interns in the lab.

Historic St. Mary's City/St. Mary's College of Maryland, St. Mary's County, Maryland:
Phase III level archaeological investigations for St. Mary's College of Maryland. Mitigation of several seventeenth century sites prior to construction. Tasks included field and laboratory work, as well as supervision of technicians in the lab.

Applied Archaeology and History Associates, Inc.

Education

M.A., 2011, Archaeology, Cornell University

B.A., 2009, Sociology/Anthropology and History, Elizabethtown College

Registrations

Register of Professional Archaeologists #39454409

Skills

Artifact Identification
Curation and Collections Management
Technical Writing
Historic Research

Years of Experience

Total: 13 With Firm: 3

Contact

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Celia Engel

Assistant Project Manager

Celia Engel is a crew chief, historian, and technical writer at Applied Archaeology and History Associates, Inc. Ms. Engel has five years of professional experience in cultural resource management and research projects in the Mid-Atlantic region. She has contributed to more than 80 technical reports and assisted in Phase I, Phase II, and Phase III archaeological fieldwork. Her experience ranges from privately funded research projects to compliance surveys for state and federal agencies. Ms. Engel is also experienced in using GPS and GIS in archaeological contexts. Ms. Engel excels in the collection of historic materials, both primary and secondary sources, required for the preparation of the historic background documentation including historic maps, chains of title that reach back to original land grants, census data, genealogies, tax records, and various secondary sources. This documentation has informed the recordation of multiple properties on the Maryland Inventory of Historic Places and eligibility recommendations for various archaeological sites in the National Register of Historic Places.

Representative Projects

Archaeological Investigations of Cloverfields (18QU868) House Excavations, Queen Anne's County, MD: Field Technician and report coauthor for project investigating and documenting the Cloverfields house and surrounding environs. The project resulted in the recovery of over 100,000 artifacts and the identification of 375 features, representing the material remains of centuries of occupation at Cloverfields. The excavations documented features related to various configurations of the house as they were altered through time.

Phase II Investigations of Sites 44ST1277 and 44ST1278, Melrod Property, Stafford County, VA: Assistant Project Manager responsible for conducting and synthesizing drainage analysis research. Study included fieldwork and a broad-based data consolidation project assessing precontact occupation of the Lower Potomac Creek Drainage, along with extensive research into the Contact Period Patawomeck, who occupied the drainage in the early seventeenth century.

Historic Background Research Task 3 of the Aquasco-Woodville Cultural Resources Inventory Project, Prince George's County, MD: Title researcher and report coauthor for research project assessing potential contributing resources in nine properties in the village of Aquasco. The research uncovered documentary evidence that the African American community was historically centered in the southern part of the village, while properties in the northern part were historically owned by white families.

Phase IA Archaeological Assessment of the Silent City Cemetery, Dorchester, County, Maryland: Title researcher and report coauthor for a Phase IA of the Silent City Cemetery in Dorchester County, Maryland. Research corroborated local history positing that a local Black undertaker purchased property to create a cemetery for the Black community in Cambridge. Archival documents also revealed surnames of prominent Nanticoke or Choptank families, suggesting possible internment of individuals with mixed Black/indigenous ancestry.

Applied Archaeology and History Associates, Inc.

Education

BA, 2017, Anthropology and Sociology, Towson University

Skills

Technical Writing
Graphics Generation
GIS
Soil Identification
Title Research

Years of Experience

Total: 5 With Firm: 5

Contact

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W. Brett Arnold, MS, RPA

Chief Executive Officer, Principal Investigator

Mr. William Brett Arnold is a historian, archaeologist, and business manager. Mr. Arnold has twelve years of professional experience, with ten years' experience in cultural resource management Mid-Atlantic region. He has contributed to technical reports and directed archaeological fieldwork for eight years. His experience ranges from privately funded research projects to compliance surveys for state and federal agencies. Mr. Arnold is also experienced in using GPS, total station data, and GIS in archaeological contexts. His professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and he is a member of the Register of Professional Archaeologists. Mr. Arnold excels in the collection of historic materials, both primary and secondary sources, and the development of archaeological probability assessments. His research interests include the Tidewater region during the Contact Period, the development of religion in the United States, and the American Civil War. Mr. Arnold also possesses training in financial and managerial accounting, operations process generation, human resources, and small business development.

Representative Projects

Phase IA Archaeological Assessment for the Noah Hillman Garage and Annapolis City Dock, City of Annapolis, MD: Project Archaeologist for research project assessing archaeological potential of two city-owned parcels in Annapolis. The research uncovered documentary evidence for lumber yards, oyster packing plants, and an ice factory at the Annapolis City Dock and frame structures related to the City Hotel at the Noah Hillman Garage.

Aquasco Background Research, Prince George's County, MD: Historic research specialist supporting efforts to better understand the development of a late nineteenth- and early twentieth-century Black community in Aquasco, Maryland. Responsible for background research, title research, and coauthoring report.

I-495/I-270 Managed Lane Survey, Prince George's and Montgomery Counties, MD: Project Archaeologist responsible for directing multiple crews in a Phase I survey of areas within a proposed expansion of the I-495/I-270 right-of-way and coauthoring report. The survey included pedestrian survey and shovel testing across over two dozen discontinuous areas throughout the corridor.

Archaeological Assessment of the Rising Sun Inn and Vicinity, Anne Arundel County, MD: Consultant responsible for coauthoring research design and assisting in fieldwork at the eighteenth-century Rising Sun Inn in Millersville, Maryland. Survey consisted of shovel testing and intensive background research into the inn.

Archaeological Survey for the Rural Plains House Precinct, Richmond National Battlefield Park, Hanover County, Virginia: Project Archaeologist for a survey around the eighteenth-century Rural Plains house on the Totopotomoy Creek Battlefield for the National Park Service Northeastern Division. The survey included shovel testing and test unit excavations in and around the Rural Plains house and identified nineteenth-century features related to the house's postbellum occupation.

Applied Archaeology and History Associates, Inc.

Education

AAS, 2024 (anticipated), Accounting, Prince George's Community College

MS, 2014, Anthropology, University of Wisconsin--Milwaukee

BA, 2011, Archaeology and German Studies, College of Wooster

Registrations

Register of Professional Archaeologists #28887637

Skills

Project Management
Managerial Accounting
Technical Writing

Years of Experience

Total: 12 With Firm: 5

Contact

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