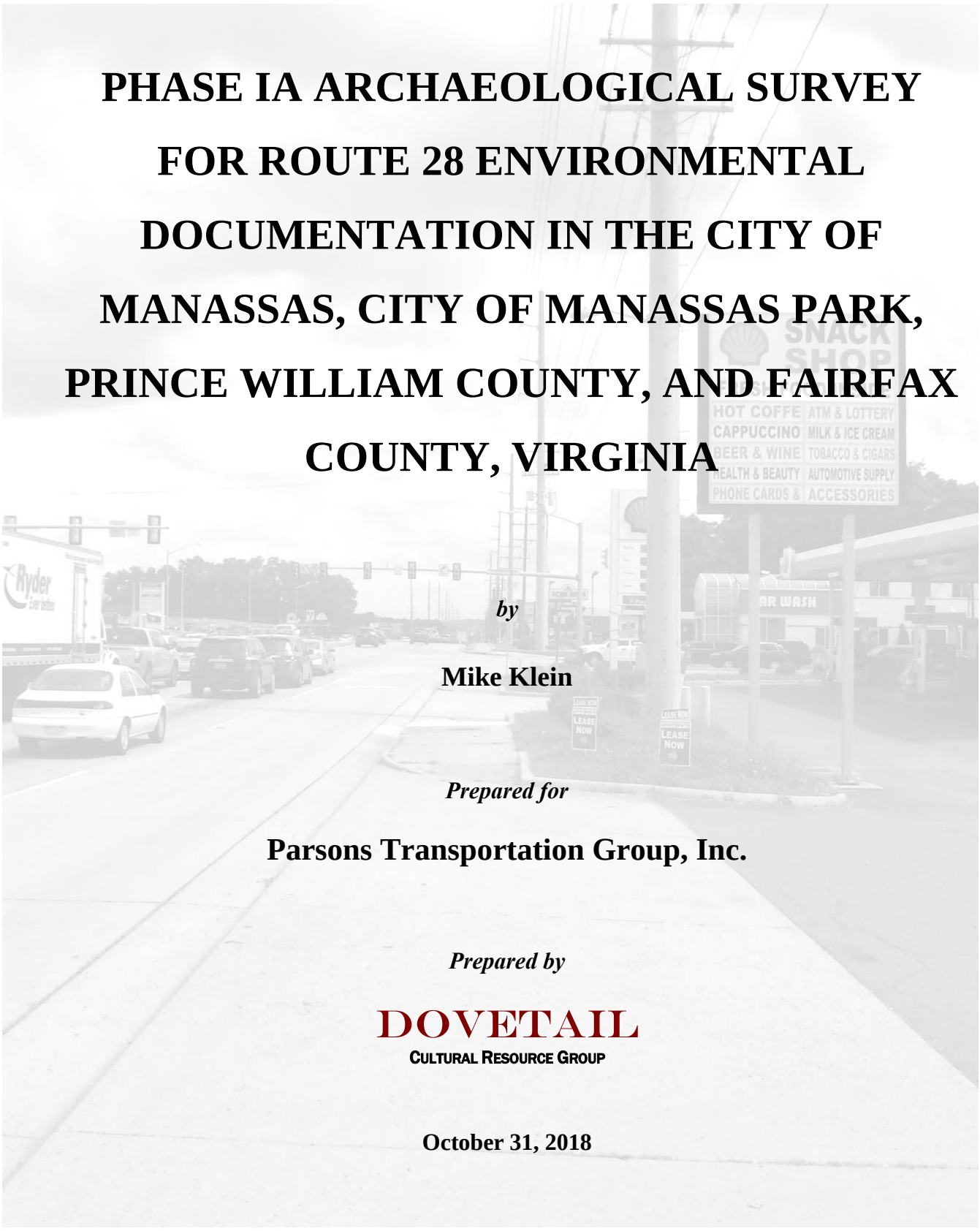
PHASE IA ARCHAEOLOGICAL SURVEY FOR ROUTE 28 ENVIRONMENTAL DOCUMENTATION IN THE CITY OF MANASSAS, CITY OF MANASSAS PARK, PRINCE WILLIAM COUNTY, AND FAIRFAX COUNTY, VIRGINIA



by

Mike Klein

Prepared for

Parsons Transportation Group, Inc.

Prepared by

DOVETAIL
CULTURAL RESOURCE GROUP

October 31, 2018

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Phase IA Archaeological Survey for Route 28 Environmental Documentation in the City of Manassas, City of Manassas Park, Prince William County, and Fairfax County, Virginia

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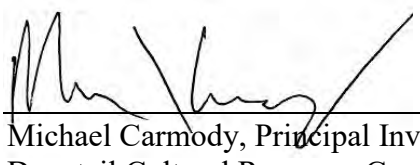

October 31, 2018

Michael Carmody, Principal Investigator — Date
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ABSTRACT

On behalf of Parsons Transportation Group, Inc. (Parsons), Dovetail Cultural Resource Group (Dovetail) conducted a Phase IA archaeological survey of the approximately 420-acre (170-ha) project area associated with the environmental documentation for the Route 28 corridor in Manassas, Manassas Park, and Prince William and Fairfax Counties, Virginia. The project area for the Phase IA archaeological investigation was defined by the limits of the proposed infrastructure improvements associated with Alternatives 2A, 2B, and 4, as outlined in the December 2017 Route 28 Corridor Feasibility Study completed in association with the project. The Phase IA work included background review and pedestrian survey to search for historic surface features and to evaluate the potential of the project area to contain intact soils and National Register of Historic Places (NRHP)-eligible archaeological resources. The study was designed to assess the potential presence of above or below ground archaeological resources over 50 years in age, in particular Civil War resources.

The portions of all three alternatives in undeveloped land in the vicinity of Bull Run appear to hold the greatest potential for the preservation of intact resources. The presence of previously identified archaeological sites near the near the Route 28 bridge demonstrates the archaeological potential of the area. Previously identified resources in the vicinity include the NRHP-eligible site 44PW1832. In the project area, the NRHP-listed Mitchell's Ford Entrenchments (076-0040), while recorded as an architectural resource, likely have archaeological components. Likewise, the presence of previously identified archaeological sites confirms the inferred presence of archaeological resources in the undeveloped area north of Bull Run. While also undeveloped, the reserved right-of-way (ROW) corridor around a channelized section of Flat Branch in Alternatives 2A and 2B appears less likely to contain intact remains of prehistoric and historic activities.

Construction and landscaping around residences on Allegheny Road, Boundary Avenue, Jacobs Lane, Round Lane, Somersworth Drive, and Charmwood Court likely disturbed most remaining archaeological deposits. To an even greater degree, the extensive development along the existing Route 28 corridor (Alternative 4) has disturbed archaeological resources. Preservation of intact archaeological resources may occur in the larger, open landscapes if the project area includes sections not impacted by the installation of utility lines. All studies conducted within a 0.5-mile (0.8-km) radius of Route 28 south of the Yorkshire Lane intersection encountered disturbed deposits. Yet, the identification of undisturbed walkways at Liberia House (155-0001/44PW507) suggests that intact archaeological deposits may remain in minimally disturbed settings along Route 28.

Alternative 2B passes through a larger portion of the undeveloped, high probability area north of Bull Run than Alternatives 2A and 4. Road construction in that area may impact important, undisturbed Civil War resources. Nevertheless, the NRHP-listed Mitchell's Ford Entrenchments, located within Alternative 2A, likely contain archaeological components. Moreover, DHR may require consideration of visual impacts to the viewshed of the earthwork. Therefore, due to extensive development along Route 28, Alternative 4 potentially impacts fewer intact archaeological resources than Alternatives 2A and 2B.

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INTRODUCTION

On behalf of Parsons Transportation Group, Inc. (Parsons), Dovetail Cultural Resource Group (Dovetail) conducted a Phase IA archaeological survey of the approximately 420-acre (170-ha) project area associated with the environmental documentation for the Route 28 corridor in Manassas, Manassas Park, Prince William County, and Fairfax County, Virginia (Figure 1 and Figure 2, pp. 2–3). The project area for the Phase IA archaeological investigation was defined by the limits of the proposed infrastructure improvements associated with Alternatives 2A, 2B, and 4, as outlined in the Route 28 Corridor Feasibility Study completed in association with the project (JMT 2017).

Dovetail completed a Phase IA assessment on all three alternatives in a manner consistent with the process defined for phased identification and evaluation in the regulations governing Section 106 of the National Historic Preservation Act (36CFR800.4.b.2). Once a preferred alternative is selected, Phase I archaeological studies will be completed only on this alternative.

The Phase IA work included background review and pedestrian survey to search for surface features associated with the Civil War battles fought in this area and to evaluate the potential of the project area to contain intact soils and National Register of Historic Places (NRHP)-eligible archaeological resources. The study was designed to assess the potential presence of above or below ground archaeological resources over 50 years in age.

The Phase IA study was conducted on July 5 and 6, 2018. The fieldwork was conducted by Mike Klein and Theresa Ulrich. Michael Carmody served as the Principal Investigator. Dr. Klein and Mr. Carmody meet or exceed the standards established for archaeologists by the Secretary of the Interior (SOI).

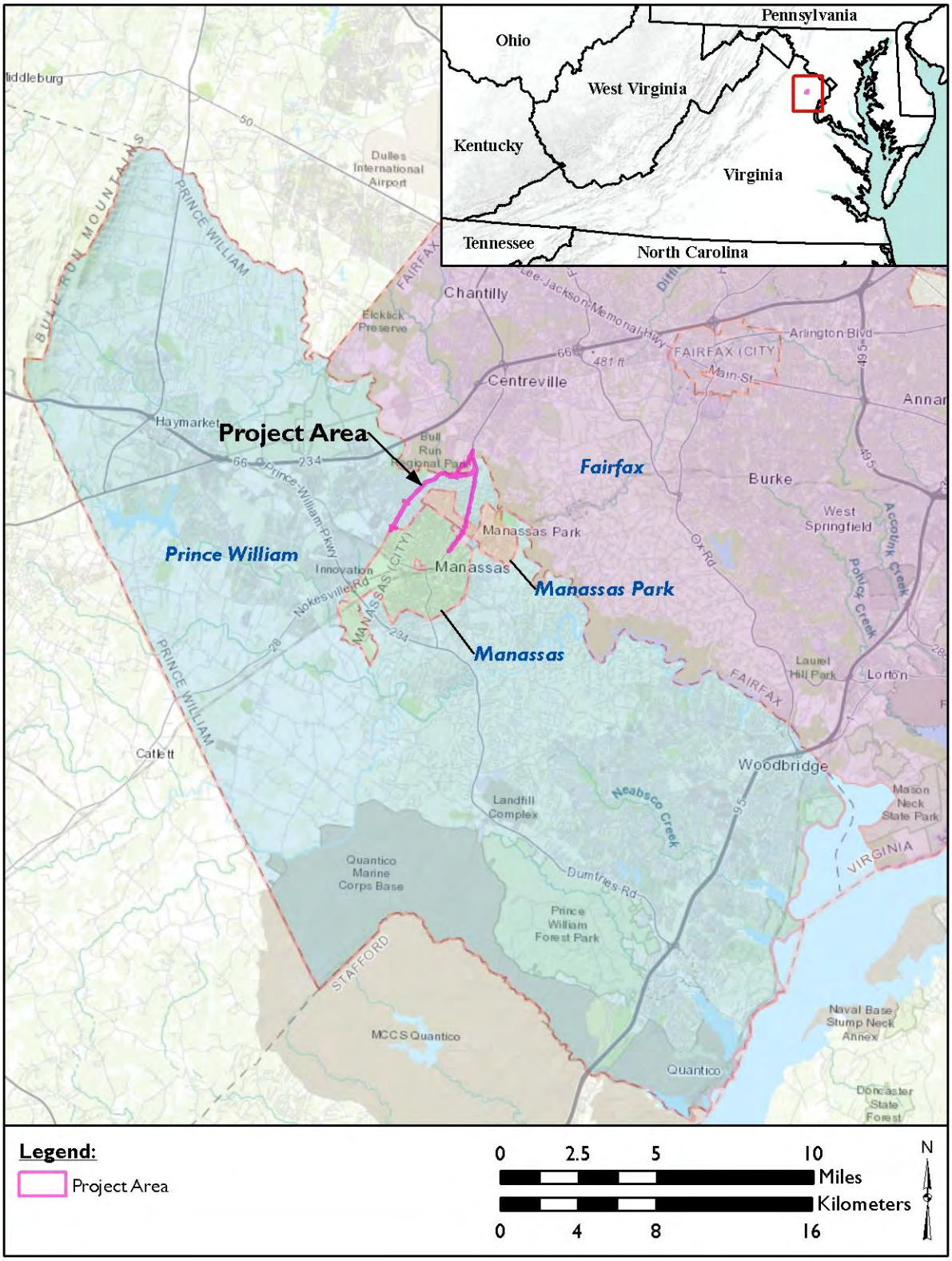

Figure 1: Location of Manassas, Manassas Park, Prince William County, and Fairfax County in relation to the Project Area (Esri 2018a).

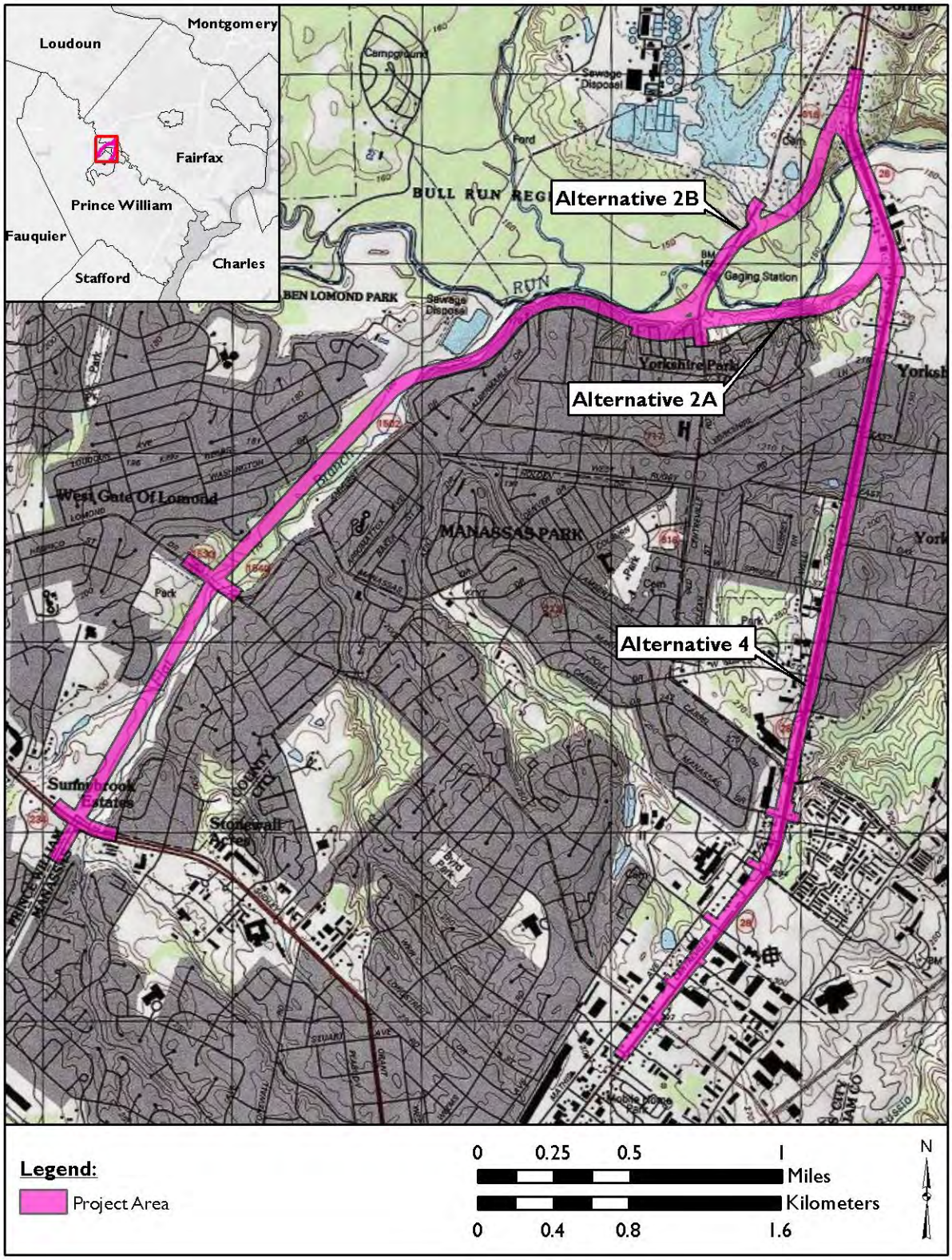

Figure 2: Location of the Project Area on the United States Geological Survey (USGS) Prince William County, Virginia, 7.5-Minute Digital Raster Graphic Mosaic (Esri 2018b).

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PROJECT DESCRIPTION

The Phase IA evaluation examined three alternatives under consideration as the location of proposed improvements in the Route 28 corridor: Alternatives 2A, 2B, and 4 (Figure 3–Figure 5, pp. 6–8). Beginning south of the intersection of Godwin Drive and Sudley Road/Route 234, Alternatives 2A and 2B extend northeast along Flat Branch to approximately 4,200 feet (1,280.2 m) northeast of Lomond Drive. At that point, the alternatives curve east and extend through residential areas along Alleghany Road, the northern ends of Boundary Avenue, Jacobs Lane, and Round Lane. From there the two alternatives diverge. Alternative 2A continues in Prince William County through Quail Hollow Park, Charmwood Court, and commercial properties to join Route 28 south of Bull Run. In contrast, Alternative 2B follows roads and curves through undeveloped land to join Route 28 in Fairfax County. More specifically, Alternative 2B joins Route 616/Old Centreville Road east of Round Lane and crosses Bull Run into Fairfax County, where Route 616 is Ordway Road. Alternative 2B follows Ordway Road for approximately 1,300 feet (396.2 m) northeast of Bull Run, where it curves around a commercial building and meets Route 28 approximately 1,100 feet (335.3 m) north of Bull Run.

Alternative 4 involves improvements to existing Route 28. From just southwest of the intersection of Reb Yank Drive and Route 28/Centreville Road, Alternative 4 follows Route 28 north to a point approximately 1,400 feet (426.7 m) north of Bull Run in Fairfax County.

Portions of all three alternatives contain undeveloped land near Bull Run. However, numerous disturbances are present throughout. A channelized section of Flat Branch is present within the footprint of Alternatives 2A and 2B. Wet areas bound at least portions of Flat Branch, and a pipeline and gravel access road that parallels Flat Branch. West of Allegheny Road, a high berm exists between the backyards and Flat Branch. Construction and extensive landscaping were noted around residences on Allegheny Road, Boundary Avenue, Jacobs Lane, and Round Lane, Somersworth Drive, and Charmwood Court (Photo 1—Photo 4, pp. 9–10).

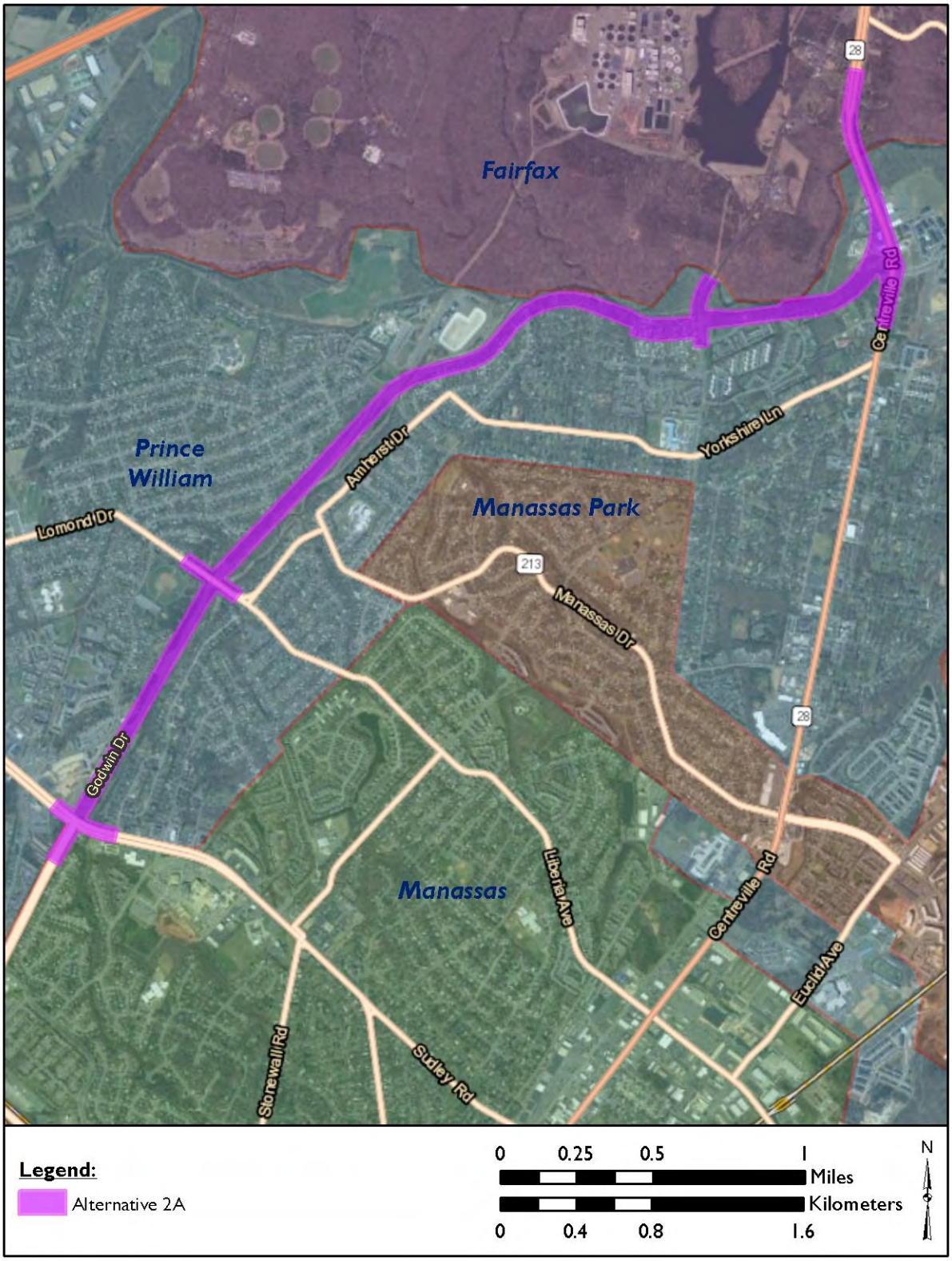

Figure 3: Location of Alternative 2A (Esri 2017).

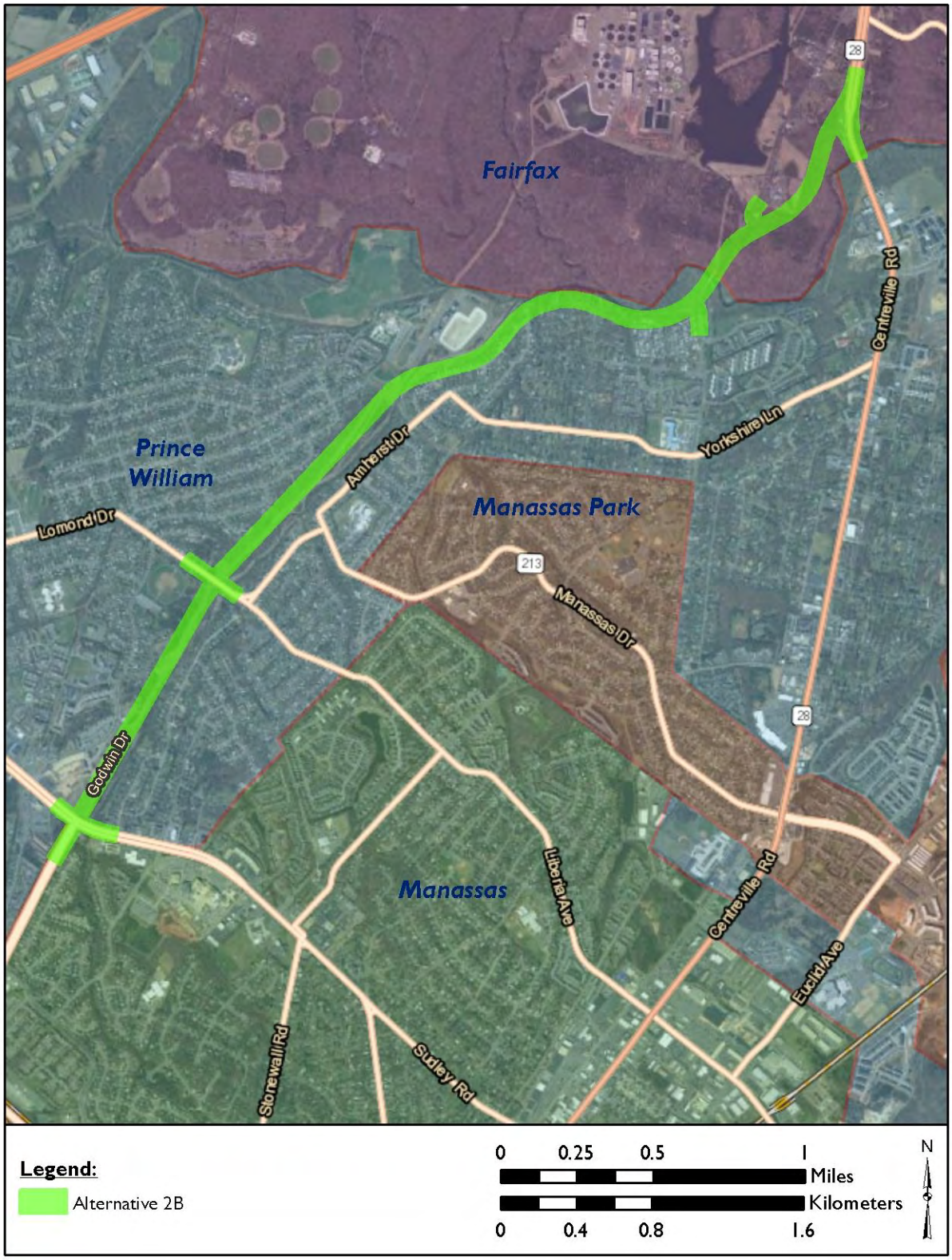

Figure 4: Location of Alternative 2B (Esri 2017).

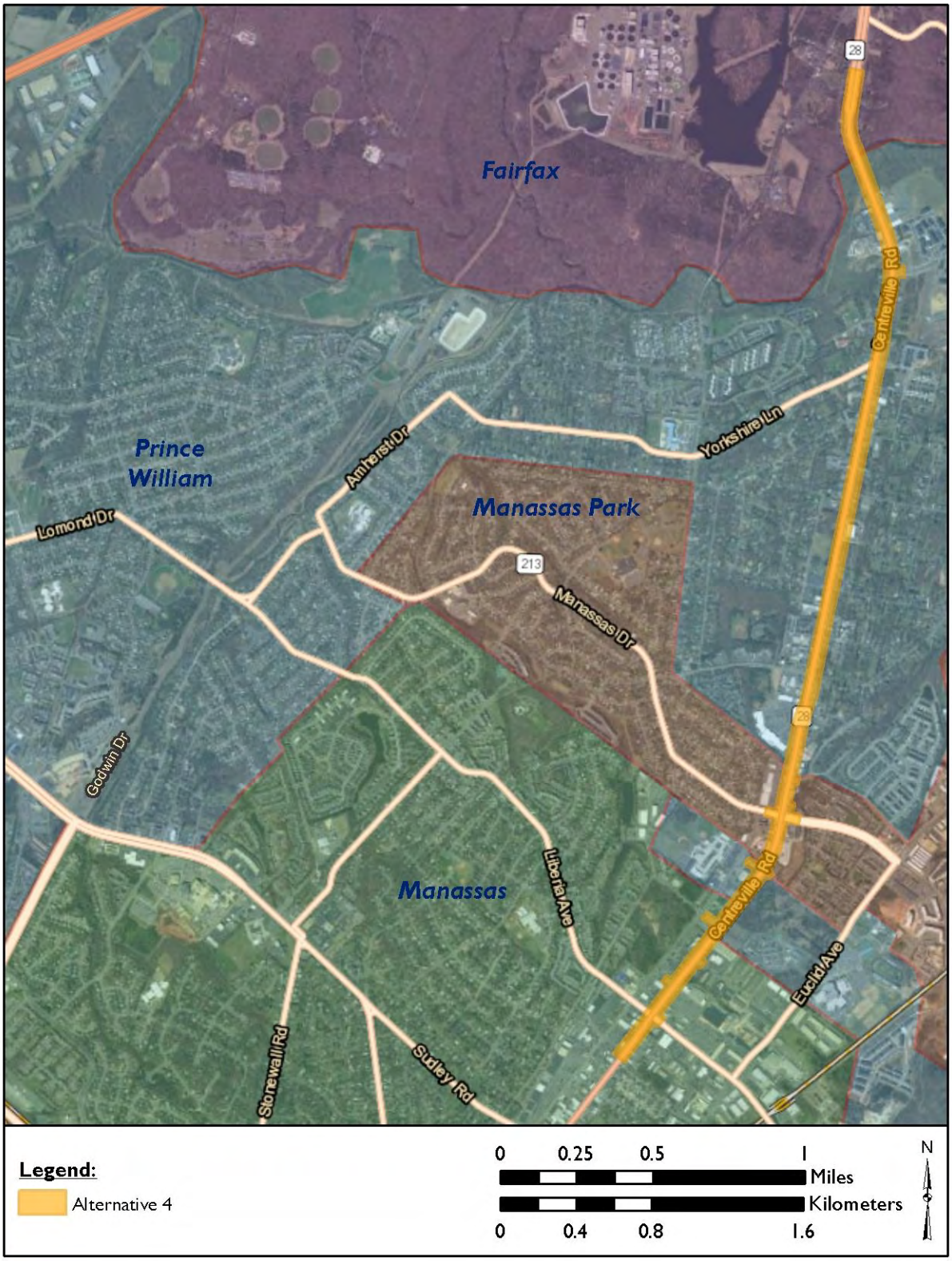

Figure 5: Location of Alternative 4 (Esri 2017).

Photo 1: View North from Liberia Avenue Showing the Development along Route 28 in Alternative 4.

Photo 2: View North Showing Marked Utility Line in Alternative 4.

Photo 3: View West Showing Quail Hollow Park in Alternative 2A.

Photo 4: View West Showing Woods North of Bull Run in Alternative 2B.

ENVIRONMENTAL SETTING

The project area is located in central Prince William County and western Fairfax County, Virginia, and in and near Manassas and Manassas Park. Prince William County was rural through the 1950s, but experienced considerable growth in population and development due to its proximity to Washington D.C., Interstate 66 (I-66), and Interstate 95 (I-95). At present, Manassas, Manassas Park, and Fairfax County are major regional population centers.

Geology and Topography

Prince William County extends from the Blue Ridge Mountain foothills to the northwest to the Coastal Plain east of I-95. The Piedmont Province, which encompasses the majority of the county, stretches west from the fall zone near I-95 to the Blue Ridge. Several elongated fault basins filled with lower Mesozoic sediments interrupt the Piedmont landscape. Although often referred to as Triassic basins, lower Jurassic rocks occur in the basins as well. The Culpeper Basin includes the project area. Common lithic material includes mudstone, siltstone, sandstone shales, arkosic rocks, and breccia (Dietrich 1990).

Hydrology

Tributaries of Bull Run drain the project area. Bull Run, which forms a portion of the boundary between Prince William and Fairfax Counties, flows south and east to join the Occoquan River. The Occoquan River empties into the Potomac River via Belmont Bay, near the town of Occoquan.

Soils

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

The Class 1 and 2 soils found on level to gently sloping landforms in the project area represent the most likely setting for prehistoric and historic sites. Although Class 2e soils tend to erode if exposed by land clearing, Class 2e soils are not as susceptible to erosion as soils found on slopes greater than 7 percent. Table 1 and Table 2 (pp. 13–14) present soil data for the overall project area to provide general information about the potential presence of archaeological resources. Development and infrastructure, however, have disturbed large

portions of all three alternatives. Consequently, the most relevant soil data applies primarily to the larger, undisturbed portions of the three project areas.

Alternative 2A extends through a relatively large section of undeveloped land between Old Centreville Road and Route 28, and another along Route 28 north of Orchard Bridge Drive. In the relatively undisturbed area, approximately 32 percent of soils were identified as Class 1 and 2 by the Natural Resources Conservation Service (NRCS).

The most important undisturbed portion of Alternative 2B extends north and east from Bull Run to connect with Route 28 in Fairfax County. Class 1 and 2 soils form approximately 28 percent of the segment of Alternative 2B in Fairfax County.

In the undeveloped area in the northern portion of Alternative 4, Class 1 and 2 soils constitute approximately 26 percent of the area north of Orchard Bridge Drive. In sum, the differences appear relatively minor, in part because the section of Route 28 in Fairfax County contributes to the results for all three alternatives. In addition, the locations of specialized sites, like mills and Civil War camps, earthworks, and battlefields, were chosen with different requirements. Therefore, soil class may not be relevant to the location of specialized sites.

Table 1: Soils in the Fairfax County Portion of the Project Area (Soil Survey Staff 2017).

Soil Name	Class	Slope	Characteristics	Alternative
Bermudian silt loam	2w	0–2%	Well drained, occasionally flooded; alluvium	2B
Birdsboro loam	2e	2–7%	Moderately well drained; old alluvium derived from igneous, metamorphic, and sedimentary rock	2B
Chantilly-Ashburn complex	2e	2–7%	Well drained; reworked alluvium over residuum weathered from shale and siltstone	4
Chantilly-Birdsboro complex	2e	2–7%	Well to moderately well drained; mine spoil or earthy fill derived from sandstone and shale; old alluvium derived from igneous, metamorphic, and sedimentary rock	2B
Chantilly-Nestoria complex	2e/6e	25–45%	Well drained; mine spoil or earthy fill derived from sandstone and shale, residuum derived from shale and siltstone	2A, 2B, 4
Chantilly-Penn complex	2e/3e	2–7%	Well drained; mine spoil or earthy fill derived from sandstone and shale, residuum derived from shale and siltstone	2A, 2B, 4
Chantilly-Penn complex	2e, 4e	7–15%	Well drained; mine spoil or earthy fill derived from sandstone and shale, residuum derived from shale and siltstone	2A, 2B, 4
Delanco loam	2w	2–7%	Well drained; residuum derived from shale and siltstone	4
Nestoria channery silt loam	6e	25–45%	Well drained; residuum derived from igneous, metamorphic, and sedimentary rock	4
Panorama loam	2e	2–7%	Well drained; residuum derived from shale and siltstone	4
Penn silt loam	2e	2–7%	Well drained; residuum derived from shale and siltstone	4
Penn silt loam	3e	2–7%	Well drained; residuum derived from shale and siltstone	4
Rhodhiss-Rock Outcrop complex	7e	25–45	Well drained; residuum derived from mica schist and/or from granite and/or gneiss	4
Urban land	8s	NA	NA	4

Table 2: Soils in the Prince William County Portion of the Project Area (Soil Survey Staff 2017).

Soil Name	Class	Slope	Characteristics	Alternative
Albano silt loam	5w	0–4%	Poorly drained; alluvium over Triassic residuum	2A, 2B, 4
Arcola silt loam	2e	2–7%	Well drained; Triassic residuum	2A, 2B, 4
Arcola-Nestoria complex	3e/4e	7–15%	Well drained; Triassic residuum	2A, 2B, 4
Arcola-Nestoria complex	4e/6e	15–25%	Well drained; Triassic residuum	4
Bermudian silt loam	1	0–2%	Well drained; alluvium	2A, 2B, 4
Brentsville sandy loam	2e	2–7%	Well drained; Triassic residuum	4
Brentsville sandy loam	3e	7–15%	Well drained; Triassic residuum	4
Calverton silt loam	3w	0–7%	Moderately well drained; Triassic residuum	2A, 4
Dulles silt loam	4w	0–2%	Somewhat poorly drained; residuum derived from schist and siltstone	2A, 2B, 4
Manassas silt loam	2e	2–7%	Moderately well drained; Triassic residuum	2A, 2B, 4
Panorama silt loam	2e	2–7%	Well drained; Triassic residuum	2A, 2B, 4
Reaville silt loam	3w	0–4%	Somewhat poorly drained; Triassic residuum	2A, 2B, 4
Rowland silt loam	2w	0–2%	Moderately well drained; Triassic residuum	2A, 4
Urban Land-	NA	NA	NA	2A, 2B, 4

HISTORIC CONTEXT

Virginia's Native American prehistory typically is divided into three main periods, Paleoindian, Archaic, and Woodland, based on changes in material culture and settlement systems. Recently, the possibility of a human presence in the region that pre-dates the Paleoindian period has moved from remote to probable; for this reason, a Pre-Clovis discussion precedes the traditional tripartite division of Virginia's Native American history. The seventeenth-through-twentieth-century historical overview follows the Virginia Department of Historic Resources (DHR) 2017 guidelines. The cultural context, as defined by the DHR's 2017 *Guidelines for Conducting Cultural Resource Survey in Virginia* Secretary of the Interior's *Standards and Guidelines* for Archaeology (United States Department of the Interior [DOI] 1993), provides the historic information required for evaluation of any archaeological and architectural resources present within the project area.

Prehistoric Period

Pre-Clovis (?–13,000 B.P.)

The 1927 discovery, at Folsom, New Mexico, of a fluted point in the ribs of an extinct species of bison proved that ancient North Americans had immigrated during the Pleistocene. It did not, however, establish the precise timing of the arrival of humans in the Americas, nor did it adequately resolve questions about the lifestyle of those societies (Meltzer 1988:2–3). Recent discoveries imply that humans occupied the Americas, including Maryland, prior to the appearance of Clovis fluted points in the archaeological record (Boyd 2003; Carr 2018; Goodyear 2005; Wholey and Nash 2018:1). Buried strata at the Cactus Hill Site, in Sussex County, Virginia, have returned radiocarbon dates of 15,000 years ago from strata situated below levels containing fluted points (McAvoy and McAvoy 1997:165), and Lowery et al. (2010) describe a possible pre-Clovis assemblage collected from the Miles Point Site (18TA365) in Talbot County, Maryland.

At Cactus Hill, McAvoy's team encountered artifacts and charcoal separated from the Paleoindian period level by 3.0 to 4.0 inches (7.6 to 10.2 cm) of sterile sands. Subsequent fieldwork confirmed the presence of artifact-bearing strata located between 3.0 and 8.0 inches (7.6 and 20.3 cm) below the fluted-point levels. The artifacts recovered from the pre-fluted-point levels present a striking contrast with the tool kit typically used by Paleoindians. Rather than relying on extensively finished chert knives, scraping tools, and spear points, the Pre-Clovis peoples used a different but highly refined stone technology. Prismatic blade-like flakes of quartzite, chipped from specially prepared cobbles and lightly worked along one side to produce a sharp edge, constitute the majority of the stone cutting and scraping tools. Sandstone grinding and abrading tools, possibly indicating production of wood and bone tools or ornaments, also occurred in significant numbers in the deepest artifact-bearing strata (McAvoy and McAvoy 1997).

Because these tools do not possess unique characteristics which immediately identify them as dating to the Pleistocene, archaeologists must recognize the possibility that Pre-Clovis period

sites have been overlooked for years. At present, only a handful of potential Pre-Clovis period sites have been identified in North America (Boyd 2003; Goodyear 2005).

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

In the decades following the discovery at Folsom, New Mexico, the association of fluted points with the bones of large, extinct mammals, in particular mastodons, on the western plains coupled with the scarcity of other Paleoindian sites, led to the inference that the Paleoindian subsistence strategy centered on the pursuit of big-game. This picture, however, exaggerates the reliance of western Paleoindian groups on large game, and appears to be of limited relevance to eastern Paleoindian life (Gingerich 2011). The archaeological data from Virginia compiled by Dr. Ben McCary records numerous discoveries of fluted points, but no unambiguous association between extinct large game and fluted points (Boyd 1989:139). A similar situation occurs throughout the eastern United States. For this reason, many archaeologists now hold that eastern Paleoindians were generalized foragers (e.g., Carr 2018:235–236; Gingerich 2011; Grayson and Meltzer 2003; but see Fiedel and Haynes 2004).

Most large Paleoindian sites in the southeastern United States are quarry or quarry-related (Meltzer 1988:21), though multiple band aggregation sites also occur (McAvoy 1992:145). Recognizable sites most often result from long-term habitation or repeated use of the same location. For example, the common occurrence of quarry or quarry-related sites implies that stone outcrops were regularly revisited. The Thunderbird Site in the Shenandoah Valley (Gardner 1974) and the Williamson Site in south-central Virginia (McCary 1951, 1975, 1983) rank among the most important Paleoindian sites in Virginia, and in the eastern U.S. as a whole. Both sites represent large camps associated with local sources of high-grade cryptocrystalline lithic materials (Gardner 1989).

Though the full range of available lithic resources was used to manufacture fluted points (e.g., Hranicky 2009; Phelps 1983), a number of studies have noted a focus on cryptocrystalline materials (e.g., chert, jasper, chalcedony) (Gardner 1974, 1989; Goodyear 1979). The recovery of cryptocrystalline materials at locations far removed from quarries indicates exchange of crypocrystalline material or tools, extensive group movement over a large region, or both characterized Paleoindian peoples. In addition, the very limited differences between sites and within sites suggest that most people had access to all available resources, while the small size of most Paleoindian sites indicates group size generally was limited to extended families.

In concert, the evidence suggests wide-ranging mobility and a social order involving low-level inter- and intra-group exchange and limited, if any, status differences between and within groups. Ethnographers have grouped such societies under the rubric of the "foraging mode of production." Such societies, notably the San of the Kalahari, are fiercely egalitarian, resisting attempts to garner individual power through a combination of ridicule, sharing, and a fission-fusion pattern of settlement. If all else fails, egalitarian hunter-gatherers "vote with their feet," moving away from the offending individuals (Lee 1979). The combination of high mobility, the absence of domesticated crops, and an egalitarian ideology precludes

construction of elaborate housing, extensive storage facilities, and accumulation of non-portable goods.

Archaic (10,000 to 3000 B.P.)

The Archaic period began with the northward retreat of periglacial environments and the appearance of archaeological assemblages lacking fluted points (Barber 2003). In the Chesapeake Bay region, a shift from moist, cool conditions to a warmer, drier climate accompanied the glacial retreat. In response to changing climatic conditions, in particular the receding ice-sheets (Barber 2003; Boyd 2003), Chesapeake Bay sea levels rose continuously from roughly 15,000 years ago to the present. Simultaneously, local subsidence of the earth's crust also may have contributed to the formation of the Chesapeake Bay and Albemarle Sound. Between 15,000 and 14,000 years ago, the waters of the Atlantic Ocean began to submerge portions of the continental shelf. For every 1 foot (30 cm) of sea level rise, approximately 1,675 feet (510 m) of the shelf were inundated. Ten thousand years ago, the sea began to flood the mouth of the ancestral Susquehanna River, located near the present-day mouth of the Chesapeake Bay. Sea level rose at 0.1 inch (0.2 cm) per year between 8,000 and 3,000 years ago. At 8,000 years ago, the head of the ancestral bay was near Smith Island, at 5,000, near Annapolis, and by 3,000 years ago, it had reached the Sassafras River (Brush 1986:149). Numerous archaeologists suggest that the stabilization of water levels in the bay at this time provided the necessary conditions for the development of extensive shellfish beds and habitats favorable for anadromous fish (e.g., Waselkov 1982). After approximately 2950 B.P., sea level rise slowed to approximately 0.5 inch (0.12 cm) per year, and the Chesapeake Bay approached its present contours (Brush 1986:149; Dent 1995:69–95). As sea levels stabilized, the region's rivers also approximated the modern configuration and, at a broad scale, essentially modern environments emerged (Barber 2003; Blanton 2003; Tolley 2003).

In the Virginia Piedmont, a more temperate climate characterized by greater seasonal variation in temperatures emerged as the Chesapeake estuary formed (Dent 1995:147). Vegetation changed from the patchy forest that lacked modern analogs to a mixed conifer-deciduous forest. An essentially modern floral assemblage has been inferred based on pollen data derived from 6000–5000 B.P. contexts (Brush 1986:151; Webb 1988:405), though relative abundances of taxa fluctuated thereafter. During the Holocene, as paleoclimatologists term the post-Pleistocene epoch, humans responded to emerging differences in the availability of resources over the course of the year via increasing seasonal mobility (Barber 2003; Tolley 2003).

In addition, in contrast with the broad similarity among Paleoindian point forms, distinct style zones developed during the Early and Middle Archaic (10,000–8500 B.P.). The Atlantic Coast/Southeastern stylistic sequence was not characteristic of the Midwest (Ford 1974:392). In addition, increased use of locally-available lithics occurred between 10,000 and 8500 B.P. (Custer 1990:36; Sassaman et al. 1988:85–88). The reduction of the size of style zones and the focus on local lithic materials implies contracting social networks and incipient territories, possibly a reaction to population growth (Anderson and Hanson 1988:271).

Despite changes in patterns of mobility and point form, numerous archaeologists argue on environmental (Custer 1990:2–8) and subsistence (Smith 1986) grounds for continuity in

social dynamics between 10,000 and 7000 B.P. From this point of view, Dalton through LeCroy populations exhibited "general similarities and regional habitat-related variation in settlement-subsistence patterns and material culture assemblages" (Smith 1986:10). Band-level social organization involving seasonal movements corresponding to the seasonal availability of resources and, in some instances, shorter-interval movement characterized Archaic societies. Reliance on ground-stone technology increased during the Archaic. New tool categories associated with the Archaic include celts, net sinkers, pestles, pecked stones, and axes. Archaic knappers produced chipped-stone versions of celts and axes.

A shift towards more expedient use of stone marks the beginning of the Middle Archaic period across much of the Atlantic Slope and Southeast (Amick and Carr 1996:43–45; Justice 1995). In this area of Virginia, the most common Middle Archaic period projectile point types are (from oldest to most recent) LeCroy, Stanly, Morrow Mountain and Guilford, followed by the side-notched Halifax type sometime after 5450 B.P. Informal modified flakes to some extent replaced formal unifacial tools, and local materials constitute a greater percentage of Middle Archaic period assemblages than had been true of earlier time periods. Sites occur throughout the landscape, including beneath the now-inundated Chesapeake Bay (Blanton 1996; Dent 1995:173–178).

Stemmed and notched knife and spear points, including various large, broad-bladed stemmed knives and projectile points (e.g., Savannah River, Susquehanna, Perkiomen points), rank among the most distinctive and securely dated Late Archaic point forms (Coe 1964; Dent 1995; Justice 1995; Ritchie 1971). Marked increases in population, and, in some areas, decreased mobility appear to characterize the Late Archaic throughout eastern North America. Locally, the increase in the number of Halifax and Savannah River components and sites relative to the preceding periods suggests population rose in Virginia between about 5500 and 3000 B.P. Late Archaic sites occur in greater numbers and in a wider range of environments than sites associated with the Early and Middle Archaic (Klein and Klatka 1991). In addition, near the end of the Late Archaic, labor-intensive vessels carved from soapstone quarried in the Piedmont formed an important aspect of some assemblages (Blanton 2003: 188; cf. also Geier 1990; McLearen 1991).

Mouer (1991:262) believes it likely that “at least intensive harvesting of wild seeds,” if not the beginnings of domestication, characterized Transitional through Early Woodland times (circa 4000–2500 B.P.) in the Chesapeake Region, as it did in the Midwest (Smith 2007, 2011). For example, in eastern North America in general, changes in the relative frequency of gray squirrels versus fox squirrels in Late Archaic assemblages have been cited as evidence that Native Americans encouraged the growth of nut- and mast-bearing trees; similarly, the increase in the range and frequency of undomesticated maygrass, knotweed, and little barley in archaeological assemblages circa 3000–2000 B.P. indicates encouragement, and perhaps incipient domestication, of these weedy invaders of disturbed ground (Smith 2007:192). This process, however, proceeded at an even rate across neither the Eastern Woodlands nor the Middle Atlantic Region (Stewart 1995:184–185). Experiments with domestication in the Midcontinent indicate the possibility, even the likelihood, that the inhabitants of the Middle Atlantic at least encouraged the growth of small grains and other plants (Hodges 1991:228–230; Mouer 1991:259–263). “Scant” evidence for early cultivation, however, appears in the archaeological record from Virginia (Blanton

2003:193; Mouer 1991:259). Nevertheless, the possible presence of Late Archaic storage pits in western Virginia perhaps indicates intensification of the type of environmental manipulation that eventually led to the appearance of cultivars like chenopodium in the region (Blanton 2003:194–195).

Soapstone bowls are a well-known feature of Late Archaic exchange systems (McLearen 1991:107–8). More generally, Stewart (1989:52) argues for broad-based exchange of "artifacts made from jasper, argillite, rhyolite, ironstone, soapstone, midwestern lithics, obsidian, marine shell and copper" throughout the Middle Atlantic region during the Late Archaic. Thus, Late Archaic society clearly differed from that of earlier times. The production and wide-spread exchange of utilitarian and ritually important, labor-intensive goods does not fit the expected archaeological signature of highly egalitarian foragers. Rather, a social order exhibiting some sort of status differences among individuals or groups (Mouer 1991:265) and somewhat restricted group movement (Stewart 1989:57) likely existed. This pattern, however, was not uniform throughout the state (Blanton 2003).

Woodland (3000 to 350 B.P.)

Woodland peoples continued to depend on various combinations of hunting, gathering, and fishing for over a millennium. The onset of the Woodland period traditionally correlates with the appearance of ceramics (Willey and Phillips 1958:118). Early theorists linked ceramics with agriculture, though few continue to support this position (cf. reviews in Egloff 1991; Hodges 1991). Rather, the evolution of subsistence and technological systems (e.g., Gardner 1982) and various aspects of pan-Eastern interaction (e.g., Egloff 1991; Klein 1997) currently are believed to underlie the evolution of ceramic containers.

The steatite-tempered Marcey Creek type and variants containing other mineral inclusions appear to date between 3200 and 2800 B.P. (Egloff 1991:244–5). However, though friable sand-and-grit-tempered Accokeek Creek and Elk Island ceramics appear stratigraphically subsequent to Marcey Creek, associated C-14 dates range from 3000 through 2500 B.P. Klein and Stevens (1996) cite regional data to support the proposition that, while the thickness, amount of temper, and size of temper in quartz/sand-tempered, cord-marked ceramics shifted over time, similar pots continued in use into Middle Woodland times.

Radiocarbon dates recommend placement of the Calvert and Fishtail points in the Early Woodland (Inashima 2008). Ovoid to lozenge-shaped points, classified as Teardrop Points, have been dated to 2900−2000 B.P. in the Northeast (Mounier and Martin 1994). However, similar points have been recovered from Middle Archaic through Middle Woodland I contexts in North Carolina and Virginia (Kirchen 2001:53–69). The Potts Corner-Notched point type, the Vernon point type, and the Claggett point type have been dated only through stratigraphic context and/or association with early ceramics (Inashima 2008; Stephenson 1963). Similarly, a variety of small stemmed and side-notched forms of assumed association with the Early Woodland period lack definitive temporal assignment (Dent 1995:227–228).

Small bifaces and expedient tools such as drills, perforators, and scrapers as well as utilized flakes are a common part of the Early Woodland tool kit. Other lithic artifacts reported on Early Woodland sites in the Chesapeake include bipolar flakes possibly used as knives or

scrapers, hammerstones, net sinkers, mortars, and pestles (McLearen 1991). Also noted on sites in the region are tools of bone, and projectile points manufactured from antler, bone, turkey spurs, and shark's teeth (Waselkov 1982).

Net-impressed ceramics appear after roughly 2500 B.P., marking the beginning of the Middle Woodland I period (Blanton 1992:72–3; Egloff and Potter 1982:99). However, cord-marked ceramics and stemmed points continued in use for some time after 1500 B.P. (McLearen 1992:44–5). The appearance of assemblages containing significant amounts of durable ceramics after 2500 B.P. indicates a shift in the organization of production occurred during the Middle Woodland (Brown 1986; 1989). In addition to the advantages of ceramic vessels as cooking pots, ceramic production contrasts with the manufacture of baskets and wooden in its embrace of economies of scale. Rather than a start-and-stop process that fits well into odd bits of time, ceramic production required greater scheduling and continued attention over an extended period of time. Shifts in the scheduling of at least women's work, therefore, accompanied the transition from Early to Middle Woodland times.

Yet, broad-spectrum hunting-fishing-gathering continued to characterize the region as a whole throughout the Middle Woodland. Shellfish, anadromous and resident fishes, deer, waterfowl, and turkey ranked high among the important fauna in the Middle Woodland diet. Various nuts, amaranth, and chenopod seeds also appear to be important resources during this period. After 2300 B.P., large shell middens containing dense concentrations of artifacts become increasingly common, indicating repeated use of at least one type of site. Middens and the presence of houses at a number of sites indicate longer stays, though populations remained far from sedentary (Gallivan 2003, 2016). People continued to reside for much of the year in relatively small settlements, and interior storage features rarely occur on Middle Woodland sites (Gallivan 2003:75–98). In short, small groups continued to live within relatively small settlements for much of the year during the Middle Woodland. Periodic aggregations brought together groups for feasting, gift exchange, and the opportunity for marriage ties with residents of other communities (Gallivan 2016:94).

Enormous changes transformed the social landscape of eastern North America in the centuries after 900 B.P. Archaeological research in the Middle Atlantic indicates that population growth, increased sedentism, a focus of settlement on the major rivers, heightened frequency of regional exchange, more varied mortuary activities, the introduction of maize agriculture, and increasingly focal exploitation of marine resources characterized the centuries between 900 and 350 B.P (Curry 1999, 2015; Gallivan 2003, 2006; Gold 2004; Hodges 2004; Klein 2017; Mahoney 2009; Shephard 2015). Triangular projectile points, ubiquitous by 900 B.P., may decrease in size between 900 and 300 B.P., coincidental perhaps with heightened reliance on the bow and arrow.

Heightened diversity characterizes surface treatments and decoration in ceramic assemblages recovered from Late Woodland sites in the Potomac Valley. Quartz-tempered Albemarle and Shepherd wares occur in the Piedmont during the early portion of the Late Woodland. In the Potomac and Rappahannock River valleys, Potomac Creek ware, a sand- or quartz-tempered, cord-marked and plain ceramic, occurs widely. Limestone-tempered Page ware with cordmarked and fabric-impressed surfaces and shell-tempered Keyser Cordmarked vessels occur in the western Piedmont and northern Shenandoah Valley. In the Coastal Plain, shell-

tempered Townsend Fabric-Impressed vessels occur widely (Hantman and Klein 1992; Potter 1993; Turner 1992). Elaborately decorated and unelaborated ceramic smoking pipes also appear during the Late Woodland period (e.g., Magoon 1999; Stephenson 1963). Bone was used for utilitarian and other items, including pins, fishhooks, and flutes.

The larger base camps, hamlets, and villages typically occupied the floodplains adjacent to rivers or major tributaries. Floodplain stability increases after 1700 B.P. along the major streams, increasing the potential for locating intact sites dating to the Late Woodland eras (Klein 2003). Small seasonal camps and satellite camps supporting nearby villages and hamlets occur along smaller streams in the interior and in the interstices between villages and hamlets (Hodges 2004).

Potter (1993) suggests that palisaded settlements occurred near boundaries between groups. Palisaded settlements in the Potomac Valley included Patawomeke (44ST0002), on Potomac Neck southeast of the project area, and Accokeek Creek (18PG8), near the mouth of Piscataway Creek in Maryland. In addition to palisaded settlements, nucleated villages lacking palisades, dispersed hamlets, and temporary camps occurred. Work by Gallivan 2016), Hodges and Hodges (1994), Turner and Opperman (n.d.), Potter (1993), and Turner 2004), suggest that dispersed villages were common throughout the region. Beyond and within villages, communal burials occurred (Curry 1999:68, 2015; Klein 2017). Exchange, of shell and copper in particular, expanded after 400 B.P (Gallivan 2003; Shephard 2015). Rather than resulting from the emergence of chiefdoms, the larger villages and communal burials were settings where that process played out.

Chiefdom-level societies, based on hereditary inequality, developed in coastal Virginia during this time (Gallivan 2003, 2016; Potter 1993). Oft-cited explanations for status differences in the Middle Atlantic, regardless of the precise interpretation involved, emphasize the entwined effects of climatic change, a growing population, and the incorporation of maize in the Amerindian diet after 1100 B.P. Gallivan (2003: 125, 156–160) points to the interplay of various factors subsumed under cycling models to explain the emergence of inequality in the James River Valley. The Piscataway, in Potter's (1993:150) formulation, began as an alliance between related groups no later than the 1500s. During the seventeenth century, the entity was referred to as the Conoy Chiefdom.

Historic Period

Europeans increasingly affected the North American landscape after 1500. British, French, and Spanish expeditions visited the Chesapeake Bay and its tributary rivers beginning in the mid- to late-sixteenth century (Quinn 1985). Captain Vincente Gonzalez and Juan Menendez Marques likely visited Chesapeake Bay in 1588. These Spaniards, searching for Sir Walter Raleigh's colonists, "sailed along the western shore of the Chesapeake Bay to its head and then traced the western coast of the Eastern Shore" and most likely encountered the region's inhabitants (Lewis and Loomie 1953:186–202). In the late-sixteenth century (circa 1570), a Spanish Jesuit mission was established, most likely along the York River's southern bank. It failed, meeting a violent fate at the hands of local Indians. In 1585–1586, a small party of English explorers from Roanoke Island in present-day North Carolina arrived in the Hampton Roads region. The party, which camped near the mouth of the James River, had amiable

relations with local peoples residing along the Lynnhaven River (Quinn 1985; Rountree et al. 2007). Sustained contact between Native Americans and Europeans, however, began with the construction of the English fort at Jamestown in 1607.

The Jamestown Colonist John Smith's map of the Chesapeake and environs shows numerous Native American villages lining the Potomac River (Smith 1624). No settlements, however, appear in the Potomac River Piedmont. Regardless, the continued growth of European population destroyed the Chesapeake world observed by John Smith in 1607 (Potter 1993:179–98). Furthermore, as Potter (1989:167) argues, the brief Chesapeake region fur trade "created new possibilities for ownership of copper and other European items .... Status achievement was now open to more people who could compete for elite positions by acquiring wealth and employing symbols previously reserved to the werowances and others of high status." This breakdown of the old social mores heightened potential for violence by diminishing the authority of elders and elites as the English arrival rent the spatial fabric of the Chesapeake exchange system. Moreover, "losing the land meant the loss of many sacred places that gave the Indian world much of its meaning" (Rountree 1989:199).

Settlement to Society (1607–1750)

Although early European exploration of modern day Prince William County began with Captain John Smith's voyages up the rivers of the Chesapeake Bay from 1607 to 1609, the roots of Prince William County history lie in the many land transactions that occurred during the seventeenth and eighteenth centuries. During the early colonial era, the epicenter of political power in Virginia was the tidewater portions of the James and York River basins (Dill 1979:301). The Potomac Valley differed from the areas to the south in the system of land distribution, pattern of immigration, and the economic base that developed. The northern Virginia landholder was the tenant of a proprietary owner or owners.

In 1649, Charles II, the exiled son of the deposed King Charles I, rewarded Ralph Horton, Henry Wyatt, and Thomas Culpepper with title to all land adjacent to the navigable portions of the Rappahannock and Potomac Rivers. In 1688, James II expanded this grant to include all lands within these watersheds. By the 1700s, when the domain passed into the hands of the 6th Lord Fairfax, who remained sole proprietor until the outbreak of the Revolution, settlement was well underway (Dill 1979:301).

Prior to 1649, the entire Northern Neck had been designated by the Assembly as one large county called Northumberland. As the population grew and spread north and west, new counties were created. In 1653, Westmoreland County was founded, comprising the majority of the northern portion of Northumberland—at the same time, the first patent was issued for land in Prince William County in 1653 (Evans 1989:14). Stafford County was then created from the northern portion of Westmoreland in 1664. In each case, the new county encompassed the area between its southern border and the Potomac River (Netherton and Sweig 1978).

Demand for a new county increased as the population of Stafford spread, and hardship for the new residents escalated after 1722 due to the distance from the Stafford County courthouse, resulting in a bill dividing Stafford County into two parts (Harrison 1987:312). After the first

bill failed in 1726, a second, passed on July 9, 1730, formed Prince William County. The county was named in honor of Prince William Augustus, Duke of Cumberland, and the youngest son of King George II (Brown 1994:22). The act forming Prince William County specified that:

> all the lands on the head of the said Counties, above Chopawansick Creek on Potomac River, and Deep Run on Rappahannock River, and a southwest line to be made from the head of the north branch of said creek, to the head of the said Deep Run...be made a distinct county, and shall be called and known by the name of Prince William County (cited in Harrison 1987:312).

The act specified no northern or western limits for the county; therefore, its original territory included the current areas of Fairfax, Arlington, Alexandria, Loudoun, and Fauquier Counties, and, in some interpretations, the Rappahannock and Shenandoah River Valleys (Harrison 1987:312–314). By 1758, the county was restricted to its present bounds (Doran 1987).

At the time of its formation, the inhabitants of the new county consisted of several large plantation owners situated on the Potomac River and a number of dispersed smaller farms inland with no major towns other than the beginnings of a small settlement that would later become Dumfries (Brown 1994:23). Both the owners of large plantations and the smaller farms grew crops and raised livestock in order to take care of their families and servants. The major cash crop, however, was tobacco to be exported to England (Brown 1994:24).

The first settlements were warehouses and wharfs located along the rivers and creeks of eastern Prince William. Herrman's (1673) map illustrates the riverine orientation of settlement, but not the specific location of individual dwellings and plantations or interior settlements. These shoreline landings shifted location as the Occoquan, Neabsco, Quantico and Chopawamsic estuaries meandered and silted in (Scheel 1993).

Colony to Nation (1750–1789)

The first permanent settlement chartered in Prince William County was the town of Dumfries, founded in 1749 by John Graham (Vitucci and Ruehrwein 1991:6). Dumfries quickly established itself as a county leader and became the county seat in 1759 (Evans 1989:22; Ratcliffe 1978:12). Located on Quantico Creek, Dumfries was a busy port, where goods and services were exchanged with both domestic and foreign markets. By 1800, however, silt clogged the channels and limited the access of large ships into the port of Dumfries (Ratcliffe 1978:43).

During the eighteenth-century, Native American footpaths became colonial roads. The Potomac Path, which ran along the Potomac River, connected Alexandria to Fredericksburg and facilitated north-south overland travel. The Potomac Path (approximately present-day Route 1) connected to the turnpikes of Fairfax County and provided an extensive network for travel within northern Virginia (Vitucci and Ruehrwein 1991:24).

Early National (1789–1830) and Antebellum Periods (1830–1860)

A century of tobacco production eroded and destroyed fertile farmland. Emigrants from the Northeast, excited by a longer growing season and cheap farmland, came from New York, New Jersey, and New England with new techniques and crops. Instead of raising and trading tobacco, new agriculturalists produced the fresh vegetables and staple crops needed by the growing urban centers of the eastern mid-Atlantic. They brought with them a new knowledge of agriculture, including the chemistry of fertilizers and the technique of crop rotation. These trends, as well as the turmoil and trade embargoes of the War of 1812, brought about significant change in the economy of Virginia, and especially northern Virginia.

Religious and cultural change occurred as the influx of individuals from the north continued into the mid-nineteenth century. Many of the new settlers were Quakers, who brought with them abolitionist attitudes and solidified the failing slave trade and transitional agricultural market.

As the nearby urban cores of Washington, D.C. and Alexandria, Virginia expanded (combined population of 90,000 in 1860), the proximity of fresh agricultural goods made agriculture in northern Virginia profitable again (Netherton and Netherton 1992:13). Movement of agricultural goods was possible due to the growing road, rail, and canal systems of northern Virginia.

The Civil War (1860–1865)

Four Civil War battles took place in the immediate vicinity of the project area: the July 1861 Battle of Blackburn's Ford (029-5117; VA004); the July 1861 First Battle of Manassas (076-5335; VA005), also known as First Bull Run; the August 1862 Manassas Station Operations (076-5036; VA026), also known as Bristoe Station or Kettle Run; and the August 1862 Second Battle of Manassas (076-5190; VA0026), also known as Second Bull Run or Groveton. The Blackburn's Ford Battlefield (029-5117/VA004) included much of the project area near Bull Run. Three days before First Manassas, the clash of armies centered around two fords on Bull Run, Blackburn's Ford and Mitchell's Ford. Blackburn's Ford was near the present-day Route 28 bridge over Bull Run, while Mitchell's Ford was approximately 0.5 mile (0.8 km) to the west.

On July 16, 1861, Union Brigadier General Irvin McDowell began to march an unskilled army from Washington against the Confederate army. Repeated delays impeded progress. Concurrently, the southern commander, Brigadier General P. G. T/ Beauregard, had massed his forces behind Bull Run. Beauregard had been warned of impending assault by the Confederate network of spies in the Federal capital (McPherson 1988:340; Salmon 2001:15–17).

On Thursday, July 18, 1861, McDowell dispatched 3,000 Union troops led by Brigadier General Daniel Tyler to reconnoiter the area and locate the Confederate left flank. Finding Centreville unoccupied by southern forces, Tyler and his men marched to Mitchell's Ford and Blackburn's Ford, both in the project area. Although both fords appeared lightly defended, a brigade commanded by Confederate Brigadier General James Longstreet was

concealed in the woods behind Blackburn's Ford. Tyler's howitzers opened the clash by firing on the positions of the Alexandria and Washington artillery, followed by an infantry advance on the ford. Confederate infantry fire alerted Tyler to the enemy's position and ordered the artillery to move forward as additional infantry advanced on the Blackburn's Ford. After approximately 20 minutes, as the 12th New York regiment began to retreat, a brigade under Colonel Jubal Early arrived. The southern artillery unleashed a barrage on the retreating Union soldiers as the battle ended. Development has obliterated much of the battlefield. Nevertheless, the NRHP-listed Mitchell's Ford Entrenchments remain on private land near the ford and additional subsurface remains of the battle may exist north of Mitchell's Ford and in undisturbed areas east and west of Route 28 (Salmon 2001:15–17).

First Manassas was the first major land battle of the armies in Virginia, and, despite the delays, McDowell's attack almost succeeded. Beauregard's regiments guarded a railroad bridge on the right flank, the Warrenton turnpike bridge, and manned positions behind multiple fords in between the flanks. Nevertheless, Beauregard expected McDowell to concentrate his assault on the railroad, and so deployed nine of his 10-plus brigades near the right flank. From that position, he planned a surprise attack on the Union forces on July 21 (McPherson 1988:340).

McDowell, however, had other plans. At 2 AM, 10,000 Union soldiers fought through underbrush during a 6.0-mile (9.7-km) march around the left flank, while other regiments feinted attacks on the Warrenton turnpike bridge. The flanking troops crossed Bull Run at a ford 2.0 miles (3.2 km) upstream from the bridge. Colonel Nathan Evans recognized the Union fire on the bridge as a feint, and noticed the dust cloud raised by the flanking column. Evans moved most of his troops toward the ford, and slowed the Union assault long enough for reinforcements to arrive. Nevertheless, outnumbered Confederates were forced to give ground, albeit slowly.

The day-long engagement required Confederate forces to retreat to Henry Hill. Relying on the railroad system of Prince William County, southern reinforcements arrived from the Shenandoah Valley by train and assisted Brigadier Generals Joseph E. Johnston and P.G.T. Beauregard in defeating the federal troops. After repeated attacks and counterattacks, a fresh brigade led by Thomas J. Jackson repulsed the Union assault, earning Jackson the nickname Stonewall. At the peak of the Union advance, the attackers were surprised by blue-clad southern troops who emerged from the woods, and Union cohesion faltered. At midafternoon, after nearly 14 hours of fighting, Beauregard ordered a counterattack that drove the Federal troops back. Initially a slow withdrawal, the Union retreat deteriorated into flight and the battle became a Southern rout. The bulk of the fighting occurred west of the project area; nevertheless, portions of the clash, particularly during the early and late stages of the fighting, impacted the project area (McPherson 1988: 340–345; National Park Service [NPS] 2002a; Ratcliffe 1978:112).

The following year, the Second Battle of Manassas (August 26–28, 1862) and the engagements at Manassas Station (August 25–27, 1862) and Thoroughfare Gap (August 28, 1862) were the culminating efforts of an offensive campaign waged by Confederate General Robert E. Lee and Major General Stonewall Jackson against the Army of Virginia, led by Major General John Pope. By securing Richmond earlier in the year, the Confederate

leadership chose to confront Pope and push him further into northern territory. Pope attempted an uncoordinated attack on the first day of battle and was unsuccessful at driving Jackson from his defensive position. On the following day Lee allowed Pope to fully engage with Confederate troops, while other southern forces, led by Longstreet, were able to envelop Pope. Union forces were overwhelmed and retreated towards Washington, D.C. (NPS 2002b; Ratcliffe 1978:113).

During the Second Battle of Manassas, Colonel Rosser moved his regiment to the left of the Manassas-Gainesville Road (Wellington Road) to engage the enemy. In order to convince the enemy that the confederate force was stronger than it really was, Rosser was instructed to have his men drag brush up and down the road. This left traces very similar to that of a large army marching down the road, a ruse which Porter's report shows was a success (United States War Department [Official Records] 1889).

On the morning of August 29th, a small skirmish had ensued at Thoroughfare Gap, where Union Brigadier General James Rickett unsuccessfully tried to advance toward Manassas. Rickett's loss enabled Confederate Lieutenant General James Longstreet to advance toward the Confederate forces in Northern Virginia and engage at Manassas (NPS 2002d).

After demolishing the supply depot, Jackson's troops had established a defensive position on a wooded ridge west of the First Manassas battlefield. From Stuart, Jackson learned that Longstreet had emerged from the fighting at Thoroughfare and headed toward Manassas. Meanwhile, a Union division unexpectedly happened upon Jackson's position, resulting in a firefight at dusk. After inflicting damage, the battered Union force withdrew in the gloaming and informed Pope of Jackson's whereabouts. Pope ordered a forced march during the night and morning of August 28–29. Pope's incorrect belief that Jackson would retreat toward Longstreet, rather than the latter advancing to support Jackson, led him to an assault before all his forces had arrived. During the fighting, Longstreet arrived and extended Jackson's flank.

Pope noted that several advanced Confederate brigades pulled back during the night to reestablish the line and surmised that the movement presaged retreat. Again, Pope ordered an attack, which a hail of bullets from the entrenched southerners halted. The attack resumed with a larger force, and nearly broke Jackson's line until stopped by enfilading fire from Longstreet's troops, followed by Longstreet's counterattack. Fighting raged along the line until sunset, when Pope's force fell back. Pope withdrew his troops toward Washington (McPherson 1988:528–533). The entire clash occurred west of the project area.

Reconstruction and Growth (1865–1917)

Following the Civil War, the town of Manassas, situated at a railroad junction, flourished (Evans 1989:48). Early railroad systems began appearing in northern Virginia before the Civil War (Evans 1989:47), but the full value was not realized until Confederate and Union leadership placed strategic value on the control of the rail lines within and leaving the county. Manassas grew as a railroad terminal, shipping goods to the Shenandoah Valley in the west and to the growing urban centers of Alexandria, Virginia and Washington, D.C. in the east.

Manassas was chartered as a town by the state legislature in 1873 and became the county seat in 1892.

In contrast to the growing importance of the railways in the western part of the county, the eastern half of the county—which had relied on waterways and overland roads for transportation—continued to falter and became economically stagnant. Not until the twentieth-century development of World War I projects and the interstate corridor would the eastern portion of the county be revived.

County-wide, education took a more important role; praiseworthy efforts to establish colleges were made, but failed. At the elementary and secondary levels, George Carr Round established Manassas Academy, which eventually became a public high school. George Round also encouraged Jennie Dean, an early African American leader, to establish Manassas Vocational Industrial School for Colored Youth (Evans 1989:48).

Agricultural production after the Civil War boomed as the need for agricultural goods and services grew. Just as had occurred in antebellum Prince William County, Washington, D.C.'s population growth and growing urbanization allowed the agriculturalists of Prince William to provide fresh vegetables, fruit, and hay to the growing urban elite. The region also became an emerging leader in the dairy industry, increasing the number of dairy operations in the county and developing "milk routes" and services to serve the row houses of the cities of the mid-Atlantic (Evans 1989:76). In 1920, 120 farmers in Prince William were members of the Milk Producer's Association (Evans 1989:77).

World War I to World War II (1917–1945)

As the United States grew closer to participation in World War I, the Marine Corps took on a greater role within the armed forces—expanding to be part of the American Expeditionary Force. The Marines had been stationed at naval bases since the Spanish-American War, but had since outgrown the space allotted to them. With a changing role (the Department of State had used the Marine Corps as a guerilla force in Central and South America), training conditions and bases needed to be modified (Blumenthal 2003:7). In 1917, Marine officers leased a plot of 5,300 acres (2,145 ha) located near Quantico. Later that year, the leasing company fell into hardship and was forced to sell the property to the United States government (Evans 1989:68). The Marine Corps Reservation continued to grow throughout World War II, promoting residential growth in Prince William County. Prince William County evolved into a center of federal activity during the 1930s (Evans 1989:104).

The growing urban populations and the emerging automotive culture led the Franklin D. Roosevelt Administration to set land aside in the early 1930s as a place for environmental education and recreation. The Civilian Conservation Corps constructed five cabin camps and several small lakes. In 1936, legislation established the area as the Chopawamsic Recreation Demonstration Area (NPS 2005). During World War II, the newly constructed cabin camps were used to house and train allied spies for the Office of Strategic Services, the precursor to the CIA (Evans 1989:118). The park was returned to National Park Service stewardship after the war and has been named Prince William Forest Park since (Evans 1989:122; NPS 2005).

The New Dominion (1945–Present)

The years following World War II were crucial in defining the landscape of Prince William County known today. The federal government expanded, bringing with it lobbying groups and research and development enterprises (Evans 1989:130). The 1956 Highway Act paved the way for I-95, rolling southward from Washington, D.C., and I-66, which stretches west from Washington to the Shenandoah Valley. The superhighways and the expansion of the federal government brought commuters to Manassas and elsewhere in Prince William County (Evans 1989:130). Throughout the 1950s, 1960s, and 1970s, the area surrounding downtown Manassas experienced extreme residential growth. Landowners subdivided large tracts of land with the purpose of building single-family neighborhoods. Many of these new areas have curvilinear streets sometimes terminating in a cul-de-sac (Nationwide Environmental Title Research, LLC [NETR] 1938, 1957). Today, Manassas, Manassas Park, and the portions of the counties that immediately surround them are heavily developed with residential, commercial, religious, and educational properties.

SURVEY METHODOLOGY

The background research searched for evidence of previously recorded archaeological resources and examined documents that potentially provided evidence of resources located within the project area. The goals of the Phase IA survey were to identify any previously recorded historic properties within the project area and locate portions of the project area with the potential to contain archaeological resources over 50 years in age. The survey methodology employed to meet these goals was chosen with regard to the project's scope and local field conditions. Based on the topographic and environmental setting of the project area, as well as the antiquity of the surrounding road system and length of historic occupation, portions of the project area were judged to have a moderate to high potential for archaeological sites over 50 years in age.

Background Review and Map Review

Dovetail conducted a background literature and records review of the project area at the DHR, including an investigation of records on previous cultural resource investigations and previously recorded archaeological sites and architectural properties within a 0.5-mile (0.8-km) radius of the project area. In addition, Dovetail consulted various online repositories, resulting in the acquisition of additional historic maps on the property. The purpose of this work was to obtain information to complete a context of the property and surrounding area.

To complete the historic map review, Dovetail examined historic maps and other resources that potentially provided information about the location of historic resources within the project area. Because a plethora of archival documents are now available online, extensive travel was not required to complete the research. Online resources included the Library of Congress in Washington D.C., maps prepared by the American Battlefield Protection Program (ABPP), and resources available at the DHR.

Pedestrian Survey

The field survey consisted of Dovetail staff conducting a pedestrian survey to inspect the entire project area, paying particular attention to high and moderate probability areas and other areas of interest identified during the background research. Notes and photographs documented the landforms and field conditions. Once this was accomplished, Dovetail used the data collected during the survey to identify locations that had the potential for subsurface deposits and above-ground resources. No subsurface excavations occurred during this work, but exposed surfaces and surface anomalies were examined.

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BACKGROUND RESEARCH

The potential for archaeological resources within the project area was assessed by searching the DHR site file maps and records, as well as examining the Civil War Sites Advisory Commission (CWSAC) and ABPP maps for the area. This data helps to place the field and research findings within their appropriate context.

CWSAC/ABPP Map Review

The CWSAC/ABPP-defined Study Area of four battlefields, Blackburn's Ford (029-5117/VA004), First Manassas (076-5335/VA005), Manassas Station Operations (076-5036; VA026), and Second Manassas (076-5190; VA0026), include portions of Alternatives 2A, 2B, and 4 (Figure 6–Figure 9, pp. 32–35). However, the CWSAC-defined Core Area of only three of these battlefields (Blackburn's Ford, First Manassas, and Manassas Station Operations) intersect the alternatives and the CWSAC-defined potential NRHP (PotNR) boundaries of only two battlefields (Blackburn's Ford and First Manassas) intersect the alternatives.[1]

The 1861 Blackburn's Ford battle was centered on the area near the current Route 28 bridge over Bull Run, as well Mitchell's Ford to the west. Therefore, the core of the battlefield includes the section of Alternatives 2A and 2B that extends from just west of Old Centreville Road to east of Route 28, and Alternative 4 north of Birch Street. Due to extensive development in Manassas Park and Manassas, however, the boundary of the battlefield is limited to undeveloped areas near Bull Run.

The clash at Blackburn's Ford was the opening salvo of First Manassas. Although most of the First Manassas battle was fought in and around the Manassas National Battlefield Park, the CWSAC's PotNR boundary of the First Manassas battle in the project area extends along undeveloped areas near Bull Run, including most of the Fairfax County section of Alternative 2B.

The Manassas Station Operations refers to Stonewall Jackson's August 1862 destruction of rail lines at Bristoe Station and the Union supply depot at Manassas Junction, clashes with Union forces at Union Mills (Bull Run Bridge) and near Kettle Run, both outside of the project area, and his establishment of a strong defensive position within the current boundaries of the Manassas National Battlefield Park. A portion of the CWSAC-defined Core of the Manassas Station Operations centers on Jackson's destruction of the supply depot, which occurred near the southern portion of Alternative 4. Due to commercial and other development along Route 28, the CWSAC's PotNR boundary consists entirely of areas north and west of the project area. In addition, the National Register of Historic Places (NRHP)- and Virginia Landmarks Registry (VLR)-listed 1861 Mitchell's Ford

[1] The Study Area "represents the historic extent of the battle as it unfolded across the landscape." The Core Area "represents the areas of fighting on the battlefield." Unlike the Study and Core Areas, which are based only on historical events, the PotNR "represents the ABPP's assessment of a Study Area's current integrity (the surviving landscape and features that convey the site's historic sense of place" (CWSAC 2009:14).

Entrenchments (076-0040), associated with the Confederate defenses during the Blackburn's Ford and the First Manassas battles, are located along and slightly above the south bank of Bull Run north of Somersworth Drive and Charmwood Court in Alternative 2A.

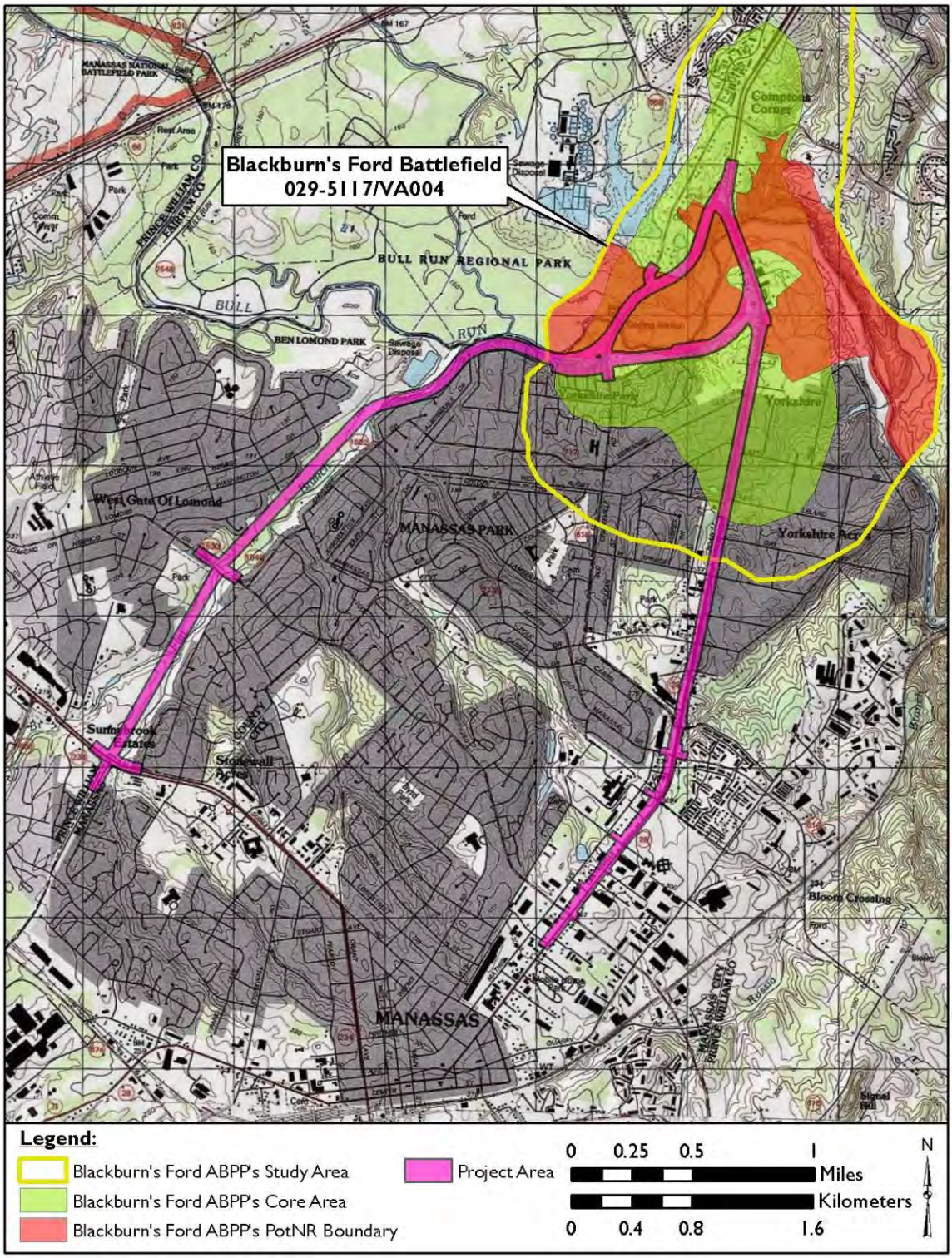

Figure 6: Blackburn's Ford (029-5117/VA004) Battlefield Map (CWSAC 2009).

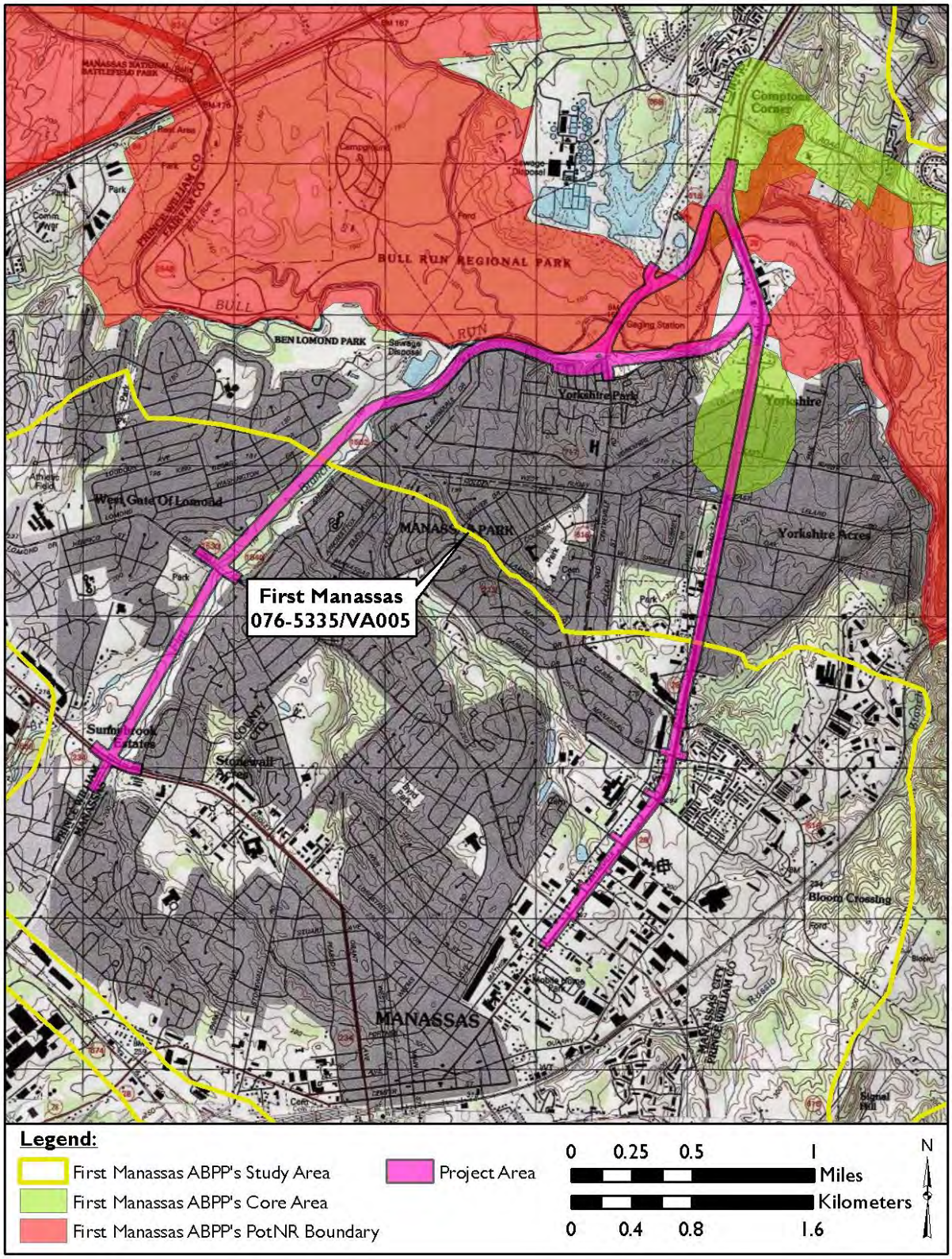

Figure 7: First Manassas (076-5335/VA005) Battlefield Map (CWSAC 2009).

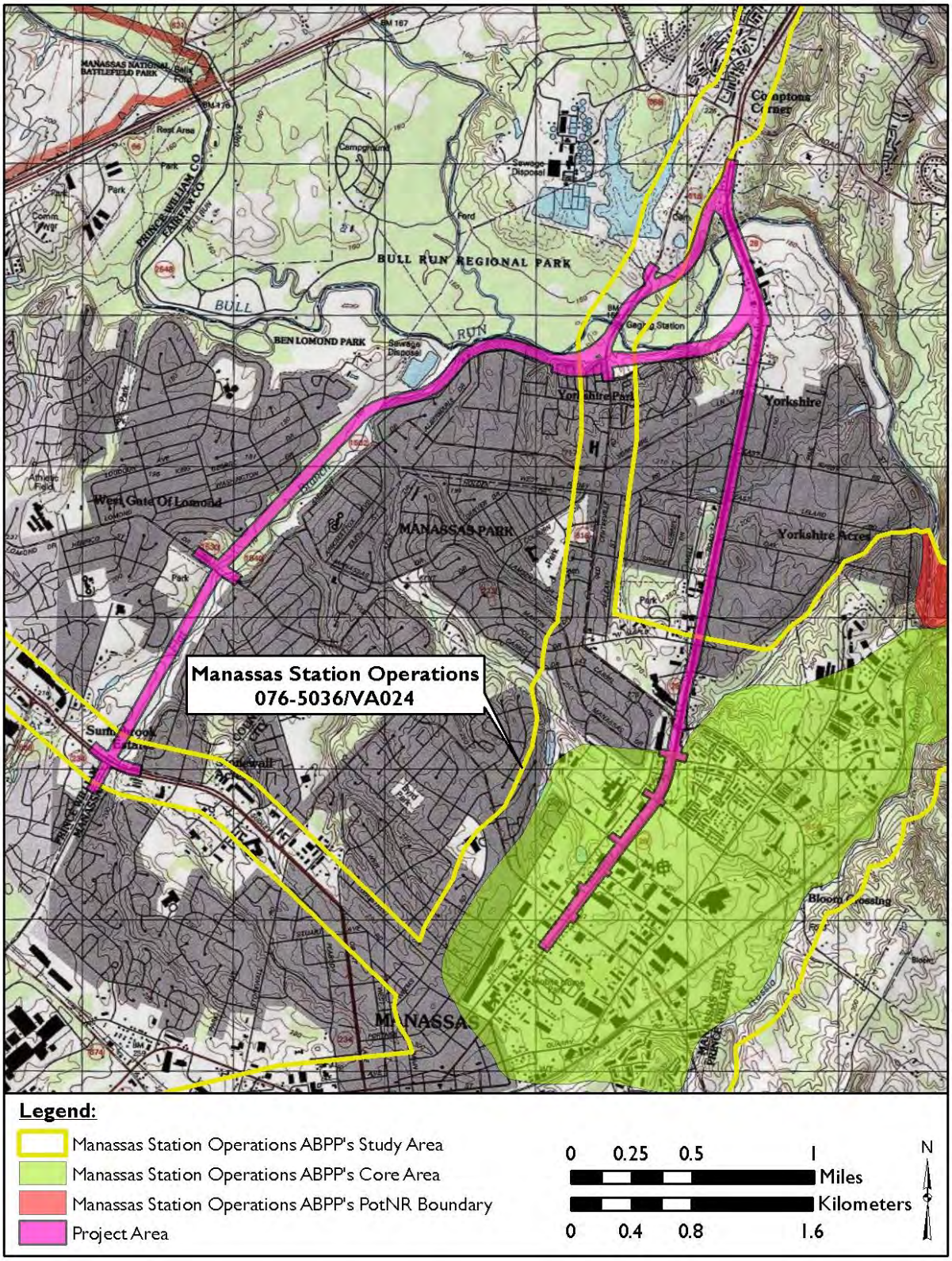

Figure 8: Manassas Station Operations (076-5036/VA024) Battlefield Map (CWSAC 2009).

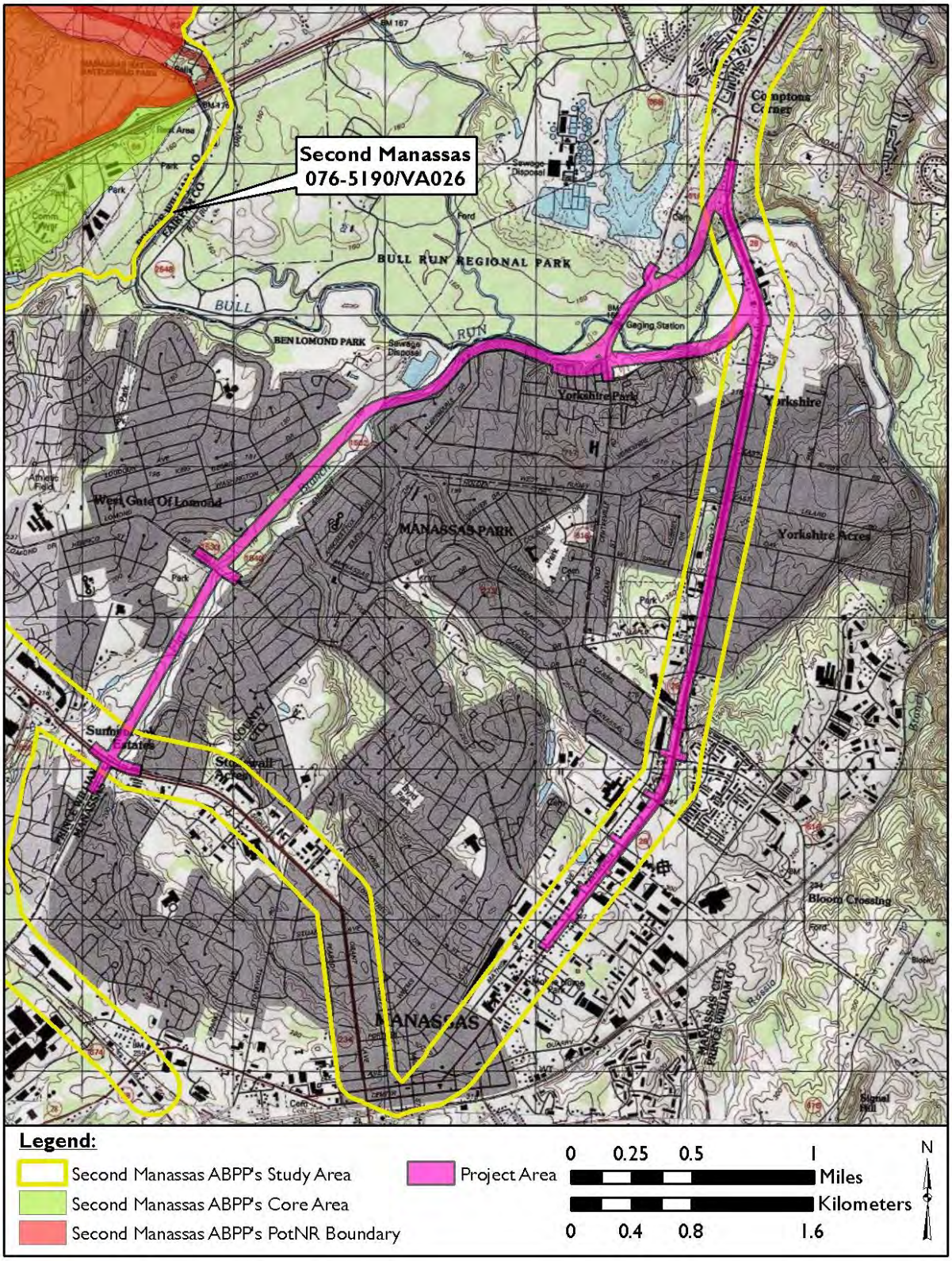

Figure 9: Second Manassas (076-5190; VA0026) Battlefield Map (CWSAC 2009).

Troops moved through the project area near and along present-day Routes 28 and 234 during Second Manassas. However, the battle occurred northwest of the project area. For this reason, both the CWSAC-defined Core and PotNR boundaries of the Second Manassas battlefield surround the Manassas National Battlefield Park and do not intersect the project area.

Previous Cultural Resource Surveys

Sixteen previous cultural resource surveys have occurred within a 0.5-mile (0.8-km) radius of Alternatives 2A, 2B, and 4 (Table 3). All three alternatives lie within a 0.5-mile (0.8-km) radius of four surveys. Four surveys are within a 0.5-mile (0.8-km) of 2A and 2B. Eight surveys examined areas within 0.5-mile (0.8-km) radius of a single alternative.

Table 3: Phase I Cultural Resource Surveys Within a 0.5-Mile (0.8-Km) Radius of the Project Area.

Citation	Report	Alternative	Sites in Current Project Area
Cromwell et al. 1985	A Phase I Evaluation of Three Streams in Prince William County, Virginia: Broad Run, Bull Run, and Quantico Creek	2A, 2B, 4	None
Spilker 1986	A Preliminary Archeological Resources Reconnaissance of Tudor Hall Estates, Prince William County, Virginia	2A	None
McCarron and Doyle 1989	The Search for Tudor Hall: A Phase I & Phase II Archaeological Survey. Manassas, Virginia	4	None
McIlhany 1990	A Phase I Investigation of Archaeological Resources at Nine Proposed Compressor Substation Sites in Fairfax, Loudoun, Prince William, and Stafford Counties, Virginia	2A, 2B, 4	None
Traver 1992	Phase I Cultural Resource Survey and Phase II Testing and Assessment: Sites 44FX876, 44FX1760, 44FX1761, 44FX1831, 44FX1833, 44FX1834, 44FX1836, 44FX1837, Fox Mill, Centreville Water Main, Fairfax County, Virginia	2A, 2B, 4	18FX1836 in Area 2B
Jones et al. 1992	A Phase I Cultural Resources Survey of the Proposed Route 776 Widening, City of Manassas and Prince William County, Virginia	4	None
McDaid and Hudlow 1993	A Phase I Cultural Resource Survey of the Proposed Route 28 Widening, City of Manassas Park, Virginia	4	None
Stuck and McDaid 1994	A Phase I Cultural Resource Survey of The Proposed Route 28, Widening, Prince William County, Virginia	4	None
Stewart and Lautzenheiser 2004	Tri-County Parkway Location Study: Architectural Survey	2A, 2B	None
Laird and Tyrer 2004	Phase I Archaeological Survey of 8.2 Acres for the Proposed Birmingham Green Assisted Living Facility Manassas, Virginia	4	None

Citation	Report	Alternative	Sites in Current Project Area
Goode et al.2007	Phase I Archaeological Survey of the Flat Branch Sewer Upgrade, Prince William County, Virginia	2A, 2B	None
Arford 2007	Archaeological Investigations at Liberia House (44PW507), Prince William County, Virginia	4	None
Ferland 2008	A Phase I Cultural Resources Survey of Approximately 24 Acres for the Orchard Bridge Development, Prince William County, Virginia	2A, 2B, 4	None
Fugate et al. 2010	Phase I Archaeological Survey of the Proposed Mid-Atlantic Connector Expansion Project, Prince William and Fairfax Counties, Virginia and Phase I Cultural Resources Survey of Two Compressor Station Expansion Sites, Fluvanna and Pittsylvania County, VA	2A, 2B	None
Holland 2011	Phase I Archaeological Survey Flat Branch Force Main, Upper Occoquan Sewer Authority, Fairfax and Prince William Counties, VA	2A, 2B	None
Smith 2013	Birmingham Cemetery / Euclid Avenue, Prince William County, Virginia, City of Manassas, Virginia: Cemetery Investigation	4	None

Surveys in the vicinity of all three alternatives include Cromwell and McIver (1985), Ferland (2008), McIlhany (1990), and Traver (1992). During the earliest study, archaeologists from James Madison University's Archaeological Research Center surveyed areas along Broad Run, Bull Run, and Quantico Creek (Cromwell and McIver 1985). The Bull Run survey included a section identified as BR3 that occupied the interior of a horseshoe bend in Bull Run around the Route 28 bridge. Bull Run curves around Cromwell and McIver's (1985) study area, as well as the area surveyed by Ferland (2008) years later. Cromwell and McIver (1985) believed that seasonal flooding had extensively weathered and eroded the terrain, as well as producing marshy floodplains. In addition, local residents reported that hurricane Agnes inflicted extensive damage to the area during the 1970s. The assemblage from site 44PW0331, identified by Cromwell and McIver (1985) on a terrace overlooking Bull Run to the east of Route 28, included a few fragments of quartz debitage and one plain pearlware sherd. The survey does not appear to meet current DHR (2017) standards.

McIlhany (1990) examined the location of nine substations along a transmission line route that extended from Stafford County to the West Virginia border. Most substations, however, clustered along the boundary between Fairfax and Prince William Counties. The cluster included the Compton substation, located northwest of the Route 28 bridge over the broad horseshoe bend in Bull Run and west of Comptons Corner. Although Civil War camps had existed in the vicinity, McIlhaney's (1990) survey included only pedestrian inspection of exposed surfaces and shovel test pit (STP) survey in wooded areas.

Traver's (1992) survey and assessment of the Fairfax Water Authority's Fox Mill-Centreville Water Main project area began along the east side of Route 28 on the north side of Bull Run. The project area stretched north from that point through Cub Run Park, followed Route 28 north of Ellanor C. Lawrence Park, and paralleled Route 651 north of Chantilly. Alternative 2B clips the southern edge of one of the sites tested by Traver (1992), site 44FX1836. Archaeological work at the site included STP survey, controlled surface collection following disking and rain, and the excavation of two test units (TUs). Located west of Route 28, 44FX1836 comprised the archaeological remnants of an Archaic camp and a nineteenth-century domestic site.

Ferland (2008) investigated a section of the area bounded by the horseshoe curve in Bull Run to conduct a cultural resource survey of the Orchard Bridge project area in Prince William County. Excavation of 381 STPs and metal detecting on an upland east of Route 28 identified two historic sites, both of which included Civil War-era components (44PW1831 and 44PW1832). Only site 44PW1832, however, potentially included the remains of a military camp. Following Klein et al.'s (2009) Phase II work, the DHR determined the site eligible for listing in the NRHP. Phase III data recovery was conducted in a portion of the site by and Muir-Frost and Tryer (2013).

To the south of the Orchard Bridge project area, a number of studies have occurred within and adjacent to Alternative 4. Two related studies by the William and Mary Center for Archaeological Research (WMCAR) surveyed areas along Route 28 at the southern end of Alternative 4 prior to the proposed addition of two lanes within Manassas Park (McDaid and Hudlow 1993; Stuck and McDaid 1994). The archaeological component of the cultural resource surveys comprised pedestrian survey of the project area and the excavation of STPs. Most STP profiles revealed only disturbed deposits, and only modern artifacts were recovered.

A number of cultural resource surveys examined areas adjacent to the southern end of Alternative 4. In 1989, McCarron and Doyle conducted historical and archaeological research on the Tudor Hall property in Manassas. The survey uncovered the foundation of the nineteenth-century building, defined the boundaries of a cemetery, and located potential Civil War features. No contexts that clearly pre-dated the Civil War potentially associated with the Tudor Hall property were identified (McCarron and Doyle 1989).

In 1992, Jones et al. conducted a cultural resource survey prior to the addition of two lanes to Liberia Avenue/Route 776. The archaeological fieldwork included pedestrian survey and limited subsurface survey. STPs excavated in the project area indicated that modern landscape alteration precluded the presence of intact contexts and undisturbed archaeological sites (Jones et al 1992).

Prior to the construction of the proposed Birmingham Green Assisted Living Facility on the east side of Route 28, Laird and Tryer (2004) conducted a Phase I archaeological survey. Excavation of STPs throughout the project area indicated that grading had removed any trace of intact stratigraphy. Consequently, no non-modern cultural material was recovered.

Arford's (2007) archaeological work around the historic Liberia House proved more productive. STPs and TUs were excavated around and adjacent to the building. In addition to previously disturbed areas, two intact walkways and a stone feature were identified. Diagnostic artifacts indicated a twentieth-century date for a flagstone walkway. No diagnostic artifacts, however, were unearthed adjacent to a brick walkway.

Planned road construction adjacent to the previously recorded District Home Cemetery (076-5462) led to archaeological testing to identify the limits of the cemetery. Mechanical removal of the topsoil revealed no evidence of graves in the project area. The authors concluded based on the absence of grave features in the project area and a 1937 aerial photograph that the limits of the District Home Cemetery have remained constant and that no burials exist in the project area (Smith 2013).

Alternatives 2A and 2B overlap considerably. Consequently, the five surveys in the vicinity of the western alternatives occur within 0.5 miles (0.8 km) of only Alternative 2A. In 1980, Spilker (1980) conducted a preliminary archaeological reconnaissance of the proposed Tudor Hall Estates project area. Flat Branch flows north immediately east of, and Route 234 passes immediately north of, Spilker's project area. Minimal background research was conducted, and no subsurface testing occurred during the survey, which does not meet the current DHR standards.

Portions of an archaeological survey by Stewart and Lautzenheiser (2004) were within 0.5 miles (0.8 km) of Alternatives 2A and 2B. No archaeological work was undertaken during the survey. Subsequent archaeological survey following the identification of the preferred alternative for the Tri-County Parkway did not occur near Alternatives 2A and 2B.

Fugate et al. (2010) examined the proposed route of a pipeline expansion in Fairfax and Prince William Counties, along with studies of proposed compressor station sites in Fluvanna and Pittsylvania Counties. The proposed pipeline route crossed Bull Run west of Alternatives 2A and 2B. No archaeological resources were recovered from the disturbed soils of the pipeline corridor.

Goode et al.'s (2007) work prior to the Flat Branch Sewer Upgrade extended north from the intersection of Wellington Road and Godwin Drive to the Flat Branch Pump Station east of Ben Lomond Park. Goode et al. (2007) considered most of the area along Flat Branch in Alternatives 2A and 2B unsuited for prehistoric or historic occupation. No archaeological sites were identified during STP survey of settings suited to the preservation of intact archaeological resources.

The subsequent work by Holland (2011) prior to the installation of a sewage force main between a water-reclamation facility near Bull Run and the Flat Branch Pump Station began west and north of Alternatives 2A and 2B. From that point, the area surveyed extended north. No cultural resources were identified during the pedestrian and STP survey.

Previously Recorded Archaeological Sites

Twenty-four previously recorded archaeological sites occur within a 0.5-mile (0.8-km) radius of the alternative alignments (Table 4). Twelve of the sites are in the vicinity of all three alternatives. Sites date from the Archaic through the twentieth century. Sites in close proximity to Alternatives 2A, 2B, and/or 4 include eight with prehistoric components, one with an Archaic component, four with nineteenth-century components, and one that dates to the second half of the twentieth century.

Of the 12 archaeological resources in the vicinity of all three alternatives, only site 44PW1832, the archaeological remains of a Civil War camp, has been determined eligible for listing in the NRHP. Construction of the Orchard Bridge Development destroyed the site after Phase III excavation by Muir-Front and. Tyrer (2013). The DHR determined prehistoric and mid-nineteenth- to twentieth-century site 44PW1831 not eligible for the NRHP. The remaining sites have not been evaluated for listing in the NRHP.

All but one of the remaining sites, prehistoric site 44FX1527, sit atop landforms in close proximity to Alternative 4, or both Alternatives 4 and 2A. The DHR has not evaluated the potential eligibility of site 44FX1527 or the remaining sites.

Table 4: Previously Identified Archaeological Sites within a 0.5-Mile (0.8-Km) Radius of the Project Area.

DHR ID	Site Types	Time Periods	NRHP Evaluation	Alternatives
44FX0073		Prehistoric	Not Evaluated	2A, 2B, 4
44FX0752	Camp, temporary	Prehistoric	Not Evaluated	2A, 2B, 4
44FX1082		Prehistoric/Unknown 19th Century: 2nd half, 20th Century: 1st half	Not Evaluated	4
44FX1231	Cemetery	19th Century: 4th quarter, 20th Century	Not Evaluated	4
44FX1442	Earthworks	19th Century: 3rd quarter	Not Evaluated	4
44FX1527		Prehistoric	Not Evaluated	2A, 2B
44FX1750	Railroad bed	19th Century: 3rd quarter	Not Evaluated	2A, 2B, 4
44FX1836	Camp, Lithic workshop	Archaic, 19th Century	Not Evaluated	2A, 2B, 4
44FX1837	Camp, base	Archaic, 19th Century	Not Evaluated	4
44FX2719	Dwelling, single	19th Century: 3rd quarter	Not Evaluated	4
44FX3350	Camp	Prehistoric	Not Evaluated	2A, 2B, 4
44FX3351	Other	Prehistoric	Not Evaluated	2A, 2B, 4
44FX3352	Other	Prehistoric	Not Evaluated	2A, 2B, 4
44FX3353	Camp	Prehistoric	Not Evaluated	2A, 2B, 4
44FX3354	Camp	Prehistoric	Not Evaluated	2A, 2B, 4
44PW0081	Farmstead	18th Century: 4th quarter, 19th Century 20th Century	Not Evaluated	4
44PW0331		Prehistoric, 19th Century	Not Evaluated	2A, 2B, 4
44PW0507	Cemetery, Dwelling, single	19th Century	Not Evaluated	4
44PW0513		19th Century: 2nd half, 20th Century	Not Evaluated	4
44PW0514	Earthworks	19th Century: 3rd quarter	Not Evaluated	4

DHR ID	Site Types	Time Periods	NRHP Evaluation	Alternatives
44PW1615	Dwelling, single	19th Century: 4th quarter	Not Evaluated	4
44PW1831	Camp, temporary, Dwelling, multiple	Pre-Contact, Civil War too World War II	DHR Staff: Not Eligible	2A, 2B, 4
44PW1832	Military camp	Civil War	DHR Staff: Eligible	2A, 2B, 4
44PW1924	Other	20th Century: 2nd half	Not Evaluated	2A, 4

Previously Recorded Architectural Resources

A total of 120 previously recorded architectural resources occur within 0.5 miles (0.8 km) of the project area. Previously recorded architectural resources range in age from circa 1810 through the 1970s, with the overwhelming majority twentieth-century resources. Resource types include historic districts, Civil War earthworks and battlefields, the remains of nineteenth-century railroads, cemeteries, a water tower, a bridge, a church, and, primarily, dwellings and commercial buildings.

Five of the resources are listed in the NRHP. Resources listed in the NRHP include the 1861 Mitchell's Ford Entrenchments (076-0040), associated with the Confederate defenses during the Battle of Blackburn's Ford and the First Manassas Battle, the 1810 Blooms/Conner House (152-0001), the 1825 Liberia/Weir House (155-0001), the 1914 Manassas Water Tower (155-0141), and the post-bellum to early twentieth-century Manassas Historic District (155-0161). The Mitchell's Ford Entrenchments are in Alternative 2A.

An additional two resources have been determined eligible and four resources potentially eligible for listing in the NRHP by the DHR. The six resources include a wooded area with prehistoric, Civil War, and other nineteenth- and twentieth-century resources grouped together as the Union Mills Historic District (029-0410), the 1861 Centreville Confederate Military Railroad (029-5012/44FX1750), the 1861 Blackburn's Ford Battlefield (029-5117), and three resources associated with the First and Second Manassas Battles (076-5036; 076-5190; 076-5335).

The DHR determined 15 resources not eligible for listing in the NRHP. Ineligible resources include the remains of the 1851 Orange and Alexandria Railway (076-5399) and 14 twentieth-century buildings (155-5008 through 155-5019). The remaining 94 previously recorded architectural resources have not been evaluated (Table 5).

Table 5: Previously Recorded Architectural Properties
Within 0.5 Mile (0.8 Km) of the Project area.

DHR ID	Property Names	Date	NRHP Evaluation	Alternative
029-0410	Union Mills Historic District	n.d.	DHR Board Det. Eligible	4
029-5012; 44FX1750	The Centreville Confederate Military Railroad	1861	DHR Board Det. Eligible	2A, 2B, 4
029-5117	Blackburn's Ford Battlefield	1861	DHR Staff: Potentially Eligible	2A, 2B, 4

DHR ID	Property Names	Date	NRHP Evaluation	Alternative
029-6265	House, 6724 Centreville Road	1946	Not Evaluated	4
029-6266	House, 6802 Centreville Road	1950	Not Evaluated	2A, 4
029-6267	House, 7010 Centreville Road	1949	Not Evaluated	2A, 2B, 4
029-6268	House, 7014 Centreville Road	1951	Not Evaluated	2A, 2B, 4
029-6269	House, 7018 Centreville Road	1935	Not Evaluated	2A, 2B, 4
029-6270	House, 7100 Centreville Road	1932	Not Evaluated	2A, 2B, 4
029-6271	House, 7102 Centreville Road	1935	Not Evaluated	2A, 2B, 4
029-6272	House, 7104 Centreville Road	1960	Not Evaluated	2A, 2B, 4
029-6273	House, 7106 Centreville Road	1935	Not Evaluated	2A, 2B, 4
029-6274	House, 7114 Centreville Road	1935	Not Evaluated	2A, 2B, 4
029-6275	House, 7118 Centreville Road	1935	Not Evaluated	2A, 2B, 4
029-6276	House, 14400 Compton Village Drive	1960	Not Evaluated	4
029-6277	House, 7017 Ordway Road	1935	Not Evaluated	2A, 2B, 4
029-6278	House, 7108 Ordway Road	1960	Not Evaluated	2A, 2B, 4
029-6279	House, 14620 Compton Road	1962	Not Evaluated	2A, 2B, 4
029-6281	Cemetery, 44FX1231	n.d.	Not Evaluated	4
076-0040	Mitchell's Ford Entrenchments	1861	NRHP Listing, VLR Listing	2A, 2B, 4
076-0073	Old Barrett Farm, Sunny Brook Farm	1930	DHR Staff: Not Eligible	2A, 2B
076-0270	Dorothy Fox House	1880	DHR Staff: Not Eligible	4
076-0274	McLean Barn Ruins, Yorkshire Barn	1856	Not Evaluated	2A, 4
076-0275	Hale House, Whetzel House	1950	Not Evaluated	2A, 4
076-0276	Martin House	1900	Not Evaluated	2A, 4
076-0277	Bridge, Steel Truss, Rt. 28/Bull Run	1927	Not Evaluated	4
076-5036	Bristoe Station Battlefield Bull Run Bridge, Kettle Run Battlefield, Manassas Station Operations Battlefield, Union Mills	1862	DHR Staff: Potentially Eligible	2A, 2B, 4
076-5141	House, 7435 Centreville Road	1940	Not Evaluated	2A, 4
076-5142	House, 8204 Sharlee Lane	1954	Not Evaluated	2A, 4
076-5190	Battle of Gainesville, Brawner's Farm, Groveton, Manassas Plain, Second Battle of Manassas	1862	DHR Staff: Potentially Eligible	2A, 2B, 4
076-5335	Gainesville, Brawner's Farm, Groveton, Manassas Plain, First Battle of Manassas, Manassas Plains	1861	DHR Staff: Potentially Eligible	2A, 2B, 4
076-5399	Orange and Alexandria Railway section	1851	DHR Staff: 1946Not Eligible	4
076-5403	Home, 7320 Centreville Road	1946	Not Evaluated	2A, 2B, 4
076-5404	Auto Connection, 7404 Centreville Road	1938	Not Evaluated	2A, 2B, 4
076-5405	House, 7316 Centreville Road	1950	Not Evaluated	2A, 2B, 4
076-5406	House, 7314 Centreville Road	1954	Not Evaluated	2A, 2B, 4
076-5407	Clarendon Auto Sales office, 7310-7312 Centreville Road	1954	Not Evaluated	2A, 2B, 4
076-5408	House, 7308 Centreville Road	1954	Not Evaluated	2A, 2B, 4
076-5409	House, 7306 Centreville Road	1954	Not Evaluated	2A, 2B, 4
076-5410	Ron's Used Tires office, 7304 Centreville Road	1963	Not Evaluated	2A, 2B, 4

DHR ID	Property Names	Date	NRHP Evaluation	Alternative
076-5411	House, 7302 Centreville Road	1960	Not Evaluated	2A, 2B, 4
076-5412	Commercial Building, 7290 Centreville Road	1964	Not Evaluated	2A, 2B, 4
076-5413	House, 7305 Centreville Road	1920	Not Evaluated	2A, 2B, 4
076-5414	House, 7405 Centreville Road	1946	Not Evaluated	2A, 2B, 4
076-5415	Outbuildings, 8239 Orchard Bridge Drive	1950	Not Evaluated	2A, 2B, 4
076-5416	Ruin, 8239 Orchard Bridge Drive	1950	Not Evaluated	2A, 2B, 4
076-5462	District Home Cemetery	1925	Not Evaluated	4
152-0001	Blooms House, Conner House	1810	NRHP Listing, VLR Listing	4
155-0001	Liberia, Weir House	1825	NRHP Listing, VLR Listing	4
155-0004/ 44PW0513	Tudor Hall	1870	Not Evaluated	4
155-0011	Birmingham	1850	Not Evaluated	4
155-0012	Hooe, Kate House	1850	Not Evaluated	4
155-0021	Annaburg Manor, Portner House	1862	Not Evaluated	4
155-0032	Annaburg Gate Hous), Portner Gate House	1892	Not Evaluated	4
155-0055	Carolee Apartments, Lebanon Hall, Stoever House	n.d.1895	Not Evaluated	4
155-0056	Dr. W. Fewell, House	1900	Not Evaluated	4
155-0057	House, 8898 Center Street	n.d.	Not Evaluated	4
155-0065	Lipscomb, W. N., House	1898	Not Evaluated	4
155-0070	Brown, R. L., House, Davis House, Hamblen House	1900	Not Evaluated	4
155-0072	Muddiman, D. B., House	1910	Not Evaluated	4
155-0076	Allen, G.G. House, 9303 Prescott Ave.	1910	Not Evaluated	4
155-0077	L.B. Williams House, 9300 Prescott Avenue	1905	Not Evaluated	4
155-0079	Goode, W.E., House	1907	Not Evaluated	4
155-0089	Lewis, D.R., House	1850	Not Evaluated	4
155-0091	Spies, L.W. Mrs., House	1905	Not Evaluated	4
155-0110	Beane, A.O., House	1910	1Not Evaluated	4
155-0111	Evans, E., House	1910	Not Evaluated	4
155-0112	Byrd, R.L., House	1900	Not Evaluated	4
155-0113	Justice-Mosser House	1895	Not Evaluated	4
155-0114	Blakemore House	1900	Not Evaluated	4
155-0118	Cox House	n.d.	Not Evaluated	4
155-0120	House, 8909 Quarry Street	1900	Not Evaluated	4
155-0121	Ames Funeral Home	1900	Not Evaluated	4
155-0122	Hynson House, Annex #1	1870	Not Evaluated	4
155-0124	Old All Saints Catholic Church, Reformed Presbyterian Church in America	1879	Not Evaluated	4
155-0130	Nash House	1935	Not Evaluated	4
155-0131	Clark, Rev. T.D.D., House, Clark-Galleher House	1906	Not Evaluated	4
155-0141	1914 Manassas Water Tower	1914	NRHP Listing, VLR Listing	4
155-0142	AKA National Specialty/Western Union, Lion House	1870	Not Evaluated	4

DHR ID	Property Names	Date	NRHP Evaluation	Alternative
155-0143	Sillington	1870	Not Evaluated	4
155-0160	Johnson, Dr. C.R.C., House, Johnson-Zimmerman House, Zimmerman House	1870	Not Evaluated	4
155-0161	Manassas Historic District	1850	NRHP Listing, VLR Listing	4
155-0163	Hynson-Penn House	1898	Not Evaluated	4
155-0164	Polen House, Polen-Guy House	1867	Not Evaluated	4
155-0168	Conner, Minnie E., House	1910	Not Evaluated	4
155-0182	Naisawald House' Taylor, T.O., House, Tyalor-Naisawald House	1870	Not Evaluated	4
155-0229	Car Wash, 8912 Center Street	1968	Not Evaluated	4
155-0230	House, 8914 Center Street	1915	Not Evaluated	4
155-0231	Market, 8916 Center Street	1951	Not Evaluated	4
155-0265	House, 9301 Centreville Road	1943	Not Evaluated	4
155-0266	House, 9303 Centreville Road	1943	Not Evaluated	4
155-0267	VFW Building	1975	Not Evaluated	4
155-0268	Manassas Volunteer Fire Company	1950	Not Evaluated	4
155-0269	House, 9307 Centreville Road	1960	Not Evaluated	4
155-0271	Manassas Pumping Station	1915	Not Evaluated	4
155-0296	House, 9300 Fairview Avenue	1966	Not Evaluated	4
155-0355	Old Store, Zebedee Street	n.d.	Not Evaluated	4
155-0374	House, 9107 Main Street	1938	Not Evaluated	4
155-0375	House, 9109 Main Street	1965	Not Evaluated	4
155-0376	House, 9111 Main Street	1950	Not Evaluated	4
155-0377	House, 9113 Main Street	1950	Not Evaluated	4
155-0412	House, 9210 Maple Street	1965	Not Evaluated	4
155-0413	House, 9309 Mathis Avenue	1970	Not Evaluated	4
155-0414	House, 9311 Mathis Avenue	1964	Not Evaluated	4
155-0423	House, 9215 Prescott Avenue	1938	Not Evaluated	4
155-0433	House, 8799 Quarry Street	1970	Not Evaluated	4
155-0437	House, 8806 Quarry Street	1940	Not Evaluated	4
155-0441	Ames Funeral Home	1957	Not Evaluated	4
155-5008	AutoZone 9112 Centreville Road	1948	DHR Staff: Not Eligible	4
155-5009	House, 9105 Centreville Road	1920	DHR Staff: Not Eligible	4
155-5010	Commercial Building, 9102 Centreville Road	1948	DHR Staff: Not Eligible	4
155-5011	Battlefield Ford, 9026 Centreville Road	1951	DHR Staff: Not Eligible	4
155-5012	Commercial Building, 9023 Centreville Road	1930	DHR Staff: Not Eligible	4
155-5013	Car Showroom, 9019 Centreville Road	1954	DHR Staff: Not Eligible	4
155-5014	Auto Villa, 9018 Centreville Road	1954	DHR Staff: Not Eligible	4
155-5015	Commercial Building, 9014 Centreville Road	1950	DHR Staff: Not Eligible	4
155-5016	Car Showroom, 9012 Centreville Road	1950	DHR Staff:	4

DHR ID	Property Names	Date	NRHP Evaluation	Alternative
			Not Eligible	
155-5017	Atlas Septic Tank and Drain Service, 9009 Centreville Road	1930	DHR Staff: Not Eligible	4
155-5018	Commercial Building, 9007 Centreville Road	1930	DHR Staff: Not Eligible	4
155-5019	Commercial Building, 9002-9006 Centreville Road	1954	DHR Staff: Not Eligible	4

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RESULTS OF THE PHASE IA STUDY

As part of the Phase IA, Dovetail conducted a historic map review to identify any historic buildings or Civil War-era features within the project area. Although Civil War maps illustrate Civil War features and activity in the project vicinity, twentieth-century topographic maps imply that extensive disturbance likely destroyed cultural features and archaeological remains in the project area (Salmon 2001:164–165, 188). Consequently, the probability that intact archaeological sites, including Civil War-era historic sites, exist in the project area is low in all but the undeveloped areas near and north of Bull Run.

Pedestrian Survey

The pedestrian survey comprised close inspection and photographic documentation of the three proposed alternatives. All three alignments share common location at the north end of the project, while Alternative 2A and 4 share a common location extending approximately 0.5 mile (0.8 km) south of where Alternative 2B deviates to the west. West and south of Old Centreville Road, Alternatives 2A and 2B share a common alignment (see Figure 3–Figure 4, pp. 6–7). The pedestrian survey results will be presented from south to north and grouped by shared alternative alignments where applicable.

Shared Alternative 2A and 2B Alignment

Both Alternatives 2A and 2B begin along Godwin Drive, where extensive disturbance results from development, grading, and utilities, particularly east of Godwin Drive. A small intact area may remain along the western edge of the corridor near Godwin Drive.

North of Godwin Drive, a reserved right-of-way (ROW) surrounded by residential development parallels Flat Branch. Although less developed than areas to the east and west, the section of Alternatives 2A and 2B along Flat Branch also appears largely disturbed. Wet areas occur along Flat Branch, as well as further west. A pipeline and a gravel access road parallel Flat Branch to near Allegheny Road. Only portions of the western edge of Alternatives 2A and 2B south of Allegheny Road potentially remain undisturbed. Moreover, the earlier study by Goode et al. (2007) of a sewer upgrade identified only limited areas where intact archaeological resources potentially existed in the pipeline ROW, and no archaeological sites were discovered in the areas subjected to subsurface testing.

North of that point, steep slopes rise from Flat Branch to a berm that rises sharply from the stream bottom, leaving only the yards of residences potentially undisturbed. East of Allegheny Road, where Alternatives 2A and 2B pass though residential neighborhoods, only yards, smaller undeveloped sections near Bull Run and a small wooded area between the eastern end of Boundary Avenue and backyards of houses along Pinehurst Lane may contain undisturbed archaeological resources. However, construction, grading, landscaping, and the installation and maintenance of utilities likely disturbed a relatively large percentage of yards in residential neighborhoods (Photo 5–Photo 7, pp. 48–49; Figure 10–Figure 12, pp. 50–52).

Photo 5: View North Showing the Access Road along the Gas Line in Alternatives 2A and 2B.

Photo 6: View South Showing the Berm West of Allegheny Road in Alternatives 2A and 2B.

Photo 7: View West From the Intersection of Moss and Round Lanes Showing the Neighborhood in Alternatives 2A and 2B.

Alternative 2A

Dwellings and the associated disturbance form a large portion of Alternative 2A between Old Centreville Road and the east end of Charmwood Court. Nevertheless, the NRHP-listed Mitchell's Ford Entrenchments exist along and slightly above the south bank of Bull Run north of Somersworth Drive and Charmwood Court (Photo 8—Photo 10, pp. 53–54). The entrenchments, while recorded as an architectural resource, likely have an archaeological component. Therefore, similar features and intact subsurface Civil War sites potentially occur between Charmwood Court and the developed areas near Route 28, though none were observed during the Phase IA work (Figure 13, p. 55).

To the east, the presence of previously identified archaeological sites in the interior of the large horseshoe curve made by Bull Run around the Route 28 bridge demonstrates the archaeological potential of the area (Cromwell and McIver 1985; Ferland 2008). Previously identified resources in the area include site 1832, which was determined eligible for listing in the NRHP (Ferland 2008; Klein et al. 2009; Muir-Frost and Tryer 2013).

Figure 10: Results of Phase IA Survey in Alternatives 2A and 2B, Map 1 of 3 (Esri 2017).

Figure 11: Results of Phase IA Survey in Alternatives 2A and 2B, Map 2 of 3 (Esri 2017).

Figure 12: Results of Phase IA Survey in Alternatives 2A and 2B, Map 3 of 3 (Esri 2017).

Photo 8: View West Along Charmwood Court Showing the Neighborhood in Alternative 2A.

Photo 9: View East Showing the Mitchell's Ford Entrenchments in Alternative 2A.

Photo 10: View North Showing a Section of the Mitchell's Ford Entrenchments in Alternative 2A.

Alternative 2B

Disturbed areas likely exist along Old Centreville/Ordway Road in Alternative 2B. East of Ordway Road in Fairfax County, however, Alternative 2B crosses undeveloped areas that the CWSAC includes within the potential NRHP (PotNR) boundaries of the Blackburn's Ford and First Manassas Battlefields. Moreover, proximity to the main stem and tributaries of Bull Run and to the historic predecessors of Route 28 likely drew prehistoric- and historic-era settlers to the area (Photo 11, p. 56).

The presence of previously identified archaeological sites 44FX0073, 44FX1836, 44FX3350, 44FX3351, 44FX3352, 44FX3353, and 44FX3354 confirms the inferred presence of archaeological resources in the undeveloped area north of Bull Run (Figure 14, p. 57). Moreover, the work by Traver (1992) at site 44FX1836 demonstrates that large assemblages of Archaic artifacts occur in the broader area.

Therefore, all but the area directly adjacent to Route 28 in Fairfax County possesses relatively high probability that undisturbed archaeological resources, including those associated with Civil War battles, exist.

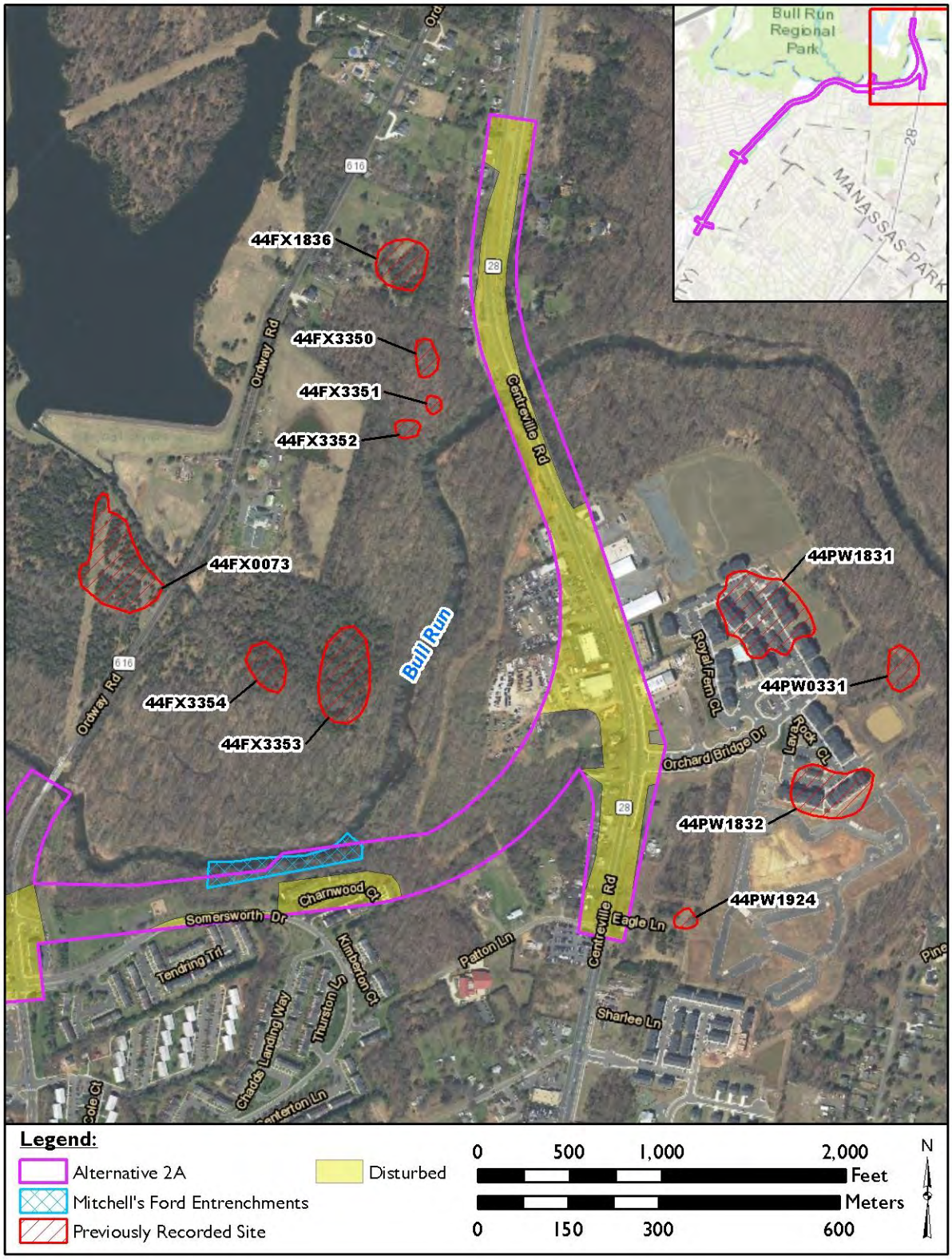

Figure 13: Results of Phase IA Survey in Alternative 2A (Esri 2017).

Photo 11: View Southeast Showing the Undeveloped Area North of Bull Run in Alternative 2B.

Alternative 4

Extensive development, the installation of utilities, and grading of open areas east and west of Route 28 has left only a few areas south of Bull Run where undisturbed archaeological resources may exist (Photo 12–Photo 13, p. 58). All archaeological studies conducted within a 0.5-mile (0.8 km) radius of the portion of Route 28 south of Yorkshire Lane encountered disturbed deposits (Jones e al. 1992; Laird and Tryer 2004; McCarron and Doyle 1989; McDaid and Hudlow 1993; Smith 2013; Stuck and McDaid). Consequently, only larger open areas possess the potential to contain intact archaeological resources. The largest of the areas occurs on the east side of Route 28 south of Conner Road near the Birmingham Nursing Home. STP survey prior to the construction of the nursing home, however, encountered only disturbed contexts in a limited portion of Alternative 4 (Laird and Tryer 2004). Therefore, if no buried utilities exist within the project area, archaeological survey appears warranted in the Birmingham Nursing Home property (Figure 15–Figure 17, pp. 59–61).

Shared Alternatives 2A, 2B, and 4

Alternative 2A joins Alternative 4 north of Orchard Bridge Drive, while Alternative 2B includes the section along Route 28 from just south of the bridge over Bull Run in Prince William County (see Figure 13, p. 55, Figure 14, p. 57, and Figure 17, p. 61). Although construction of Route 28 and installation of utilities likely disturbed areas along the margins of the road, archaeological resources may exist east and west of the less developed area closer to Bull Run (Photo 14, p. 62). East of Route 28, for example, Muir-Frost and Tryer (2013) excavated the intact archaeological remains of a Civil War camp prior to the construction of the Orchard Bridge development. The CWSAC's potential NRHP boundaries for Blackburn's Ford and First Manassas include the area near Bull Run and Route 28.

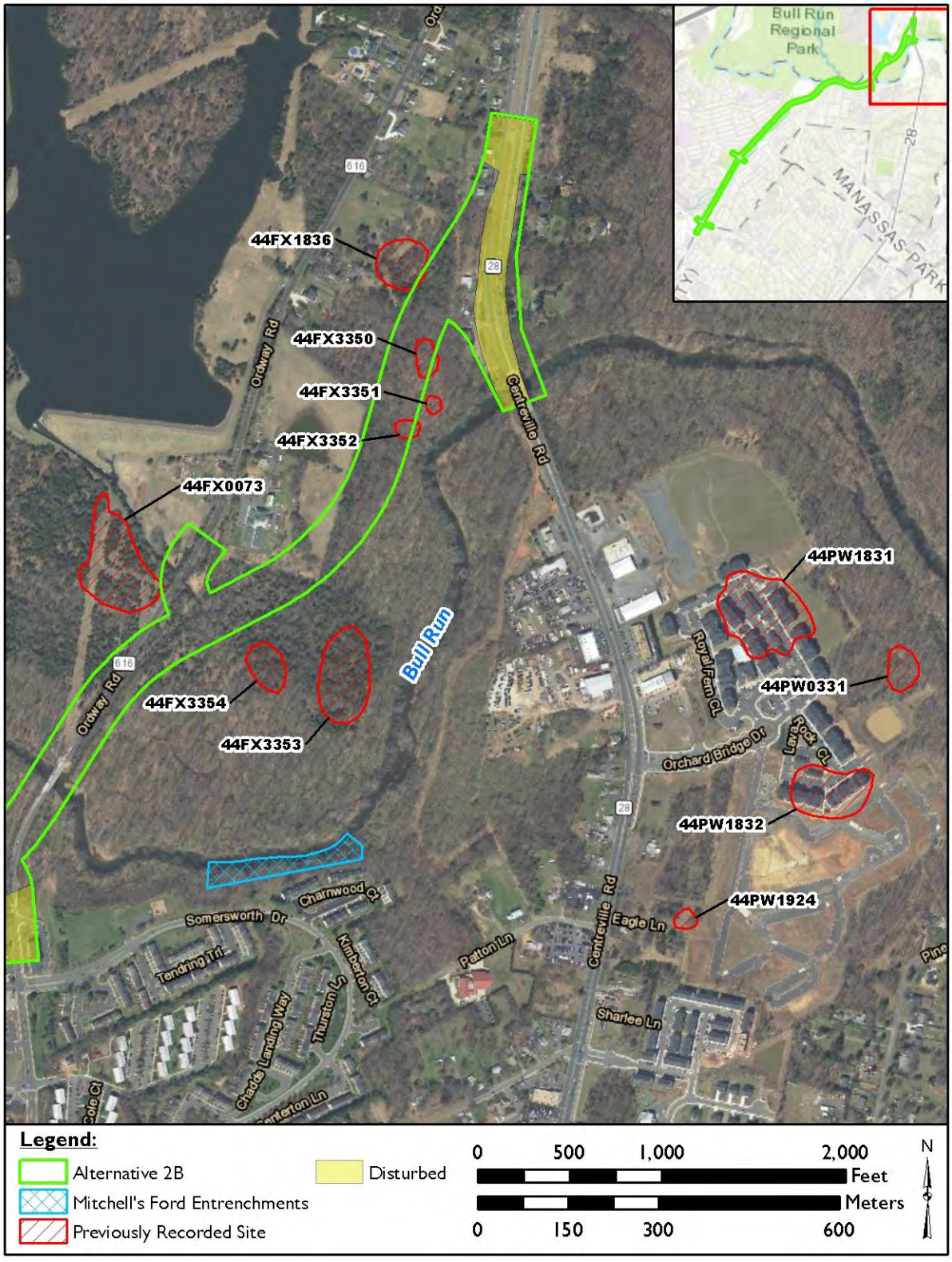

Figure 14: Results of Phase IA Survey in the Northern Section of Alternative 2B (Esri 2017).

Photo 12: View South From Maplewood Drive Showing the Development along Route 28 in Alternative 4.

Photo 13: View North Showing the Birmingham Green Area along Route 28.

Figure 15: Results of Phase IA Survey in Alternative 4, Map 1 of 3 (Esri 2017).

Figure 16: Results of Phase IA Survey in Alternative 4, Map 2 of 3 (Esri 2017).

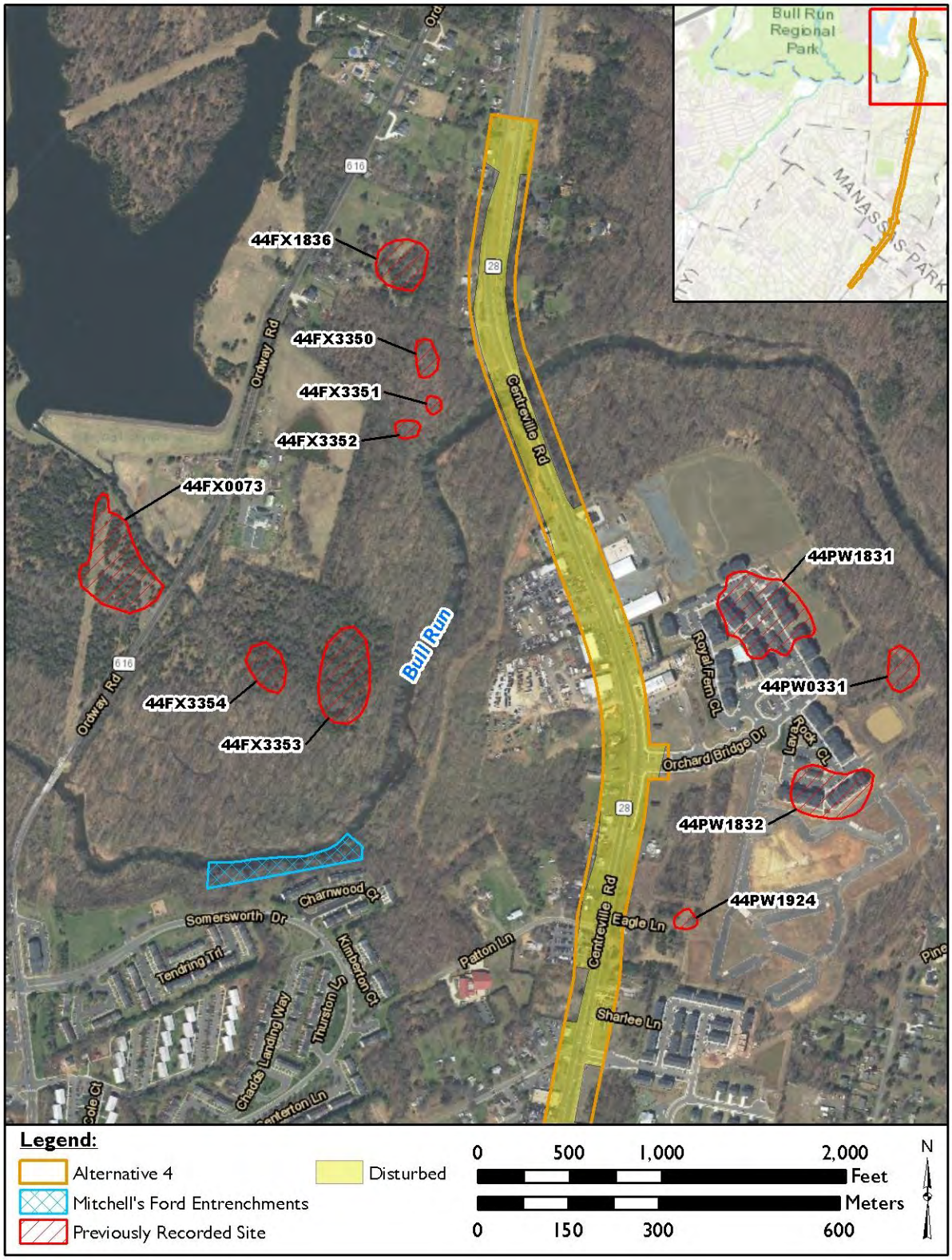

Figure 17: Results of Phase IA Survey in Alternative 4, Map 3 of 3 (Esri 2017).

Photo 14: View North Showing the Undeveloped Area South of Bull Run along Route 28.

Summary

The portion of all three alternatives in undeveloped land near and north of Bull Run appears to hold the greatest potential for the preservation of intact resources. Alternative 2B passes through a larger portion of the undeveloped area north of Bull Run than Alternatives 2A and 4. Moreover, both the Civil War Trust and the Prince William County Historical Commission have expressed concern that road construction in that area may impact important Civil War resources. In addition, the presence of previously identified archaeological sites in the area north of Bull Run confirms the potential presence of archaeological resources in the undeveloped area.

The NRHP-listed Mitchell's Ford Entrenchments are located within Alternative 2A. The entrenchments likely contain archaeological components. The DHR may require consideration of visual impacts to the viewshed of the earthwork.

The extensive development along Route 28 indicates that Alternative 4 potentially impacts fewer intact archaeological resources than Alternatives 2A and 2B.

SUMMARY AND RECOMMENDATIONS

On behalf of Parsons, Dovetail conducted a Phase IA archaeological survey of the approximately 420-acre (170-ha) project area associated with the environmental documentation for the Route 28 corridor in Manassas, Manassas Park, Prince William County, and Fairfax Counties, Virginia. The project area for the Phase IA archaeological investigation was defined by the limits of the proposed infrastructure improvements associated with Alternatives 2A, 2B, and 4, as outlined in the December 2017 Route 28 Corridor Feasibility Study completed in association with the project.

Dovetail completed a Phase IA assessment of the three alternatives in a manner consistent with the process defined for phased identification and evaluation in the regulations governing Section 106 of the National Historic Preservation Act (36CFR800.4.B.2). Once a preferred alternative is selected, Phase I archaeological studies will be completed only on the alternative selected. The Phase IA work included background review and pedestrian survey to search for surface features, particularly those associated with Civil War battles fought in the area, and to evaluate the potential of the project area to contain intact soils and National Register of Historic Places (NRHP)-eligible archaeological resources. The study was designed to assess the potential presence of above or below ground archaeological resources over 50 years in age.

The portions of all three alternatives in the undeveloped areas near and north of Bull Run appear to hold the greatest potential for the preservation of intact resources. The presence of previously identified archaeological sites near the large horseshoe curve made by Bull Run around the Route 28 bridge demonstrates the archaeological potential of the area. Notably, the NRHP-listed Mitchell's Ford Entrenchments (076-0040) along Bull Run in Alternative 2A likely have archaeological components. In addition, intact archaeological resources potentially exist in the portion of Alternative 2B between Ordway Road and Route 28, where numerous archaeological sites have previously been identified. While also undeveloped, utilities and a gravel access road in the narrow reserved ROW corridor along a channelized section of Flat Branch in Alternatives 2A and 2B appears less likely to contain intact remains of prehistoric and historic activities. Moreover, no archaeological sites were discovered during an archaeological survey in the vicinity conducted by Goode et al. (2007).

Construction and landscaping around residences likely disturbed archaeological deposits in Alternatives 2A and 2B east of Flat Branch. In Alternative 4, the extensive development along Route 28 undoubtedly disturbed most if not all archaeological resources in the area. Preservation of intact archaeological resources may occur in the larger, open landscapes along Route 28 if the project area includes sections not impacted by the installation of utility lines.

Alternative 2B passes through a larger portion of the undeveloped, high probability area north of Bull Run than Alternatives 2A and 4. Moreover, both the Civil War Trust and the Prince William County Historical Commission have expressed concern that road construction in that area may impact important Civil War resources. Nevertheless, the NRHP-listed

Mitchell's Ford Entrenchments, located within Alternative 2A, likely contain archaeological components. Moreover, DHR may require consideration of visual impacts to the viewshed of the earthwork. Therefore, due to extensive development along Route 28, Alternative 4 potentially impacts fewer intact archaeological resources than Alternatives 2A and 2B.

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