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I-495 & I-270 Managed Lanes Study

FINAL CULTURAL RESOURCES TECHNICAL REPORT

**Volume 4: Phase I Archaeological Investigation
For the I-495 & I-270 Managed Lanes Study,
Montgomery and Prince George's County, Maryland
and Fairfax County, Virginia**

June 2022

Prepared by:



On Behalf of:



For



**U.S. Department
of Transportation**

**Federal Highway
Administration**

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



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and Fairfax County, Virginia**

**Maryland Department of Transportation State Highway Administration
Archaeological Report Number 543**

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**Federal Highway
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ABSTRACT

On behalf of the Maryland Department of Transportation State Highway Administration (MDOT SHA) and Rummel, Klepper & Kahl, LLP (RK&K), Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase I archaeological survey of the I-495/I-270 Managed Lanes Study (MLS) corridor study boundary (CSB). The CSB was first evaluated by desktop research and field reconnaissance, and areas considered to have sufficient integrity and historic or precontact archaeological potential were identified for Phase I archaeological survey. If warranted, limited survey was undertaken to evaluate integrity and determine the need for full archaeological survey. For the purpose of this study, the CSB represented the archaeology survey area of the area of potential effects where physical construction impacts may occur. Over the course of the study limits of disturbance (LOD) were developed for the various alternatives that reflect greater design detail than the CSB (the Phase I investigation reported herein, which was already underway, was based on the previously delineated CSB boundary). However, for evaluation of effects of the undertaking on archaeological resources, this Phase I investigation used the widest LOD for the Screened Alternatives (Alternative 10) as a conservative assessment of potential impacts. Since the time of the fieldwork reported herein, the MLS study has identified a Preferred Alternative, Alternative 9 – Phase 1 South, which only includes improvements along I-495 from the George Washington Memorial Parkway to east of MD 187, and along I-270 from I-495 to north of I-370, and on the I-270 east and west spurs.

The goal of the Phase I survey was to determine the presence or absence of potentially significant archaeological resources within the CSB and provide recommendations for additional testing, in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR Part 800. Prior to this work, an analysis of previous surveys within the CSB was completed to identify gaps where archaeological survey was recommended. The Gap Analysis (Hutchins-Keim et al. 2018, MLS Cultural Resources Technical Report Volume 2) identified a total of 56 previously unsurveyed areas within the CSB that warranted archaeological survey. An additional six survey areas were added that accounted for potential SWM locations and a seventh area was added that included unsurveyed land under and on either side of the American Legion Bridge, bringing the total number included as part of this survey to 65 survey areas. Due to issues of obtaining property access, full and partial surveys were conducted in 47 areas within the CSB, including 44 identified in the archaeological gap analysis and three locations for proposed stormwater management (SWM) features. During the Phase I investigation 39 survey areas were completely tested and eight areas subjected to a partial survey due to incomplete landowner permissions.

A majority of the archaeological survey areas are no longer located within the limits of disturbance (LOD) for the Preferred Alternative. Twenty-six of the 65 surveys areas identified for testing within the CSB are located within the LOD for the Preferred Alternative. Thirty-nine survey areas are located outside of the LOD for the Preferred Alternative and will experience no improvements at this time. Although there will no longer be impacts to the CSB east of the I-270 spur, this technical report documents the results and recommendations of the Phase I archaeological identification survey at each of the archaeological survey areas located within the CSB as completed in December 2019.

Of the 65 survey areas identified for testing, 39 were fully tested at 50-ft or 100-ft intervals depending on the level of observed ground disturbance. No cultural material or archaeological resources were identified in 31 survey areas and no further work is recommended, with several exceptions. Additional archaeological work is warranted at a number of survey areas within Alternative 9 – Phase 1 South including several within the Montgomery County Poor Farm and in a number of other locations at which full access could not be secured. Outside the Preferred Alternative, deep testing is recommended on floodplains at S-16a, S-16c, S-17, and S-33, if warranted by future design work. Archaeological sites were identified in eight survey areas. Three of the archaeological sites (18MO749, 18MO751, and 18MO752) warrant additional investigations to evaluate their National Register of Historic Properties (NRHP) eligibility. Eight sites (18MO750, 18MO753, 18MO754, 18MO755, 18MO756, 18PR425, 18PR1131, and 18PR1133) are recommended as not eligible for the NRHP, and no additional work is recommended on those sites. No further work is recommended at 18MO22, although no determination of eligibility can be made because the full site boundary was not tested. MHT concurred with these determinations on March 12, 2020.

Partial property access was granted for eight of the survey areas. The inaccessible portions of two of these areas (Area S-41 and Area S-46) were small enough that full coverage could be achieved in the accessible portions. Two areas (Area S-27 and SWM-27) require additional testing for cemetery delineation (Poor Farm), but shovel testing has been completed. During the study, several survey areas were not accessible due to the absence of property owner permission. These areas included privately-owned and municipal properties. To expedite future work and aid in the planning process for the remainder of the project, the inaccessible survey areas were compared to adjacent survey areas with similar landforms, soils, and topographic settings to areas investigated during the study. The results were used to formulate a reasonable extrapolation of what archaeological resources may be present in the untested areas. Five survey areas (Areas S-11, S-23, S-24, S-39 and S-42) are recommended for no additional testing according to these factors, while the remainder are considered to have potential for archaeological resources and testing is recommended once property access is obtained.

Over the course of the Study, MDOT SHA identified additional evaluation needs for the undertaking due to design refinements in Maryland and Virginia. Exclusive of cemeteries, additional archaeological studies were scoped at site 18PR750, which was recorded by prior Phase I survey for expansion of the Capital Beltway (Diamanti et al. 2008); and two areas within lands administered by the National Park Service (NPS): the Chesapeake & Ohio (C&O) Canal/Clara Barton Parkway near the American Legion Bridge, and the George Washington Memorial Parkway in Virginia. Phase II archaeological studies within the C&O Canal/Clara Barton Parkway and at site 18PR750 were completed by Blood et al. (2019) (MLS Cultural Resources Technical Report Volume 5). Site 18PR750 is recommended as not eligible for the NRHP; Sites 18MO749 and 18MO751 are recommended as eligible for the NRHP under Criterion D. Phase I investigations in or near several sites in NPS administered lands in Virginia, along with Phase II evaluation of six sites (44FX0374, 44FX0379, 44FX0381, 44FX0389, 44FX3160, and 44FX3900), were completed by Millis and Idol (2019) (MLS Cultural Resources Technical Report Volume 6). Six sites within the George Washington Memorial Parkway (44FX0373, 44FX0374, 44FX0379, 44FX0381, 44FX0389, and 44FX3160) appear to represent a related set of activities over roughly contemporaneous periods and occur within a distinct landscape setting. They comprise the NRHP eligible Dead Run Ridges Archaeological District

(44FX3922), which also encompasses three sites not investigated by the project (44FX0227, 44FX0380, and 44FX0390). Site 44FX3900 is not considered to be eligible for the NRHP, and site 44FX3160 is not considered to be a contributing element to the Dead Run Ridges Archaeological District.

Additional studies are recommended within the LOD for the Preferred Alternative but have not been completed, and that work will be stipulated in the Section 106 Programmatic Agreement (PA) for the project. This includes additional archaeological investigations at sites 18MO457, 18MO190, 18MO191, 18MO752, 18MO749, 18MO751, and 44FX3922 and its contributing sites, and Phase I survey in areas within the LOD for the Preferred Alternative where property access could not be obtained for the Phase I survey documented in this report. Further archaeological investigations are also recommended at the following cemetery resources, and remain to be completed: the Montgomery County Poor Farm and the Poor Farm Cemetery (18MO266), the Morningstar Cemetery, and, if impacted, the Ball Family Cemetery. It is likely, however, that the Ball Family Cemetery was originally located under what is now I-270, and that its location is now under paved sections of the interstate highway. Archaeological site 18MO191 may represent the Ball family farmstead.

Other areas may also be identified over the course of the undertaking that require supplemental archaeological investigations as a result of future design refinements. Stipulations for identifying and completing the additional studies will be part of consultation to develop the anticipated Section 106 PA for the project.

This technical report also documents survey results of Phase I survey for and recommendations for additional investigations of survey areas and sites that were located within the CSB and the LOD for the Screened Alternatives (Alternative 10), but are now outside of the LOD for the Preferred Alternative and will experience no impacts. No further investigation of these survey areas and sites is required.

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1 INTRODUCTION

1.1 Overview

The Federal Highway Administration (FHWA), as the Lead Federal Agency, and the Maryland Department of Transportation State Highway Administration (MDOT SHA), as the Local Project Sponsor, are preparing a Final Environmental Impact Statement (FEIS) in accordance with the National Environmental Policy Act (NEPA) for the I-495 & I-270 Managed Lanes Study (Study). The I-495 & I-270 Managed Lanes Study (Study) is the first environmental study under the broader I-495 & I-270 Public-Private Partnership (P3) Program.

This Final Phase I Archaeological Identification Survey Report has been prepared to support the FEIS and focuses on the analysis of the Preferred Alternative. The Preferred Alternative, also referred to as Alternative 9 – Phase 1 South, includes building a new American Legion Bridge and delivering two high-occupancy toll (HOT) managed lanes in each direction on I-495 from the George Washington Memorial Parkway in Virginia to east of MD 187 on I-495, and on I-270 from I-495 to north of I-370 and on the I-270 eastern spur from east of MD 187 to I-270. Refer to **Figure 1**. This Preferred Alternative was identified after extensive coordination with agencies, the public and stakeholders to respond directly to feedback received on the DEIS to avoid displacements and impacts to significant environmental resources, and to align the NEPA approval with the planned project phased delivery and permitting approach.

The purpose of the Final Phase I Archaeological Identification Survey Report is to present: existing conditions; an assessment of potential; direct impacts of the Preferred Alternative to cultural resources; and final mitigation, if applicable, for unavoidable impacts. This Final Phase I Archaeological Identification Survey Report builds upon the analysis in the Draft technical report, DEIS and Supplemental DEIS (SDEIS), and has been prepared to support and inform the FEIS.

1.2 Study Corridors and the Preferred Alternative

In the SDEIS, published on October 1, 2021, FHWA and MDOT SHA identified the Preferred Alternative: Alternative 9 – Phase 1 South to be consistent with the previously determined phased delivery and permitting approach, which focuses on Phase 1 South. As a result, Alternative 9 – Phase 1 South includes the same improvements proposed as part of Alternative 9 in the DEIS but focuses the build improvements within the Phase 1 South limits only. The limits of Phase 1 South are along I-495 from the George Washington Memorial Parkway to east of MD 187 and along I-270 from I-495 to north of I-370 and on the I-270 east and west spurs as shown in **dark blue** in **Figure 1**. The improvements include two new HOT managed lanes in each direction along I-495 and I-270 within the Phase 1 South limits. There is no action, or no improvements included at this time on I-495 east of the I-270 east spur to MD 5 (shown in **light blue** in **Figure 1**). While the Preferred Alternative does not include improvements to the remaining parts of I-495 within the Study limits, improvements on the remainder of the interstate system may still be needed in the future. Any such improvements would advance separately and would be subject to additional environmental studies and analysis and collaboration with the public, stakeholders and agencies.

The 48-mile corridor Study limits remain unchanged: I-495 from south of the George Washington Memorial Parkway in Fairfax County, Virginia, to west of MD 5 and along I-270 from I-495 to north of I-

370, including the east and west I-270 spurs in Montgomery and Prince George’s Counties, Maryland (shown in both dark and light blue in **Figure 1**).

Figure 1: I-495 & I-270 Managed Lanes Study Corridors – Preferred Alternative



1.3 Description of the Preferred Alternative

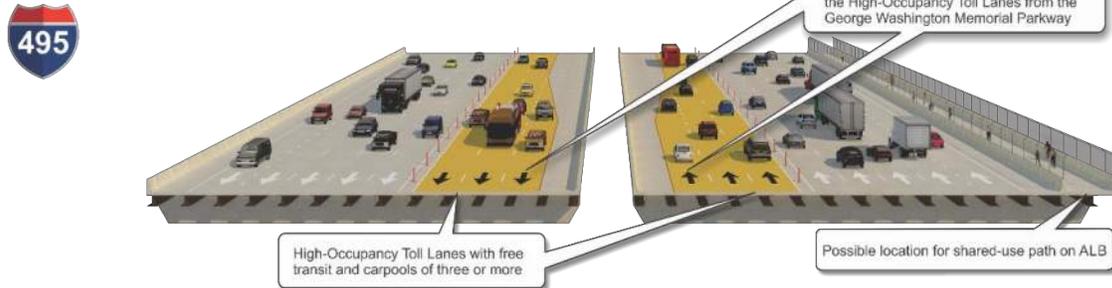
The Preferred Alternative includes a two-lane HOT managed lanes network on I-495 and I-270 within the limits of Phase 1 South only (**Figure 2**). On I-495, the Preferred Alternative consists of adding two, new HOT managed lanes in each direction from the George Washington Memorial Parkway to east of MD 187. On I-270, the Preferred Alternative consists of converting the one existing HOV lane in each direction to a HOT managed lane and adding one new HOT managed lane in each direction on I-270 from I-495 to north of I-370 and on the I-270 east and west spurs. There is no action, or no improvements included at this time on I-495 east of the I-270 east spur to MD 5. Along I-270, the existing collector-distributor (C-D) lanes from Montrose Road to I-370 would be removed as part of the proposed improvements. The managed lanes would be separated from the general purpose lanes using pylons placed within a four-foot wide buffer. Transit buses and HOV 3+ vehicles would be permitted to use the managed lanes toll-free.

Figure 2: Preferred Alternative Typical Sections (HOT Managed lanes Shown in Yellow)

I-495 from the George Washington Memorial Parkway to east of MD 187



I-495: American Legion Bridge (Looking north towards Maryland)



I-495 east of MD 187 to west of MD 5 - NO ACTION AT THIS TIME



On behalf of MDOT SHA and RK&K, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase I archaeological identification survey of the I-495/I-270 Corridor Study Boundary (CSB) in 2019. The CSB was first evaluated by desktop research and field reconnaissance, and areas considered to have sufficient integrity and historic or precontact archaeological potential were designated for Phase I archaeological survey. This technical report documents the results of Phase I archaeological investigation within the entirety of the CSB. The work complies with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations at 36 CFR Part 800. All field investigations and technical reporting meet the qualifications specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:190:44716–44742) and the guidelines presented in the *Archaeology Guidelines for Consultants* (MDOT SHA 2017), *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (1983), *Consulting About Archeology Under Section 106* (Advisory Council on Historic Preservation 1990), and

Standards and Guidelines for Archeological Investigations in Maryland as set out by the Maryland Historical Trust (MHT) (Shaffer and Cole 1994)

The purpose of the Phase I Archaeological Investigation was to identify significant archaeological resources within the CSB, which predated preliminary design plans showing the limits of disturbance, and constituted the archaeology survey area where physical construction impacts were initially expected to occur. The report describes the existing conditions and provides an assessment of potential construction impacts to archaeological resources by the Screened Alternatives. The report was also prepared to support and inform the EIS.

The scope of the Phase I Archaeological Investigation was based on information developed by the *Archaeological and Historic Architectural Gap Analysis and Assessment* (Hutchins-Keim et al. 2018; Volume 2) which identified areas within the CSB for Phase I archaeological survey. The CSB, extending 300 feet from either side of the centerline of I-495 and I-270, comprised the preliminary estimation of the project limits of disturbance within which archaeological identification survey was conducted.

FHWA and MDOT SHA delineated the CSB and the preliminary APE for the undertaking on April 12, 2018 and provided an updated APE on May 14, 2019. Along with the May 2019 APE update, the project team developed limits of disturbance (LOD) at that time for the Screened Alternatives reflecting greater design detail than the CSB (the Phase I investigation reported herein was already underway, and continued to utilize the previously delineated CSB boundary). For the evaluation of effects of the undertaking on archaeological resources under Section 106, this investigation used the widest LOD for I-495 and I-270 (Alternative 10) as a conservative assessment of potential impacts of the Screened Alternatives. The APE was again updated on November 26, 2019, although these revisions did not necessitate additional archaeological identification or evaluation efforts. It was anticipated that additional design changes to the LOD may require further re-evaluation of the effects of the undertaking on archaeological resources.

Following the completion of the Phase I Archaeological Investigation, in July of 2021, Alternative 9 – Phase 1 South was identified as the Preferred Alternative. MDOT SHA established the APE for the Preferred Alternative in an update on September 8, 2021 (see Volume 1, Appendix D). Direct, physical effects to historic properties were considered possible within the LOD for the Preferred Alternative. The APE includes the LOD where direct, physical effects to historic properties could occur along the mainline and at off-site stream, wetland, and compensatory stormwater management mitigation sites and an additional 250-foot buffer on either side of the mainline LOD to account for potential audible, visual, or atmospheric effects that are not considered physical impacts. The APE also incorporates minimization and avoidance efforts. MDOT SHA made additional, minor updates to the APE in January 2022 to reflect an expanded LOD in several locations.

The selection of Alternative 9 – Phase 1 South as the Preferred Alternative reduced the LOD and APE significantly. There will be no improvements and no impacts on I-495 east of the I-270 east spur to MD 5. A majority of the archaeological survey areas addressed in the Phase I Archaeological Investigation are no longer located within the Project's LOD (**Table 1**). Twenty-six of the 65 surveys areas located within the CSB are located within the LOD for the Preferred Alternative. Thirty-nine survey areas are located outside of the LOD for the Preferred Alternative. Although there will no longer be impacts to the CSB east of the

I-270 spur, this technical report documents the results and recommendations of the Phase I Archaeological Investigation at each of the archaeological survey areas as completed in December 2019.

The Principal Investigator for the archaeological investigation was Mr. Jason Tyler (Applied Archaeology and History Associates, Inc. [AAHA]) (**Appendix A**). The fieldwork was directed by Mr. W. Brett Arnold (AAHA) with assistance by Jessica Brannock (AAHA) and Dr. Alexander Keim (Maryland Environmental Service). The AAHA field technicians included Kathrina Aben, Catherine Carbone, Amanda Dellagnello, Zane Erskine, Jonathan Green, Norah Hoffman, Augustus Kahl, Jasmine Mathis, Ashley McAvoy, Sarah Muunir, Ryun Papsen, and Daniel Perry. Background research was undertaken by Mr. Arnold, Dr. Keim, Ms. Brannock, and Ms. Amanda Gaster (AAHA). Artifact processing and analysis was conducted by Mr. Alex Glass (AAHA), Ms. Jessie Maes (AAHA), and Ms. Gaster at the AAHA laboratory in Annapolis, Maryland. Ms. Liz O’Keefe (RK&K) and Mr. Arnold served as the Geographic Information System (GIS) analysts. Mr. Arnold completed this technical report with assistance from Mr. Tyler, Ms. Brannock, Dr. Keim, and Mr. Jason Shellenhamer (RK&K). All the report authors and supervisory staff meet standards set out in the Secretary of the Interior’s Professional Qualification Standards (48 Federal Register 44738–44739; 36 CFR Part 61).

Table 1. Summary of Phase I Survey Results and Recommendations

Area#	Phase I Survey Effort	Sites	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-1	Limited Survey	--	No Further Work	Yes	No Further Work
S-2	Limited Survey	--	No Further Work	Yes	No Further Work
S-3	Phase I Survey	--	No Further Work	Yes	No Further Work
S-4	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-4	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-5	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-5	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-6	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-6	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
RS-1	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
RS-2	Unsurveyed; No Access Permission	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-7	Phase I Survey	18MO752, 18MO753	Phase II for 18MO752	Yes	Phase II for 18MO752
S-8	Unsurveyed; No Access Permission	--	Phase I Survey	Yes	Phase I Survey
S-9	Phase I Survey	--	No Further Work	Yes	No Further Work
S-10	Phase I Survey	--	Additional Phase I Survey of inaccessible portions	Yes	Additional Phase I Survey of inaccessible portions
SWM S-10	Phase I Survey	--	No Further Work	Yes	No Further Work

Area#	Phase I Survey Effort	Sites	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-11	Unsurveyed; No Access Permission	--	No Further Work	No	No Further Work
S-12	Phase I Survey	18MO22	Additional Phase I if APE change	Yes	No Further Work
S-12/13	Phase I Survey	18MO749, 18MO750, 18MO751	No Further Work (S-12/13); Phase II for 18MO749 and 18MO751 (Completed in 2019)	Yes	No Further Work
S-13	Phase I Survey	18MO22	Additional Phase I if APE change	Yes	No Further Work
S-14	Phase I Survey	--	No Further Work	Yes	No Further Work
S-15	Limited Survey	--	No Further Work	Yes	No Further Work
S-16a	Phase I Survey	18MO754, 18MO755	Deep Testing Recommended; No Further Work at 18MO754, 18MO755	No	No Further Work
S-16b	Phase I Survey	--	No Further Work	No	No Further Work
S-16c	Phase I Survey	--	Deep Testing Recommended in undisturbed portions	No	No Further Work
S-17	Phase I Survey	--	Deep Testing Recommended	No	No Further Work
S-18	Phase I Survey	--	No Further Work	No	No Further Work
S-19	Phase I Survey	--	No Further Work	No	No Further Work
S-20	Phase I Survey	18PR1133	No Further Work	No	No Further Work
S-21	Phase I Survey	--	No Further Work	No	No Further Work
S-22	Phase I Survey	--	No Further Work	No	No Further Work
S-23	Unsurveyed; No Access Permission	--	No Further Work	No	No Further Work
S-24	Unsurveyed; No Access Permission	--	No Further Work	No	No Further Work
S-25	Phase I Survey	--	No Further Work	No	No Further Work
S-26	Phase I Survey	18PR1131	No Further Work	No	No Further Work
S-27	Phase I Survey	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-27	Phase I Survey	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-28	Phase I Survey	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-29	Phase I Survey	--	No Further Work	Yes	No Further Work
S-30	Limited Survey	--	No Further Work	No	No Further Work
S-31	Phase I Survey	--	No Further Work	No	No Further Work
S-32	Limited Survey	--	No Further Work	No	No Further Work
S-33	Phase I Survey	--	Deep Testing Recommended	No	No Further Work
S-34	Phase I Survey	--	No Further Work	No	No Further Work
S-35	Phase I Survey	--	No Further Work	No	No Further Work
S-36	Limited Survey	18MO756	No Further Work	No	No Further Work

Area#	Phase I Survey Effort	Sites	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-37	Unsurveyed; No Access Permission	--	Full Phase I Survey	No	No Further Work
S-38	Phase I Survey	--	No Further Work	No	No Further Work
S-39	Unsurveyed; No Access Permission	--	No Further Work	No	No Further Work
S-40	Phase I Survey	18PR425	No Further Work	No	No Further Work
S-41	Limited Survey	--	No Further Work	No	No Further Work
S-42	Unsurveyed; No Access Permission	--	No Further Work	No	No Further Work
S-43	Limited Survey	--	No Further Work	No	No Further Work
S-44	Unsurveyed; No Access Permission	--	Limited Phase I Survey	No	No Further Work
S-45	Phase I Survey	--	No Further Work	No	No Further Work
S-46	Limited Survey	--	No Further Work	No	No Further Work
S-47	Phase I Survey	--	No Further Work	No	No Further Work
S-48	Limited Survey	--	No Further Work	No	No Further Work
S-49	Phase I Survey	--	No Further Work	No	No Further Work
S-50	Limited Survey	--	No Further Work	No	No Further Work
S-51	Limited Survey	--	No Further Work	No	No Further Work
S-52	Limited Survey	--	No Further Work	No	No Further Work
SWM S-52	Phase I Survey	--	No Further Work	No	No Further Work
S-53	Unsurveyed; No Access Permission	--	Full Phase I Survey	Yes	Full Phase I Survey
S-54	Unsurveyed; No Access Permission	--	Full Phase I Survey	No	Full Phase I Survey

2 BACKGROUND

A prior survey of the Capital Beltway was conducted by Diamanti et al. (2008). A comprehensive regional precontact and historic context as well as discussion of existing sites and previous formal archaeological investigations within the archaeology survey area is presented in the *I-495 & I-270 Managed Lanes Study Archaeological and Historic Architectural Gap Analysis and Assessment* prepared for the MLS project (Hutchins-Keim et al. 2018) (Volume 2).

At the time of the development of the Archaeological and Historic Architectural Gap Analysis and Assessment, it was anticipated that the MLS Section 106 requirements within Virginia would be addressed by the Virginia Department of Transportation (VDOT) for their ongoing project to extend the American Legion Memorial Bridge High Occupancy Toll Lanes to the George Washington Parkway, called the NEXT Project (the 495 Express Lanes Northern Extension). Since the submission of the Gap Analysis, it was determined that the proposed limits of disturbance of the MDOT SHA MLS Study exceeded that of the VDOT project in Virginia. As a result, MDOT SHA commenced archaeological investigations in Virginia, and additional background research is presented in this section documenting previously recorded archaeological resources and studies completed within the MLS archaeology survey area within Virginia. Subsequent investigations based on this research are documented in Volume 6 of this report (Millis and Idol 2019). Additional background research was also undertaken for the Phase I archaeological survey report for newly recorded archaeological resources, or for previously recorded archaeological sites encountered during the Phase I archaeological survey. The results of that research are presented with the field results in Chapter 4.

2.1 Previous Archaeological Survey in Fairfax County, Virginia

There have been a number of formal archaeological investigations within the archaeology survey area in Virginia (**Figure 3; Table 2**). A full list of prior investigations is found in Table 2; salient results are also presented below. In 1980, Mike Johnson of Fairfax County conducted a survey along portions of the George Washington Memorial Parkway (GWMP) and Scott’s Run Nature Preserve, which resulted in the identification of at least 30 new archaeological sites. Johnson prepared reports for two of these sites (Johnson 1980; 1981), but later sources indicate the original site forms are the best source of information on this survey (Raszick and Bedell 2018).

In 1986, James Madison University conducted a Phase I survey of a section of I-495 between the American Legion Bridge and Georgetown Pike (Rickard 1986). The survey included a narrow corridor about one mile long along I-495 and the interchange between I-495 and the George Washington Parkway. It did not result in the identification of any new archaeological sites and much of the area contained within this survey is now disturbed.

Figure 3. Aerial photograph showing locations of previously identified archaeological sites within the archaeology survey area in Fairfax County, Virginia

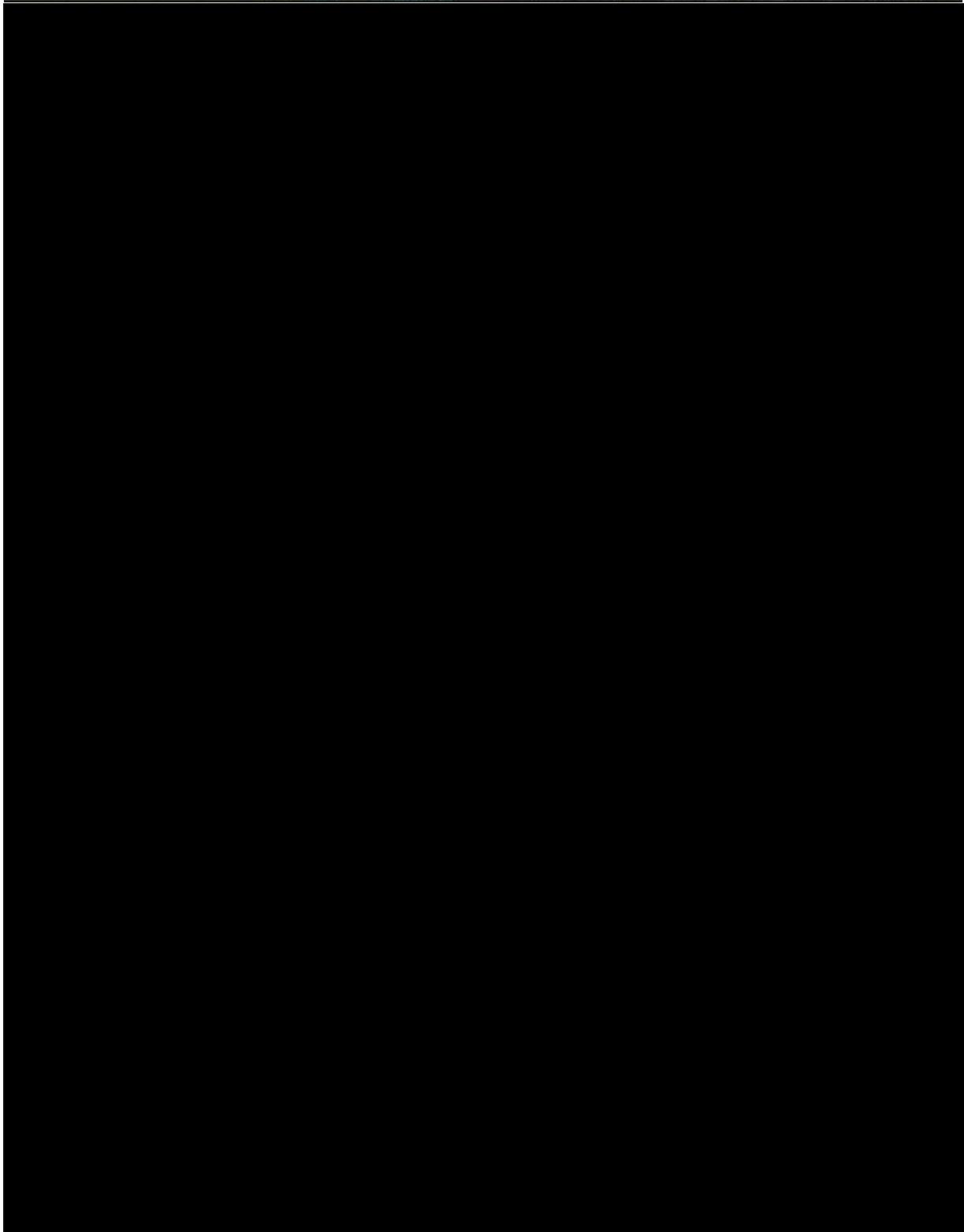


Table 2. Previous formal archaeological investigations within the archaeology survey area in Fairfax County, Virginia

Survey/Report Number	Author	Date	Report Title
N/A	Raszick and Bedell	2018	Archeological Overview, Assessment, Identification, and Evaluation Study of the George Washington Memorial Parkway, Northern Section, Virginia and Washington, D.C. Year Three Summary
N/A	Kresia et al.	2017	Phase IA Archeological Assessment: GWMP North Section Rehabilitation, Fairfax And Arlington Counties, Virginia
N/A	Raszick and Bedell	2016	Archeological Overview, Assessment, Identification, and Evaluation Study of the George Washington Memorial Parkway, Northern Section, Virginia and Washington, D.C. Year Two Summary
N/A	Bedell et al.	2016	Archeological Overview, Assessment, Identification, and Evaluation Study of the George Washington Memorial Parkway, Northern Section, Virginia and Washington, D.C. Year One Summary
N/A	Fracchia and Harris	2009	Addendum Report: Archeological Study For Proposed Outfall Rehabilitation Work, North Design Project, George Washington Memorial Parkway, Fairfax And Arlington Counties, Virginia
N/A	Dongarra et al.	2006	Archeological Study For The Proposed North Design Project, George Washington Memorial Parkway, Fairfax And Arlington Counties, Virginia
N/A	Dongarra et al.	2006	Phase I Archaeological Survey of the Proposed Mount Vernon Trail Extension, George Washington Memorial Parkway, Fairfax County Line to I-495 Interchange, Fairfax County, Virginia
FX-358	Barber, M. Fang, Robyn Osi, Sarah Meacham, Bradley Bowden, and Ashley Neville	2001	A Cultural Resource Survey of Improvements to the Capital Beltway (Route 495) in Fairfax County, Virginia
FX-101	Rickard, Donald L.	1986	A Phase I Archaeological Evaluation of a Section of Route 495, Fairfax County, Virginia
N/A	Johnson, Michael F.	1981	Fairfax Co. Archaeological Preliminary Site Report 21-2#13
FX-026	Johnson, Michael F.	1980	Archaeological Testing of the McQuail Rock Shelter (44FX294)

In 1999, Barber et al. (2001) conducted a Phase I survey for prior improvements to the Capital Beltway. The survey consisted of shovel testing at 75-ft intervals with radials to investigate subsurface artifact concentrations. This survey resulted in the identification of one site within the archaeology survey area, 44FX2430. Site 44FX2430 was interpreted as a camp site dating to the Middle Woodland period, although the presence of a Piscataway projectile point suggests the potential for a Late Archaic or Early Woodland component. This testing indicated that an estimated 50-74 percent of the site had been destroyed.

In 2005, Dongarra et al. (2006a) conducted a Phase I survey of the proposed Mount Vernon Trail Extension at the George Washington Memorial Parkway Interchange. This survey investigated 21 previously identified sites and identified six new sites, including one, a temporary camp site and lithic scatter

(44FX3160), that falls within the boundaries of the archaeology survey area. The site contained both subsurface and surface artifact deposits consisting of quartz and quartzite flakes [REDACTED] (Dongarra et al. 2006a:44). This site has not been evaluated for the NRHP. The survey area also encompassed 44FX0381, but they found no cultural material within the limits of the site.

Two additional studies were conducted in the area for planned improvements to the Parkway known as the North Design project (Dongarra et al. 2006b; Fracchia et al. 2009). The two westernmost sections of the 2006 project area were located within or in close proximity to the MLS project area (near sites 44FX0381 and 44FX0379); no cultural material was recovered during the 2006 survey in that area, although that LOD was limited primarily to the disturbed and steeply sloped areas adjacent to the Parkway (Dongarra et al. 2006b). The westernmost section of the 2009 study area was in some proximity to the MLS study area although on the south side of the Parkway in the vicinity of site 44FX0348 and south of 44FX0377. Nondiagnostic lithic artifacts associated with site 44FX0348 were recovered during that survey and site 44FX0389 was identified and evaluated for the NRHP (Fracchia et al. 2009). Phase II investigations on 44FX0389 produced pre-contact ceramic wares as well as lithic artifacts, and the site was recommended eligible for the NRHP.

Plans for the rehabilitation to the northern section of the Parkway were put on hold subsequent to the archaeological investigations, but in 2015 Kreisa et al. (2017) conducted a review of the previous studies and provided recommendations for further cultural resources work associated with this project.

Raszick and Bedell (2018) conducted an archaeological study of the George Washington Memorial Parkway that consisted of Phase I surveys in areas that had not previously been surveyed and Phase II evaluations in previously identified sites. This study included two of the sites within the current survey corridor, 44FX0374 and 44FX0381. The study produced a large lithic collection from 44FX0374, which was interpreted as a tool production site, and a much smaller lithic collection from 44FX0381. No diagnostics were recovered at either site and the testing at 44FX0381 produced three positive shovel tests. As a result of this study, both sites were recommended not eligible for the NRHP (Raszick and Bedell 2018: 46; 47).

2.2 Previously Documented Archaeological Sites in the Study Area in Fairfax County, Virginia

Prior to the investigations presented in Volume 6 of this report, ten previously identified archaeological sites had been identified within the archaeology survey area, all of which are precontact resources (**Table 3**). Seven sites are lithic scatters and two are precontact campsites. Six were identified by Mike Johnson of Fairfax County in 1981, and two of these—44FX0379 and 44FX0389—had not been investigated since their initial discovery.

Of the eight sites within the archaeology survey area in Fairfax County, 44FX0374, 44FX0381, 44FX0322 and 44FX0326 had been subjected to additional testing with surveyor recommendations that they are not eligible for inclusion on the NRHP (Raszick and Bedell 2018); no formal determinations of eligibility have been made on these sites. Only a small portion of Site 44FX2430 fell within the initial archaeology survey area, and it is likely that the portion within the APE has been heavily disturbed by road construction; the site was not investigated as it is outside the subsequently established LOD. Two sites identified in 1981

(44FX0379 and 44FX0389) had not been evaluated since their discovery, and significant portions of Sites 44FX0379 and 44FX3160 were known to be within the archaeology survey area.

Table 3. Previously identified sites within the archaeology survey area in Fairfax County, Virginia

Site#	Site Name	Resource Type	Site Topography	Association	Reference	Previous NRHP Determination/ Recommendation
44FX0322	No Data	Lithic Scatter	Unknown	Precontact, Unknown	Dongarra et al. 2006a	Not evaluated
44FX0326	No Data	Quarry	Unknown	Precontact, Unknown	Raszick 2016	Not evaluated
44FX0373	West Run Site 1	Lithic Scatter	Ridge	Precontact, Unknown	Raszick and Bedell 2018	Not evaluated
44FX0374	West Run Site 2	Lithic scatter	Ridge	Precontact, Unknown	Raszick and Bedell 2018	Not evaluated
44FX0377	No Data	Lithic scatter	Other	Precontact, Unknown	Johnson 1981	Not evaluated
44FX0379	Parkview Hills	Lithic scatter	Other	Precontact, Unknown	Johnson 1981	Not evaluated
44FX0381	West Run Site 3	Lithic scatter	Ridge	Precontact, Unknown	Raszick and Bedell 2018	Not evaluated
44FX0389	No Data	Lithic scatter	Other	Precontact, Unknown	N/A	Not evaluated
44FX2430	Capital Beltway 11	Camp	Ridge	Middle Woodland	Barber, M. Fang, Robyn Osi, Sarah Meacham, Bradley Bowden, and Ashley Neville 2001	Not evaluated
44FX3160	No Data	Camp, Lithic scatter	Unknown	Paleo-Indian through Late Woodland	Dongarra et al. 2006a	Not evaluated

3 FIELD METHODS

Field methods for the Phase I archaeological survey consisted of a combination of pedestrian reconnaissance and a regular-interval shovel test pit (STP) survey. These methods were utilized in each archaeology survey area identified where property access was granted, as well as within a series of proposed stormwater management (SWM) locations.

3.1 Pedestrian Reconnaissance

A preliminary pedestrian reconnaissance of each survey area was conducted prior to the commencement of shovel testing. The pedestrian survey informed the placement of STPs, noted ground conditions in the survey area, and located and documented possible historic or modern surface features that fell within or directly adjacent to survey area boundaries. The pedestrian survey also served to identify portions of each survey area within which shovel testing was not warranted due to obvious surface disturbance, marked subsurface utilities, impervious surfaces, streams and/or wetlands, or slopes greater than 15 percent.

Photographs of general ground conditions, areas unsuitable for shovel testing (due to slope, disturbance, or standing water at the surface), and other relevant cultural features (e.g. access roads or possible historic surface features) were taken in each area. Photographs were not taken in Area S-29, as the field crew was informed that photography was not allowed on the property for security reasons. **Appendix B** presents representative photographs of each area.

3.2 Shovel Testing

Prior to commencement of shovel testing within each survey area, a grid of equal-interval points at 50 feet (ft) (15 m) or 100 ft (30 m) intervals was overlaid onto the area using GIS and rotated to maximize coverage while minimizing the number of transects within that area. The angle of this rotation was noted, corrected for magnetic declination, and used as that area's grid north. This resulted in a different grid north being used for each area. STPs were placed at appropriate intervals for the recommended survey type and marked using survey pin flags and/or flagging tape. Baseline transects were measured and placed using a SUUNTO MC-2 United States Geological Survey (USGS) compass and fiberglass reel tape following the determined angle for the survey area. The survey interval was determined by whether the area was to be subjected to full Phase I survey or a limited survey. Judgmental STPs were placed at the field supervisor's discretion to investigate surface features or areas separated from the grid by wide streams or slopes.

Each STP was excavated in accordance with MDOT SHA *Guidelines*, measuring a minimum of 1.5 ft (45 cm) in diameter. The STPs were excavated in stratigraphic layers and extended at least 0.3-ft (10 cm) into sterile subsoil, to the water table, to a refusal due to gravel or other obstructions, or to a depth of 3.0 ft. All manually excavated soil was passed through one-quarter-inch hardware cloth to ensure uniform recovery of cultural materials. The locations of all excavations were recorded on a sketch map of each survey area and the vertical profiles of all STPs were recorded within the field notes.

Shovel testing conducted within the Chesapeake & Ohio (C&O) Canal National Historical Park and the adjacent Clara Barton Parkway resulted in the identification of three archaeological sites. During a subsequent Phase II investigation, it was determined that the work conducted by one of the technicians

on the field crew did not meet accepted standards or expectations. A review of the technician's work indicated that 11 STPs had not been excavated to a width or shape that met the MDOT SHA guidelines, with STPs being dug in a cone shape rather than being flat-bottomed. Upon re-examination, discrepancies were noted between soil descriptions and depths in this technician's field forms and actual observed excavations. Phase II excavations also determined that the technician had recovered some, but not all, of the artifacts contained within the excavated soil and had returned the remaining artifacts with the screened soil into the open STP. Several STPs were unexcavated as a result of being identified as being on steep slopes; however, upon later inspection were reevaluated as being on slopes gentle enough to include within the excavations.

While the individual technician's work was found to be substandard, STPs excavated by the remainder of the crew provided coverage of surrounding areas and resulted in the identification of the three archaeological sites. Because adequate coverage of the survey area was provided by the remaining testing, the problems with the single individual did not impact the overall findings within the C&O Canal area.

Once these issues were revealed, a complete review of all of that technician's work on the MLS Study Phase I investigation was conducted. The technician had worked on four areas and excavated 122 STPs, representing 5.3 percent of the overall survey effort. The technician's work in each area was reviewed and compared to that of their colleagues. Aside from the sites in the C&O Canal National Historical Park and Clara Barton Parkway, the technician worked on one other identified archaeological site. In that instance, the technician identified the initial concentration of cultural material, which was further explored by radials excavated by other crew members. Having reviewed and evaluated the technician's effort for the full project, their work is not considered to have had a meaningful detrimental effect on the results of the survey as a whole, or in respect to any individual survey area.

3.2.1 Limited Survey Areas

Survey areas recommended for limited survey by the *Archaeological and Historic Architectural Gap Analysis and Assessment* were areas with less than 15 percent slope and measuring at least 50 ft wide, but contained partially disturbed soils or indeterminate integrity requiring further investigation to determine archaeological potential (Hutchins-Keim et al. 2018:8). For limited survey areas, a 100-ft (30-m) survey interval was employed for STPs across portions of the survey area that could practically be tested. In instances where subsurface testing suggested extensive cutting-and-filling or other disturbance, no further work was conducted in these areas. If intact subsurface stratigraphy was encountered, the survey interval was decreased to 50 ft (15 m) and standard methods for full Phase I survey were utilized. Thirteen limited survey areas were established, and full Phase I testing was deemed necessary for three.

3.2.2 Phase I Survey Areas

Survey areas recommended for full Phase I survey by the *Archaeological and Historic Architectural Gap Analysis and Assessment* were areas that contain undisturbed soils, are greater than 50 ft (15 m) in width and length from the outer edge of the CSB or from documented disturbance (i.e., the width of an archaeological survey transect) and maintain a ground slope of less than 15 percent (Hutchins-Keim et al. 2018:7-8).

For Phase I survey areas, a 50-ft (15-m) survey interval was employed for STPs across all portions of the survey area that could practically be tested. SWM features added during fieldwork were also surveyed at 50-ft (15-m) intervals. Radial STPs at 25-ft (7-m) intervals were placed around STPs that were positive for historic or precontact material to investigate the extent of identified artifact concentrations. Radial STPs were pursued until two STPs at this interval were negative, or until property ownership or ground conditions (e.g., slopes, wetlands, or road surfaces) would not allow the excavation of further radial STPs at this interval.

3.3 Laboratory Methods

Artifacts recovered during archaeological investigations were transferred to the AAHA's laboratory in Annapolis, Maryland for cleaning, cataloguing, and analysis. Laboratory procedures were performed in accordance with state and Federal curation guidelines (Morehouse et al. 2018, National Park Service [NPS] 2017). After washing, artifacts were separated into like groups and placed into polyethylene 4-ml plastic re-sealable bags with acid-free provenience cards containing the following information: site number, catalog number, provenience, level, stratum, and date of excavation. Provenience information was written on the exterior bags in indelible ink. Artifacts were sorted and analyzed according to morphological, material, and functional classes. Artifacts were labeled with their appropriate site number and lot number. Artifacts of recent derivation determined to be unassociated with an archaeological site or from extensively disturbed contexts were cataloged and discarded with special notation within the catalog list.

The initial phase of artifact analysis consisted of the preparation of an artifact inventory of cultural materials recovered during the investigation. Historic artifacts were catalogued according to functional category (Architecture, Clothing, Kitchen, Personal, Tobacco, and Activity), raw material, type (nail, ceramic ware, pipe stem, etc.), and description (decoration, measurements, etc.). **Appendix C** contains a detailed catalog of the artifacts recovered during the Phase I survey.

Artifacts recovered from properties administered by NPS were curated in accordance with NPS NCR Regional Archaeology Program (RAP) curation guidelines. The initial phase of analysis for artifacts recovered from NPS property consisted of the preparation of an inventory of cultural materials recovered during the investigation using standardized object names defined by the NCR RAP Cataloguing Handbook. Artifacts were catalogued by object classification and include relevant descriptors such as manufacturing technique, decoration, color, object part, etc. as per NPS standards. The catalog was then entered into a template provided by the NCR RAP for contractors for import into the ICMS database. These artifacts will be curated by the NPS. Acid-free copies of the artifact catalog, field notes, photo log, and drawings prepared in accordance with the appropriate guidelines will accompany all assemblages to each curation facility. The complete artifact inventory is presented as **Appendix C**.

Artifacts not associated with the NPS will be curated at the Maryland Archaeological Conservation (MAC) Laboratory at Jefferson Patterson Park, in St. Leonard, Maryland, in all situations where secure title can be obtained. This includes artifacts from United States Department of Agriculture (USDA) property. Artifacts recovered from USDA properties were prepared in accordance with state and Federal curation guidelines and will be added to existing USDA artifact collections at the MAC laboratory per an agreement between the USDA, MDOT SHA, and MHT.

4 FIELD RESULTS

Fifty-six individual areas for Phase I survey were identified within the archaeology survey area (**Table 4; Appendix D**). Of these, 38 were recommended for a full Phase I survey and 18 for a limited survey, as presented in the *Archaeological and Historic Architectural Gap Analysis and Assessment* (Hutchins-Keim et al. 2018; Volume 2). In addition, two remote sensing areas were recommended for a Phase I survey. Over the course of the Phase I archaeological study, an additional six survey areas were added that accounted for potential SWM locations and a seventh area (S-12/13) was added that included unsurveyed land under and on either side of the American Legion Bridge, bringing the total number included as part of this survey to 65 survey areas. Full property access was secured for 39 survey areas, and partial property access was secured for an additional eight survey areas, resulting in archaeological reconnaissance and shovel testing in 47 survey areas. Property access could not be secured for 18 survey areas. Of the limited survey areas, a full Phase I testing strategy was deemed necessary for three. This resulted in the excavation of 2,283 STPs across the archaeology survey area.

The study resulted in the identification of ten new archaeological sites and expanded boundaries for two previously recorded archaeological sites. The newly identified sites included four precontact sites, three historic sites, and three sites with historic and precontact components. The precontact sites consist of lithic scatters, with two situated in upland settings and two in floodplains. The historic sites include one nineteenth and twentieth-century farmstead and one nineteenth- and twentieth-century domestic scatter related to a lock keeper’s house on the C&O Canal. The remaining sites are nineteenth or twentieth-century domestic scatters, two also containing precontact components.

Table 4. Archaeology Survey Areas

Area#	Recommended Effort	Survey Strategy	Property Access	Identified Sites	Within LOD for Preferred Alternative
S-1	Limited Survey	Limited Survey	Yes	--	Yes
S-2	Limited Survey	Limited Survey	Yes	--	Yes
S-3	Phase I Survey	Phase I Survey	Yes	--	Yes
S-4	Phase I Survey	--	No	--	Yes
SWM S-4	Phase I Survey	--	No	--	Yes
S-5	Phase I Survey	--	No	--	Yes
SWM S-5	Phase I Survey	--	No	--	Yes
S-6	Phase I Survey	--	No	--	Yes
SWM S-6	Phase I Survey	--	No	--	Yes
RS-1	Remote Sensing	--	No	--	Yes
RS-2	Remote Sensing	--	No	--	Yes
S-7	Phase I Survey	Phase I Survey	Yes	18MO752, 18MO753	Yes
S-8	Phase I Survey	--	No	--	Yes
S-9	Phase I Survey	Phase I Survey	Yes	--	Yes

Area#	Recommended Effort	Survey Strategy	Property Access	Identified Sites	Within LOD for Preferred Alternative
S-10	Phase I Survey	Phase I Survey	Partial	--	Yes
SWM S-10	Phase I Survey	Phase I Survey	Partial	--	Yes
S-11	Limited Survey	--	No	--	No
S-12	Phase I Survey	Phase I Survey	Yes	--	Yes
S-13	Phase I Survey	Phase I Survey	Yes	18MO22	Yes
S-12/13	Phase I Survey	Phase I Survey	Yes	18MO749, 18MO750, 18MO751	Yes
S-14	Phase I Survey	Phase I Survey	Yes	--	Yes
S-15	Limited Survey	Limited Survey	Yes	--	Yes
S-16a	Phase I Survey	Phase I Survey	Yes	18MO754, 18MO755	No
S-16b	Phase I Survey	Phase I Survey	Yes	--	No
S-16c	Phase I Survey	Phase I Survey	Yes	--	No
S-17	Phase I Survey	Phase I Survey	Yes	--	No
S-18	Phase I Survey	Phase I Survey	Yes	--	No
S-19	Phase I Survey	Phase I Survey	Partial	--	No
S-20	Phase I Survey	Phase I Survey	Yes	18PR1133	No
S-21	Phase I Survey	Phase I Survey	Yes	--	No
S-22	Phase I Survey	Phase I Survey	Yes	--	No
S-23	Phase I Survey	--	No	--	No
S-24	Phase I Survey	--	No	--	No
S-25	Phase I Survey	Phase I Survey	Yes	--	No
S-26	Phase I Survey	Phase I Survey	Yes	18PR1131	No
S-27	Phase I Survey	Phase I Survey	Yes	--	Yes
SWM S-27	Phase I Survey	Phase I Survey	Yes	--	Yes
S-28	Limited Survey	Limited Survey	Yes	--	Yes
S-29	Phase I Survey	Phase I Survey	Yes	--	Yes

Area#	Recommended Effort	Survey Strategy	Property Access	Identified Sites	Within LOD for Preferred Alternative
S-30	Limited Survey	Limited Survey	Partial	--	No
S-31	Phase I Survey	Limited Survey	Yes	--	No
S-32	Limited Survey	Phase I Survey	Partial	--	No
S-33	Phase I Survey	Phase I Survey	Yes	--	No
S-34	Phase I Survey	Phase I Survey	Yes	--	No
S-35	Phase I Survey	Phase I Survey	Yes	--	No
S-36	Limited Survey	Phase I Survey	Yes	18MO756	No
S-37	Phase I Survey	--	No	--	No
S-38	Phase I Survey	Phase I Survey	Yes	--	No
S-39	Limited Survey	--	No	--	No
S-40	Phase I Survey	Phase I Survey	Yes	18PR425	No
S-41	Limited Survey	Limited Survey	Partial	--	No
S-42	Phase I Survey	--	No	--	No
S-43	Limited Survey	Limited Survey	Yes	--	No
S-44	Limited Survey	--	No	--	No
S-45	Phase I Survey	Phase I Survey	Yes	--	No
S-46	Limited Survey	Limited Survey	Partial	--	No
S-47	Phase I Survey	Phase I survey	Yes	--	No
S-48	Limited Survey	Phase I Survey	Yes	--	No
S-49	Phase I Survey	Phase I Survey	Yes	--	No
S-50	Limited Survey	Limited Survey	Yes	--	No
S-51	Limited Survey	Limited Survey	Yes	--	No
S-52	Limited Survey	Phase I Survey	Partial	--	No
SWM S-52	Phase I Survey	Phase I Survey	Yes	--	No
S-53	Limited Survey	--	No	--	Yes
S-54	Limited Survey	--	No	--	No

4.1 Area S-1

Area S-1 is a 0.99-acre limited survey area located within the cloverleaf off-ramp connecting the northbound lanes of I-270 to West Montgomery Avenue (**Figure 4**) (**Appendix E, Page 9**). Four STPs were excavated in this area at 100-ft intervals to determine whether this area possessed stratigraphic integrity. The area is bounded by the Exit 6B ramp and falls within MDOT SHA right-of-way (ROW). Historic USGS topographic maps show it occupying the edge of a former ridgetop overlooking Watts Branch, which flows through a narrow floodplain approximately 1220 ft (370 m) to the west of Area S-1. Documented soils by the United States Department of Agriculture's Natural Resources Conservation Service (USDA Natural Resources Conservation Service (NRCS)) only show Glenelg silt loam, 3-8 percent slopes, within the study area (Web Soil Survey 2015). Stratigraphy in Area S-1 does not match the expected Glenelg series pedon, which consists of an A- or Ap-horizon over a shallow transition (less than 1.0-ft deep) to a Bt-horizon with an occasional intervening E-horizon, and the observed slopes in the study area do not match the contours of the landform depicted in early twentieth-century USGS maps.

Area S-1 is a wooded area that sits level with the ground surface of West Montgomery Avenue and slopes downward to the westbound lanes of I-270 and the Exit 6B ramp. Historic aerials and topographic maps from the mid-twentieth-century show four houses were constructed within an earlier alignment of the Exit 6B ramp in the study area between 1951 and 1955 (**Figure 5**). The edges of the study area are encircled by trees and dense concentrations of undergrowth that open to a clearing with moderate undergrowth in the central portion of the study area. Three concrete block-lined depressions were observed in the central to west-central portion of the area and a gravel drive (**Figure 6**) runs east-west through the south portion of the area (**Figure 7**). The depressions are likely related to the mid-twentieth-century houses, which were demolished between 1988 and 2002. Land records indicate that MDOT SHA acquired the properties that comprise Area S-1 in 1955 (MC Land Rec 2068:305), 1956 (MC Land Rec 2258:338), and 1986 (MC Land Rec 7175:402). By 2002, no trace of the houses can be seen in aerial photographs and the Exit 6B ramp occupies its current alignment.

Stratigraphy in Area S-1 consisted of gravel and clay fill layers within the cloverleaf. Two strata were generally identified throughout the study area, with Stratum I consisting of a dark yellowish brown (10YR 3/2) or brown (7.5YR 4/6) silt loam topsoil with 10 percent gravel over Stratum II, a strong brown (7.5YR 4/6) clay or heavily mottled yellowish red (5YR 4/6) clay loam fill with 30 percent gravel inclusions. The transition was abrupt and moderately shallow at 0.4-0.65 ft below surface, with gravel- and/or asphalt refusals halting excavation at 1.2-1.5 ft below surface. Due to the gravel and asphalt concentrations present in Stratum II, it is unlikely that Stratum II is subsoil, but rather represents a fill deposit or disturbed soils likely associated with the construction and/or demolition of the mid-twentieth-century houses and realignment of the Exit 6B ramp. Given the difference between the Glenelg series pedon and the observed stratigraphy, as well as the difference between the historic and modern landforms, it appears that the study area has been truncated and covered with a fill matrix.

Material observed in Area S-1 consisted of modern materials, such as asphalt, plastic, and modern bottle glass, that were discarded in the field, and no historic or precontact artifacts or features were encountered. The identification of such material and the absence of older cultural items is consistent with deposition relating to the mid-twentieth-century houses and the realignment of the exit ramp. The results

of the investigation indicate that Area S-1 has likely been disturbed through cut and fill processes during the twentieth century and does not possess the potential to contain significant archaeological resources. No archaeological sites were identified during the investigation and no further work is recommended in Area S-1. Minor LOD changes in and around Area S-1 also have little or no potential to impact significant archaeological resources. *Area S-1 is within the LOD for the Preferred Alternative.*

4.2 Area S-2

Area S-2 is a 0.89-acre limited survey area located within the cloverleaf on-ramp connecting traffic from West Montgomery Avenue to the northbound lanes of I-270 (**Figure 4**) (**Appendix E, Page 9**). Four STPs were excavated in this area at 100-ft intervals to determine its integrity. The area is bounded by the circular course of the Exit 6B on-ramp and falls entirely within MDOT SHA ROW. Historic USGS topographic maps show it occupying the edge of a former ridgetop overlooking Watts Branch, which flows through a narrow floodplain approximately 1300 ft (400 m) to the west of Area S-2. The NRCS documented Glenelg silt loam and Gaila silt loam in Area S-2, with slopes ranging from 3-15 percent (Web Soil Survey 2015). Stratigraphy in Area S-2 does not match the expected Glenelg or Gaila series pedon, both of which consist of an A- or Ap-horizon over a shallow transition (less than 1.0-ft deep) to a Bt-horizon with an occasional intervening E-horizon, and the observed slopes in the study area do not match the contours of the landform depicted in early twentieth century USGS maps. Historic aerial photographs show that the cloverleaf encircling the area was constructed between 1988 and 2002 (**Figure 7**).

Area S-2 lies approximately 395 ft (120 m) amsl and gently slopes downward to the westbound lanes of I-270. The land use of Area S-2 is transportation-oriented. The area contains dense concentrations of undergrowth that open to clearings (**Figure 8**) in the northwest portion of the study area. A paved pedestrian pathway (**Figure 9**) runs east-west through the north portion of the area leading to a footbridge crossing I-270.

Stratigraphy in Area S-2 consistently contained gravel and clay fill layers within the cloverleaf indicating prior disturbance. Two strata were generally identified throughout the study area, with Stratum I consisting of a dark brown (10YR 3/3) or brown (7.5YR 3/3) silt loam topsoil and Stratum II consisting of a strong brown (7.5YR 4/6) silty clay to clay loam fill with 20-40 percent gravel inclusions. The transition was generally 0.4-1.0 ft below surface, with gravel- and/or asphalt refusals halting excavation at 1.0 ft below surface. Due to the high gravel concentration present in Stratum II, it is unlikely that Stratum II is subsoil, but rather represents fill deposit associated with the late twentieth-century construction of the existing on-ramp. Given the difference between the expected soil pedons and the observed stratigraphy, along with the changes evident between the historic and modern landforms, it appears the study area has been truncated and covered with a fill matrix.

Material observed in Area S-2 consisted of modern materials, such as plastic and modern bottle glass, that were discarded in the field, and no historic or precontact artifacts or features were encountered. The identification of such material and the absence of older cultural materials is consistent with deposition relating to the construction of the exit ramp. The results of the investigation indicate that Area S-2 has been disturbed through cut and fill processes and does not possess the potential to contain significant archaeological resources. No archaeological sites were identified, and no further work is recommended in Area S-2. *Area S-2 is within the LOD for the Preferred Alternative.*

Figure 4. Results of the Phase I Survey in Area S-1 and Area S-2

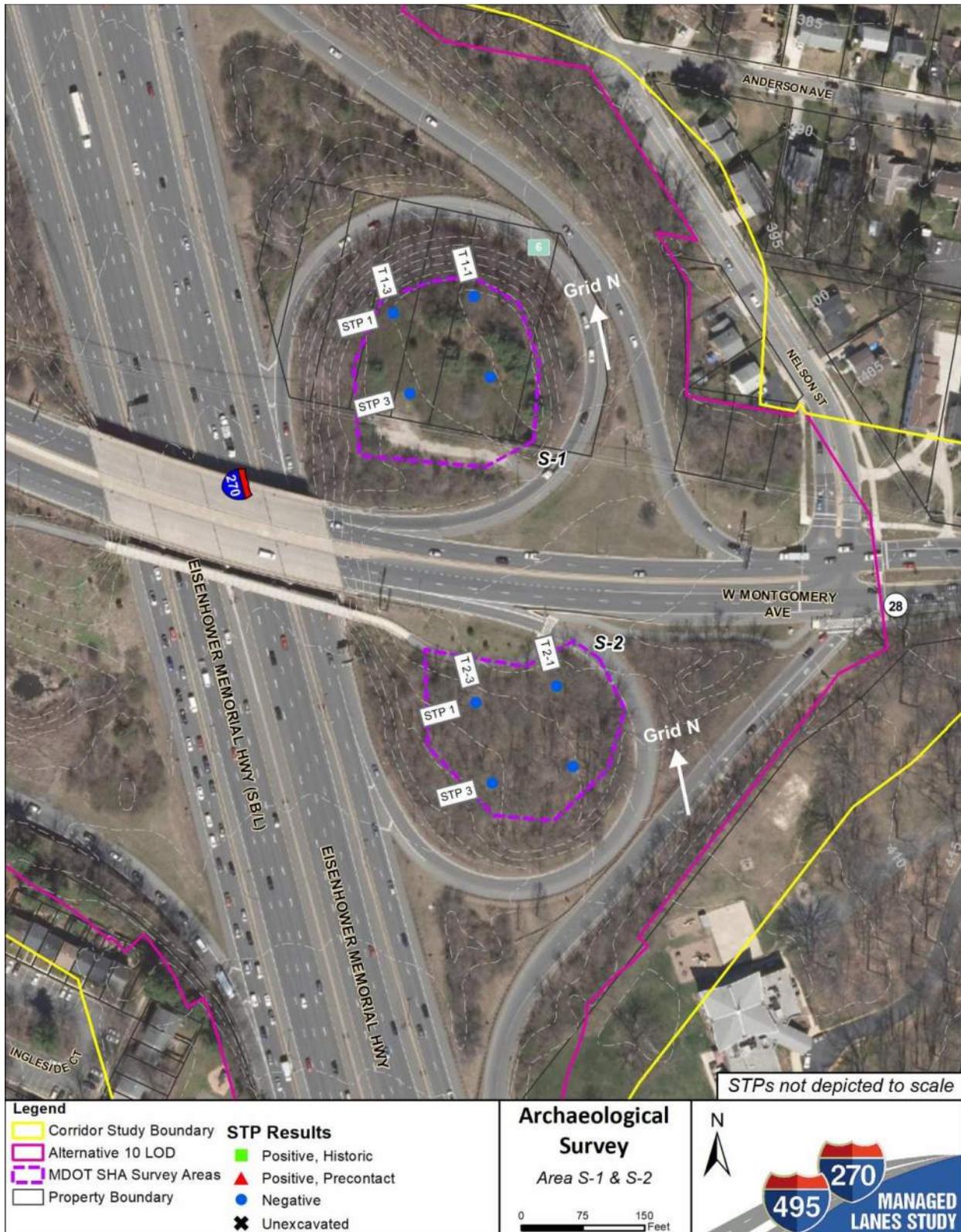


Figure 5. Gravel drive in Area S-1 across off-ramp, facing northwest.



Figure 6. Surface gravel and fill in Area S-1.



Figure 7. Historic aerial photograph showing previous structures contained within Area S-1 cloverleaf.

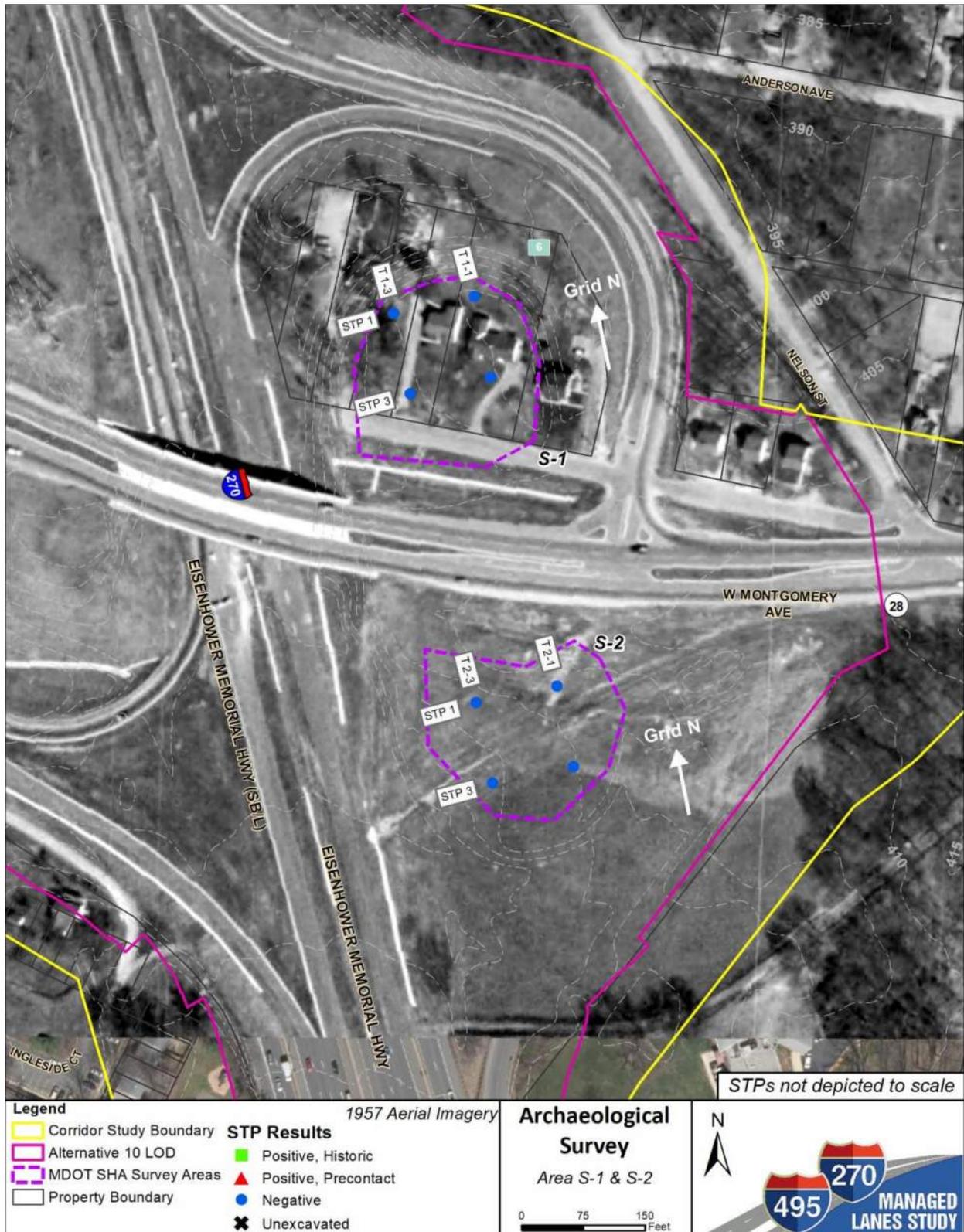


Figure 8. Trash and landscaping cloth on the surface in Area S-2



Figure 9. View from Area S-2 toward paved walking trail



4.3 Area S-3

Area S-3 is a 1.64-acre Phase I survey area located in a City of Rockville park between a residential subdivision and Julius West Middle School, along the east side of I-270 (**Figure 10**) (**Appendix E, Page 9**). A total of nine STPs were excavated in Area S-3. The area is roughly bounded to the north by Winding Rose Drive, to the south by athletic fields associated with the middle school, and to the west by an embankment carrying the northbound lanes of I-270. Historic USGS topographic maps show it occupying a floodplain and low terrace just above the floodplain. The NRCS documented Legore silt loam and Baile silt loam in Area S-3, with slopes ranging from 0-15 percent (Web Soil Survey 2015). Legore series soils typically consist of an A-horizon over two Bt-horizons, which are encountered at depths less than 1.0 ft. Baile series soils are poorly drained, consisting of an A-horizon over a hydric Bg-horizon, which is also reached at depths less than 1.0 ft. The stratigraphy encountered in Area S-3 roughly matches expected soil pedons. The presence of hydric soils near the top of the soil profile is likely due to increased runoff and poor drainage caused by the mid-twentieth century construction of I-270 combined with the late twentieth-century residential development surrounding the study area, which has resulted in much of the area's transformation into a wetland. Otherwise the landform occupied by Area S-3 is intact.

Area S-3 is situated 390 ft (119 m) amsl on two properties, one of which is owned by the City of Rockville and the other of which is owned by the Rockville Board of Education. The western edge of Area S-3 crossed into MDOT SHA ROW. The City of Rockville property is separated from both the MDOT SHA ROW and Julius West Middle School by chain-link fences. The northernmost section of this area contains a paved pedestrian walkway (**Figure 11**) and a runoff catchment basin. A wetland occupies the central portion of this area, parts of which have been artificially modified as evidenced by a bar of rip-rap extending into it (**Figure 12**). The wetland is characterized by tall grasses and standing water. A modern structure stands within the wetland between the northern portion of Area S-3 and the I-270 berm. The survey was conducted after a series of large rainstorms, which likely exacerbated the wet conditions. Historic aerials show a complex of farm buildings along the stream, two of which fall within the delineated wetland. Any structural remains from these two buildings would have been situated within the area of standing water.

The southern end of Area S-3 near the athletic fields was dry enough to excavate two transects comprising nine primary STPs at 50-ft intervals; three of these STPs were separated from the rest of the survey area by the chain-link fence that separates the City of Rockville and Board of Education properties. The ground surface in this area is sparsely vegetated with small trees, brush, and undergrowth. An unnamed tributary of Watts Creek runs through Area S-3 about 100 ft (30 m) south of its northern boundary, preventing the excavation of a third transect.

The stratigraphy reflected a combination of periodic flooding from the streams that feed the wetland, disturbance from the construction and maintenance of I-270, and ground modifications relating to the nearby residential development and middle school athletic fields. There were two general patterns to the stratigraphy in Area S-3. On the City of Rockville property (STPs 1-3 on both transects), Stratum I consisted of a dark greyish brown (10YR 4/2) to very dark greyish brown (10YR 3/2) silt loam A-horizon extending to between 0.3-0.55 ft below the ground surface. In STPs 3-1-1 and 3-2-1, Stratum II was an olive gray (5Y 5/2) to light yellowish brown (2.5Y 6/4) clay loam hydric transitional layer with around 30 percent gravel inclusions, extending to a depth of between 0.9 and 1.0 ft below the surface.

Figure 10. Results of the Phase I Survey in Area S-3

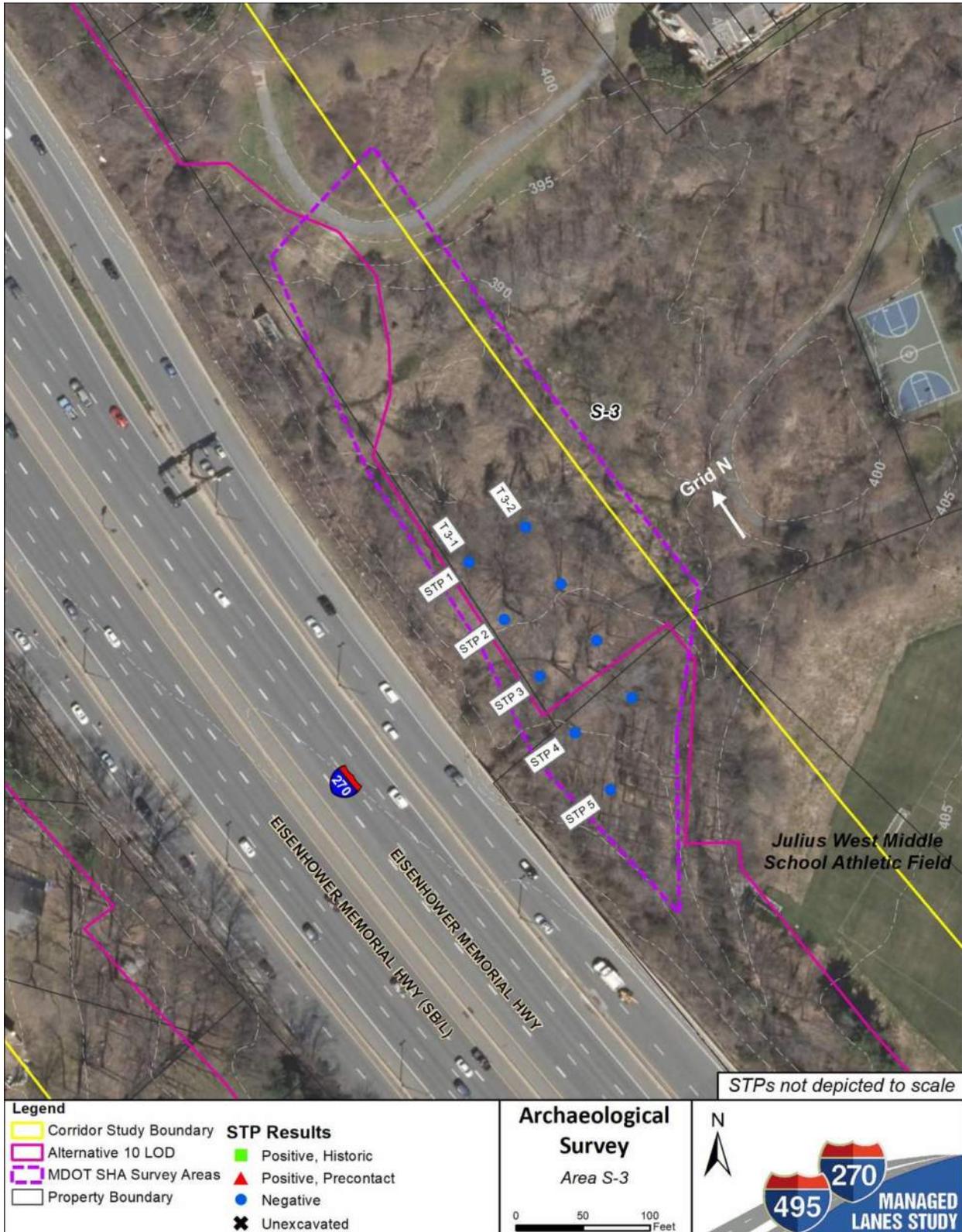


Figure 11. Berm carrying paved pedestrian walkway through the northernmost portion of Area S-3



Figure 12. Rip-rap in the wetland portion of Area S-3



Beneath this was Stratum III, a strong brown (7.5YR 5/8) mottled with olive gray (5Y 5/2) and yellowish brown (10YR 6/4) clay loam subsoil with around 40 percent gravel inclusions. The mottling reflects partial gleying due to the high water table. In the rest of the STPs excavated on the City of Rockville property, Stratum I came directly down onto the mottled subsoil at 0.5 ft below ground surface.

The three STPs excavated on the Board of Education property each shared a consistent stratigraphy characteristic of expected soil pedons. Beneath Stratum I, a very dark greyish brown (10YR3/2) silt loam O-horizon, Stratum II was encountered, consisting of a (7.5YR 4/6) clay loam A-horizon. Underlying this was Stratum III, a strong brown (7.5YR 5/8) clay loam subsoil extending from 0.4 ft to 0.8-0.95 ft below the ground surface.

Material observed in Area S-3 consisted of modern materials, such as modern bottle glass and rubber, that were discarded in the field. Area S-3 occupies an intact floodplain and low terrace, but changes to drainage and runoff patterns in the surrounding area has resulted in most of it becoming a wetland. Soils observed in this area are intact, but STPs close to the edge of the wetland show that the soils display incipient hydric characteristics. No historic or precontact artifacts were encountered. No historic or precontact features were observed, and no archaeological sites were identified. No further work is recommended in Area S-3. *is within the LOD for the Preferred Alternative.*

4.4 Area S-7

Area S-7 is a 9.56-acre Phase I survey area located west of I-270 lying entirely within Cabin John Regional Park and owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC), Montgomery County (**Figure 13**) (**Appendix, Page 26**). A total of 133 STPs were excavated in Area S-7, including six that were positive for cultural material. [REDACTED]

[REDACTED]

[REDACTED]. The NRCS identifies Gaila silt loam across most of the area, with small areas of Baile silt loam and Blocktown channery silt loam (Web Soil Survey 2015). The stratigraphy in this area matches expected Gaila soil pedons, which consist of an A-horizon over a shallow (about 1.0-ft deep) transition to a Bt-horizon, sometimes with an intervening E-horizon. This, coupled with a comparison with early twentieth-century USGS maps, suggests the landforms traversed by this area are intact outside the I-270 ROW. Two new archaeological sites (18MO752 and 18MO753) were identified in Area S-7.

Area S-7 is heavily wooded with moderate to dense undergrowth, occupying a series of flat terraces separated by moderately steep slopes. Two small drainages bisect the survey area east to west, with the first approximately 600 ft (180 m) and the second approximately 1,500 ft (450 m) south of the northern boundary. The north end of the survey area is approximately 350 ft (105 m) amsl and descends to about 270 ft (80 m) at the center of the area before ascending to 330 ft (100 m) and then plunging down to a floodplain at the south end [REDACTED]

[REDACTED]. Slopes in this area range from 3-15 percent. A total of [REDACTED]

133 STPs were excavated in Area S-7, including 118 primary STPs at 50-ft intervals, 12 radial STPs at 25-ft intervals around positive STPs, and three judgmental STPs around a possible structural feature.

The possible feature was initially thought to resemble part of a historic foundation and was located in the northern portion of the area (**Figure 14**). Three transects of STPs were excavated at 50-ft intervals parallel to the I-270 ROW. These transects were interrupted by three sections of slope greater than 15 percent.

The stratigraphy in the survey area was consistently intact. Stratum I, which was generally 0.1-0.3 ft thick, was a very dark brown (10YR 2/2) silt loam A-horizon. This overlay Stratum II, a brown (7.5YR 4/4) to dark yellowish brown (10YR 4/6) E-horizon with textures ranging from silt loam to a silty clay. Stratum III was reached between 0.5-1.5 ft below the ground surface, most frequently between 0.8-1.1 ft and comprised a strong brown (7.5YR 4/6 to 7.5YR 5/8) clay loam subsoil. STPs were halted at this point because Stratum III is a sterile Bt-horizon.

Area S-7 was fully tested by STPs. Aside from the identified resources which are separately discussed below, no further work is recommended in Area S-7 as currently defined. Soils observed in this area are intact, and minor LOD changes in and around Area S-7 would require evaluation to determine the need for additional archaeological investigations. *Area S-7 is within the LOD for the Preferred Alternative.*

The possible historic surface feature that was identified in Area S-7 consisted of a linear concentration of stone present on the surface located approximately 6 ft east of STP 7-1-3. It is 2.0 ft high and 15 ft long and runs roughly east west (**Figure 15**), and was initially thought to resemble a partial fieldstone house foundation. However, there is a gap in the alignment, and the excavation of nearby STPs on Transect 1 and the excavation of three judgmentally located STPs within the concentration of stones recovered no artifacts or other evidence of use or occupation and provided no evidence that the stones represent a cultural feature. In addition, two newly identified archaeological sites, Cabin John Site 1 (18MO752) and Cabin John Site 2 (18MO753) were identified.

4.4.1 18MO752 (Cabin John Site 1)

Site 18MO752 is a precontact lithic scatter of indeterminate date, probably representing a short-term occupation. It is situated on one of a series of ridgetops separated by moderately steep slopes (**Figure 16**). The site encompasses 0.43 acres and is located in a very similar setting to 18MO753 [REDACTED]. The site is heavily wooded with moderate to dense undergrowth. [REDACTED]

[REDACTED] Site 18MO752 is situated around STP 7-2-20, located in the center of Area S-7 on a relatively flat plateau with small artificial drainages located approximately 500 ft (152 m) to the north and south. A total of 21 STPs was excavated within 100 ft of the site, comprising three positive STPs. It occupies a small flat area between two drainages that carry water under I-270. The three positive test pits define a boundary for the site that is approximately 56 ft by 43 ft (17 m by 13 m).

Figure 13. Results from the Phase I Survey in Area S-7, showing newly identified 18MO752 and 18MO753.

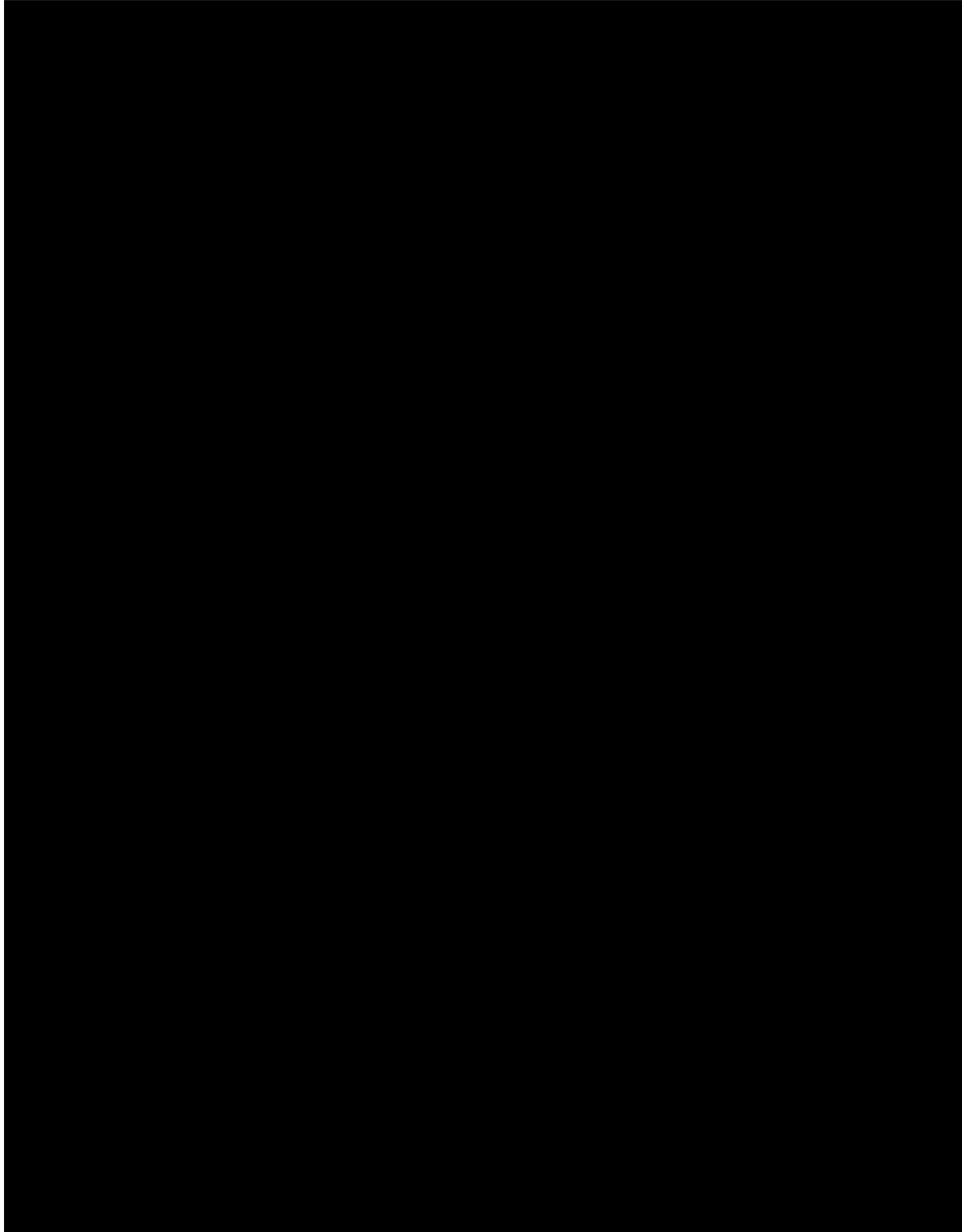


Figure 14. Possible historic fieldstone feature in northern portion of Area S-7, showing the gap in the stones looking northwest.

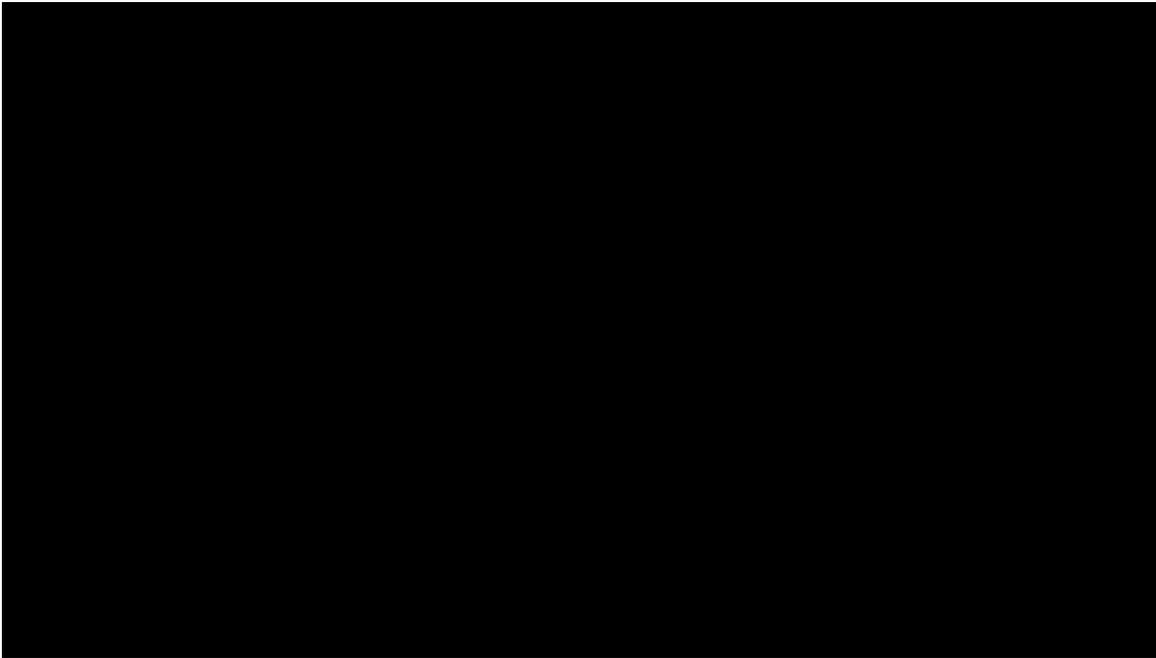


Figure 15. Results from the Phase I Survey in Area S-7, showing possible surface feature.



Figure 16. Results from the Phase I Survey in 18M0752

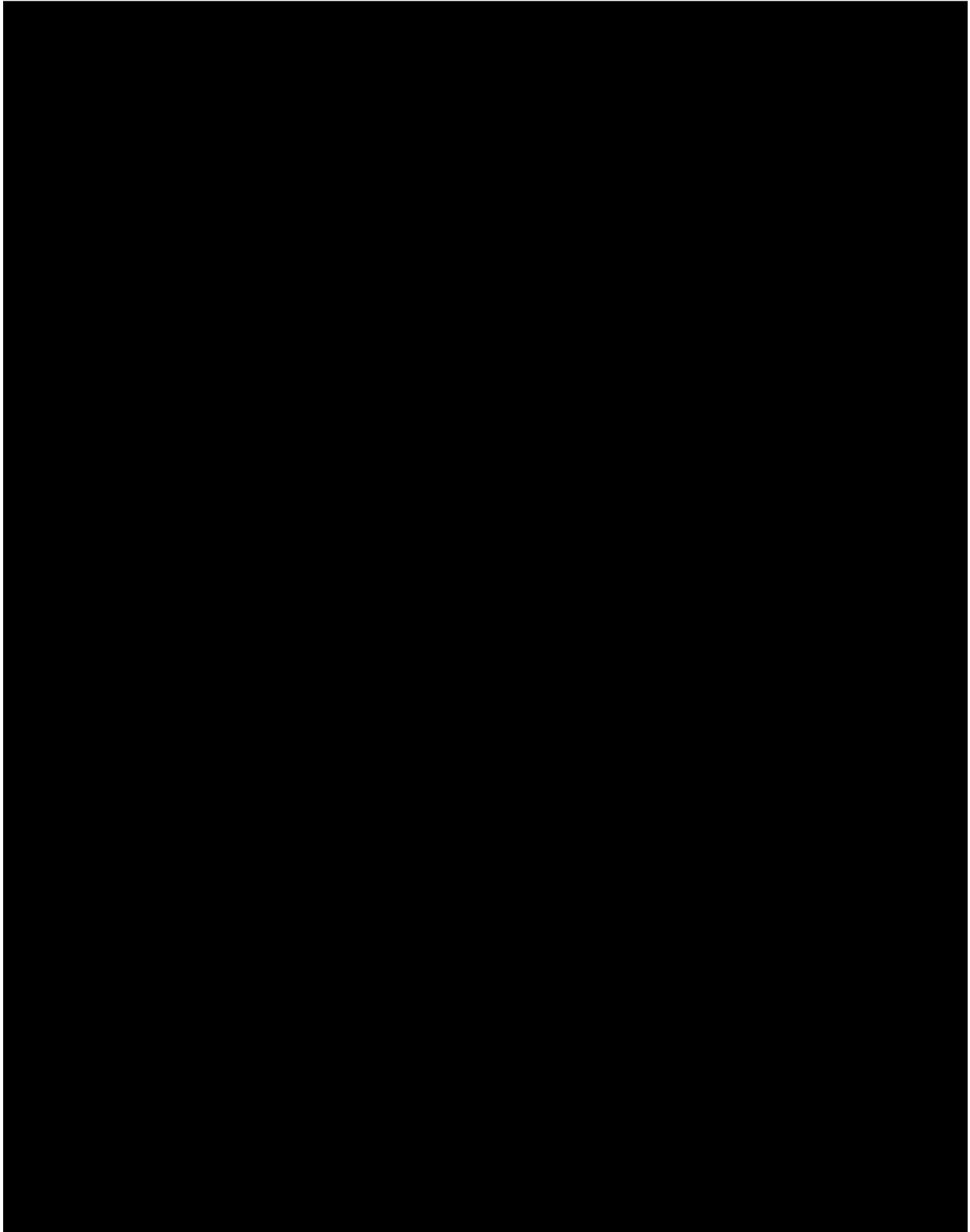


Figure 17. Sample STP profiles from sites in Area S-7

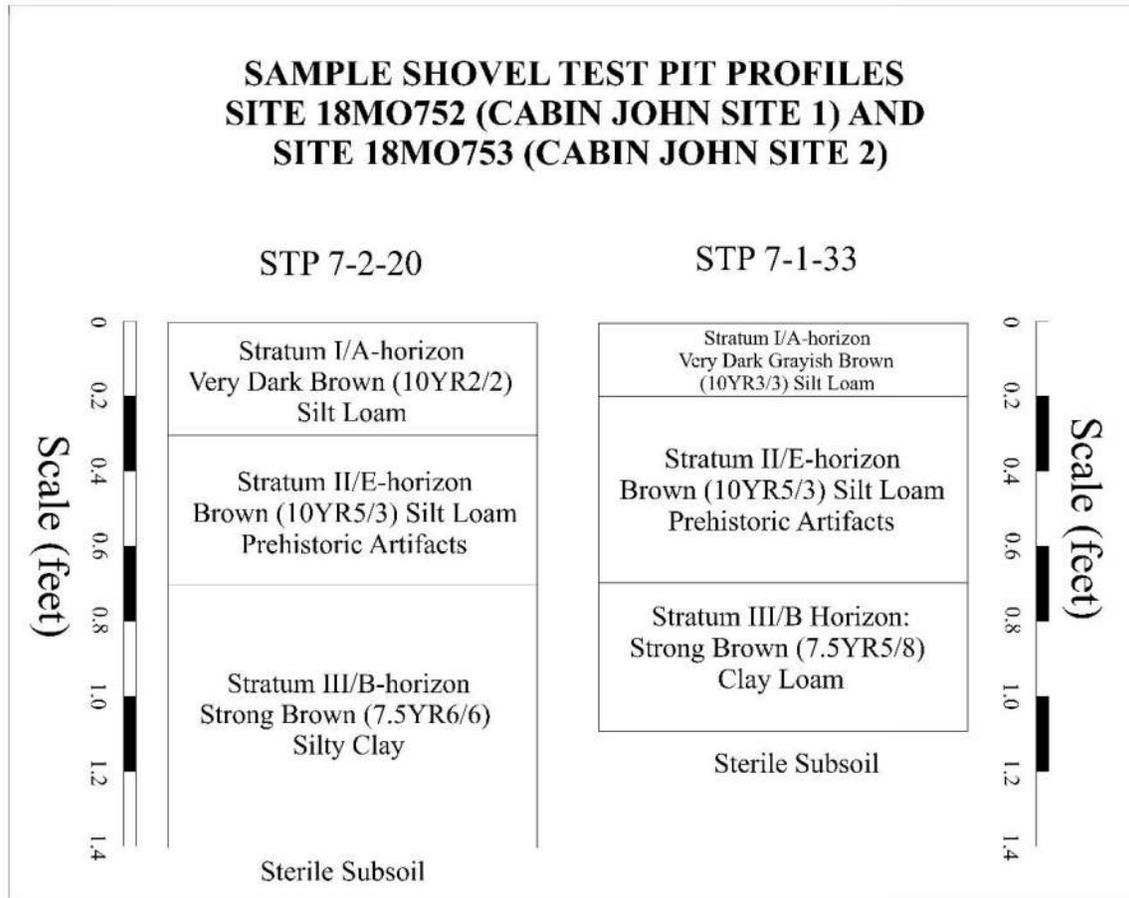


Table 5. Artifacts recovered from 18MO752

Artifact Class	Artifact Type	Count
Precontact	Early Stage Reduction Flake, No Cortex	1
	Biface Reduction Flake, No Cortex	3
	Projectile Point Fragment	1
	Cobble Shatter	1
Total		6

Figure 18. Artifacts from 18MO752

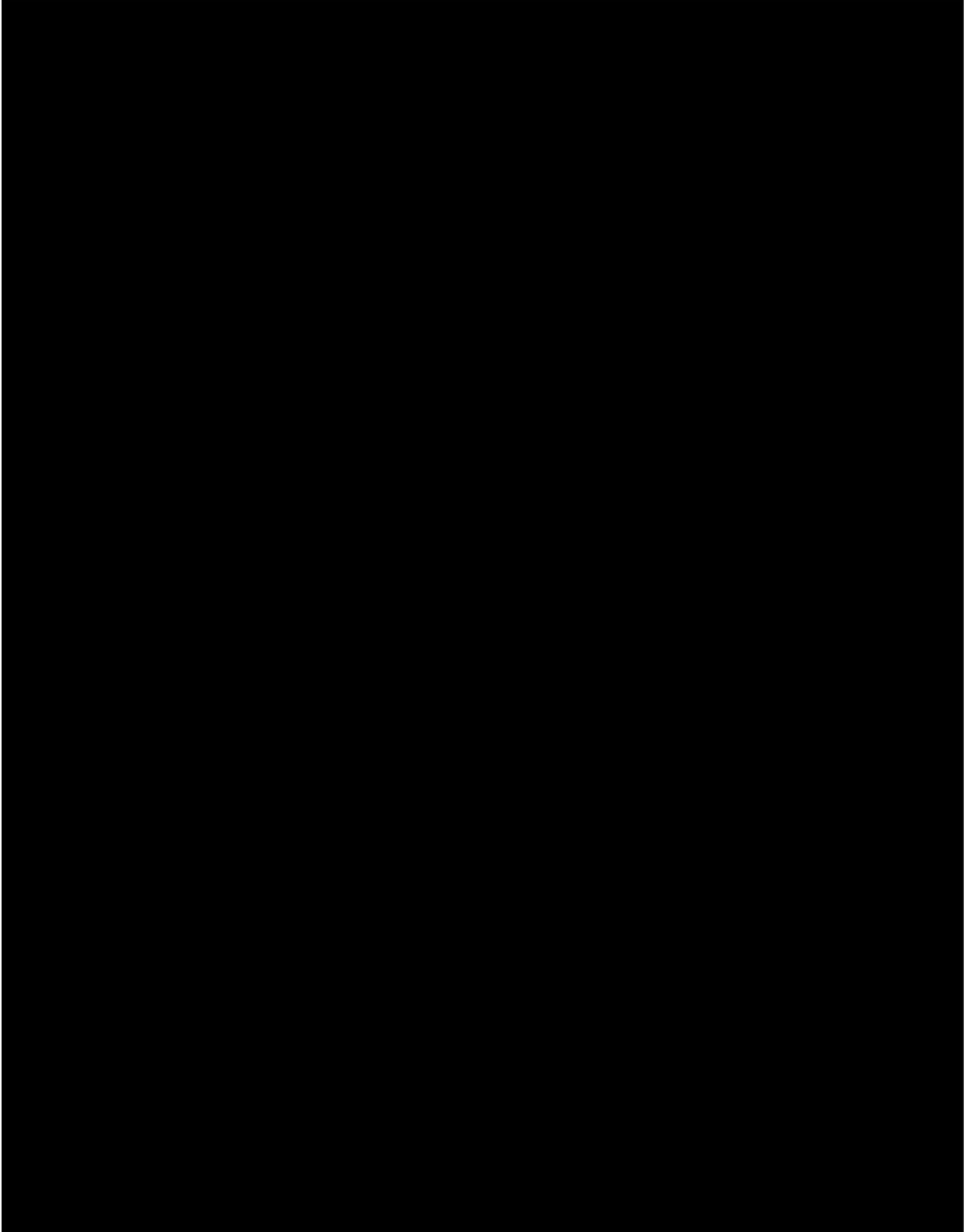


Left to right: Quartz biface reduction flake (top), quartz early stage reduction flake (bottom), rhyolite projectile point fragment, quartz biface reduction flake (top), quartz biface reduction flake (bottom), and quartz cobble shatter.

4.4.2 18MO753 (Cabin John Site 2)

Site 18MO753 is a multi-component artifact scatter consisting of a precontact lithic scatter and a nineteenth-century artifact isolate on one of a series of flat terraces separated by moderately steep slopes (Figure 19). The site encompasses 0.48 acres [REDACTED]. The site is heavily wooded with moderate to dense undergrowth [REDACTED]. [REDACTED] [REDACTED] [REDACTED]. A total of 21 STPs was excavated within 100 ft (30 m) of the site, three of which were positive which define the 56 ft by 56 ft (17 m by 17 m) site boundary.

Figure 19. Results from the Phase I Survey in 18M0753



STPs within the site generally had three soil strata, with no evidence for a plowzone. Stratum I consisted of 0.1-0.3 ft of a very dark brown (10YR 2/2) A-horizon. Below this was Stratum II, consisting of a brown (7.5YR 4/4) to dark yellowish brown (10YR 4/6) soil E-horizon with textures ranging from a silt loam to a silty clay. Stratum II terminated across the site between 0.5-1.5 ft below the ground surface, most frequently between 0.8-1.1 ft. Below this was Stratum III, a strong brown (7.5YR 5/8 or 7.5YR 4/6) clay loam subsoil. Soils were relatively gravelly. The stratigraphic sequence found on the site is typical of a woodland setting. No features were encountered.

Three artifacts were recovered from Site 18MO753, each of which was recovered from Stratum II (**Table 6; Figure 20**). Site 18MO753 is centered around STP 7-1-33, which contained one non-cortical quartz flake. Six radial STPs were excavated around 7-1-33, of which one (STP 7-1-33-W-25) contained a single quartz flake and a second (STP 7-1-33-S-25) contained a nineteenth-century undecorated whiteware sherd. The quartz lithic material represents locally available materials. In the absence of other artifacts, the whiteware sherd probably represents casual discard or loss. [REDACTED]

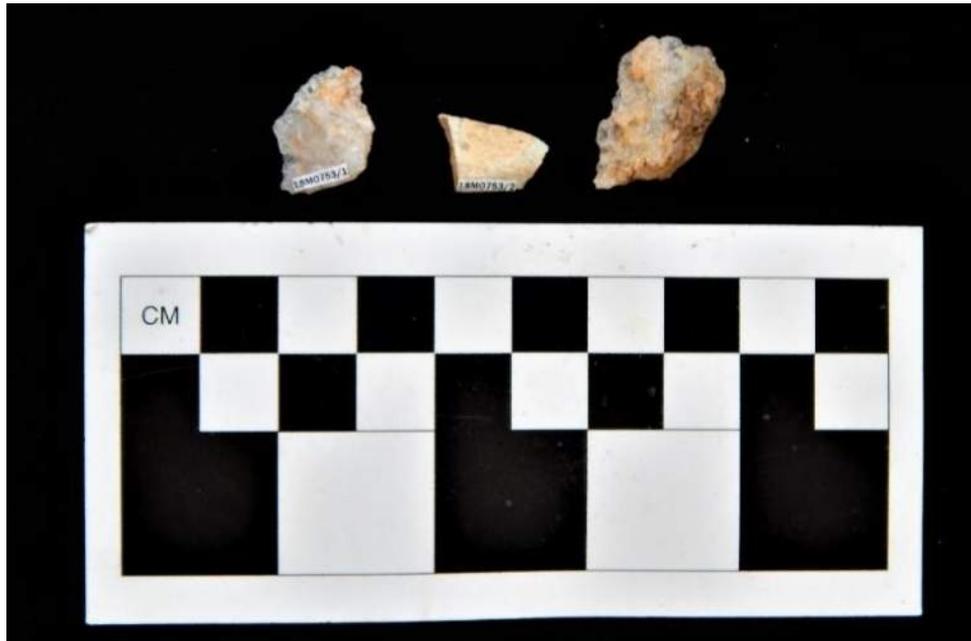
Background research revealed a complicated chain of title that could only be traced to the late nineteenth century, although an 1890 land record refers to the previous owner of the property as a Thomas C. Magruder, who likely acquired it in the 1810s (**Appendix G**). The owner of the property when the isolated piece of nineteenth-century whiteware was deposited is unclear and historic maps show no buildings in the study area in the late nineteenth or early twentieth century.

The precontact component at Site 18MO753 probably represents a short-term occupation, and the nineteenth-century component appears to represent an isolated artifact. No diagnostics were encountered that would provide a more precise date for the precontact occupation. No features were encountered, and the site has limited potential to provide new information about precontact occupation in the Eastern Piedmont or historic occupation in the vicinity. No further work is recommended. *Site 18MO753 lies within the LOD for the Preferred Alternative.*

Table 6. Artifacts recovered from 18MO753

Artifact Class	Artifact Type	Count
Kitchen	Nineteenth-Century Whiteware (1820-1900)	1
Precontact	Biface Reduction Flake, No Cortex	2
Total		3

Figure 20. Artifacts from Cabin John Site 2 (18MO753)



Left to right: Quartz biface reduction flake, undecorated nineteenth-century whiteware, and quartz biface reduction flake.

4.5 Area S-9

Area S-9 is a wooded 4.49-acre Phase I survey area located between a residential neighborhood and the I-270 southbound lanes (**Figure 21**) (**Appendix E, Page 7**). A total of 75 STPs were excavated in this area, one of which was positive for cultural material. It is roughly bounded to the north by the I-270 sound barrier, to the west by Old Georgetown Road, to the south by Aubinoe Farm Drive, and to the east by Farnham Drive. The northern portion of Area S-9 falls within MDOT SHA ROW. The NRCS documented Glenelg silt loam across most of the area, with Glenville silt loam documented near the southernmost portion of this area (Web Soil Survey 2015). Outside of a low-lying, poorly drained area in the southwest portion of Area S-9, the stratigraphy conformed to the expected Glenelg pedon, which consists of an A- or Ap-horizon over a shallow (less than 1.0-ft deep) transition to a Bt-horizon, sometimes with an intervening E-horizon. This indicates that the portion of the landform falling between the I-270 ROW and the housing development south of Aubinoe Farm Drive is intact.

Area S-9 is located about 367 ft (112 m) amsl. The westernmost edge of the area contains a dense stand of bamboo along Old Georgetown Road. The easternmost portion gradually slopes upward to a level terrace about 6 ft (2 m) above Aubinoe Farm Drive. Slopes in this area range from 3-15 percent. Eleven transects of STPs were excavated beginning in the southwest portion of Area S-9 and extending south and east. Transects 1-3 ran east-west across most of this area, Transects 4-11 were shortened transects mostly within the bamboo stand, and Transect 0 was added to the survey to test a flat area on the MDOT SHA side of the ROW fence.

A total of 70 primary STPs were excavated at 50-ft intervals, and five radials were excavated around STP 9-9-2, which contained one brick fragment and one piece of machine-made amethyst bottle glass. The five radials were all negative. Evidence of a recently abandoned transient camp and modern debris was observed west of the STP.

The stratigraphy was variable across the westmost to central portions of Area S-9 with three strata generally present. STPs within the central and eastern portions of the study area contained three strata, with Stratum I consisting of a dark brown (10YR 3/3) silt loam and Stratum II consisting of a brown (10YR 4/3) or yellowish brown (10YR 4/6) clay loam. Stratum III, a very dark gray (10YR 3/1) silty clay loam or a brownish yellow (10YR 6/6) silty clay subsoil, was encountered 0.3-1.3 ft below surface and reached to the base of excavation at 1.1-1.7 ft below surface. The southwest portion of Area S-9 was a lowland with poorly drained soils, and again generally contained three strata consisting of Stratum I, a thin very dark grayish brown (10 YR 3/2) silt loam A-horizon, over Stratum II, a dark yellowish brown (10YR 4/6) sandy loam E-horizon. Stratum II transitioned between 0.4-0.9 ft below surface to Stratum III, a strong brown (7.5YR 5/8) sandy clay loam subsoil that was generally excavated to a depth of 1.2-1.5 ft

STP 9-9-2 contained one brick fragment and one piece of machine-made amethyst bottle glass that likely dates to the early twentieth century. Other material observed in Area S-9 consisted of modern materials, such as asphalt, modern bottle glass, and bicycle parts, that were discarded in the field. The two retained artifacts represent an isolated historic and/or modern scatter and upon consultation with the MDOT SHA, it was decided these artifacts have no research potential and should not be curated. The results of this investigation indicate that Area S-9 is an intact remnant of a former ridgetop. No historic or precontact features were observed and no archaeological sites were identified. No further work is recommended in Area S-9. Because Area S-9 is between I-270 and areas of residential development, minor LOD changes in and around Area S-9 have little or no potential to impact significant archaeological resources. *Area S-9 lies within the LOD for the Preferred Alternative.*

4.6 Area S-10 and SWM S-10

Area S-10 is a 12.33-acre Phase I survey area located between Grosvenor Place and I-270 (**Figure 22** and **Figure 23**) (**Appendix E, Page 7**). The survey area also included a 0.73-acre proposed SWM location designated SWM S-10. Thirty STPs were excavated in portions of this survey area for which access had been granted, none of which contained precontact or historic material. It is roughly bounded by I-270 to the west, Grosvenor Lane to the south, and Grosvenor Place and a number of residential complex parking lots to the north. Area S-10 is situated on an undulating ridgetop about 285 ft (87 m) amsl directly adjacent to the I-270 ROW fence. Comparison between current conditions and twentieth-century USGS maps indicates that a thin strip of the ridgetop between modern housing developments and the I-270 ROW is intact. The NRCS documented Glenelg silt loam, Blocktown channery silt loam, Brinklow-Blocktown channery silt loam, and Urban Land in this area, with slopes ranging from 3-25 percent (Web Soil Survey 2015). Stratigraphy in the southern portion of the tested area matched expected soil pedons for Glenelg silt loam, but soils in the northern portion consisted of sand fill likely related to the installation of a rip-rap drainage feature and subsurface utilities (**Figure 24**). The landform in the center of the tested area has since been destroyed by residential development.

Figure 21. Results of the Phase I Survey in Area S-9

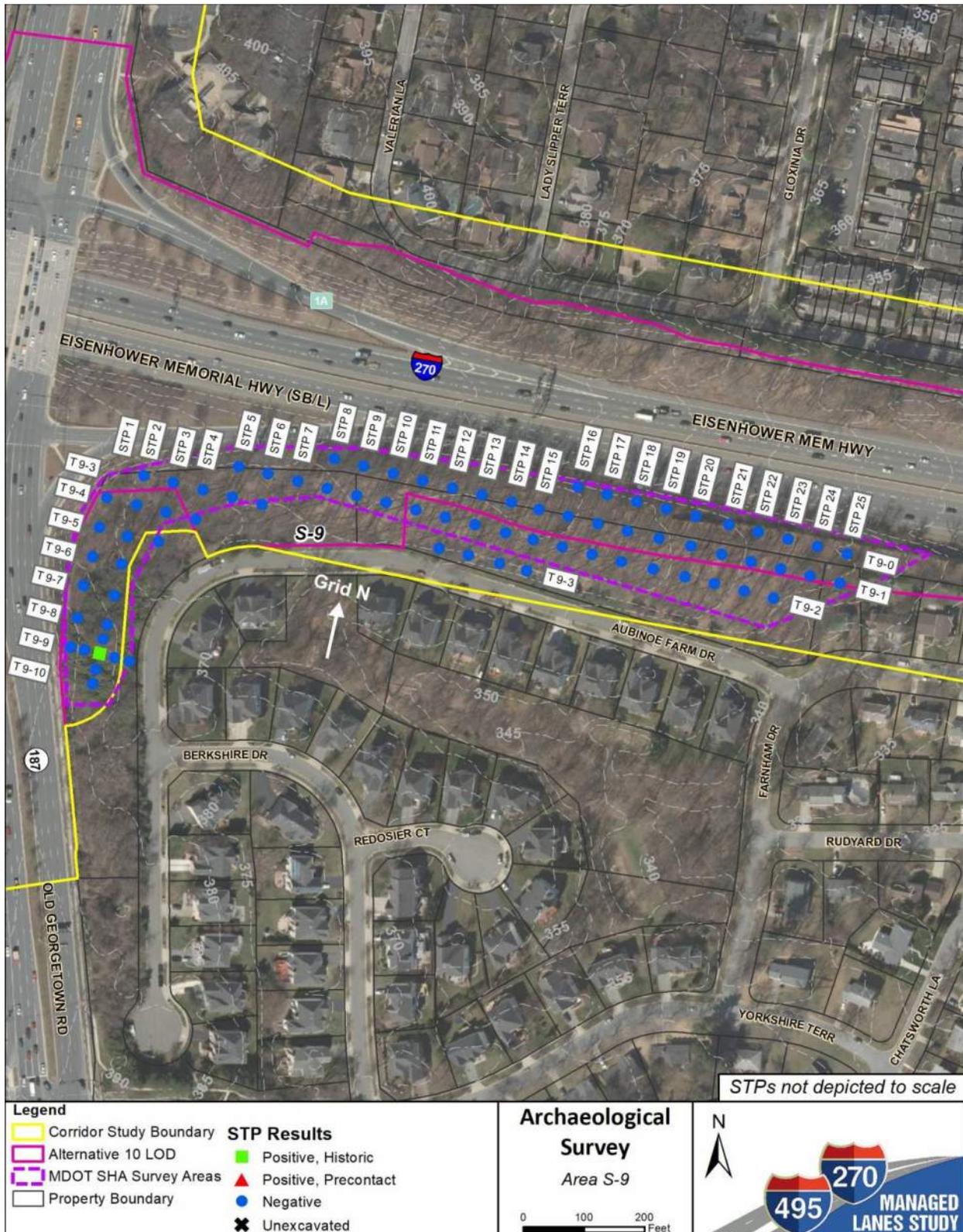


Figure 22. Results of the Phase I Survey in Area S-10 and SWM S-10, disturbed area highlighted in red

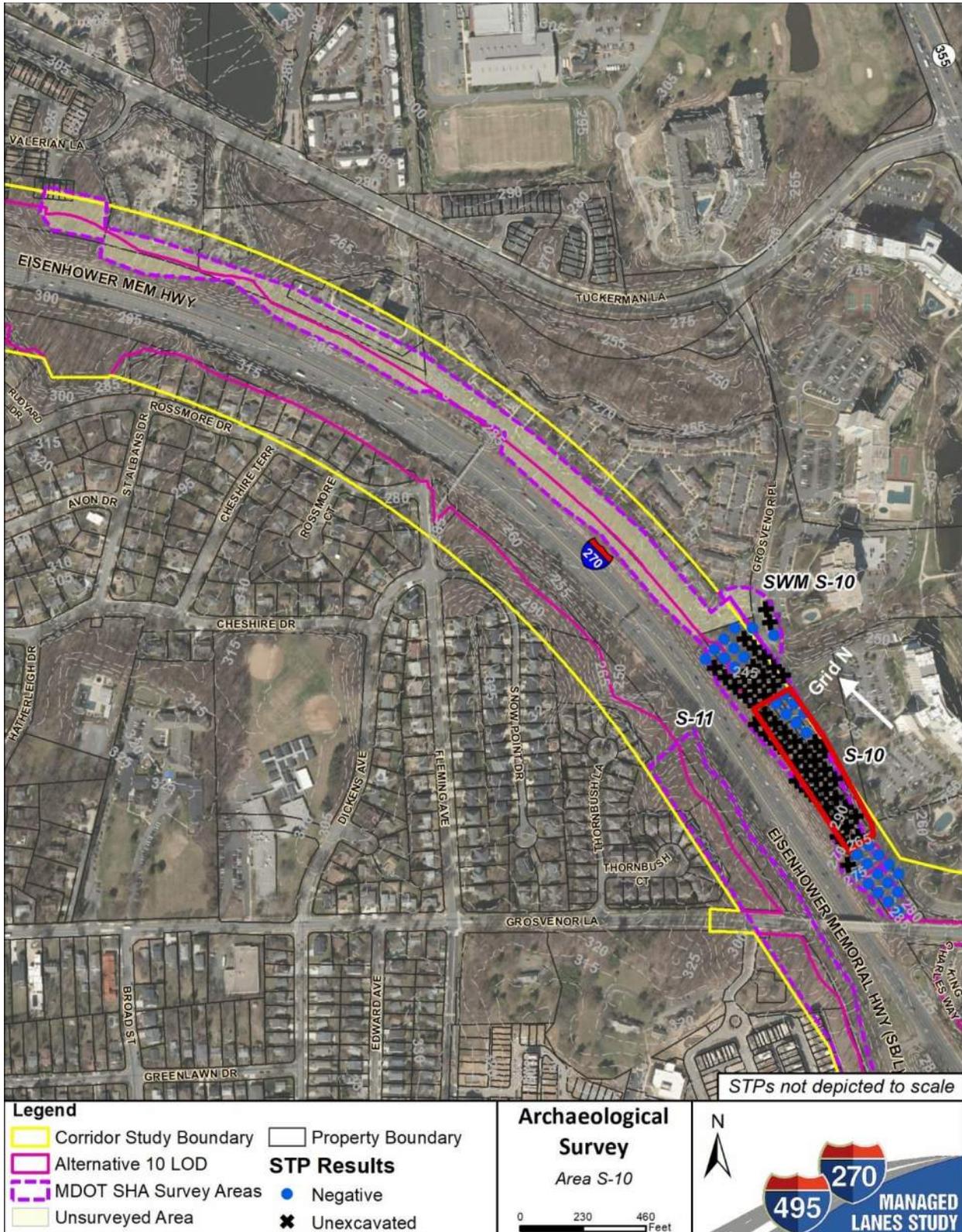


Figure 23. Results of the Phase I Survey in Area S-10 South, disturbed area highlighted in red

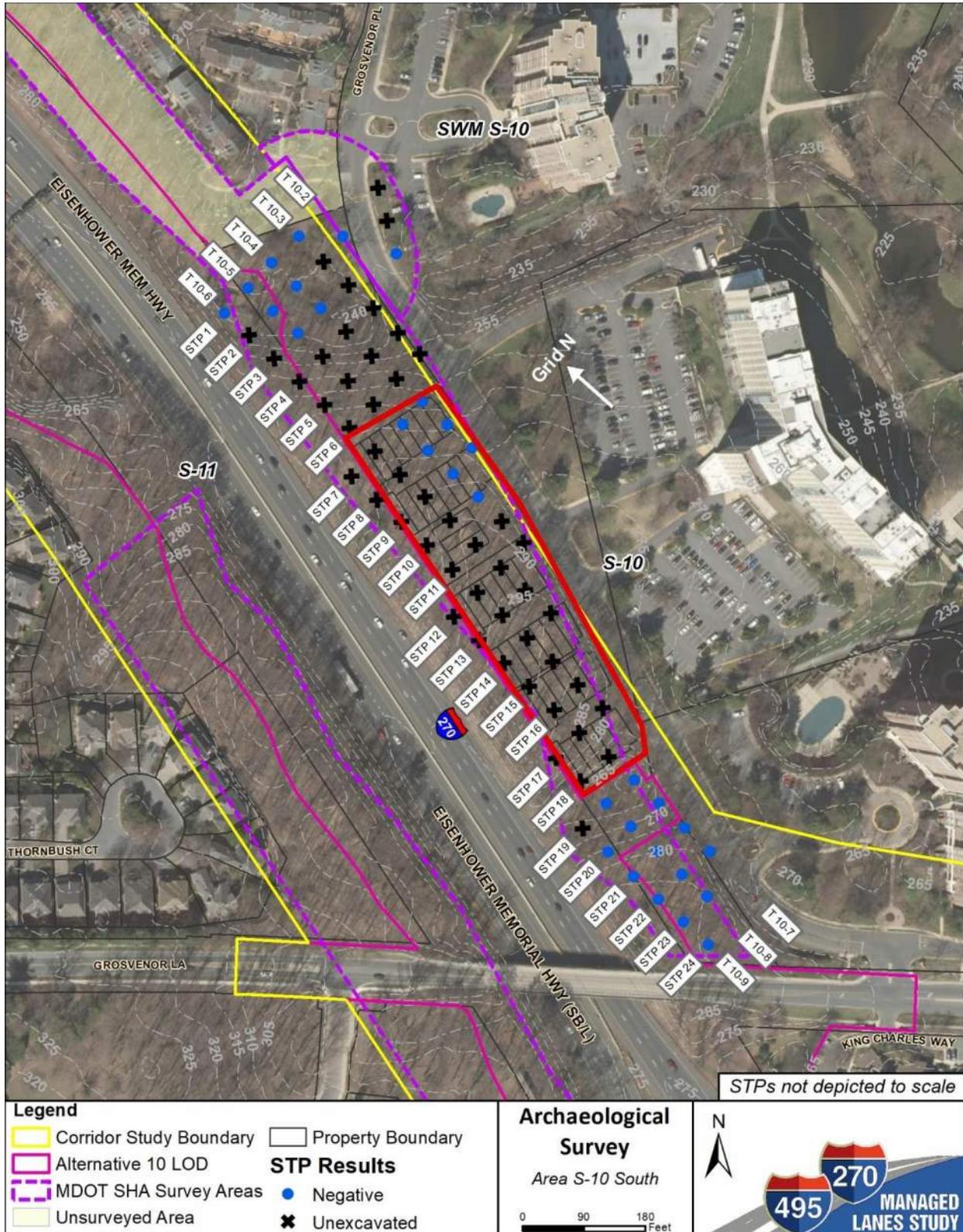


Figure 24. Improved rip-rap drainage feature in Area S-10, facing northeast



Area S-10 begins roughly where Grosvenor Lane crosses I-270 and continues 4,240 ft (1,292 m) along I-270, ranging in width from 95 ft (30 m) to 180 ft (55 m). Area S-10 occupies 56 privately-owned parcels of which access was secured for 50 parcels, comprising 4.37 acres. The area was largely wooded with moderate undergrowth, however during the survey a tree removal crew began work in the central flat area, preventing the archaeological crew from continuing testing in this area. The tree removal crew was part of a larger effort to prepare this area for residential development, and it became clear these efforts would significantly impact the integrity of soils in this area. Pedestrian reconnaissance showed that the equipment used to remove the area's trees had already disturbed up to 0.5 ft of the area's topsoil. A subsequent visit to the site showed that the landform had been cut and graded (**Figure 25**).

A total of 30 primary STPs at 50 ft intervals was excavated in portions of Area S-10 and SWM S-10 for which access had been granted. Parts of nine transects were laid out in this area, with Transects 1-5 being short transects in the northern portion of the area, Transects 3 and 4 extending into the central portion of the area, and Transects 7-9 in the southern portion of the area. SWM S-10 was found to be in an area mostly disturbed by road construction or the installation of subsurface utilities, and across the study area there were electrical boxes, drainage ditches, and other signs of earth-moving activity.

Soils in the southern and central portions of the accessible part of Area S-10 were remarkably intact at the time of the survey. STPs in Area S-10 consisted of three strata. Stratum I was a very dark grayish brown (10YR3/2) silt loam A-horizon that reached a depth of 0.2 ft below surface. Stratum II was a brown (10YR 4/3) silt loam E-horizon that reached a depth of 0.6-1.0 ft below surface. Stratum III was a strong brown (7.5YR 5/6 or 5/8) clay loam subsoil that reached to the base of excavation, usually between 1.1 and 1.4

ft below surface. STPs in the northern portion of the tested area generally contained a uniform yellowish brown (10YR 5/4 or 5/6) compact clay loam fill that extended to the base of excavation, which was excavated to 1.2-1.7 ft below surface before being terminated due to refusals. STPs with this profile were generally noted as being next to electrical boxes, drainage ditches, or similar modern features.

Figure 25. Cut portion of Area S-10 in May 2019, facing northwest



Soils in the southern and central portions of the accessible part of Area S-10 were remarkably intact at the time of the survey, although ground disturbance related to the residential development likely impacted the intact soils recorded in the central portion. Artifacts present in Area S-10 consisted of various modern materials that were discarded in the field. No historic or precontact artifacts were encountered. No historic or precontact features were observed, and no archaeological sites were identified.

A large portion of Area S-10 remains untested due to lack of property owner permission and testing in the areas adjacent suggest it has the potential for intact archaeological resources. Phase I survey is recommended in the inaccessible portion of Area S-10. Area SWM S-10 comprises areas of roadways and pavement within suburban development, and no further work is recommended for Area SWM S-10. *Areas S-10 and SWM S-10 are located within the LOD for the Preferred Alternative.*

4.7 Area S-12

Area S-12 is a Phase I survey area measuring 2.52 acres [REDACTED] (Appendix E, Page 1). Area S-12 falls entirely within federal property administered by the NPS, and work for this project was undertaken in accordance with ARPA Permit 18-

CHOH/NACE-10. Portions of the NPS property are subject to an MDOT SHA highway easement [REDACTED]. Eighteen STPs were excavated in Area S-12. [REDACTED] (Figure 26). The survey area is located on property administered by the NPS and an MDOT SHA highway easement. The NRCS documented Elk silt loam and Chrome and Conowingo soils with slopes ranging from 0-8 percent (Web Soil Survey 2015). Each of these soil series typically consists of an Ap-horizon transitioning to a Bt-horizon 0.6-1.1 ft below surface. Elk silt loams typically contain an intervening BA-horizon between the surface soils and subsoil ranging from 0.75-1.1 below surface. Testing revealed the stratigraphy did not generally conform to the expected soil pedons and was somewhat variable. The waterlogged conditions at the survey area resulted in the termination of some STPs at the water table before reaching an identifiable subsoil. The construction of [REDACTED] interchange may have resulted in increased drainage and water retention within Area S-12, which is reflected in the gleying hydric soils and high water tables encountered in the area's STPs.

Area S-12 is wooded with a central grassy clearing [REDACTED] (Figure 27). It is situated 110 ft (32 m) amsl and slopes gently downward to the west, with slopes ranging from 0-8 percent. A small stream runs through this western portion of the area [REDACTED]. Area S-12 was surveyed during a period of sustained heavy rain, exacerbating the standing water and high-water tables were observed in all parts of this area.

Area S-12 area is located partially within the Potter Site (18MO22), identified through amateur collection by the landowner, Lloyd Potter, and recorded in 1961 (MHT Site Form 18MO22). According to the site form on file with the MHT, the site [REDACTED] included precontact points, blades, and groundstone. Potter reported most of the site was destroyed when I-495 was constructed, although aerial photography suggests that some portions of the site within Area S-12 may remain undisturbed.

A total of 18 primary STPs were excavated at 50-ft intervals in Area S-12. Two transects of STPs were excavated [REDACTED]. STPs 4-8 on Transect 1 were offset between five and 15 ft because the transect ran through the stream, and the immediately adjacent ground surface was mostly covered by standing water.

Two primary stratigraphic patterns were identified at Area S-12. In the eastern part of the area near the on-ramp and within the lawn, Stratum I consisted of dark grayish brown (10YR 4/2) to very dark grayish brown (10YR 3/2) clay loam O-horizon extending to between 0.3-0.6 ft below the ground surface. Underneath this was Stratum II, a light yellowish brown (10YR 6/4) to pale brown (10YR 6/3) silty clay A-horizon with about 30% gravel inclusions extending between 0.9-1.0 ft below the ground surface. At this point, most of the STPs reached the water table, with those that did not encountering Stratum III, a brown (7.5YR 4/4) sandy clay sterile subsoil characteristic of the Elk soil series.

Figure 26. Results of the Phase I Survey in Area S-12

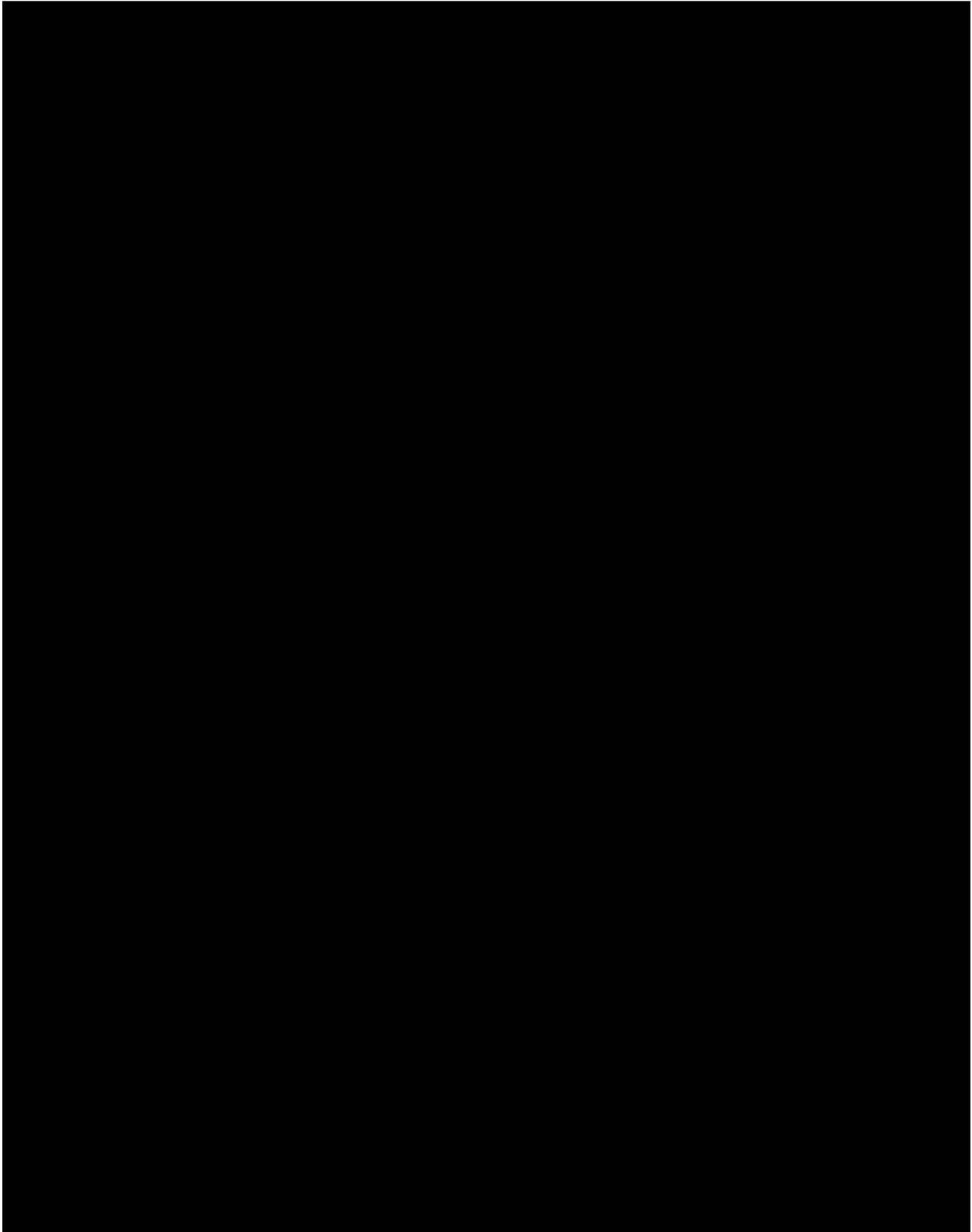


Figure 27. Base of berm carrying I-495 to the American Legion Bridge in the eastern portion of Area S-12, facing northeast



The STPs excavated within the wooded area to the west shared a different profile. Stratum I was a grayish brown (10YR 5/2) to gray (10YR 5/1) silty clay loam A-horizon that extended to between 0.6-0.7 ft below the ground surface. Underneath this was Stratum II, a mottled silty clay or clay hydric subsoil extending to 1.0-1.3 ft below the ground surface. Stratum II was heavily mottled and varied in color, containing some combination of yellowish brown (10YR 5/6 to 10YR 5/4), brownish yellow (10YR 6/6), olive gray (5Y 5/2), pale brown (10YR 6/3), and/or gray (10YR 5/1). At this depth all of the STPs reached the water table and excavation was halted. This unexpected stratigraphy could be a result of construction disturbance by the Clara Barton Parkway and the Beltway, soils becoming more heavily gleyed due to modified drainage patterns, or a combination of both factors.

Area S-12 contained modern materials, such as modern bottle glass, that were discarded in the field. No historic or precontact artifacts were encountered. The bench this area occupies is likely intact, but changes to the patterns of drainage and water retention and construction disturbance [REDACTED] [REDACTED] have resulted in areas of standing surface water and gleyed subsurface soils. The results of the investigation indicate that Area S-12 is intact but its archaeological potential is limited by wet conditions. No evidence for the continued existence of the Potter Site (18MO22) was identified [REDACTED] [REDACTED]. No further work was recommended in Area S-12 within the CSB examined at the time of the Phase I survey. Minor LOD changes were proposed in and around Area S-12, and supplemental Phase I archaeological investigations were completed by Blood et al. (2019; Volume 5), who identified hydric soils and a mix of disturbed and undisturbed soils. No further work is recommended, unless the LOD expands in the vicinity of Area-12 and 18MO22. *Area S-12 is located within the LOD for the Preferred Alternative.*

4.8 Area S-12/13

Area S-12/13 is a 14.9-acre Phase I survey area [REDACTED] [REDACTED] (Figure 28) (Appendix E, Page 2). Area S-12/13 falls entirely within federal property administered by the NPS, and work for this project was undertaken in accordance with ARPA Permit 18-CHOH/NACE-10. Portions of the NPS property are subject to an MDOT SHA highway easement. A total of 156 STPs was excavated in Area S-12/13, 48 of which contained precontact or historic cultural material, and three new archaeological sites were identified. [REDACTED] [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] The NRCS documented Elk silt loam and Rock outcrop-Blocktown complex soils in this area (Web Soil Survey 2015). A number of rock outcrops occur at various locations across Area S-12/13. Elk silt loams typically consist of an Ap-horizon over a mixed BA-horizon above a Bt-horizon, which is reached about 1.2 ft below surface. Rock outcrop-Blocktown soils are shallow, with an A-horizon overlying a Bt-horizon at 0.5 ft and bedrock within 1.75 ft of the surface, interspersed with rock exposures. Stratigraphy on the terraces above the Potomac River generally conformed to these soil pedons, but stratigraphy on the floodplain generally contained deep deposits of alluvium. This indicates that the terrace landforms are stable and intact outside the disturbed highway easement, while the floodplain possesses stratified precontact deposits.

Most of the survey area is located on land administered by the NPS [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] [REDACTED] [REDACTED]
[REDACTED].

A total of 156 STPs were excavated in Area S-12/13, including 101 primary STPs, 51 radial STPs, and four judgmental STPs. Eighteen transects were laid out in the survey area [REDACTED] [REDACTED]. An additional three transects

were laid out [REDACTED]. Three judgmental STPs were excavated east of these transects [REDACTED]. The judgmental STPs were placed to investigate the use and age of a stone foundation encountered within the survey area, and to determine if there was a canal-related structure [REDACTED].

Stratigraphy on the terraces [REDACTED] generally consisted of two to three strata. [REDACTED], STPs contained three strata. Stratum I was a brown (10YR 4/3) to very dark brown (7.5YR 5/2) silty clay loam, extending between 0.4-0.7 ft below ground surface. Below this was Stratum II, consisting of yellowish brown (10YR 5/6 to 10YR 5/8) silty clay extending to between 0.9-1.2 ft below ground surface. Stratum III consisted of a strong brown (7.5YR 4/6 to 7.5YR 5/8) silty clay subsoil excavated to 1.4-1.6 ft below ground surface.

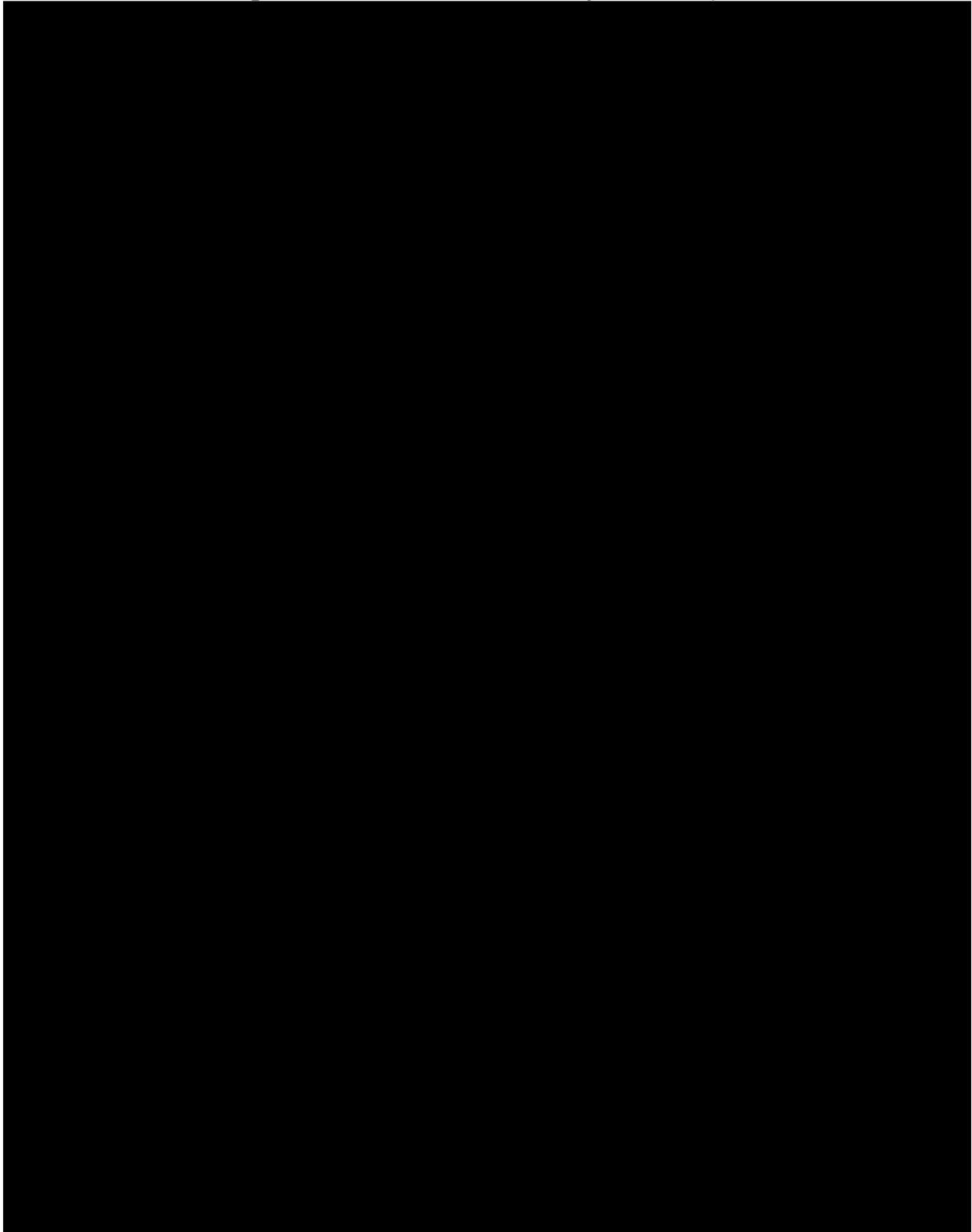
Soil profiles [REDACTED] exhibited greater variability, with two or three strata evident across the site. Stratum I generally comprised a very dark grayish brown (10YR 3/2) to brown (10YR 4/3) silt loam A-horizon extending 0.2-0.8 ft below the ground surface. This generally directly overlay subsoil, which consisted of a strong brown (7.5YR 4/6) silty clay that was excavated to a depth of 1.0-1.4 ft. Six STPs in this area contained an intervening stratum consisting of a dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4) silty clay loam that reached a depth of 0.6-1.2 ft below surface before transitioning to the subsoil, with subsoil excavated to a depth of 1.6-1.7 ft. Ten STPs in this area encountered bedrock or rock impasses 1.0-1.6 ft below ground surface.

[REDACTED], the typical stratigraphy consisted of dark brown (10YR 3/3) silt loam alluvium that extended approximately 1.2-1.9 ft below ground surface, at which point bedrock was encountered. The two northernmost STPs [REDACTED] contained a different profile, consisting of a dark brown (10YR 3/3) alluvial deposit over a what appears to be the strong brown (7.5YR 4/6 to 7.5YR 5/8) sandy loam Bt-horizon characteristic of Elk-series soils. The transition to this was encountered 1.3-2.1 ft below ground surface, and these STPs were excavated to a depth of 1.9-2.5 ft before being terminated within the sterile Bt-horizon.

STPs excavated [REDACTED] consisted of two strata, with Stratum I consisting of a brown (10YR 4/3) to dark yellowish brown (10YR 3/4) silt loam A-horizon extending to a depth of between 0.8-1.5 ft below the ground surface over Stratum II, a mottled reddish brown (5YR 4/4), gray (10YR 5/1), dark brown (10YR 4/2), and yellowish brown (10YR 6/8) hydric clay subsoil. STPs in this area reached the water table at around 2.0 ft below the ground surface. The drier, wooded area [REDACTED]

[REDACTED] had two basic stratigraphic profiles distinct from the rest of the survey area. The alluvial nature of these sediments meant that subsoil was not encountered, and the STPs excavated in this area were typically excavated to 3.0 ft below the ground surface, typified by a single stratum of brown (7.5YR 4/3 to 7.5YR 4/4) sandy loam or silt loam alluvium. Several STPs in this area contained an upper organic horizon, Stratum I, consisting of a very dark brown (10YR 3/2 to 10YR 2/2) loam O-horizon extending to 0.3 ft below ground surface. Other STPs included a transition to a second alluvial layer (Stratum II) consisting of a lighter strong brown (7.5YR 4/6) sandy loam alluvium between 1.5-2.5 ft below the ground surface. A series of radial STPs west of the initial testing area contained three strata, including both the O-horizon and the second alluvial stratum.

Figure 28. Results of the Phase I survey in Area S-12/13



The stratigraphy [REDACTED] had a topsoil deposit of dark yellowish brown (10YR 3/4) to dark brown (10YR 3/3) sandy loam extending to between 1.4-3.0 ft below the ground surface. Underneath this was a brown (7.5YR 4/3) to dark yellowish brown (10YR 3/4) sandy loam alluvial deposit extending to the base of excavation. STPs excavated [REDACTED] contained alternating layers of heavily mottled sand, representing a channel deposit.

A total of 155 precontact and historic artifacts was recovered from Area S-12/13, grouped together in three concentrations that were identified as three separate archaeological sites: 18MO749 (C&O Canal Site 1), 18MO750 (C&O Canal Site 2), and 18MO751 (C&O Canal Site 3). Of the artifact total, 35 were recovered from 18MO749, 12 were recovered from 18MO750, 100 were recovered from 18MO751, and eight were isolated artifacts. Obviously modern materials, such as fragments of asphalt shingles, were discarded in the field, while modern materials that were not fully identifiable in the field, such as bottle glass, were retained from these sites.

Recommendations for the three identified archaeological sites are presented below. No further work is recommended for Area S-12/13 within the CSB examined at the time of the Phase I survey. However, minor LOD changes were proposed in and around Area S-12/13, and supplemental Phase I archaeological investigations were completed by Blood et al. (2019). *Area S-12/13 lies within the LOD for the Preferred Alternative.*

4.8.1 Background

Background research revealed these sites were originally part of two properties called James' Parks and Carderock, both of which belonged to a man named Robert Peters in the early nineteenth century (**Appendix G**). In the 1820s, portions of Peters' estate were acquired by the C&O Canal Company to accommodate the canal's construction. The rest of the property remained under the ownership of Peters' heirs until the mid-nineteenth century, when it was granted to Lewis Welsh. Title transfers for the property are unclear through the late nineteenth century, but in 1908, a mortgage was taken on the property by Samuel and Ada May Cissel. Later in the same year, the Cissels transferred a portion of their property [REDACTED]. The portions of the property containing [REDACTED] were privately owned until 1935, when a residential development company deeded it to the United States.

A comprehensive catalog and description of the locks and lockhouses was produced by Unrau (1976). The lockhouses were built according to the standardized construction specifications devised in 1828. They sat on a 30 ft (9 m) by 18 ft (5 m) stone foundation 22 inches thick, with a six-ft-deep earthen-floored cellar under the kitchen. The house was situated two feet above the ground surface with 20-inch thick walls (Unrau 1976: 804-805). The chimney was built in the center of the house with a stone foundation, allowing the stalk to be built with stone or brick.

[REDACTED] were located in Construction Section 9, with the construction contract for [REDACTED] being awarded to Fenlon & Bosteder on March 1, 1829 (Unrau 1976:260). Construction of [REDACTED], which would house the keeper of [REDACTED], began in June 1829 and was completed by May 1830. Charles L. Sears is the first recorded lockkeeper for [REDACTED] and he occupied [REDACTED]. Lockkeepers were typically married men with large families, but C&O Canal records show that at least two women served as

lockkeepers for ██████ in the 1830s and 1840s (Unrau 1976:794). William Hill, whose name is shown next to the lockhouse at ██████ in an 1865 map, is not listed among the lockkeepers who maintained ██████, but Adelaide Hill and Lawrence Hill are both listed as lockkeepers in 1860 (Unrau 1976:796). The last recorded lockkeeper of ██████ was William Davis, who served until the canal closed in 1936.

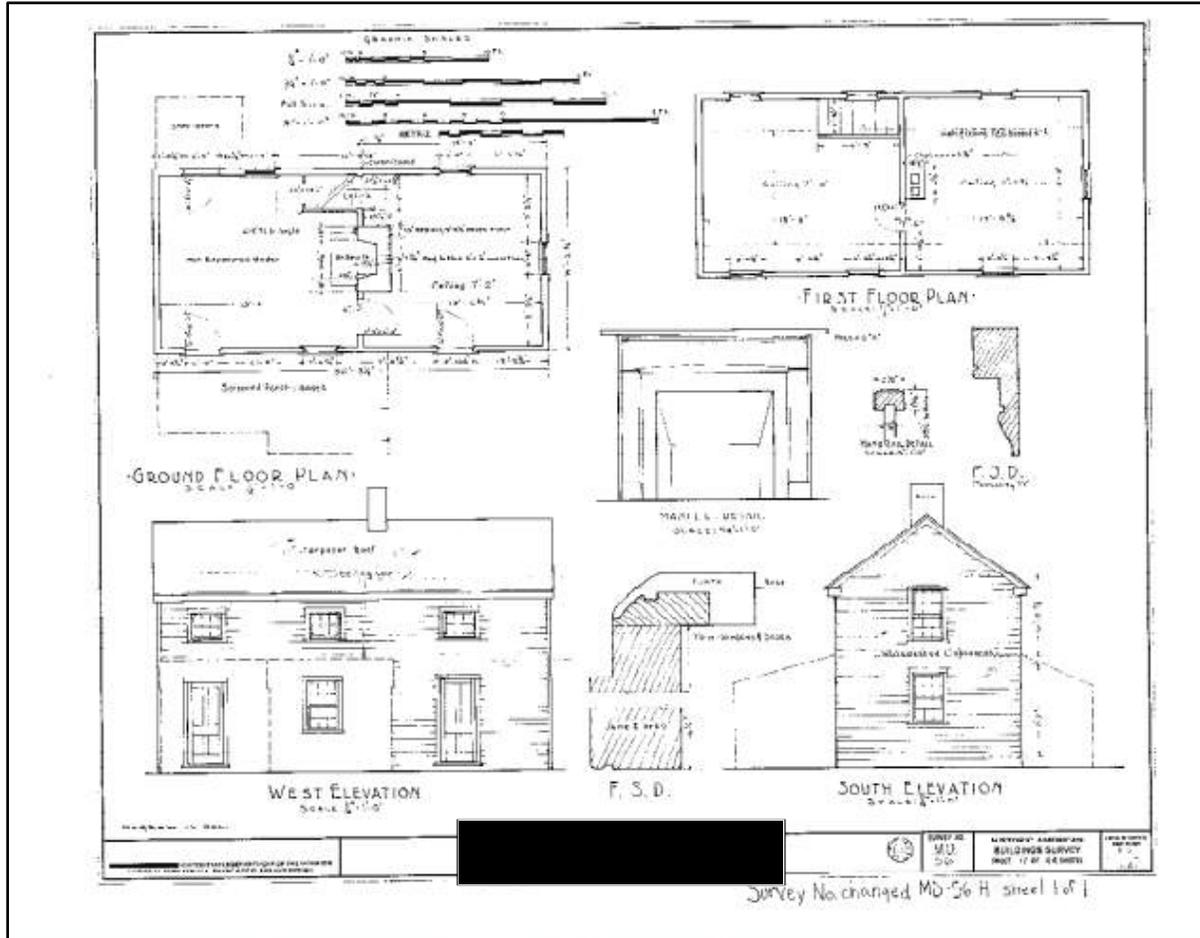
██████ possessed a shallower foundation and stood larger than a standard lockhouse (Unrau 1978:28). A photograph of the then-extant ██████ lockhouse taken ca. 1936 shows it situated a short distance from the lock itself as a two-story, three-bay structure with a wooden porch in the front (**Figure 29**). Judging from the perspective, the house appears to sit north of the lock, as ██████'s gates open to the west, corroborating the house's position on historic maps. This was confirmed by a June 17, 2019 field visit to inspect the ██████ lockhouse location and compare it to the photograph. A large extant cedar tree may be the same cedar depicted at the far left of the photograph. A drawing from the Historic American Building Survey presents a detailed structural drawing of the lockhouse, which featured two rooms on each story (**Figure 30**). It also indicates the lockhouse at ██████ had both front and rear porches.

By 1860 ██████ were tended by their own lockkeepers with their own residences. The ██████ lockhouse was described as a typical lockhouse, and the house at ██████ was described as a typical lockhouse with a stone foundation and later concrete additions (Unrau 1978:159). ██████

Figure 29. Ca. 1936 photograph of the ██████ lockhouse (Unrau 1978:79)



Figure 30. Historic American Building Survey drawings of the lockhouse at [REDACTED] (Unrau 1978:63)



Historic maps show the houses as being occupied by the lock keepers, but no other buildings are depicted within Area S-12/13. Martenet 1865 Map of Montgomery County shows lockhouses [REDACTED], labeled George Johns and William Hill with the abbreviation L.K. The 1878 Hopkins Atlas of Fifteen Miles Around Washington, D.C. shows two buildings on the north side of the same two locks. Early twentieth century USGS maps show lockhouses on the north side of [REDACTED], along with one lockhouse on the south side of [REDACTED]. The lockhouses at [REDACTED] do not appear on USGS maps postdating 1958, and the lockhouse at [REDACTED] appears on maps until 1966, when I-495 appears for the first time. A 1962 aerial photograph shows that extensive cut and fill activity during the highway's construction that has likely removed all trace of the [REDACTED] lockhouse; the area of the [REDACTED] lockhouse appears to have survived intact. It is outside the area of impacts caused by construction of I-495 and the ramps to the Clara Barton Parkway, and the terrain appears to be at original grade when compared to the photograph in Figure 29 [REDACTED]

Previous Archaeological Surveys in the Study Area

From 2003-2010, Louis Berger Group, Inc. conducted an archaeological survey of the entire C&O Canal National Historical Park. The results of this survey from Mile Markers 0 to 59 were compiled and reported

Figure 31. Results of the Phase I survey in 18MO749

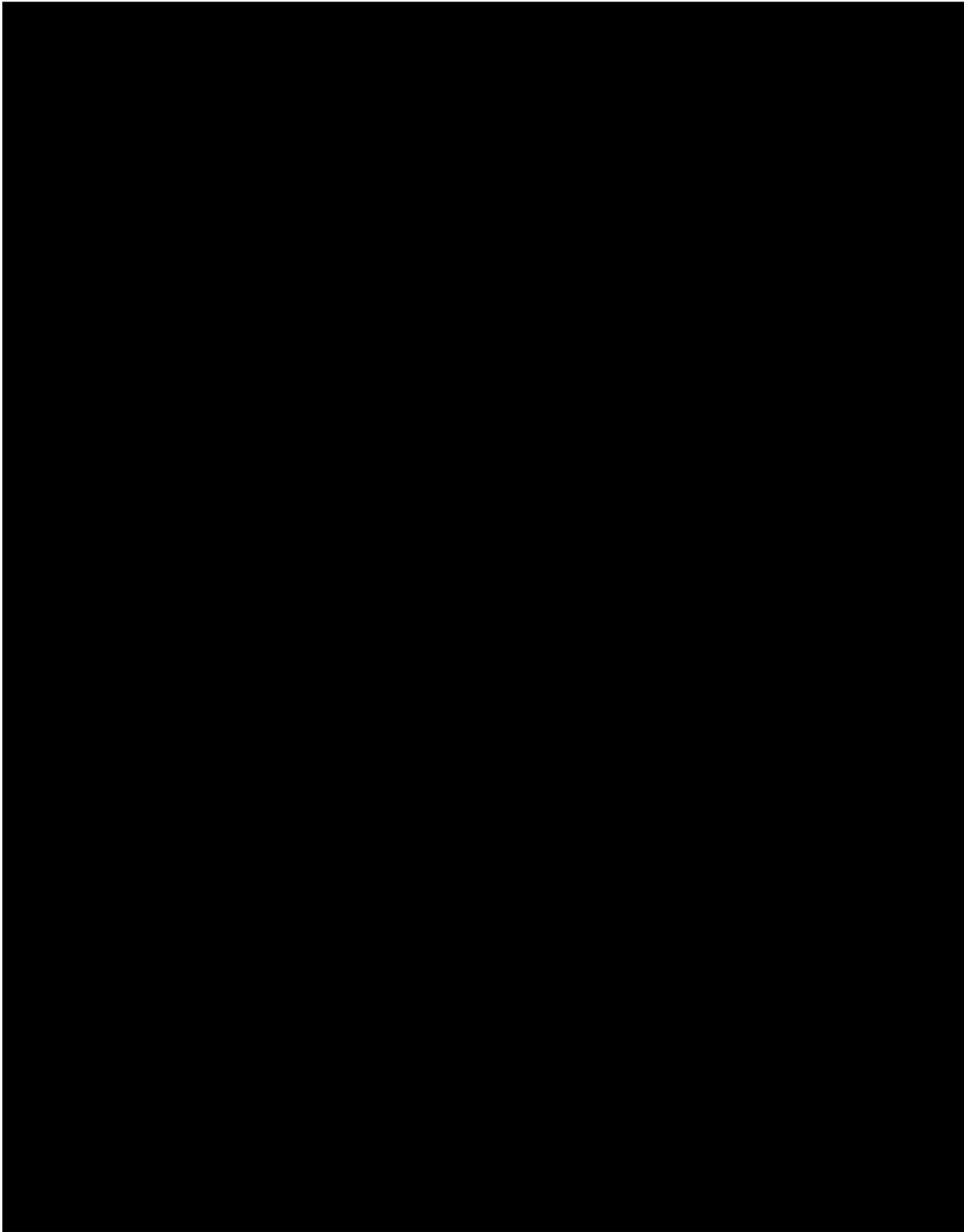


Figure 32. Sample STP profiles at 18MO749

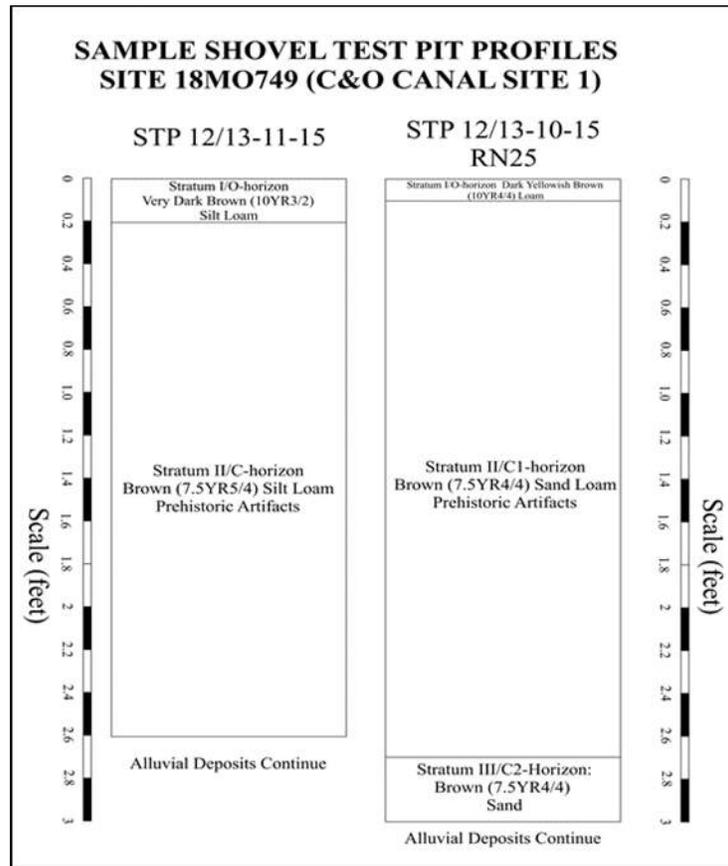


Table 7. Artifacts recovered from 18MO749

Artifact Class	Artifact Type	Count
Kitchen	Table Glassware	1
Precontact	Biface Reduction Flake, No Cortex	15
	Flake Fragment, No Cortex	7
	Quartzite Angular Shatter	1
	Flake Fragment, With Cortex	3
	Early Stage Reduction Flake	1
	Indeterminate Stage Biface	1
	Mid-Stage Biface Fragment	1
	Cobble Shatter	3
	Precontact Quartz-Tempered Ceramic	1
	Total	

Figure 33. Selection of artifacts from 18MO749



Left to right: Milk table glass fragment, precontact quartz-tempered ceramic plain, quartz mid-stage biface fragment, and quartz flake fragment.

Figure 34. Representative sample of lithic debitage recovered from 18MO749



Left to right: Quartz biface reduction flake, quartz biface reduction flake, quartz flake fragment (top), quartz flake fragment (top), quartz early stage reduction flake (bottom), quartz biface reduction flake (top), quartz biface reduction flake (bottom), quartz biface reduction flake (top), quartz biface reduction flake (bottom), quartz flake fragment, quartz flake fragment (top), quartz biface reduction flake (bottom), and quartz indeterminate stage biface.

Most of the precontact artifacts were recovered from the Stratum II at a consistent depth of between 1.5 and 2.2 feet below ground surface. This consistent recovery depth suggests their deposition on a past ground surface. While most of the artifacts were reduction flakes, suggesting that limited lithic reduction or retouching took place on the site, the number of flakes and the presence of a sherd of quartz-tempered ceramic leaves open the possibility that the site was formed by a more permanent and/or recurring occupation. This quartz-tempered pottery sherd closely resembles the Accokeek type, granting the site a provisional date in the Early Woodland period. Its presence also suggests domestic activity on the site in addition to lithic reduction. The depth of the recovered artifact assemblage also raises the possibility that features may be present at 18MO749, although none were identified by the Phase I investigation. One piece of historic or modern milk glass was recovered from the site, close to the surface, and does not suggest later deposits are mixed in with the precontact component.

Given the artifact density, buried context, and the frequency, type, and context of the material recovered, site 18MO749 is believed to have the ability to answer significant questions about precontact settlement patterns and the nature and use of the site through further research and excavation. Site 18MO749 appears to retain a high degree of stratigraphic integrity and has the potential to provide meaningful new data on precontact lifeways in the area. It may also provide additional information that can be used to compare and contrast with the concentration of precontact sites [REDACTED]. Site 18MO749 is recommended eligible for the NRHP under Criterion D, and a Phase II investigation of this site was completed by Blood et al. (2019) (Volume 5). *Site 18MO749 lies within the LOD for the Preferred Alternative.*

4.8.3 18MO750 (C&O Canal Site 2)

Site 18MO750 is a multicomponent precontact lithic scatter and nineteenth- and twentieth-century domestic scatter [REDACTED] (Figure 35). [REDACTED]

[REDACTED] The dimensions of the site are approximately 148 ft (45 m) by 213 ft (65 m), with an area of 0.54 acres. Nine STPs were excavated within the site, including seven primary STPs and two radial STPs. Of these, seven were positive. The five STPs that produced historic material were located on either side [REDACTED]. The two STPs that contained the precontact material were adjacent to each other and began 75 ft (23 m) [REDACTED].

The stratigraphy typically included three strata (Figure 36). Stratum I was a brown (10YR 4/3) to very dark brown (7.5YR 5/2) silty clay loam, extending between 0.4-0.7 ft below ground surface. Below this was Stratum II, consisting of yellowish brown (10YR 5/6 to 10YR 5/8) silty clay extending to between 0.9-1.2 ft below ground surface. Stratum III consisted of a strong brown (7.5YR 4/6 to 7.5YR5/8) silty clay subsoil excavated to 1.4-1.6 ft below ground surface. Excavation was halted at a depth of 1.6-1.8 ft in Stratum III because it was a sterile Bt-horizon.

Figure 35. Results of the Phase I survey in 18MO750

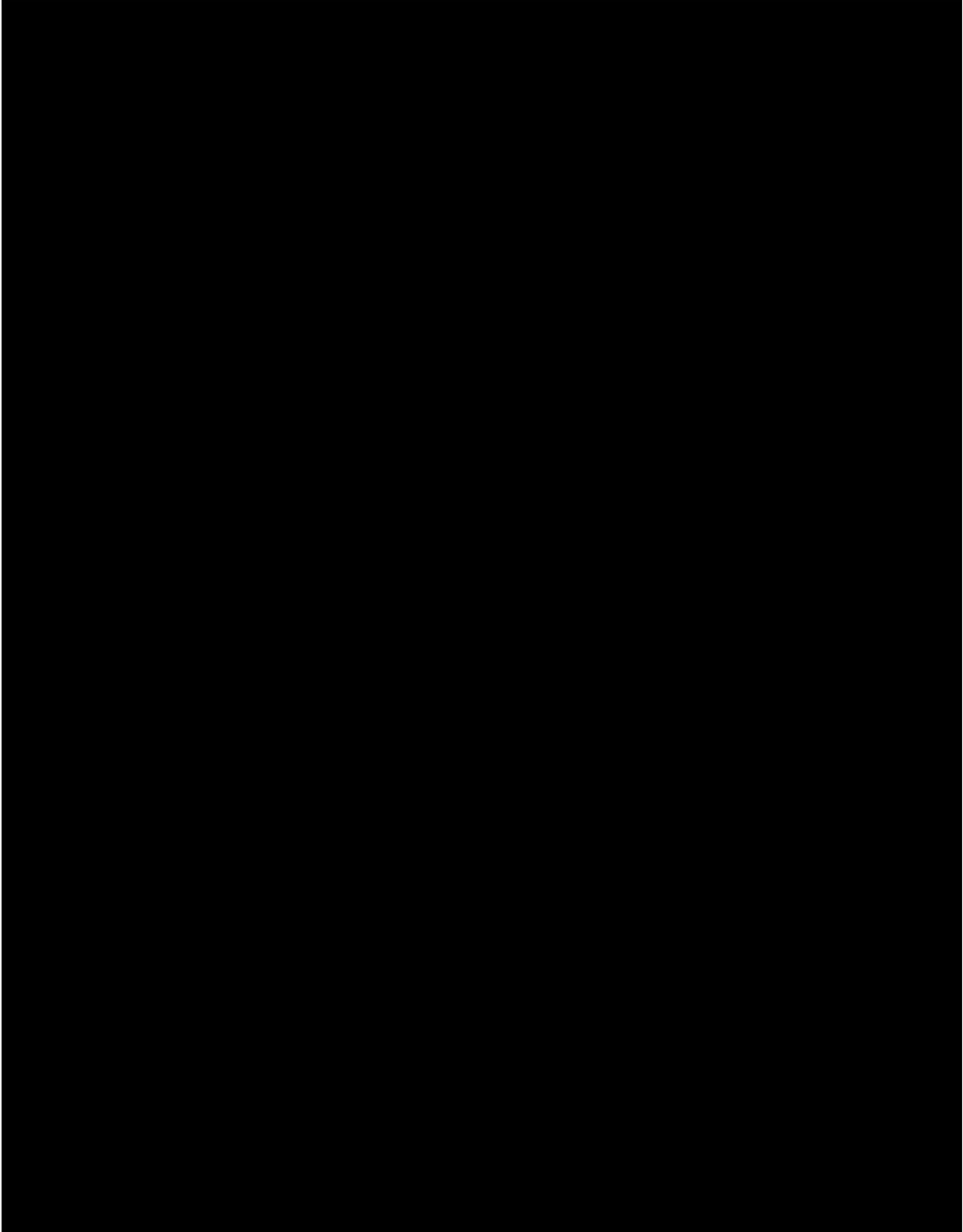
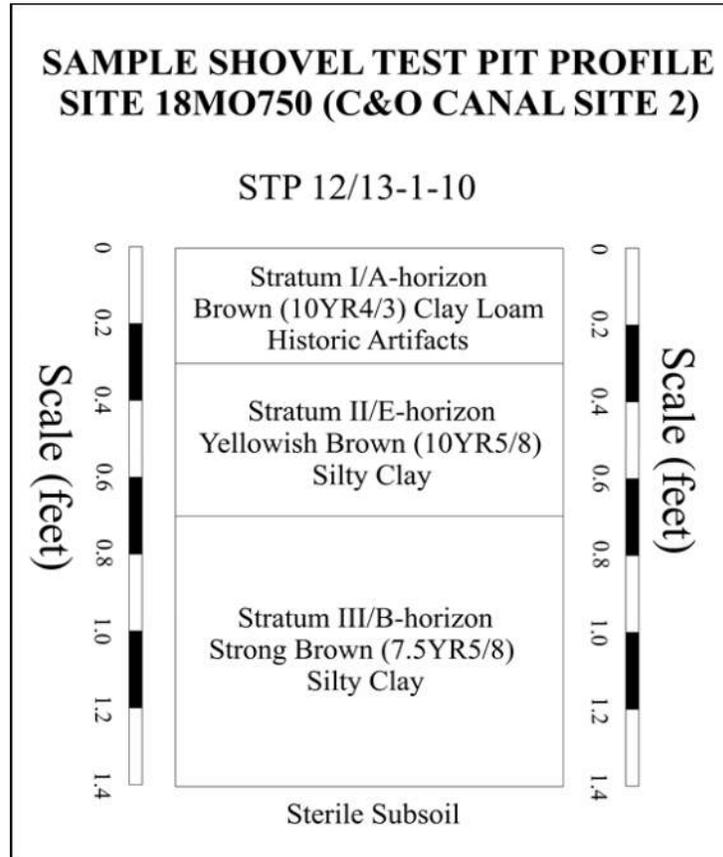


Figure 36. Sample STP profile from 18MO750



The historic component of the site consisted of a low density scatter of nineteenth and twentieth century artifacts including whiteware and pipe-clay ceramics, olive green bottle glass, and iron hardware (Table 8; Figure 37 and Figure 38). The date of the material and its location adjacent to [REDACTED] suggest that its deposition was associated with the use of that lock, but the low density and disparate nature of the assemblage did not suggest the location of a lockhouse structure in the immediate vicinity. The precontact component of the site consists of a low-density scatter of eight pieces of quartz debitage, which may represent an isolated event.

Site 18MO750 represents a low density of historic period artifacts of disparate ages that do not seem to form a cohesive assemblage and did not reflect the intact remains of a domestic occupation. The sparse precontact assemblage represents an isolated event of unknown age [REDACTED]

[REDACTED] Due to the absence of features or clear spatial associations, site 18MO750 is unlikely to provide important information on the area's history and is recommended not eligible for the NRHP. No further work is recommended. *Site 18MO750 lies within the LOD for the Preferred Alternative.*

Table 8. Artifacts recovered from 18MO750

Artifact Class	Artifact Type	Count
Architectural	Brick	4
	Unidentifiable Nail	1
Kitchen	Machine-made Bottle Fragment	3
	Nineteenth-Century Whiteware (1820-1900)	1
	Electrical Ceramic	1
Tobacco	Pipe Stem Fragment	1
Precontact	Early Stage Reduction Flake	3
	Flake Fragment, No Cortex	5
Total		19

Figure 37. Historic artifacts from 18MO750



Left to Right: Unidentifiable nail, electrical ceramic insulator, pipe stem fragment 4/64th inch ball clay, handmade unglazed brick (top), handmade unglazed brick (top), nineteenth-century whiteware plain (bottom), machine-made clear bottle fragment, and embossed machine-made clear bottle glass fragment.

Figure 38. Precontact artifacts from 18MO750



Left to right: Quartz flake fragment (top), quartz flake fragment (bottom), quartz early stage reduction flake, quartz flake fragment (top), quartz flake fragment (bottom), quartz flake fragment, quartz early stage reduction flake, and quartz early stage reduction flake.

4.8.4 18MO751 (C&O Canal Site 3)

Site 18MO751 is a nineteenth- and twentieth-century domestic scatter [REDACTED] with the [REDACTED] lockhouse and includes a small precontact component on the south edge of the site (Figure 39). Prior to highway construction, this area was probably a rocky slope overlooking the active floodplain of the Potomac, [REDACTED]. [REDACTED]

[REDACTED] (Figure 40). The feature measures approximately 30 ft (9 m) by 20 ft (6 m). Surface conditions within the site consisted of woodland with light to moderate undergrowth [REDACTED]. Thirty-five STPs in Area S-12/13 fell within the site, including 15 primary and 20 radial STPs. Of these, 18 were positive. Three judgmental STPs were excavated between [REDACTED], confirming the site extends as far north as [REDACTED].

The stratigraphy in 18MO751 consisted of two or three layers, with Stratum I comprising a very dark grayish brown (10YR 3/2) to brown (10YR 4/3) silt loam A-horizon, extending between 0.2-0.8 ft below the ground surface (Figure 41). Most of the artifacts recovered from the site derived from Stratum I. Directly below this was Stratum II, a subsoil consisting of strong brown (7.5YR 4/6) silty clay excavated to a depth of 1.0-1.7 ft, terminating there within a sterile Bt-horizon. Some STPs had an intervening stratum between the A- and Bt-horizons, consisting of a dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4) silty clay loam measuring 0.6-1.2 ft in depth. Artifacts were found infrequently in this stratum, which is possibly a fill layer. Bedrock was encountered in ten STPs between 1.2-1.6 ft below the ground surface.

Figure 39. Results of the Phase I survey in 18MO751

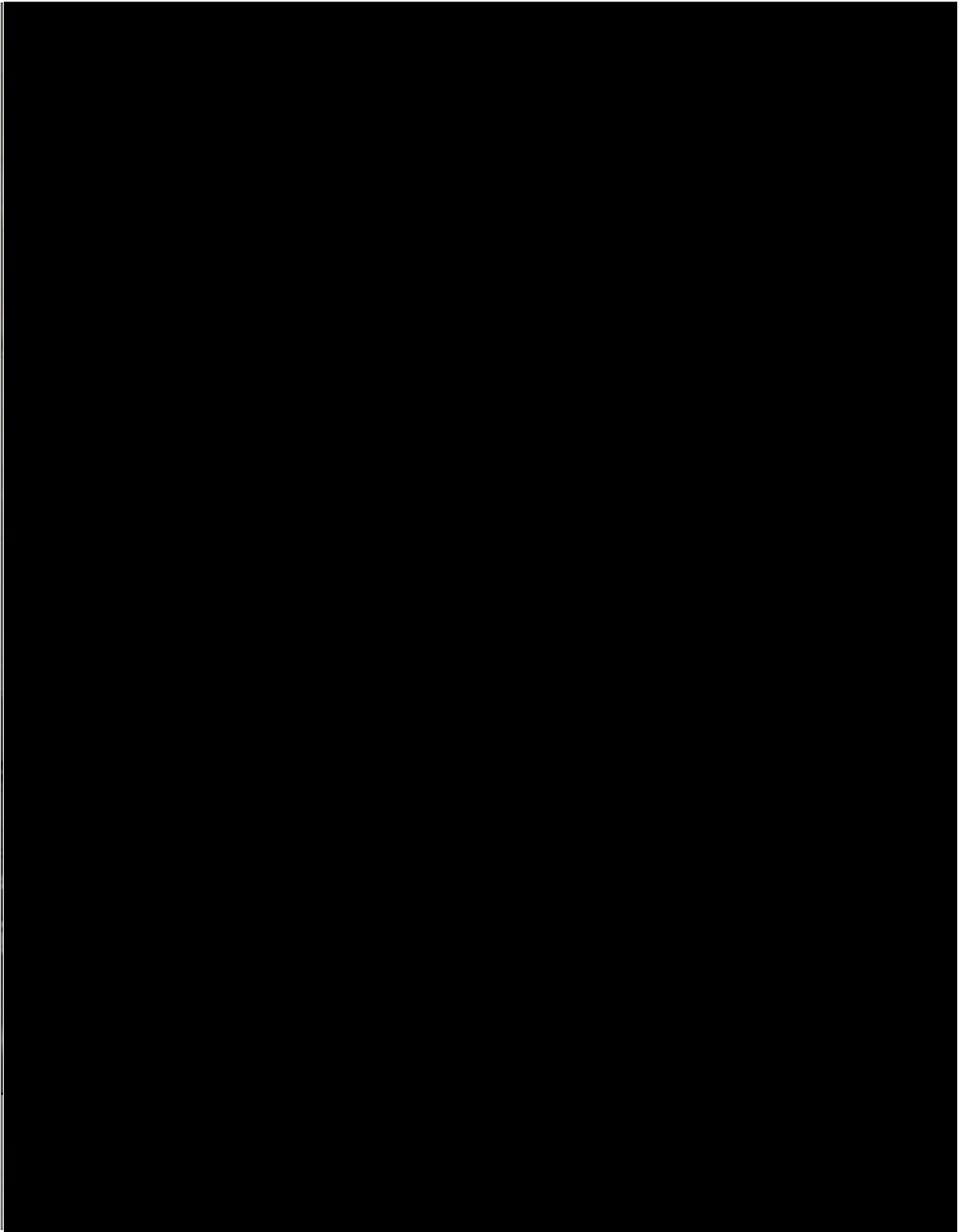
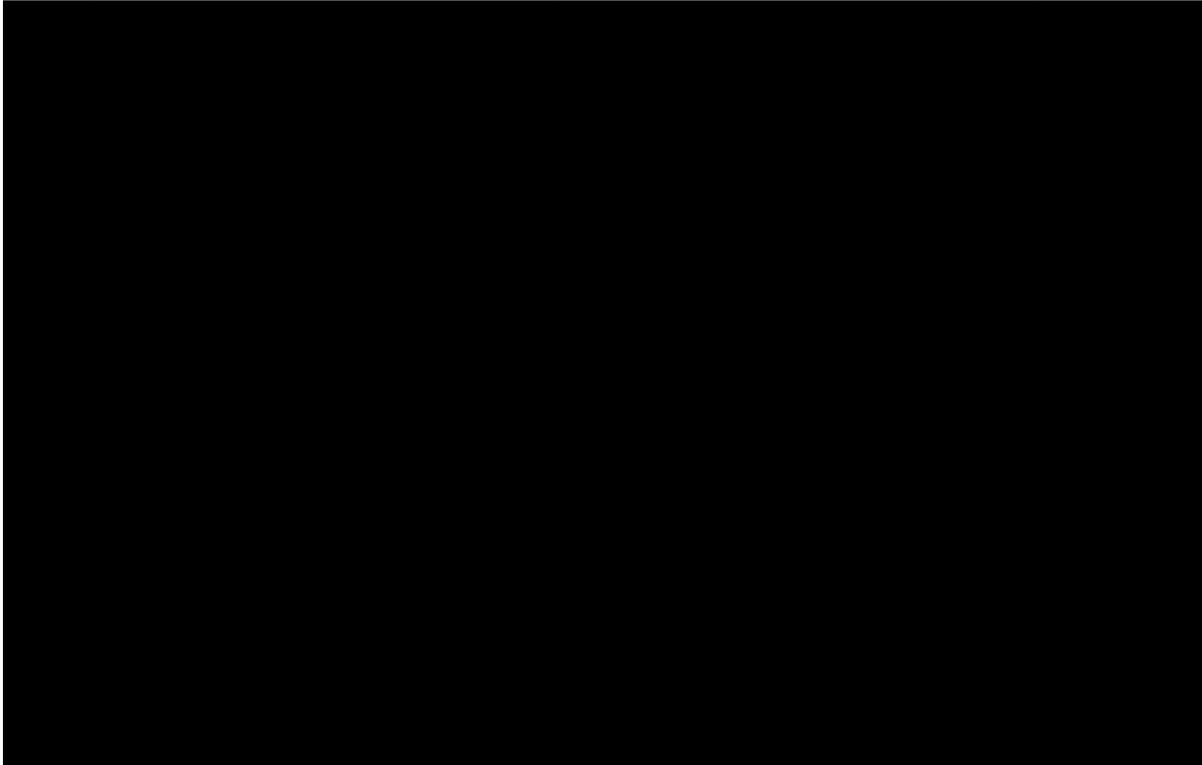


Figure 40. Articulated fieldstones in the possible foundation at 18MO751 looking south



The dimensions of the site are approximately 292 ft (89 m) by 387 ft (118 m), with a total area of 1.24 acres. Artifacts are distributed evenly throughout the site and no patterning was evident. The assemblage ranges in date from the second quarter of the nineteenth century into the twentieth century, likely beginning ca. 1820 (**Table 9; Figure 42; Figure 43; Figure 44**). The bulk of the diagnostic artifacts include nineteenth-century whiteware, with a manufacture date range of 1820-1900, nineteenth-century ironstone, with a manufacture date range of 1840-1900, and machine-made bottle glass, which began mass production in the first decade of the twentieth century. The assemblage contains a mix of common ceramic serving wares alongside mass produced bottle glass and building-related material and is typical of domestic occupations for this period. Also included in the assemblage are yellowware, Rockingham refined earthenware, and blown-in-mold bottle glass, all probably dated to the nineteenth century. Cut and wire nails are both found in the assemblage, with a higher proportion of cut nails. This suggests an occupation in both the nineteenth and twentieth centuries. Also recovered were brick fragments, architectural fasteners, and mortar, reflecting the presence of a structure. Modern material such as plastic and asphalt shingles were observed in Stratum I contexts onsite and discarded in the field. It is unclear whether these modern materials originated from the site's occupation or were later intrusions.

Figure 41. Sample STP profiles from 18MO751

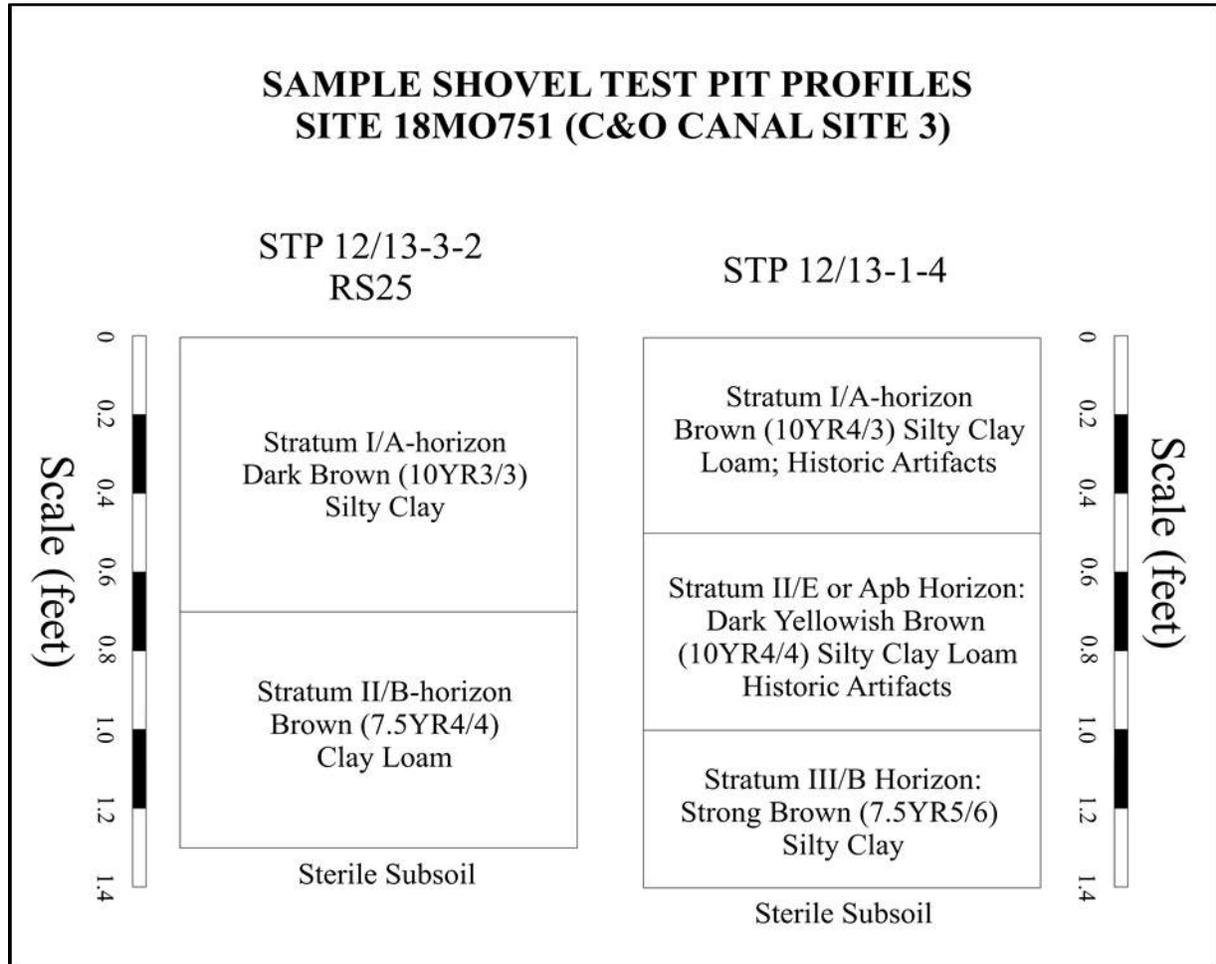


Table 9. Artifacts recovered from 18MO751

Artifact Class	Artifact Type	Count
Architectural	Brick	7
	Unidentifiable Nail	8
	Architectural Fastener	2
	Cut Common Nail (post 1805)	6
	Mortar	1
	Wire Common Nail (post 1875)	3
	Kitchen	Machine-made Bottle Fragment
Hand-finished, Blown-in-mold Bottle Fragment		2
Hand-tooled, Embossed or Lip Bottle Fragment		1
Machine-made, Decorated or Embossed Bottle Fragment		1
Glass Clothing Element		1

Artifact Class	Artifact Type	Count
	Flat Window Glass	8
	Miscellaneous Glass	1
	Nineteenth-Century Whiteware (1820-1900)	13
	Nineteenth-Century Ironstone (1840-1900)	18
	Domestic Gray Stoneware	2
	Rockingham Refined Earthenware (1850-1900)	1
	Pearlware (1780-1830)	2
	Yellowware (1840-1900)	1
	Unidentified Ceramic	2
	Domestic Faunal Material	1
Precontact	Biface Reduction Flake	2
	Early Stage Reduction Flake	3
Miscellaneous	Iron/Steel Personal Item	1
	Miscellaneous Domestic Metal	1
	Unidentifiable Metal	5
Total		104

Figure 42. Sample of historic ceramics recovered from 18MO751



Left to right: Pearlware banded, nineteenth-century whiteware plain (top), nineteenth-century whiteware plain (bottom), nineteenth-century whiteware blue glaze, nineteenth-century ironstone plain, nineteenth-century ironstone transfer print, Rockingham refined earthenware, and yellowware.

Figure 43. Sample of historic architectural artifacts recovered from 18MO751



Left to right: Cut nail, cut nail, cut nail, cut nail, wire nail, wire nail, handmade unglazed brick (top), flat window glass (bottom), flat window glass (bottom), handmade unglazed brick (top), flat window glass (bottom), and metal spike.

Figure 44. Precontact artifacts recovered from 18MO751



Left to right: Quartz early stage reduction flake, quartz early stage reduction flake, quartz early stage reduction flake, quartz biface reduction flake, and quartz biface reduction flake.

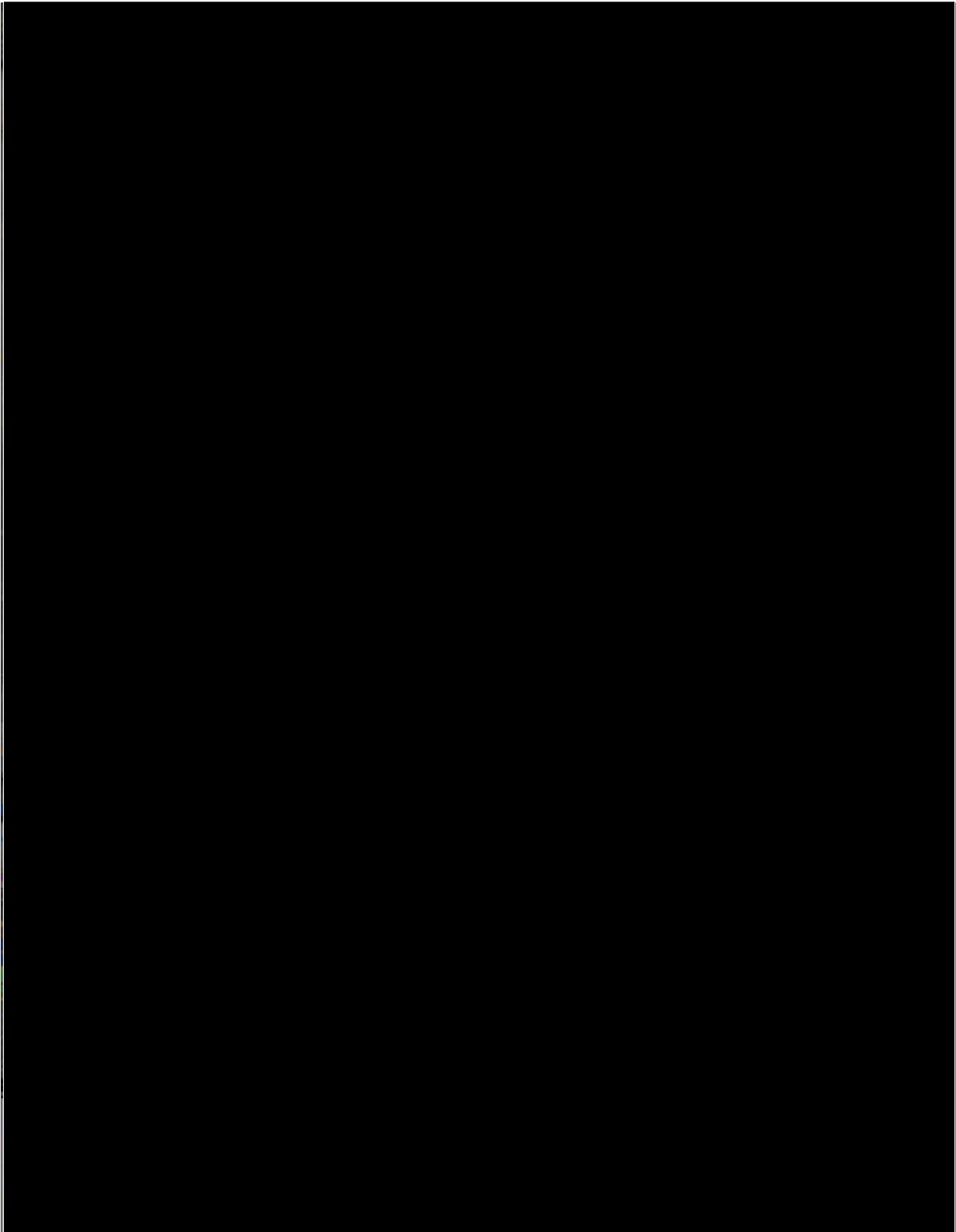
The dimensions of the stone foundation are very similar to the standing lockhouse a [REDACTED] [REDACTED] [REDACTED], as well as standard documented lockhouse dimensions of 30 ft by 18 ft. Despite this, photographic documentation of the lockhouse at [REDACTED] conducted during the Historic American Building Survey suggests that, by the early twentieth century, the [REDACTED]. It is possible that this foundation reflects an ancillary building related to the lockhouse or an unrelated building on a neighboring property, as it falls 100 ft south [REDACTED]. It is also possible that it represents the location of an earlier lockhouse, although this is unlikely given the lack of historic evidence for this, and its distance from the canal. Three radial STPs and one judgmental STP were excavated in and around this possible foundation, but no material was recovered. Additional work will be needed to explore this possible foundation and its relationship with the lockhouse. Based on the nature of the material recovered, its proximity to what would have been the primary residence for a canal lockkeeper, and a date range for the assemblage (beginning ca. 1820) that corresponds to the C&O Canal’s operation, it is likely that the artifacts recovered from 18MO751 are associated with the daily occupation of the canal lockhouse.

Site 18MO751 has the potential to provide significant information about the occupation and use of [REDACTED] and its associated lockhouse. The investigations suggest that the site contains intact archaeological contexts and features related to the operation of the canal and the domestic lives of lockkeepers. C&O Canal Site 3 is potentially eligible for the NRHP under Criterion D, and it is recommended that Phase II investigation of the site is warranted. A small precontact component was also identified, including five pieces of quartz debitage in two STP [REDACTED] [REDACTED]. Flakes were found in the same A-horizon context as nineteenth-century artifacts, suggesting the precontact component lacks archaeological integrity. The precontact material at 18MO751 appears to represent an isolated scatter of unknown age. Phase II investigation of this site was completed by Blood et al. (2019) (Volume 5). *Site 18MO751 lies within the LOD for the Preferred Alternative.*

4.9 Area S-13

Area S-13 is a 11.43-acre area [REDACTED] [REDACTED] (Appendix E, Page 2). It has been substantially altered for construction [REDACTED]. Area S-12/13 falls entirely within federal property administered by the GWMP of the NPS. Portions of the NPS property are subject to an MDOT SHA highway easement. A total of 108 STPs were excavated in Area S-13, 11 of which were positive for precontact or historic material (Figure 45). Prior to highway construction, this area likely formed [REDACTED] [REDACTED] [REDACTED] NRCS documented Elk silt loam, Watchung silt loam, and Travilah silt loam in the survey area, with natural slopes ranging from 0-8 percent, excluding the steep artificial slopes up to the highway ramps (Web Soil Survey 2015). While the areas beneath these berms have been cut and filled to support the elevated road system, the surfaces between the berms are intact. [REDACTED] [REDACTED]. It is located on land administered by the NPS, and also falls partially within the MDOT SHA ROW easement crossing NPS lands.

Figure 45. Results of the Phase I Survey in Area S-13



Area S-13 is an area of natural terrace surfaces separated by roadway berms. An aerial photograph from 1962, which shows the highway under construction, indicates that approximately 60 percent of the survey area was disturbed by highway construction. The elevation of Area S-13 varied from 90-149 ft (27-45 m) amsl, with most of the excavated portions at about 100 ft (30 m) amsl. The roadway berms separated Area S-13 into three distinct sections. Transects at 50-ft intervals were placed in each of these sections, aligned to maximize coverage [REDACTED]

[REDACTED]. A total of 108 STPs was excavated in Area S-13, including 86 primary STPs and 22 radial STPs.

The stratigraphy of Section 1, [REDACTED], was generally disturbed by road construction and was characterized by alternating strata of mottled clay fill. Six STPs encountered stratigraphy consistent with Elk soils, possessing a dark brown (10YR 3/3) to dark gray brown (10YR 4/2) silt loam A-horizon extending to between 0.5-0.6 ft below ground surface overlying a subsoil of strong brown (7.5YR 5/8) silty clay, with a base of excavation extending to between 0.9-1.2 ft below ground surface due to the final stratum being a sterile Bt-horizon.

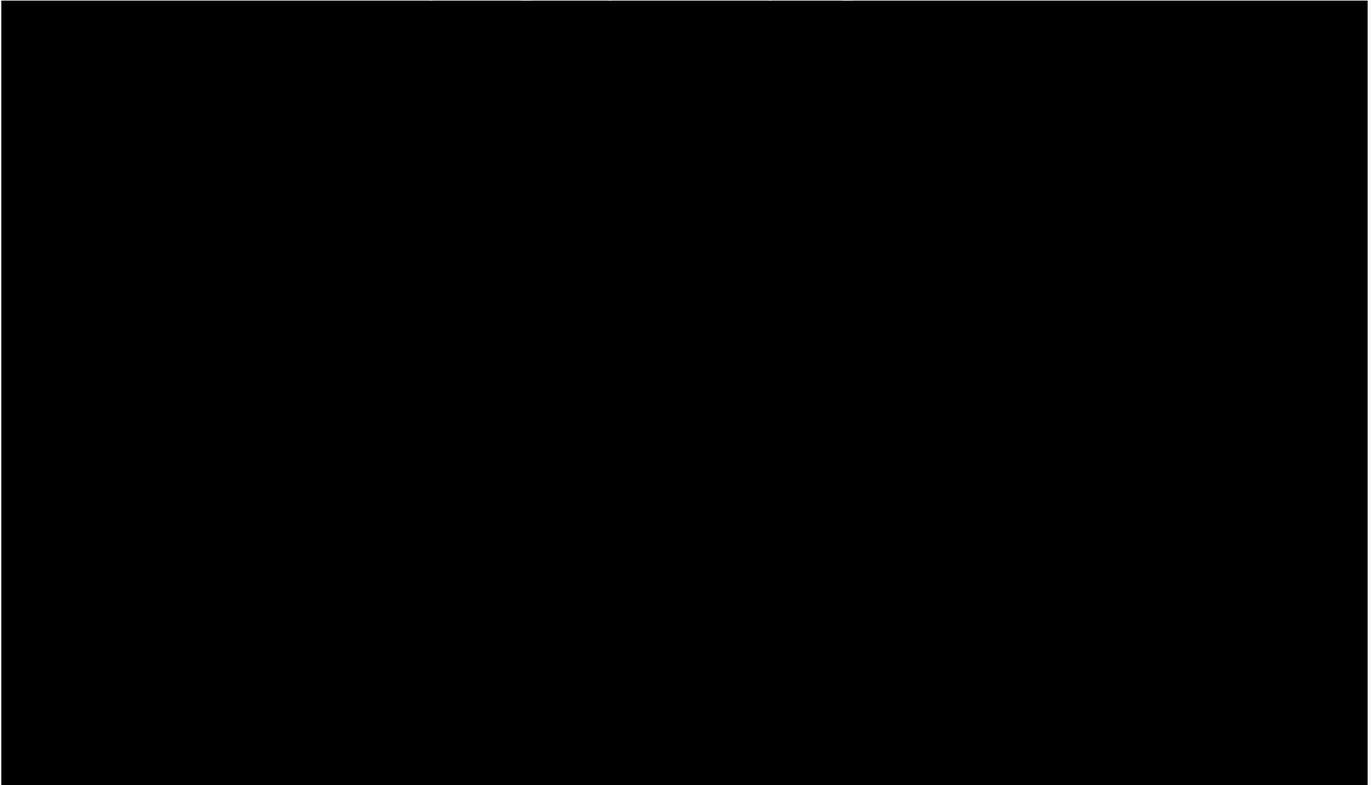
Section 2 displayed three distinct stratigraphic profiles, all of which appear to be natural. Most STPs in this section contained three strata, with Stratum I consisting of a brown (10YR 4/3) to dark yellowish brown (10YR 3/4) silt loam A-horizon extending to about 0.3 ft below the ground surface. Stratum II was a yellowish brown (10YR 5/6 to 5YR 4/6) silt loam E-horizon extending to between 0.6-0.8 ft below the ground surface, overlying Stratum III, a strong brown (7.5YR 5/6) silty clay subsoil. Some STPs on in the western part of Section 2 contained two strata, typically a dark grayish brown (10YR 4/2) silty clay A-horizon extending to 0.4 ft below the ground surface over a yellow brown (10YR 5/6) silty clay subsoil

Seven STPs in Section 2 were hydric, with Stratum I consisting of a brown (10YR 4/3 to 10YR 5/3) silt loam A-horizon extending to between 0.8-1.2 ft below ground surface over Stratum II, a dark grayish brown (10YR 4/2) to dark greenish gray (GLEY1 4/10Y) silty clay hydric soil horizon that reached a depth of 1.4 ft below ground surface. Stratum III was a very dark greenish gray (Gley 3/10Y) silty clay loam subsoil that terminated at the water table between 0.8-1.6 ft below the ground surface. Five of the hydric STPs were located along the stream separating the survey area from the berm to the north.

In Section 3, intact soils were observed in 11 of the 39 STPs, covering approximately 28 percent of the section; the remainder of the area exhibited disturbance. The typical stratigraphy in undisturbed areas consisted of a brown (10YR 4/3) to yellowish brown (10YR 5/4) silty clay A-horizon extending to between 0.5-0.8 ft below the ground surface. Underneath this was a subsoil of a strong brown (7.5YR 5/6) silty clay, occasionally reaching bedrock at about 1.2 ft below ground surface. The majority of the STPs were adjacent to the highway embankments and were disturbed, displaying layers of a mottled clay fill. These

STPs were generally terminated due to rock impasses 1.1-1.3 ft below surface. The easternmost STPs encountered the water table at between 0.7-1.5 ft below the ground surface.

Figure 46. Crew excavating at the base of a berm carrying a ramp from the Clara Barton Parkway to I-495 (in background) in Area S-13, facing northwest



A total of 20 artifacts was recovered, of which 14 were historic artifacts and six were precontact. All of these artifacts were recovered from an archaeological site that was determined to be a relict extension of the Potter Site (18MO22) [REDACTED]

Recommendations for 18MO22 are presented below. No further work was recommended for Area S-13 within the CSB examined at the time of the Phase I survey. However, minor LOD changes were proposed in and around Area S-13, and supplemental Phase I archaeological investigations were undertaken Blood et al. (2019) (Volume 5). *Area S-13 lies within the LOD for the Preferred Alternative.*

4.9.1 18MO22 (The Potter Site)

Site 18MO22 is a multi-component precontact and historic artifact scatter measuring 292 by 380 feet within Area S-13 [REDACTED]. Site 18MO22 was originally identified by an amateur collector and documented in 1961 (MHT Site Form 18MO22). At the time, it was classified as a precontact lithic scatter consisting of points, blades, and axes; [REDACTED]. The amateur collector reported most of the site was destroyed when I-495 was constructed. This study extends the site [REDACTED] and

includes a nineteenth-century domestic scatter component. The extension of the Potter Site expanded the site area to 19.11 acres by adding what now constitutes a relict portion of the larger site area that has survived highway construction; the intervening area has been destroyed by highway construction. For this project, a total of 108 STPs were excavated in Area S-13, including 86 primary STPs and 22 radial STPs, of which 11 were positive (see **Figure 45**) [REDACTED]

Field Results at 18MO22

Large portions of 18MO22 within Area S-13 have been disturbed [REDACTED]

The stratigraphy within the undisturbed portions of 18MO22 typically contained three strata, with Stratum I, a brown (10YR 4/3) to dark yellowish brown (10YR 3/4) silt loam A-horizon extending to about 0.2-0.3 ft below the ground surface, overlying Stratum II, a yellowish brown (10YR 5/6) silt loam E-horizon extending to between 0.3-0.8 ft below the ground surface (**Figure 47**). Stratum III was a strong brown (7.5YR 5/6) silty clay or clay loam subsoil. Some STPs in the western part of the site had two strata, typically a dark yellowish brown (10YR 3/4) silty clay A-horizon extending to 0.4 ft below the ground surface over a dark yellowish brown (10YR 4/6) to yellowish brown (10YR 5/6) silty clay subsoil extending to the base of excavation up to 1.7 ft below the ground surface. There was no evidence of a plowzone.

Artifacts were mostly present in the Stratum I and Stratum II, and one artifact—a fragment of modern machine-made bottle glass—was recovered from the Stratum III, but this context appears to have been disturbed. No features were encountered. Soils in parts of the site [REDACTED] appeared to be intact, constituting 39 STPs or 36 percent of the total falling within the site. Soil disturbance observed in STPs largely agrees with observations from the 1962 aerial.

The precontact assemblage includes one piece of quartz cobble shatter, one early-stage quartz biface reduction flake, two non-cortical quartz biface reduction flakes, and one flake fragment (

Figure 48). The precontact component of the Potter Site identified during the survey is a low-density lithic scatter. No diagnostic artifacts were recovered that would offer a more precise date. The original core of the precontact site identified in 1961 [REDACTED] produced projectile points, bifacial “blades,” and axes. The sparse lithic scatter identified by this study does not resemble the robust assemblage identified prior to construction of [REDACTED] [REDACTED], possibly as a result of disturbance from highway construction. [REDACTED]

[REDACTED] The material encountered during this survey likely represents the margin of this larger occupation, which also may relate to a small complex of buildings visible on early twentieth-century USGS topographic maps and identified in the Maryland archaeology quad files as FALLSC-QF03, .

Background research revealed that this building complex was originally part of two properties called James’ Parks and Carderock, both of which belonged to a man named Robert Peters in the early nineteenth century (**Appendix G**). It remained under the ownership of his heirs until the mid-nineteenth century, when it came under the ownership of the Fitzhugh family. In the 1870s, it was sold to the Dowlings and it changed hands a number of times through the late nineteenth century until it was acquired by Elizabeth Yates in 1912. In 1946, Yates sold the property to the United States government, which subsequently included it in the Clara Barton Parkway. A residence belonging to a Perry Fitzhugh is depicted just north of the study area in the 1865 Martenet and Bond *Map of Montgomery County* (**Figure 49**). A residence belonging to Thomas Dowling is depicted in the same location in the 1878 Hopkins Atlas of Fifteen Miles Around Washington, D.C. (**Figure 50**). [REDACTED]

[REDACTED] (**Figure 51**). [REDACTED]

[REDACTED] (**Figure 52**).

The historic assemblage of 18MO22 includes small handmade brick fragments (6; all in one STP), undecorated creamware (2) and nineteenth-century whiteware (4) ceramic sherds, colorless machine-made bottle glass (1), and an unidentifiable bone fragment (**Figure 53**). The whiteware suggests a nineteenth-century date for the historic component, while the creamware suggests a date as early as the late eighteenth century. No evidence of a structure in this location was found, aside from the few brick fragments, which may have been introduced. Brick was only recovered from STP 13-8-3 it.

The portion of Site 18MO22 identified by this study primarily consists of a scatter of historic domestic artifacts dating to the nineteenth and early twentieth centuries, together with a handful of scattered precontact artifacts. No features were encountered, and the investigation does not indicate that portions of 18MO22 within the project LOD have the ability to provide information important in history. The recovered historic period material may be related to a small complex of buildings visible on early twentieth-century USGS topographic maps [REDACTED] [REDACTED] [REDACTED]. These building locations were destroyed during the construction of I-495. The buildings noted on historic maps are located outside the site boundary as defined by this survey. Based on the results of the Phase I investigation, no additional work is warranted at 18MO22 within the Preferred Alternative LOD. However, because the full site area has not been tested, no determination of NRHP eligibility can be offered for 18MO22. *Site 18MO22 lies within the LOD for the Preferred Alternative.*

Figure 47. Sample STP profiles at 18MO22

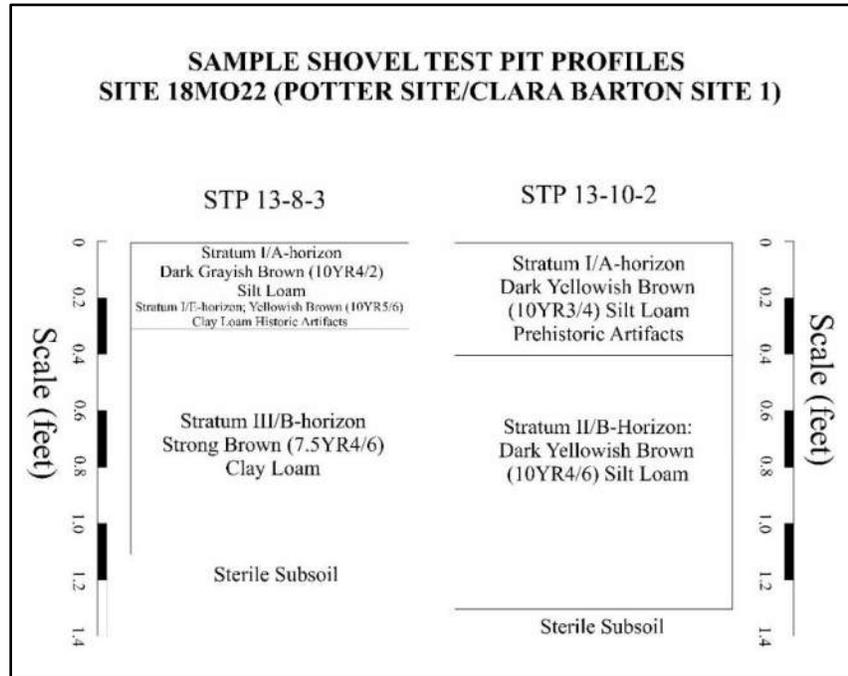


Figure 48. Quartz debitage from 18MO22



Left to right: Quartz early stage reduction flake, quartz early stage reduction flake (top), quartz flake fragment (bottom), quartz biface reduction flake, quartz cobble shatter, and quartz cobble shatter.

Figure 49: Site 18MO22 depicted on 1865 Martenet Map

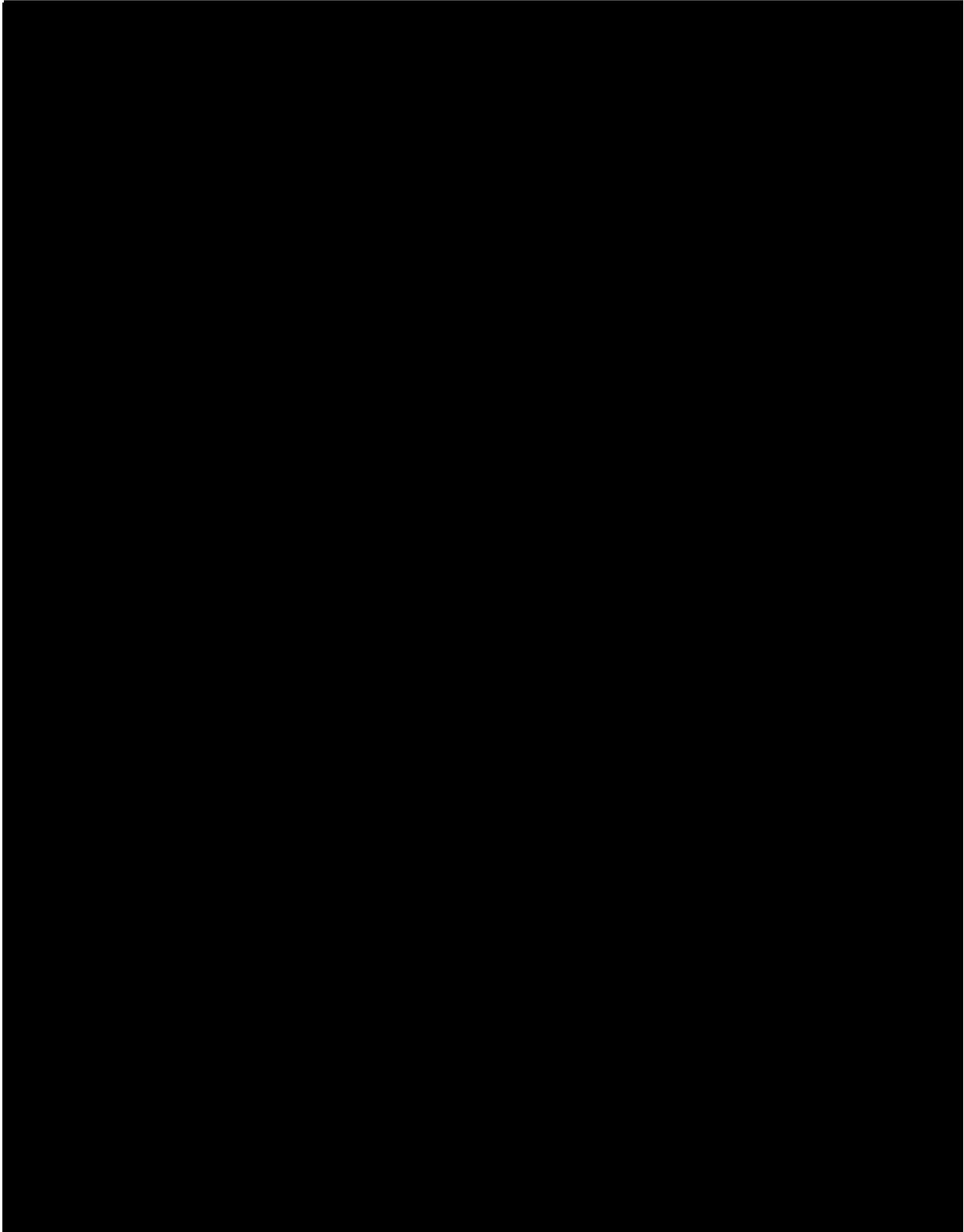


Figure 50: Site 18MO22 depicted on the 1879 Hopkins Map

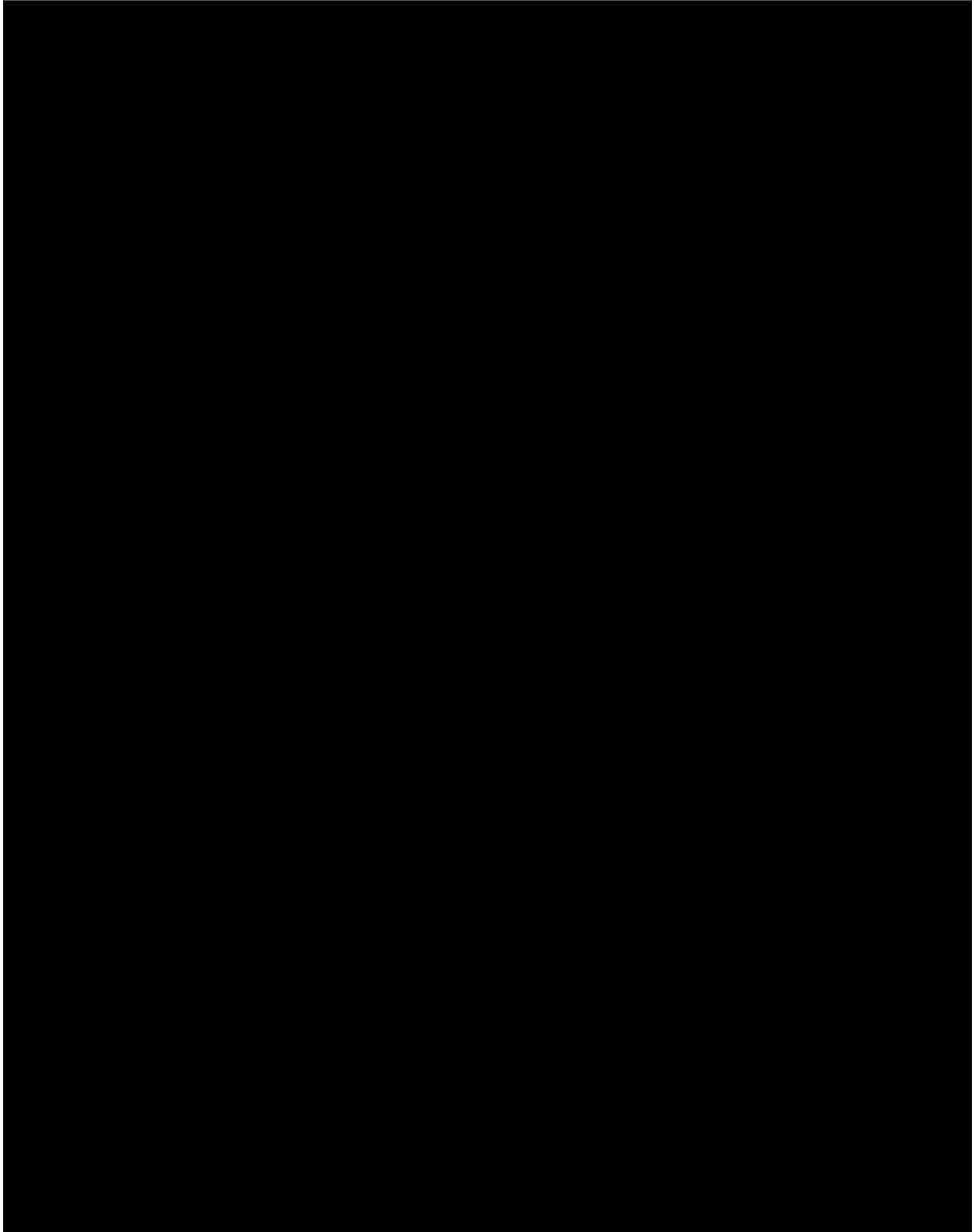


Figure 51: 18MO22 depicted on 1900 USGS Topographic Map

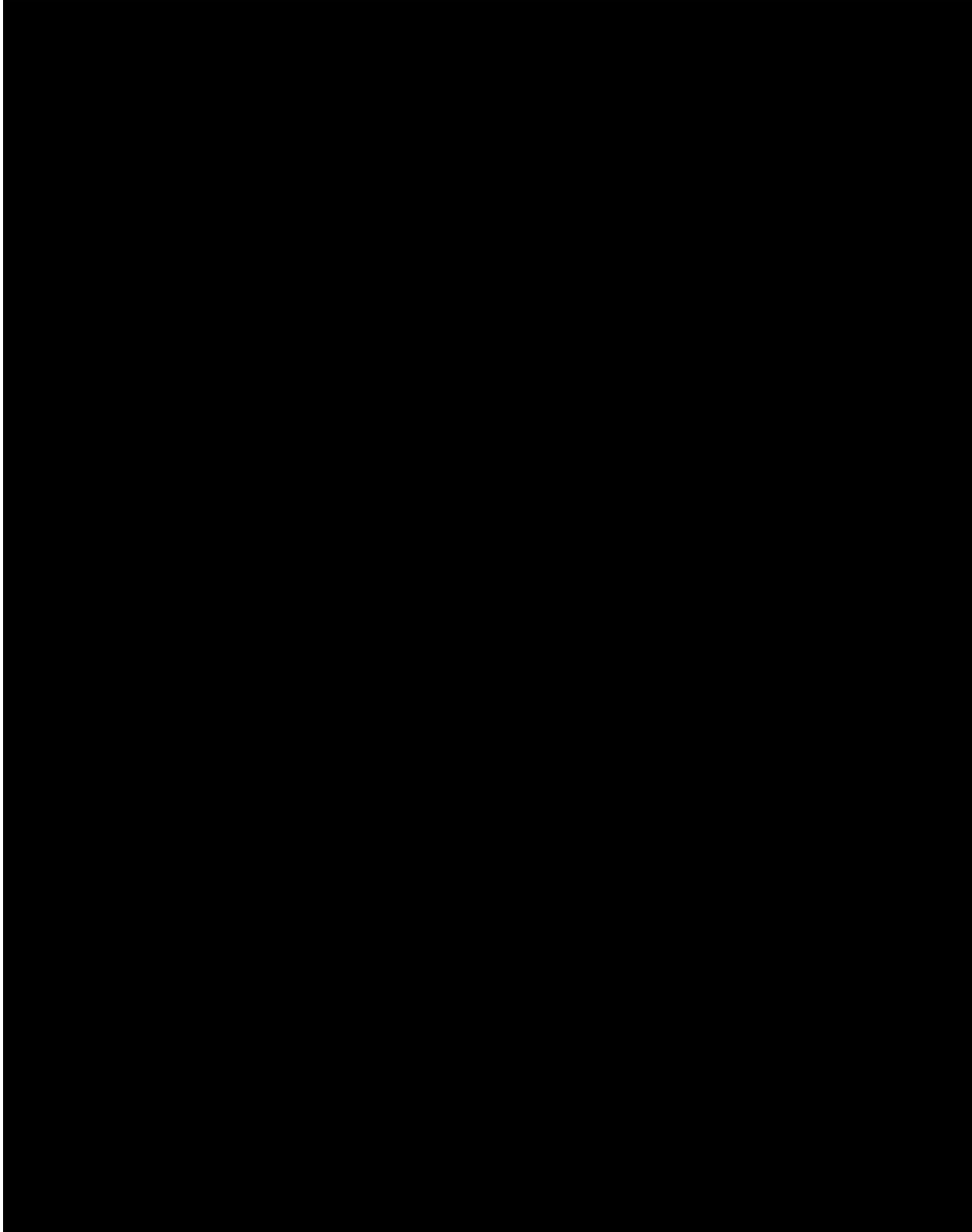


Figure 52: 18MO22 depicted on 1962 Aerial Photograph

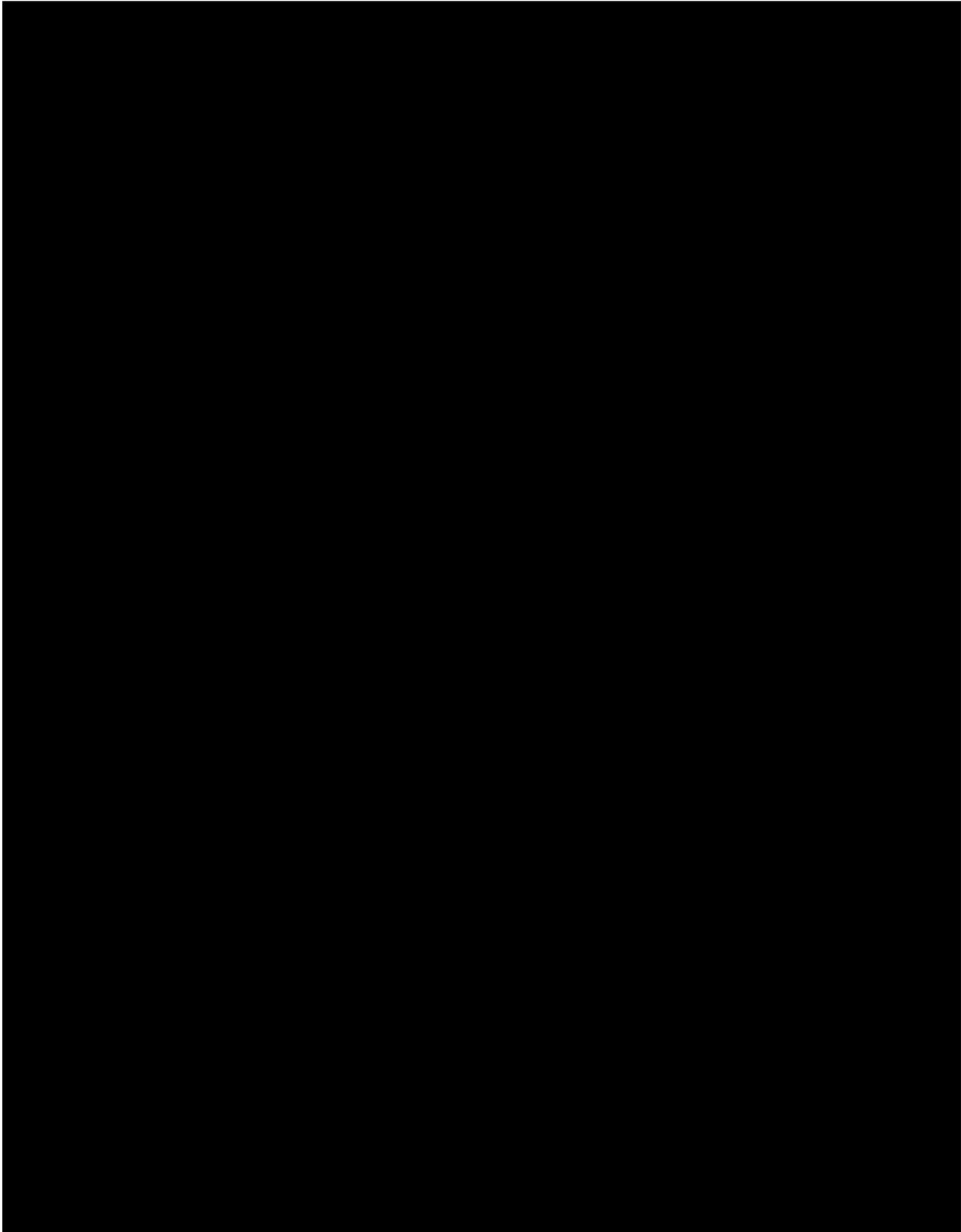


Figure 53. Undecorated whiteware and creamware ceramic sherds from 18MO22



Left to right: Creamware, nineteenth-century whiteware (top), nineteenth-century whiteware (bottom), nineteenth-century whiteware, and creamware light yellow.

4.10 Area S-14

Area S-14 is a 6.47-acre area west of I-495 and south of the I-270 Split, located within a section of the recreational park that follows Cabin John Creek in Montgomery County (**Figure 54**) (**Appendix E, Page 3**). Twenty STPs were excavated in this area, none of which contained precontact or historic cultural material. It is bounded to the north by MD-190/River Road, to the east by an on-ramp to the outer loop lanes of I-495, to the west by Seven Locks Road, and to the south by the bridge that carries I-495 over Seven Locks Road and Cabin John Creek. Area S-14 traverses a series of hilltops and slopes before dropping into the Cabin John Creek floodplain. Early twentieth-century USGS maps show these hilltops as the crests of a ridge that extended to the east but has been cut by I-495. The NRCS documented Blocktown channery silt loam in the northern portion of this area and Baile silt loam and Brinklow-Blocktown channery silt loam in the southern part of this area, with slopes ranging from 0-25 percent (Web Soil Survey 2015). The stratigraphy largely conformed to the expected pedons for these soils, with soils in upland contexts largely following Brinklow and Blocktown stratigraphic sequences consisting of an A- or Ap-horizon over a Bt-horizon, and soils next to the creek following a Baile stratigraphic sequence consisting of an A- or Ap-horizon over a Bg-horizon. STPs along the ROW and near buried utilities contained evidence for infilling. Coupled with the historic USGS maps, most of this area appears to be intact.

Area S-14 is entirely owned and administered by M-NCPPC, Montgomery County. The southernmost portion is open to the public, accessed by a footpath connected to a parking lot off Seven Locks Road (**Figure 55**). Area S-14 comprises two types of terrain: the relatively flat floodplain of Cabin John Creek in the southern portion, and a series of slopes and hilltops flanking the floodplain in the northern portion. The entire area is wooded, with denser undergrowth in the northern, hilly portion. A section of Cabin John Creek runs through the southern portion of the survey area (**Figure 56**), and the floodplain contained surface trash deposits, as well as a buried pipe and artificial drainage features transporting water runoff

from I-495. Area S-14 is approximately 160 ft (48 m) amsl on the hilltops and 100 ft (30 m) amsl in the floodplain with slopes ranging from 0-25 percent.

Six transects were excavated in Area S-14. Transects 1 and 2 were located in the northern portion of the survey area on hilltops overlooking the floodplain. These transects crossed two hillslopes greater than 15 percent. The remaining transects were placed in the floodplain, with Transects 3 and 4 on the northeastern side of the creek and Transects 5 and 6 on the southwestern side of the creek. A total of 20 primary STPs at 50-ft intervals was excavated in Area S-14.

In the northern portion of Area S-14, the stratigraphy consisted of either natural soil layers consistent with an upland profile, or disturbed fill in STPs located adjacent to the highway ROW. The two disturbed STPs displayed very dark brown (10YR 2/2) loam O-horizon between 0.1-0.3 ft below the ground surface. Underlying that top layer was a brown (10YR 5/3) silt loam fill that extended to a depth of between 1.8-2.2 ft below ground surface, where excavation was halted. The nine STPs with intact stratigraphy also had a very dark brown (10YR 2/2) O-horizon terminating between 0.1-0.3 ft below the ground surface, and underneath this was a yellowish red (5YR 4/6) silt loam A-horizon extending to between 0.3-0.8 ft below ground surface. The third and final stratum in these STPs was a red (2.5YR 4/6) silty clay subsoil continuing to the base of excavation at between 1.2-1.7 ft below ground surface. STPs were terminated because Stratum III was a sterile Bt-horizon and it would be unlikely to encounter buried Holocene deposits at the crest of a former ridge.

Transects 3 and 4 were located near the southern end of the survey area, within the floodplain of the east bank of Cabin John Creek. Transect 3 was located near an embankment and a pile of debris covered the center of the transect. The STPs excavated in this transect typically had 0.1-0.4 ft of a very dark brown (10YR 2/2) to brown (10YR 5/3) loam O-horizon, underlain by a layer of silt loam that ranged in color from strong brown (7.5YR 5/6) to dark yellowish brown (10YR 4/6 to 10YR 3/4) A-horizon that extended to a depth of between 0.4-0.8 ft below the ground surface, with a final stratum of strong brown (7.5YR 4/6) to light brown (7.5YR 6/3) silt loam to clay loam subsoil, with excavation terminating between 1.5-2.2 ft below ground surface because this was a sterile Bt-horizon. STPs on Transect 4 generally had a dark greyish brown (10YR 4/2) silt loam O-horizon extending to 0.4 ft below the ground surface, followed by a brown (7.5YR 5/4) clay loam A-horizon to a depth of 1.8 ft. The subsoil was a gray (10YR 5/1) clay loam Bg-horizon that was excavated to a depth of 2.2 ft below ground surface, where the water table was reached. STP 14-4-7 contained a yellowish brown (10YR 3/6) sand fill deposit that was likely placed over a sewer vault, as a metal sewer cap was located less than 3 ft (1 m) from this STP.

Figure 54. Results of the Phase I survey in Area S-14

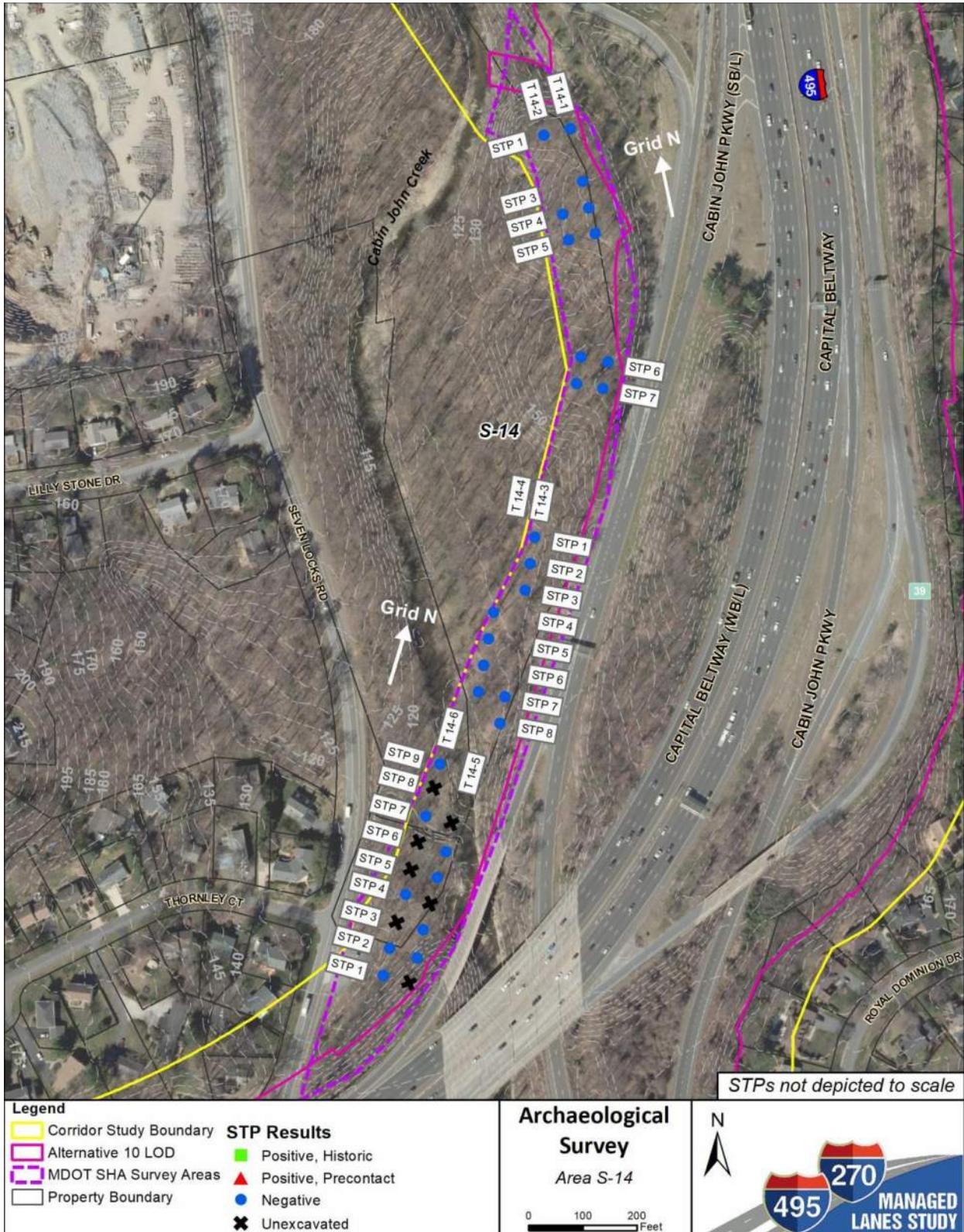


Figure 55. Parking lot in the southwestern portion of Area S-14 along Seven Locks Road, from the Cabin John Trail, facing southwest



Figure 56. Concrete armoring on the Cabin John stream bank, with I-495 bridge visible in top right, facing northeast



On the west bank of Cabin John Creek, STPs on Transect 5 had similar stratigraphy. They all had an initial organic brown (10YR 5/3) to dark brown (10YR 3/3) silt loam A-horizon extending between 0.1-0.5 ft below the ground surface. Below this was a grayish brown (10YR 5/2) to dark yellowish brown (10YR 4/6 to 10YR 3/6) silt loam E-horizon that extended to a depth of 0.8-1.5 ft below the ground surface. The subsoil was a brownish yellow (10YR 6/8) to yellowish brown (10YR 5/8) clay loam, excavated to between 1.8-2.0 ft below the ground surface. Two STPs in this transect had fill layers. STP 14-5-3 had a stratum of modern construction fill containing asphalt and modern nails between 0.8-1.1 ft below the ground surface, and 14-5-7 had a fill layer of compacted strong brown (7.5YR 4/6) sandy clay from 0.8-1.7 ft below the ground surface. STPs in Transect 6 shared a distinct stratigraphy. Underneath a thin (0.1-ft thick) very dark brown (10YR 2/2) loam O-horizon was a yellowish brown (10YR 5/4) to dark yellowish brown (10YR 4/6) clay loam A-horizon that reached a depth of between 0.8-1.1 ft below the ground surface. Subsoil identified along this transect consisted of a brownish yellow (10YR 6/8) clay loam that extended from 1.1-1.6 ft below the ground surface.

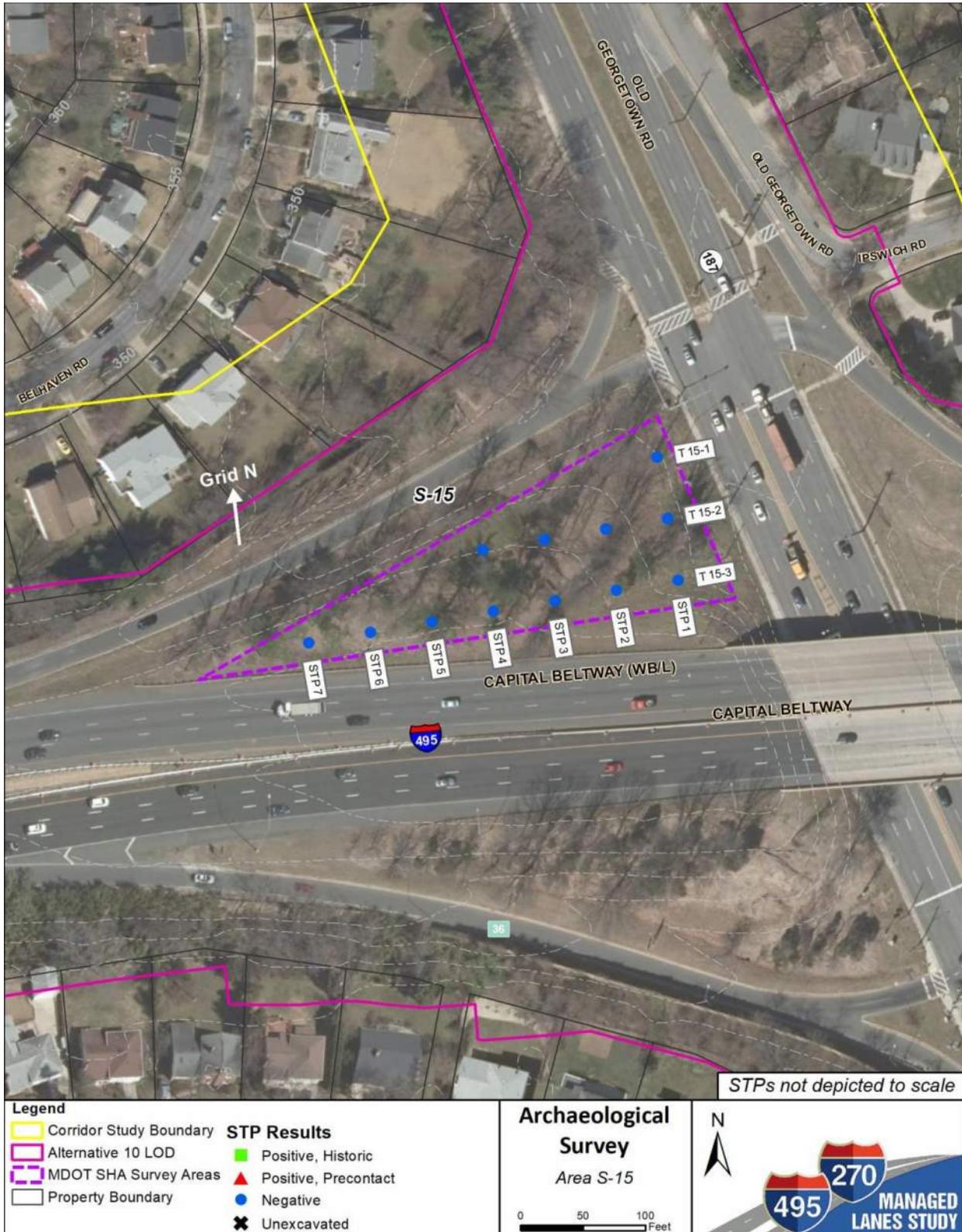
Material observed in shovel tests in Area S-14 consisted of modern materials, such as car parts, plastic, and modern bottle glass, which were discarded in the field. The results of this survey indicate that the soils in this area are intact apart from cut-and-fill disturbance along the highway ROW and along a sewer line. While the banks of Cabin John Creek have been hardened with concrete beneath the bridge, this appears not to have had a significant impact on other portions of the floodplain. The upland portion of Area S-14 is intact but is separated from the rest of the ridge system by I-495. No historic or precontact artifacts were encountered and no archaeological features were observed. No archaeological sites were identified, and no further work is recommended in Area S-14. *Area S-14 lies within the LOD for the Preferred Alternative.*

4.11 Area S-15

Area S-15 is a 0.77-acre limited survey area within the interchange of I-495 and Old Georgetown Road. It is roughly bounded to the north by slopes down to the I-495 on-ramp and to the south by slopes up to I-495, and to the east by Old Georgetown Road (**Figure 57**) (**Appendix E, Page 5**).

Twelve STPs were excavated in Area S-15, all of which contained modern fill deposits. Early twentieth-century USGS maps show Area S-15 occupying a former ridgetop that slopes down to the west, and aerial photographs from 1962 and 1963 show evidence for cutting and filling that occurred when the interchange was constructed. The NRCS documents Glenelg-Urban complex soils in Area S-15 (Web Soil Survey 2015). Urban land complexes are typically in areas that have been disturbed by anthropogenic processes such as cutting and filling but may retain part or all of a pedon associated with the historic soil series present in the area. STPs in this area contained soils that did not match an expected Glenelg pedon and, coupled with the historic aerial photographs, demonstrate that the landform occupied by Area S-15 has been significantly altered.

Figure 57. Results of the Phase I survey in Area S-15



Area S-15 is located approximately 352 ft (107 m) amsl. It is mostly wooded with concentrations of thick undergrowth and tall grasses. Residential communities surround the interchange of Old Georgetown Road and I-495. The entire extent of Area S-15 falls within MDOT SHA ROW. Three transects of STPs were excavated between the south embankment of the I-495 Outer Loop and the I-495 on-ramp. STPs were laid out in three transects running east-west at 50-ft intervals beginning in the southeast corner of Area S-15. A total of 12 primary STPs was excavated in Area S-15.

Stratigraphy in Area S-15 consisted of gravel and clay fill layers forming the artificial embankment of I-495. Two strata were generally identified throughout the study area, with Stratum I consisting of a brown (10YR 4/3 or 10YR 5/3) silt loam topsoil over Stratum II, a predominantly strong brown (7.5YR 4/6) clay loam or reddish yellow (7.5YR 4/6) silty clay loam fill. Some STPs contained a succession of up to six thin bands of clay fill. Most of these fill layers were relatively shallow, and STPs were generally excavated to a depth of 0.85-1.4 ft below ground surface. It is unlikely Stratum II is subsoil, considering the color and level of compaction observed in STPs across this area, but instead represents fill deposited above a cut surface during the construction of the highway.

Material observed in shovel tests in Area S-15 consisted of modern materials, such as modern bottle glass, which were discarded in the field. The identification of such material and absence of older cultural items is consistent with deposition related to the highway construction. The results of the investigation indicate that Area S-15 occupies a cut-and-filled portion of a ridgetop whose original ground surface was removed during the construction of I-495 and does not possess the potential to contain intact archaeological resources. No historic or precontact artifacts were encountered. No historic or precontact features were observed, and no archaeological sites were identified. No further work is recommended in Area S-15. Minor LOD changes in and around Area S-15 also have little or no potential to impact significant archaeological resources. *Area S-15 lies within the LOD for the Preferred Alternative.*

4.12 Area S-16

Area S-16 comprises an area 1.489 miles (2,396 m) in length within Rock Creek Park in Montgomery County (**Figures 54-59**) (**Appendix E, Pages 5 and 12**). [REDACTED]

[REDACTED] The largest area identified for survey, containing 31.71 acres, it is located in the floodplain of Rock Creek and adjacent upland landforms. Area S-16 was divided into three separate areas designated Area S-16a, S-16b, and S-16c. Each of these areas fell predominantly within land owned and administered by the M-NCPPC, Montgomery County, with small portions crossing into MDOT SHA ROW. Soils in all three sections of Area S-16 are very similar, with the vast majority (over 80 percent) comprising Codorus silt loam soils (Web Soil Survey 2015) that have potential to contain archaeological deposits that have been deeply buried by flood deposits. Other soils expected in Area S-16 include Blocktown channery silt loam, Brinklow-Blocktown channery silt loam, and Glenelg silt loam. As a result, most STPs in Area S-16 were excavated to depths of 2.5-3.0 ft where possible before being terminated by gravel impasses or reaching the practical limits of excavation. Bucket augur tests conducted on a random sample of 3-ft-deep STPs in this area showed floodplain deposits extended beyond the practical limits of excavation, as deep as 5.0 ft before the water table was reached. This indicates that this area has the potential for deeply buried precontact material and additional deep-soil testing is recommended in undisturbed floodplain portions of Area S-16a and Area S-16c.

4.12.1 Area S-16a

Area S-16a is a 17.11-acre area [REDACTED] [REDACTED] [REDACTED] (Appendix E, Pages 5 and 12). It is 4,440 ft (1,353 m) in length and varies from 40 ft (12 m) to 205 ft (62 m) in width. Area S-16a traverses several landforms across its length [REDACTED] [REDACTED] [REDACTED] [REDACTED] (Figure 64). Elevations in Area S-16a ranged from 200 ft (61 m) amsl in the floodplain and 243 ft (74 m) amsl in the uplands.

The floodplain occupies the majority of Area S-16 [REDACTED] [REDACTED]. These areas are uniformly wooded with sparse to moderate undergrowth and patches of wetland plants. Several areas were covered by standing water at the time of the survey. Near the northwestern terminus, the floodplain between the embankment and the creek channel narrows to about 15 ft (5 m). Stanchions posted along Area S-16a indicate that a buried sewer line is present. Nineteen transects were excavated across Area S-16a, with Transects 1-12 lying in the upland areas and Transects 14-19 in the floodplain. Transect 13 was situated on the slope of the I-495 highway embankment and was not excavated. A total of 176 STPs was excavated in Area S-16a, including 157 primary STPs at 50-ft intervals and 19 radial STPs at 25-ft intervals to investigate possible artifact concentrations. Two new archaeological sites, Rock Creek Site 1 (18MO754) and 2 (18MO755) were identified in Area S-16a.

Stratigraphy in Area S-16a consisted of alluvial or wetland soils, with some (n=17 or 10 percent) exhibiting undisturbed upland profiles, and others (n=28 or 16 percent) exhibiting disturbed profiles. STPs in upland contexts generally exhibited three strata. Stratum I was a very dark grayish brown (10YR 3/2) silt loam A-horizon. This overlay Stratum II, a light yellowish brown (10YR 6/4) sandy loam E-horizon at a depth of 0.5 ft. Stratum III, a strong brown (7.5Y R5/8) sandy clay subsoil, was encountered at 1.0-1.4 ft. This was generally excavated to 1.5-1.7 ft. Upland areas close to the highway generally exhibited evidence of disturbance, containing three to five layers of gravelly artificial fill.

Figure 58. Results of the Phase I survey in Area S-16a, east section (including 18MO754), and Area S-32

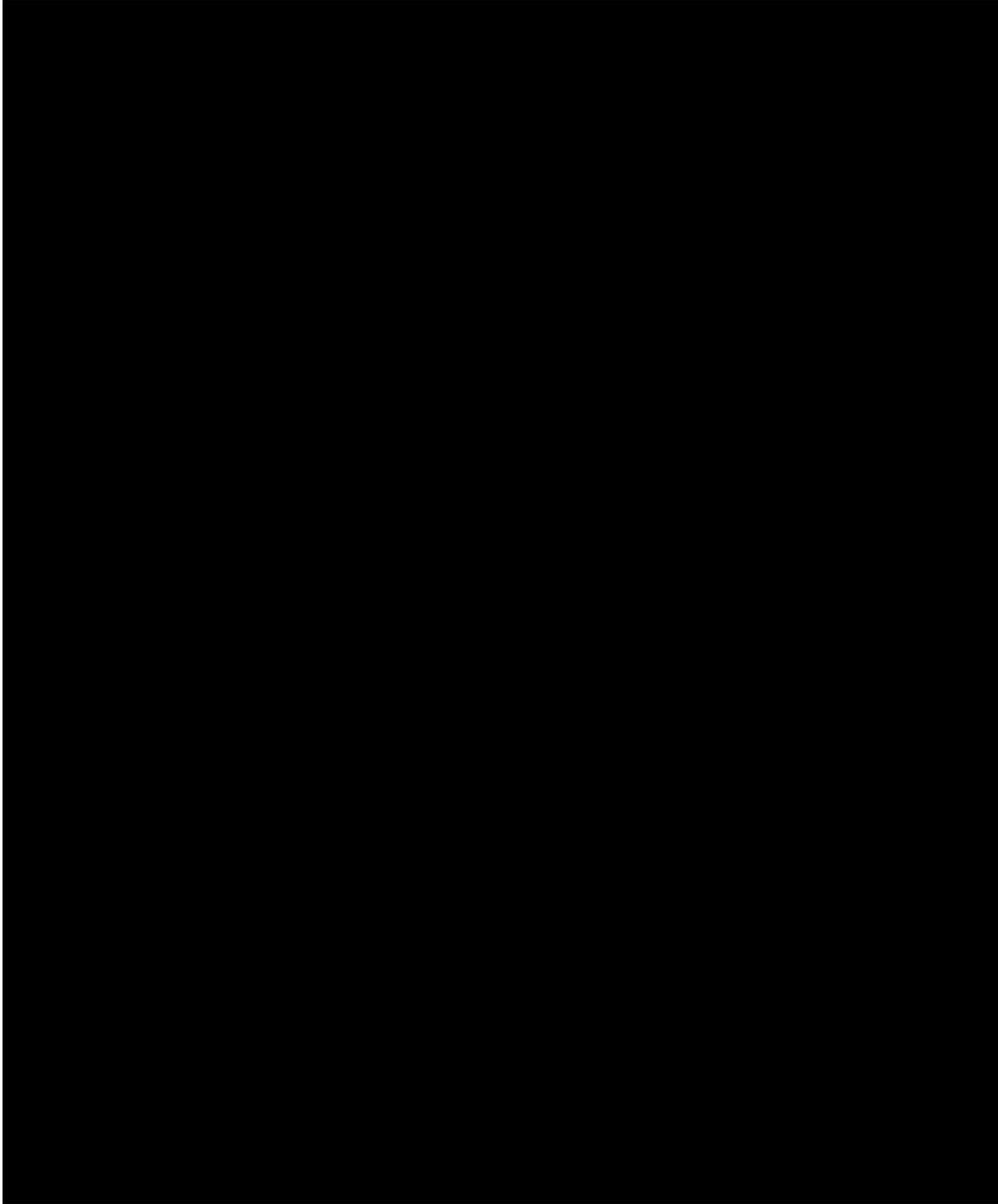


Figure 59. Results of the Phase I survey in Area S-16a, west section (including 18MO755)

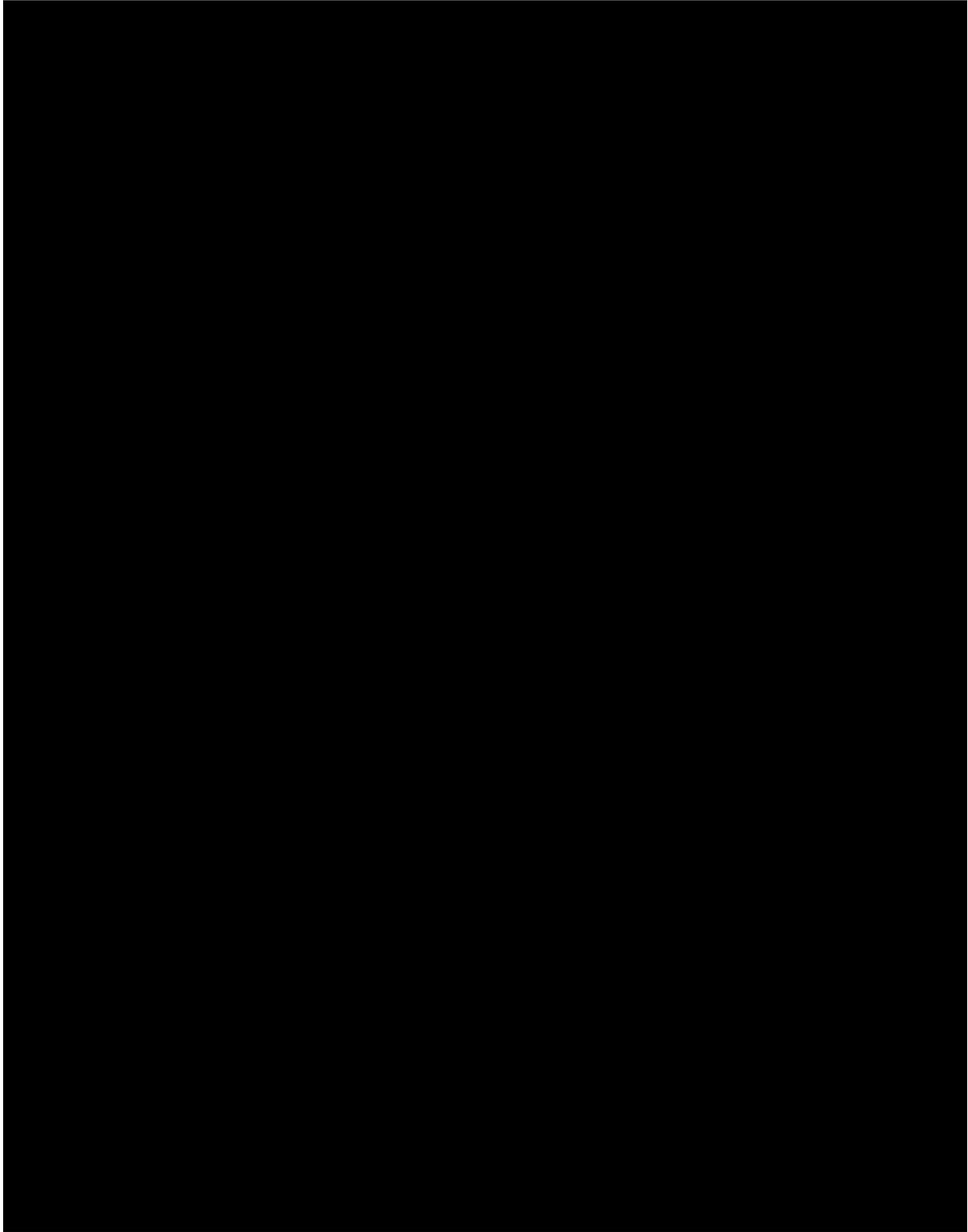


Figure 60. Results of the Phase I survey in Area S-16b

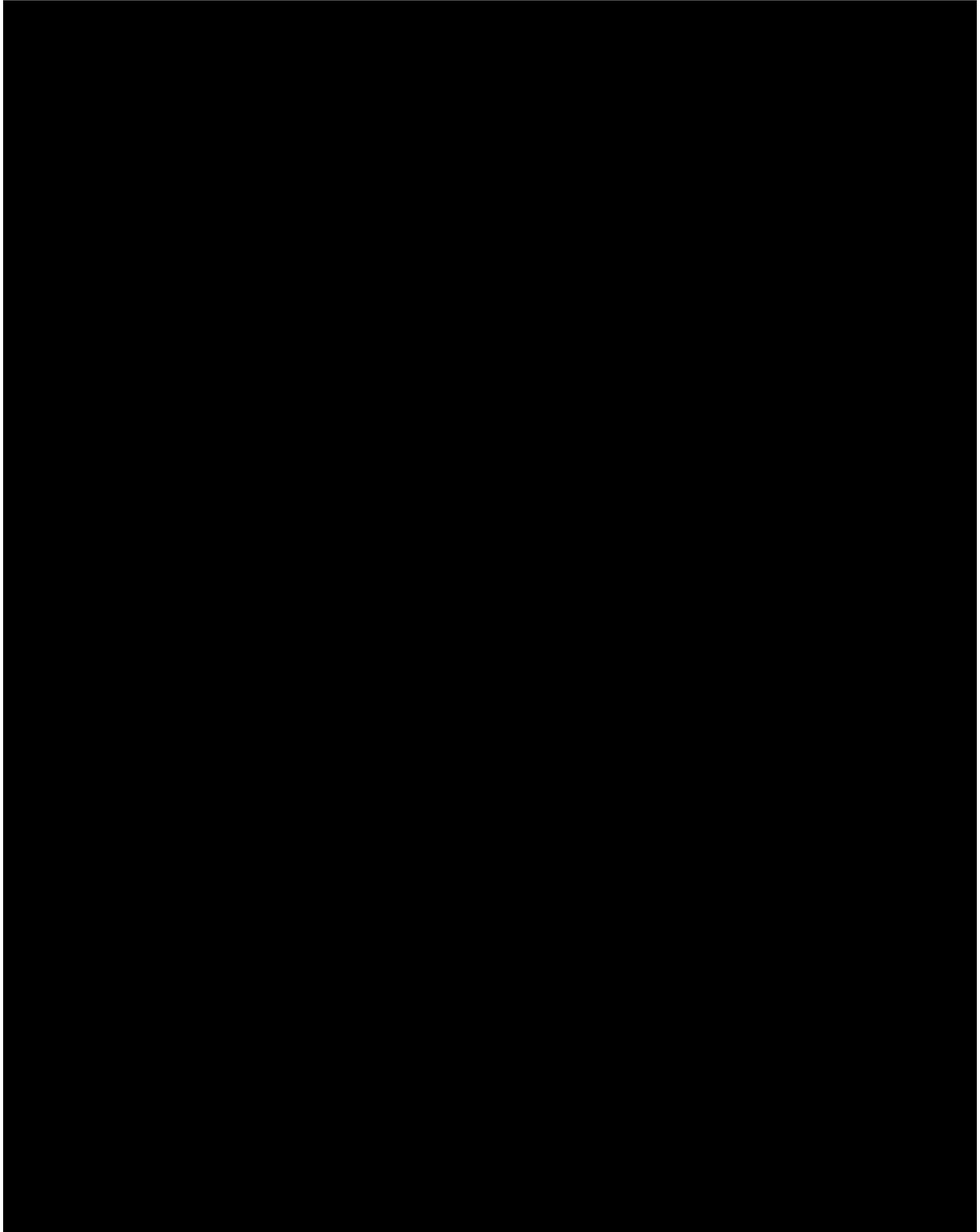


Figure 61. Results of the Phase I survey in Area S-16c, east section

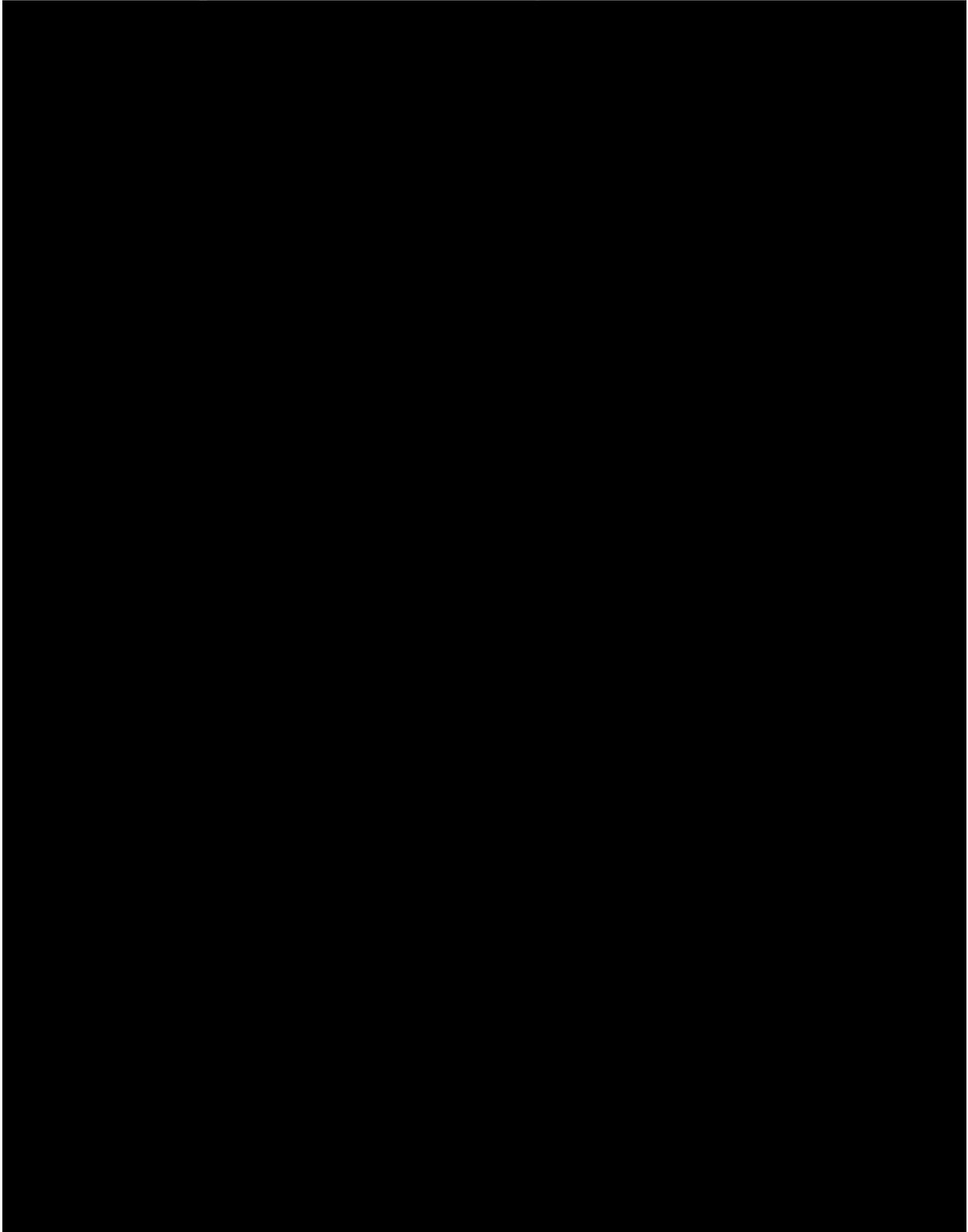


Figure 62. Results of the Phase I survey in Area S-16c, central section and Area S-31

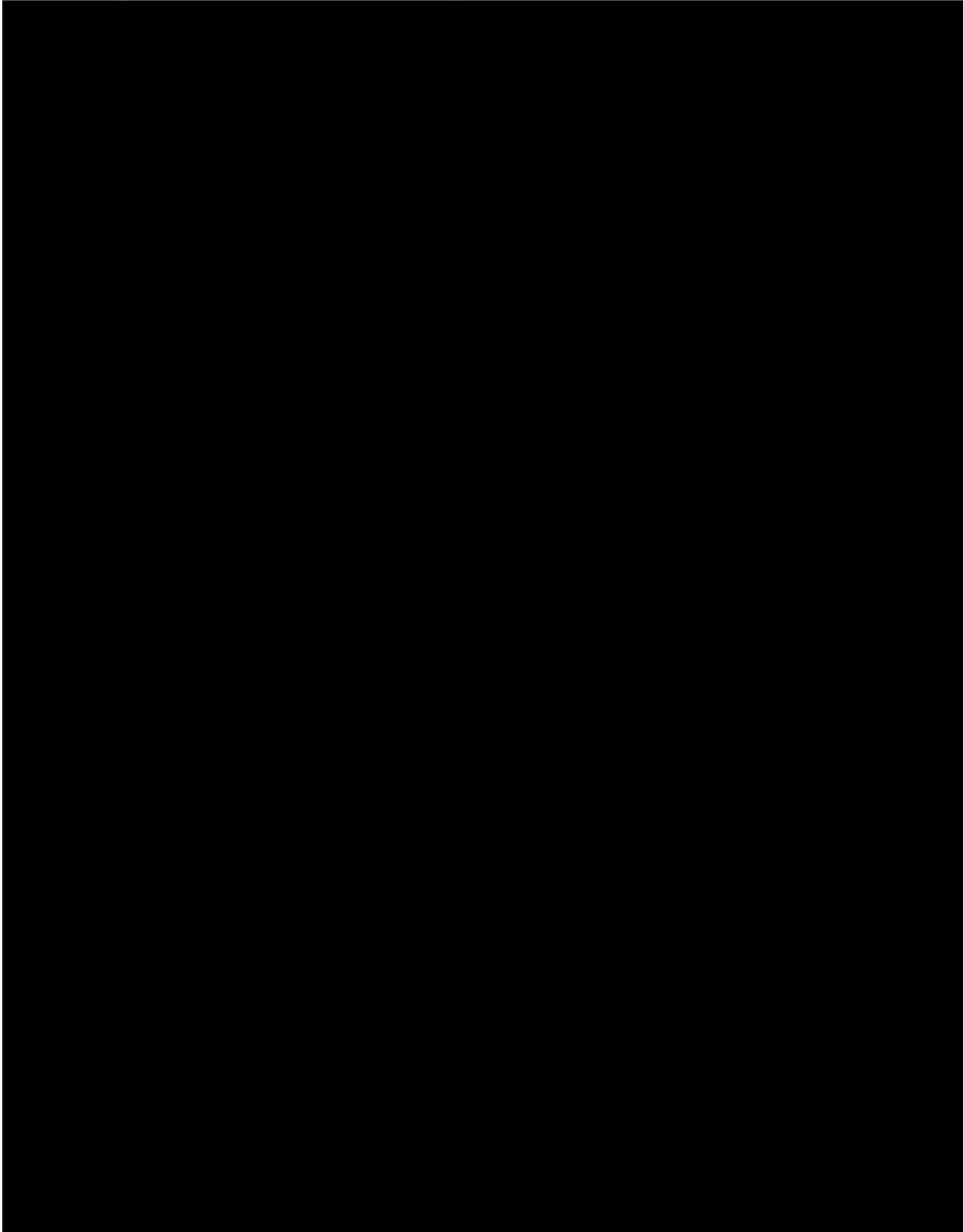


Figure 63. Results of the Phase I survey in Area S-16c, west section, and S-31

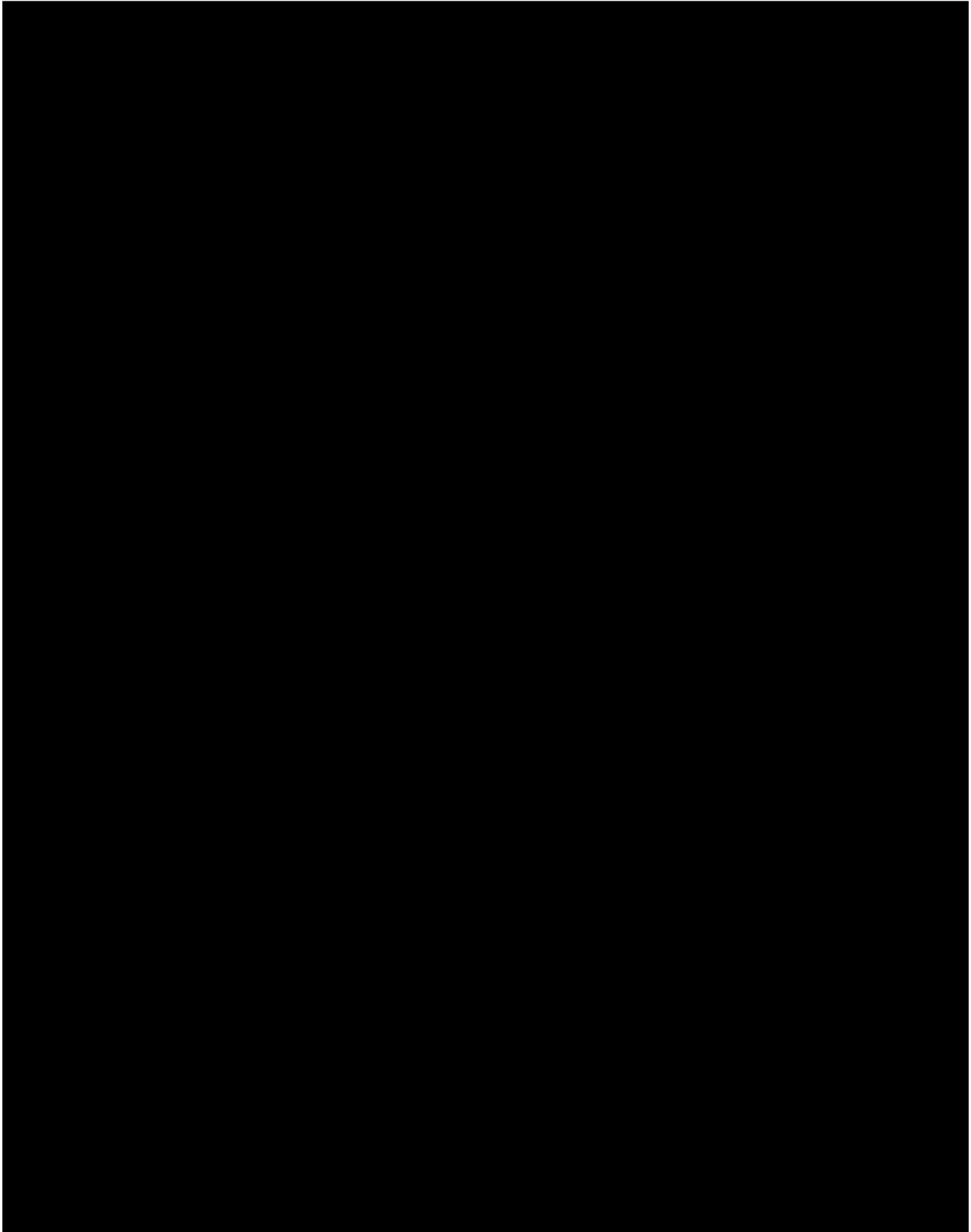
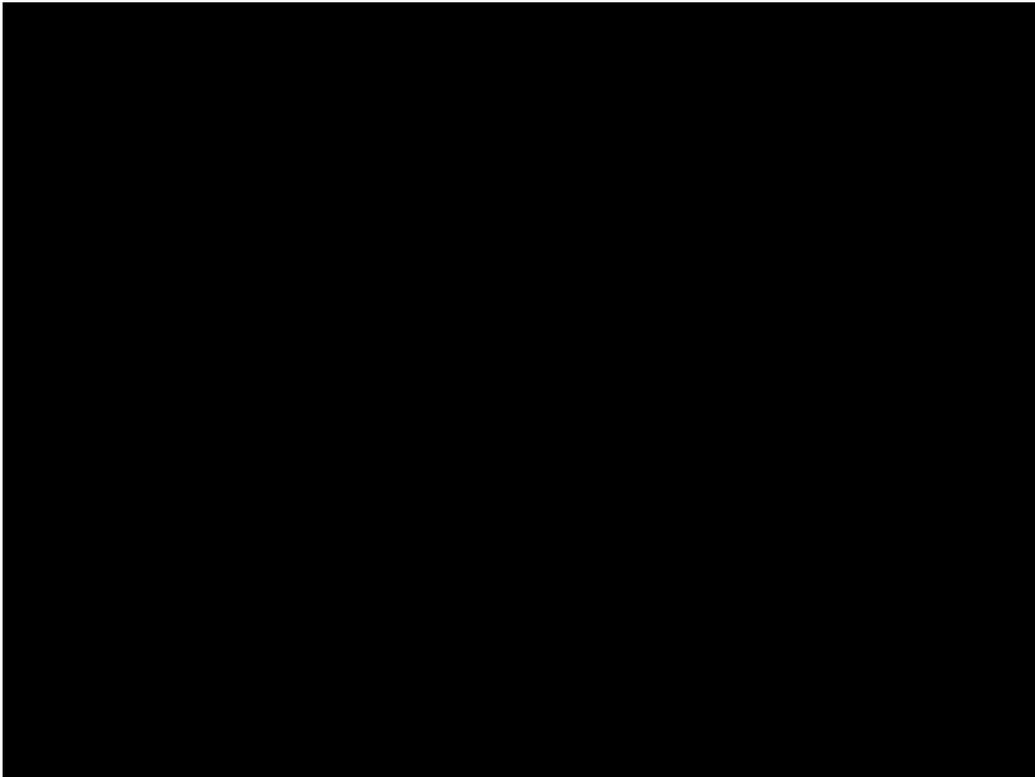
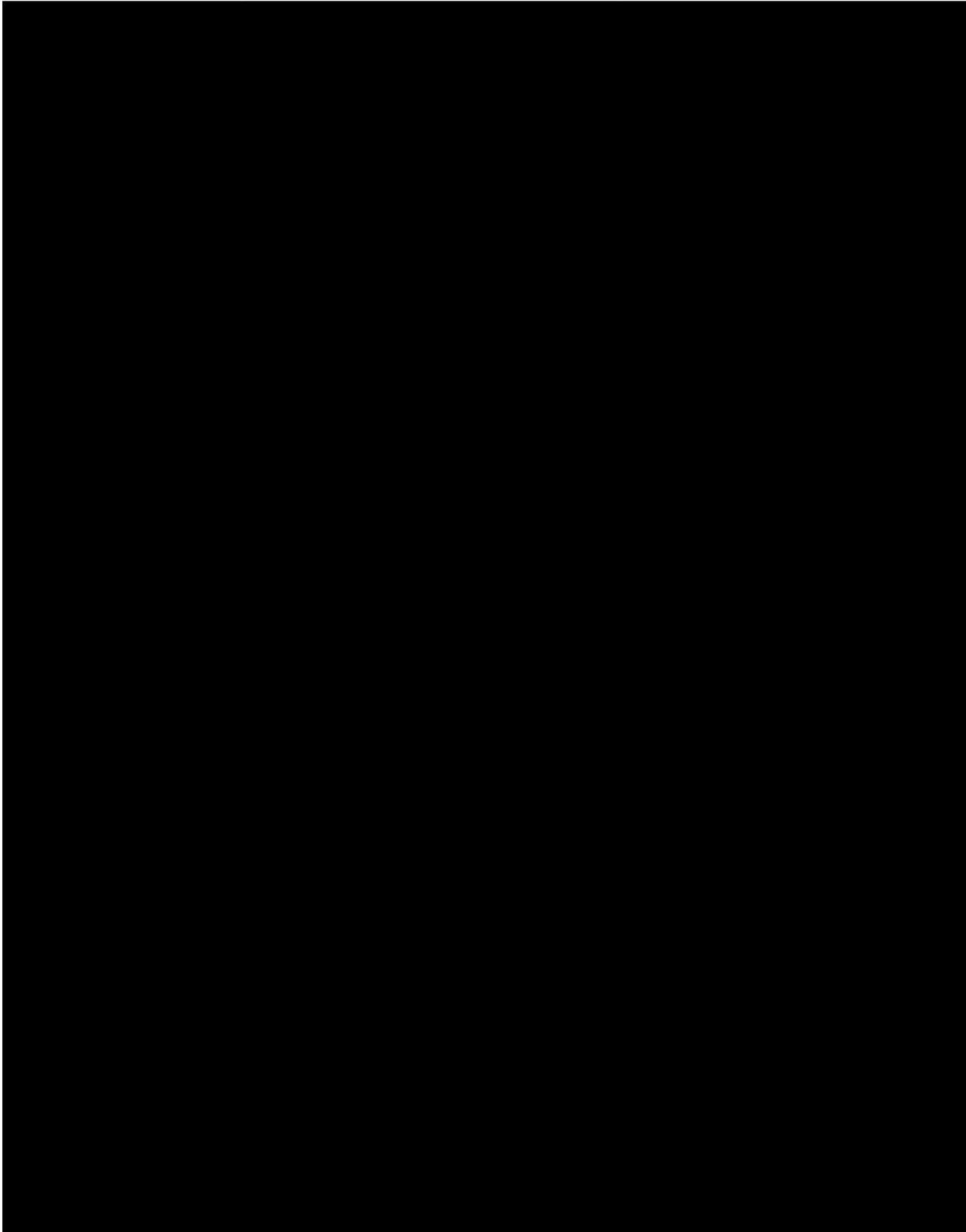


Figure 64. Slopes between testable areas in Area S-16a



The most common profile among STPs in the floodplain included Stratum I, a dark grayish brown (10YR 4/2) silt loam topsoil that reached a depth of 0.4-0.7 ft below surface, overlying Stratum II, a dark yellowish brown (10YR 4/4) or yellowish brown (10YR 5/4) silty clay C-horizon that continued to the base of the excavation, typically 3 ft. In some cases, a gravel impasse was reached between 1.5-2.2 ft. These probably represent alluvial deposits from flooding episodes along Rock Creek. Several variations in this profile were observed, including some where Stratum II was a more reddish brown (7.5YR4/3) and some where an intervening alluvial stratum separated the first from the last. High water tables were commonly encountered toward the north-central portion of this area, where STPs filled with water around 1.5 ft below surface. Portions of the floodplain close to the I-495 highway embankment exhibited artificial disturbance from road construction (this was found in a total of 15 STPs), and portions of the floodplain near the northwestern terminus of Area S-16a contained sand fill over the buried sewer line (this was found in a total of 2 STPs). The floodplain soils present in Area S-16a have the potential for deeply buried precontact material that may not be reached by an STP. Due to the likelihood of encountering buried Holocene deposits in Codorus soils, deep testing is recommended in Area S-16a. *Area S-16a is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 66. Field Results from Phase I Survey in 18M0754



While artifacts from 18MO754 were recovered from a potentially intact stratigraphic context, no buried features were observed, and the site occupies a very small area [REDACTED]. It is possible that the site once extended to the south or west before that terrain was destroyed by road construction and erosion. Only a very small portion of the site still exists. Based on poor integrity and prior impacts to the site from road construction, 18MO754 is recommended not eligible for the NHRP. No additional work is recommended. *Site 18MO754 is now outside the LOD for the Preferred Alternative and would not be affected.*

B. 18MO755 (Rock Creek Site 2)

Site 18MO755 is a precontact lithic scatter comprising 0.32 acres [REDACTED] (Figure 68). There is no improved public access to this portion of the park. [REDACTED]

[REDACTED]

[REDACTED] A total of 36 STPs was excavated in or in the direct vicinity of the site. Three STPs within the incised tributary could not be excavated.

Figure 67. Quartz debitage from 18MO754



Left to right: Utilized quartz flake, quartz flake fragment (top), quartz flake fragment (bottom), quartz flake fragment, quartz early stage reduction flake, and quartz cobble shatter.

Field Results

The site is a precontact lithic scatter of indeterminate date. The surrounding floodplain has been subjected to flooding episodes as evidenced by a single deep, undifferentiated deposit of alluvial sediments (**Figure 69**). The most common profile on the site consisted of a dark grayish brown (10YR 4/2) silt loam A-horizon that reached a depth of 0.4-0.7 ft below surface over a dark yellowish brown (10YR 4/4) or yellowish brown (10YR 5/4) silty clay loam C-horizon that continued to the base of the excavation, typically 3 ft. In some cases, a gravel impasse was reached between 1.5-2.2 ft, representing coarse flood deposits. No plowzone was present and no features were encountered. The lack of visible strata within the alluvial deposits makes it difficult to assess vertical relationships between artifacts. All subsurface artifacts were recovered from Stratum I or Stratum II. Two flake fragments were also recovered from the ground surface.

The artifacts at 18MO755 consisted of 16 pieces of quartz debitage recovered from alluvial contexts. Recovered artifacts included cortical flake fragments, non-cortical flake fragments, non-cortical biface reduction flakes, and cobble shatter (**Table 9; Figure 70**). These quartz lithics represent various stages of tool reduction using a locally available material, suggesting that the occupants of the site engaged in the expedient reduction of tools from local cobbles, or retouched existing tools or blanks on the site.

The site reflects a short-term resource procurement site [REDACTED], which would have provided food sources for precontact populations. Artifacts were recovered from the second stratum of most STPs, which made up a deep deposit of alluvial sediments with no discernible breaks in color or texture. The undifferentiated stratigraphy makes it difficult to assess whether debitage resulted from one or multiple occupations. No diagnostics were present to provide a more precise date for the site [REDACTED]

[REDACTED] No subsurface features were encountered. Given its lack of horizontal or vertical patterning, low artifact density, and absence of diagnostic artifacts, 18MO755 does not possess the potential to provide information important in history. This site is recommended not eligible for the NHRP, and no additional work is recommended. *Site 18MO755 is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 68. Field Results from Phase I Survey in 18MO755

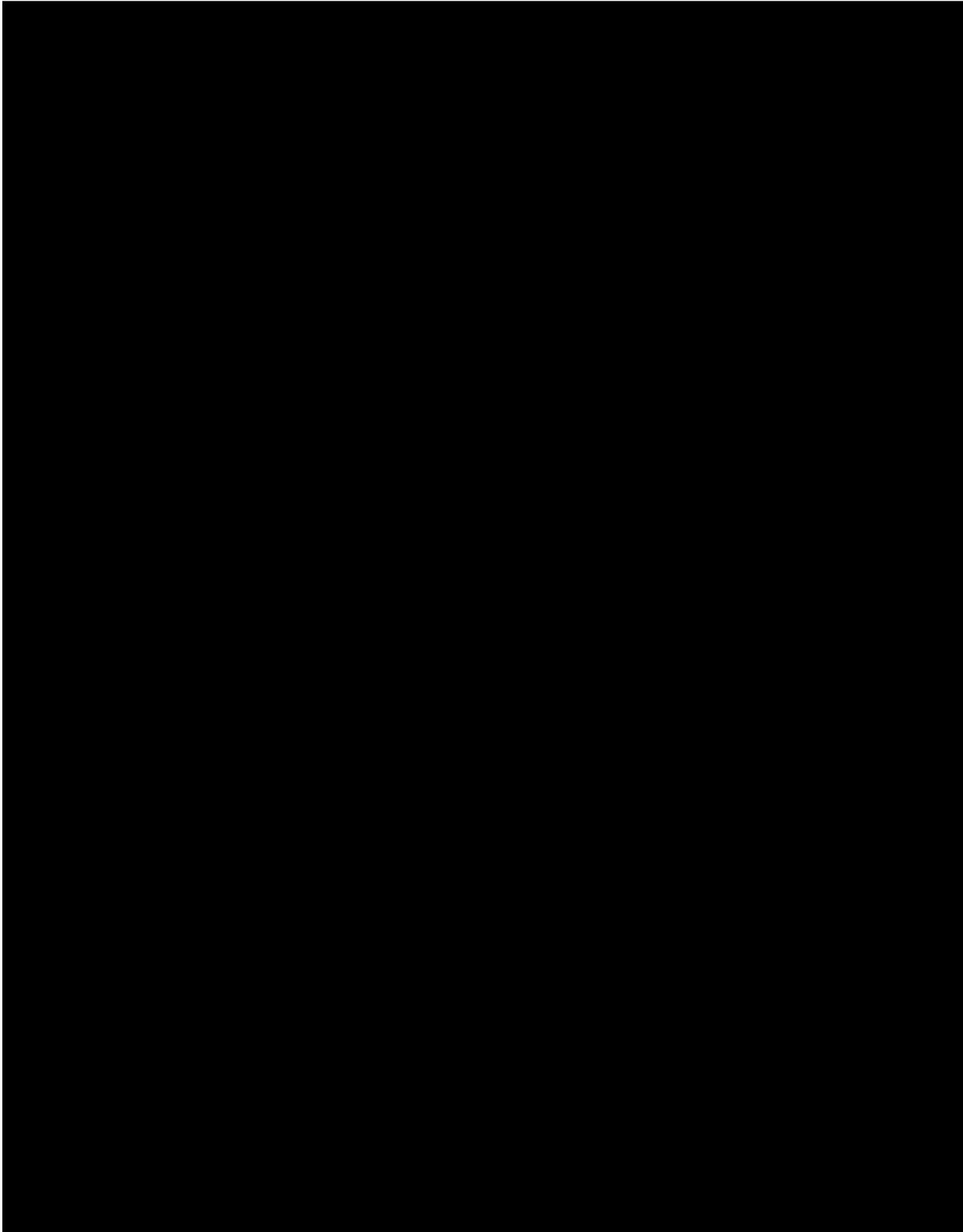


Figure 69. Sample STP profiles at 18MO755

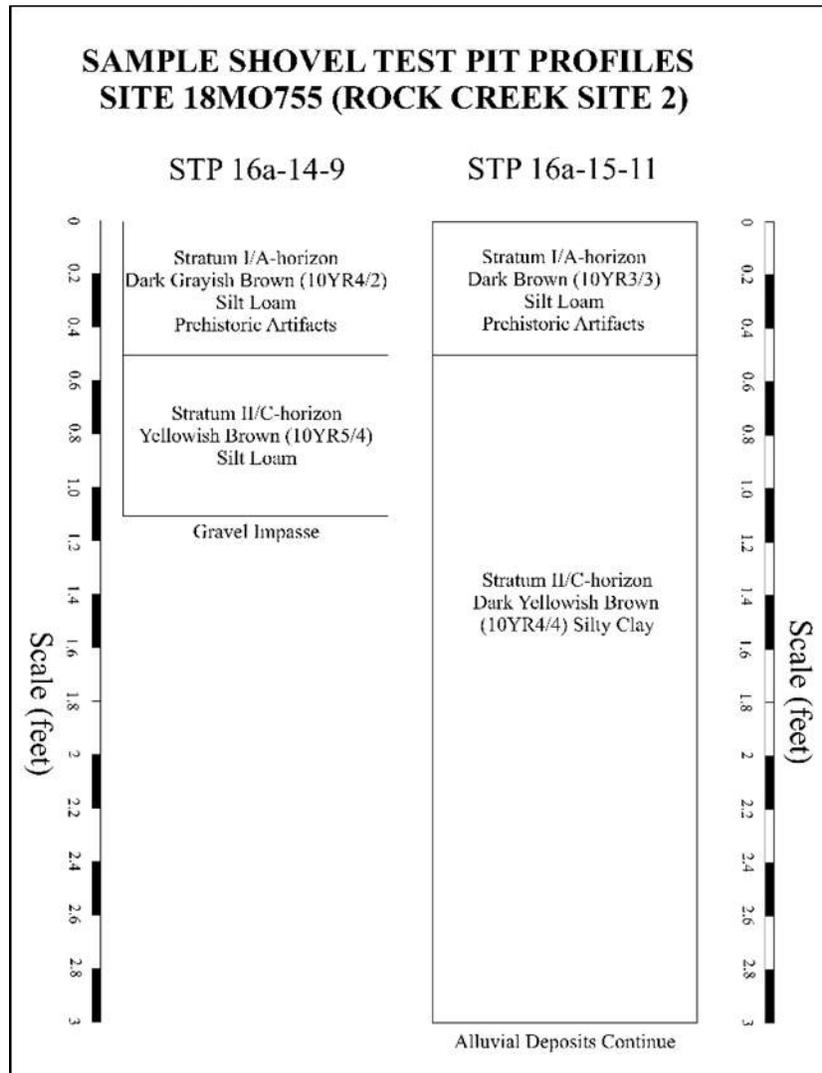


Table 10. Artifacts recovered from 18MO755

Artifact Class	Artifact Type	Count
Precontact	Biface Reduction Flake, No Cortex	5
	Flake Fragment	4
	Flake Fragment, No Cortex	3
	Cobble Shatter	4
Total		16

Figure 70. Selection of artifacts from 18MO755



Left to right: Quartz flake fragment (top), quartz cobble shatter (bottom), quartz biface reduction flake (top), quartz cobble shatter (bottom), quartz biface reduction flake, quartz biface reduction flake (top), quartz biface reduction flake (bottom), quartz biface reduction flake, and quartz cobble shatter.

4.12.2 Area S-16b

Area S-16b is a 1.59-acre area bound by Beach Drive to the north and east and the Rock Creek Channel to the south and west (see **Figure 60**) (**Appendix E, Pages 5 and 12**). It is situated on a narrow strip of floodplain between Beach Drive and Rock Creek, [REDACTED]. Area S-16b roughly follows the course of Beach Drive for a distance of about 700 ft (213 m) and ranges in width from 65 ft (20 m) to 172 ft (52 m). Area S-16b is about 207 ft (63 m) amsl. Rock Creek Trail, a paved pedestrian and bike trail parallel to Rock Creek, runs through the entire length of this area (**Figure 67**). The area is bisected by artificial drainage features and marked subsurface utilities in several places (**Figure 68**). Several low-lying water retention features with wetland plants were also noted. This area lies entirely within Rock Creek Park, administered by the M-NCPPC, Montgomery County. [REDACTED]

[REDACTED] One transect of STPs was excavated in Area S-16b, laid out in line with the roadway. A total of 10 primary STPs was excavated at 50-ft intervals in Area S-16b.

The STPs excavated in Area 16b showed an intact natural profile consisting of two to three soil strata. Stratum I consisted of a dark grayish brown (10YR 4/2) silt loam A-horizon that reached a depth of 0.3-0.6 ft below surface. In some cases, Stratum II a brown (10YR 5/3) silt loam E-horizon that reached a depth of 1.0-1.3 ft below surface. The final stratum, Stratum II or III, was a strong brown (7.5YR 4/6) silt loam

subsoil, which was generally excavated to a depth of 1.4-1.8 ft below surface. This demonstrates that Area S16b is less disturbed than its position next to a roadway would suggest; however, only modern materials were recovered.

Material observed in Area S-16b consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered and no historic or precontact features were observed. The soils in Area S-16b seem to be intact, however no historic or precontact artifacts were encountered and the Rock Creek Channel and Beach Drive were situated to either side of this area, meaning there is no potential for archaeological resources within the CSB outside the surveyed area. No archaeological sites were identified, and no further work is recommended in Area S-16b. *Area S-16b is now outside the LOD for the Preferred Alternative and would not be affected.*

4.12.3 Area S-16c

Area S-16c is a 13.01-acre area situated in a level portion Rock Creek floodplain 207-210 ft (63-64 m) amsl (**Appendix E, Page 5**). It is situated along the edge of the I-495 westbound ROW between Cedar Lane in the east and Grosvenor Lane in the west. The area is 3,467 ft (1,057 m) in length and remains about 200 ft (61 m) in width for most of its length, tapering out to 38 ft (12 m) at its northwestern terminus. Rock Creek crosses the area perpendicularly about 700 ft (213 m) northwest of its eastern boundary (**Figure 71** and **Figure 72**). The southeasternmost portion of this area is an active playground facility with a paved footpath running through it (**Figure 73**). Across the creek from the playground facility, Area S-16c occupied an unimproved section of the floodplain that alternated between woodland and wetland vegetation. Undergrowth across the wooded sections was moderate to dense.

Nineteen transects were excavated within Area S-16c, with Transects 1-4 traversing the playground and soccer field, Transects 6-12 traversing a floodplain between the Rock Creek Channel and a deep drainage feature that bisected the area and Transects 13-19 traversing the floodplain beyond this drainage feature to Grosvenor Lane. Portions of these transects were unexcavated due to standing water at the surface. This area lies entirely within Rock Creek Park, administered by the M-NCPPC, Montgomery County. A total of 184 primary STPs at 50-ft intervals and eight radial STPs at 25-ft intervals was excavated in Area S-16c.

Soils in Area S-16c varied slightly based on their position across the landscape. The southeasternmost portion of Area S-16c, in the playground and soccer field, showed evidence for cutting-and-filling. Here, a brown (10YR 4/3) artificial topsoil overlay one or two layers of gravelly fill, often composed of sand or clay. The color of the fill varied widely, from brown (10YR 4/3) to gray (5Y 5/1) to strong brown (7.5YR 5/6). This indicates that most of the southeastern portion of Area S-16c has been graded as a result of playground construction.

The STPs excavated outside the playground area followed two general stratigraphic patterns. The first consisted of layered alluvium from flooding events along Rock Creek, consisting of two to four strata and excavated to a depth of 3.0 ft below surface. These strata varied slightly in color and texture, but the profile generally consisted of a 0.3-0.6-ft-thick dark grayish brown (10YR 4/2) to brown (10YR 5/3) topsoil over a brown (7.5YR 5/3) to dark yellowish brown (10YR 4/4) silt loam C1-horizon, which overlay a yellowish brown (10YR 5/4 to 10YR 5/8) silt loam or sandy loam C2-horizon at a depth of 0.4-1.6 ft. A random sample of 3-ft-deep STPs across this area were tested with a bucket augur to further investigate

the depth of the alluvial deposits. These bucket augur tests typically showed the final stratum descending to at least 5 ft, at which point the water table was reached.

In the northwesternmost portion of Area S-16c, the texture of the final stratum contained higher quantities of clay consistent with subsoil formation. Generally, beneath the dark grayish brown (10YR4/2) A-horizon and an intermediate E-horizon of brown (7.5YR5/4) silty clay, a strong brown (7.5YR5/6) silty clay or clay loam Bt-horizon was reached. The subsoil was generally reached between 1.3-1.8 ft below surface and excavated to a depth of 1.9-2.2 ft below surface. Across parts of this area the subsoil was shallower, appearing at depths between 0.6-1.2 ft, and excavation extended to 1.4-1.8 ft.

Two STPs in Area S-16c contained historic material. The first, STP 16c-2-7 in the soccer field, contained several brick and charcoal fragments. The second, STP 16c-9-21 in the unimproved floodplain, contained one piece of teal-colored machine-made bottle glass. Radial STPs around both of these positive STPs resulted in no further artifact recovery. Both cultural deposits represent isolated finds. Apart from the area directly impacted by the construction of the playground, intact soils were observed across the survey area, suggesting most of the floodplain is unmodified. No historic or precontact features were observed and no archaeological sites were identified, but the floodplain soils present in Area S-16c have the potential for deeply buried precontact material that may not be reached by an STP. Due to the likelihood of encountering buried Holocene deposits in Codorus soils, deep testing is recommended in undisturbed portions of Area S-16c. *Area S-16c is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 71. AAHA crew excavating in Area S-16b, with Beach Drive on left and Rock Creek Trail on right, facing southeast



Figure 72. Buried subsurface utilities in Area S-16b, facing northeast



Figure 73. Playground and lawn area in Area S-16c, east section, facing west



4.13 Area S-17

Area S-17 is a Phase I survey area comprising 2.09 acres on the floodplain of Rock Creek (**Figure 74**) (**Appendix E, Page 12**). The area is located between the south bank of Rock Creek and the westbound lanes of I-495. It is roughly bounded to the north and east by Rock Creek, to the south by I-495, and to the west by Kensington Parkway. The entirety of Area S-17 falls within Rock Creek Park, administered by the M-NCPPC, Montgomery County. It is situated on the Rock Creek floodplain across most of its area, gently rising to a low terrace set slightly above the floodplain on its western end. This survey area appears to occupy the same landform as it does in early twentieth-century USGS maps. The NRCS documents Codorus silt loam across much of Area S-7, with a small area of Glenelg silt loam on this terrace (Web Soil Survey 2015). Codorus soils are found on floodplains and contain C- or Bw-horizons that have formed in the recent past. Precontact sites have been identified buried in Codorus and related Hatboro soils, in some cases beneath the practical limits of shovel testing. Glenelg silt loam consists of an A- or Ap-horizon over a shallow transition (less than 1.0-ft deep) to a Bt-horizon with an occasional intervening E-horizon. With the exception of four STPs along the highway embankment and seven with clear hydric formation and high water tables, STPs in this area largely conformed with the expected soil pedons. This indicates that the area between the base of the I-495 berm and the Rock Creek channel is intact.

Area S-17 is situated about 195 ft (59 meters) amsl. A ditch bisects the area north-south, draining water from a culvert under I-495 toward Rock Creek. Much of the area is wooded with minimal undergrowth. The central portion contains a wetland with plants and tall grasses growing amid standing surface water. Slopes in this area range from 3-15 percent. Two transects of STPs were excavated between Rock Creek and I-495 beginning in the eastern portion of the area and extending west. Transect 1 extends east-west across the floodplain, closely bordering the south bank of Rock Creek for the easternmost 150 ft, while Transect 2 runs parallel with the base of an artificial berm carrying I-495. A total of 36 primary STPs and four radials were excavated in Area S-17.

Stratigraphy in this area was variable with alluvial soils present throughout the floodplain, hydric soils in the wetland area, and three STPs along the berm of I-495 containing fill, likely from the construction of the berm. The most common profile among STPs in the floodplain contained two strata, with Stratum I consisting of a dark yellowish brown (10YR 3/4) silt loam topsoil transitioning at 0.5-1.2 ft to Stratum II, a dark yellowish brown (10 YR 4/6) to yellowish brown (10YR 5/8) silty clay loam C-horizon that extended to the base of excavation at 3.0 ft. These deposits represent alluvium from flooding and are typical of the areas excavated across the Rock Creek floodplain.

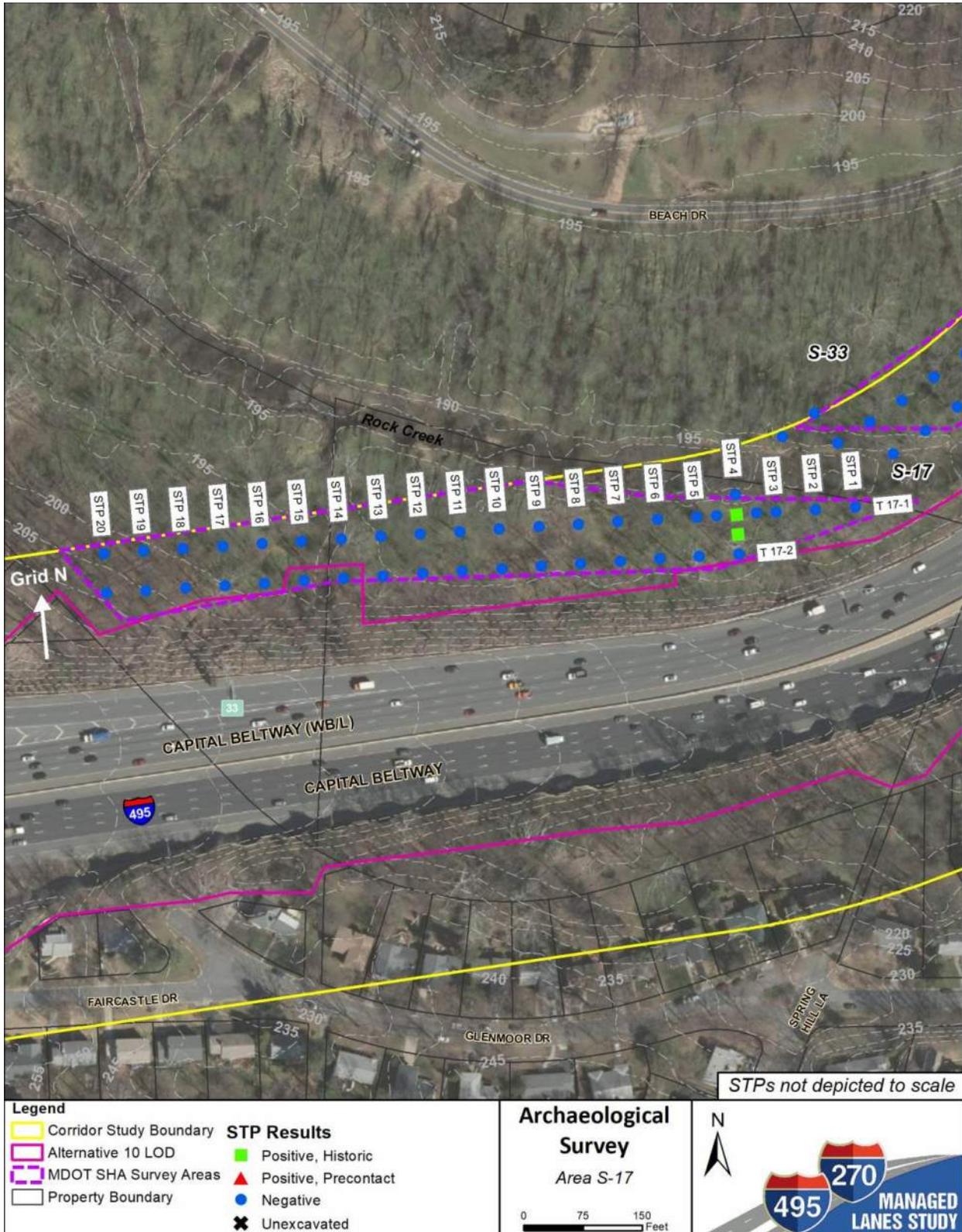
STPs within the wetland area contained three strata, with Stratum I consisting of a dark grayish brown (10YR 4/2) silt loam A-horizon reaching a depth of 0.3-0.5 ft below surface. Stratum II consisted of a strong brown (7.5YR 4/6) mottled with dark grayish brown (10YR 4/2) clay loam hydric alluvial deposit. Beneath this was Stratum III, a pale brown (10YR 6/3) to dark brownish gray (Gley 2 4/5B) clay hydric soil where the water table was met. Several STPs contained a single stratum, consisting of a dark brownish gray (Gley 2 4/5B) silty clay hydric alluvial deposit that reached 0.7-1.3 ft below surface before being terminated at the water table. The olive gray and gleyed strata are characteristic of hydric soils.

STPs near the western terminus of Area S-17 were set on a natural terrace slightly above the floodplain, exhibiting a profile more common to upland contexts. These included three strata, with Stratum I being a

very dark brown (10YR 2/2) silt loam A-horizon that reached 0.2-0.4 ft below surface, Stratum II being a yellowish brown (10YR 5/4) silt loam E-horizon that reached 0.6-0.8 ft below surface, and Stratum III being a strong brown (7.5YR 5/6) silty clay loam Bt-horizon excavated to 1.1-1.5 ft below surface. This is representative of other upland contexts just outside the Rock Creek floodplain and the small upland portion of Area S-17 exhibits integrity and a lack of modern disturbance.

Area S-17 contained one positive initial STP, STP 17-1-4, which contained five pieces of unidentifiable metal about 2.7 ft below surface. One 25-ft radial contained seven more pieces of unidentifiable metal, apparently fragments of modern barbed wire fencing. They do not represent an intact archaeological resource but do indicate soils in at least the upper 2.7 ft of the soil profile were deposited recently. No other historic or precontact artifacts were encountered and no historic or precontact features were observed but the floodplain soils present in Area S-17 have the potential for deeply buried precontact material that could not be reached by shovel testing. Therefore, deep testing is recommended in Area S-17. *Area S-17 is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 74. Results of the Phase I survey in Area S-17



4.14 Area S-18

Area S-18 a 2.51-acre Phase I survey area located in the interchange between I-495 and New Hampshire Avenue (**Appendix E, Page 15**). The area is roughly bounded to the north by slopes down to I-495, to the east and south by slopes down to the Exit 28A off-ramp, and to the west by slopes down to New Hampshire Avenue. It occupies a landform that rises 6-12 ft (2-4 m) above the ground surface of New Hampshire Avenue and slopes downward sharply at the edges (**Figure 75**). Early twentieth-century USGS maps show the survey area on the southern edge of a long finger ridge that extended to the north (**Figure 76**). The NRCS documented Gaila silt loam, Gaila-Urban complex, Chillum silt loam, and Chillum-Urban complex soils in this area, with slopes ranging from 3-15 percent (Web Soil Survey 2015).

STP profiles did not match expected Gaila or Chillum soil pedons, which, together with comparisons of the landforms on USGS maps, indicates that this area been disturbed by prior construction activities. This includes cutting and filling in small portions of this area and the likely use of this area for construction staging during more recent improvements to the interchange.

Area S-18 is located entirely within MDOT SHA ROW in the southwest portion of the I-495/New Hampshire Avenue interchange, approximately 308 ft (94 m) amsl. Surface evidence of a recently abandoned homeless encampment was found throughout the study area. Posted signage indicated that the camp was occupied until June 2018. The area is wooded and contains limited sections covered by very dense undergrowth. The central portion of the study area contained concentrations of mulch at the surface. A concrete drainage feature is situated on the west slope of the landform. A 1957 aerial photograph shows that the former alignment of the road connecting White Oak and Avenel (New Hampshire Avenue) ran through the study area and a house is shown on the east side of the ROW within the survey area. By 1963, the house had been demolished and much of the area had been cut, but the former road was still present. New Hampshire Avenue appears in its current alignment in a 1964 aerial photograph and all trace of the former road is gone. The demolition of the previous road, which had a paved surface, may have resulted in some disturbance in Area S-18, along with subsequent construction activities during more recent improvements to the interchange. Six transects of STPs were excavated within the cloverleaf, laid out east-west at 50-ft intervals beginning in the southwest corner of Area S-18. A total of 42 STPs were excavated in Area S-18, including 37 primary STPs at 50-ft intervals, and five radial STPs at 25-ft intervals.

Stratigraphy in Area S-18 was consistently disturbed as evidenced by gravel and clay fill layers. Two strata were generally identified throughout the study area, consisting of a dark greyish brown (10YR 4/2) silt loam surficial fill over a compacted dark greyish brown (10YR 4/2) silty clay or yellowish brown (10YR 5/6) clay loam fill with 20-40 percent gravel or asphalt inclusions. The transition was approximately 0.3-0.9 ft below surface, with the fill continuing to the base of excavation at 1.3-1.6 ft below surface. Many STPs were terminated at compact gravel impasses. Some STPs contained a succession of up to three thin bands of sand fill overlying the compacted clay fill. Several STPs contained a lower stratum of hard, very compact clay fill. It is unlikely that the compact clay loam or clay layer present in the lower strata of STPs in Area S-18 is subsoil, and instead represents fill deposits resulting from the construction of I-495 and/or the destruction of the former road.

Figure 75. Results of the Phase I survey in Area S-18

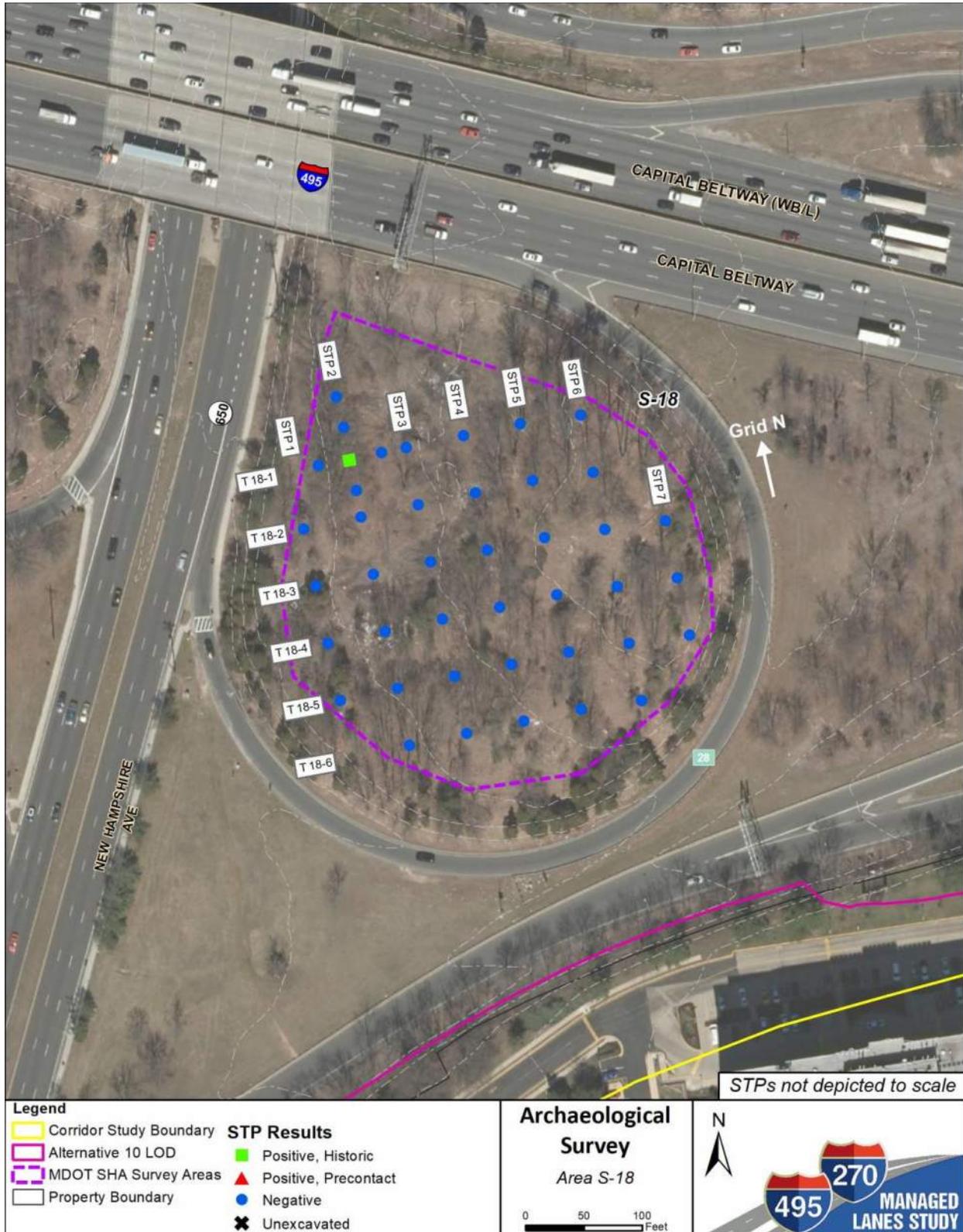
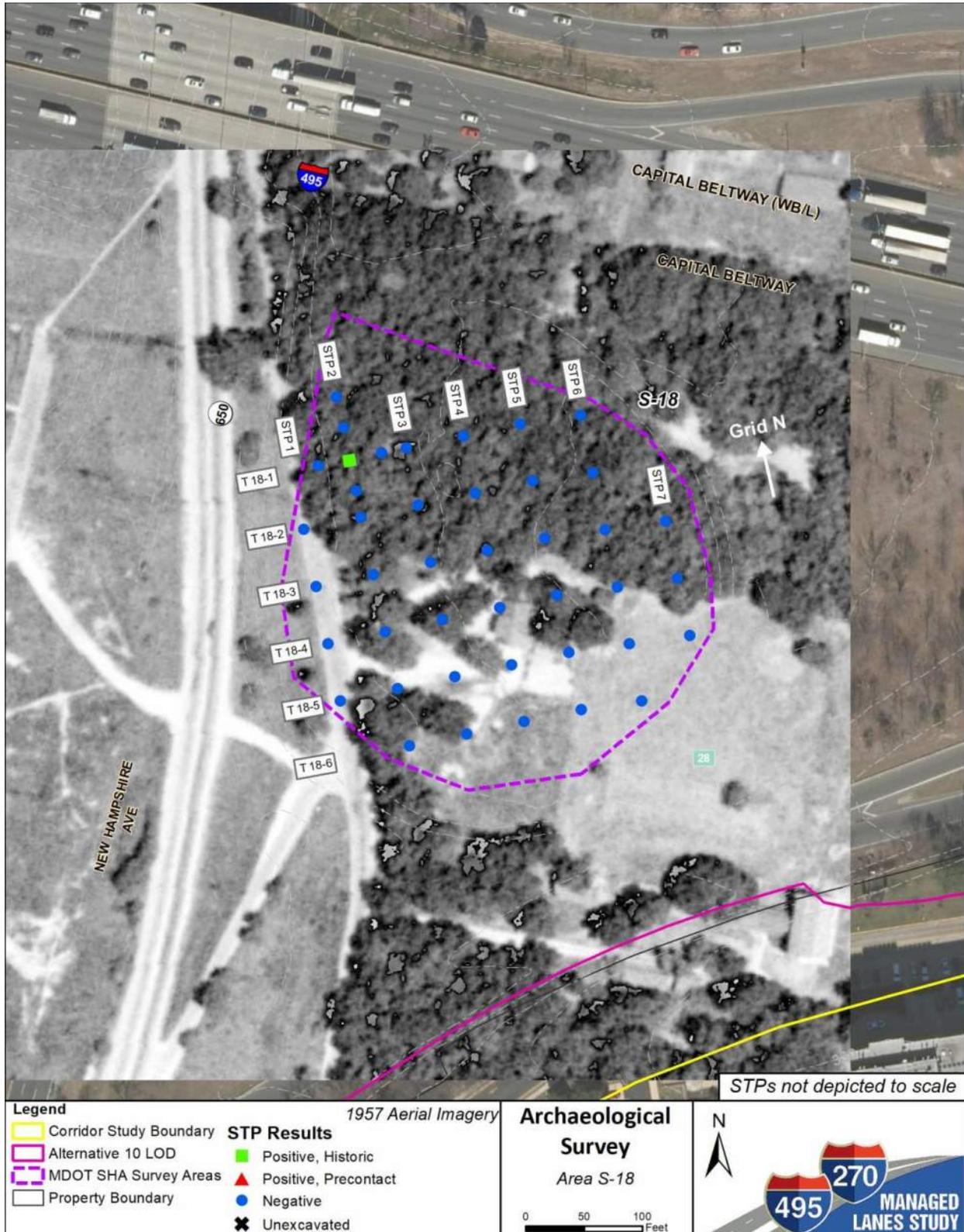


Figure 76. Historic aerial photograph showing previous structure within Area S-18.



Material observed in Area S-18 consisted of modern materials that were discarded in the field. A total of four artifacts were encountered, including a sewer pipe fragment, a piece of industrial or bathroom tile, a wire common nail, and a clear glass bottle fragment with the word “Cola” and a basket weave pattern embossed on it. All of these artifacts were collected in the field, but upon further examination at the lab were found to be modern. The results of the investigation indicate that Area S-18 has likely been disturbed by construction during the twentieth century and does not possess the potential for archaeological resources. No precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. No further work is recommended in Area S-18. Minor LOD changes in and around Area S-18 also have little or no potential to impact significant archaeological resources. *Area S-18 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.15 Area S-19

Area S-19 is a 6.58-acre Phase I survey area located southeast of the interchange between I-495 and I-95 (**Figure 77**) (**Appendix E, Page 15**). A total of 108 STPs was excavated in Area S-19, none of which contained precontact or historic material. The area is roughly bounded by I-495 to the north, Paint Branch to the east, and a chain-link fence surrounding the weigh station and on-ramp to the west. The area extends 250-350 ft (76-107 m) from the on-ramp. It occupies part of the floodplain for Little Paint Branch that slopes gently up to a level terrace about 20 ft above the floodplain. The NRCS documented Croom gravelly sandy loam, Russett-Christiana complex, and Codorus and Hatboro soils within Area S-19, with slopes ranging from 0-15 percent (Web Soil Survey 2015). The majority of this area is occupied by upland soil complexes that consist of an A- or Ap-horizon over a Bt-horizon, with the transition in all cases typically reached around 0.8 ft below surface. Codorus and Hatboro soils are deep, recently deposited floodplain deposits that make up a small portion of the area’s northeastern terminus. Precontact sites have been identified buried in Codorus and related Hatboro soils, in some cases beneath the practical limits of shovel testing. Soils in this area generally conformed to expected upland pedons within an active agricultural field and the area’s landforms appear unchanged from early twentieth-century USGS maps.

Most of Area S-19 is located in the Beltsville Agricultural Research Center (BARC) administered by the USDA. The westernmost portion of Area S-19 is located on property owned by Baltimore Gas and Electric Company. Permission could not be secured to survey the latter property, so the survey only included the area administered by the USDA. The survey area curves to parallel the on-ramp from the park-and-ride and weigh station to northbound I-95, which is located west of the survey area.

Area S-19 has three distinct sections based on ground conditions, vegetation, and topography. The northernmost portion consisted of a wooded area and fallow field, with a cleared right-of-way area situated in the northeast corner. The middle section comprised a cultivated sorghum field edged by mowed grass and crosscut by an access road. A stream divides both of these sections from the southernmost portion, which is heavily wooded and sloped. The elevation of this portion of the survey area starts at 120 ft (37 m) amsl at the creek and rises to 180 ft (55 m) amsl at the southwestern edge. Slopes range from 0-15 percent. Site 18PR111, documented in 1973, is located in the agricultural field a short distance southeast of Area S-19. Site 18PR111 was identified through surface collection by Wayne Clark but has not been subjected to subsurface testing (MHT Site Form 18PR111). It is interpreted as a short-term lithic procurement site. No cultural material was observed on the surface in Area S-19.

Transects were laid out at 50-ft intervals beginning with Transect 1 in the north and ending with Transect 18 in the south.

The soil profile in the area north of the creek included two to three strata. Stratum I, a brown (10YR 4/3) silt loam Ap-horizon extending 0.4-1.0 ft below the ground surface, is a plowzone. In the wooded areas to the north and along the creek, there was a very dark gray brown (10YR 3/2) silt loam O-horizon overlying the plowzone, usually extending down to 0.3 ft below the ground surface. Below the plowzone there were two strata: a dark yellowish brown (10YR 4/4) to yellowish brown (10YR 5/4 to 5/6) silt loam Ap2-horizon with gravel inclusions that extended to between 0.8-1.3 ft below the ground surface, and a yellowish brown (10YR 5/8) to brownish yellow (10YR 6/6 to 10YR 6/8) subsoil that ranged in texture from a silty clay loam to a clay.

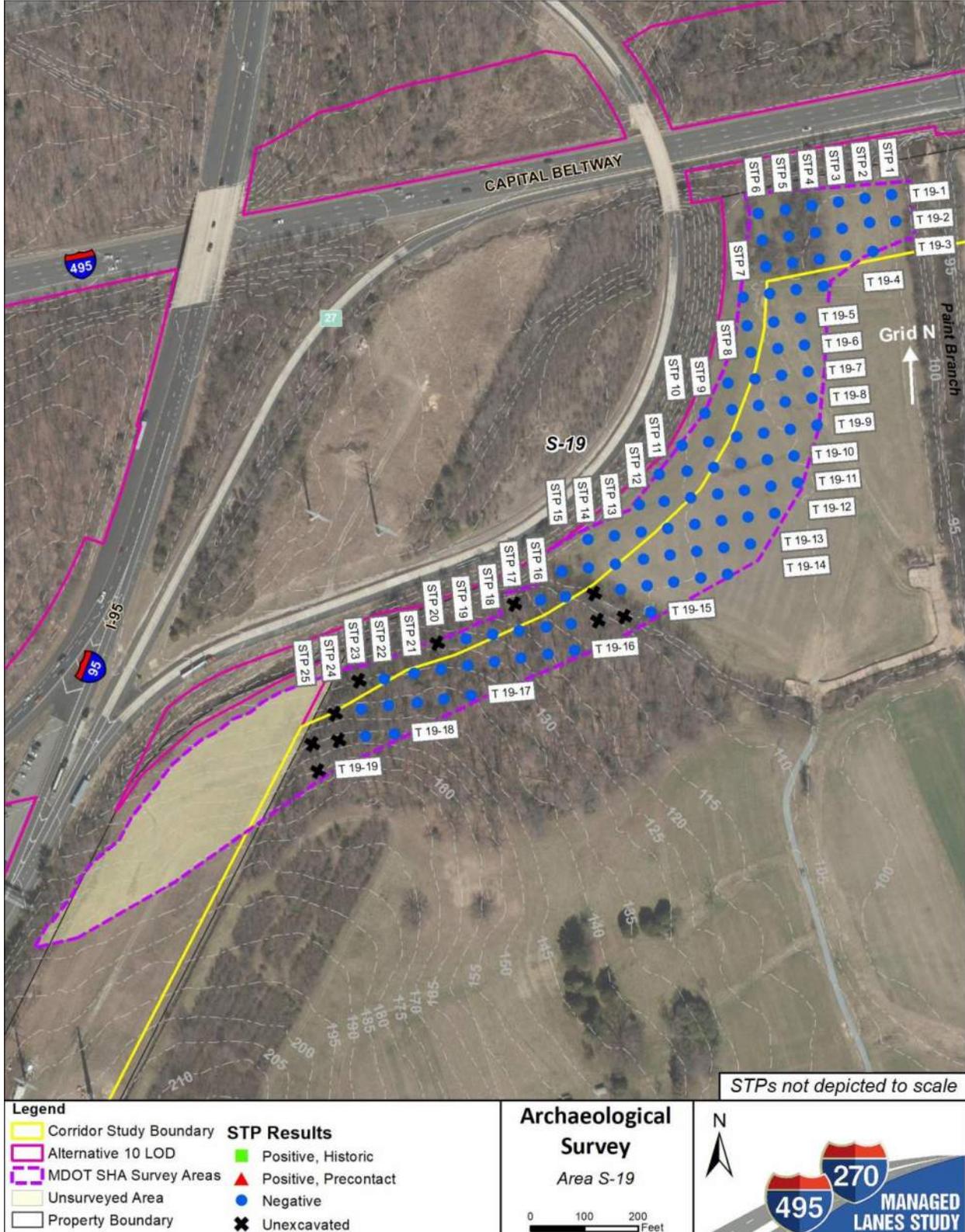
Throughout this section, particularly closer to the creek, there were also some STPs that had gleyed subsoil near the base of excavation, consisting of a gray (10YR 5/1) or light gray (10YR 7/2) clay or clay loam. Disturbed soils were generally identified around the right-of-way area extending from Transects 1-4 at STPs 4-7 and contained three strata. Stratum I consisted of a brown (10YR 4/3) silt loam topsoil with 40-60 percent gravel fill, concrete, and asphalt inclusions extending 0-0.3 feet below surface. This overlay Stratum II, a yellowish brown (10YR 5/4) silty clay Ap-horizon with 40-60 percent gravel fill, concrete, and asphalt inclusions extending to 0.3-1.2 feet below surface. Stratum III consisted of a yellowish brown (10YR 5/6) clay loam subsoil with 20-60 percent gravel inclusions that reached 1.2-1.7 ft to the base of excavation.

The significant variation from this pattern occurred in 10 of the 56 STPs excavated within the sorghum field. These STPs contained a mottled layer beginning between 0.8 and 1.3 ft below the ground surface. This mottled soil was typically a mixture of a gray (10YR 5/1) or light brownish gray (10YR 7/2) mixed with a strong brown (10YR 4/6 to 10YR 5/6). This stratum had frequent pebble-sized stone inclusions and had a silty clay or sandy clay texture. These STPs were somewhat scattered along the central portion of the sorghum field, and do not appear to represent a distinct soil type.

For Transects 16-18, south of the creek, the typical stratigraphy began with an organic dark brown (10YR 3/3) to dark grayish brown (10YR 4/2) silt loam O-horizon extending to between 0.4 and 0.6 ft below the ground surface. Underlying this was a yellowish brown (10YR 5/4) sandy loam Ap-horizon, extending to 1.3-1.8 ft below the ground surface. The Bt-horizon in this area was a strong brown (7.5YR 5/6) silty clay or sandy clay. STPs 23-24 on Transects 17-18 were adjacent to a fence, and the stratigraphy in this area showed signs of infilling in the form of thick layer of yellow (10YR 7/6) sand.

Material observed in Area S-19 consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered and no historic or precontact features were observed. No archaeological sites were identified. While Codorus and Hatboro soils were expected in this area, STPs did not contain stratigraphy typical of either soil complex. No further work is recommended for Area S-19 within the CSB examined at the time of the Phase I survey. *Area S-19 is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 77. Results of the Phase I survey in Area S-19



4.16 Area S-20

Area S-20 is a 3.86-acre Phase I survey area [REDACTED] [REDACTED] [REDACTED] [REDACTED] (Appendix E, Page 15). Sixty-one STPs were excavated in Area S-20, three of which contained historic artifacts [REDACTED] [REDACTED] [REDACTED]. The NRCS documented Codorus and Hatboro soils, Russet-Christiana complex soils, and Udorthents—loamy in this survey area, with the Udorthents confined to an artificial landform on the east end of the survey area (Web Soil Survey 2015). The soils observed during shovel testing roughly conformed to soils of the Russett-Christiana complex in an active agricultural field, consisting of an Ap-horizon above a Bt-horizon. Soils in the STPs closest to [REDACTED] contained alluvial deposits typical of Codorus and Hatboro soils, many of which exhibit gleying from poor drainage. The area’s landforms appear unchanged from early twentieth-century USGS maps.

The majority of the survey area is within agricultural land on the BARC property, owned by the USDA (Figure 78) [REDACTED] [REDACTED] [REDACTED]

[REDACTED] [REDACTED] [REDACTED] The elevation for Area S-20 is between 100 ft (30 m) and 110 ft (34 m) amsl. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Four transects of STPs were laid out in Area S-20 at 50-ft intervals running parallel with the northern boundary of the site. Sixty-one STPs were excavated in Area S-20, comprising 55 primary STPs and six radial STPs. The western and southern portions of Area S-20 generally consisted of three soil strata. Stratum I was a 0.3-ft thick dark brown (10YR 3/3) silt loam Ap1-horizon overlaying Stratum II, a silty clay loam Ap2-horizon that ranged in color from dark yellow brown (10YR 4/4) to yellowish brown (10YR 5/4) extending to between 0.9-1.6 ft below the ground surface. Stratum III consisted of a brown (10YR 5/3) silty clay loam extending to a depth of 2.0 ft below the ground surface. STPs located closer to [REDACTED] [REDACTED] had a single stratum of a gray (10YR 6/1) silty clay excavated to a depth of 2.0-3.0 ft below the ground surface. STPs terminated above 3.0 ft encountered gravel refusals. This gray clay was likely an alluvial deposit from flooding [REDACTED].

The STPs along the northern and eastern sections of the survey area consisted of three strata. Stratum I consisted of a 0.3 ft-thick layer of dark brown (10YR 3/3) silt loam Ap1-horizon overlying Stratum II, a yellow brown (10YR 5/4 to 10YR 5/6) to dark yellow brown (10YR 4/4) silt loam Ap2-horizon that extended to between 0.7-1.5 ft below the ground surface. Stratum III was a yellowish brown (10YR 5/6 to 10YR 5/8) silty clay loam subsoil that was excavated to about 2.2 ft below the ground surface, where it was terminated because Stratum III was a sterile Bt-horizon.

The STPs excavated within [REDACTED] possessed stratigraphy typical of active agricultural fields. These STPs had a plowzone that ranged in color and texture from a very dark brown (7.5YR 2.5/2) silty clay loam to dark brown (10YR 3/3) clay loam extending to 0.7-1.5 ft below the ground surface. Below this

was a transitional layer of silty clay that ranged in color from yellow (10YR 7/6) to brown (7.5YR 4/4 to 10YR 5/3). The subsoil was a mottled clay with constituents in strong brown (7.5YR 4/6), gray (7.5YR 5/1 to 10YR 6/1), and very pale brown (10YR 7/3). The gray color within the subsoil may indicate hydric soils in the early stages of gleying. The Phase I archaeological survey in Area S-20 resulted in the identification of Site 18PR1133, a low-density scatter of historic and precontact artifacts, described below.

No other artifacts were encountered in Area S-20, and no archaeological features were observed. No further work is recommended in Area S-20 within the CSB examined at the time of the Phase I survey. However, based on high archaeological potential, minor LOD changes in and around Area S-20 may warrant additional archaeological investigations. *Area S-20 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.16.1 18PR1133 (BARC Site 1)

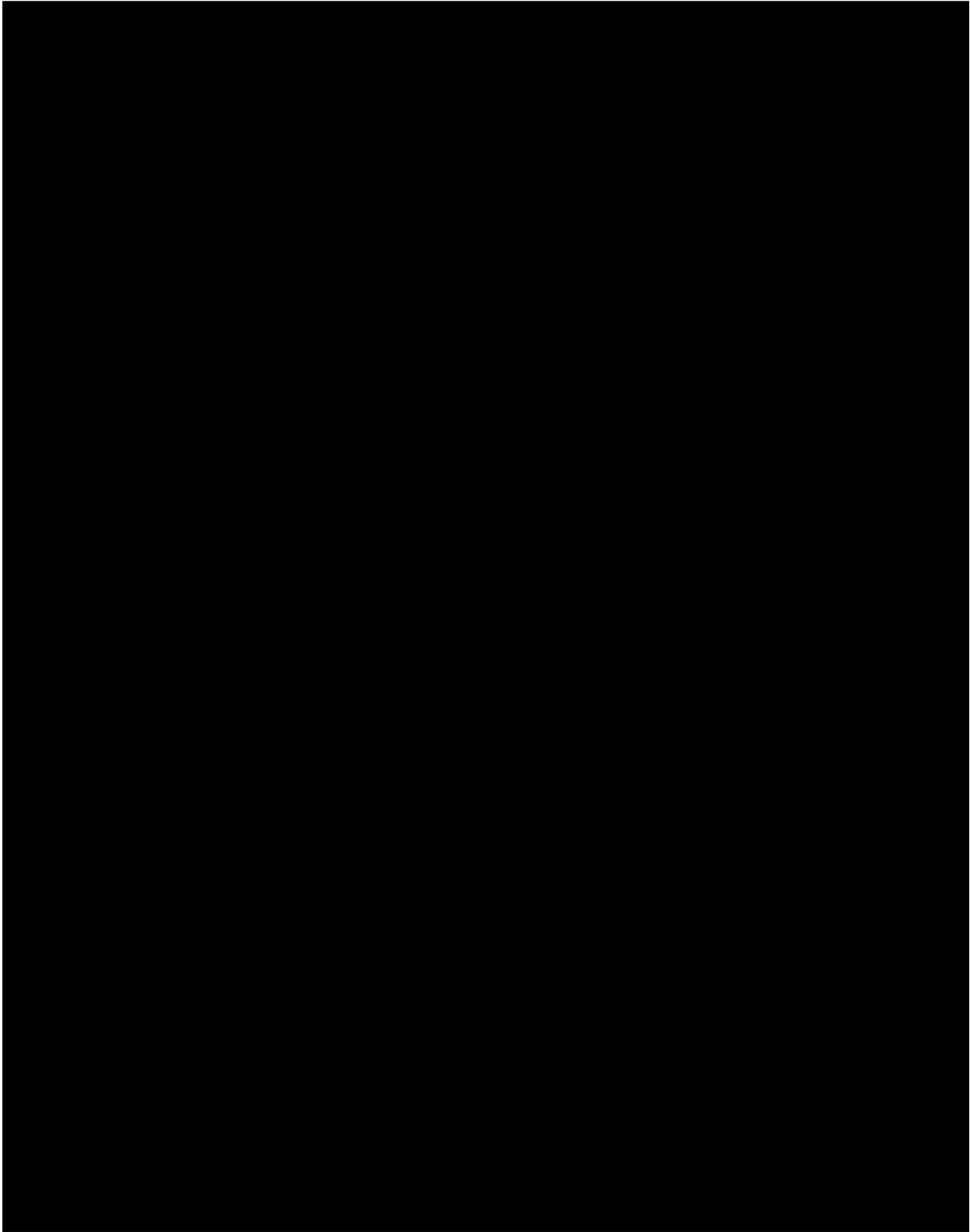
Site 18PR1133 is located [REDACTED]. This site encompasses 0.10 acres [REDACTED]. The site within Area S-20 represents a small undisturbed area [REDACTED] that was not impacted by the construction of I-495. [REDACTED]. A total of 18 STPs was excavated within and in the direct vicinity of this site, including two primary STPs and six radial STPs, of which three were positive for cultural material.

Field Results

STPs excavated within 18PR1133 had three strata (**Figure 79**). Stratum I was a very dark brown (10YR 2/2) to very dark grayish brown (10YR 4/2) loam Ap1-horizon extending to between 0.2-0.7 ft below ground surface. Below this was Stratum II, a gray (10YR 5/1) to brown (10YR 5/3) Ap2-horizon. All artifacts were recovered from Stratum I and Stratum II. Stratum III was a subsoil consisting of a yellowish brown (10YR 5/6 to 10YR 5/8) silty clay loam encountered 0.7-1.8 ft below surface. The recovered historic artifacts include brick (26), transfer-printed and undecorated whiteware (3), a sherd of thin-bodied, slip-decorated redware, and two heavily corroded iron pieces, including one probable cut nail (**Figure 80; Table 11**). Two brick fragments are sizeable, and the complete brick assemblage totals approximately 700 grams (g). The only precontact artifact was a quartz flake recovered from the same context as a piece of nineteenth-century whiteware. The recovered historic period assemblage suggests a date in the nineteenth century.

This site is located on land that was originally part of two tracts called Bachelors Choice, patented in 1718 (PG Patented Certificate 220), and William and Elizabeth, patented in 1722 (PG Patented Certificate 2344) (**Appendix G**). No buildings are shown on the 1860 Martenet Map of Prince George’s County or the 1878 Hopkins Atlas of Fifteen Miles Around Washington, D.C. Land records indicate that the Fisher family owned this property in the late nineteenth century and that it passed into the McCoy family in the early twentieth century before being granted to the United States government in 1941. The artifact assemblage identified at 18PR1133 likely dates to the nineteenth century, possibly corresponding with the Fisher ownership.

Figure 78. Results of the Phase I survey in Area S-20



Most of the artifacts recovered from this site are architectural in nature, suggesting the presence of a structure somewhere in the vicinity, although no definitive evidence of structure was found by the survey. The ceramics possibly suggest a domestic function for this structure, though the small number of ceramics may reflect accidental discard. The access road curves around the wooded area that contains the site, but no structural features were identified and there are no structures shown nearby on any historic maps or aerial photographs. The area to the immediate north of the site has been heavily disturbed by the construction of I-495.

The site likely represents the truncated remains of a nineteenth-century scatter [REDACTED]

Given that the area to the north of the site has been destroyed by highway construction and there is no discernible vertical or horizontal patterning to the artifact distributions, the Phase I survey indicates that Site 18PR1133 has limited potential to provide new information on historic lifeways and is not eligible for the NHRP. No additional work is recommended at the site. Site 18PR1133 *is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 79. Sample STP profile at 18PR1133

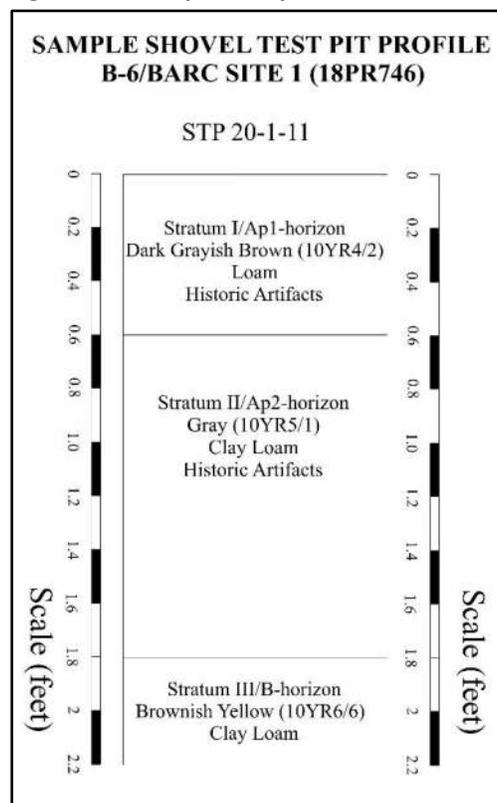


Figure 80. Historic artifacts from 18PR1133



Left to right: Quartz biface reduction flake, 19th century whiteware plain (top), 19th century whiteware plain (bottom), brick handmade unglazed (top), brick handmade unglazed (bottom), brick handmade unglazed, and unidentifiable nail.

Table 11. Artifacts recovered from 18PR1133

Artifact Class	Artifact Type	Count
Architectural	Brick	26
	Unidentifiable Nail	1
Kitchen	Buff-bodied Earthenware	1
	19 th Century Whiteware	3
Precontact	Biface Reduction Flake, No Cortex	1
Miscellaneous	Unidentifiable Metal	1
Total		33

4.17 Area S-21

Area S-21 is a 7.66-acre area located north of I-495, between the interchange with I-95 to the west and the interchange with US-1 to the east (Figure 81) (Appendix E, Page 17). Seventy-three STPs were excavated in Area S-21, none of which contained precontact or historic artifacts. It is located on gentle hillslopes descending to the floodplain of Little Paint Branch. The area is about 150 ft (46 m) wide and bounded by I-495 to the south, Cherry Hill Road to the west, and the loading dock for an IKEA furniture store to the east. The NRCS documents Beltsville silt loam, Christiana-Downer complex, Elkton silt loam, and Croom gravelly sandy loam in the uplands and Codorus and Hatboro soils in the floodplain (Web Soil Survey 2015). Soils observed during shovel testing did not match expected soil pedons close to the I-495

ROW but did match expected soil pedons further away from it. A portion of this area within Codorus and Hatboro soils could not be tested due to standing water. The current landform appears to be similar to that shown on early twentieth-century USGS maps, but a 1963 aerial photograph showing the highway under construction shows part of this area had been cut and filled.

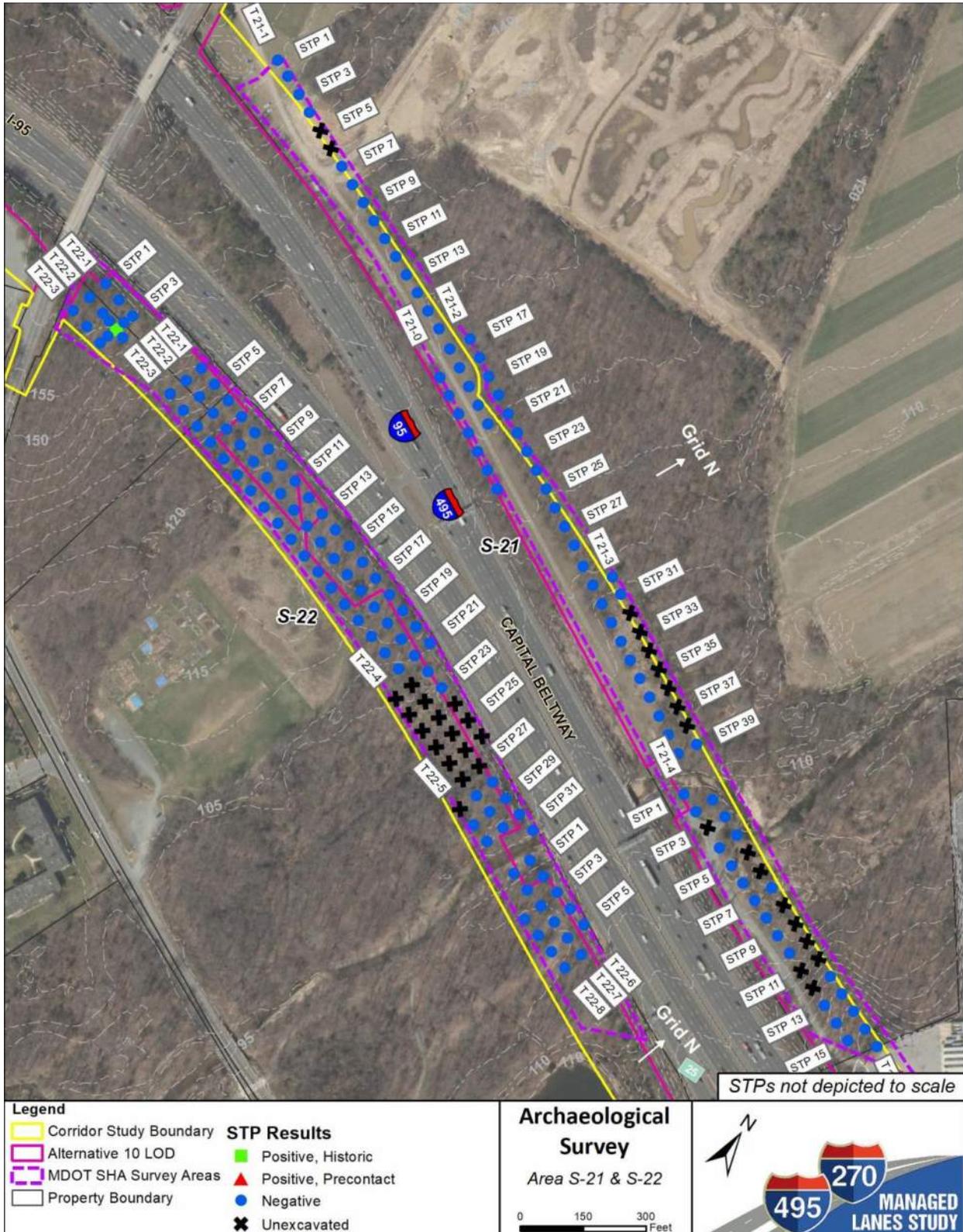
This area is located on the USDA BARC property. The survey area is roughly rectilinear in shape and runs parallel with I-495. The westernmost portion was a lawn near an entrance to the BARC property from Cherry Hill Road. Between this grassy area and the remainder of the survey area was an artificial mound and a gentle downward slope. The majority of the STPs in the remainder of the survey area were located within a wooded area with dense undergrowth. Little Paint Branch bisects the survey area towards the eastern end, flowing roughly north-south through a wetland. A gravel road runs parallel with I-495 through Area S-21. The western and eastern ends of the survey area are 160 ft (49 m) amsl, and the point at which the Little Paint Branch bisects the area is 100 ft (30 m) amsl. The slope to the wetland in the floodplain is gradual on the survey area west of the stream, and steeper to the east of it. Slopes across the survey area ranged between 0-15 percent. Four transects at 50-ft intervals were laid out west of Little Paint Branch, and two transects were laid out east of Little Paint Branch. A total of 73 primary STPs was excavated in Area S-21.

The stratigraphy of S-21 on the west side of the Little Paint Branch consisted of two strata. Stratum I was a brown (10YR 5/3 to 10YR 4/3) to dark grayish brown (10YR 4/2) silt loam Ap-horizon extending to between 0.4-0.6 ft below ground surface. This overlay Stratum II, a yellowish brown (10YR 5/6 to 10YR 5/8) silty clay loam subsoil excavated to depths between 1.0-1.6 ft below the ground surface. Many of these STPs terminated at an impassable gravel layer between 1.1-1.6 ft below the ground surface, likely related to the adjacent gravel road. Some STPs in this area had additional fill layer consisting of gray (10YR 5/1) clay extending to 0.4-1.5 ft below the ground surface, over a mottled fill deposit comprising the gray clay and the yellowish brown silty clay loam subsoil to a depth of 2.2 ft below the ground surface. STPs placed south of the gravel road were extremely compact and gravelly. They are in areas that were cut and filled when the highway was constructed and were likely cut and filled a second time when a subsurface sewer line noted during fieldwork was installed.

On the eastern side of the Little Paint Branch, STPs in the easternmost portion of the survey area contained three or four strata. Stratum I was a dark grayish brown (10YR 4/2) to black (10YR 2/1) loam O-horizon extending down to 0.2 ft below the ground surface. No O-horizon was present in six STPs in this area. Stratum II was a grayish brown (10YR 5/2) to brownish yellow (10YR 6/6) sandy loam A-horizon extending to 0.5-0.9 ft below the ground surface. Underlying this was Stratum III, a yellowish brown (10YR 5/6) sandy loam E-horizon with between 5-15 percent pebble and gravel inclusions extending to between 1.0-1.5 ft below the ground surface. Stratum IV was a strong brown (7.5YR 5/6) sand subsoil extending down to at least 2.0 ft below the ground surface. Down the slope, the STPs had a similar stratigraphy those on the western side of the creek but with an increased frequency of gravel and pebble inclusions.

Artifacts encountered in S-21 were all modern material, such as plastic, discarded in the field. The landform does not appear to have changed significantly from early twentieth century USGS maps, however historic aerial photographs suggest the parts of Area S-21 directly along the highway were cut and filled when the highway was constructed.

Figure 81. Results of the Phase I survey in Area S-21 and S-22



The results of this survey confirm that the part of this area between the gravel access road and the I-495 ROW are disturbed, while the parts north of the gravel access road are mostly intact. The Paint Branch floodplain contained standing water that could not be tested. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. No further work is recommended in Area S-21 within the CSB examined at the time of the Phase I survey. However, minor LOD changes in and around Area S-21 may warrant additional archaeological investigations if they impact undisturbed terrain with the potential to contain significant archaeological resources. *Area S-21 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.18 Area S-22

Area S-22 is a 7.70-acre Phase I survey area located in Cherry Hill Community Park, administered by the M-NCPPC, Prince George's County (**Appendix E, Page 17**). Eighty-eight STPs were excavated in Area S-22, one of which contained a modern artifact discarded at the close of the survey. It is located on hillslopes descending to the floodplain of Little Paint Branch, on the opposite side of I-495 from Area S-21. The survey area crosses several soils and soil complexes, with the NRCS documenting Christiana-Downer-Urban complex, Russett-Christiana complex, Elkton silt loam, Sassafras silt loam, and Matapeake silt loam in the uplands and Codorus and Hatboro soils in the floodplain (Web Soil Survey 2015). Soil stratigraphy in this area generally matched the expected pedons for the upland soils, which typically consist of an A- or Ap-horizon transitioning to a Bt-horizon 0.8-1.0 ft below surface, sometimes with an intervening E-horizon. Codorus and Hatboro soils are recently deposited alluvial soils. Much of the floodplain was covered with standing water at the time of the survey. Comparison of this area to early twentieth-century USGS maps shows that the contours of the landform are generally similar, suggesting that this area is undisturbed.

It is about 150 ft (46 m) wide and runs parallel with I-495 beginning at Cherry Hill Road and running east to a shopping center parking lot (see **Figure 81**). It is wooded and bisected by Little Paint Branch, which flows north-south through a low-lying floodplain surrounded by wetlands. Within these wetlands, excavation was impossible due to standing water on the surface. Stanchions marking a buried sewer line were located near Little Paint Branch. Area S-22 had a gradual slope from west to east, with the western end at 160 ft (49 m) amsl, and the eastern end at 100 ft (30 m) amsl. Slopes ranged from 0-15 percent. Five transects were laid out at 50-ft intervals west of Little Paint Branch, and three transects were laid out at 50-ft intervals east of Little Paint Branch. A total of 88 STPs were excavated in Area S-22, including 84 primary STPs and four radial STPs.

STPs in the upland area on the easternmost portion of the survey area contained two soil strata. Stratum I was a very dark grayish brown (10YR 3/2) to dark yellowish brown (10YR 3/4) silty clay loam A-horizon extending to between 0.2-0.7 ft below the ground surface. Stratum II was a yellowish brown (10YR 5/4-10YR 5/6) silty clay subsoil. Directly downslope, the A-horizon was similar in depth and composition, but the subsoil consisted of a strong brown (7.5YR 5/6) silty clay loam. In both cases, the subsoil was a sterile Bt-horizon and excavation was halted within Stratum II.

Beginning at STP 10 and extending eastward to the wetlands in the floodplain, there were two different stratigraphic profiles found across S-22. STPs excavated along the ROW fence had similar profiles to those observed in upland areas. On the floodplain, soils tended to be hydric, with Stratum I consisting of an olive

gray (5Y 5/2) to dark gray (2.5Y 4/1) to light gray (10YR 7/1) sand or clay loam, typically with frequent pebble inclusions, extending down to between 1.0-1.4 ft below the ground surface. Beneath this was Stratum II, a gray (5Y 6/1), compact clay or silty clay hydric subsoil.

The STPs excavated closest to the stream also possessed hydric subsoil, but Stratum I was a dark grayish brown (10YR 4/2) silt loam A-horizon extending to between 0.2-1.3 ft below the ground surface. Beneath this was Stratum II, a yellowish brown (10YR 5/4) to brownish yellow (10YR 6/6) sandy loam or clay loam with occasional mottles of brown (10YR 5/3) sand, extending down to between 1.0-2.0 ft below the ground surface. At this point some STPs reached the water table. In those that did not, Stratum III was encountered, which was a hydric stratum of gray (10YR 5/1) clay loam extending down to the water table as deep as 2.5 ft below the ground surface.

One isolated modern artifact, a wire nail from STP 22-3-2, was recovered within the survey area and discarded in the lab. The results of the survey indicate that the upland portions of Area S-22 are on a stable hillslope and the testable portion of the floodplain has not been significantly altered by modern activity. No precontact artifacts were encountered and no historic or precontact features were observed. No archaeological sites were identified, and no further work is recommended in Area S-22 within the CSB examined at the time of the Phase I survey. *Area S-22 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.19 Area S-25

Area S-25 is a 7.19-acre Phase I survey area located on the northern side of Greenbelt Park, beginning at the ramp from Greenbelt Road to the Baltimore-Washington Parkway and continuing along the west side of that ramp for a distance of 2,725 ft (831 m) (**Figure 82** and **Figure 83**) (**Appendix E, Pages 18 and 19**). Eighty-six STPs were excavated in Area S-25, none of which contained precontact or historic material. Area S-25 is situated on an upland setting, traversing distinct ridgetops, mostly characterized by gentle slopes. The NRCS documents many soils in this area, including Beltsville silt loam, Sassafra sandy loam, Udorthents (highway), and soils from the Christiana-Downer, Russet-Christiana, and Issue-Urban complexes (Web Soil Survey 2015). Most of these soils characterize upland areas in this region of the Atlantic Coastal Plain, but Issue-Urban and Udorthents (highway) are both soil complexes that have been disturbed by twentieth-century activity and have very little potential for archaeological resources. STPs were not excavated in parts of this area that were visibly disturbed or sloped, but STPs that were excavated generally followed expected soil pedons for these soil series. Comparing the existing topography to twentieth-century USGS maps reveals that the central portion of this survey area has been impacted by the construction of the highway and road system for Greenbelt Park, but the northern and southern portions occupy stable, undisturbed ridgetop landforms.

Area S-25 falls entirely within Greenbelt Park, which is administered by the NPS. Work for this project was undertaken in accordance with ARPA Permit 18-CHOH/NACE-10. This area closely follows the Greenbelt Park Perimeter Trail, a five-mile circuit around the north section of the park for pedestrians and horseback riders. The area is wooded and possesses light undergrowth. One portion of this area near the southern terminus possessed slopes greater than 15 percent that could not be tested. The Perimeter Trail falls within S-25 for much of its distance, as does the road providing access from the Holly Picnic Area parking lot to the park entrance. Due to the presence of steep slopes and visible disturbance, no testing was done

along the roadway. Area S-25 is situated at around 171 ft (52 m) amsl with slopes ranging from 2-25 percent. Twenty-four transects were placed across Area S-25. Transects 1-2 were located in the northern portion of the area between the Perimeter Trail and the ramp from Greenbelt Road to the Baltimore-Washington Parkway. Transects 3-9 were planned and laid out in the central portion of the area, but no STPs could be excavated on these transects based on the presence of slopes and road disturbance. Transects 10-24 were located in the southern portion of the area, with Transects 10-17 being very short transects to accommodate the study area's curvature. A total of 86 primary STPs at 50-ft intervals was excavated in this area.

Stratigraphy in the northern portion of Area S-25 generally contained two or three strata. Stratum I was a very dark brown (10YR 2/2), dark brown (10YR 3/3), or dark grayish brown (10YR 4/2) silt loam A-horizon that reached a depth of 0.3 to 0.6 ft below surface. Stratum II was a yellowish brown (10YR 5/4 or 10YR 5/6) silty clay loam E-horizon that generally reached a depth of 0.5-1.0 ft. This directly overlay Stratum III, which was a yellowish brown (10YR 5/8) to strong brown (7.5YR 5/6) clay or silty clay subsoil. In rare cases, the second stratum was missing, ending up with a profile showing the A-horizon directly over subsoil. The westernmost STPs in this area reached the water table at about 1.0 ft below surface. One STP near the western end of this portion of Area S-25 contained three thin layers of fill over the topsoil and subsoil. This STP was noted next to an artificial drainage feature and it possibly reflects some minor infilling in a small portion of S-25.

Stratigraphy in the southern portion of Area S-25 consistently had three strata. Stratum I was a very dark grayish brown (10YR 3/1) to dark brown (10YR 3/3) sandy loam O-horizon that typically reached a depth of 0.2-0.5 ft below surface. Beneath this was Stratum II, a dark grayish brown (10YR 4/2) to brown (10YR 4/3) silt loam A-horizon that reached a depth of 0.3-0.8 ft below surface. Both of these strata were typically very shallow, terminating at 0.4 ft below surface. Beneath these was Stratum III, a brownish yellow (10YR 6/6), yellowish brown (10YR 5/6), or strong brown (7.5YR 5/6) clay loam subsoil. In rare cases, a band of brownish yellow (10YR 6/8) clay loam was observed above the subsoil. Several planned STPs in this portion of the area fell within the Greenbelt Park Perimeter Trail, in which case they were moved out of the trail if possible or unexcavated if no suitable off-trail location was identified.

Material observed in Area S-25 consisted of modern materials, such as bottle glass and plastic, that were discarded in the field. No historic or precontact artifacts were encountered. The results of the survey indicate that most of Area S-25 occupies a stable ridge system. The only portion of this study area impacted by road and highway construction is the central portion of the study area, where a narrow strip of the landform between an onramp and a road within Greenbelt Park is artificial. No archaeological features were observed and no archaeological sites were identified. No further work is recommended in Area S-25 within the CSB examined at the time of the Phase I survey. *is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 82. Results of the Phase I survey in Area S-25 North

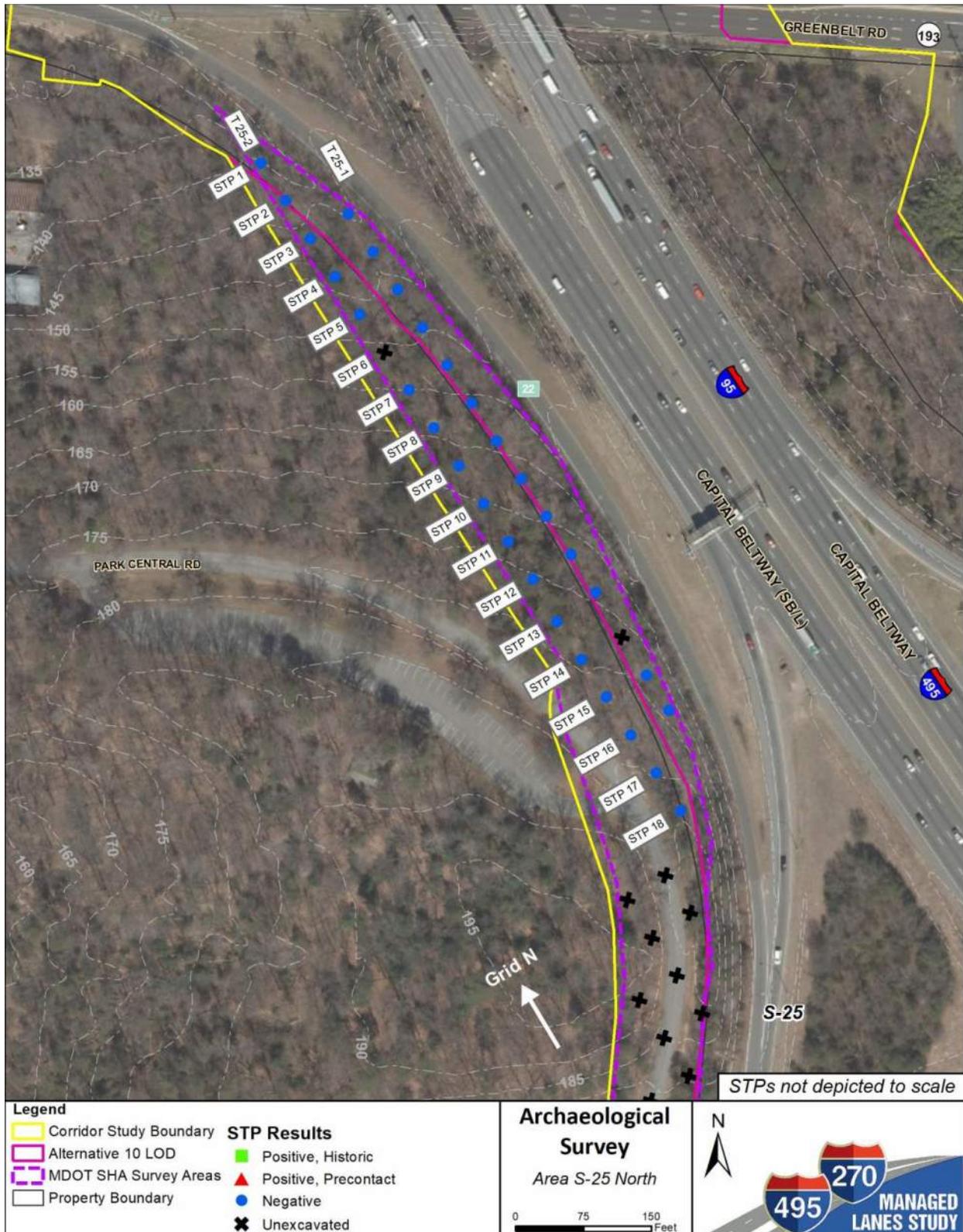


Figure 83. Results of the Phase I survey in Area S-25 South

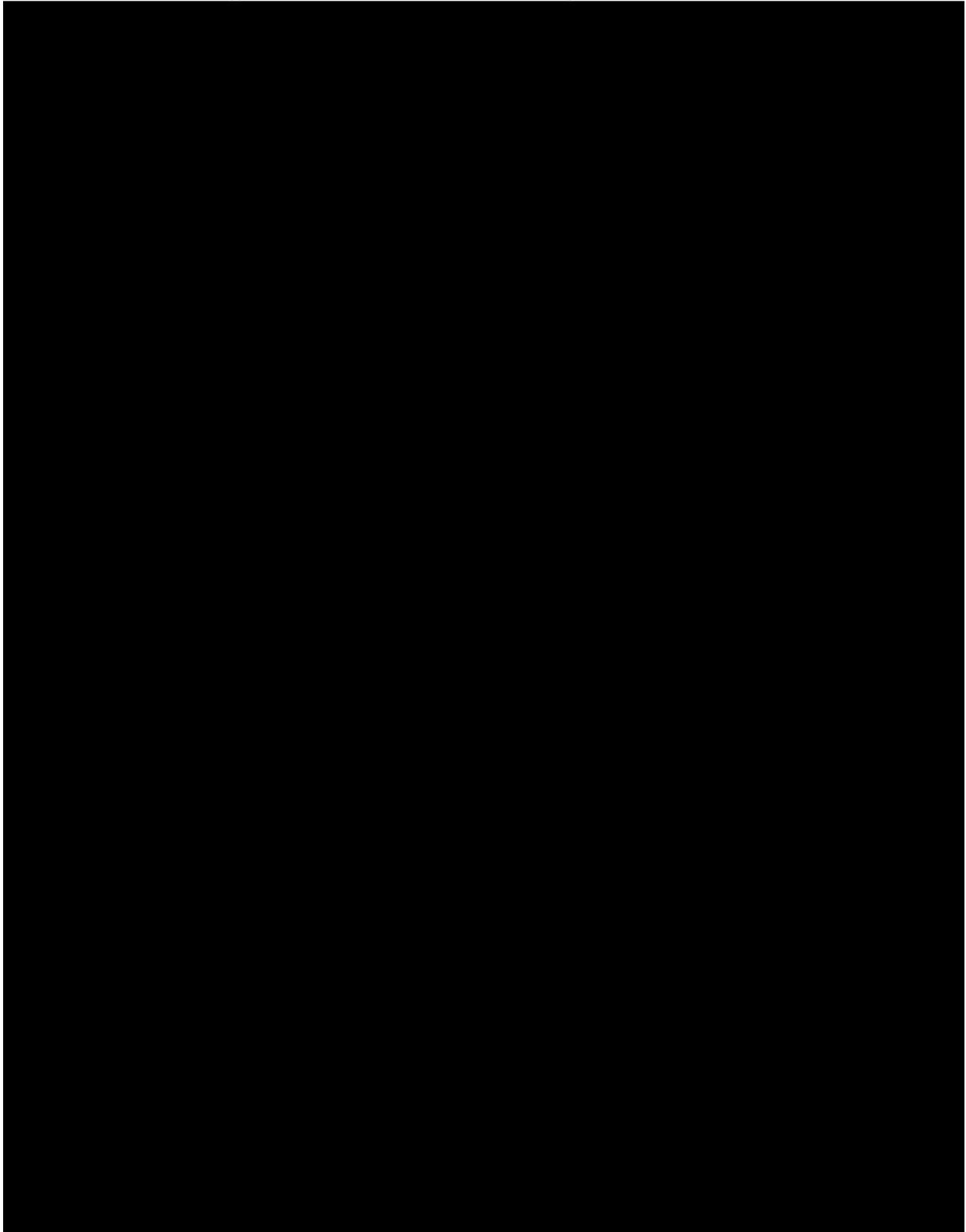


Figure 84. Results of the Phase I survey in Area S-26

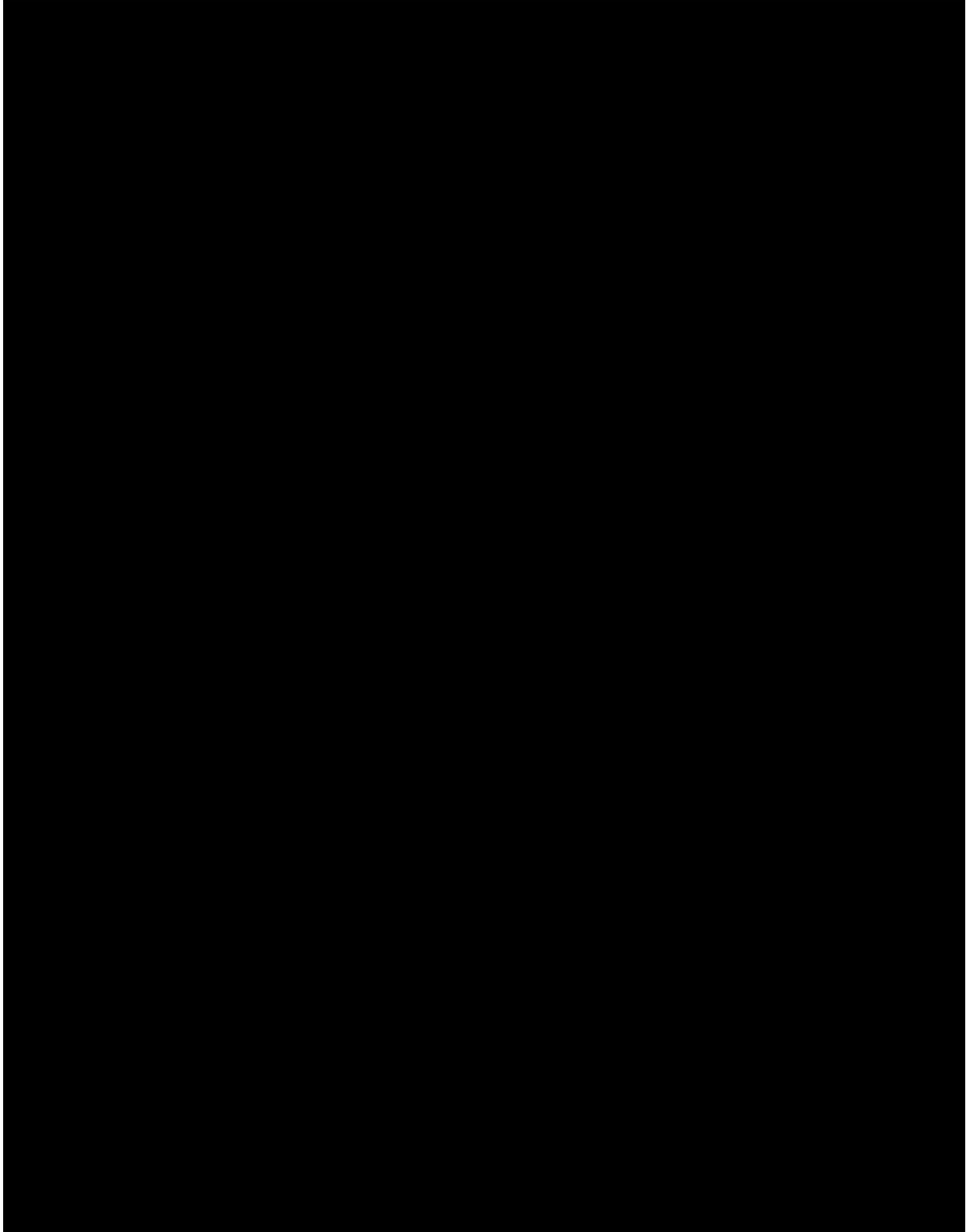
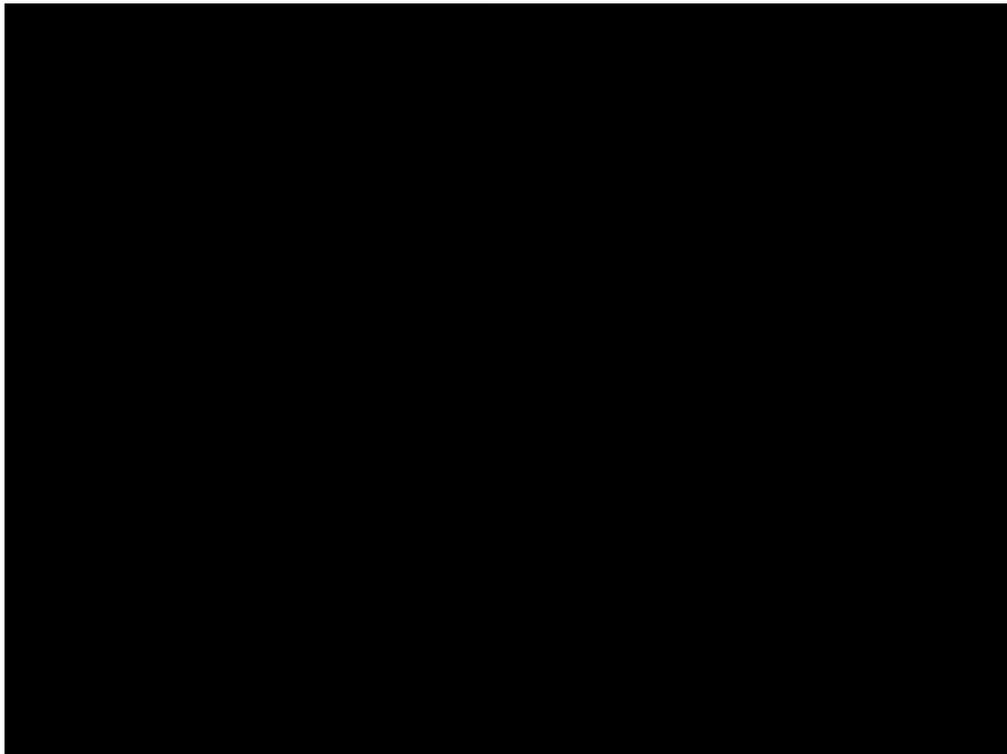


Figure 85. Cast iron pipe running through trench in Area S-26, facing southwest



Figure 86. Concrete block foundation near southwestern terminus of Area S-26 in Site 18PR1131, facing northeast



Stratigraphy in Area S-26 was generally consistent across the entire area. Stratum I was a black (10YR 2/1) or very dark brown (10YR 2/2) silt loam that reached a depth of 0.2-0.5 ft. In some cases, three different organic constituent layers were identified within this topsoil, consisting of a dark reddish brown (5YR 3/2) silt, black (10YR 2/1) silt loam, and dark grayish brown (10YR 4/2) silty clay loam. Each of these constituents was 0.1-0.2 ft thick. Beneath this was Stratum II, an A-horizon that had a consistent silty clay loam texture but varied in color, from very dark grayish brown (10YR 3/2) to dark gray (10YR 4/1) to yellowish brown (10YR 5/4), that generally reached a depth of 0.5-0.9 ft. This directly overlay Stratum III, which was a yellowish brown (10YR 5/8) to strong brown (7.5YR5/6) clay or silty clay subsoil. In rare cases, the second stratum was missing, ending up with a profile showing the one organic stratum directly over subsoil, which is likely truncated. Sporadic STPs scattered across Area S-26 reached the water table between 1.0-1.5 ft. STPs along the southeastern boundary encountered disturbed soils characterized by multiple gravel clay fill layers. Area S-26 contained one STP that was positive for cultural material (one machine-cut nail), which was located next to a concrete block foundation. Together, this positive STP and concrete block foundation make up Site 18PR1131. The portions of the landform outside this site appear to be stable and intact, apart from the ditches containing the cast iron pipes.

Recommendations for 18PR1131 are presented below. No further work is recommended for Area S-26 within the CSB examined at the time of the Phase I survey. *Area S-26 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.20.1 18PR1131 (Greenbelt Park Site 1)

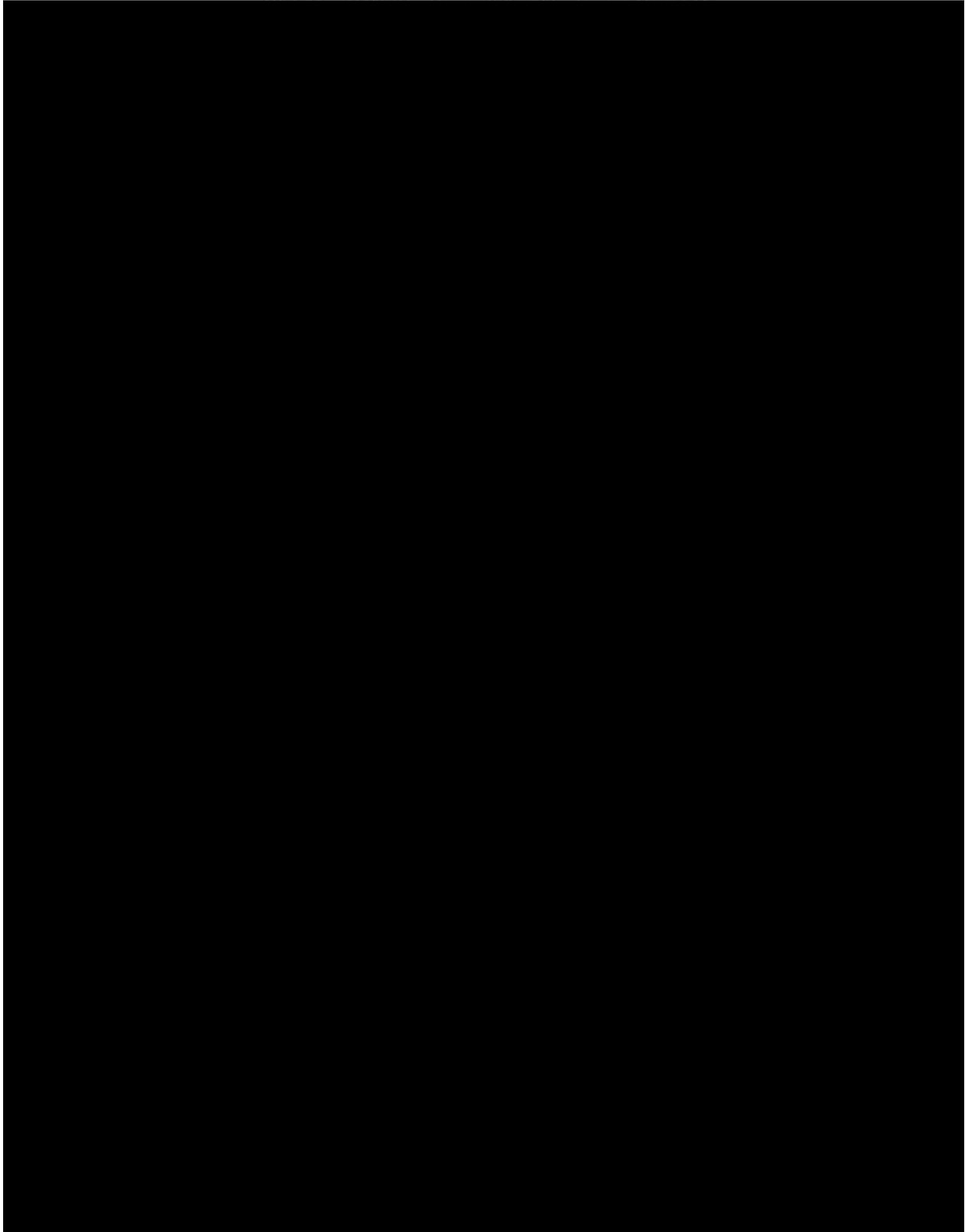
Background

Site 18PR1131 is situated on a 1,176-acre property [REDACTED] [REDACTED] (Figure 87). The individual parcels that made up this property when it was purchased by the Federal government have been consolidated into a single parcel and records of this consolidation could not be located. [REDACTED]

[REDACTED]

[REDACTED]. Records of the property’s acquisition by the Federal government could not be located among the land records of Prince George’s County. There are no structures shown in the vicinity on either the 1878 *Hopkins Atlas of Fifteen Miles around Washington, D.C.* or the 1865 *Martenet Map of Prince George’s County*. One structure is shown at the southern end of S-26, about 150 south of the recorded site, on the USGS (1917) Washington and Vicinity quadrangle.

Figure 87. Results from Phase I Survey in 18PR1131

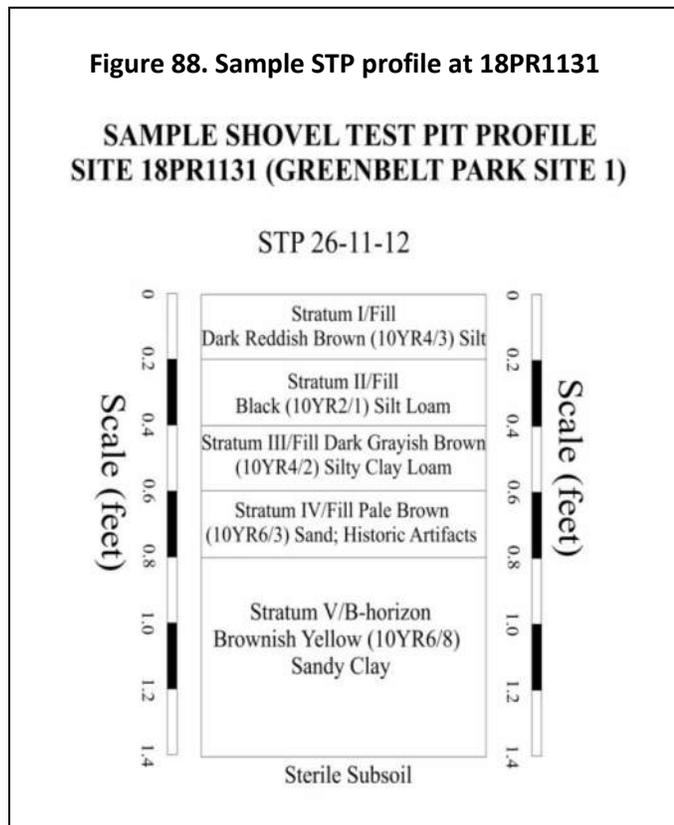


Field Results

Site 18PR1131 is the remains of a concrete block structure [REDACTED]. The area is wooded and possesses light undergrowth. It contains the surface remains of a concrete block foundation adjacent to modern construction debris at the head of a former roadway [REDACTED].

[REDACTED] This pipe does not appear to be related to the concrete block foundation and it was unclear at the time of the survey whether it was an active or abandoned utility line. The construction debris rests on a concrete surface that lies directly adjacent to the block foundation. Early twentieth-century USGS maps show a structure in the site vicinity, and a 1938 aerial shows that the area was part of an agricultural field.

One STP excavated on the site contained of four successive shallow strata over subsoil (Figure 88). Each of the strata were 0.2 feet (6 cm) thick and probably represent fill deposits placed over a truncated ground surface. There is no readily identifiable plowzone, although one fill stratum may be the truncated remnants of one. Stratum I was a dark reddish brown (5YR 3/2) silt surficial fill deposit, followed by Stratum II, which was a black (10YR 2/1) silt loam fill, and Stratum III, a dark grayish brown (10YR 4/2) silty clay loam fill. Stratum IV, where the artifacts were found, consisted of a pale brown (10YR 6/3) sand and may reflect a truncated historic plowzone, truncated buried A-horizon, or a fourth fill deposit. It is difficult to assess given its 0.2-ft (6-cm) thickness. Subsoil was encountered at 0.8 feet below surface, consisting of a brownish yellow (10YR 6/8) sandy clay. Subsoil was excavated to a depth of 1.4 feet below surface. The artifacts were found in



Stratum IV, including one machine-cut nail and two unidentifiable iron fragments. Other STPs in the site's direct vicinity could not be excavated due to surface refusals from concrete or contained stratigraphy common across the entirety of Area S-26.

The concrete block foundation suggests the site dates to the early twentieth century. The concrete surface adjacent to the foundation may be related to the cast iron utility pipe, possibly paved over as the head of the access road utilized during its installation. Surrounding STPs were negative for cultural material. This site likely represents a small structure related to nearby utilities, perhaps a pump station, or reflects the location of an early twentieth-century agricultural outbuilding. The succession of fill layers above a

possible truncated plowzone suggests the original ground surface was graded when the concrete block foundation was constructed. Stratum IV possibly represents the remains of this plowzone and would have been the living surface when the building was under construction or in use, and the successive fill layers were placed over this surface during construction or use, or during building demolition. It is more likely that this is simply another fill layer, meaning the machine-cut nail is probably not in its original context. Based on the results of the Phase I investigation, there is no evidence that Site 18PR1131 possesses the potential to provide important information in history. The Phase I provided no evidence that the site is eligible for the NRHP, and no further work is recommended. *Site 18PR1131 is now outside the LOD for the Preferred Alternative and would not be affected.*

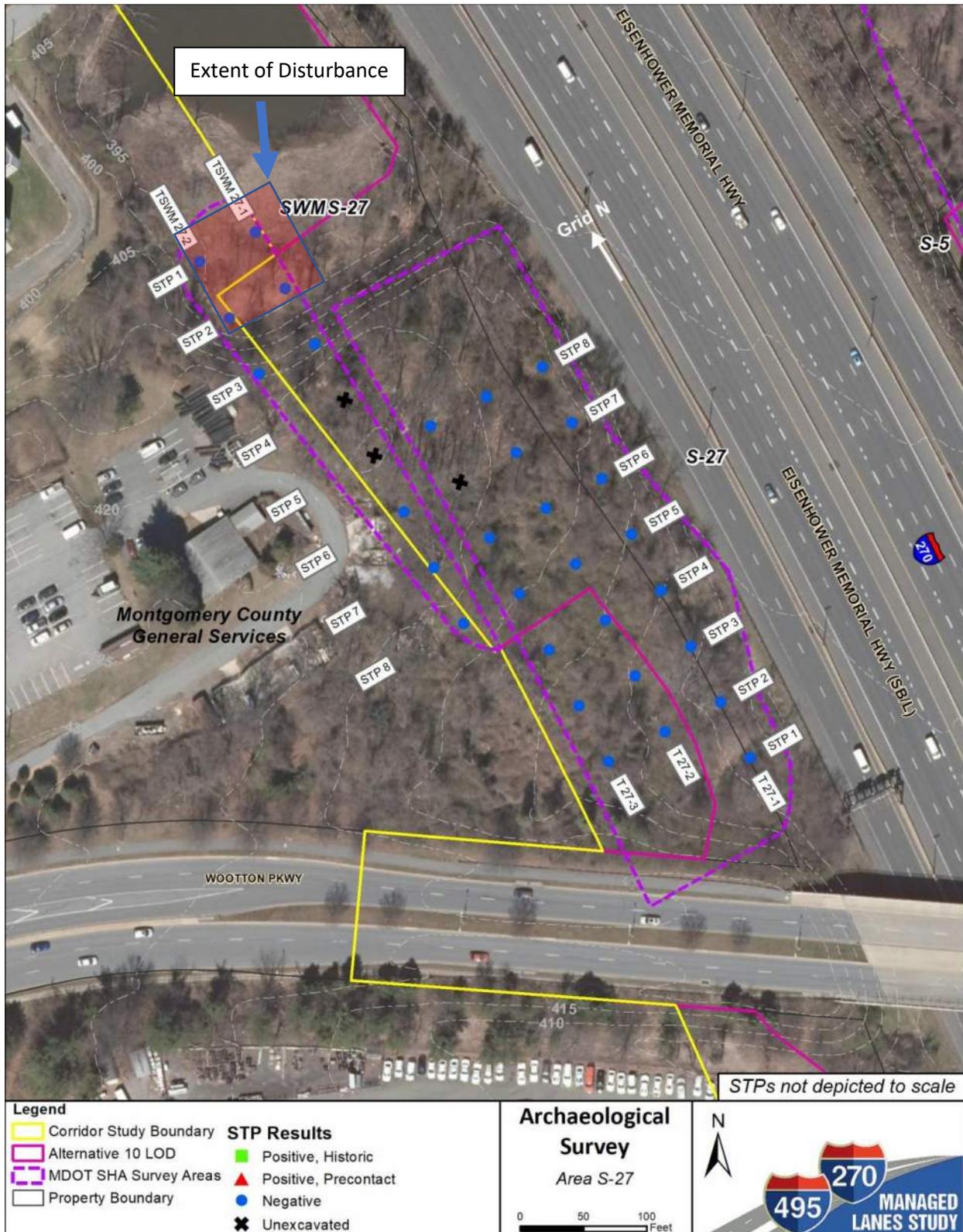
4.21 Area S-27 and SWM S-27

Area S-27 is a 1.91-acre area located between the Montgomery County General Services building and the I-270 ROW (Appendix E, Page 9). [REDACTED]

[REDACTED] It is bounded by Wootton Parkway to the south, the I-270 ROW fence to the east, the General Services parking lot to the west, and a SWM retention pond to the north (Figure 89). It is adjoined by a proposed SWM feature, SWM S-27, adding 0.49 acres along the western boundary of Area S-27. Twenty-three STPs were excavated in Area S-27 and SWM S-7, none of which contained archaeological material. The portion of the ridge occupied by this area resembles the terrain shown on early twentieth-century USGS maps. The NRCS documents Glenelg silt loam in Area S-27, which generally consists of an A- or Ap- horizon over a Bt-horizon, sometimes with an intervening E-horizon (Web Soil Survey 2015). Soils in this area generally conformed to the expected pedon, with the exception of STPs in the northern portion of SWM S-27 and one STP on the western margin of the site, which exhibited evidence for cutting and filling probably related to an existing SWM pond north of the survey area.

Area S-27 falls within property owned by Montgomery County, with a portion within MDOT SHA ROW. It is located in a gently sloping ridge about 420 ft (128 m) amsl. The survey area is wooded with sections of impassable undergrowth. Extensive modern surface deposits of trash, construction materials, and household goods are present throughout the survey area. Slopes range from 0-15 percent and with the northernmost portion of Area S-27 containing the steepest change in grade. SWM S-27 extended the survey area to the north past this slope. Both Area S-27 and SWM S-27 are located on the upper part of the same ridge feature on which the Poor Farm Cemetery Site (18MO266) is located. S-27 is located to the west of the cemetery on an adjacent finger of the ridge. The overall extent of interments associated with the Poor Farm Cemetery Site (18MO266) remains unknown, and it is possible that human remains may be present within these two study areas. The gap analysis recommended additional investigations beyond shovel testing in this and three other survey areas (Areas S-4, S-5, and S-6) to identify whether the cemetery extends into the surrounding area. No surface evidence was observed that suggests the presence of burials in in Area S-27 and in SWM S-27. Additional investigations to determine the extent of unmarked graves is planned for this and the three other survey areas in the vicinity (Areas S-4, S-5, and S-6) but has not yet been initiated because access permission for the other areas could not be secured. In order to secure data on the soil profile [REDACTED], three transects were excavated at 50-ft (15-m) intervals for a total of 21 primary STPs in Area S-27. Two additional transects were excavated at 50-ft (15-m) intervals within SWM S-27, for a total of 11 primary STPs.

Figure 89. Phase I survey results in Area S-27 and SWM S-27



STPs indicate that S-27 represents a generally intact landform, except at the northern end overlooking the existing SWM pond. Stratigraphy generally consisted of three to four strata. Stratum I was a dark grayish brown (10YR 4/2) to very dark brown (10YR 2/2) silt loam O-horizon about 0.2 ft thick. Below this was Stratum II, a brown (10YR4/3) to dark yellowish brown (10YR 4/6) silt loam A-horizon. The depth of this stratum varied across the site, from as shallow as 0.3 ft to as deep as 1.2 ft below the ground surface, with the most common depth being 0.8 ft. In some STPs. This overlay a transitional soil layer, either a brown (7.5YR 4/4) or strong brown (7.5YR 4/6) silty clay loam E-horizon. The transitional layer extended from 0.4 ft to 0.8 ft below the ground surface. This area’s subsoil was a strong brown (7.5YR 5/8) silty clay Bt-horizon, and this sterile stratum was excavated to a depth of 1.2-1.6 ft. STP 27-3-3 was excavated adjacent to a large surface dump and had five strata: an initial organic layer followed by three layers of fill before reaching subsoil at 1.6 ft below ground surface.

STPs in the SWM S-27 area exhibited a slightly different profile showing evidence of disturbance. Stratum I, a brown (10YR 4/3) silty clay loam A-horizon, matched Stratum I observed in the Area S-27 STPs. This A-horizon directly overlay the strong brown (7.5YR 4/6 to 7.5YR5/8) silty clay Bt-horizon, indicating the area has been graded (cut). None of the STPs in the SWM S-27 area contained the E-horizon present in portions of Area S-27. **Figure 79** shows that SWM S-27 is located at the southern margin of an area that was excavated for an existing SWM pond [REDACTED].

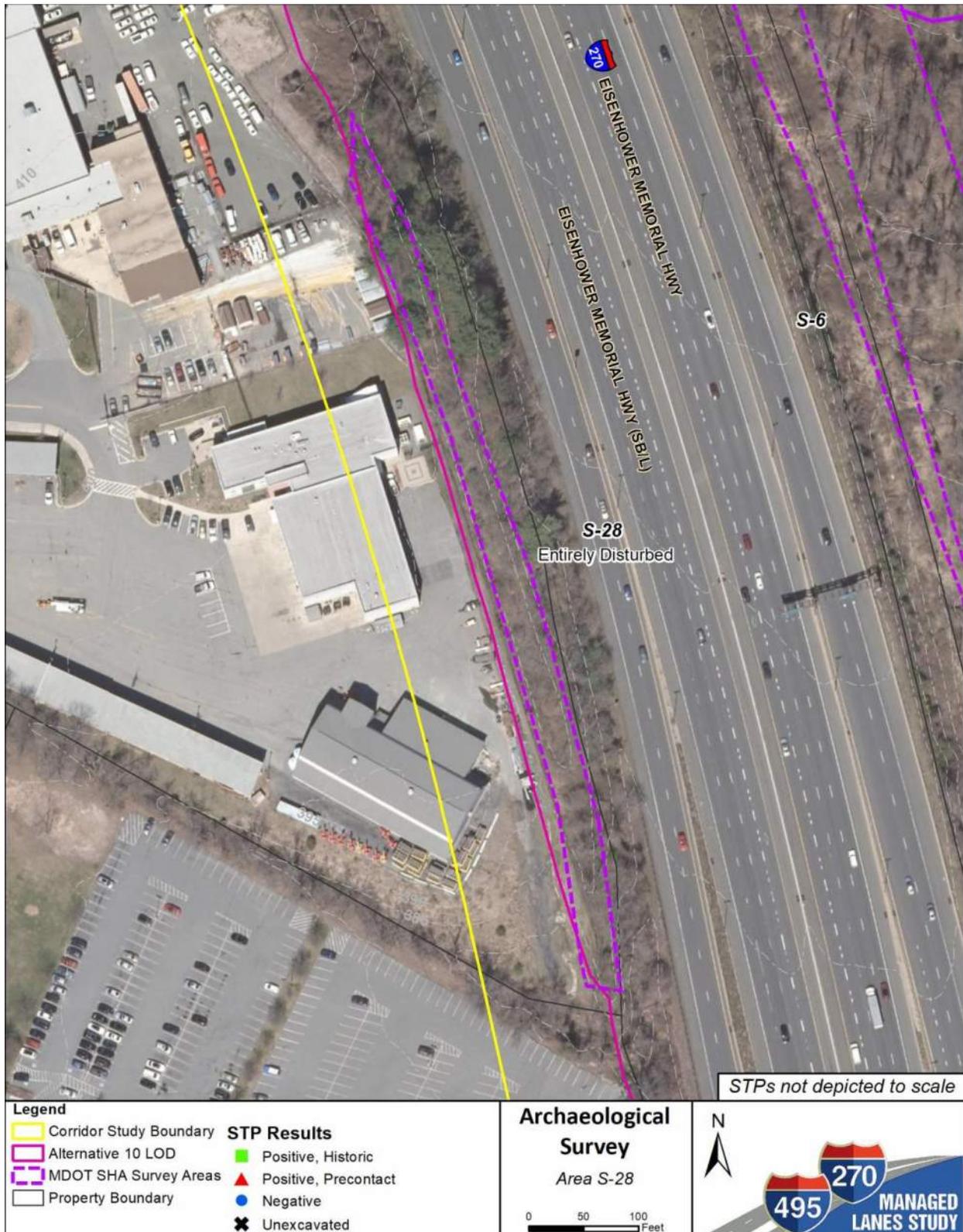
Material observed in Area S-27 and SWM S-27 consisted of modern materials, such as plastic or modern bottle glass, that were discarded in the field. The results of this survey indicate that part of the landform is intact and part of it has been subjected to cutting and filling, mainly on the eastern side of the survey area along I-270, and on the northern end near the existing SWM feature. Adjacent parts of this landform have been disturbed by construction of Montgomery County facilities located to the west. No artifacts were encountered, and no archaeological features were recorded. No archaeological sites were identified.

No evidence of prior cemetery interments was observed during the Phase I survey. However, STP survey was too shallow to identify human burials, and was intended to gather data only on soils and integrity throughout the survey area. Additional archaeological work is recommended for undisturbed portions of Survey Area S-27 and SWM S-27 to determine whether interments associated with the Poor Farm Cemetery may exist in those areas (see Cemeteries section of Chapter 5). *Area S-27 and SWM S-27 are within the LOD for the Preferred Alternative.*

4.22 Area S-28

Area S-28 is a 0.578-acre area located along the west side of I-270, south of Wootton Parkway (**Figure 90**) (**Appendix E, Page 8 and 9**). It is located on the former Montgomery County Poor Farm property, [REDACTED]. Early twentieth-century topographic maps show this area occupying an undulating ridgetop and historic aerial photographs show that this area was not disturbed during the original construction of I-270. It appears to have been significantly modified during the expansion of I-270 in the 1980s, with aerial photographs showing the area clear-cut and filled over in a photograph from 1988. Ground conditions recorded during the survey revealed this area has been disturbed by grading.

Figure 90. Results of the Phase I survey in Area S-28



Area S-28 is situated along the crest of an artificial berm lying between a parking lot for the Montgomery County general services building and the southbound lanes of I-270. The area is bounded to the east and west by artificial, concrete- or stone-lined drainage ditches and to the south by a steep, heavily overgrown swale (**Figure 91** and **Figure 92**). It is 397 ft (121 m) amsl, about 6 ft (2 m) higher than the ground surface to the west.

Area S-28 lies mostly within property owned by Montgomery County, with a small portion within MDOT SHA ROW. The area is separated from the Montgomery County building complex by a high chain-link fence and from I-270 by a second chain-link fence. It is mostly wooded and has very dense undergrowth. Although most of the area occupies the top of the 8-ft (2-m) wide berm, parts fall on the berm's east face as it slopes down toward I-270. Expected slopes in this area range from 3-15 percent, but a visual assessment of ground conditions suggested that the entire area is occupied by an artificial landform.

During the pedestrian survey, numerous rodent burrows were observed on the slopes of the berm. Soils within the rodent burrows consisted of mottled yellowish brown (10YR 5/6), reddish yellow (5YR 6/8), and light olive brown (2.5Y 5/3) clay and contained high percentages of gravel inclusions. Modern trash littered the surface, including bottles, cans, and plastic. The pedestrian reconnaissance indicated that the entire area was disturbed by grading that appears to have removed five to ten feet of material; the area is unlikely to contain intact subsurface archaeological deposits. No STPs were excavated. In general, Area S-28 has low archaeological potential, and no further work is recommended, with one exception. Additional research has demonstrated that the area north of S-28 and south of Wootton Parkway, measuring about 300 feet in length, is in close proximity to portions of I-270 where graves associated with the Poor Farm Cemetery may have been identified in the late 1950s. Based on field inspection, it is unclear whether this area retains sufficient integrity that deep grave shafts may remain within what appears to be an area of cut. Further investigations are recommended in this area at the direction of MDOT SHA, as described in Section 5.2.1.B. *Area S-28 is within the LOD for the Preferred Alternative.*

Figure 91. Stone-lined drainage feature on western boundary of Area S-28, facing south



Figure 92. Slopes on east face of berm in Area S-28, facing south



4.23 Area S-29

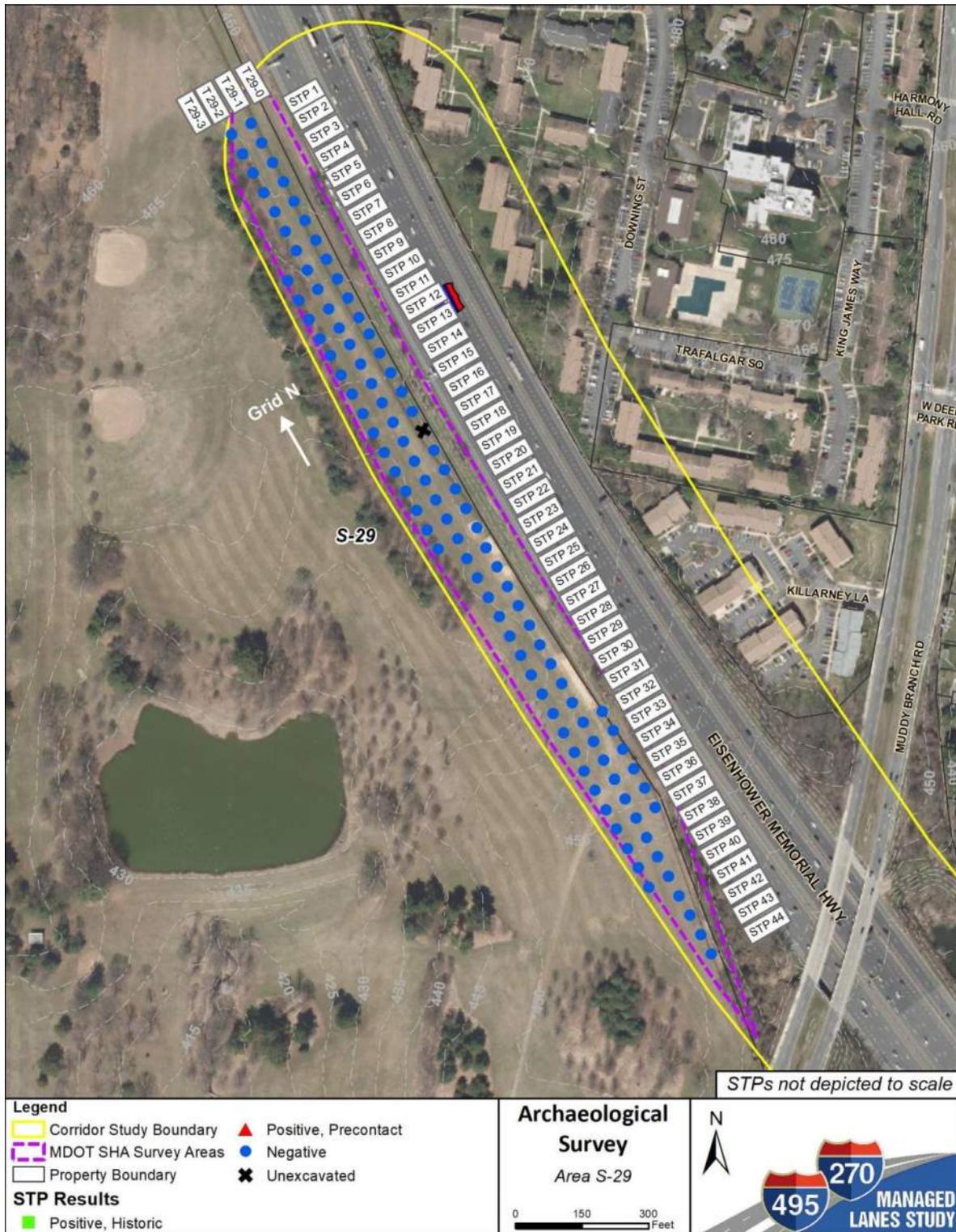
Area S-29 consists of 8.50 acres located at the eastern edge of the National Institute of Standards and Technology (NIST) campus (**Figure 93**) (**Appendix E, Page 11**). It is located on a ridgetop overlooking an unnamed tributary to Muddy Branch. A total of 105 STPs were excavated in this area, none of which contained archaeological material. The study area begins at the cantilever sign for Exit 9A/9B off the southbound onramp from West Diamond Avenue and continues to the southeastern edge of the NIST campus, where it meets the edge of the Muddy Branch Road ROW. Its width varies from about 50 ft (15 m) to 200 ft (61 m), with the width across most of the area around 200 ft (61 m). Area S-29 falls entirely within Federal property administered by NIST, a part of the United States Department of Commerce. Security personnel informed the crew that photography was prohibited on the property. The NRCS documents Glenelg silt loam and Baile silt loam in Area S-29 (Web Soil Survey 2015).

Area S-29 is situated on a gently rolling ridgetop 440-463 ft (134-141 m) amsl, with slopes ranging from 0-8 percent. A low-lying swale crosscuts the northern portion of the study area, directing runoff toward an artificial water retention pond to the southwest. The base of this swale was covered by standing water during the survey. A portion of the survey area consists of embankment slopes along I-270. The entire area is covered in tall grass and is part of an open area on the eastern edge of the NIST property. A double row of coniferous trees along the western edge of the study area appears to have been planted within the last two decades. Four transects of STPs were excavated between the I-270 embankment and the western edge of the Area S-29 study area. A total of 105 primary STPs were excavated at 50-ft (15-m) intervals with one STP (STP 29-1-17) not excavated due to standing water at the surface.

Stratigraphy in this area varied, representing both intact and disturbed contexts. The most common undisturbed context consisted of two strata, with Stratum I comprising a brown (10YR4/3) to yellowish brown (10YR 5/6) silt loam topsoil and Stratum II comprising a strong brown (7.5YR5/6 or 7.5YR5/8) clay loam subsoil at a depth of 0.9-1.3 ft below ground surface. The northern STPs with this profile contained gravel near the interface. This profile was most commonly encountered in the northern and southern portions of Area S-29.

Disturbed profiles in Area S-29 generally consisted of two to four compacted fill layers ranging in color from yellowish red (5YR 5/8) to yellow (10YR 7/8) in color and silt loam to silty clay in texture. This profile was most common along the double rows of trees to the north and in the central and southern areas close to the road. A third profile with three strata, consisting of a layer of fill over a buried A-horizon and subsoil, was observed in some parts of this area, most prominently in the central portion. The buried A-horizon had been compressed to 0.3-0.6 ft thick.

Figure 93. Results of the Phase I survey in Area S-29



The material recovered from Area S-29 consisted of modern materials that were discarded in the field. No archaeological artifacts were encountered. The results of this survey indicate that, while parts of this landform remain intact, it has largely been subjected to artificial modification through infilling and/or compaction. Intact soils were generally observed in the northern and southern portions of Area S-29, while cut and filled soils were prevalent in the central portion of this area and along the base of the highway berms. Fill over buried A-horizons are present beneath the fill in the central portion, between STPs 21 and 27 on both transects. This cutting and filling likely resulted from the construction of I-270. No historic or precontact features were observed and no archaeological sites were identified. No further work is recommended in Area S-29. *Area S-29 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.24 Area S-30

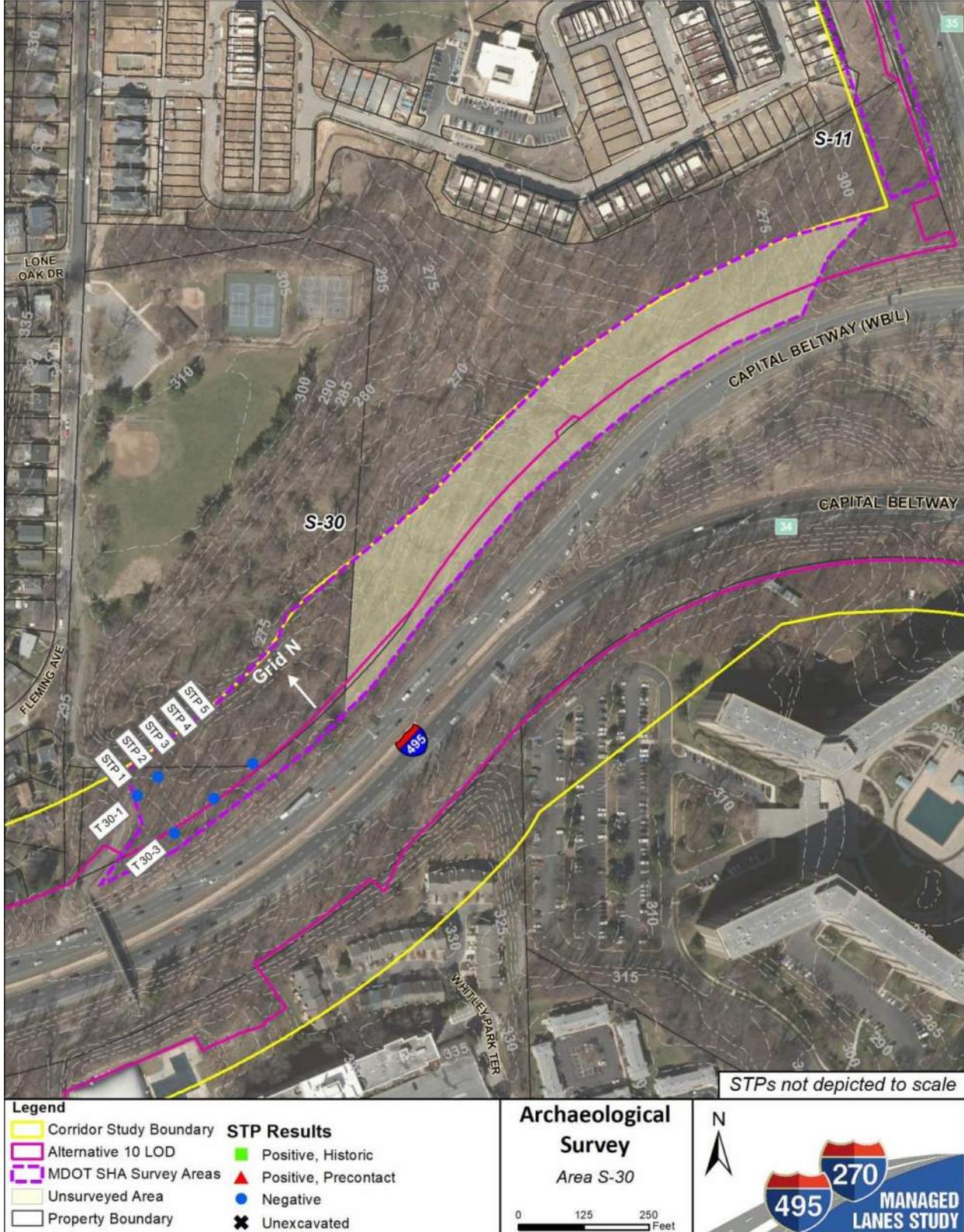
Area S-30 is a 6.42-acre limited survey area located between Fleming Avenue and the I-270 spur (**Figure 94**) (**Appendix E, Page 5**). Five STPs were excavated in Area S-30, none of which contained intact soils or archaeological material. Area S-30 is situated on a series of ridges separated by steep slopes about 322 ft (98 m) amsl, and the north half of the survey area crosses an unnamed tributary to Rock Creek. The NRCS documents Blocktown channery silt loam and Wheaton-Urban complex soils (Web Soil Survey 2015). The soils observed in this area did not generally conform to a Blocktown or Wheaton pedon, though one STP did contain a possible intact Blocktown Bt-horizon.

Part of Area S-30 falls within Fleming Local Park, administered by the M-NCPCC, Montgomery County, but most of the area falls within private property. Permission to survey the privately-owned property could not be secured, which reduced the area surveyed to 2.35 acres. The accessible portion of the study area contained one ridgetop but was mostly taken up by slopes exceeding 15 percent. This area is wooded and contains light to moderate undergrowth. There is an unmarked path allowing access from the Bethesda Trolley Trail (located to the southwest) that shows little evidence for heavy public use.

Two transects were laid in at 100-ft (30-m) intervals beginning at the southwestern portion of the study area and extended as far to the northeast as slopes allowed. Stratigraphy along these transects was disturbed and 50-ft (15-m) intervals were deemed unnecessary. A total of five STPs was excavated in Area S-30.

Stratigraphy in this area varied with STP containing two to four strata depending on location within the survey area. Excavation of four of the STPs had to be halted prematurely due to gravel, extreme soil compaction, roots, and in one case, the buried remains of a chain-link fence. All of these impasses were encountered between 1.0 and 1.5 ft below surface. The deepest STP extended to 2.0 ft and appeared to be intact, consisting of a 0.3 ft-thick dark brown (10YR 3/3) loam over a 1.0 ft-thick brown (10YR 5/3) loam A-horizon and a yellowish brown (10YR 5/6) clay loam that may have been subsoil extending to the base of excavation. This STP was at the top of a steep slope and further testing around this STP was not warranted as a result.

Figure 94. Results of the Phase I survey in Area S-30



Material observed in Area S-30 consisted of modern materials, such as modern bottle glass and pieces of a chain-link fence, that were discarded in the field. Although the modern landform appears to conform to the landforms shown on early twentieth-century USGS maps, the Phase I results demonstrate that the landform is disturbed. No historic or precontact artifacts were encountered and no historic or precontact features were observed. No archaeological sites were identified. The unsurveyed portions of Area S-30 are mainly located on similar ridgetops, slopes exceeding 15 percent, or on Urban-complex soils. No further work is recommended in Area S-30. *Area S-30 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.25 Area S-31

Area S-31 is a 2.02-acre Phase I survey area located between a residential neighborhood and the I-495 eastbound lanes beginning about 225 ft (68 m) from the interchange with Connecticut Avenue (see **Figures 58-59**) (**Appendix E, Page 5**). Twenty-three STPs were excavated in Area S-31, none of which contained archaeological material. It is bounded to the north and east by a sound barrier and to the south and west by the residential neighborhood. Area S-31 is situated at the base of a sideslope crossing into the floodplain of Rock Creek about 196-213 ft (60-65 m) amsl. The NRCS documents Glenelg silt loam and Codorus silt loam in Area S-31, with pockets of Blocktown channery silt loam and Brinklow-Blocktown channery silt loam (Web Soil Survey 2015). Stratigraphy in the study area roughly matches the expected Glenelg series pedon, which generally consists of A- or Ap-horizon over a shallow (less than 1.0-ft deep) transition to a Bt-horizon, sometimes with an intervening E-horizon. The successive C- or Bw-horizons characteristic of a Codorus profile were not observed in Area S-31. The study area roughly matches contours shown on early twentieth-century USGS maps, but this area appears to have been modified around a stream bed that passes under I-495 via a culvert.

Although some of the area occupies a level portion of the Rock Creek floodplain, it is separated from the main channel by the road embankment carrying I-495, concrete retaining walls and sound barriers and rising 15-20 ft (5-6 m) above Area S-31's ground surface. Most of Area S-31 falls within M-NCPPC property and is part of Rock Creek Park, but crosses into private property near its southeastern terminus. Permission to survey the privately-owned properties could not be secured, but the privately-owned areas visible from the M-NCPPC property consisted of slopes exceeding 15 percent. Much of the area is wooded and covered in dense undergrowth. A stream bisects the area about 200 ft (61 m) from its northwestern edge, running southwest to northeast and crossing under I-495 to feed Rock Creek. The central portion contains a clearing with wetland plants and a recreational area containing a picnic table and a tire swing. There are improved trails with wooden stairways and bridges to access this area from Bellevue Drive and Broad Brooke Drive.

Two transects were excavated between the sound barrier and the slope, beginning in the northwestern portion of this area. A total of 23 primary STPs was excavated in Area S-31. Two strata were generally present in this area, with Stratum I consisting of a brown (10YR 4/3) or dark yellowish brown (10YR 4/4) silt loam A-horizon and Stratum II consisting of a yellowish brown (10YR 5/4) to strong brown (7.5YR 5/8) loam or clay loam subsoil. The transition was reached 0.3-0.6 ft below surface, with the subsoil continuing to the base of excavation at 1.2-1.6 ft below surface because Stratum II was a sterile Bt-horizon. The area surrounding the stream contained a mottled fill layer overlying a yellowish red (5YR 5/6) compact clay fill

at 1.4 ft below surface. One STP (STP 31-1-4) was excavated to 3.0 ft below surface with the fill continuing to the base of excavation. STPs within the clearing transitioned to a gleyed soil layer consisting of a dark gray (5Y 4/1) clay subsoil, approximately 0.8 ft below surface, that has been oversaturated with water caused by poor drainage.

Material observed in Area S-31 consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered. The results of the survey show that much of this area occupies an intact landform, with evidence for infilling along the stream bed likely resulting from the construction of the highway and efforts to channelize runoff into the culvert under I-495. No archaeological features were observed, and no archaeological sites were identified. No further work is recommended in Area S-31. The surrounding area has no archaeological potential due to slopes or modern residential development. *Area S-31 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.26 Area S-32

Area S-32 is a 3.61-acre limited survey area on the south side of I-495 bounded by the Walter Reed National Military Medical Center to the west and Spring Valley Road to the east (see **Figure 54**) (**Appendix E, Page 12**). Ten STPs were excavated in this area, none of which contained archaeological material. This area occupies a series of narrow wooded ridgetops about 272 ft (83 m) amsl separated by steep slopes. The NRCS documented Glenelg silt loam and Blocktown channery silt loam in Area S-32, both of which consist of A- or Ap-horizon over a shallow (less than 1.0-ft deep) transition to a Bt-horizon, sometimes with an intervening E-horizon (Web Soil Survey 2015). The contours of the landforms in this area match the landforms depicted on early twentieth-century USGS maps.

Area S-32 includes part of North Chevy Chase Local Park, administered by the M-NCPPC, Montgomery County, part of a preschool property owned by the Chevy Chase Recreation Association (CCRA), and part of the I-495 ROW. The area owned by the CCRA is separated from the rest of the survey area by a fence and includes a parking lot and a landscaped garden in front of the CCRA Outdoor Nursery School. The CCRA property includes the NRHP-eligible architectural resource the David Fairchild Estate, built in 1910 (MHT NR-Eligibility Review Form M:35-38). Property access was not granted by the CCRA. Additionally, field reconnaissance to the west of the tested area showed narrow ridges with steeply sloping sides ranging from 8 to 25 percent, making the majority of this survey area unsuitable for testing. A total of three transects at 50-ft intervals were excavated on one broad ridgetop on M-NCPPC property, resulting in the excavation of ten STPs.

The stratigraphy in Area S-32 consisted of three strata representing an undisturbed profile. Stratum I was a dark grayish brown (10YR 4/2) to dark yellowish brown (10YR 4/4) silty clay loam A-horizon that reached a depth of 0.3-0.5 ft below ground surface. Beneath this was Stratum II, a grayish brown (10YR 5/2) to yellowish brown (10YR 5/8) silty clay loam E-horizon that reached a depth of 0.6-0.9 ft below surface. This overlay Stratum III, a strong brown (7.5YR 5/6 to 7.5YR 5/8) subsoil excavated to 1.3-1.5 ft below surface. STPs closest to the slope were missing Stratum II.

No historic or precontact artifacts were encountered in Area S-32. No historic or precontact features were observed and no archaeological sites were identified. The results of this survey indicate that Area S-32 consisted mostly of slopes exceeding 15 percent. The portion of the M-NCPPC property that could be

tested occupies a stable, undisturbed landform. The adjacent CCRA property visible from the accessible portion of Area S-32 consisted of disturbed areas including paved surfaces and a landscaped garden in front of the Outdoor Nursery School.

Survey Area 32 was a limited survey location and testing focused on those locations where the topography was sufficiently level to test. Field reconnaissance to the west of the tested area showed narrow ridges with steeply sloping sides which exceeded 15 percent slope. The property containing “In the Woods” was not accessible because the property owner, Chevy Chase Recreation Association, Inc., refused access. In addition, the negative results of testing in the accessible areas of S-32 factored into the decision to not try to gain access to the remaining area to which permission had been denied. No further work is recommended in Area S-32. *Area S-32 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.27 Area S-33

Area S-33 is a wooded Phase I survey area comprising 3.73 acres situated on the floodplain of Rock Creek. It is roughly bounded by Beach Drive to the west and north, and by Rock Creek to the east and south (**Figure 95**) (**Appendix E, Page 12**). The westbound lanes of I-495 run parallel to the east boundary of Area S-33. The NRCS documents Codorus silt loam in this survey area, which is characterized by a succession of recently deposited C- or Bw-horizons and possesses the potential for deeply buried precontact material (Web Soil Survey 2015). Comparison with early twentieth-century USGS maps suggest that the floodplain has not been significantly modified during the twentieth century, however aerial photographs taken before and after the construction of I-495 show that the Rock Creek channel was straightened along the base of the highway berm.

The entirety of Area S-33 falls within M-NCPPC Montgomery County property and is part of Rock Creek Park. Area S-33 is situated about 193 ft (58 meters) amsl and spans a level area above the channel bottom of Rock Creek. The area is wooded with minimal undergrowth but contains a significant amount of tree fall. The banks of the creek are artificially reinforced with large stone barriers in an effort to prevent flooding and erosion. A drainage channeling water to Rock Creek bisects the area east-west to the edge of Beach Drive in the southern portion of Area S-33. Slopes in this area range from 0-3 percent. Eleven transects of STPs were excavated at 50-ft (15-m) intervals between Beach Drive and Rock Creek beginning in the northern portion of the area and extending south. Transects 5-7 bordered the edge of Beach Drive with several STPs situated at the base of an artificial berm descending from the road. A total of 70 primary STPs was excavated in Area S-33.

Stratigraphy was generally consistent throughout the area. The most common profile among STPs in the floodplain contained three strata, with Stratum I consisting of a very dark grayish brown (10YR3/2) or brown (10YR 4/3) silt loam O-horizon over Stratum II, a dark yellowish brown (10YR 4/4) silt loam A-horizon. This transitioned at 0.3-2.0 ft below surface Stratum III, a dark yellowish brown (10YR 4/4) silty clay or strong brown (7.5YR 4/6) clay alluvium extending to the base of excavation and terminated at the maximum practical depth for an STP at 3.0 ft.

Six STPs in this area, most of which were along the road but one of which was next to a buried sewer vault, contained a clay fill layer over an impassible gravel deposit. These layers likely represent cut and fill episodes from the construction of Beach Drive and the Rock Creek drainage feature.

Material observed in Area S-33 consisted of modern materials that were discarded in the field. Two STPs adjacent to the road (STP 33-6-16 and STP 33-8-21) contained a fragment of unidentified brick and two dozen tin can fragments. The artifacts do not reflect an intact historic site. No other historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. The results of the survey show that the re-channelization of Rock Creek that occurred during the construction of I-495 did not have a significant effect on this portion of the floodplain and that much of the landform within Rock Creek Park north of the I-495 berm occupies an intact floodplain. The floodplain soils present in Area S-33 have the potential for deeply buried precontact material below levels that could be reached by an STP. Due to the likelihood of encountering buried Holocene deposits in Codorus soils, deep testing is recommended in Area S-33. *Area S-33 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.28 Area S-34

Area S-34 is a 1.21-acre Phase I survey area within Rock Creek Park, on the floodplain of Rock Creek immediately north of Survey Area S-33 on the opposite side of the creek (**Figure 96**) (**Appendix E, Page 12**). It is roughly bounded to the north and west by Rock Creek, and to the south and east by slopes leading up to the westbound lanes of I-495. The NRCS documents Codorus silt loam in this survey area (Web Soil Survey 2015). Comparison with early twentieth-century USGS maps suggest that the floodplain has not been significantly modified during the twentieth century, however aerial photographs taken before and after the construction of I-495 show that the Rock Creek channel was straightened along the base of the highway berm, and shovel testing shows that a large part of the survey area has been impacted by highway construction.

The entirety of Area S-34 falls within Rock Creek Park, administered by the M-NCPPC, Montgomery County. Area S-34 is situated on a level, wooded floodplain that gradually slopes south from the east berm of I-495 toward the Rock Creek about 192 ft (58 m) amsl. Much of the northern portion contained dense undergrowth along the base of the berm, sitting about 19 ft (6 m) below the southbound lanes of I-495. A drainage feature descending from the berm empties into a wetland and standing water is present in the west-central portion of the study area. Vegetation in the wetland was over five feet (1.5 m) high. Slopes in this area range from 0-3 percent. Three transects of STPs laid at 50-ft (15-m) intervals were excavated between Rock Creek and I-495. The creek banks are artificially stabilized by large rocks. Transect 1 fell entirely within the channel of Rock Creek and was not excavated. Transect 2 ran parallel with Rock Creek, intersecting with the creek bank for all but 200 ft (61 m) of its length. A total of 24 primary STPs were excavated in Area S-34.

Figure 95. Results of the Phase I survey in Area S-33

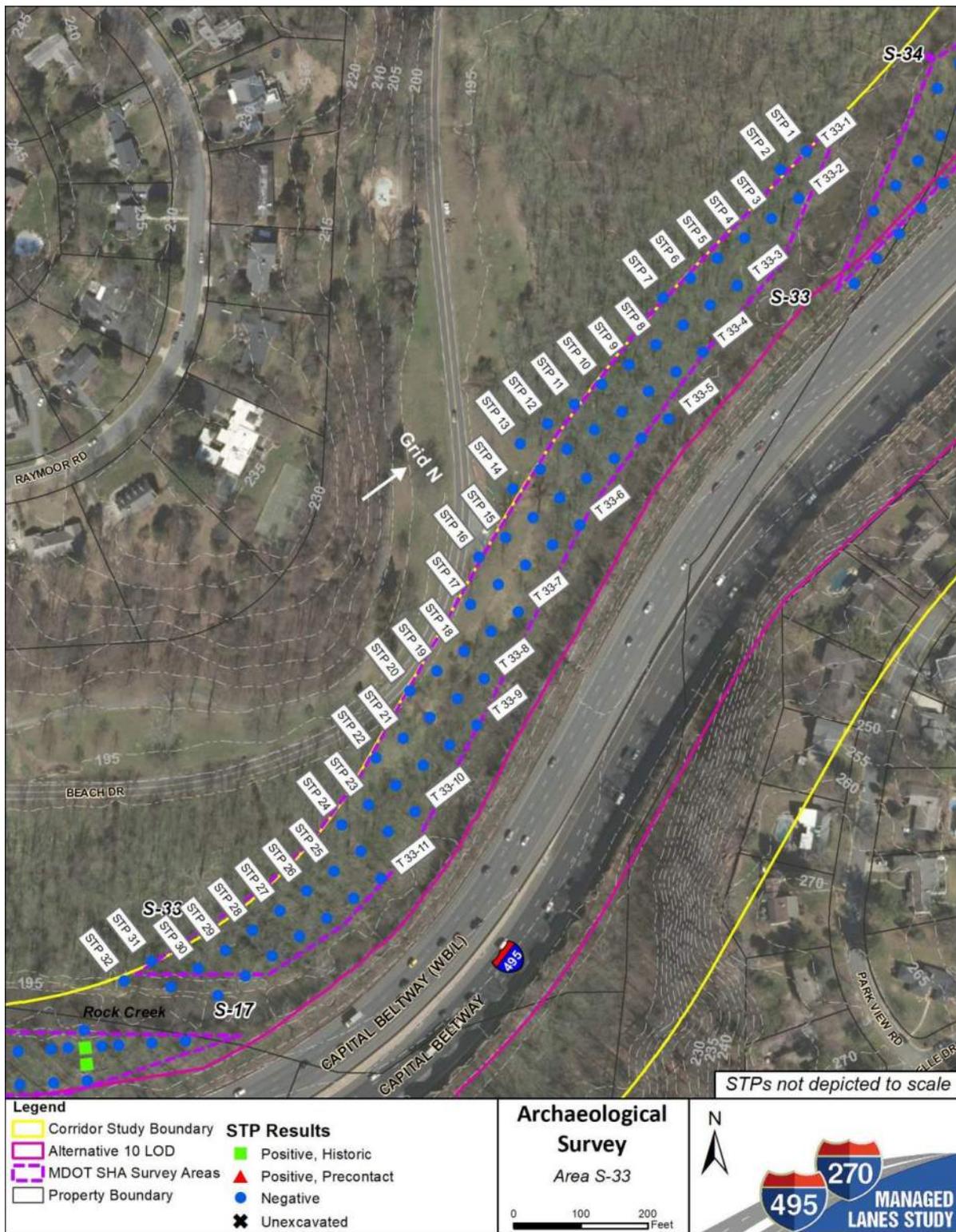
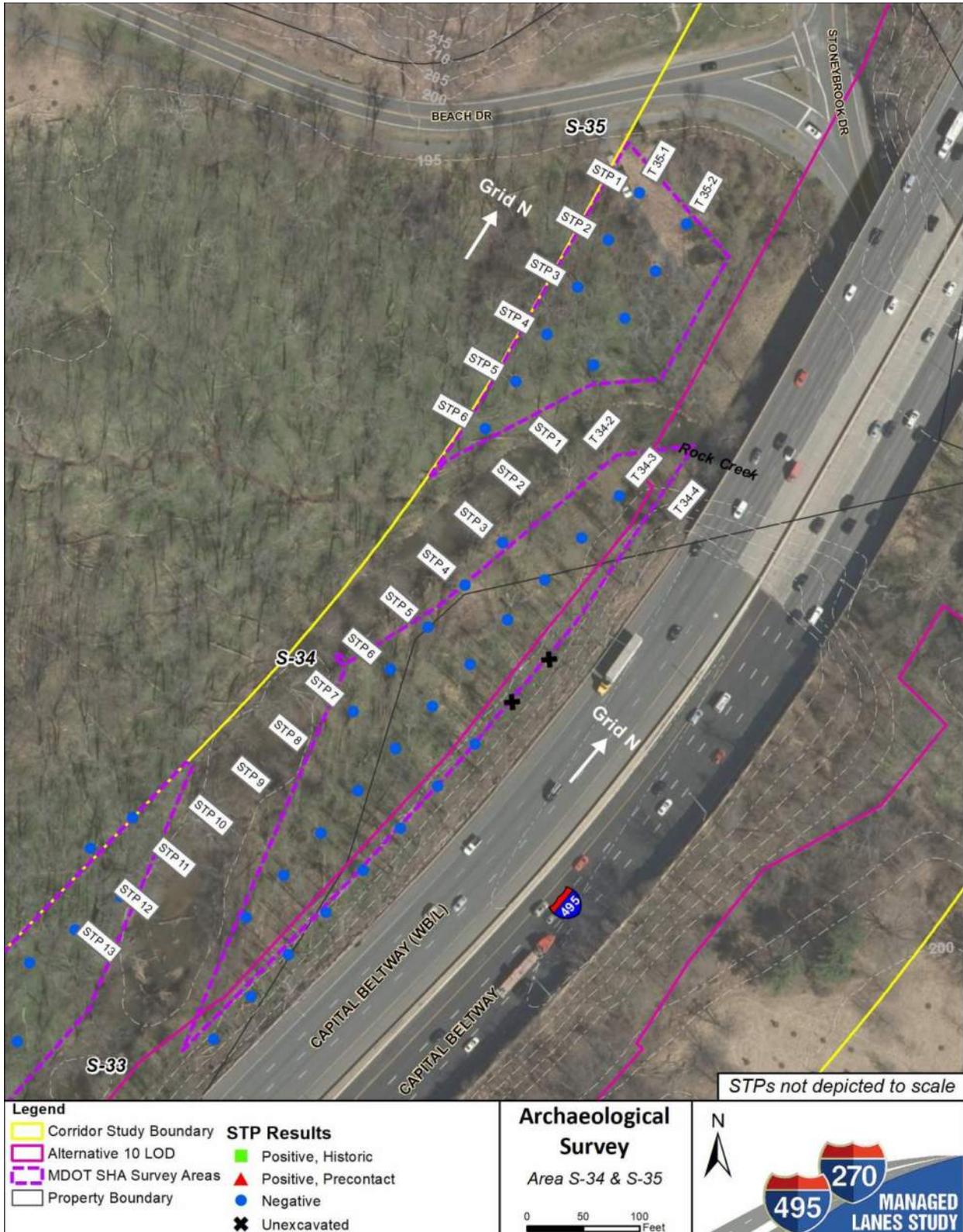


Figure 96. Results of the Phase I survey in Area S-34 and Area S-35



Stratigraphy in Area S-34 was variable across the floodplain and wetland, with evidence for infilling along the I-495 berm and southwest bank of Rock Creek. Most STPs fell within the area of wetland plants and contained soils gleying from oversaturation with water. These contained two or three strata, with Stratum I consisting of a dark gray (10YR 4/1) clay or dark yellowish brown (10YR 4/6) sandy loam wet A-horizon. Stratum II consisted of a dark greyish brown (2.5Y 4/2) sandy clay loam hydric alluvium that extended between 1.1-2.2 ft below surface. Stratum III was a dark brown (10YR 3/3) silty clay alluvium that was terminated at the water table 1.5-2.1 ft below surface.

Three STPs displayed a non-hydric floodplain profile, containing two or three strata, with Stratum I consisting of a brown (10YR 4/3) silt loam O-horizon and Stratum II consisting of a brownish yellow (10YR 6/6) or brown (7.5 YR 5/4) silt loam A-horizon that transitioned between 0.3-1.7 ft below surface to a yellowish brown (10YR 5/6) silt loam alluvium that extended to 3.0 ft below ground surface. Five STPs excavated along the bank of Rock Creek in the western portion of the study area contained multiple layers of sand or clay fill with 20 percent gravel, likely deposited when the creek channel was modified and stabilized. STPs with fill were terminated at gravel impasses around 2.0 ft below surface.

Material observed in Area S-34 consisted of modern materials, such as plastic and modern bottle glass, that were discarded in the field. The results of the investigation indicate that Area S-34 has been significantly impacted by the re-channelization of Rock Creek during the construction of I-495. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. Based on disturbance, no further work is recommended in Area S-34. *Area S-34 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.29 Area S-35

Area S-35 is a 0.63-acre Phase I survey area again situated on the floodplain of Rock Creek, immediately north of Survey Area S-34 on the opposite side of the creek (**Appendix E, Page 12**). Ten STPs were excavated in Area S-35, none of which were positive for archaeological cultural material. It is bounded to the south by Rock Creek and to the west by a stormwater management feature along Jonesville Road/Stonybrook Drive. It is situated in a level portion of the Rock Creek floodplain about 192 ft (58 m) amsl. The NRCS documents Codorus silt loam in this survey area (Web Soil Survey 2015). Comparison with early twentieth-century USGS maps suggest that the floodplain has not been significantly modified during the twentieth century, however aerial photographs taken before and after the construction of I-495 show that the Rock Creek channel was straightened along the base of the highway berm, and shovel testing showed disturbed soil profiles.

Area S-35 falls within Rock Creek Park, administered by the M-NCPPC, Montgomery County. It is located between the I-495 westbound lanes and Beach Drive southwest of the intersection between Beach Drive and Jonesville Road/Stonybrook Drive (see **Figure 96**). Rock Creek passes along the southern boundary of this area, with large rocks placed along the banks to artificially stabilize the stream bed. The northeastern portion of this area is within a wet area disturbed by construction of a buried water main and valve (**Figure 97**) and a gravel drive that cuts southeast across the eastern portion of Area S-35 from Beach Drive. The area is wooded and partially covered with wetland plants. Slopes in this area range from 0-3 percent. Two transects were excavated between the wet area and Rock Creek. A total of 10 primary STPs were excavated at 50-ft (15-m) intervals in Area S-35.

Figure 97. Water retention pond in northeastern portion of Area S-35, showing gravel drive in foreground, facing northeast



Stratigraphy within the survey area varied with the eastern portion near the gravel access road and water retention pond displaying signs of disturbance and the western portion within the unimproved floodplain displaying a profile consistent with a poorly drained floodplain area. In the eastern portion, STPs generally contained two fill layers that terminated in a gravel impasse 0.7-1.0 ft below surface. Fill outside the artificial wetland consisted of very dark grayish brown (10YR 3/2) to dark brown (10YR 4/4 or 10YR 4/6). Fill within the artificial wetland was somewhat gleyed, ranging from dark grayish brown (2.5Y 4/2) olive gray (5Y 5/2). Stratigraphy within the western portion consisted of two or three strata over a water table reached between 2.0 and 2.2 ft below surface. A typical profile consisted of a dark grayish brown (10YR 4/2) wet silt A-horizon, a brown (10YR 5/3) wet silty clay loam alluvium, and a hydric gray (10YR 5/1) silty clay alluvium.

Material observed in the 10 STPs in Area S-35 consisted of modern materials that were discarded in the field. The results of this investigation indicate that the portion of this area around the gravel access road has been disturbed by the installation of an artificial water retention pond and buried water line. The intact floodplain soils are hydric. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. Based on disturbance and low archaeological potential, no further work is recommended in Area S-35 and if future minor LOD changes are proposed in and around S-35, no further work is recommended as there is little or no potential to impact significant archaeological resources. *Area S-35 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.30 Area S-36

Area S-36 is a 3.15-acre limited survey area located between a residential neighborhood and [REDACTED] [REDACTED] (Appendix E, Page 13). Sixty-seven STPs were excavated in Area S-36, five of which contained historic artifacts. A further four STPs in the floodplain contained modern materials that were discarded in the lab [REDACTED]. The NRCS documents Glenelg silt loam, Glenelg-Urban complex, Hatboro silt loam, and Brinklow-Blocktown channery silt loam in this area (Web Soil Survey 2015). Stratigraphy in the upland area roughly matches the expected Glenelg series pedon, which generally consists of A- or Ap-horizon over a shallow (less than 1.0-ft deep) transition to a Bt-horizon, sometimes with an intervening E-horizon. Hatboro soils are poorly drained floodplain soils characterized by a succession of hydric Bg-horizons, roughly matching what was observed in the floodplain. Early twentieth-century USGS maps show the hillslope in this area roughly matching its modern shape, although the areas downslope and upslope from it have been disturbed by residential development and highway construction, respectively.

Area S-36 is within a wooded park [REDACTED] (Figure 98). Area S-36 falls entirely within M-NCPPC, Montgomery County property. [REDACTED]

[REDACTED] It was covered with underbrush, shrubs, small trees, and sporadic sections of wetland vegetation. The ground surface had moderate amounts of litter, the result of either casual disposal or flood deposition. The majority of the survey area [REDACTED], was a wooded upland with light to thick underbrush. Slopes in this area range from 3-25 percent. Three transects of STPs were excavated at 50-ft (15-m) intervals [REDACTED]. A total of 67 STPs was excavated in Area S-36, including 38 primary STPs and 29 radial STPs.

Soils in the upland portions of Area S-36 contained three strata, with slight differences in color across the western and central parts of the area. Stratum I consisted of a dark yellowish brown (10YR 4/4) loam O-horizon extending 0.2 ft below ground surface, overlying Stratum II, a yellowish red (5YR 5/6) silt loam A-horizon that reached 0.8 ft below the ground surface. The final stratum was a red to yellowish red (2.5YR 4/6 to 5YR 5/8) silt loam subsoil extending to the base of excavation around 1.3-1.5 ft below ground surface. Soils in the central section of the survey area followed a similar pattern, but Stratum II was a brown (7.5YR 4/4 to 7.5YR 5/4) clay loam A-horizon and Stratum II was a strong brown (7.5YR 5/8) clay loam subsoil.

The easternmost section [REDACTED] comprised alluvial deposits. Stratum I was a dark greyish brown (10YR 4/2) loam observed at 0.4 ft below ground surface overlaying a gray (10YR 5/1) silt loam that reached 2.0 ft below ground surface. The final stratum consisted of a grayish

brown (2.5Y 5/2) to olive brown (2.5Y 4/6) silt loam, extending to the base of excavation at 3.0 ft below ground surface.

One new archaeological site was identified in Area S-36, Site 18MO756 (Sligo Creek Site 1). In addition, a number of early twentieth-century artifacts, including a plastic button, a wire nail, a piece of clear machine-made bottle glass, and unidentifiable metal, were retained. These materials were recovered from alluvial contexts and do not represent an intact primary archaeological deposit. No further work is recommended for Area S-36 within the CSB examined at the time of the Phase I survey. *Area S-36 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.30.1 18MO756 (Sligo Creek Site 1)

Site 18MO756 is a historic artifact scatter associated with a possible well feature [REDACTED]. The site lies between [REDACTED].

[REDACTED] (Figure 99). [REDACTED]

[REDACTED] The ground surface had moderate amounts of litter. A total of 15 STPs were excavated in vicinity of the site, five of which were positive for cultural material. A total of four artifacts were recovered other than oyster shell.

Field Results

Soils in the site contained three strata, with slight variations in color across the eastern and western portions of the site (Figure 100). In the western portion of the site, Stratum I consisted of a dark yellowish brown (10YR 4/4) loam O-horizon extending 0.2 ft below ground surface, overlying Stratum II, a yellowish red (5YR 5/6) silt loam A-horizon that reached 0.8 ft below the ground surface. Stratum III was a red to yellowish red (2.5YR 4/6 to 5YR 5/8) silt loam subsoil extending to the base of excavation around 1.3-1.5 ft below ground surface. In the eastern portion of the site, the three strata reached the same depths, but they were less red in color. Stratum II was a brown (7.5YR 4/4 to 7.5YR 5/4) clay loam A-horizon and Stratum II was a strong brown (7.5YR 5/8) clay loam subsoil. The stratigraphy across most of the site appears intact. STP 36-1-3-N-25, the northwesternmost STP excavated at the site, contained five layers of artificial fill. One piece of unidentifiable metal and one piece of machine-made bottle glass were recovered from disturbed contexts in this STP. No plowzone was encountered on the site. The remains of a dry-laid circular stone feature, possibly a well, were observed in the vicinity of STP 36-2-7 (Figure 101). This feature suggests the possibility that there may have been a structure nearby, but no other features were observed in the narrow area between the slope and the roadway. The only artifacts found in STP 36-2-7 were oyster shell. This oyster shell was found in the direct vicinity of a historic feature and no precontact artifacts were recovered from the surrounding area, suggesting the oyster shell originated from historic rather than precontact consumption. All four artifacts aside from oyster shell were recovered from the second stratum.

Figure 98. Results of the Phase I survey in Area S-36 and S-50

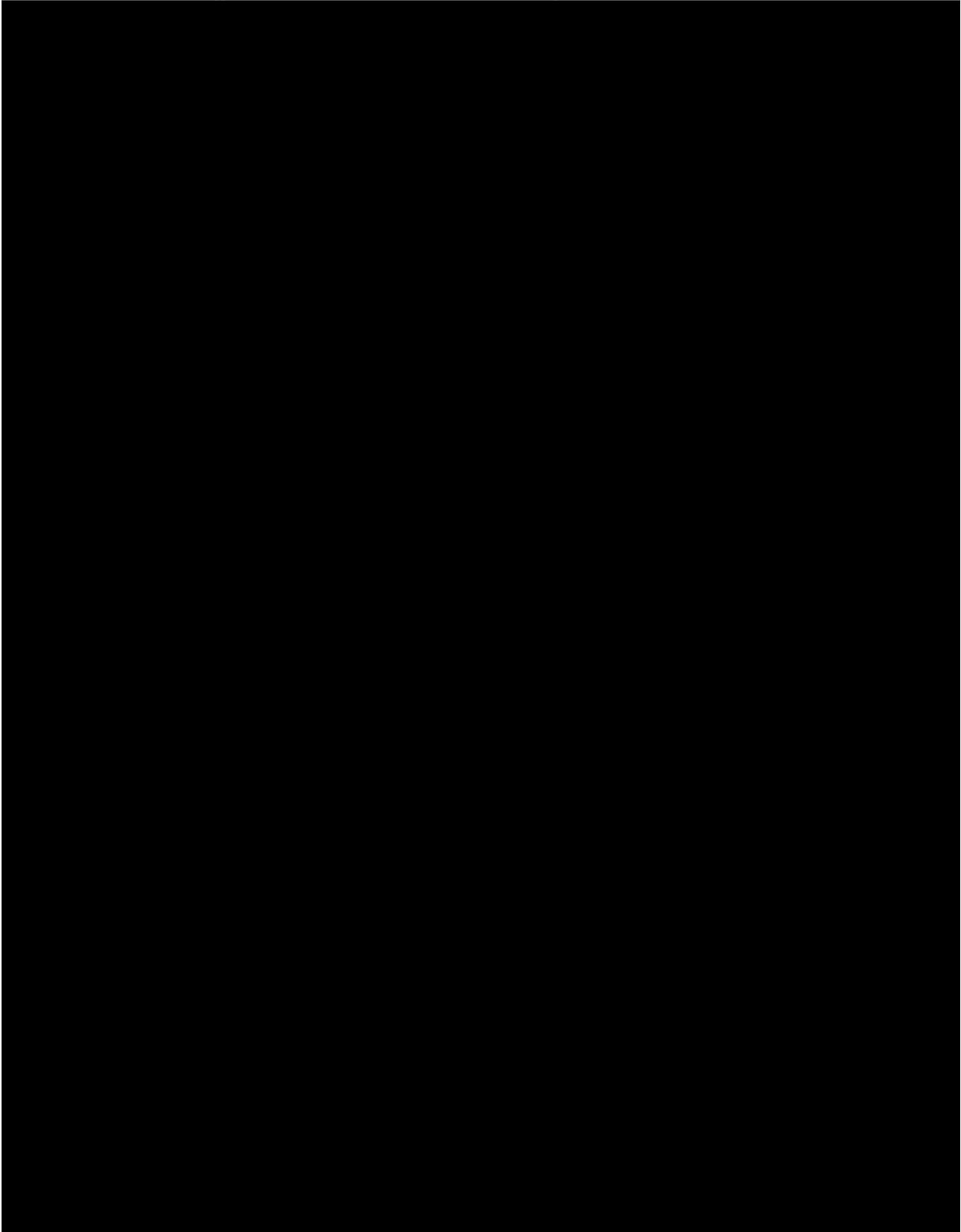


Figure 99. Results of the Phase I survey in 18MO756

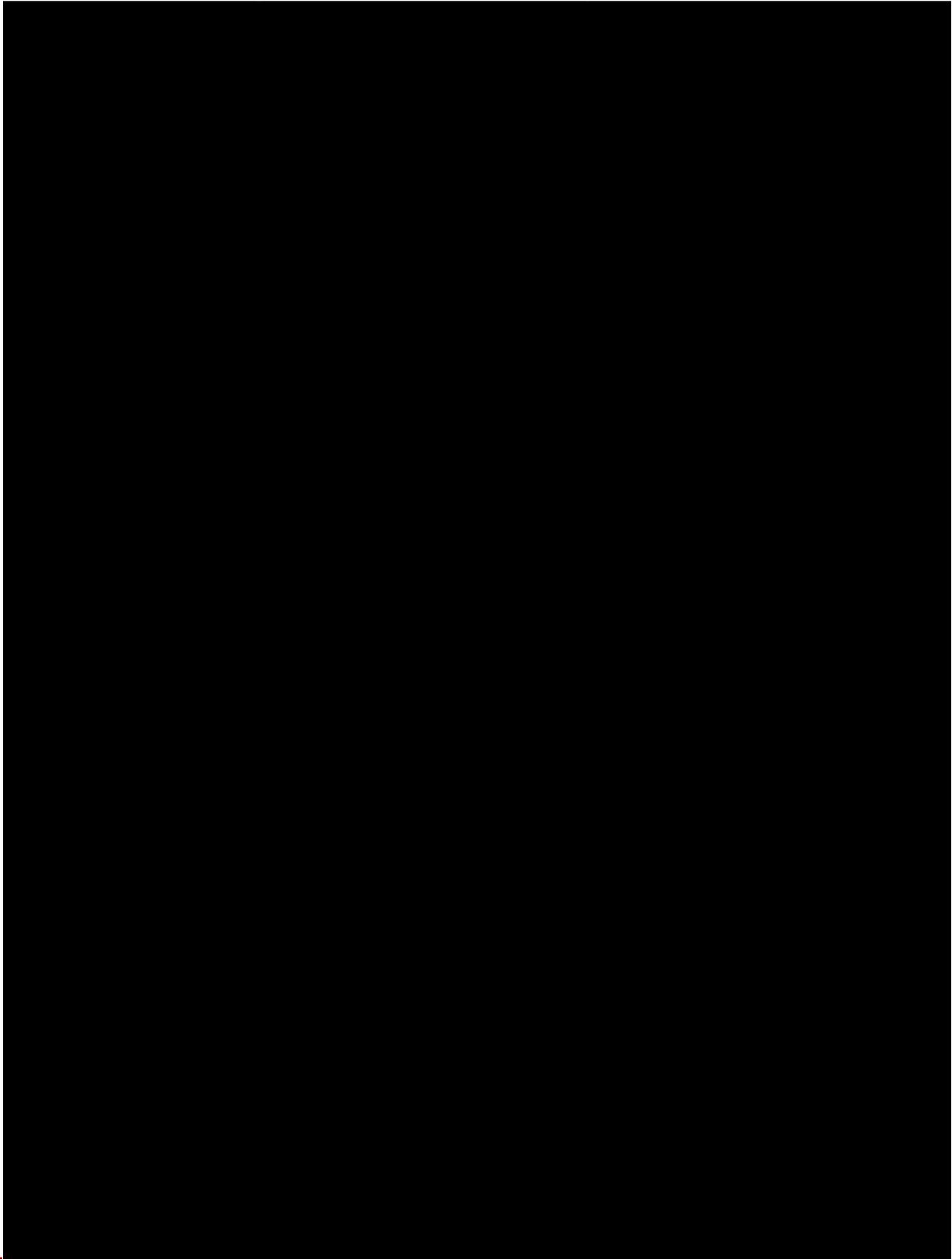


Figure 100. Sample STP profiles at 18MO756

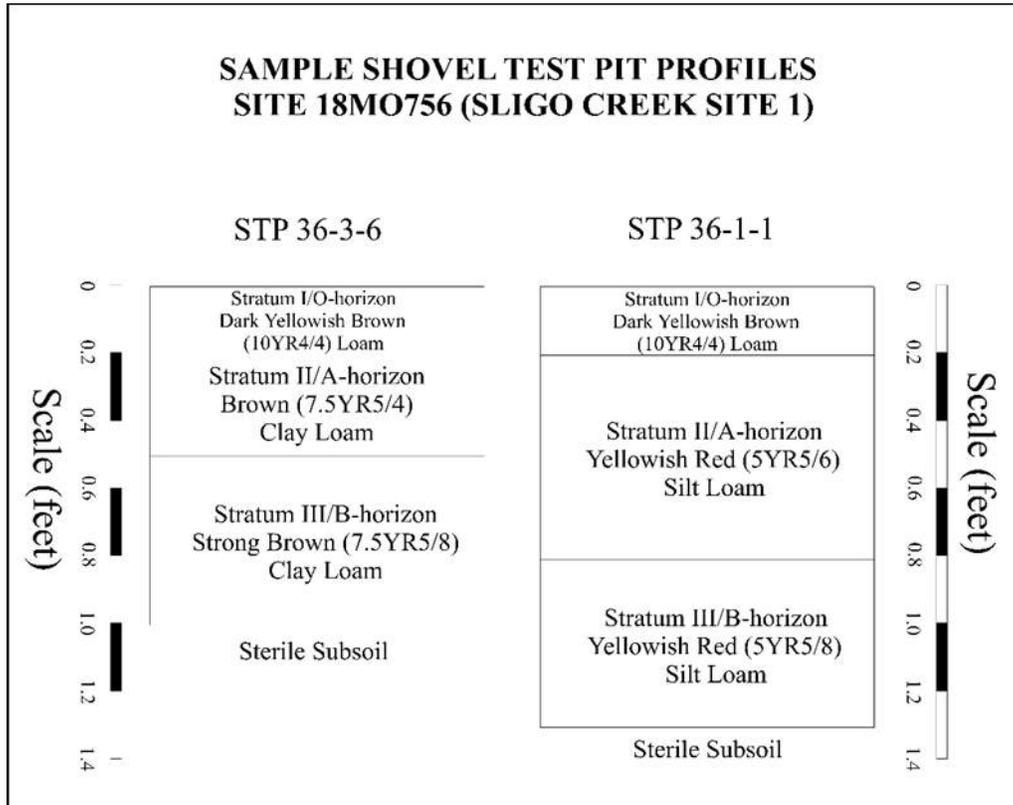
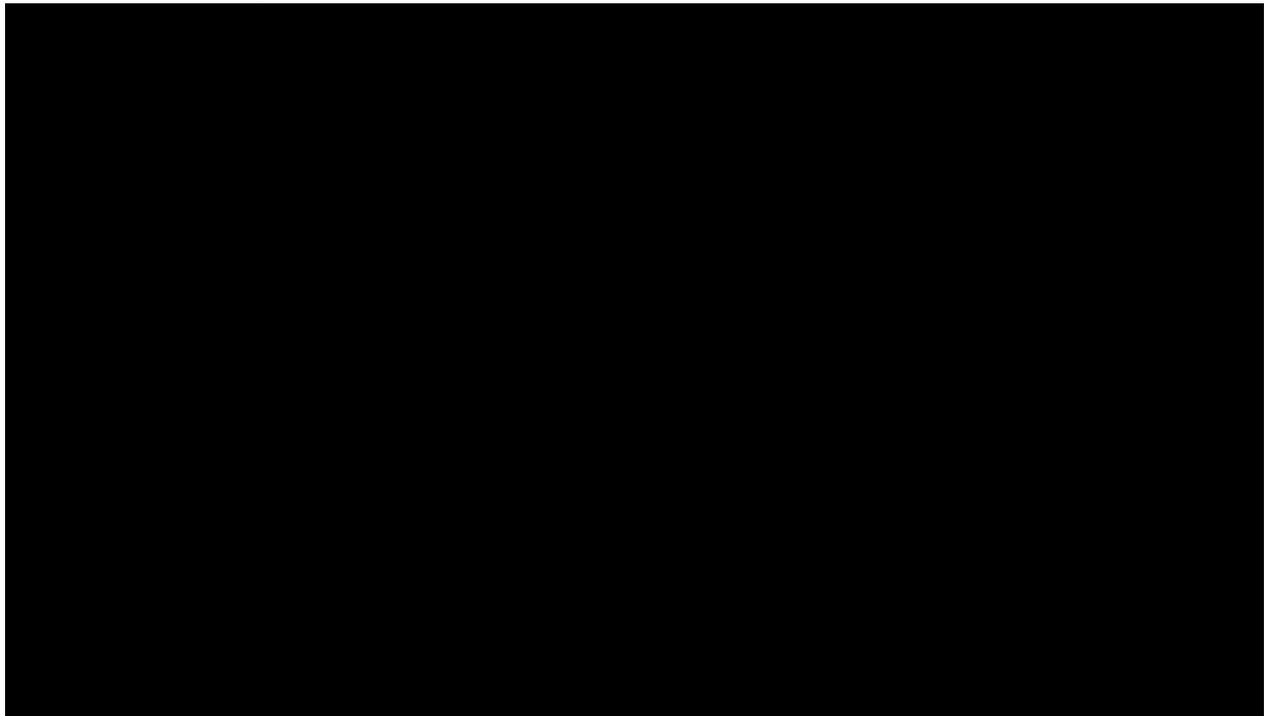


Figure 101. Possible well feature near STP 36-2-7 on site 18MO756



Background research revealed that the study area was originally part of three tracts called Joseph’s Park, Grubby Thicket, and Labyrinth, all of which were originally surveyed in the mid-eighteenth century. The property changed hands numerous times during the nineteenth century, with owners including Mary and Smith Thompson from 1864-1868 and Thomas Riley from 1868 to 1973. Residences belonging to Thompson and Riley are present in the study area vicinity in the 1865 Martenet and Bond Map of Montgomery County and the 1878 Hopkins Atlas of Fifteen Miles Around Washington, D.C, but no buildings are depicted within the study area. Early twentieth-century USGS maps show a house approximately 480 ft (140 m) northwest of the site, [REDACTED].

Aside from oyster shell, four artifacts were recovered: one modern machine-made amber bottle glass fragment, two unidentifiable nail fragments, and one piece of unidentifiable metal (**Table 12; Figure 102**). The artifact assemblage is a low-density historic artifact scatter with little or no potential to provide information important in history. It is uncertain whether the artifacts represent primary deposits.

Machine-made brick and coal were noted on the ground surface but not collected. The landform on which this site was recorded has been truncated on the north by I-495, likely impacting the integrity of any larger archaeological resource that may once have existed in this location. The structure location shown on the USGS (1917) Washington and Vicinity quadrangle has been destroyed by a [REDACTED], and the intervening area is under I-495.

Site 18MO756 is a low-density historic artifact scatter and possible well feature. The stratigraphy includes one to two natural strata over subsoil, except in the northernmost STP on the site (nearest the I-495 ROW) where disturbance was documented. It is possible the relict portion of this site retains some degree of integrity, but the area to the north of the recorded site boundary has been destroyed by interstate highway construction and development. Three artifacts were recovered by testing, and the results of Phase I survey suggest that the site has little or no research potential. Based on poor integrity, this site is recommended not eligible for the NRHP. *Site 18MO756 is now outside the LOD for the Preferred Alternative and would not be affected.*

Table 12. Artifacts recovered from Site 18MO756

Artifact Class	Artifact Type	Count
Architecture	Unidentifiable Nail	2
Kitchen	Machine-made Bottle Fragment	1
	Oyster shell	7
Miscellaneous	Unidentifiable Metal	1
Total		11

Figure 102. Artifacts recovered from Site 18MO756



Left to right: Unidentifiable cut or wrought nail, unidentifiable cut or wrought nail, unidentifiable iron or steel, machine-made amber bottle glass fragment (top), oyster shell (bottom), oyster shell (top), oyster shell (bottom), oyster shell (top), and oyster shell.

4.31 Area S-38

Area S-38 is a 5.72-acre Phase I survey area located between the southbound lanes of I-495 and Edgewood Road (**Appendix E, Page 17**). It is situated on a hillslope overlooking the floodplain of Indian Creek; the stream lies about 1,900 ft (580 m) to the southeast. It lies within 325 ft (100 m) of the southwestern corner of 18PR94, the multi-component Indian Creek V site. A total of 81 STPs was excavated in Area S-38, none of which contained archaeological material. Area S-38 is bounded to the north by the sound barrier of I-495, to the south by Edgewood Road, to the east by 52nd Place, and to the west by a CSX Transportation railroad ROW (**Figure 103**). The NRCS documents Sassafras sandy loam and Udorthents (highway) in Area S-38 (Web Soil Survey 2015). Soils observed in the survey area roughly matched the Sassafras series pedon, which consists of an A- or Ap-horizon over a Bt-horizon, and the modern landform matches the terrain depicted on the early twentieth-century map.

The entirety of Area S-38 falls within M-NCPPC, Prince George's County property between a residential development and the I-495 ROW. Area S-38 is situated on gently rolling terrain about 113 ft (34 m) amsl and gradually slopes downward to its lowest point at 107 ft (32 m) in the eastern portion of the study area. The highest point is the top of a slope at 122 ft (37 m). Much of the area is wooded and possesses minimal undergrowth. The westernmost portion contains a dense pocket of vegetation reaching 3-5 ft (0.91-1.52 m) high. Three transects were excavated at 50-ft intervals across Area S-38 roughly parallel to I-495 and included a total of 81 excavated primary STPs.

Stratigraphy was generally uniform across Area S-38, consisting of a black (10YR 2/1) silt O-horizon over a dark greyish brown (10YR 4/2) or very dark greyish brown (10YR 3/2) silt loam A-horizon transitioning between 0.2-0.6 ft below surface to a strong brown (7.5YR 5/8) or reddish yellow (7.5YR 6/6) clay loam subsoil that extended to the base of excavation at 1.5-2.4 ft. Most STPs were terminated here because they were in a sterile Bt-horizon. Several STPs terminated at the water table. Soils in this area appear to be undisturbed.

Material observed in Area S-38 consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered and no historic or precontact features were observed. The results of the investigation indicate that Area S-38 occupies an undisturbed landform between a residential development and I-495. Site 18PR94 was found not to extend across the I-495 ROW into this survey area. No archaeological sites were identified, and no further work is recommended in Area S-38. *Area S-38 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.32 Area S-40

Area S-40 is a 4.67-acre Phase I survey area [REDACTED] (see **Figure 103**) (**Appendix E, Page 17**). Fifty-three STPs were excavated in Area S-40, nine of which contained historic artifacts. [REDACTED]

[REDACTED] Area S-40 slopes from a high point at 120 ft (37 m) amsl to a low point at 100 ft (30 m) amsl. The NRCS documents Russett-Christiana and Downer-Hammonton complex soils in this study area (Web Soil Survey 2015). Russett-Christiana soils are characterized by an A-horizon over a Bt-horizon, with the transition occurring less than 1.0 ft below surface. Downer-Hammonton soils are characterized by an Ap-horizon over a Bt-horizon, with the transition typically occurring deeper, about 1.5 ft below surface. STPs in the wooded portion of this area conformed to the expected pedon for Russett-Christiana soils, but STPs outside the wooded portion possessed a stratigraphy indicative of cutting and filling. [REDACTED]

The westernmost portion of Area S-40 was wooded and contained felled trees and stockpiles of architectural material. There is a packed gravel drive offering vehicular access. The central section of Area S-40, separated from the woodland by dense overgrowth, was an open field filled with tall grass. [REDACTED] (**Figure 104**). [REDACTED]

[REDACTED] Slopes in this area range from 0-5 percent. Three transects were laid in at 50-ft (15 m) intervals within the western and central portions of this area. The transects were not extended into [REDACTED]. A total of 67 STPs was excavated, including 53 primary STPs and 14 radial STPs.

Figure 103. Results of the Phase I survey in Area S-38 and Area S-40

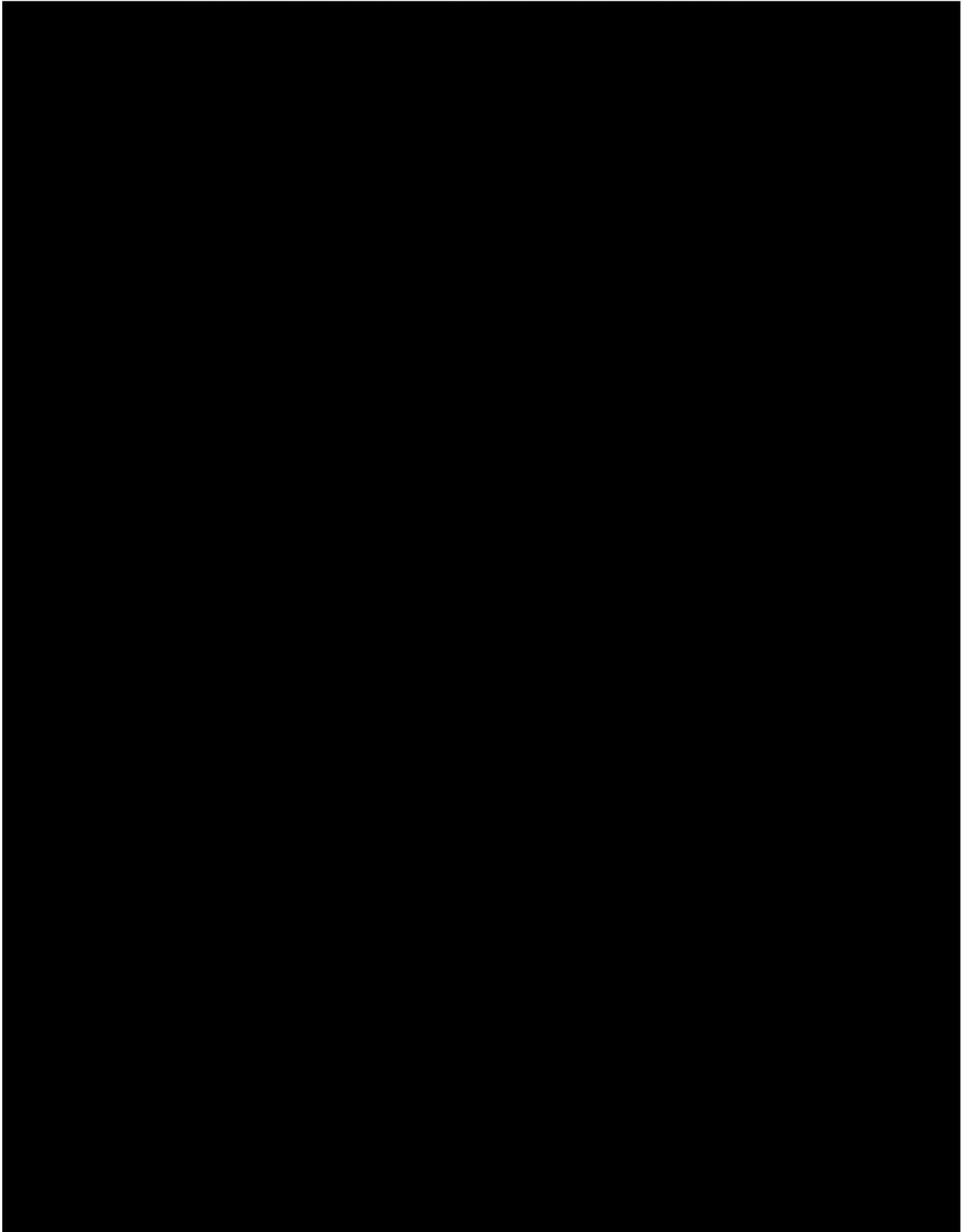
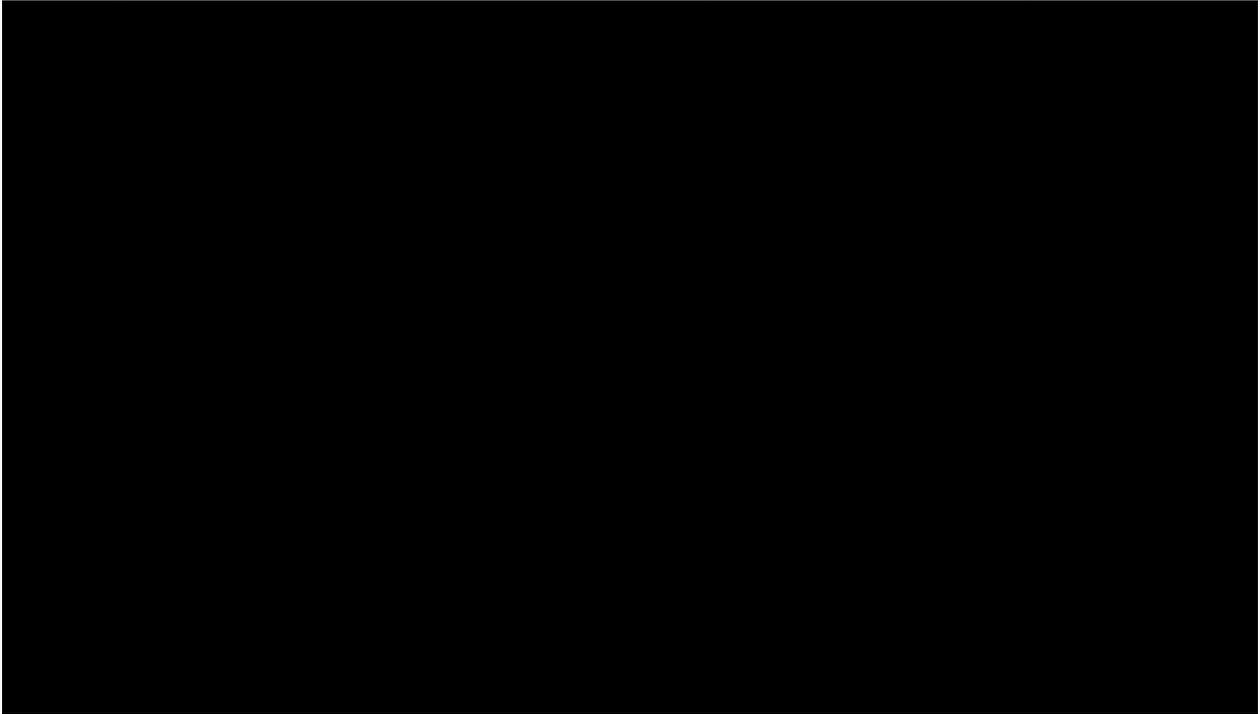


Figure 104. Solar farm located in the southeastern portion of Area S-40, facing southeast



Within the wooded portion of the survey area, the stratigraphy consisted of three strata. Stratum I was typically a very dark brown (10YR 2/2) to black (10YR 2/1) silt loam surficial fill extending to 0.3-0.5 ft below the ground surface. Beneath this Stratum II, a dark brown (10YR 3/3) to dark yellowish brown (10YR 4/4) silt loam Ap-horizon extending to 0.8-1.4 ft below the ground surface. The subsoil was a sandy loam that varied in color from strong brown (7.5YR 4/6) to yellowish brown (10YR 5/8) and was excavated to 1.9 ft below the ground surface before being terminated because Stratum III was a sterile Bt-horizon.

The STPs in the central section the stratigraphy consisted of two strata. The first stratum was a dark yellowish brown (10YR 3/4) sandy loam plowzone or fill horizon, extending to 0.9-1.6 ft below the ground surface. Beneath this was a sandy loam that ranged in color from yellowish brown (10YR 5/6 or 10YR 5/4) to strong brown (7.5YR 4/6 to 5/8). In some STPs, this stratum was very compact, and occasionally contained compact layers of pebbles. The first stratum in the eastern section and second stratum in the western section appear to be plowzone or possibly topsoil fill used to landscape the area during the construction of [REDACTED]. The presence of compacted subsoil mixed with gravel suggests that the soil profile in this area may have been truncated and/or compacted by prior activities, perhaps soil deflation induced by tilling, or past construction activity.

Historic and modern artifacts were present in Area S-40. Modern artifacts, like plastic and modern bottle glass, were noted and discarded in the field. Historic artifacts recovered included milk glass, mold-blown bottle glass, machine-made amethyst bottle glass, window glass, unburned coal, redware ceramics, corroded iron nails, and unidentified iron hardware. A total of nine STPs contained 48 artifacts, including five primary STPs and four radial STPs. The artifacts were all recovered from Stratum I, and artifacts were generally found in STPs where this stratum was thickest. This artifact assemblage relates to a previously

recorded archaeological site, 18PR425. No further work is recommended for Area S-40 within the CSB examined at the time of the Phase I survey. *Area S-40 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.32.1 Prator Farmstead/Area E, Site 2 (18PR425)

Positive STPs from Areas S-40 fall near [REDACTED]. This survey resulted in the expansion of the site [REDACTED] (Figure 105). Site 18PR425 was recorded as the remains of a farmstead occupied from the nineteenth to the early twentieth centuries. It was identified through surface collection and shovel testing at 20-meter intervals in a Phase I survey by Thomas *et al.* (1992). Historic maps indicated two farmsteads were located within this survey area. Site 18PR425 included a scatter of 49 artifacts and several large concrete structural foundations. A comprehensive history of the property, including a chain of title, was undertaken for a 1993 Phase II investigation of this site and several nearby sites (18PR96; 18PR424; and 18PR426) (Thomas *et al.* 1993:4-15 and 4-16). It revealed the site was on land [REDACTED].

The Phase II investigation included close-interval shovel testing and the excavation of mechanical test trenches to identify features within dense concentrations of artifacts. During this testing, an informant reported that the large concrete foundations at Site 18PR425 were the remains of barns constructed by the USDA in the 1930s (Hoffman *et al.* 1993:1-6). The prior Phase II testing revealed a post-Civil War occupation that lacked subsurface integrity and research potential, as it had been disturbed during the construction and destruction of these barns (Hoffman *et al.* 1993:5-1). It was recommended not eligible for the NRHP, and MHT concurred with this determination on March 31, 1993.

Stratigraphy on the site conformed to the general pattern seen throughout [REDACTED], consisting of three strata (Figure 106). Stratum I was a very dark brown (10YR 2/2) to black (10YR 2/1) surficial fill deposit extending to 0.3-0.5 ft below the ground surface. Stratum II was a dark brown (10YR 3/3) to dark yellowish brown (10YR 4/4) silt loam plowzone or fill deposit extending to 0.8-1.4 ft below the ground surface over Stratum III, a brown (7.5YR 4/6) to yellowish brown (10YR 5/8) sandy loam subsoil. Historic and modern artifacts were both present within the site. Modern artifacts included plastic and soda bottle glass in five STPs and were discarded in the field. Historic artifacts recovered included a milk glass canning lid, window glass, unburned coal, redware ceramics, corroded iron nails, amethyst machine-made bottle glass, nineteenth-century ironstone ceramics, and unidentified iron hardware (Table 12; Figure 107). The artifacts were all recovered from Stratum I, which is likely a surface fill deposit postdating the farmstead [REDACTED].

Figure 105. Results from Phase I Survey with corrected and extended boundary of 18PR425

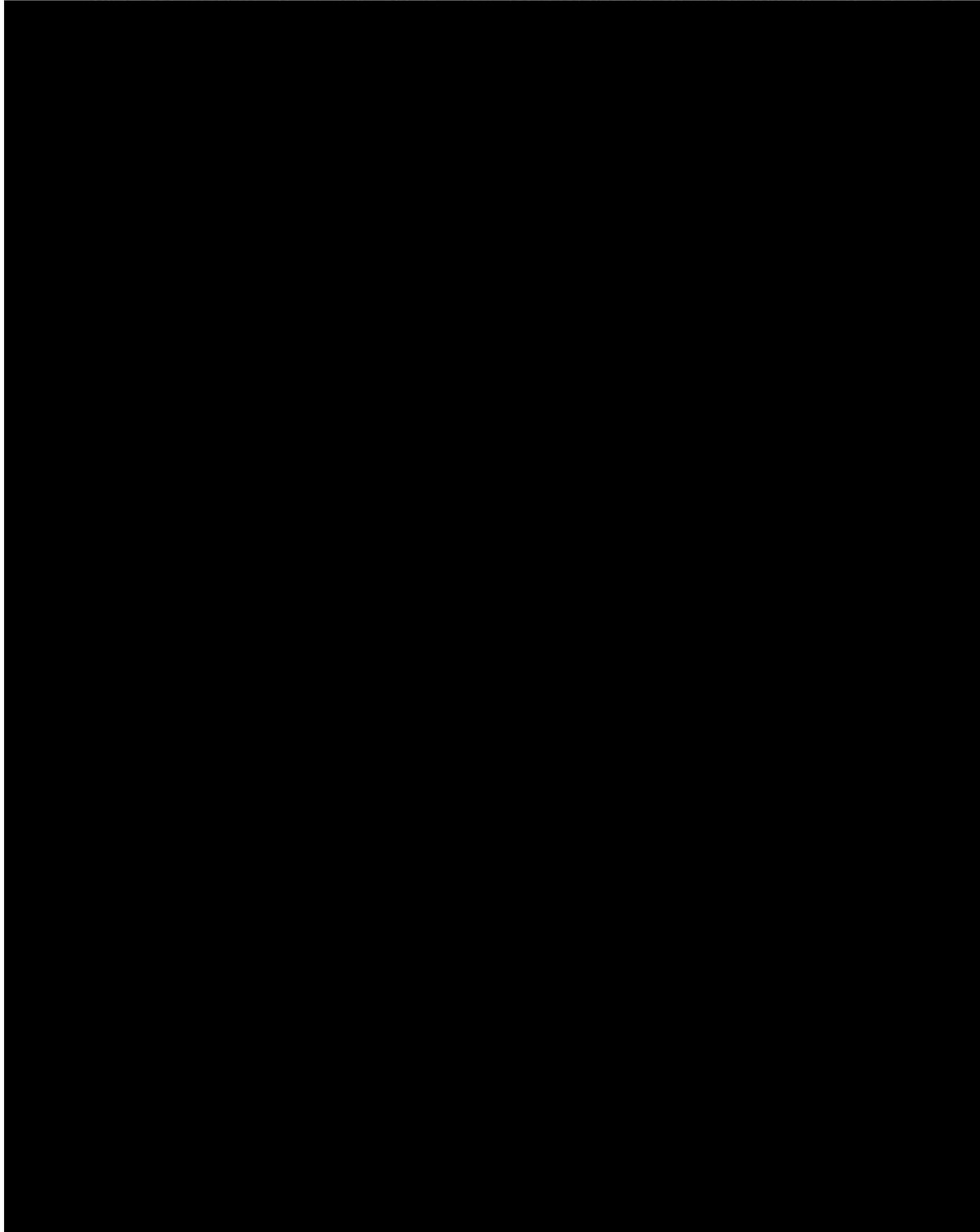


Figure 106. Sample STP profiles from 18PR425

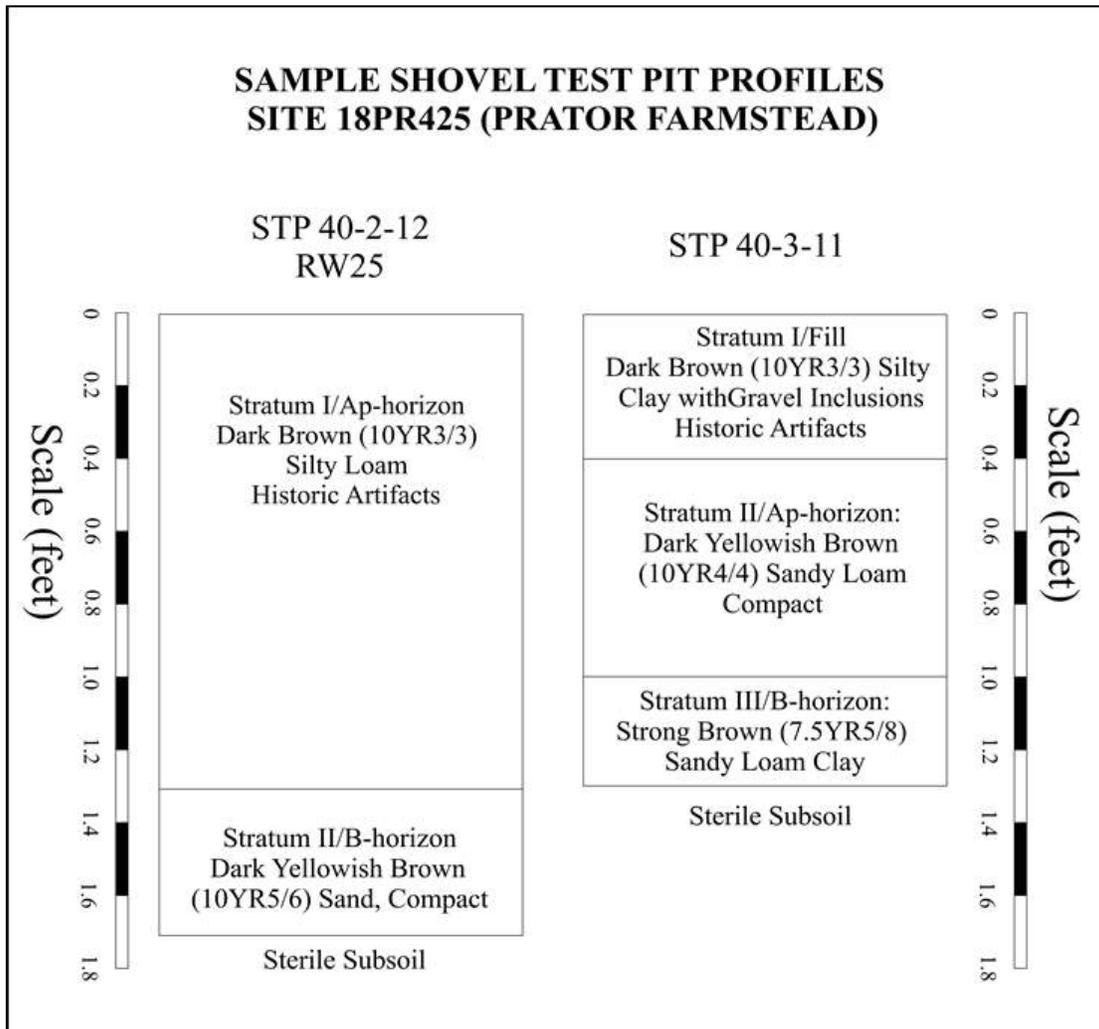


Table 13. Artifacts recovered from 18PR425

Artifact Class	Artifact Type	Count
Architectural	Brick	2
	Unidentifiable Nail	7
	Architectural Fastener	1
Kitchen	Machine-made Bottle Fragment	14
	Machine-made, Decorated or Embossed Bottle Fragment	4
	Flat Window Glass	10
	Miscellaneous Domestic Glass	2
	Unidentified Glass Bottle Fragment	1
	Gardening Ceramic	1

Artifact Class	Artifact Type	Count
	19 th Century Ironstone	1
Miscellaneous	Coal	2
	Metal Hardware	1
	Metal Projectile	1
	Unidentifiable Metal	1
Total		48

Figure 107. Artifacts from 18PR425, including nineteenth-century ironstone, amethyst bottle glass, a milk glass canning lid fragment, part of a terra cotta flower pot, and a shotgun shell



Left to right: 19th century ironstone plain, amethyst bottle glass fragment (top), amethyst bottle glass fragment (bottom), amethyst bottle glass fragment (bottom), milk glass canning lid liner, terra cotta garden ceramic, and shotgun shell.

The artifacts recovered from Area S-40 resembles the assemblage recovered by the previous studies, confirming a ninetieth and early-twentieth century date for the site. Foundations identified during the previous work were not observed during this Phase I survey, either because they were located outside the study area or because they had been demolished. The Phase II investigation of this site determined that the twentieth-century demolition of the structures disturbed the archaeological remains and compromised the integrity of the site. The current study produced similar results and recovered artifacts from disturbed contexts. The results of this survey are in agreement with the 1993 assessment of Site 18PR425 as not eligible for the NRHP. No further work is recommended. *Site 18PR425 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.33 Area S-41

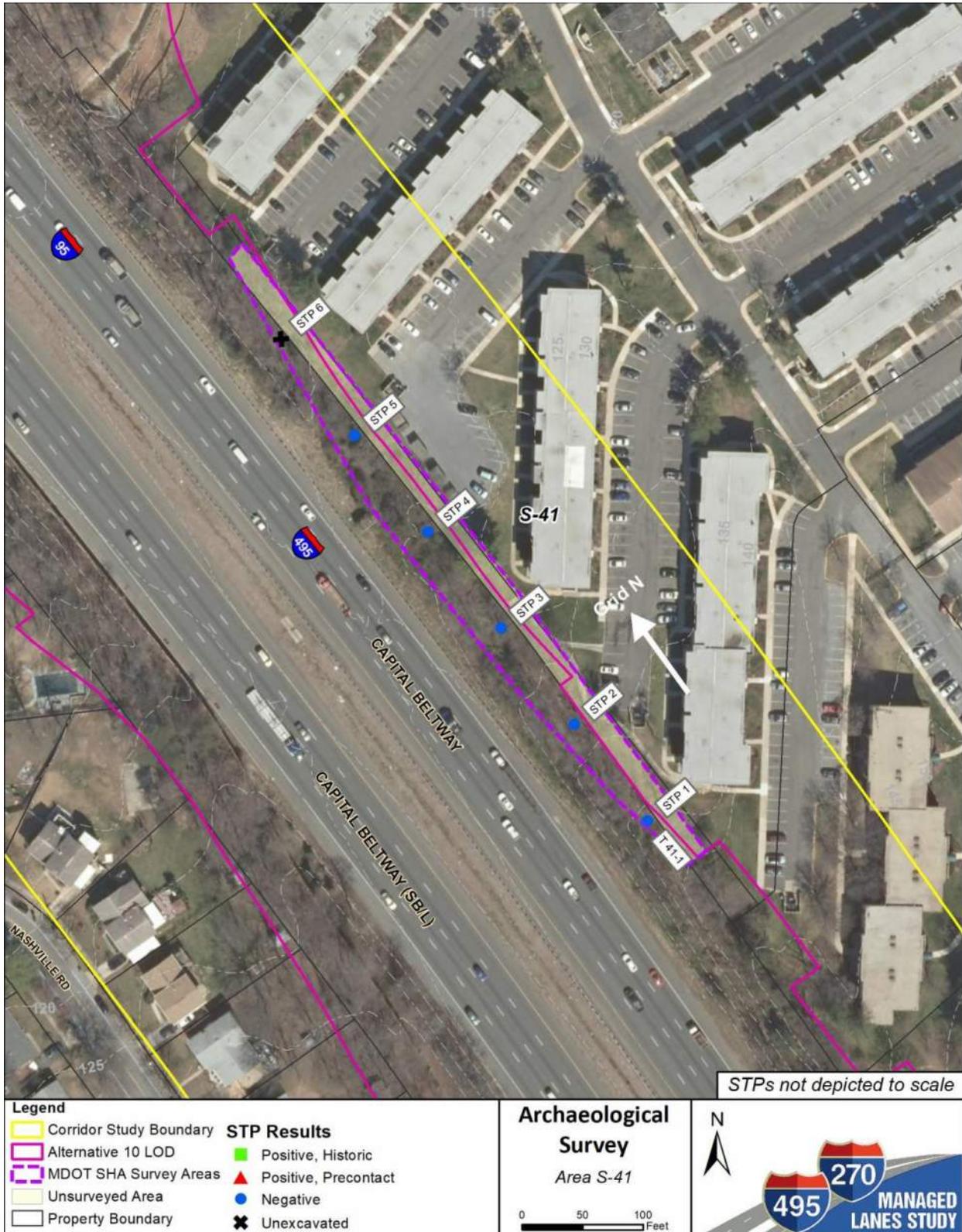
Area S-41 is a 0.58-acre limited survey area located between the Hanover Apartments complex and the I-495 northbound lanes (**Figure 108**) (**Appendix E, Page 20**). It is located on a slope overlooking an unnamed tributary to Brier Ditch. S-41 is roughly 70 ft (21 m) wide, bound to the west by a drainage ditch paralleling I-495 and to the east by parking lots and apartment structures. Most of Area S-41 falls within MDOT SHA ROW, with a 20-ft (6-m) strip lying within property owned by the City of Greenbelt. The City of Greenbelt did not provide permission to test their property and all testing in this survey area was done within the MDOT SHA ROW fence. The NRCS documented Udorthents (highway) and Beltsville-Urban complex soils in this area, both of which are usually cut and/or filled or otherwise artificially modified (Web Soil Survey 2015). Comparing this area to early twentieth-century USGS maps shows the landform to either side has been significantly modified by highway construction and residential development. A 1963 aerial photograph depicting the highway construction shows that the study area was cut during that effort.

The topography and ground surface of Area S-41 appeared to be artificial, being situated at the top of a berm overlooking I-495 about 125 ft (38 m) amsl. The berm slopes downward slightly from south to north, remaining roughly level with the land occupied by adjoining apartment complex. It is separated from the apartment complex by a well-maintained ROW fence. Midway through the area, it is crosscut by a north-south running ditch. The area is wooded and covered in dense undergrowth. One transect was laid in at 100-ft (30-m) intervals roughly parallel to I-495 in Area S-41 to determine whether the area had any potential for archaeological resources. A total of five primary STPs was excavated in Area S-41.

Stratigraphy in Area S-41 consistently displayed signs of disturbance and infilling. Two strata were observed, the first of which was a surficial fill consisting of black (10YR 2/1) or dark yellowish brown (10YR 4/4) silt loam. The underlying fill varied, but generally consisted of a mottled combination of yellowish red (5YR 6/6), strong brown (7.5YR 5/6), yellowish brown (10YR 5/6), or olive brown (2.5Y 4/4) highly compacted clay. These STPs were excavated to 0.9-1.2 ft below surface before a gravel impasse was reached in each of them. Area S-41 does not represent an intact soil context and lacks the potential to contain intact subsurface archaeological deposits.

Material observed in Area S-41 consisted of modern materials, such as plastic, asphalt, and a whole modern bottle, that were discarded in the field. No historic or precontact artifacts were encountered and no historic or precontact features were observed. No archaeological sites were identified. Area S-41 was less than 100 ft (30 m) wide, meaning one transect provided adequate coverage despite the lack of permission to access the City of Greenbelt portion. The entire area was found to be disturbed, corroborating what is shown in aerial photographs of this area. No further work is recommended in Area S-41. *Area S-41 is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 108. Results of the Phase I survey in Area S-41



4.34 Area S-43

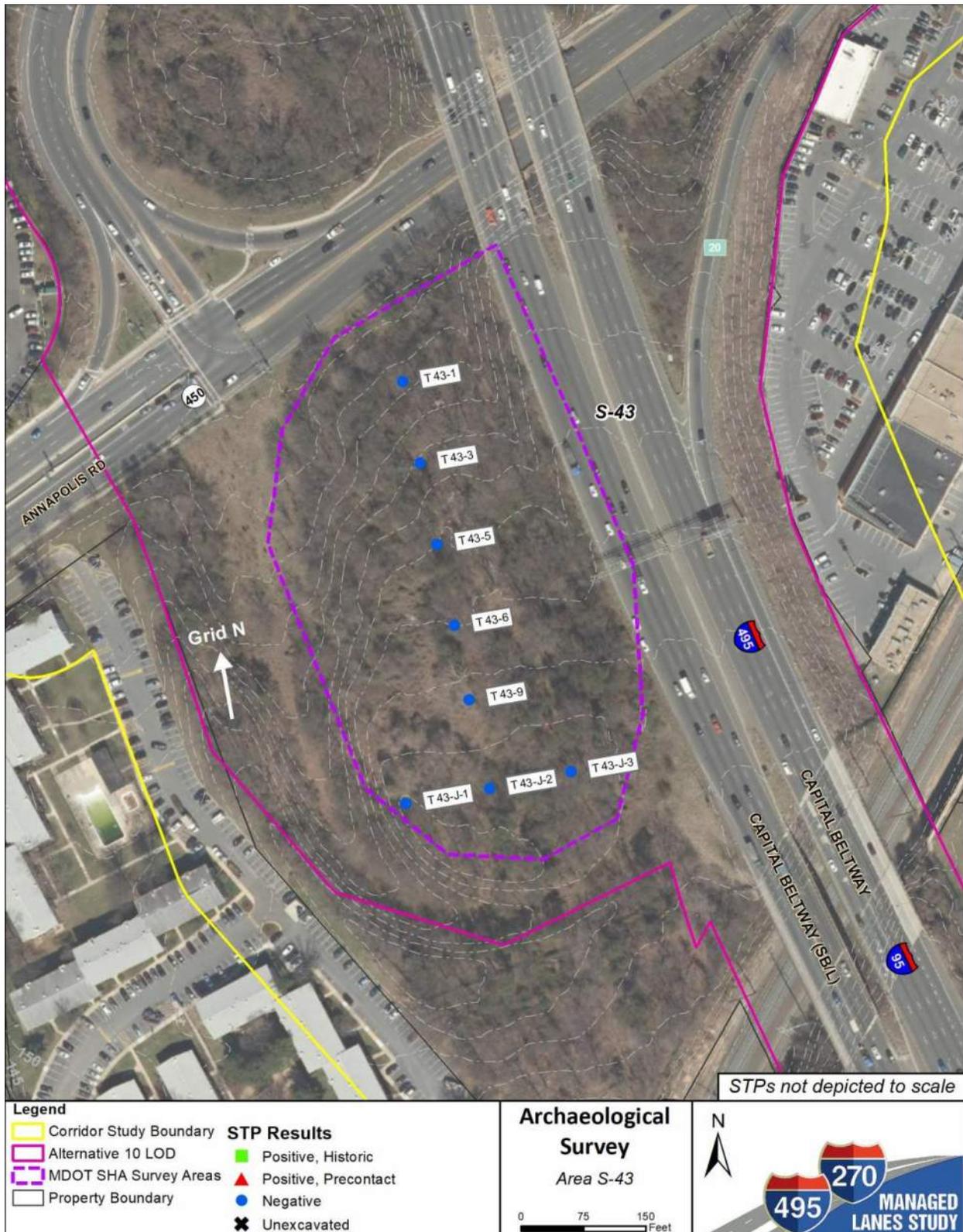
Area S-43 is a limited survey area occupying 5.33 acres between the I-495 eastbound lanes and the Carrollton Manor Apartments on the south side of MD-450/Annapolis Road (**Figure 109**) (**Appendix E, Page 21**). The area is a former cloverleaf for Exit 20 that was demolished between 1993 and 2002. It is roughly bounded to the east by a ditch paralleling I-495, to the south by an AMTRAK rail ROW, to the west by the Carrollton Manor Apartments parking lot, and to the north by MD-450/Annapolis Road. The NRCS documents Udorthents (highway) in this survey area, which is generally cut and filled with gravelly clay deposits (Web Soil Survey 2015). Early twentieth-century USGS maps show this area as a gentle hillslope descending to a stream bed 300 ft (100 m) to the west, which does not match the current landform. A 1964 aerial showing the recently constructed cloverleaf interchange between I-495 and MD-450/Annapolis Road depicts the area as cut and filled, corroborating the NRCS documentation of Udorthents soils in this area.

Area S-43 falls entirely within MDOT SHA ROW. It is situated on a flat, ovoid landform 167 ft (51 m) amsl. This landform is set 16-20 ft (5-6 m) above the surrounding area and the sharp slopes on its edges strongly suggest it is artificial. Markings for a buried sewer line run along the base of the landform. Area S-43 is wooded and has dense undergrowth. An active homeless camp dispersed across the entire landform was encountered during the survey. It included at least two large dumps and one campsite joined by footpaths. Slopes in this area range from 0-65 percent. The archaeological assessment identified this as a limited survey area. Two transects of STPs were excavated at 100 ft (30 m) intervals to ascertain whether the area was disturbed, with one oriented north-south along the center of the landform and one oriented east-west along the southern edge of the landform. A total of eight STPs was excavated in Area S-43.

Stratigraphy consisted of two or three compact fill layers. The fill consisted of a 0.1-0.3 ft-thick deposit of dark brown (10YR 3/3) compacted silt loam over a variegated compacted base fill that ranged from pale brown (10YR 6/8) to strong brown (7.5YR 5/6) in color and was usually noted as a silty clay loam, clay loam, or clay. These highly compacted fill layers were excavated to a depth of 0.8-1.0 ft below surface before being terminated due to gravel impasses. The second stratum in several STPs was noted as having asphalt inclusions, suggesting that it represents fill or has been graded during prior construction. A full Phase I testing strategy was deemed unnecessary based on these results.

Material observed in Area S-43 consisted of modern materials, such as asphalt, plastic, and modern bottle glass, that were discarded in the field. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. The results of the survey confirm the deposition of modern fill soils across the area and corroborate NRCS documentation of the landform consisting of Udorthents (highway) soils, meaning this landform possesses no notable potential for archaeological material. No further work is recommended in Area S-43. *Area S-43 is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 109. Results of the Phase I survey in Area S-43



4.35 Area S-45

Area S-45 is a 2.53-acre Phase I survey area located between I-495 and Harry S. Truman Drive south of the interchange between I-495 and Central Avenue/MD 214 (**Figure 110**) (**Appendix E, Page 25**). It begins where I-495 spans the Southwest Branch of the Patuxent River and extends 1,440 ft (439 m) south along the eastern edge of I-495, ranging from 75 ft (23 m) to 110 ft (361 m) in width. Twenty-seven STPs were excavated in Area S-45, none of which contained precontact or historic cultural material. Area S-45 falls in a broad floodplain at the foot of a hillslope rising slightly above the floodplain. The NRCS documents Widewater and Issue soils in Area S-45, which are floodplain soils that occur in areas with poor drainage and frequently flooding (Web Soil Survey 2015). This results in subsurface horizons that tend to be heavily gleyed and high water tables, which were observed across most of this survey area. Early twentieth-century USGS maps show a slight modification to the landform, with the floodplain appearing to be flattened at the base of the berm carrying I-495 over the floodplain after the highway had been constructed.

Area S-45 falls entirely within the Southwest Branch Stream Valley Park administered by the M-NCPPC, Prince George's County. Area S-45 is situated in a marshy floodplain and adjacent slightly elevated landforms at 104 ft (32 m) amsl. It is wooded with moderate undergrowth and many of the trees on the floodplain are dead or dying. An artificial drainage ditch runs through the southern portion of the area (**Figure 111**). Slopes in this area are near 0 percent. One transect parallel to I-495 was excavated the entire length of Area S-45, with a second transect added where the area widened beyond 100 ft (30 m). A total of 27 primary STPs at 50-ft intervals were excavated.

The stratigraphy generally reflects the wetland nature of this area, with most STPs containing a single stratum of dark grayish brown (10YR 4/2) or dark yellowish brown (10YR 3/4) silt loam A-horizon above the water table, which was reached between 0.6 ft and 1.3 ft, averaging around 1.0 ft deep. STPs on the elevated landforms at the north end contained two strata, consisting of a black (10YR 2/1) or dark brown (10YR 3/3) silty clay loam A-horizon overlying a yellowish brown (10YR 5/4) silty clay loam subsoil at 0.6-1.0 ft below ground surface. STPs on the elevated landforms at the south end were located along the artificial drainage ditch and their profiles displayed evidence of modern disturbance. They contained two or three strata of fill, often over a layer of impassable gravel.

Material observed in Area S-45 consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered and historic or precontact features were observed. The results of the survey show that the floodplain is largely intact apart from a small elevated landform at the southern end, which appears to be artificial. The floodplain soils are consistent with Widewater and Issue soils and contained high water tables, indicating that the remainder of the floodplain has low potential for archaeological resources. No archaeological sites were identified. No further work is recommended in Area S-45. *Area S-45 is now outside the LOD for the Preferred Alternative and would not be affected.*

Figure 110. Results of the Phase I survey in Area S-45

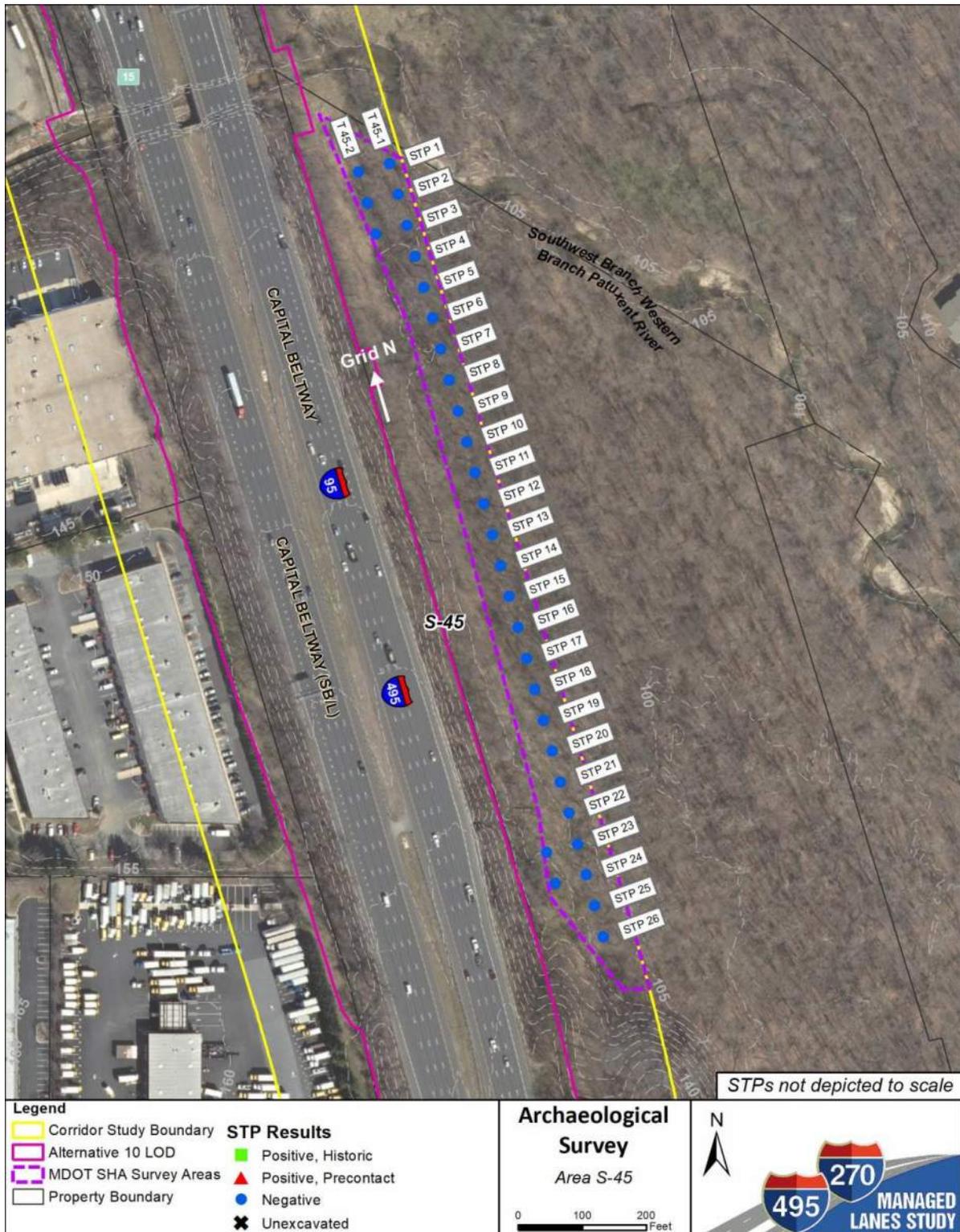


Figure 111. Artificial drainage feature in Area S-45, facing southwest

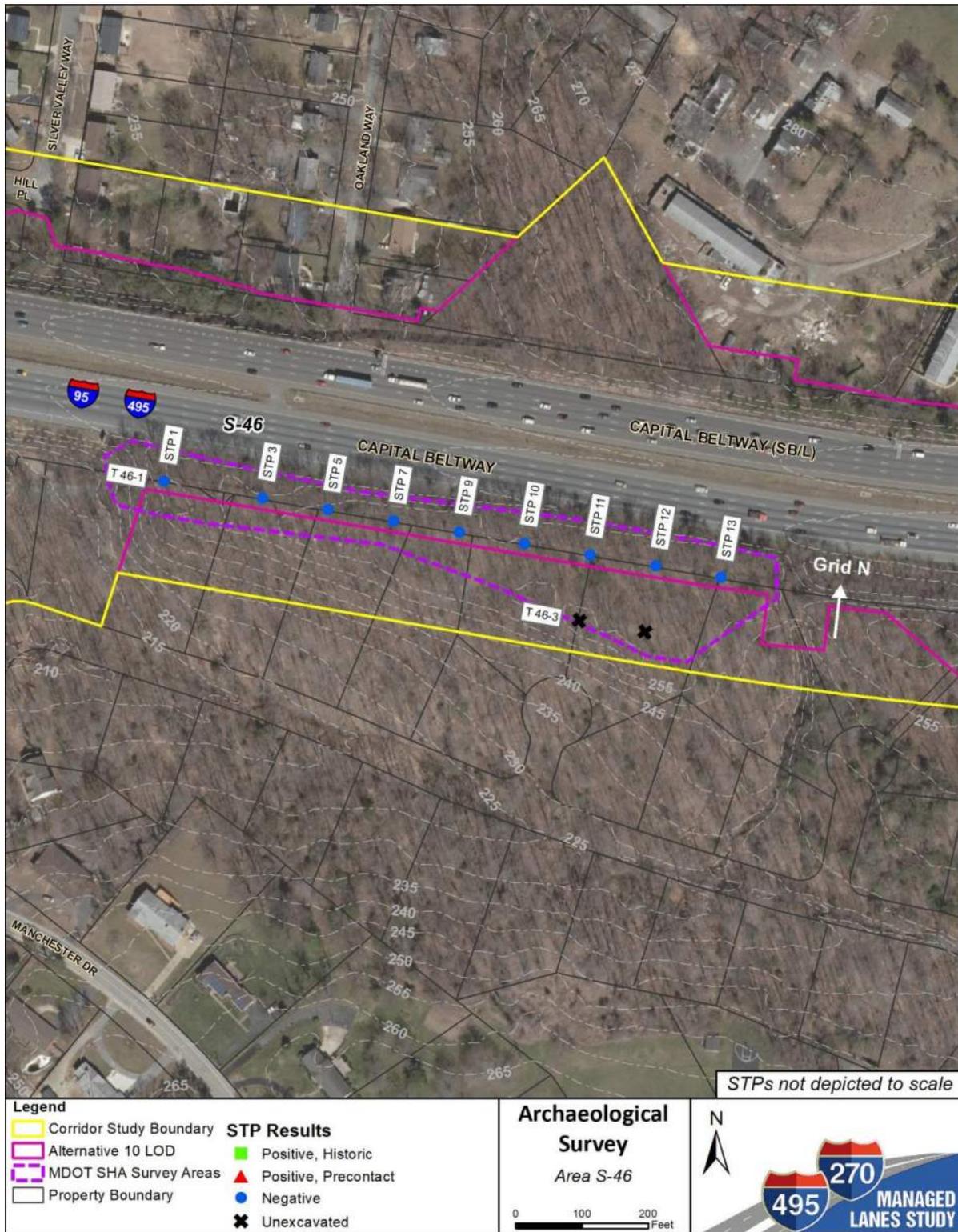


4.36 Area S-46

Area S-46 is a wooded 2.66-acre limited survey area located between a chain-link fence separating the northbound lanes of I-495 and the Manchester Estates neighborhood (**Figure 112**) (**Appendix E, Page 28**). It is situated on sloping terrain on a hillside overlooking an unnamed tributary of Henson Creek. Most of Area S-46 falls within privately owned residential parcels in the Manchester Estates neighborhood. Permission to survey a small portion of the property owned by the Washington Suburban Sanitary Commission (WSSC) could not be secured; however, field observations determined that location contained marked buried utilities and no testing is warranted on the WSSC property. The NRCS documents this area as mostly Croom gravelly sandy loam, with small pockets of Grosstown gravelly sandy loam, Woodstown-Urban land, and Udorthents (highway) (Web Soil Survey 2015). The soils in this area did not conform to the expected Croom series pedon, however the survey identified characteristic Croom subsoils beneath fill disturbance. This indicates the area has likely been cut and filled.

Area S-46 is situated on a hillslope about 257 ft (78 m) amsl. A gravel access road runs parallel with the chain-link fence. The access road occupies a gravel and sand berm that has eroded approximately 150 ft (46 m) south of the road, outside of the study area boundaries. A steep slope in the westernmost portion of the study area leads up to the access road and first transect. Piles of modern debris including cement, brick, and glass bottles were observed along the access road, suggesting that the road may have been used to transport construction equipment and materials. Slopes in this area range from 5-25 percent. One transect was excavated due to observed disturbance. The transect contained nine STPS that extended west to east along the access road in 100 ft (30 m) intervals.

Figure 112. Results of the Phase I survey in Area S-46



Stratigraphy in this area consisted with two or three strata. Soils adjacent to the access road displayed natural stratigraphy under a layer of mulch and highly compacted by vehicular use. The most common profile consisted of Stratum I, a very dark greyish brown (10YR 3/2) silt loam mulch or very dark brown (10YR 2/2) silt loam surficial fill, over Stratum II, a yellowish brown (10YR 5/4) compacted clay or silt loam fill with 40 percent gravel inclusions. Between 0.1-0.5 ft below surface, Stratum III was encountered, consisting of a light brownish gray (10YR 6/2) clay loam or brownish yellow (10YR 6/6) sandy clay at 0.9-1.5 ft to the base of excavation. Stratum III likely represents a truncated subsoil.

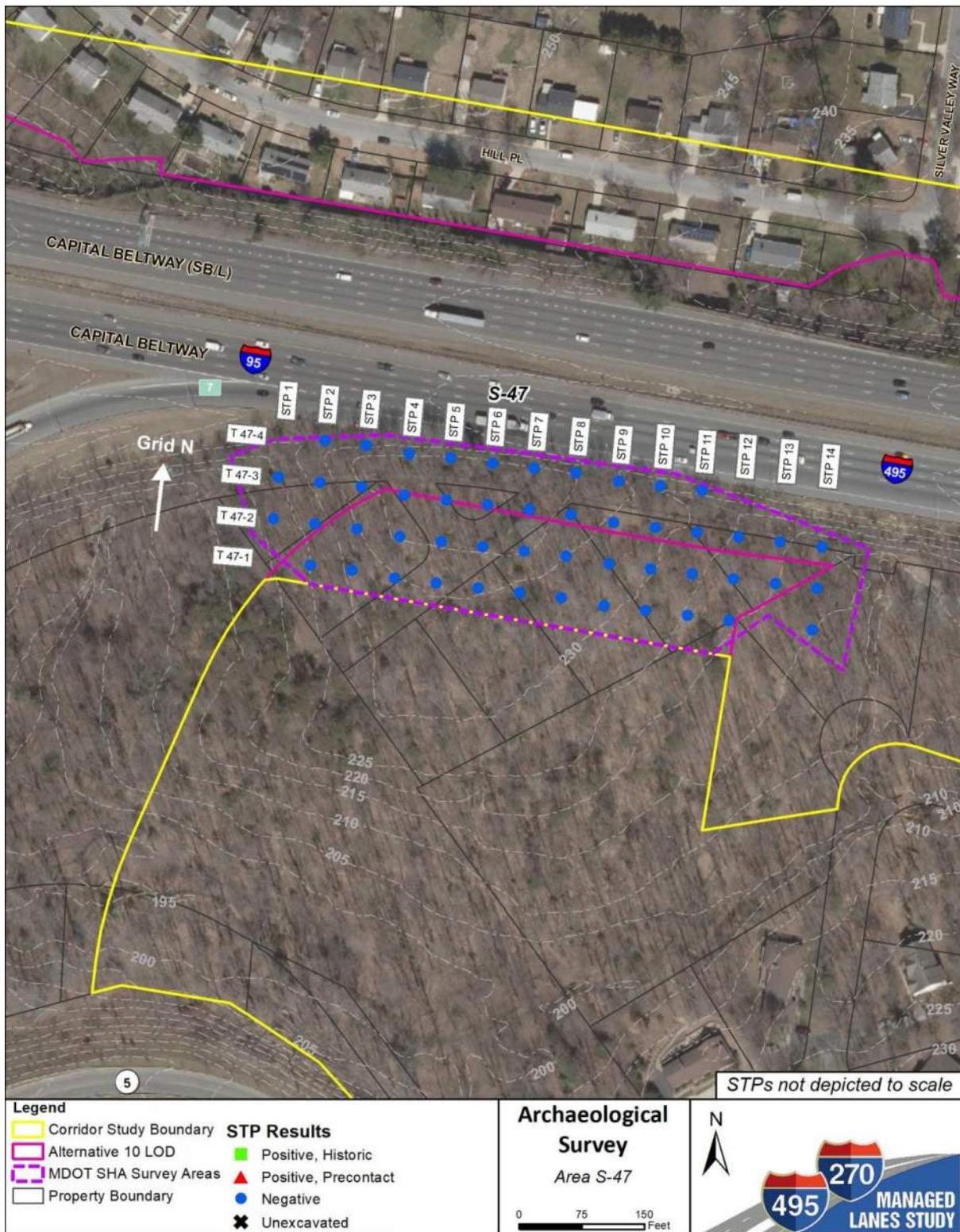
Material observed in Area S-46 consisted of modern materials that were discarded in the field. The results of this survey Area S-46 occupies a landform that has been cut and filled on an artificial berm resting on truncated subsoil. The remainder of Area S-46 occupied slopes exceeding 15 percent that have no archaeological potential. No historic or precontact artifacts were encountered and no historic or precontact features were observed. No archaeological sites were identified, and further work is recommended in Area S-46. *Area S-46 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.37 Area S-47

Area S-47 is a 3.03-acre Phase I survey area located between Manchester Drive and the I-495 eastbound lanes east of the interchange between I-495 and Branch Avenue/MD-5 (**Figure 113**) (**Appendix E, Page 28**). A total of 49 STPs were excavated in Area S-47, none of which was positive for cultural material. This area is situated on a hillside overlooking an unnamed tributary of Henson Creek. Survey Area S-47 is bounded by I-495 to the north, the on-ramp from Branch Avenue to I-495 eastbound to the west, and a steep drainage feature to the east. The NRCS documents Croom gravelly silt loam across most of the survey area, with pockets of Woodstown-Urban and Croom-Marr complex soils in the far eastern portion and a strip of Udorthents (highway) running along the northern boundary (Web Soil Survey 2015). STPs in this area largely conform to the expected Croom series pedon, which consists of an A- or Ap-horizon over an E-horizon and a Bt-horizon characterized by a clay or clay loam texture and high gravel content. The landform setting of this area largely conforms to what is shown on early twentieth-century USGS maps.

Area S-47 falls almost entirely within land administered by the M-NCPPC, Prince George's County, with a small privately-owned area on its eastern terminus. Area S-47 is situated on a gently sloping wooded terrace separated from the I-495 ROW by a chain-link fence. The eastern portion drops off steeply to a drainage feature that carries runoff under I-495, eventually feeding Henson Creek to the west. Elevations range from 243 ft (74 m) amsl in the western portion of Area S-47 to 216 ft (66 m) amsl near the drainage feature. Vegetation mostly consists of deciduous trees with light undergrowth, and an access road runs along the ROW fence. Slopes in Area S-47 range from 2-15 percent. Four transects were laid in across the area roughly parallel to I-495 at 50-ft (15-m) intervals and a total of 49 primary STPs were excavated.

Figure 113. Results of the Phase I survey in Area S-47



Stratigraphy was relatively consistent, with most STPs containing two to four strata. The most common profile consisted of a very dark brown (10YR 2/2) to very dark grayish brown (10YR 4/2) silt loam A-horizon that overlay a pale brown (10YR 6/3) or yellowish brown (10YR 5/8) sandy clay, sandy clay loam, or clay loam subsoil at a depth of 0.3-0.6 ft below surface. These STPs were generally excavated to 1.2-1.4 ft below surface, where they were halted within a sterile Bt-horizon. Two thin strata, which varied in color and texture, were noted in some STPs between the topsoil and the subsoil which appeared to be natural E-horizons. Along the northernmost transect, which correspond to the Udorthents soils documented by the NRCS, clay fill layers were encountered in two STPs (Web Soil Survey 2015). These ended in a gravel impasse 0.8-1.0 ft below surface. In the easternmost portion of the survey area, near the drainage, the subsoil consisted of a dark gray (10YR 4/1) clay and the water table was reached at 1.1 ft below surface.

Material observed in Area S-47 consisted of modern materials such as modern bottle glass that were discarded in the field. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. Area S-47 occupies an undisturbed landform between a stream valley and the I-495 ROW. The surrounding areas are disturbed by the highway or in a deeply incised natural drainage with little or no archaeological potential. No further work is recommended in Area S-47. *Area S-47 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.38 Area S-48

Area S-48 is a 4.30-acre limited survey area located between Newman Road and Henson Creek. It is situated along the southbound lanes of I-495 near Woods Corner (**Figure 114**) (**Appendix E, Page 29**), on hillslopes overlooking Henson Creek. Three transects at 50 ft (15 m) intervals were laid across Area S-48 roughly parallel to I-495. A total of 37 primary STPs was excavated in Area S-48. Early twentieth-century USGS topographic maps show it occupying a wooded ridgetop that descends to a floodplain of Henson Creek. A clearing with a complex of structures was observed in a 1963 historic aerial, but the study area only clips the southern extremity of it. The NRCS documents Croom gravelly silt loam and Udorthents-highway soils within the study area (Web Soil Survey 2015). Soils in this area generally conformed to the expected soil pedon for an uncultivated Croom gravelly silt loam, which consist of an A-horizon overlying a sandy loam Bt-horizon. Udorthents-highway soils were identified in visibly disturbed areas along the southern boundary of the area.

Area S-48 falls almost entirely within land owned by a private firm known as the Chaumet Trust, with a small portion along the southern boundary situated within MDOT SHA ROW. It is situated on a gently rolling upland terrace separated from I-495 by a chain-link ROW fence that drops sharply to a floodplain at the western end of the area. The terrace is situated 223 ft (68 m) amsl and the floodplain is situated 141 ft (43 ft) amsl. The area along the ROW fence is visibly disturbed, with push piles evident throughout (**Figure 115**). Disturbance extends only a short distance into Area S-48. Toward the center, there is a steep slope that leads down to a wetland surrounding Henson Creek. An ATV track traverses the entire length of this area, including the wetland. Vegetation mostly consists of deciduous trees with light undergrowth, with wetland grasses evident in the eastern portion of this area. Slopes observed during testing were generally to 5-15 percent.

Figure 114. Results of the Phase I survey in Area S-48 and S-49

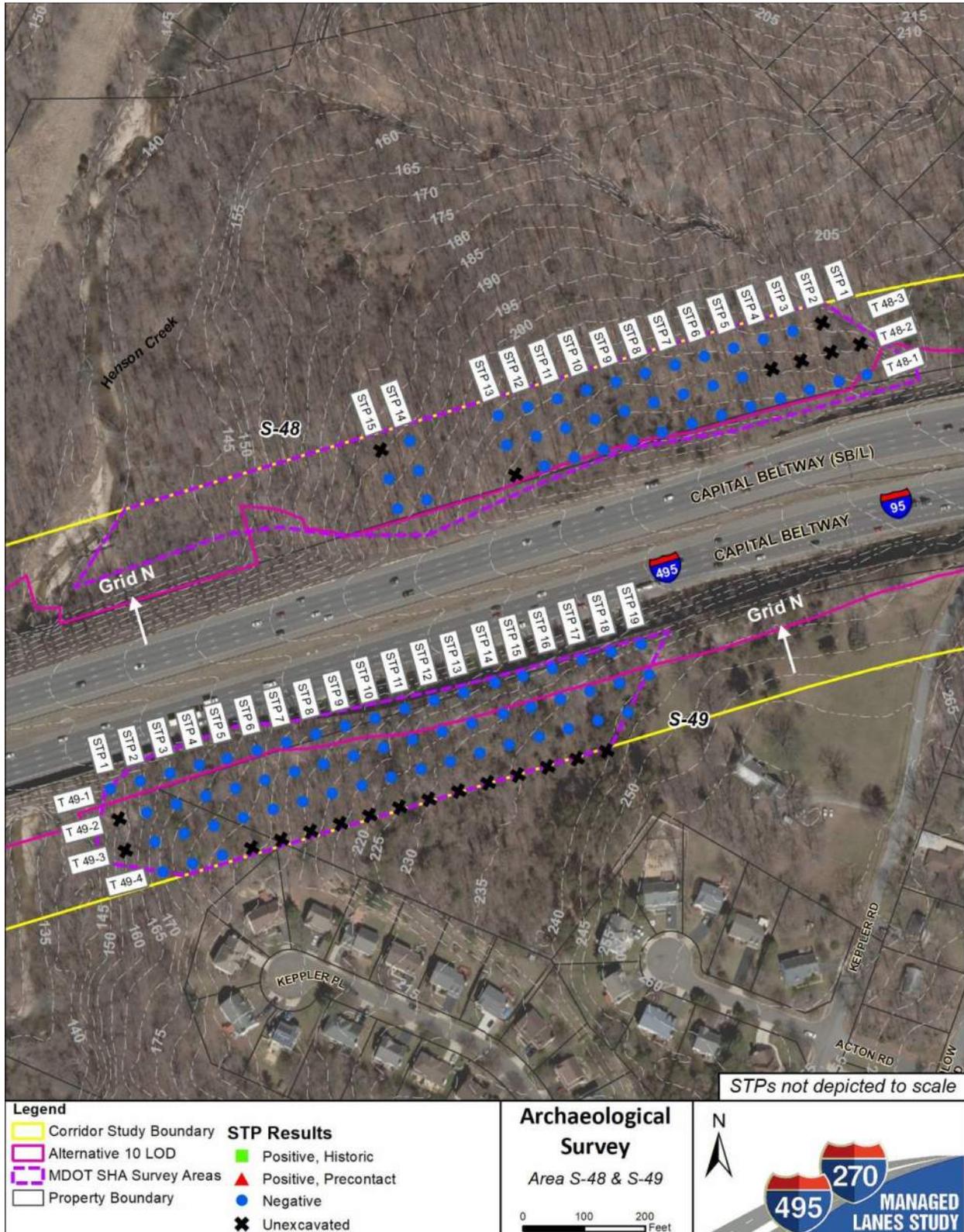


Figure 115. Disturbed slopes leading up to I-495 along the southern edge of Area S-48, facing southeast



Pedestrian survey of the area revealed that, although some parts of this area had surface evidence for modern disturbance, much of it did not, and a full Phase I survey was warranted. Slopes and wetland soil conditions prevented any testing in the eastern portion of the area.

STPs in Area S-48 uniformly contained two strata, consisting of a very dark grayish brown (10YR 4/2) to brown (10YR 5/3) loam A-horizon with 10-30 percent gravel inclusions over a yellowish brown (10YR 5/4 to 10YR 5/8) sandy loam to loam subsoil with 65-90 percent gravel inclusions which is typical in the gravelly silt loam soils expected in this area. The transition between the first and second strata generally fell between 0.2 and 0.5 ft below surface and were excavated to a depth of 0.9-1.2 ft below surface. Disturbed contexts were recorded on Transect 3, where fill soils consisting of yellowish red (5YR 5/8) sandy clay, pale brown (2.5Y 7/4) fine sand, or strong brown (7.5YR 5/8) sandy clay were found beneath one or two layers of surficial fill.

Material observed in Area S-48 consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. The results of the investigation indicate that Area S-48 has been partially disturbed through modern development and highway construction. No further work is recommended in Area S-48. *Area S-48 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.39 Area S-49

Area S-49 is a 3.75-acre Phase I survey area located between a residential neighborhood and the I-495 eastbound lanes beginning about 200 ft (61 m) north of the cul-de-sac at the end of Keppler Place, on hillslopes overlooking Henson Creek (see **Figure 114**) (**Appendix E, Page 29**). Four transects were laid at 50 ft (15 m) intervals running roughly parallel with I-495, which included 53 primary STPs. It is bounded to the north by a sound barrier, to the west by the slope down to Henson Creek, to the east by the backyard of 5301 Keppler Road, and to the south by several residential lots fronting Keppler Place. Most of Area S-49 falls within private property, while a portion of the western terminus is owned by the M-NCPPC, Prince George's County. A small strip of the northern portion is within the MDOT SHA ROW. Early twentieth-century USGS topographic maps show it occupying a ridgetop descending down to a floodplain of Henson Creek and generally matches the contours of the present landform. Modern development and construction of the highway and artificial drainage ditch have significantly disturbed the western portion of Area S-49 and altered the drainage patterns of Henson Creek. The NRCS documents Marr-Dodon complex in the western portion of the area, and Sassafras sandy loam in the eastern portion (Web Soil Survey 2015). Soils in the survey area generally did not conform to the expected soil pedon for Marr-Dodon complex, but several STPs in the southeastern portion showed undisturbed Sassafras sandy loam.

Area S-49 is situated on a gradual downward slope toward Henson Creek to the west. Most of the area possessed less than 15 percent slope with an elevation of 240 ft (73 m) amsl on its eastern end and 160 ft (49 m) on its western end. The area is wooded, with light-to-moderate undergrowth. An access road runs roughly parallel with I-495 through the northern portion of Area S-49. An artificial drainage ditch ran north of Transect 4, between the transect and the sound barrier for I-495. The area around STP 49-2-11 was a large surface dump with modern trash and discarded household appliances. The northernmost transect was separated from the rest of the survey area by a chain-link fence marking the boundary between the M-NCPPC and private property, and MDOT SHA ROW. A gravel service road ran along part of the ROW fence. STPs excavated along this road contained heavily compacted fill and were terminated due to gravel impasses between 0.9-1.4 ft below the ground surface.

Most STPs in this survey area exhibited disturbed soil profiles representing past fill episodes and had two or three soil strata. Stratum I consisted of a dark brown (10YR 3/3) to very dark brown (10YR 2/2) sandy loam surficial fill that extended between 0.2-0.6 ft below the ground surface, which overlay Stratum II, a brown (7.5YR 5/4) to light olive brown (2.5Y 5/4) sandy loam or silt loam that contained 30-50 percent gravel. Stratum II reached a depth of 0.8-1.6 ft below the ground surface, and the high gravel content and varying soil colors suggests that this stratum is artificial fill. A majority of the STPs terminated around 1.6 ft below surface at a dense impassable gravel layer. Where subsoil was encountered, it consisted of a brownish yellow (10YR 6/8) sandy clay loam approximately 1.8 ft below the ground surface. Two STPs in the area only contained the surface fill over a truncated subsoil.

Undisturbed stratigraphy was encountered in the eastern portion of S-49. Stratum I consisted of a brown (10YR 5/3) to dark brown (10YR 3/3) sandy loam A-horizon extending down to around 0.3 ft below the ground surface. This overlay Stratum II, a yellowish brown (10YR 5/4) loam or silt loam E-horizon with 35 percent gravel and reaching a depth 1.0-1.5 ft below the ground surface. Stratum III was a brown (7.5YR 5/4) to yellowish brown (10YR 5/6) sandy clay loam subsoil with 35-60 percent gravel inclusions that

increased in density with depth. Soils in Area S-49 contained higher than expected concentrations of gravel, with gravel density increasing with depth.

Material observed in Area S-49 consisted of modern materials that were discarded in the field. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. The results of the investigation indicate that Area S-49 has been significantly disturbed by cutting and filling events across the area, especially along the gravel access road. Much of the tested landform has been leveled, and only the southeast portion of the area contained undisturbed soils. Based on the negative results of survey, Area S-49 does not possess the potential for archaeological resources. No further work is recommended in Area S-49 based on prior disturbance on the negative results of the survey. *Area S-49 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.40 Area S-50

Area S-50 is a 3.04-acre limited survey area located in Sligo Creek Park, situated on what was once a gentle hillslope overlooking Sligo Creek (**Appendix E, Page 13**). Ten STPs were excavated in this area along two transects at 100-ft (30-m) intervals. It lies between the Holy Cross Hospital campus and Sligo Creek Parkway and rises about 280 ft (85 m) amsl, with slopes ranging from 0-8 percent (see **Figure 98**). It is bounded to the south by a bridge carrying I-495 over Sligo Creek, to the east by Sligo Creek Parkway, to the west by a retaining wall below Holy Cross Hospital, and to the north by Forest Glen Road. Early twentieth-century USGS topographic maps show it occupying a floodplain of Sligo Creek that later became agricultural fields and were eventually developed during the construction of Holy Cross Hospital and the highway. A wetland now surrounds much of the study area.

The NRCS documents Glenelg silt loam soils on the west side of the Creek, and Hatboro silt loam soils on the east side of the Creek, with slopes ranging in this area from 0-8 percent (Web Soil Survey 2015). Soils in the survey area generally did not conform to the expected soil pedon for Glenelg silt loam and Hatboro silt loam, with all but two STPs containing artificial fill. STP 50-3-8, located directly west of the creek, displayed an undisturbed natural soil stratigraphy. Stratum I consisted of a dark yellowish brown (10YR 4/4) loam A-horizon that reached a depth of 0.2 ft below surface. Stratum II was a brown (7.5YR 4/4) clay loam E-horizon, which transitioned to Stratum III, a strong brown (7.5YR 5/8) clay loam subsoil. This subsoil continued to the base of excavation at 1.3 ft below surface. This was the only instance of an intact upland soil profile within Area S-50. This upland soil profile, at the foot of what were once moderate to gentle slopes along the narrow, incised floodplain of Sligo Creek, represent the natural soil profile of this area.

The survey area is located entirely within land owned and administered by M-NCPPC, Montgomery County. Area S-50 occupies a level area situated on the floodplain of Sligo Creek, which bisects the survey area. The area around the creek is largely wetland, with several areas filled with gravel (**Figure 116**) The Sligo Creek Trail, a paved recreational walking path, runs roughly parallel to the creek about 82 ft (25 m) west of the creek channel. Transect 3 ran about 50 ft (15 m) north of the base of the I-495 bridge (Transect 3), while Transect 1 was placed 100 ft (30 m) north of the bridge. Additional shovel tests were excavated around STPs displaying potentially undisturbed stratigraphy. Most STPs were located on a well-maintained

lawn that is part of the park system that runs along Sligo Creek. Two exceptions, STP 50-3-8 and STP 50-3-6, were located within a wooded and overgrown area immediately adjacent to Sligo Creek.

Figure 116. Gravel fill within the Sligo Creek floodplain at the base of the I-495 embankment, facing southeast



STPs located on the west side of Sligo Creek consisted of a brown (10YR 4/3 to 10YR 5/3) silt loam topsoil that reached 0.2-0.4 ft below the ground surface. Under this was loosely compacted fill comprising strong brown (7.5YR 4/4) to dark yellowish brown (10YR 4/4 to 10YR 4/6) silt loam with pebble and cobble inclusions that extended to the base of excavation. In one shovel test (STP 50-1-11), this fill gradually transitioned at 1.2 ft below ground surface to a brown (10YR 5/3) micaceous silt loam with more stone inclusions.

STPs located on the east side of Sligo Creek generally contained three strata. Stratum III consisted of a brown (10YR 4/3) to very dark greyish brown (10YR 3/2) silt loam topsoil extending to between 0.1-0.4 ft below ground surface. Underneath this was Stratum II, a deep stratum of strong brown (7.5YR 4/6 to 7.5YR 5/6) to brown (10YR 4/3 to 7.5YR 5/4) silt loam fill reaching 1.6-2.4 ft below ground surface. Stratum III was a very dark grey (10YR 3/1) clay loam fill deposit that extended to 2.5-3.0 ft below surface.

STP 50-3-6 was situated within the floodplain and contained five alluvial strata. The first stratum consisted of a very dark grayish brown (10YR 3/2) sandy loam extending to a depth of 0.3 ft below ground surface. The second stratum consisted of dark yellowish brown (10YR 4/6) sandy loam. This overlay a yellowish red (5YR 4/6) sand between 1.2 and 1.5 ft below surface, which transitioned to a yellowish brown (10YR 5/6) sandy loam that extended to 2.4 ft below surface. The final stratum was a grayish brown (10YR 5/2)

silt loam extending 3.0 ft below ground surface. These soil layers probably represent alluvial sediments deposited by flood episodes along Sligo Creek.

Material observed in Area S-50 consisted of modern materials recovered from fill deposits, such as bottle glass and plastic, that were discarded in the field. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. The results of the investigation indicate that Area S-50 has been significantly disturbed through modern development and highway construction that altered the drainage pattern of the landform. Area S-50 does not possess the potential for archaeological resources. No further work is recommended in Area S-50. *Area S-50 is now outside the LOD for the Preferred Alternative and would not be affected.*

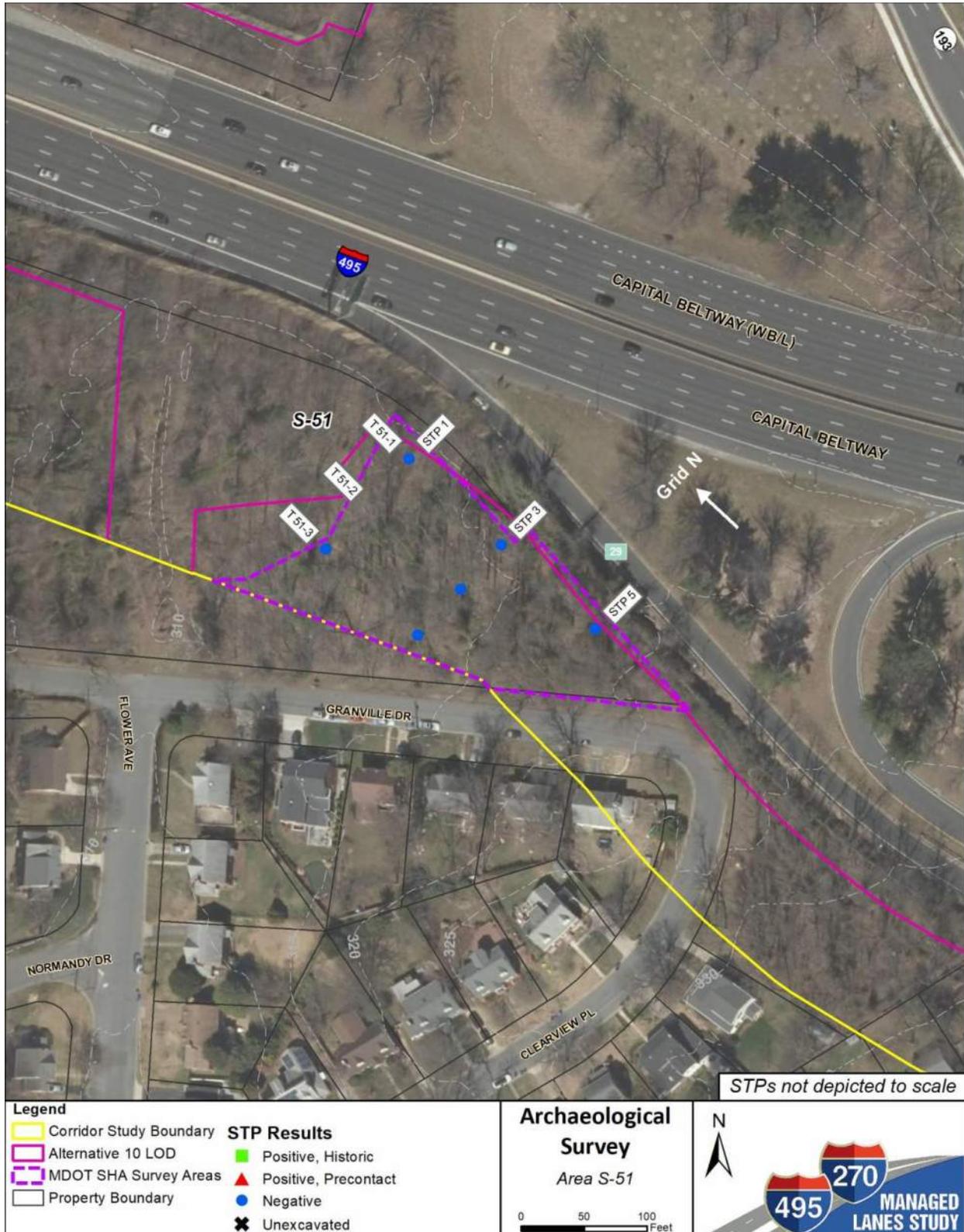
4.41 Area S-51

Area S-51 is a 0.78-acre limited survey area situated on what was once an upland setting overlooking an unnamed tributary to Sligo Creek 120 ft to the west (**Appendix E, Page 14**). Three transects of STPs were excavated between the I-495 sound barrier and East Granville Road at 100-ft (30-m) intervals, beginning in the northeast corner and extending south. A total of six primary STPs was excavated in Area S-51. The area is located between the I-495 Exit to the US 29 southbound off-ramp and East Granville Drive (**Figure 117**). It is bounded to the west by Indian Spring Terrace Park recreational facilities, to the north and east by the I-495 sound barrier, and to the south by Granville Drive. Early twentieth-century USGS topographic maps show it occupying a former ridgetop overlooking the floodplain above Long Branch. A cut and fill episode in the mid twentieth-century leveled the landform and changed its drainage pattern. This resulted in the formation of a wetland within the area, and the field gradually became densely wooded. The NRCS documents Glenelg silt loam and Glenelg-Urban soils with slopes from 3-15 percent within the study area (Web Soil Survey 2015). Soils in the survey area generally did not conform to the expected soil pedon for Glenelg silt loam, which is not surprising given the presence of Glenelg-Urban soils.

The entirety of Area S-51 falls within M-NCPPC, Montgomery County property and is part of Indian Spring Terrace Park. Area S-51 is a wooded area that sits level with East Granville Drive, about 320 ft (98 m) amsl. The northern portion of the area falls within a delineated wetland. The wetland is situated in the northwest corner of the area, along the sound barrier with grasses 1-2 ft (0.30-0.60 m) high. Moderate undergrowth interspersed with areas of denser undergrowth is spread across the area.

Stratigraphy in Area S-51 was generally disturbed with slight variation in the upland soils. The wetland contained four strata consisting of a black (7.5YR 2/1) silt loam surficial fill deposit over a very dark gray (7.5YR 3/1) silt loam fill transitioning between 0.2-0.4 ft below surface to a light yellowish brown (10YR 6/4) clay mottled with 20 percent reddish yellow (7.5YR 6/8) clay. This overlay a gray (5Y 6/1) compact clay mottled with 40 percent reddish yellow (7.5YR 6/8) clay beginning at 1.6 ft below surface and extending to the base of excavation at 2.0 ft. The bottom two strata of the STP were clay fill, as no hydric indicators or mineralization was observed.

Figure 117. Results of the Phase I survey in Area S-51



The most common profile of soils outside of the wetland area generally contained three strata consisting of a dark grayish brown (10YR 4/2) silty clay loam surficial fill over a (10YR 5/2) silty clay fill. This transitioned to a brownish yellow (10YR 6/6) compact clay mottled with 40 percent light brownish gray (10YR6/2) or light gray (10YR 7/1) silty clay between 0.3-1.0 below surface, which continued to the base of excavation at 1.5 ft. Some STPs contained a gravel fill layer encountered under the second or third stratum, terminating excavation. One shovel test (STP 51-2-3), located in the southwest corner of the study area, was excavated to depth at 3.0 ft. It contained a compact, mottled clay layer that extended to the base of excavation.

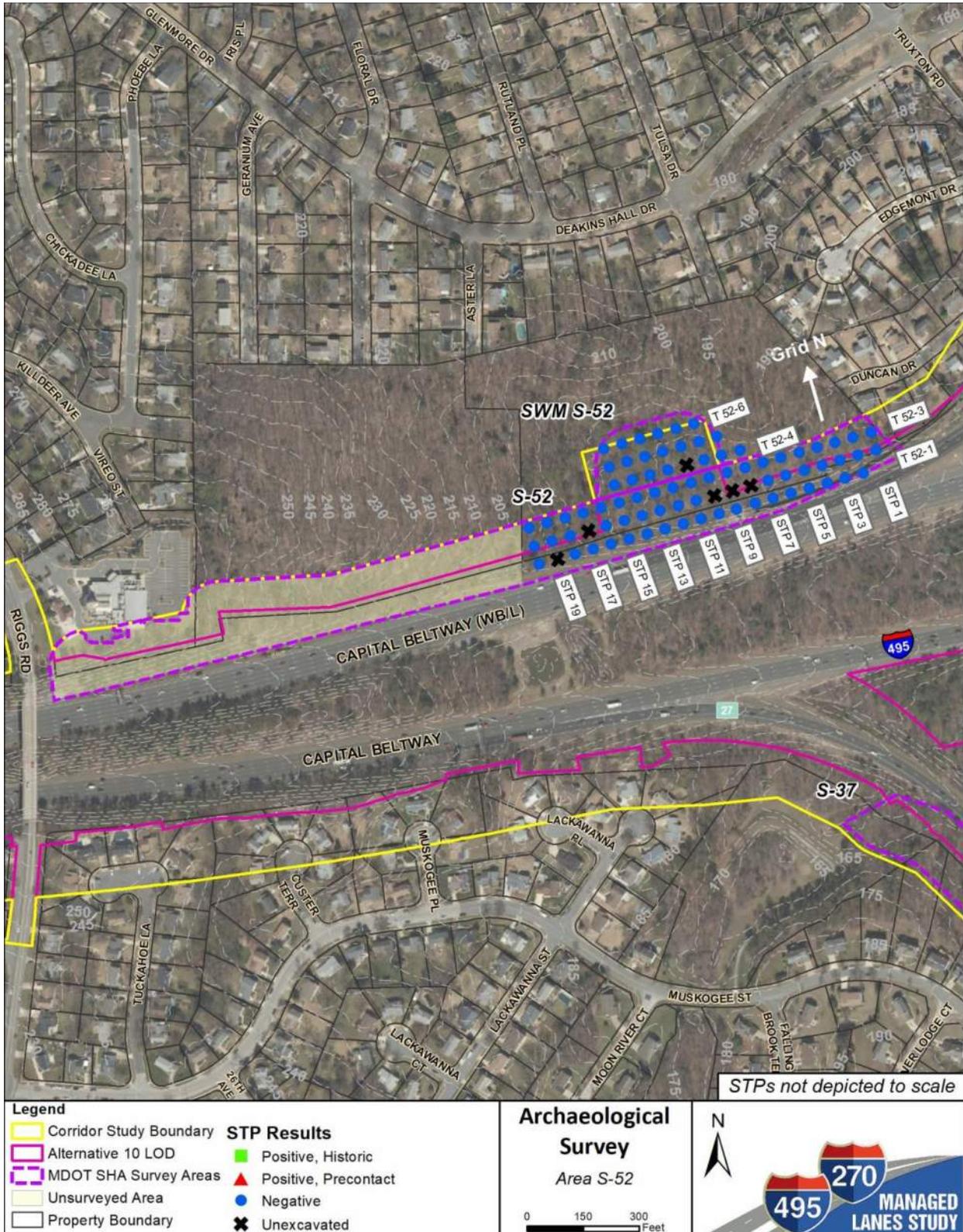
Modern artifacts, such as bottle glass and asphalt, were noted on the surface of this area, but no cultural material was observed in STPs. No historic or precontact artifacts were encountered. No historic or precontact features were observed and no archaeological sites were identified. The results of the investigation indicate that Area S-51 has been disturbed through modern development and highway construction. Area S-51 does not possess the potential for archaeological resources. No further work is recommended in Area S-51. *Area S-51 is now outside the LOD for the Preferred Alternative and would not be affected.*

4.42 Area S-52 and SWM S-52

Area S-52 is an 8.45-acre limited survey area on a hillslope overlooking an unnamed tributary to the Northwest Branch Anacostia River (**Figure 118**) (**Appendix E, Page 15**). A total of 73 primary STPs was excavated, none of which contained precontact or historic cultural material. It is bounded by Riggs Road to the west, I-495 to the south, and a residential neighborhood to the east. Early twentieth-century USGS topographic maps show the area as a hillslope similar to the modern terrain. The NRCS documents Sassafras sandy loam, with a strip of Udorthents (highway) running along the southern boundary of the area (Web Soil Survey 2015). Soils in the survey area generally conformed to the expected soil pedon for an uncultivated Sassafras sandy loam, which consist of an A-horizon over an E-horizon, which overlies a sandy Bt-horizon. Shovel testing revealed portions of this area contained hydric subsoils and standing water. This indicates that the landform occupied by Area S-52 is stable and undisturbed, but changes to drainage patterns have resulted in increased water retention in parts of this area.

The survey area is about 2,360 ft (719 m) long and ranges from 140 ft (43 m) to 250 ft (76 m) in width. It is located between Duncan Drive to the east and Riggs Road to the west along the westbound lanes of I-495 near Calverton. Area S-52 falls within three parcels, with a small portion along the southern boundary falling within MDOT SHA ROW. The easternmost portion lies within land owned and administered by the Prince George's County Board of Education. The central portion of Area S-52 lies within park property administered by the M-NCPPC, Prince George's County. The western terminus of Area S-52 lies within property owned and occupied by the Hindu Temple of Metropolitan Washington. Permission could not be secured to test the M-NCPPC property or the Hindu Temple of Metropolitan Washington property. Access was secured to the Board of Education property, allowing testing on a 1,080 ft (329 m) long segment of Area S-52 totaling 3.67 acres. Pedestrian survey of the area revealed that, although some parts of this area had surface evidence for modern disturbance, much of it did not, and a full Phase I survey was warranted.

Figure 118. Results of the Phase I survey in Area S-52 and SWM S-52



An additional 1.2-acre area adjacent to Area S-52 contains a planned stormwater management feature, which is designated SWM S-52. This area extends north of Area S-52 within property administered by the Prince George's County Board of Education and was tested with Area S-52. Area S-52 is situated on a gently rolling upland terrace separated from I-495 by a chain-link ROW fence. Two drainage features situated in the southeastern portion of the study area contained standing water. A buried petroleum pipeline extends along the southern boundary of Area S-52 and the eastern end is separated from the highway by a sound barrier. An unmarked gravel path is located in the northwestern portion of SWM S-52. Modern trash was evident across the surface, including computer monitors and discarded vehicle tires. Vegetation mostly consists of deciduous trees with light undergrowth. Slopes ranged from 2-10 percent.

Three transects (Transects 1-3) were laid across Area S-52 roughly parallel to I-495. They began at the eastern end of the area and extended westward until reaching the boundary between the Board of Education property and the M-NCPPC property. An additional three transects (Transects 4-6) were placed within SWM S-52. A total of 73 primary STPs at 50-ft (15-m) intervals was excavated in Area S-52 and SWM S-52.

Most of the STPs in Area S-52 contained three or four strata. Stratum I usually consisted of a black (10YR 2/1) to very dark grayish brown (10YR 3/2) silt loam A-horizon that reached a depth of 0.3 to 0.4 ft below surface. Stratum II was a dark gray (10YR 4/1) to dark brown (10YR 3/3) sand or sandy loam E-horizon extending to a depth of 0.5 to 0.9 ft below surface. Stratum III a dark yellowish brown (10YR 4/6) to brownish yellow (10YR 6/6) sand or sandy loam subsoil, which was generally excavated to a depth of 1.4 to 1.6 ft below surface. STPs were terminated in Stratum III because it was a sterile Bt-horizon. In some cases, a transitional stratum of pale brown (10YR 6/4) sandy loam was observed above the subsoil. STPs excavated in the direct vicinity of drainage features or portion of the area with standing water contained hydric soils, with subsoils that consisted of gray (10YR 5/1) sandy clay.

Isolated pockets of Area S-52 displayed evidence for cutting and filling, mostly along the southern boundary near the highway or in the northern portion of SWM S-52 near the unmarked gravel path. The fill episodes show markedly variable color and textural composition. STP 52-6-12, for example, had two natural-appearing strata, consisting of a black (10YR 2/1) silt loam overlying a dark grayish brown (10YR 4/2) sandy loam that together reached a depth of 0.5 ft below surface. Beneath this was a striated layer with alternating bands of yellowish brown (10YR 4/3), gray (10YR 5/1), black (10YR 2/1), and strong brown (7.5YR 5/6) sand fill that continued to 1.0 ft below surface. This overlay the yellowish brown (10YR 5/4) subsoil and reflects an area that was cut and filled on the northeastern edge of SWM S-52.

Material observed in Area S-52 consisted of modern materials, such as modern crown bottle caps and modern bottle glass, that were discarded in the field. No historic or precontact artifacts were encountered and no historic or precontact features were observed. The results of the investigation indicate that Area S-52 has been disturbed through modern development and highway construction, resulting in areas that contain standing water and poorly drained soils, including a wetland observed in the central portion of the area. LiDAR imagery indicates that the unsurveyed western portion of the survey area consists of roadcuts, ridgetop areas likely disturbed by construction of a modern commercial building, and steep slopes (Sassafras and Croom soils, 10 to 15 percent slopes). Therefore, the untested portion of Area S-52 is unlikely to contain significant archaeological resources. No archaeological sites were identified in the

eastern portion of S-52 and no further work is recommended in Area S-52. *Area S-52 and SWM S-52 area now outside the LOD for the Preferred Alternative and would not be affected.*

5 Summary and Recommendations

5.1 Summary

On behalf of MDOT SHA and RK&K, AAHA conducted a Phase I archaeological survey of the I-495/I-270 CSB. The CSB was first evaluated by desktop research and field reconnaissance, and areas considered to have sufficient integrity and historic or precontact archaeological potential were identified for Phase I archaeological survey.

The goal of the Phase I survey was to determine the presence of potentially significant archaeological resources within the CSB and provide recommendations for additional testing. Prior to this work, a gap analysis of previous surveys within the CSB was completed to identify areas where archaeological survey was recommended. A total of 65 previously unsurveyed areas within the CSB were identified that warrant archaeological survey, totaling 267.95 acres. Due to issues of obtaining property access, full and partial surveys were conducted in 47 areas within the CSB, including 44 identified in the archaeological gap analysis and three locations for proposed SWM features. Of the areas tested, 13 were identified as limited survey areas to evaluate possible disturbance. Thirteen limited survey areas were established, and full Phase I testing was deemed necessary for three. The remaining 34 areas were identified for full Phase I survey. During the Phase I investigation, permission was gained to completely test 39 survey areas, and eight areas subjected to a partial survey due to lack of landowner permission.

The archaeological survey included field investigations, artifact processing, and reporting conforming to the *Standards and Guidelines for Archaeological Investigations in Maryland* (Shaffer and Cole 1994) and the MDOT SHA (2017) *Archaeology Guidelines for Consultants*. Processing for artifacts recovered from NPS properties conformed to those guidelines as well as the *National Capital Region, Regional Archaeology Program Cataloging Handbook* (NPS 2017). All work was conducted in accordance with the standards of the Secretary of the Interior, as specified in the *Standards and Guidelines for Archaeology and Historic Preservation* (Federal Register, Vol. 48, No. 190, 1983). A comprehensive background investigation and context for this study is presented in the *Archaeological and Historical Architectural Gap Analysis and Assessment* (Hutchins-Keim et al. 2018) (Volume 2); however, additional background research was undertaken in areas that contained newly identified archaeological sites.

The survey resulted in the identification of ten new archaeological sites and the redefined boundaries of two existing archaeological sites. They included four precontact sites, four historic sites, and four sites with historic and precontact components. Of these, three (18MO749, 18MO751, and 18MO752) are recommended for Phase II evaluation and eight (18MO22, 18MO750, 18MO753, 18MO754, 18MO755, 18MO756, 18PR425, 18PR1131, and 18PR1133) are recommended for no additional work. Additional archaeological testing is recommended at certain survey areas including floodplain areas where shovel testing was unable to fully test deep deposits.

5.2 Recommendations

5.2.1 Recommendations for Surveyed Areas

The Phase I archaeological survey of the CSB resulted in the full survey of 47 of the 65 survey areas (**Table 14; Appendix E**).

Table 14. Recommendations for MLS Areas fully or partially surveyed during the Phase I archaeological survey

Area#	Survey Effort	Number of STPs	Sites	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-1	Limited Survey	4	--	No Further Work	Yes	No Further Work
S-2	Limited Survey	4	--	No Further Work	Yes	No Further Work
S-3	Phase I Survey	9	--	No Further Work	Yes	No Further Work
S-7	Phase I Survey	133	18MO752, 18MO753	Phase II for 18MO752	Yes	Phase II for 18MO752
S-9	Phase I Survey	75	--	No Further Work	Yes	No Further Work
S-10	Phase I Survey	29	--	Additional Phase I Survey of inaccessible portions	Yes	Additional Phase I Survey of inaccessible portions
SWM S-10	Phase I Survey	1	--	No Further Work	Yes	No Further Work
S-12	Phase I Survey	18	18MO22	Additional Phase I if APE change	Yes	No Further Work
S-13	Phase I Survey	108	18MO22	Additional Phase I if APE change	Yes	No Further Work
S-12/13	Phase I Survey	156	18MO749, 18MO750, 18MO751	Phase II for 18MO749 and 18MO751; Additional Phase I if APE change	Yes	No Further Work
S-14	Phase I Survey	20	--	No Further Work	Yes	No Further Work
S-15	Limited Survey	12	--	No Further Work	Yes	No Further Work
S-16a	Phase I Survey	176	18MO754, 18MO755	Deep Testing Recommended; No Further Work at 18MO754, 18MO755	No	No Further Work
S-16b	Phase I Survey	10	--	No Further Work	No	No Further Work
S-16c	Phase I Survey	192	--	Deep Testing Recommended in undisturbed portions	No	No Further Work
S-17	Phase I Survey	40	--	Deep Testing Recommended	No	No Further Work
S-18	Phase I Survey	42	--	No Further Work	No	No Further Work
S-19	Phase I Survey	108	--	No Further Work	No	No Further Work
S-20	Phase I Survey	61	18PR1133	No Further Work	No	No Further Work
S-21	Phase I Survey	73	--	No Further Work	No	No Further Work

Area#	Survey Effort	Number of STPs	Sites	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-22	Phase I Survey	88	--	No Further Work	No	No Further Work
S-25	Phase I Survey	86	--	No Further Work	No	No Further Work
S-26	Phase I Survey	110	18PR1131	No Further Work	No	No Further Work
S-27	Phase I Survey	21	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-27	Phase I Survey	11	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-28	Phase I Survey	0	--	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-29	Phase I Survey	105	--	No Further Work	Yes	No Further Work
S-30	Limited Survey	5	--	No Further Work	No	No Further Work
S-31	Phase I Survey	23	--	No Further Work	No	No Further Work
S-32	Limited Survey	10	--	No Further Work	No	No Further Work
S-33	Phase I Survey	70	--	Deep Testing Recommended	No	No Further Work
S-34	Phase I Survey	24	--	No Further Work	No	No Further Work
S-35	Phase I Survey	10	--	No Further Work	No	No Further Work
S-36	Limited Survey	67	18MO756	No Further Work	No	No Further Work
S-38	Phase I Survey	81	--	No Further Work	No	No Further Work
S-40	Phase I Survey	67	18PR425	No Further Work	No	No Further Work
S-41	Limited Survey	5	--	No Further Work	No	No Further Work
S-43	Limited Survey	8	--	No Further Work	No	No Further Work
S-45	Phase I Survey	27	--	No Further Work	No	No Further Work
S-46	Limited Survey	9	--	No Further Work	No	No Further Work
S-47	Phase I Survey	49	--	No Further Work	No	No Further Work
S-48	Limited Survey	37	--	No Further Work	No	No Further Work
S-49	Phase I Survey	53	--	No Further Work	No	No Further Work
S-50	Limited Survey	10	--	No Further Work	No	No Further Work

Area#	Survey Effort	Number of STPs	Sites	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-51	Limited Survey	6	--	No Further Work	No	No Further Work
S-52	Limited Survey	54	--	No Further Work	No	No Further Work
SWM S-52	Phase I Survey	20	--	No Further Work	No	No Further Work

A. Complete Access Areas

Of the 65 survey areas identified for testing, 39 were completely tested at 50-ft or 100-ft intervals (excluding slopes and wetlands) depending on the level of observed ground disturbance (see **Table 18**). No cultural material or archaeological resources were identified in 31 survey areas and no further work is recommended, with several exceptions. Further work may be necessary within S-10 when portions of the area that were inaccessible due to the absence of property owner permission become accessible. Additional Phase I archaeological survey is also recommended in S-12, S-13, and S-12/13 should the project LOD expand in these areas. The landform containing these survey areas are adjacent to the Potomac River and contain a high potential for archaeological resources. In addition, the archaeological testing as part of this study within these locations demonstrated the presence of both precontact and historic period resources that eligibility potential for the NRHP. As a result, additional testing is warranted in these areas if the project LOD is expanded in the vicinity of the American Legion Bridge.

Deep testing is recommended on floodplains at S-16a, S-16c, S-17, and S-33, because shovel tests were unable to fully examine those areas. Additional archaeological work is also warranted at S-27, which was within the Montgomery County Poor Farm, as outlined in Section 5.2.5. Archaeological sites were identified in eight survey areas, the results of which are summarized in Section 5.2.2. Three of the eight archaeological sites (18MO749, 18MO751, and 18MO752) warranted additional investigations to evaluate their National Register eligibility. Investigations were completed at 18MO749 and 18MO751 within the C&O Canal National Historical Park area and the results of these investigations are presented in Volume 5 of this report. Both sites were recommended eligible for the NRHP. 18MO752 is proposed for additional evaluation under the anticipated Programmatic Agreement for the Study.

B. Partial Access Areas

Partial property access was granted for nine of the 47 surveyed areas, as described below (see **Table 14**). The inaccessible portions of two of these areas (Area S-41 and Area S-46) were small enough that full coverage could be achieved in the accessible portions. Two additional tested areas (Area S-27 and SWM-27) require additional testing for cemetery delineation at the Poor Farm, but the planned shovel testing grid was completely surveyed.

Area S-10

The untested portion of Area S-10 is about 100 ft (30 m) wide, situated between the I-270 ROW and a large housing development (**Appendix E, Page 7**). The accessible portions of Area S-10 that could be tested were relatively intact, suggesting more intact areas probably exist within the remainder of the survey

area. Phase I survey is recommended in the inaccessible portion of Area S-10 (see **Table 14**). *Area S-10 lies within the LOD for the Preferred Alternative.*

Area S-19

The untested portions of Area S-19 lie within the ROW for a Baltimore Gas and Electric high-voltage electricity transmission line (**Appendix E, Page 7**). A total of 108 STPs was excavated in Area S-19 with negative results. Soils within the unsurveyed portion of S-19 are Croom gravelly sandy loam, 10 to 15 percent slopes, and the nearest surface water lies over 800 ft distant. Significant archaeological resources are unlikely to occur in such a setting. No further work is recommended in the inaccessible portion of Area S-19 (see **Table 14**). However, if the LOD at Area S-19 is expanded in the vicinity of Paint Branch, the area of additional impacts will require evaluation, and Phase I or geoarchaeological analysis may be warranted to assess whether deeply buried precontact resources are present within the Paint Branch floodplain. *Area S-35 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-27 and SWM-27

These areas require further testing together with other survey areas situated within the boundary of the former Montgomery County Poor Farm (see **Table 14**) (**Appendix E, Page 9**), as described in Section 5.2.5. *Area S-27 and SWM-27 are within the LOD for the Preferred Alternative.*

Area S-30

The untested portion of Area S-30 occupies a series of slopes and hilltops adjacent to Fleming Local Park along the north side of I-495 (**Appendix E, Page 5**). LiDAR imagery shows that the terrain in the unsurveyed portion is rugged, consisting of steep slopes between narrow ridgetops with little level terrain. Soils are mapped as Wheaton-Urban land complex, 0 to 8 percent slopes, Glenelg silt loam, 8 to 15 percent slopes, and poorly drained Baile silt loam, 0 to 3 percent slopes on the active floodplain. Significant archaeological resources are unlikely to be present in such settings based on disturbance, steep slopes, or wet conditions, and no further work is recommended in the remainder of Area S-30 (see **Table 14**). *Area S-30 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-32

The untested portion of Area S-32 occupies the front of the CCRA Outdoor Nursery School (**Appendix E, Page 12**). The unsurveyed portion of Area S-32 has been disturbed by an access road, parking lot, and garden fronting the nursery school building. Based on prior disturbance, no further work is recommended in the remainder of Area S-32 (see **Table 14**). *Area S-32 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-41

The untested portion of Area S-41 consists of a narrow (13 ft or 4 m wide) strip of land between the MDOT SHA ROW fence and a parking lot (**Appendix E, Page 20**). Testing in the accessible portion of Area S-41 demonstrated disturbance throughout the survey area. No further work is recommended in the remainder of Area S-41 (see **Table 14**). *Area S-41 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-46

Property owner access was granted for nearly all of Area S-46, excepting 0.012-acre area in the western portion of this survey area belonging to the WSSC (**Appendix E, Page 28**). Area S-46 was a limited survey area tested at 100-ft (30-m) intervals and found to be entirely disturbed. No further work is recommended in the remainder of Area S-46. *Area S-46 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-52

The western portion of Area S-52 could not be tested (**Appendix E, Page 15**). LiDAR imagery indicates that the unsurveyed western portion of the survey area consists of roadcuts, ridgetop areas likely disturbed by construction of a modern commercial complex along Riggs Road, and steep slopes (Sassafras and Croom soils, 10 to 15 percent slopes). The untested portion of Area S-52 has a low potential to contain significant archaeological resources based on disturbance and steep slopes. No archaeological sites were identified in the eastern portion of S-52, and no further work is recommended in the remainder of Area S-52. *Area S-52 is now outside the LOD for the Preferred Alternative and would not be affected.*

C. No Permission Areas

During the study, 18 of the 65 survey areas were not accessible due to lack of property owner permission, as described below (**Table 15**). These areas included privately-owned and municipal properties. To expedite future work and aid in the planning process for the remainder of the project, the inaccessible survey areas were compared to adjacent survey areas with similar soils and landforms that were investigated during the study. The results of testing within nearby areas can be used to formulate a reasonable extrapolation of what archaeological resources may be present in untested areas. The results are summarized in **Table 15**. The project Programmatic Agreement will stipulate that those survey areas that remain within the project LOD, were not surveyed during this investigation, and are considered to have potential for archaeological resources, will be tested once property access is obtained.

Table 15. Recommendations for MLS Areas not surveyed during the Phase I survey

Area#	Access	Expected Soils	Similar Surveyed Area/Notes	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
S-4	No Permission	Glenelg silt loam, 3-8 percent slopes	S-7, S-27	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-4	No Permission	Glenelg silt loam, 3-8 percent slopes	S-7, S-27	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-5	No Permission	Glenelg silt loam, 3-15 percent slopes	S-7, S-27	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-5	No Permission	Glenelg silt loam, 3-15 percent slopes	S-7, S-27	Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-6	No Permission	Glenelg silt loam, Baile silt loam 0-15 percent slopes	S-7, S-27	Further work at the Poor Farm	Yes	Further work at the Poor Farm
SWM S-6	No Permission	Glenelg silt loam, 3-15 percent slopes	S-7, S-27	Further work at the Poor Farm	Yes	Further work at the Poor Farm
RS-1	No Permission			Further work at the Poor Farm	Yes	Further work at the Poor Farm

Area#	Access	Expected Soils	Similar Surveyed Area/Notes	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
RS-2	No Permission			Further work at the Poor Farm	Yes	Further work at the Poor Farm
S-8	No Permission	Glenelg silt loam, 3-8 percent slopes	S-7	Phase I Survey	Yes	Phase I Survey
S-11	No Permission	Blocktown channery silt loam, Glenelg silt loam, Wheaton-Urban land complex, 3-25 percent slopes	S-7, S-10 (surveyed portion), S-27, S-28	No Work	No	No Further Work
S-23	No Permission	Russet-Christiana-Urban land complex, Christiana-Downer complex, Christiana-Downer-Urban Complex, Zekiah and Issue soils, 0-15 percent slopes	S-36	No Work	No	No Further Work
S-24	No Permission	Udorthents (highway), 0-65 percent slopes	S-1, S-2, S-18	No Work	No	No Further Work
S-37	No Permission	Fallsington-Urban land complex, Glenelg-Wheaton-Urban land complex, Sassafras and Croom soils, Russett-Christiana complex, Sassafras-Urban land complex, 5 to 15 percent slopes	S-40, S-41 (surveyed portion)	Full Phase I Survey	No	No Further Work
S-39	No Permission	Longmarsh and Indiantown soils, Zekiah and Issue soils, 0-2 percent slopes	S-16a, S-16c, S-17, S-33, S-34, S-35	No Work	No	No Further Work
S-42	No Permission	Issue Urban complex, Russett-Christiana-Urban complex, Christiana-Downer-Urban complex, 0-15 percent slopes	S-38, S-41 (surveyed portion)	No Work	No	No Further Work
S-44	No Permission	Christiana-Downer complex, Sassafras sandy loam, 5-25 percent slopes	S-26, S-38	Limited Phase I Survey	No	No Further Work
S-53	No Permission	Glenelg silt loam, 3-8 percent slopes	S-7	Full Phase I Survey	Yes	Full Phase I Survey
S-54	No Permission	Hatboro silt loam, 0-3 percent slopes	S-16a, S-16c, S-17, S-33, S-34, S-35	Full Phase I Survey	No	Full Phase I Survey

Area S-4, Area SWM S-4, Area S-5, Area SWM S-5, Area S-6, Area SWM S-6 (along with Area S-27, Area SWM S-27, and Area S-28 North found in **Table 13**, and RS-1, and RS-2)

These areas are situated within the boundary of the former Montgomery County Poor Farm, [REDACTED] (Appendix E, Page 9). Research indicates (Ervin 2018) that as many as 1000 interments may have been made on the Poor Farm Property over two centuries of use. Limited salvage archaeology at one location identified a very small number of pre-twentieth century graves, along with one area of twentieth century interments. An unknown but probably large number of graves was removed from the LOD for I-270, or destroyed, when the highway was constructed over 50 years ago. Additional graves are likely to be present within the former Poor Farm Property, although their precise location cannot be identified.

Initial shovel testing was done where access could be obtained, in order to provide preliminary information on soil integrity within surviving portions of the Poor Farm Property. However, shovel testing was used only to evaluate the integrity of these areas and is unsuitable to identify grave locations (Poulos et al. 2019:6-10; Maryland-National Capital Parks and Planning Commission 2010:17-24). Therefore, even tested areas situated within the former Poor Farm [REDACTED] may require additional investigations if they are impacted by the project.

Additional work is recommended to delineate any unmarked graves and appropriately treat any remains prior to construction. First, remote sensing survey that includes ground penetrating radar should be considered in select areas. However, this approach may be of limited utility due to rocky soils and prior disturbance. Other methods that may prove useful include the use of trained dogs to examine areas that may contain interments. MDOT SHA has recently used this approach on other archaeological investigations. Shovel testing should also be used to evaluate the integrity of soils in the Poor Farm area.

Ultimately, Survey Area S-4 and SWM S-4, Area S-5 and SWM S-5, Area S-6 and SWM S-6, Area S-27 and SWM S-27, S-28, Area RS-1 and Area RS-2 will require mechanical stripping within the final LOD prior to construction, to ensure that interments are not present within the project limits of disturbance.

Area S-4

Area S-4 is a 5.39-acre area located on a level, wooded terrace (Appendix E, Page 9). This area is approximately 1,950 ft (595 m) long and occupies an unimproved area between I-270 and a residential development in Montgomery County. Area S-4 has the potential to contain interments that are part of the Poor Farm Cemetery, but the potential is low relative to other areas of the former Poor Farm property (Area S-5, Area S-6, and Area S-27), because S-4 is located [REDACTED]. Mapped soil series include Glenelg silt loam and slopes range from 3-8 percent. The nearest stream is a tributary of Watts Branch, located 1,640 ft (500 m) to the northwest. Additional investigation is recommended for Area S-4 as described above given its proximity to the Poor Farm Cemetery [REDACTED]. *Area S-4 lies within the LOD for the Preferred Alternative.*

Area SWM S-4

Area SWM S-4 is a 0.93-acre area located adjacent to the southern portion of Area S-4 (Appendix E, Page 9). It shares the same setting, expected soils, slopes, and hydrology with Area S-4. SWM S-4 is also located

in close proximity to the Poor Farm Cemetery site [REDACTED]. As a result, additional investigation is recommended in Area SWM S-4 as described above. *Area SWM S-4 lies within the LOD for the Preferred Alternative.*

Area S-5

Area S-5 is a 2.63-acre area located along the east side of I-270 north of Wootton Parkway (**Appendix E, Page 9**). Area S-5 has the potential to contain part of the Poor Farm Cemetery. Much of Area S-5 is taken up by a parking lot and a landscaped lawn for a large commercial tower. Mapped soil series in this area include Glenelg silt loam and slopes range from 3-15 percent. The nearest stream is Cabin John Creek, located 1,509 ft (460 m) to the east. Given its proximity to the Poor Farm Cemetery site, [REDACTED], additional investigation is recommended in the undisturbed northern portion of Area S-5. *Area S-5 lies within the LOD for the Preferred Alternative.*

Area SWM S-5

Area SWM S-5 consists of 0.59 acres located adjacent to the northern portion of Area S-5 (**Appendix E, Page 9**). It shares the same setting, expected soils, slopes, and hydrology with Area S-5. Given its proximity to the Poor Farm Cemetery site [REDACTED], additional investigation as described above is recommended in the undisturbed northern portion of Area SWM S-5. *Area SWM S-5 lies within the LOD for the Preferred Alternative.*

Area S-6

Area S-6 is a 2.83-acre area located along the east side of I-270, extending south of Wootton Parkway (**Appendix E, Page 9**). Area S-6 has the potential to contain part of the Poor Farm Cemetery, [REDACTED]. Mapped soil series in this area include Glenelg silt loam and Baile silt loam and slopes range from 0-15 percent. Given its proximity to the Poor Farm Cemetery site, 18MO266, additional investigation as described above is recommended in the undisturbed northern portion of Area S-6. *Area S-6 lies within the LOD for the Preferred Alternative.*

Area SWM S-6

Area SWM S-6 consists of 3.49 acres located adjacent to Area S-6 (**Appendix E, Page 9**). It shares the same setting and hydrology with Area S-6. Mapped soil series in this area include Glenelg silt loam and slopes range from 3-15 percent. Given its proximity to the Poor Farm Cemetery site, [REDACTED], additional investigation as described above is recommended in the undisturbed northern portion of Area SWM S-6. *Area SWM S-6 lies within the LOD for the Preferred Alternative.*

Areas RS-1 and RS-2

Areas RS-1 (6.8-acres) and RS-2 (1.9 acres) are located in close proximity to the Poor Farm cemetery site, 18MO266 (**Appendix E, Page 9**).

Area RS-1 is less than [REDACTED]. Area RS-1 is impacted by the CSB and would require archaeological investigations unless avoided by construction. It comprises a moderate to gentle slope to south [REDACTED].

Graves are likely to be present within Area RS-1. *Area RS-1 lies within the LOD for the Preferred Alternative.*

Area RS-2 is located over 350 feet to the east of the CSB and would require archaeological investigations if impacted. Area RS-2 represents a remnant terrain, situated along the north side of Wootton Parkway, and encompassing areas that do not appear to have been disturbed by subsequent development.

Area RS-2 lies adjacent to the LOD for the Preferred Alternative.

Area S-8

Area S-8 is a 6.62-acre area located on a wooded upland terrace at the I-495 & I-270 split, west of I-495 in Montgomery County (**Appendix E, Page 6**). It is located directly east of a large electrical substation, and the surrounding area is mostly given over to commercial development. Mapped soil series include Glenelg silt loam and slopes range from 3-8 percent. The nearest stream is approximately 430 m to the northeast. Area S-8 most closely resembles Area S-7, with the same predominate soil type (Glenelg silt loam) and similar topographic location. Based on the results of Area S-7, where soils were largely intact and two archaeological sites were identified, a Phase I survey is recommended in Area S-8. *Area S-8 lies within the LOD for the Preferred Alternative.*

Area S-11

Area S-11 consists of 6.19 acres west of I-270, running north and south of Grosvenor Road (**Appendix E, Page 5**). It is located on a series of hillslopes below the top of an upland flat overlooking Rock Creek, about 140 feet in elevation above the floodplain. It today consists of a mostly wooded, heavily sloped area bound to the west by residential and commercial development. Mapped soil series include Blocktown channery silt loam, 15 to 25 percent slopes, very rocky, Glenelg silt loam, 3 to 8 percent and 8 to 15 percent slopes, and soils from the Wheaton-Urban land complex. Slopes in this area range from 0-25 percent. Area S-11 is adjacent to Area S-10 and Area S-30, and shares characteristic soils, steep slopes, and topographic settings with these two areas. No archaeological resources were identified in tested portions of S-10 or S-30.

Area S-11 is located on a series of moderately to heavily sloped hills bounded on the west by residential and commercial development. Little of the parcel (approximately 20%) is less than 8 percent slope, according to the USDA soil survey. Areas of moderately sloped Glenelg silt loam (8 to 15 percent) comprising about 55 percent of the parcel are also present; however, these areas are bounded on the west by the large condominium-type development, and by single family residential development in the northern portion of S-11. This development has likely destroyed any archaeological resources within its footprint, and any archaeological resources that once may have existed within the narrow confines of Area S-11 would have been partially destroyed if they extended into this development.

Wild Acres/Grosvenor Estate, M: 30-15, is located outside the boundary of Area S-11, 430 feet to the west, and is largely surrounded by modern development, including the condominium complex and a structure

owned by the Nature Conservancy. Although identified as a Montgomery County Master Plan site, past development has been permitted within the area surrounding M: 30-15.

Based on the negative results of testing in similar, nearby areas (S-10 and S-30), and on extensive disturbance which has destroyed parts of the landscape of areas west of S-11, further testing is unlikely to identify significant archaeological resources. No work is recommended in Area S-11. *Area S-11 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-23

Area S-23 is a 2.09-acre area on the west side of Buddy Attick Lake Park, a park in Prince George's County that is part of the City of Greenbelt (**Appendix E, Page 18**). Most of Area S-23 lies within a wooded, flat floodplain that slopes upward to the south. A stream runs along the eastern boundary of this area, and the area is adjacent to an exit ramp of I-495. Slopes range from 0-15 percent, and mapped soil series include soils from the Russett-Christiana-Urban land complex, Christiana-Downer complex, Christiana-Downer-Urban land complex, and frequently flooded Zekiah and Issue soils, which characterize the majority of Area S-23. Significant archaeological resources are unlikely to occur in such settings. This area is near Area S-36 but contains frequently flooded soils and Urban land soil complexes and lacks the upland areas of Glenelg series soils. Given the disturbed or frequently flooded soils, significant archaeological resources are unlikely to be present, and no work is recommended in Area S-23. *Area S-23 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-24

Area S-24 consists of 2.01 acres within the cloverleaf interchange of I-495 and the Baltimore-Washington Parkway in Prince George's County (**Appendix E, Page 19**). It is mostly surrounded by open spaces and road right-of-way. Mapped soil series in this area are Udorthents (highway). Slopes range from 0-65 percent. Area S-24 most closely resembles Area S-1, Area S-2, and Area S-18, given its location within a ramp cloverleaf. Given the likely level of disturbance within the highway interchange and identified Udorthents, no work is recommended at Area S-24. *Area S-24 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-37

Area S-37 is a 4.39-acre area located on a narrow-wooded tract between the I-495 and I-95 interchange and a residential development in Prince George's County (**Appendix E, Page 15**). Mapped soil series in Area S-37 include soils from the Fallsington-Urban land complex, Glenelg-Wheaton-Urban land complex, Sassafras and Croom soils, Russett-Christiana complex, and Sassafras-Urban land complex. Slopes in this area range from 0-15 percent. The nearest water source to this area is an unnamed tributary to Paint Branch, which bisects the area. Based on proximity to water and gentle slopes throughout parts of the survey area, Phase I survey is recommended for Area S-37. *Area S-37 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-39

Area S-39 consists of 5.23 acres located entirely within the floodplain of Indian Creek near the Greenbelt Metro Station in Prince George's County (**Appendix E, Page 18**). This floodplain is low-lying and naturally marshy and has become increasingly inundated with the spread of impervious surfaces south and west of

it. Slopes range from 0-2 percent, and mapped soils in this area include frequently flooded Longmarsh and Indiantown soils and Zekiah and Issue soils, settings where significant archaeological resources are unlikely to occur. Testing of Area S-45, which was characterized by similar soils and topography, produced no historic or precontact artifacts. Based on poorly drained soils and low archaeological potential, no work is recommended in Area S-39. *Area S-39 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-42

Area S-42 is a 4.37-acre area that spans the yards of a residential neighborhood, a local park, and a church property north of Good Luck Road in Prince George's County (**Appendix E, Page 20**). Much of this area is wooded, but there are maintained lawns at its northwestern and southeastern ends. Mapped soil series include soils from the Issue-Urban land complex, Russett-Christiana-Urban land complex, and Christiana-Downer-Urban land complex. Slopes range from 0-15 percent. Based on the presence of disturbed, Urban land complex soils throughout the survey area, no work is recommended in Area S-42. *Area S-42 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-44

Area S-44 consists of 0.67-acre occupying two residential parcels south of Ardwick Ardmere Road in Prince George's County (**Appendix E, Page 23**). This area is mostly wooded, although a house and driveway occupy the eastern part of the area. Mapped soil series in Area S-44 are predominantly Sassafras sandy loam, 5 to 10 percent slopes. Because archaeological sites are frequently found in areas of Sassafras soils, limited Phase I survey at 100 ft test intervals is recommended in Area S-44 to assess integrity. *Area S-44 is now outside the LOD for the Preferred Alternative and would not be affected.*

Area S-53

Area S-53 is a 5.59-acre area located on a wooded terrace along the north side of the east spur of I-270 in Montgomery County (**Appendix E, Page 7**). It occupies unimproved and recreational spaces within a residential development. Mapped soil series in Area S-53 include Glenelg silt loam, a soil type where archaeological resources are frequently found. Area S-53 most closely resembles Area S-7, with the same predominate soil types (Glenelg silt loam) and similar topographic setting. Based on the results of Area S-7, where soils were largely intact and two archaeological sites were identified, full Phase I survey is recommended in Area S-53. *Area S-53 lies within the LOD for the Preferred Alternative.*

Area S-54

Area S-54 consists of 0.73-acres located on a floodplain and hillslope south of Montrose Road in Montgomery County (**Appendix E, Page 8**). It is surrounded by residential developments and bisected by Bogley Branch, a tributary of Cabin John Creek. Mapped soil series in this area include Gaila silt loam and Hatboro silt loam and slopes range from 0-15 percent. Area S-54 most closely resembles other floodplain areas such as Area S-16a, Area S-16c, Area S-17, Area S-33, Area S-34, and Area S-35. Based on its position in a floodplain and the potential for buried precontact deposits in Hatboro soils, full Phase I survey is recommended in Area S-54. Deep testing is recommended to examine areas below the mantle of modern alluvium characteristic of Hatboro soils. *Area S-54 is now outside the LOD for the Preferred Alternative and would not be affected.*

Gibson Grove African Methodist Episcopal Zion Church

The parcel containing the Gibson Grove African Methodist Episcopal (AME) Zion Church (MIHP M:29-39) is located within the CSB. *The Gibson Grove AME Zion Church property lies within the LOD of the Preferred Alternative.* The LOD for the Preferred Alternative would impact only very steep portions of the Gibson Grove church property.

The Gibson Grove AME Zion Church was organized in 1889 around a community of formerly enslaved African Americans established after the Civil War. The original church building was replaced by the existing church building in 1923 (DOE M-29-39). The congregation has been a cornerstone of the Cabin John African-American community ever since. The Gibson Grove AME Zion Church was evaluated and found eligible for the NRHP under Criterion A for its association with the Gibson Grove African-American community on October 12, 2000 (DOE M-29-39).

In 2008, the Gibson Grove AME Zion Church property was the subject of archaeological excavations by a University of California—Berkeley doctoral student (Jones 2010). This study was precipitated by a fire within the modern church building amid concerns that reconstruction efforts would disturb undocumented burials. A 1962 Maryland State Highway Administration map (Jones 2010:18) indicates that three burials are present on the property. With the cooperation of the Montgomery County archaeologist, researchers excavated a series of 0.5-m-square test pits on a two-meter grid north of the current church building (Jones 2010:22), followed by six 1.5-m-square test units. Extensive testing revealed no evidence of graves, and the three burials may have been located in the vicinity of a prior log building, the site of which may be on a nearby property (Jones 2010:27). They concluded that burials were not present in the direct vicinity of the church building and that the rear exterior yard of the church had not been heavily utilized during its occupation (Jones 2010:31). The archaeological investigations by Jones (2010) did not document any occupations that predated the modern church building.

5.2.2 Newly Identified and Updated Sites in Maryland

Ten new archaeological sites were identified as a result of the study (**Table 16**). They included four precontact sites, three historic sites, and three sites with historic and precontact components. In addition, the Phase I study resulted in the reidentification of two previously recorded archaeological sites: 18MO22 a multi-component site, and 18PR425, a historic site. Testing within the vicinity of these two sites, and recovery of additional artifacts, resulted in the expansion of their previously recorded site boundaries. Of the 12 sites encountered during this investigation, three (18MO749, 18MO751, and 18MO752) are recommended for additional work in order to evaluate their eligibility for the NRHP. *All three of these sites are located within the LOD for the Preferred Alternative.* Nine sites (18MO22, 18MO750, 18MO753, 18MO754, 18MO755, 18MO756, 18PR425, 18PR1131, and 18PR1133) are recommended for no additional work. Phase II investigations were subsequently completed by Blood et al. (2019) (Volume 5) at 18MO749 and 18MO751, along with one site previously recorded by Diamanti et al. 2008 (18PR750).

Table 16. Recommendations for sites identified or updated within MLS Survey Areas

Site#	Name	Area#	Cultural Affiliation	Type	Recommendations for Screened Alternatives	Within LOD for Preferred Alternative	Recommendations for Preferred Alternative
18MO22	Potter Site/Clara Barton Parkway Site 1	S-13	Unknown precontact; Nineteenth and twentieth century	Lithic scatter; domestic scatter	No Further Work	Yes	No Further Work
18MO749	C&O Canal Site 1	S-12/13	Early Woodland	Lithic scatter; possible campsite	Phase II completed, NRHP eligible (Volume 5)	Yes	Phase II completed, NRHP eligible (Volume 5)
18MO750	C&O Canal Site 2	S-12/13	Unknown precontact; Nineteenth and twentieth century	Lithic scatter; domestic scatter	Not eligible for the NRHP, No Further Work	Yes	Not eligible for the NRHP, No Further Work
18MO751	C&O Canal Site 3	S-12/13	Unknown precontact; Nineteenth and twentieth century	Lithic scatter; lockhouse	Phase II completed, NRHP eligible (Volume 5)	Yes	Phase II completed, NRHP eligible (Volume 5)
18MO752	Cabin John Site 1	S-7	Unknown precontact	Lithic Scatter	Avoidance or Phase II	Yes	Phase II
18MO753	Cabin John Site 2	S-7	Unknown precontact; Nineteenth century	Lithic scatter; Artifact isolate	Not eligible for the NRHP, No Further Work	Yes	Not eligible for the NRHP, No Further Work
18MO754	Rock Creek Site 1	S-16a	Unknown precontact	Lithic scatter	Not eligible for the NRHP, No Further Work	No	Not eligible for the NRHP, No Further Work
18MO755	Rock Creek Site 2	S-16b	Unknown precontact	Lithic scatter	Not eligible for the NRHP, No Further Work	No	Not eligible for the NRHP, No Further Work
18MO756	Sligo Creek Site 1	S-36	Twentieth century	Domestic scatter	Not eligible for the NRHP, No Further Work	No	Not eligible for the NRHP, No Further Work
18PR425	Prator Farmstead	S-40	Nineteenth and twentieth century	Farmstead	Not eligible for the NRHP, No Further Work	No	Not eligible for the NRHP, No Further Work
18PR1131	Greenbelt Park Site 1	S-26	Twentieth century	Building	Not eligible for the NRHP, No Further Work	No	Not eligible for the NRHP, No Further Work
18PR1133	BARC Site 1	S-20	Nineteenth century	Domestic scatter	Not eligible for the NRHP, No Further Work	No	Not eligible for the NRHP, No Further Work

18MO22 (The Potter Site/Clara Barton Parkway Site 1)

Site 18MO22 is located in Area S-13 (**Appendix E, Page 2**). [REDACTED]

[REDACTED] No evidence of the site was uncovered in intervening Area S-12, which encompassed part of the original site boundary. The Potter Site/Clara Barton Parkway Site 1 is a precontact and historic period artifact scatter measuring 292 by 380 feet within Area S-13. It contains lithic debitage of indeterminate date and late eighteenth to early twentieth century domestic and architectural artifacts. The historic component is likely related to buildings depicted on historic maps to the northwest of Area S-13; those buildings were destroyed as a result of the construction of the Clara Barton Parkway and I-495. The precontact and historic material recovered from the site were identified in a mixed context. Much of the surrounding area has been destroyed by highway construction, and no features or discrete artifact deposits were identified during the study [REDACTED]

Because 18MO22 was not fully tested, no recommendation of NRHP eligibility can be offered; however, no further work is recommended for portions of 18MO22 within the MLS project LOD. *Site 18MO22 lies within the LOD for the Preferred Alternative.*

18MO749 (C&O Canal Site 1)

Site 18MO749 is located in Area S-12/13 [REDACTED] (**Appendix E, Page 2**). The site is a dense lithic scatter situated on a low terrace [REDACTED]. The vertical distribution of artifacts within the STPs suggests stratigraphic integrity, with the majority of the precontact assemblage was identified in strata approximately 1.5 to 2.0 ft below ground surface. One possible Accokeek pottery sherd gives a potential date for the site in the Early Woodland period.

Given the frequency, type, and context of the material recovered, the Phase I investigation indicated that the site could be able to provide information important in prehistory. The site appeared to retain a high degree of stratigraphic integrity and the potential to provide meaningful new data on precontact lifeways in the area and provided additional information about precontact occupation of this part of the Potomac River valley during the Early Woodland Period. A report detailing the results of the Phase II study and evaluation of Site 18MO749 was completed by Blood et al. (2019; MLS Cultural Resources Technical Report Volume 5); the site was found to be eligible for the NRHP. *Site 18MO749 lies within the LOD for the Preferred Alternative.*

18MO750 (C&O Canal Site 2)

Site 18MO750 is located in Area S-12/13, [REDACTED] (**Appendix E, Page 2**). The site consists of a sparse precontact lithic scatter of unknown temporal affiliation and a low density historic domestic scatter dating from the nineteenth and early twentieth century. [REDACTED]

Site 18MO750 consisted of a low-density scatter of both precontact and historic cultural material identified in a mixed context. No discrete artifact deposits were identified, and no evidence was recovered

to indicate the existence of intact remains of a precontact or historic occupation. Likely, the precontact components reflects an isolated occurrence, and the nineteenth and twentieth century components reflects an ephemeral scatter associated with historic use of the general area. As a result, Site 18MO750 is recommended not eligible for the NRHP and no further work is recommended. *Site 18MO750 lies within the LOD for the Preferred Alternative.*

18MO751 (C&O Canal Site 3)

Site 18MO751 is located in Area S-12/13, [REDACTED] (Appendix E, Page 2). C&O Canal Site 3 is a domestic site representing the nineteenth and early twentieth century occupation of the lockhouse [REDACTED]. A dry-laid fieldstone foundation was identified on the east side of the site.

Site 18MO751 indicated potential to provide information on the lifeways and patterns of consumption for lock keepers in the nineteenth and twentieth centuries. As a result, Site 18MO751 was investigated as part of a Phase II evaluation study by TRC on behalf of MDOT SHA. A report detailing the results of the Phase II study and evaluation of Site 18MO751 was completed by Blood et al. (2019). The site was found to be eligible for the NRHP. *Site 18MO751 lies within the LOD for the Preferred Alternative.*

18MO752 (Cabin John Site 1)

Site 18MO752 is a precontact lithic scatter of unknown temporal affiliation [REDACTED] (Appendix E, Page 26). Cabin John Site 1 is a moderately dense concentration of lithic material, including one partial rhyolite projectile point. All artifacts recovered from the site were identified in an E-horizon identified approximately 0.2 to 0.6 ft below ground surface. Site 18MO752 may have sufficient integrity to provide meaningful information on precontact lifeways in upland settings in Montgomery County and may be eligible for the NRHP under Criterion D. Phase II testing including close-interval STPs is recommended if ground disturbing activity is planned within Site 18MO752. *Site 18MO752 lies adjacent to the LOD for the Preferred Alternative.*

18MO753 (Cabin John Site 2)

Site 18MO753 was identified [REDACTED] (Appendix E, Page 8). The site was identified as a low density precontact lithic scatter consisting of two pieces of quartz debitage and a single piece of nineteenth-century whiteware. Given the paucity of material and the presence of both precontact and historic material in the same stratigraphic context, the site has little potential to provide meaningful information about either precontact or historic occupation of the region. Site 18MO753 is recommended not eligible for the NRHP and no further work is recommended. *Site 18MO753 lies within the LOD for the Preferred Alternative.*

18MO754 (Rock Creek Site 1)

Site 18MO754 is located in Area S-16a [REDACTED] (Appendix E, Page 12). The site is a precontact lithic scatter of unknown temporal affiliation [REDACTED]. A total of six artifacts was recovered from the site, and areas surrounding the site are very steep slopes or have been disturbed by road construction. Given the paucity of artifacts recovered, Site 18MO754 lacks sufficient integrity to contribute meaningful information on precontact lifeways. As a result, Site 18MO754 is recommended not eligible for the NRHP

and no further work is recommended. *Site 18MO754 is now outside the LOD for the Preferred Alternative and would not be affected.*

18MO755 (Rock Creek Site 2)

Site 18MO755 is located in Area S-16a [REDACTED] (**Appendix E, Page 12**). The site is a precontact lithic scatter of unknown temporal affiliation [REDACTED]. The artifacts from Site 18MO755 consisted of cortical flake fragments, non-cortical flake fragments, non-cortical biface reduction flakes, and cobble shatter recovered from a homogenous alluvial deposit with a depth exceeding 2.0 ft. No diagnostic artifacts were recovered and given the lack of horizontal or vertical artifact patterning, the site lacks sufficient integrity to contribute meaningful information on precontact lifeways. As a result, Site 18MO755 is recommended not eligible for the NRHP and no further work is recommended. *Site 18MO755 is now outside the LOD for the Preferred Alternative and would not be affected.*

18MO756 (Sligo Creek Site 1)

Site 18MO756 is a historic domestic artifact scatter with a possible well feature in Area S-36 [REDACTED] (**Appendix E, Page 13**). The artifacts consist almost entirely of oyster shell, with one modern machine-made amber bottle glass fragment, one unidentifiable nail fragment, and one piece of unidentifiable metal. No discernible concentrations of artifacts were encountered across the approximately half-acre area of the site, offering limited information as to the site's historic layout [REDACTED]. [REDACTED] The structure location shown on the USGS (1917) Washington and Vicinity quadrangle has been destroyed by [REDACTED], and the intervening area is under I-495. Based on prior disturbance, site 18MO756 has limited potential to provide significant information on lifeways in rural Montgomery County at and after the turn of the twentieth century. The site is recommended not eligible for the NRHP, and no further work is recommended. *Site 18MO756 is now outside the LOD for the Preferred Alternative and would not be affected.*

18PR425 (The Prator Farmstead Site)

Site 18PR425 is a previously identified site located [REDACTED] in Area S-40 (**Appendix E, Page 17**). It was identified as a late nineteenth- and early twentieth-century farmstead during a 1992 study and was evaluated and determined not eligible for inclusion on the NRHP in 1993. The results of this survey expanded the original site boundary to the southeast, but otherwise corroborated the earlier Phase I survey and Phase II investigation. Site 18PR425 was subject to documented disturbance during the destruction of an early twentieth-century barn complex and no further work is recommended. *Site 18PR425 is now outside the LOD for the Preferred Alternative and would not be affected.*

18PR1131 (Greenbelt Park Site 1)

Site 18PR1131 is the remains of a concrete block structure [REDACTED] within Area S-26 (**Appendix E, Page 19**). [REDACTED] The site consists of a concrete block foundation and

three iron artifacts, including one machine-cut nail, recovered from a probable fill context. [REDACTED]

[REDACTED] Site stratigraphy consisted of at least three fill layers over subsoil. Site 18PR1131 is recommended not eligible for the NRHP and no further work is recommended. *Site 18PR1131 is now outside the LOD for the Preferred Alternative and would not be affected.*

18PR1133 (BARC Site 1)

Site 18PR1133 (BARC Site 1) is a nineteenth-century yard scatter located partially within Area S-20, [REDACTED] [REDACTED] [REDACTED] (Appendix E, Page 15). The portion of the site within Area S-20 represents a narrow, undisturbed strip about 50 ft (15 m) wide [REDACTED] [REDACTED]. Historic artifacts from the site include brick, transfer-printed and undecorated whiteware, a sherd of thin-bodied, slip-decorated redware, and two heavily corroded iron pieces, including one probable cut nail. One quartz flake was recovered from the same context as a piece of nineteenth-century whiteware. Site 18PR1133 represents the truncated remains of a nineteenth-century scatter. The site does not contain any features and does not provide sufficient information to formulate research questions for further study and has limited potential to provide new information on lifeways in the late nineteenth century Prince George’s County. Site 18PR1133 is recommended not eligible for the NRHP and no further work is recommended. *Site 18PR1133 is now outside the LOD for the Preferred Alternative and would not be affected.*

Morningstar Tabernacle No. 88 Moses Hall and Cemetery

The parcel containing the remains of the no longer extant Moses Hall and Morningstar Cemetery is located within the CSB and *is now outside the LOD for the Preferred Alternative and would not be affected.* The two-story structure called Moses Hall housed a philanthropic fraternal order and operated as Morningstar Tabernacle #88. No prior archaeological investigations have been done on the property.

As part of the current study, pedestrian survey was undertaken at the site of Moses Hall, which once occupied the northern portion of the parcel (the cemetery is described in greater detail in Section 5.2.5 below). Fieldstone, clay chimney parts and other building debris were identified within the CSB, suggesting the potential for intact archaeological deposits associated with the late nineteenth and twentieth century use of Moses Hall. It is recommended that the site of Moses Hall continue to be avoided by the undertaking.

5.2.3 Additional Archaeological Studies Completed

C&O Canal and Clara Barton Parkway

Design refinements showed additional impacts near Areas S-12, S-13, and S-12/13 at the American Legion Bridge following completion of this survey. MDOT SHA evaluated the archaeological potential of the additional limits of disturbance, and supplemental Phase I investigations were conducted after a revision to the existing ARPA Permit was secured. The results of the supplemental investigations, which recorded no additional significant archaeological resources, are reported in Blood et al. (2019).

Phase II investigations were also completed by Blood et al. (2019) at sites 18MO749 and 18MO751 [REDACTED], along with one site previously recorded by Diamanti et al. 2008 (18PR750 [REDACTED]). Site 18PR750 was recommended not eligible for the National Register of Historic Places (NRHP), and MHT concurred with MDOT SHA’s determination on March 12, 2020. No further archaeological investigation of this site is warranted. Site 18MO749 has the potential to provide substantive data that could be useful in addressing a variety of regional research issues, including those related to lithic procurement and reduction, resource procurement, temporal data, and Woodland period settlement patterns. This site is recommended eligible under NRHP Criterion D, and avoidance or data recovery investigation is recommended. Site 18MO751 has the potential to provide substantive data that could be useful in addressing a variety of regional research issues, including those related to early 19th through early 20th century consumer behavior and the lifeways of C&O Canal lock house keepers. This site is recommended eligible under NRHP Criteria C and D, and avoidance or data recovery investigation is recommended. MHT concurred with MDOT SHA’s determinations on March 12, 2020.

MLS Archaeological Investigations in Fairfax County, Virginia

In April of 2019, MDOT SHA evaluated preliminary design information for portions of the I-495/I-270 MLS Study at the American Legion Bridge and in Fairfax County, Virginia. The project design had been refined to accommodate construction of a new bridge crossing over the Potomac, and to provide connections for proposed Maryland managed lanes with roadways in Virginia. The MLS Study evaluated project elements at the interchange of I-495 and the George Washington Memorial Parkway (GWMP) connecting managed lanes on the Capital Beltway with the George Washington Memorial Parkway. In addition, VDOT is moving forward on a project (called the 495 Express Lanes Northern Extension [NEXT] Project) extending the I-495 Express Lanes in Virginia from north of the Dulles Toll Road interchange to the American Legion Bridge.

Prior to field investigation for the MLS, several archaeological sites within the MLS limits of disturbance were known (**Appendix E, Page 1**):

44FX0373 (West Run Site 1)

Site 44FX0373 is a precontact lithic scatter of unknown age documented by Mike Johnson in 1981, comprising a “thin surface scatter” of artifacts including 2 quartz flakes, 3 quartz shatter, and 2 quartzite flakes (Raszick and Bedell 2018: **Appendix B**). [REDACTED]

According to Raszick and Bedell (2018:42), who recently completed an overview study of the GWM [REDACTED]
[REDACTED]
[REDACTED] The MLS Study is impacting [REDACTED] f 44FX0373. Phase I investigation at 44FX0373, consisting of five shovel tests and two radials recovered 11 artifacts, predominantly of quartz, all deriving from the Ap horizon (Raszick and Bedell 2018:42). *Site 44FX0373 lies within the LOD for the Preferred Alternative.*

44FX0374 (West Run Site 2)

Site 44FX0374 is a precontact lithic scatter of unknown age documented by Mike Johnson in 1981. [REDACTED] The original survey produced an assemblage of 23 quartz flakes and 2 quartz cores from fourteen shovel tests. A re-examination of 44FX0374 (Raszick and Bedell 2018:42) recovered 377 pieces of mostly quartz debitage from 14 shovel tests, including two judgmentally placed STPs. Approximately 62% of the 2018 assemblage was recovered from a single shovel test. *Site 44FX0374 lies within the LOD for the Preferred Alternative.*

44FX0379 (Parkview Hills Site)

Site 44FX0379 is a precontact lithic scatter of unknown age documented by Mike Johnson in 1981. [REDACTED] A portion of the landform it occupies was destroyed when the George Washington Memorial Parkway was constructed, bisecting the site. Artifacts recovered from the site included one possible projectile point fragment, one quartz biface, quartz and quartzite debitage, and one rhyolite flake. Dongarra and Harris (2006:54) excavated a single shovel test within 44FX0379 and recovered one quartz flake. *Site 44FX0379 lies within the LOD for the Preferred Alternative.*

44FX0381 (West Run Site 3)

Site 44FX0381 is a precontact lithic scatter of unknown age documented by Mike Johnson in 1981. [REDACTED] It was identified based on a surface collection consisting of four pieces of quartz debitage and one notched quartz point. Subsequent Phase I survey at 44FX0381 recovered 12 pieces of quartz and quartzite debitage from five STPs (Raszick and Bedell 2018:46). *Site 44FX0381 is now outside the LOD for the Preferred Alternative and would not be affected.*

44FX0389

Site 44FX0389 is a precontact lithic scatter of unknown age documented by Mike Johnson in 1981. [REDACTED] Artifacts observed at this site by Johnson include 13 pieces of quartz debitage and one quartz biface. Raszick and Bedell (2018:20) note that Phase I archaeological survey (Dongarra et al. 2006a) for a proposed extension of the Mount Vernon Trail through the Parkway investigated 44FX0389, but no additional artifacts were recovered from the site. Dongarra and Harris (2006:98, Table 6.1) recommend that Phase II investigations be conducted at 44FX0389. *Site 44FX0389 lies within the LOD for the Preferred Alternative.*

44FX3160

Site 44FX3160 is a precontact camp and lithic scatter of unknown age recorded by Dongarra and Harris (2006:44). One shovel test and four radials produced 15 artifacts. [REDACTED] "The assemblage consisted entirely of debitage, primarily flakes ... both quartz and quartzite [are] present ... none of the recovered debitage exhibits cortex ... nine of the [15] recovered flakes ... appear to be thinning flakes." (Dongarra et al. 2006a:46). This site has not been evaluated for the NRHP but is recorded as containing intact subsurface deposits that span a broad time period. Dongarra and Harris (2006:98, Table 6.1) recommended that

Phase II investigations be conducted at 44FX3160. *Site 44FX3160 lies within the LOD for the Preferred Alternative.*

44FX0377

Site 44FX0377 is a possible precontact quarry of unknown age documented by Mike Johnson in 1981 [REDACTED]. [REDACTED] Artifacts recovered by Johnson included flakes, shatter, bifacially worked tools, a hammerstone, and Fire Cracked Rock (Dongarra et al. 2006a:54). The site consists of a large quartz outcrop of mixed quality material on the eastern end of the site. Quarry debris was observed on the southwestern slope of the outcrop. Later survey for the Mount Vernon Trail extension recovered 17 quartz artifacts from seven shovel tests (Dongarra et al. 2006a:54). *Site 44FX0377 is now outside the LOD for the Preferred Alternative and would not be affected.*

44FX0326

Site 44FX0326 is a possible precontact quarry related site of unknown age documented by Mike Johnson in 1981 and [REDACTED]. Two artifact concentrations were noted by Johnson when the site was recorded, and artifacts included quartz debitage and a hammerstone (Dongarra et al. 2006a:58). Later survey for the Mount Vernon Trail extension recovered 48 quartz artifacts from six shovel tests and supplemental surface collection (Dongarra et al. 2006a:58). Dongarra and Harris (2006:58) suggest that the site may have recognizable internal activity areas and may retain both horizontal and vertical integrity. *Site 44FX0326 is now outside the LOD for the Preferred Alternative and would not be affected.*

44FX0322

Site 44FX0322 is a sparse precontact lithic scatter of unknown age documented by Mike Johnson in 1981. [REDACTED] Later survey for the Mount Vernon Trail extension recovered 1 quartz artifact from one shovel test (Dongarra et al. 2006a:58). Raszick and Bedell (2018:79) excavated 22 shovel tests at 50-foot intervals, and recovered 22 quartz artifacts, none temporally diagnostic. Half of the artifacts were recovered from a single shovel test on the upper ridge knoll. *Site 44FX0322 is now outside the LOD for the Preferred Alternative and would not be affected.*

Results of Phase I and Phase II Investigations in Virginia

The proposed 2019MLS construction design would impact undisturbed terrain along the Capital Beltway and the GWMP. MDOT SHA therefore scoped Phase I and Phase II archaeological investigations on Federal lands administered by the NPS and secured an ARPA Permit to conduct the archaeological investigations within the George Washington Memorial Parkway. The results of these investigations are reported in Millis and Idol (2019), Volume 6 of this report.

In Virginia, Phase I archaeological investigations were completed at several locations where the proposed MLS limits of disturbance, as then designed, would impact areas considered likely to contain significant archaeological resources (Millis and Idol 2019). The investigations included shovel testing in these areas.

Intensive Phase I and Phase II investigations were also completed at six previously recorded archaeological sites in Virginia, 44FX0373, 44FX0374, 44FX0379, 44FX0381, 44FX0389, and 44FX3160, and newly recorded site 44FX3900. These investigations included close-interval shovel testing and the excavation of test units to evaluate the eligibility of archaeological resources to the National Register of Historic Places (Millis and Idol 2019).

MDOT SHA recommended that many of the previously identified, related sites be treated as a single, NRHP-eligible archaeological district, described below. Two sites, 44FX3160 and 44FX3900, were found to be ineligible for the NRHP. Site 44FX3160, which is within the archaeological district boundaries, also does not contribute to the district.

Proposed Dead Run Ridges Archaeological District (44FX3922)

Six sites within the GWMP (44FX0373, 44FX0374, 44FX0379, 44FX0381, 44FX0389, and 44FX3160) appear to represent a related set of activities over roughly contemporaneous periods, and occur within a distinct landscape setting. The Phase II investigations indicate that these sites can provide important information about precontact occupations and use of the landscape. They are considered to be part of an archaeological district, recommended by MDOT SHA as eligible for the NRHP as a “significant concentration, linkage, or continuity of sites, ... united historically by ... physical development” (USDOL 1991:5). The Keeper of the Register determined the District to be eligible for the NRHP on September 10, 2020. It is designated as the Dead Run Ridges Archaeological District after Raszick and Bedell’s (2018) topographical designation for this area. The proposed archaeological district also encompasses three nearby sites not investigated by the project (44FX0227, 44FX0380, and 44FX0390). Together these resources appear to be related in primary function—quartz extraction and reduction—and to contain similar temporal components—primarily Late Archaic, with some Early and Late Woodland occupations.

Sites 44FX0374, 44FX0379, 44FX0381, and 44FX0389 retain integrity and data potential under Criterion D, and are both individually eligible for the NRHP and are contributing resources to the Dead Run Ridges Archaeological District (44FX3922). Site 44FX0373 has not been evaluated and remains unevaluated for the NRHP. Site 44FX3160, incorporated within the district boundary by default due to its location, may represent artifacts redeposited by erosion and slopewash and is both not eligible for the NRHP and is a non-contributing element to the proposed District. DHR concurred with MDOT SHA’s determinations regarding the eligibility of the individual archaeological sites indicated above on February 14, 2020. More detailed information about the proposed District and the various archaeological sites investigated can be found in Volume 6 (Millis and Idol 2019). *Archaeological district 44FX3922 lies within the LOD for the Preferred Alternative.*

44FX3160

Phase II investigations were undertaken by MDOT SHA at 44FX3160 to evaluate its eligibility for the National Register of Historic Places (Millis and Idol 2019). The site produced a modest number of nondiagnostic lithic artifacts and may represent redeposited material. This site is recommended not eligible for the NRHP, and no further archaeological investigation is recommended. DHR concurred with MDOT SHA’s determination on February 14, 2020. *Site 44FX3160 lies within the LOD for the Preferred Alternative.*

44FX3900

Phase I survey identified this additional archaeological site within the CSB and Alternative 10 LOD, and Phase II investigations were completed to evaluate its eligibility for the NRHP (Millis and Idol 2019). Site 44FX3900 represents a low-density precontact site with no evidence of substantial meaningful artifact concentrations, cultural features, or any other intact aspects of site structure. [REDACTED]

[REDACTED] Based on the results of Phase II investigations, site 44FX3900 is not considered eligible for the NRHP. DHR concurred with MDOT SHA’s determination on February 14, 2020. *Site 44FX3900 is now located outside the LOD for the Preferred Alternative and would not be affected.*

Phase I Survey in Virginia

The southern margins of three additional archaeological sites may be impacted by proposed placement of conduit. Phase I investigations were undertaken within the MLS LOD [REDACTED]

[REDACTED] to examine the southern boundaries of 44FX0322, 44FX0326, and 44FX0377 (Millis and Idol 2019). No cultural material was recovered in the vicinity of the first two sites. Scattered quartz debitage was recovered along the southern margin of 44FX0377. Because only a low density of non-diagnostic artifacts was found within the LOD, no significant archaeological resources would be affected, and no further archaeological work is recommended. DHR concurred with MDOT SHA’s recommendations on February 14, 2020. More detailed information about the investigation can be found in Volume 6 (Millis and Idol 2019). *Sites 44FX0322, 44FX0326, and 44FX0377 are now outside the LOD for the Preferred Alternative and would not be affected.*

Underwater Archaeological Assessment of the American Legion Bridge Crossing

The American Legion Bridge crosses the Potomac River between Great Falls, a significant set of rapids just above Mather Gorge upstream of the bridge, and Little Falls, which marked the head of navigation for the Potomac just above the port of Georgetown (**Figure 119**). Georgetown lies about 11 miles downstream of the Bridge. Historic maps indicate that the vicinity of the American Legion Bridge had only sparse settlement in the 19th and early 20th centuries.

The American Legion Bridge is within a treacherous 17-mile stretch of the Potomac River that was that was difficult and dangerous to navigate. There is no evidence that there was ever a historical ferry crossing at the Legion Bridge, and two factors make this an unlikely location for a crossing of the Potomac: the sparsity of settlement on both the Maryland or Virginia shores, and the narrowness of the river at the present bridge crossing; the narrowed confines of the river increase water velocity through an already treacherous section of the river.

Figure 119. American Legion Bridge showing rock outcrops that occur along the north (Maryland) shoreline (upper and right portions of image) at low water level.



The hazardous and difficult to navigate stretch runs from Great Falls (over seven miles upstream of the Legion Bridge), to Little Falls at the head of tidal influence (over 6 miles downstream). Lawrence Washington wrote in 1749:

"the Potomack River is navigable for small Flats as high up as the Aligany Mountains except an obstruction of seventeen miles immediately above where the Tide flows" (sic) (in Guzy 2011:3).

The Ohio Company of Virginia was established in 1747; an 1834 report describes how the rapids were circumvented for commerce:

"goods, imported from Great Britain . . . into the town of ... Alexandria, were carried eighteen miles over land to the head of Great Falls of Potomac, and there transferred to barges, from which they re-landed at Cumberland ... after a voyage of one hundred and seventy-six miles" (Guzy 2011:3).

In 1781 Thomas Jefferson (Notes on the State of Virginia, after Guzy 2011) noted the stretch of rapids, and described navigation above Great Falls. "In the first 15 miles above tidewater, the Little, Great, and Seneca Falls remained obstacles" (Guzy 2011:9). Farther upstream, there was little river traffic, but Jefferson felt the situation could be changed with improvements to navigation:

“for batteaux and canoes, [navigation on the Potomac] is so much interrupted as to be little used. It is, however, used in a small degree up the Cohongoronta branch ... as far as Fort Cumberland, which ... is capable, at no great expense, of being rendered very practicable” (sic) (Guzy 2011:9).

The Patowmack Company was incorporated in 1785 with the purpose of improving navigation on the Potomac through the construction of a five part skirting canal system designed to bypass the rapids at House Falls, Shenandoah Falls, Seneca Falls, Great Falls, and Little Falls and, thereby, providing continuous navigation of the Potomac from Georgetown to the Ohio River Valley (NPS 2020).

The hazards of this stretch of the Potomac are illustrated by the fact that in recent years, several drownings occur annually despite restrictions on entering the water. Because the river is constricted by bedrock outcrops, the current is treacherous even at low water flows, and frequent rock outcrops pose hazards. The river current builds up speed and force as it transits between Great and Little Falls. Currents in many places flow at greater velocities under the surface than at the surface (USDOI 2018, Hendrix 2013).

Griffith’s (1794) map of Maryland shows a road leading to the Potomac River just south of the mouth of Wats (sic, Watts) Branch, at a location about 9 river miles upstream of the Legion Bridge above Great Falls. No settlement is depicted near the area of the Legion Bridge. Fielding Lucas’ (1841) Map of Maryland also shows no development or roads near the Legion Bridge, although the C&O Canal is depicted. Mid-19th century US Coast and Geodesic Survey maps, which provide hydrographic information, do not cover areas upstream of Little Falls.

The Martenet 1865 Map of Montgomery County, Maryland (**Figure 120**) shows two roads that extended to the north bank of the Potomac, including Persimmon Tree Road downstream of the bridge, and possibly present Loch Edin Court upstream of the bridge, terminating across from the southern tip of Vaso Island (also called Herzog Island) at Carderock. By 1879, only Persimmon Tree Road still extended to the north bank of the Potomac (**Figure 121**). The road following the alignment of present Loch Edin Court terminated north of the C&O Canal, and no longer extending to the Potomac in 1879.

By the early 20th century, Persimmon Tree Road terminated short of the river at what was then called Conduit Road, which appears to follow the general alignment of present MacArthur Boulevard (**Figure 122**). Potential alignments of the no longer extant section of Persimmon Tree Road leading to the Potomac were traced using LiDAR and aerial imagery (**Figure 123**). The shoreline where this road would have reached the north bank of the Potomac is marked by a series of small islands and rock outcrops that would have formed a barrier to water access to all but the smallest craft.

Photographs of the project vicinity (see **Figure 119**) show a shallow, rocky shoreline downstream of the bridge on the Maryland (north) bank. The Virginia shore is marked by an even steeper embankment along most of this stretch of the Potomac, with a narrow floodplain.

Figure 120. Project Vicinity in 1865 (Martenet 1865 Map of Montgomery County). Both Persimmon Tree Road, downstream of the bridge, and a second road upstream (possibly Loch Edin Court) extend to the north bank of the Potomac River, suggesting use of the river for maritime activity.

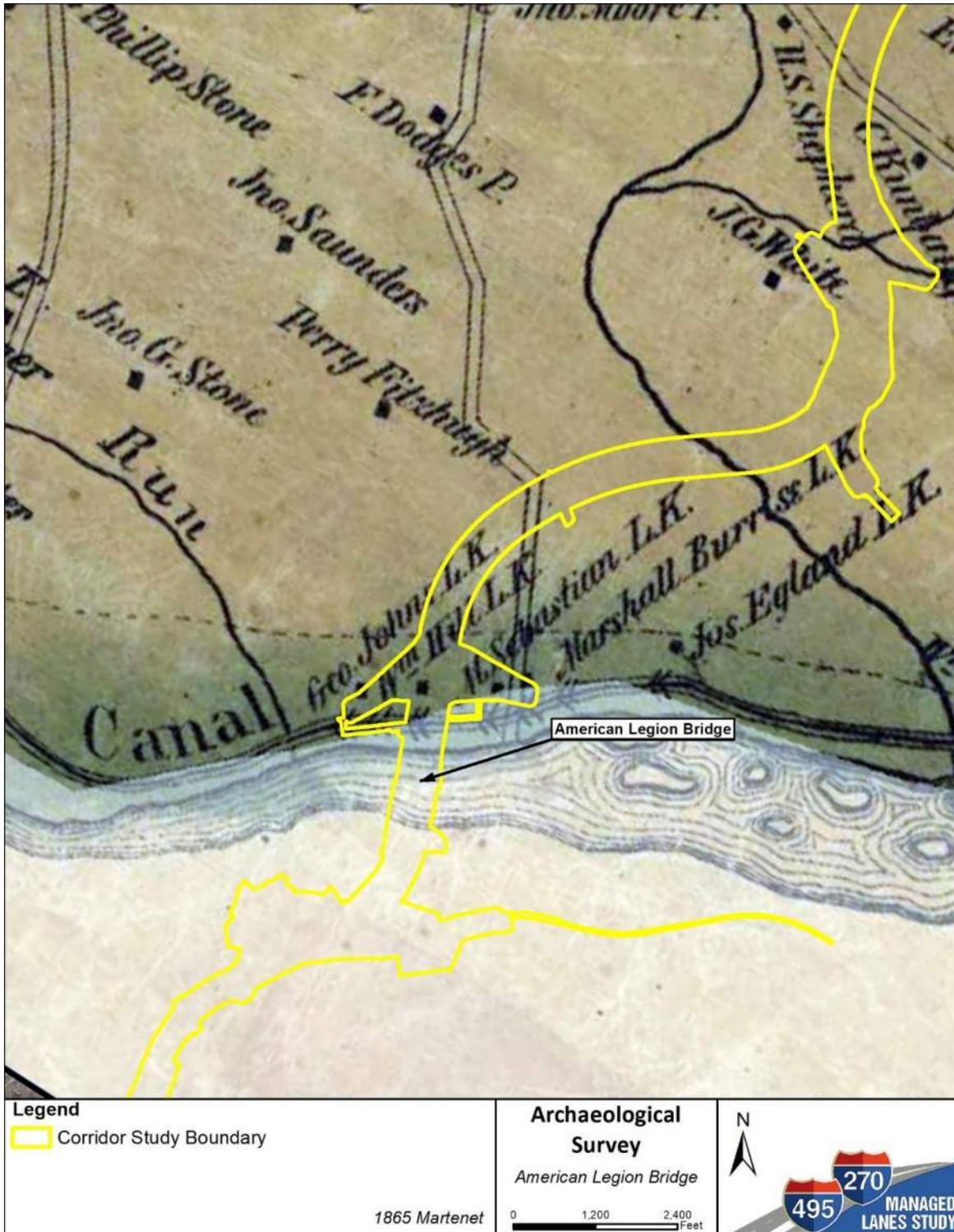


Figure 121. Project Vicinity in 1879 (Hopkins 1879 Atlas of Montgomery County), showing mapped alignment of Persimmon Tree Road. Canal locks are depicted with a “<” sign.

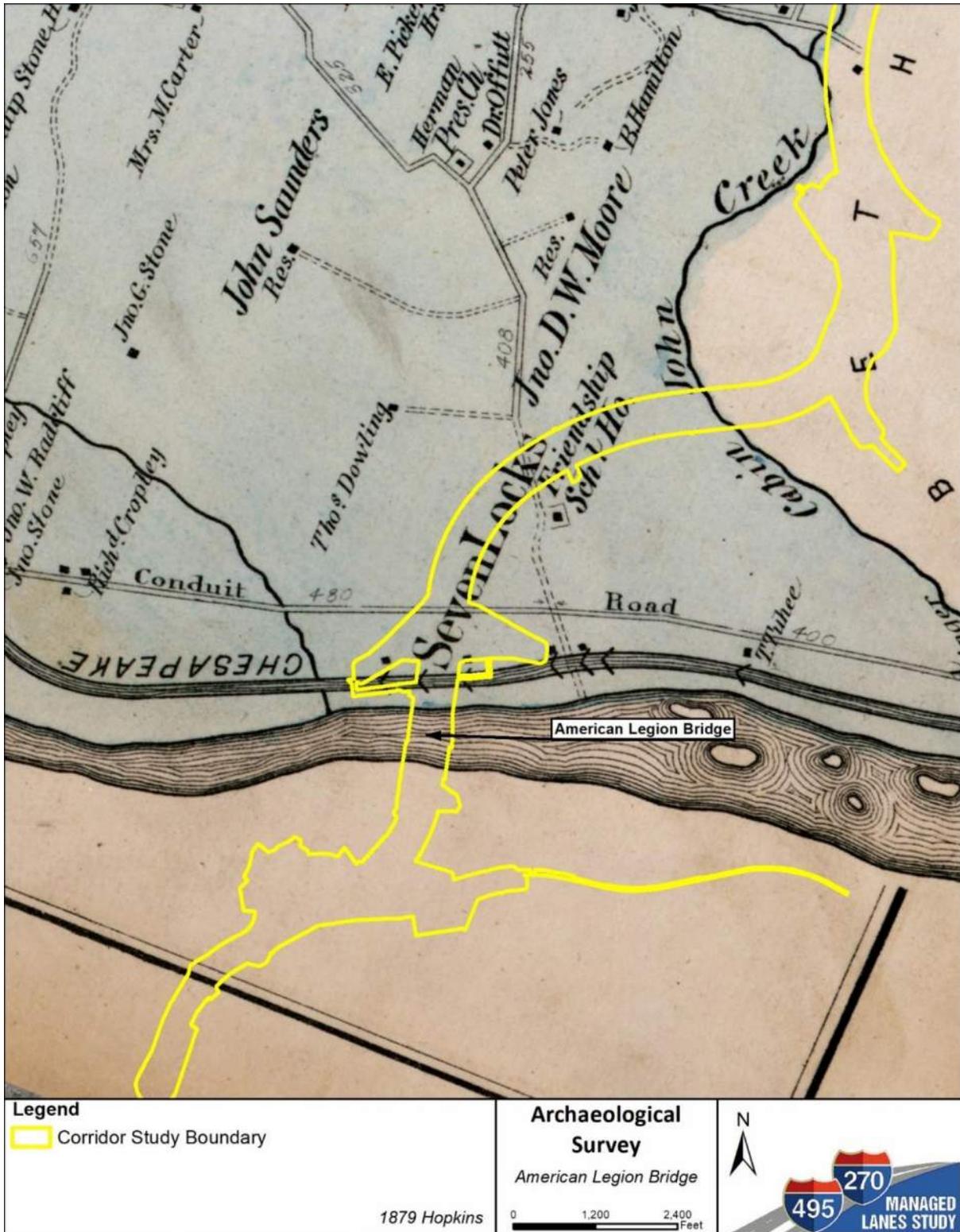


Figure 122. Closeup of the project vicinity in 1917 (USGS Washington East quadrangle) showing obstacles to navigation at the location of ancestral Persimmon Tree Road downstream of the bridge. The ancestral road alignment is traced as a dashed black line in the upper left portion of the image, near the designation for “Lock 10.”

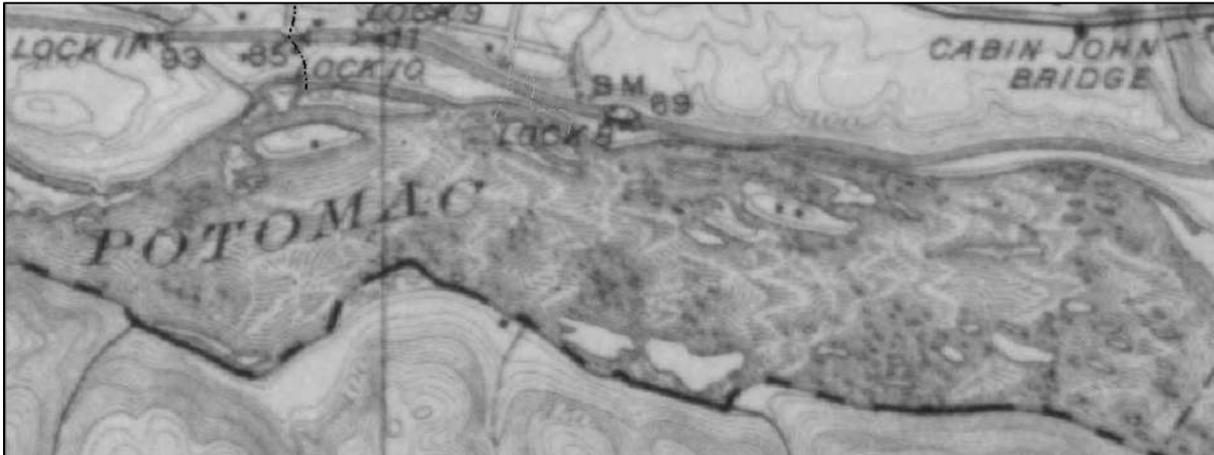


Figure 123. Aerial imagery of the project vicinity, showing islands, rock outcrops, and rapids in the Potomac. The ancestral alignment of Persimmon Tree Road is traced as a dashed black line in the upper left-center of the image.



MDOT SHA records show that the deepest part of the river channel runs along the Virginia shoreline. Periodic soundings at the bridge show a maximum channel depth of over 80 feet, occurring between Pier #4 and Pier #5, near the Virginia shoreline. Variation from the base readings taken in 1998 show both aggradation and scouring ranging up to 30 feet of change in a given location, indicating that there is a sedimented bottom that varies considerably in response to flood events.

In summary, early accounts suggest that prior to establishment of the C&O Canal, there was little or no commercial traffic on this stretch of the Potomac due to the extensive series of rapids, falls, rock outcrops, and dangerous currents. Small boats undoubtedly used this stretch in the past, and bridge soundings indicate that the bottom is sedimented. However, this section of the Potomac River remains dangerous today to boaters and swimmers and is unlikely to have experienced more than casual and intermittent

use in the past. Based on the swift currents that change the bottom topography in response to annual flood events, significant submerged archaeological resources are unlikely to occur in or near the LOD for the MLS Study.

5.2.4 Additional Archaeological Studies Recommended

Based on the project limits of disturbance, which reflect greater design detail than the CSB, MDOT SHA has identified additional potential impacts of the undertaking. Exclusive of cemeteries, which are addressed in Section 5.2.5 below, additional archaeological studies are recommended for several areas along the alignment. Phase I identification had been recommended at the location of Moses Hall (described above in Section 5.2.2), but the Morningstar property will now be avoided by the Preferred Alternative.

The results of this Phase I investigation and prior investigations indicate that Phase II evaluation is warranted at 18MO752 (previously described in Section 5.2.2 above), and 18MO514 [REDACTED] [REDACTED], as described below. *However, site 18MO514 is now outside the LOD for the Preferred Alternative and would not be affected.*

Further archaeological work is also recommended at previously identified sites 18MO190, 18MO191, 18MO457, and 18MO510, should they continue to be impacted by the LOD. *Site 18MO510 is now outside the LOD for the Preferred Alternative and would not be affected.*

Phase II evaluation may be warranted at 18MO191, a nineteenth and early twentieth century farmstead with above-ground features that may represent the Ball family farmstead. Impacts to the remaining two sites are uncertain. The location and boundary of site 18MO457 is ambiguous and requires further clarification through fieldwork. The proposed LOD at site 18MO190 is confined to areas of steep slopes, and the undertaking may entail marginal or no impacts to this site. Additional identification studies are recommended to verify the site boundaries of 18MO457 and 18MO190 relative to the LOD.

Other areas may also require supplemental Phase I investigations as a result of future design refinements.

MDOT SHA would include commitments in the PA for phased evaluation of the above archaeological resources as warranted, along with provisions for avoidance, minimization, or mitigation of adverse effects should any of the resources be determined NRHP-eligible.

Finally, several previously recorded archaeological sites which are within the APE, but outside the LOD for the Preferred Alternative, have either not been unevaluated, or have been recommended not eligible for the NRHP, but lack a formal agency determination and concurrence on record. Because no effects are anticipated to resources outside the project limits of disturbance, no formal NRHP eligibility determinations have been made. Several other unverified resources recorded in MHT's Quad files are also reported within the APE and the LOD and would be investigated as appropriate. MDOT SHA would include provisions in the project PA to evaluate and treat these sites should the LOD change in a way that would affect them.

18MO514 at the National Park Seminary

Phase I archaeological investigations by Diamanti et al. (2008) identified additional archaeological resources associated with site 18MO514, an historic period site within the NR Listed National Park Seminary Historic District (M:36-01) (**Appendix E, Page 12**) [REDACTED]

[REDACTED] Archaeologists recorded the ruins of a pump station, a second industrial building with a collapsed chimney and evidence for anchoring heavy equipment, three water cistern features, the stone abutments of two former footbridges, and a retaining wall. These features were found in association with a low-density scatter of twentieth century artifacts including architectural material, coal and cinders, bottle glass, and one whiteware sherd. The final report notes that determination of the eligibility of the archaeological resources within the full National Register listed National Park Seminary District was beyond the scope of the project, which investigated the archaeology of only a small portion of the District.

Design plans for the CSB showed impacts to site 18MO514 [REDACTED], as well as impacts at Linden Lane along the western boundary of the District, and the MARC Railroad alignment along the eastern boundary of the District. *This area and Site 18MO514 lie outside the LOD for the Preferred Alternative and would not be affected.*

18MO190

Site 18MO190 was recorded by Kavanagh (1981) at the mapped location of a twentieth century house and barn shown on the USGS (1923, 1965) Rockville quadrangles. It was recorded within heavy vegetation cover [REDACTED]. Kavanagh was only able to identify one structure location, possibly the barn. No artifacts were recovered.

Site 18MO190 lies within the LOD for the Preferred Alternative. [REDACTED] (**Appendix E, Page 9**). This area is mapped as being on a steep slope (Blocktown channery silt loam, 15 to 25 percent slopes, very rocky), a setting that would be unlikely to contain significant archaeological resources. However, LiDAR shows that portions of the LOD are on areas of more gently sloping terrain. Additional field research is recommended to precisely locate the foundation recorded by Kavanagh (1981), to identify associated artifacts, and determine impacts to the site by the MLS project.

18MO191

Site 18MO191 is a nineteenth and twentieth century farmstead recorded by Kavanagh (1981) [REDACTED] (**Appendix E, Page 8**). Kavanagh (1981:5) noted the presence of a fieldstone well and the remains of a notched log cabin structure, and also indicated the likely presence of a second domestic structure in the area of a flat between the well and cabin. In 1981, the site appeared to have been abandoned for a period of about 20 or 25 years based on the vegetation growth and map research; the structure is last noted on a 1952 US Army Map Service topographic map.

Further map research indicates that site 18MO191 may represent the southernmost of two separate, and contemporary, nineteenth century residential units located on the 68-acre O’Neale property (see the discussion of cemetery sites below). Although no structure is shown here in the Montgomery County maps

dating to 1865 and 1878, one is depicted on USGS quadrangles dated 1908, 1917, 1923, and 1944. The structure is not clearly visible on (low resolution copies of) USDA aerial imagery dated 1951 and is certainly absent from the 1957 imagery (Historic Aerials Website). Given the archaeological evidence and an 1837 bill of sale (see discussion of Ball Cemetery below), it is likely that this residence was occupied by the second quarter of the nineteenth century, possibly by Turner Ball.

Site 10MO191 lies within the LOD for the Preferred Alternative. The northeasternmost 66 feet of the site boundary would be impacted by the LOD as revised. The well feature may already have been impacted by prior expansion of I-270. Additional field research is recommended to precisely locate surviving site features recorded by Kavanagh (1981) and determine impacts to the site by the proposed MLS Study. Phase II investigations are recommended if the site remains largely extant.

18MO457

Site 18MO457 is a precontact lithic scatter recorded in 1995 based on information from Ron Orr (then with the MHT Archaeological Repository in Catonsville) that Richard Slattery had visited the site in 1934. Collections held by MHT included a Savannah River and a bifurcate point base, ceramics, mortar and pestle, and flaked stone debitage. The site was interpreted to be a precontact hamlet. Included with the site form is a topographic map, possible at a scale of about 1:125,000, which shows the site location [REDACTED]

Both possible site locations have been impacted by construction of the Cabin John Parkway, and the Preferred Alternative would impact an additional strip of terrain about 50 feet in width at both locations (**Appendix E, Page 3**). Soils in both locations are mapped as poorly drained Baile silt loam, 0 to 3 percent slopes, and moderately well drained Codorus silt loam, 0 to 3 percent slopes, occasionally flooded. Additional field research is recommended to precisely locate the site boundary relative to the Preferred Alternative. *The GIS mapped location of Site 18MO457 lies within the LOD for the Preferred Alternative.*

18MO510

Site 18MO510 is a precontact lithic scatter recorded in 1998 [REDACTED] (**Appendix E, Page 12**). As mapped in GIS, the site boundary lies within [REDACTED]. The site form defines the site based on an unknown number of quartz and quartzite flakes collected from the surface of a hillslope. The LOD for the Screened Alternatives would have impacted the southeast half of site, within areas mapped as Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes. Based on the mapped soils series, there are questions as to whether the site is accurately mapped in GIS, as it would be unusual to find intact archaeological resources in such a setting. *Site 18MO510 is now outside the LOD of the Preferred Alternative and would not be affected.*

5.2.5 Recommendations for Documented Historic Cemeteries in or adjacent to the Archaeology Survey Area

Several cemeteries were identified within or adjacent to the CSB, as shown in **Table 17**.

Table 17: Recommendations for Cemeteries in or adjacent to the CSB

Cemetery Name	Associated Survey Area	Description	Recommendation
Poor Farm Cemetery Site (18MO266)	S-4, SWM S-4, S-5, SWM S-5, S-6, SWM S-6, S-27, SWM S-27, RS-1, RS-2	Burial ground for Montgomery County Almshouse	Additional archaeological investigations
Ball Family Cemetery (ID-279)	N/A		All purported locations are outside the LOD for the preferred alternative
St. John the Evangelist Cemetery	N/A	Catholic Cemetery associated with St. John's Catholic Church	Outside the LOD and APE for the preferred alternative
Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M: 35-212)	N/A	African American cemetery associated with Moses Hall	Additional archaeological investigations

Poor Farm Cemetery Site (18MO266) Vicinity

The Poor Farm Cemetery archaeological site (18MO266), along with an unknown area surrounding it, served as a burial ground for the Montgomery County Almshouse, which provided for impoverished members of the county between 1789 and 1950. Interments at the cemetery continued through 1983. The archaeological remains of the Poor Farm Cemetery were identified by Dennis Curry (1984), and salvage archaeology was later conducted by Rhodes (1987). Only a small number of interments were identified by the salvage work, and it is likely that unmarked interments remain at one or more locations within the former Montgomery County Poor Farm property. An unknown but large number of interments were relocated from the area near 18MO266 during construction of I-270.

A number of survey areas identified in the archaeological gap analysis are located within the former Montgomery County Poor Farm property [REDACTED]: Area S-4 and SWM S-4, Area S-5 and SWM S-5, Area S-6 and SWM S-6, Area S-27 and SWM S-27, S-28 North (the area north of S-28, south of Wootton Parkway, and west of I-270), Area RS-1, and Area RS-2 (**Appendix E, Page 9**).

Additional archaeological investigations are recommended for impacts of the MLS within the former Montgomery County Poor Farm property. The details of the recommended work will be spelled out in the cemetery treatment plan appended to the Project PA, although in general the recommended level of effort for these areas includes:

- (1) use of cadaver dogs to search for grave sites; (2) remote sensing such as ground penetrating radar; (3) hand-probing; and (4) shovel testing and/or excavation units to determine soil integrity within the varied terrain along I-270. Finally, (5) mechanical stripping of the final project LOD is recommended throughout areas where interments may be present, as directed by MDOT SHA (Ervin 2018, Hutchins-Keim et al. 2018:7).

Due to property owner permission, only Area S-27 and SWM S-27 were investigated by preliminary shovel testing. Shovel testing is not expected to identify unmarked interments, but was intended to assess the soil integrity in those areas. The pedestrian survey and shovel testing did not encounter any evidence for

burials in this area but showed intact soils. Additional investigations as described above are recommended within Area S-27 and SWM S-27, at the direction of MDOT SHA.

Additional archaeological investigations are also recommended in Area S-4 and SWM S-4, Area S-5 and SWM S-5, Area S-6 and SWM S-6, Area S-27 and SWM S-27, S-28, Area RS-1, and Area RS-2 to determine whether interments related to the Poor Farm cemetery may be present. *Those survey areas and Site 18MO266 lie within the LOD for the Preferred Alternative.*

Ball Family Cemetery

The Ball Family Cemetery (ID-279) is represented by a pair of headstones taken from their original location, which is reported by the Montgomery County Cemetery Inventory to be one of three areas: within the I-270 roadway; east of the ramp from northbound I-270 to Montrose Road; or under two large trees once found north of the O’Neale house and south of Old Stage Road. Several Montgomery County Cemeteries Inventory Forms have been filed for ID-279, containing significantly different and contradictory location information.

One version of the Montgomery County Cemetery Inventory form indicates that the cemetery may have been located near the ramp from northbound I-270 to Montrose Road, although no reason for this is given. This was referred to as the “preferred location” ca. 2017.

What appears to be the earliest of the three forms lists the cemetery address as 11817 Dinwiddie Drive, but notes that this is the location only of headstones that were salvaged by a property owner during construction of I-270 (**Figure 129**). This handwritten version of the form states that:

“Mrs. Ann Pritchard, owner of [the O’Neale] house [at 11817 Dinwiddie Drive from] 194_ – 1983, told Phil Cantelon that when [the] I-270 highway was being constructed in the mid-1950s, she relocated these 2 grave markers and bases *from the roadway* to her backyard. During [the] Pritchard ownership, [the O’Neale] house parcel was reduced (by subdivision) from 68 acres to 1.1 acres” (emphasis added).

This version of the inventory form was recorded by Eileen McGuckian, owner of the O’Neale house along with Mr. Cantelon. A copy of the cemetery form with a survey date of April 30, 2005 and a run date (print date) of August 30, 2007 provides a similar account:

“Mrs. Ann Pritchard, owner of house from 1940s-1983 said she moved headstones *out of the roadway* when I-270 highway was being constructed in 1950s. She took them off their bases and relocated them to her backyard” (Montgomery County Cemetery Inventory 2018b; emphasis added). The relocated stones are for Lawrence Ball, d. June 10, 1855 and Eliza Ball, d. Nov. 24, 1862.

This description by the senior Mrs. Anne Pritchard clearly indicates that she retrieved the headstones from within the alignment of I-270 (“from the roadway” or “out of the roadway”), and therefore indicates that the cemetery location was under the current alignment of I-270. If the Ball Family Cemetery was destroyed by construction of I-270, only the salvaged headstones remain. It is known that (probably many) interments were moved from the I-270 alignment at the Poor Farm Cemetery (18MO266), 1.3 miles to the north, when I-270 was constructed, but no specific evidence has been found that other interments may have been encountered or moved during construction.

A June 17, 2018 version of the Cemetery Inventory form, including an addendum page labeled “History” and a second addendum labeled “Update: November 5, 2018”) contains photographs of the recovered stones and provides a different account. Ann (Susie) Prichard Pace, who was born in 1940, is the younger daughter of Anne Prichard and resided in the O’Neale house through 1961 .

“She stated that the location of the Ball cemetery was about 100 yards up the hill from the house, to the south of Old Stage Road. There is a clump of cedar trees and a bit of fencing still there. Nearby, when the family moved there, was a large barn (falling down), and later a little barn built by the Pritchards for their old horse.”

Susie Prichard Pace wrote a description of the cemetery in 1954 , covering an area of “approximately 5 acres, overgrown, with remains of two headstones and two large old trees, and also 21 rock markers.” Other informants who know the area also remember a cemetery in this location. This location is at current 11831 and 11835 Dinwiddie Drive in Rockville. The third cemetery form provides no explanation for the different account of where the cemetery was located. The fact that the senior Mrs. Anne Pritchard was the one who actually moved the stones lends credibility to the first account; it can be speculated that the various forms may refer to the locations of different cemeteries that once existed in the area.

Plats, deeds, and historic maps collected during evaluation of the John Henry O’Neale house (M:30-47) did not uncover any reference to the Ball Family Cemetery.

All three locations of the cemetery provided by the Montgomery County Cemetery Inventory are outside the LOD and would not be affected. MDOT SHA would monitor construction within I-270 near the location of 18MO191, which may represent the Ball farmstead.

John Henry O’Neale House: The Determination of Eligibility (DOE) form for the John Henry O’Neale House (M:30-47) (Fries 2019; submitted as Batch 5 and included in Appendix C of Volume 3 of the MLS Cultural Resources Technical Report) states:

“The land on which the John Henry O’Neale House stands was once farmland known as Cabin John Creek. The 68.75-acre property called “I Will Not Yet I Will” and “Shub Hill” was purchased by husband and wife Isaac and Mary O’Neale (also seen as O’Neal) from Isaac’s father, William, for \$500 in April 1863 (Montgomery County Deed Book [MCDB] JGH 9, 174). Historic mapping indicates other buildings were once extant on the property prior to the construction of the current dwelling in 1918; another dwelling was possibly once present ... [Historic Aerials Website, 1908 quadrangle]. According to local history, the current house “stands on the site of a log cabin built in 1857 as a wedding present for a Mrs. O’Neill” (Kittowea [sic; possibly Kittower] 1999, G2). After the death of Isaac and Mary, the property was bequeathed to their son, John Henry O’Neale, who is credited with the construction of the current circa-1918 dwelling. ... After John’s death in 1938, his family remained on the property until October 1946 when they conveyed the parcel to Mason C. Prichard and his wife, Ann.” (MCLR CKW 1041, 409).

Figure 124. Possible locations of the Ball Family Cemetery projected by Montgomery County



One document found by the research relates to the Ball family, a March 1, 1837 bill of sale from John S. Ball to William O’Neale Jr. (sic) and Turner Ball, conveying:

... all the goods, House Hold Stuff, implements and furniture particularly mentioned, Expressed and contained in the Schedule hereunto annexed viz. one Bay Horse, one Gray Horse, two cows, one [*illegible*] and six shotes, one carryall and Harness, one Bead bedstid & furniture, half dozen Winsor Chairs, one large mahogney folding Table, three potts, one oven & all the Kitchen Furniture, one Barshear plough, one Horse plough, two shovel ploughs, and one Harrow, all and Singular which said goods and chattels are now remaining standing and being in a certain Messuage or tenement situate in Montgomery County **and now in the occupation of the said John S. Ball** to have and to hold all and singular the said goods & chattels, bargained and sold or meant mentioned and Indented so to be to the said William Oneale Jr. & Turner Ball their executors, administrators and assigns ... **I the said John S. Ball have put the said William Oneale Jr. & Turner Ball in full possession of the premises hereby bargained and sold** or meant mentioned and Intended so to do unto them ... (sic; emphasis added). (MCLR BS8, 209)

This document, including the phrase that Oneale (sic) and Ball were “in full possession of the premises hereby bargained and sold” suggests that John S. Ball conveyed the full *messuage* including dwelling, outbuildings and land to William O’Neale and Turner Ball. Sometime between 1837 and 1863, it would appear that O’Neale acquired Turner Ball’s rights to at least to the northern part of the property where the John Henry O’Neale House now stands, although documentation of this has not been found; it is possible that the property was jointly owned. Map research suggests that the O’Neale descendants occupied a residence and farmstead on the north half of the property, while a second farmstead appears to have been present on the south half of the property, possibly occupied by the Ball descendants.

Limited genealogical research located documents suggesting that Turner Ball owned a log cabin situated on Rockville Pike between Georgetown Preparatory School and Strathmore Hall (Millis 2022). Ball purchased the property on Rockville Pike shortly after serving in the War of 1812, and with his wife Leathana, operated a tavern or inn until Turner Ball’s death in 1847. It would appear that this tavern stand represents a separate property owned by Turner Ball – since he (or someone of the same name) was definitely associated with the property conveyed in 1837 by John S. Ball.

The Martenet and Bond (1865) Map of Montgomery County shows the residence of I. O. Neal (sic), as well as a second residence to the southwest; but the surname Ball does not appear. The Hopkins (1879) Montgomery County Atlas also shows the dwelling of Isaac O’Neil (**Figure 125**), but does not depict a second residence. No cemetery location is shown on either map (however, county maps and atlases typically do not depict cemeteries).

The 1890 Fava Naeff Railroad Map shows the Isaac O’Neil property encompassing about 51 acres. The main structure (likely at or near the location of the extant John Henry O’Neale house) is depicted in the northeast corner of the property (**Figure 126**). Again, no cemetery is depicted, and the Ball family is not identified by name.

Georeferencing the 1890 map under the assumption that the late nineteenth-century Isaac O’Neil residence is located at 11807 Dinwiddie Drive, and plotting the O’Neil property boundary on the 1917

USGS topographic map, gives an indication of the terrain covered by the full tract (**Figure 127**). If the property line is accurate, a second residence was present within the property boundary about 850 ft to the southwest of M:30-47. The 1865 map also shows a structure is in this approximate location (although farther to the south than is shown in 1917). Landmarks such as major roads in the area (Rockville Pike, Seven Locks Road) show that the georeferencing is accurate, although the mapped property boundary on the 1890 map may not be precise.

Figure 125. Isaac O'Neill property on the Hopkins (1879) Atlas of Montgomery County



USGS (1917 Washington Vicinity and 1908, 1923, 1944 Rockville) 15-minute quadrangles show a structure near 11807 Dinwiddie Drive that is likely the John Henry O'Neale house (**Figure 127** and **Figure 128**). A second structure is again shown within the south half of the O'Neale property, accessed by a separate road/driveway, apparently representing a separate residential unit. The John Henry O'Neale house is situated on the south side of an east-west trending ridgeline overlooking Cabin John Creek. I-270 was later constructed between the John Henry O'Neale house and Cabin John Creek.

No cemetery is visible on the 1938 or 1951 aerial photographs, although resolution of the images in MDOT SHA's possession is poor. The 1951 aerials show that the O'Neale property does not appear to have been in active agricultural use, and was in pasture or scrub vegetation (**Figure 129**).

Figure 126. O'Neale property on the Fava Naeff (1890) Map of the Metropolitan Branch of the B&O Railroad

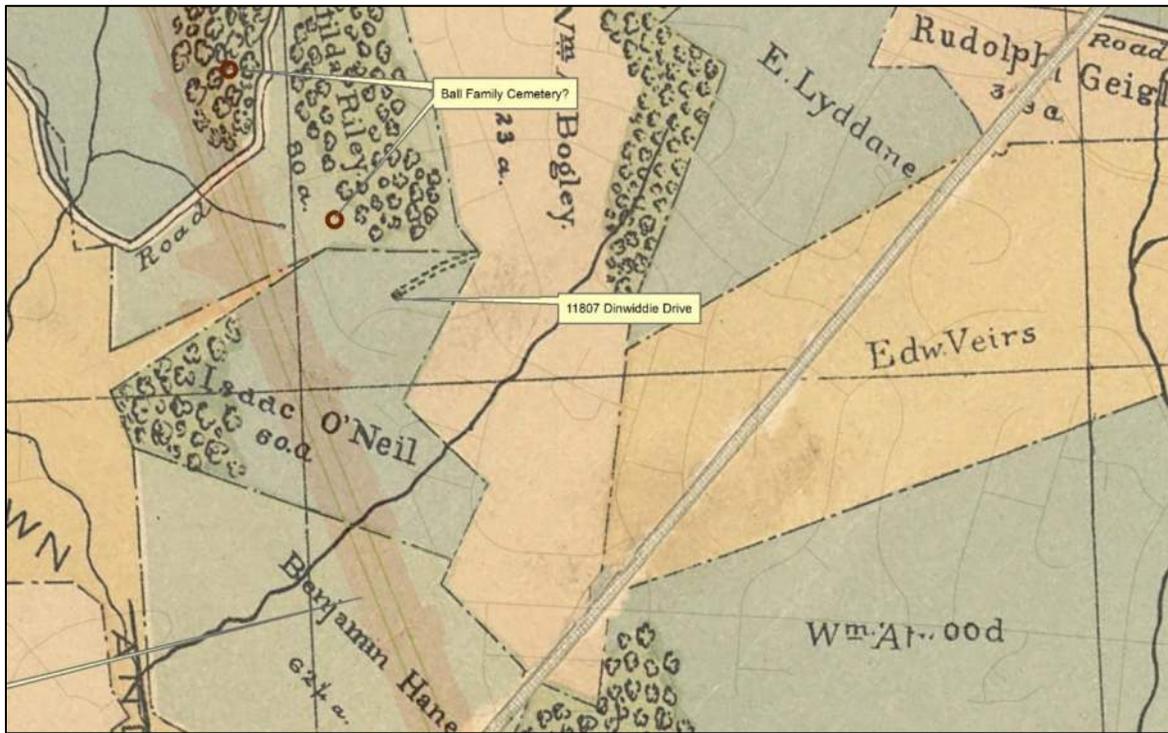
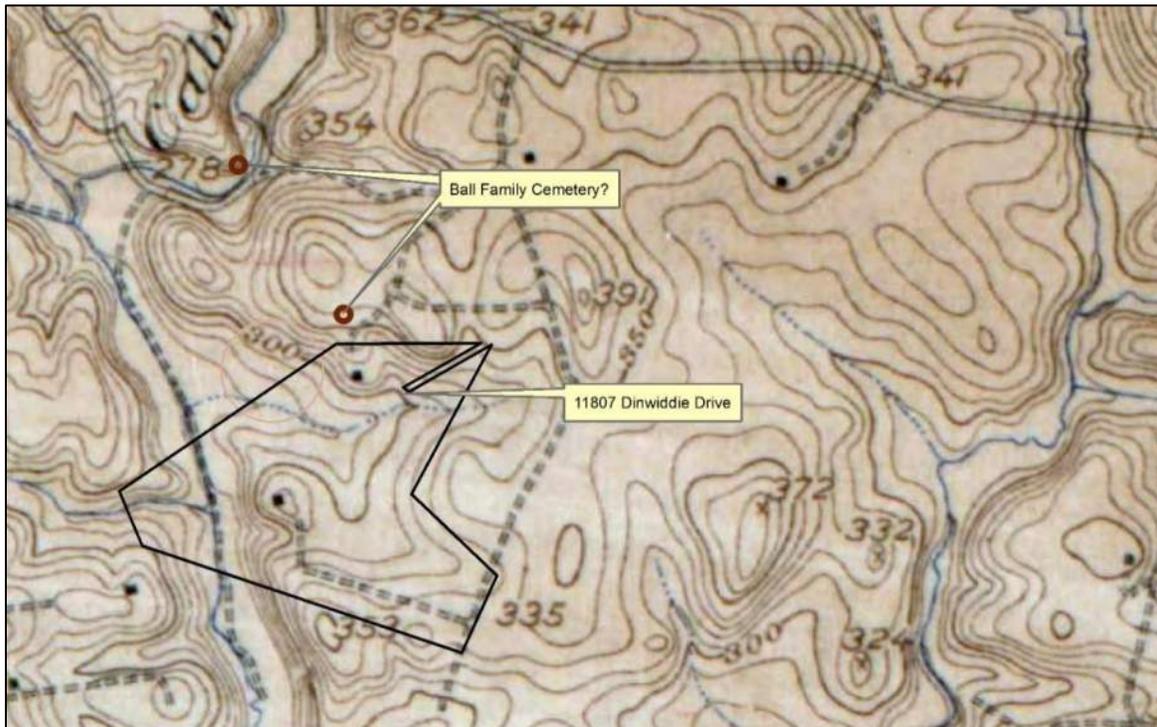


Figure 127. O'Neale property boundary overlaid on the USGS (1917) Washington and Vicinity quadrangle



The back (southern half) of the 68-acre property is part of an agricultural field apparently worked by another property owner. This agricultural field is in the vicinity of the second residence within the original O’Neale property boundary. The second residence in the south half of the property lies near (likely just west of) the current I-270 alignment (**Figure 128**). In sum, the map research suggests that a second residence was present on the property, possibly associated with the Ball family.

Because it is possible that the family cemetery would have been near the farm, MDOT SHA would monitor construction within I-270 near archaeological site 18MO191, which may represent the Ball farmstead.

Figure 128. O’Neale property boundary overlaid on the USGS (1908) Rockville quadrangle. The MLS LOD is shown in dark pink.

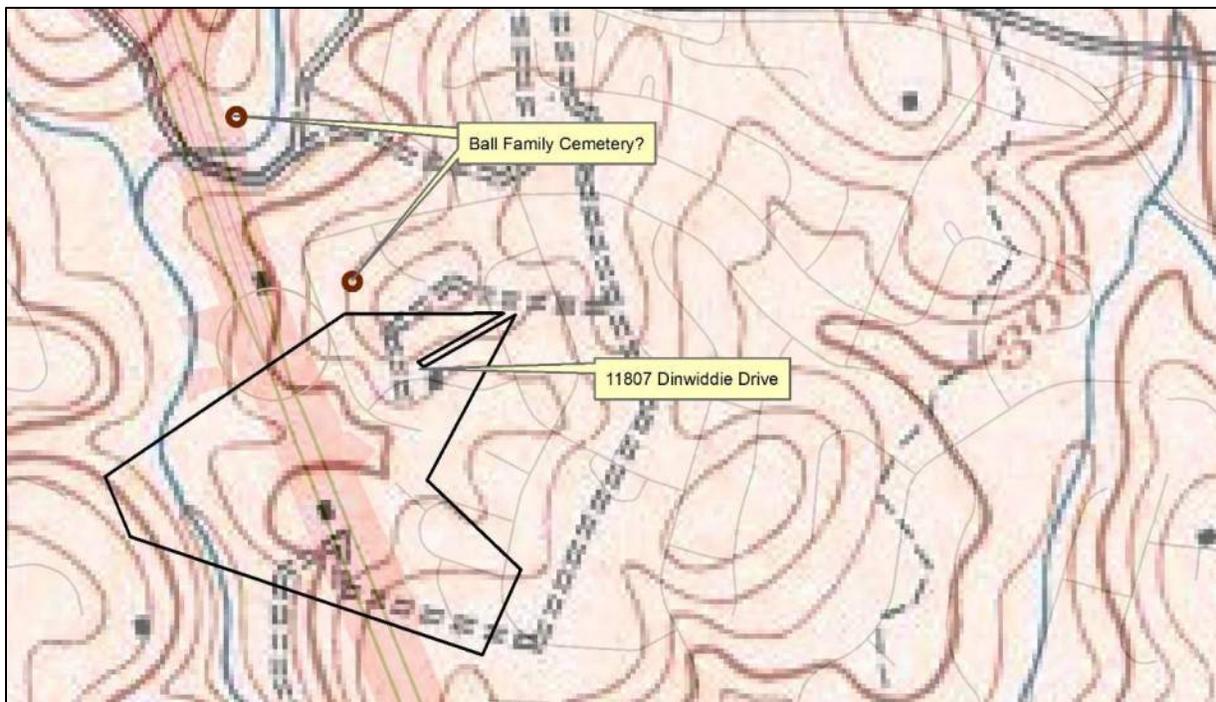
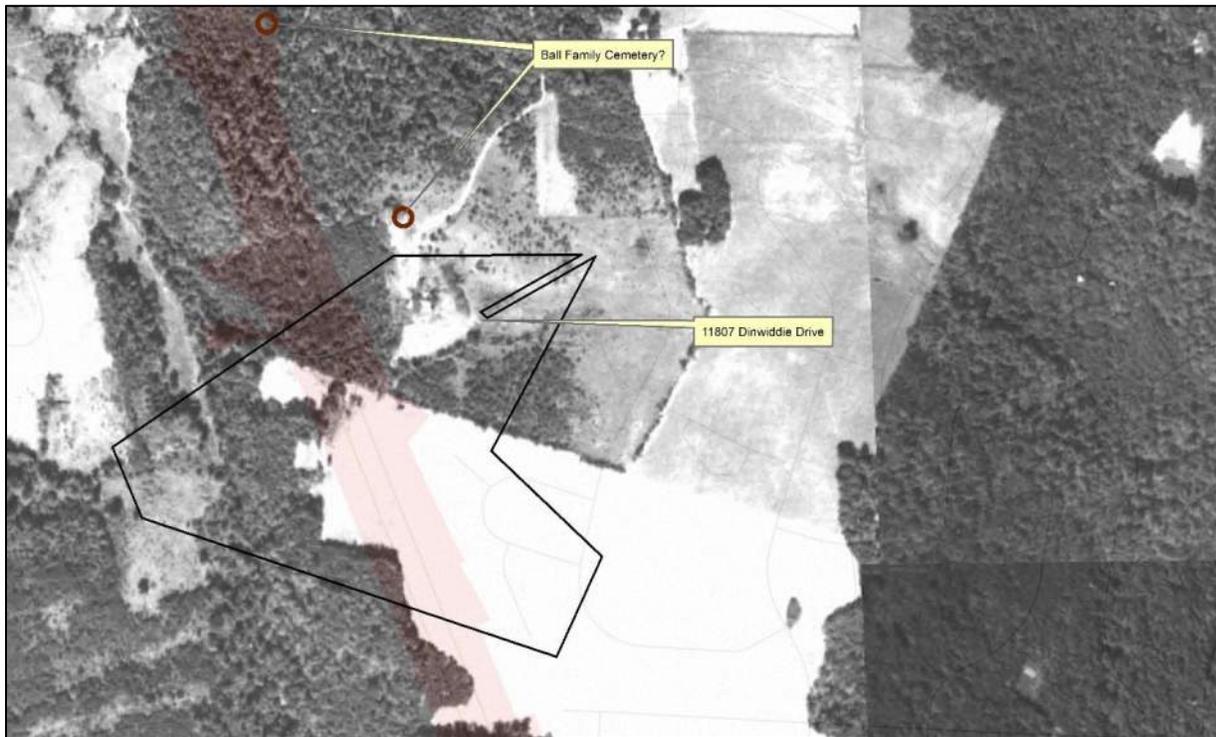


Figure 129. O’Neale property boundary overlaid on 1951 aerial imagery (215nw07.sid), showing field boundaries and land use patterns



St. John the Evangelist Cemetery

The St. John the Evangelist Cemetery is a well-kept Catholic historic cemetery along Forest Glen Road north of I-495 in Silver Spring (Montgomery County Cemetery Inventory ID 131), (Figure 130). It is partially fenced and grave markers are generally in good repair, but several have toppled due to a sharp slope on the cemetery’s southern boundary.

This cemetery lies within the Forest Glen Historic District. St. John’s Catholic Church, located directly north of the cemetery, was established by John Carroll in 1774 (MHT NR-Eligibility Review Form M:31-8). The current stone Gothic Revival St. John’s Catholic Church, constructed in 1894, is the congregation’s third church building. According to the MIHP form, a replica of the original 1774 church building was constructed within the cemetery in 1934 or 1956. The earliest tombstones in the cemetery are enclosed by an iron fence and date to 1796, and interments at the cemetery have continued to the present. Burials post-dating 1970 are marked with stone markers flush with the ground surface. *The St. John the Evangelist Cemetery is located outside the LOD for the Preferred Alternative and the CSB and would not be affected.* As a result, no archaeological testing or cemetery delineation is recommended for this property. The design of the undertaking continues to evolve, and MDOT SHA will monitor any design changes that may occur in the vicinity of St John the Evangelist Cemetery.

Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M: 35-212)

The Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M: 35-212; Montgomery County Cemetery Inventory ID 105) is located on the west side of Seven Locks Road, south of I-495, in the woods outside

the fenced rear yard of 7917 Cypress Grove Lane (Montgomery County Cemetery Inventory Project 2018) (**Figure 131**). It was closely associated with, but not originally a part of, the Gibson Grove AME Zion Church, which is discussed above in the section on survey results. Although the church and the Moses Lodge organizations were founded separately, they served the same community and their respective memberships largely overlapped. Today the Beltway separates the cemetery from the church building. In 2019 the cemetery was overgrown and minimally tended. Two plots were observed to be fenced with low white garden fencing. There are a number of known burials within the cemetery dating from around 1921 to 1975 identified by a variety of markers.

Moses Hall (Morningstar Tabernacle #88) and the Morningstar Cemetery were established by the Grand United Order of Brothers and Sisters, Sons and Daughters of Moses (the Lodge). The Lodge's role in the community has recently come to light through oral history (Jones 2010:52-53). The Lodge was founded in 1868 as a benevolent organization for the maintenance of orphans, for burials, and for the care of sick and destitute members (Jones 2010:52-53). The cemetery was in use between 1912 and 1970, and Jones (2010:36,38) observed about 50 stone markers, including both unmodified fieldstones and seven professionally crafted headstones with inscriptions. Moses Hall was destroyed by fire in the late 1960s (Jones 2010:53). The Lodge organization is no longer extant; however, many family members are buried in the Morningstar cemetery.

The cemetery was located within the CSB, and the original LOD impacted the cemetery parcel (Alternative 10) (**Figure 131**). After the completion of the Phase I archaeological study, design refinements and the selection of the Preferred Alternative reduced the LOD in the location of the cemetery and the cemetery has been avoided by the LOD for the Preferred Alternative (Volume 1, Appendix C, page M-4. A pedestrian survey was undertaken as part of the 2019 study to assess whether undocumented graves might exist within the widest LOD. The field crew observed a series of visible headstones, footstones, and possible grave depressions within the parcel, close to the residential lots along Cypress Grove Lane. Visible evidence of the cemetery ceases approximately 50 ft south of the MDOT SHA ROW. It is unlikely but still possible that additional burials extend farther north into the existing ROW, because a former structure, Moses Hall, once occupied the north boundary of the cemetery parcel. Fieldstone, clay chimney parts and other building debris, which likely represents the remains of Moses Hall, occupy this portion of the property suggesting the cemetery did not extend into this area. The Lodge occupied a prominent place in the early twentieth-century Gibson Grove community.

Given the potential for intact archaeological deposits and the close proximity of the cemetery to anticipated construction impacts, an archaeological investigation was conducted to locate potential burials within the cemetery. The results of that survey are included in a separate technical report (Falchetta et al 2021, MLS Cultural Resources Technical Report Volume 9). Additional treatment of the cemetery is documented in the PA.

Figure 130. Location of the St. John the Evangelist Cemetery



Figure 131. Location of the Morningstar Cemetery showing the LOD for Alternative 10, which would have impacted the cemetery property.



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- 1732 Patented Certificate 1063, Hensley
- 1734 Patented Certificate 1003, Grubby Thicket
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Appendices

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Appendix A

Qualifications of Researchers

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W. BRETT ARNOLD, M.Sc.
APPLIED ARCHAEOLOGY AND HISTORY ASSOCIATES, INC.
615 FAIRGLEN LANE
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410.224.3402

Mr. William Brett Arnold is an archaeologist for Applied Archaeology and History Associates, Inc. (AAHA). Mr. Arnold has seven years of professional archaeological experience, with five years' experience in cultural resource management and research projects in the Mid-Atlantic region. He received his B.A. with a double major in Archaeology and German Studies from the College of Wooster, where he graduated cum laude and a member of honors societies for foreign language, classical language, and anthropology. Mr. Arnold went on to receive an M.Sc. from the University of Wisconsin—Milwaukee, where he used his foreign language and research skills to re-contextualize part of a sizeable collection at the Milwaukee Public Museum. Mr. Arnold has been contributing to technical reports and directing archaeological fieldwork for four years. His experience ranges from privately funded research projects to compliance surveys for state and federal agencies. Mr. Arnold is also experienced in using GPS, total station data, and GIS in archaeological contexts. Mr. Arnold's professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and he is a member of the Register of Professional Archaeologists.

EDUCATION

- 2014 M.Sc. IN ANTHROPOLOGY**, University of Wisconsin--Milwaukee, Milwaukee, WI.
- 2011 B.A. IN ARCHAEOLOGY AND GERMAN STUDIES**, College of Wooster, Wooster, OH.

ARCHAEOLOGICAL FIELD EXPERIENCE AND EMPLOYMENT

- 2018 - Present** ARCHAEOLOGIST, Applied Archaeology and History Associates, Inc. Annapolis, MD.
- 2016 - 2018** PROJECT ARCHAEOLOGIST, Commonwealth Heritage Group, Inc. Alexandria, VA.
- 2014 - 2016** RESEARCH ARCHAEOLOGIST, Anne Arundel County's Lost Towns Project Annapolis, MD.
- 2015** ARCHAEOLOGICAL MONITOR (TEMPORARY), Versar, Inc. Springfield, VA.
- 2015** FIELD TECHNICIAN (INDIVIDUAL SURVEYS), Stantec. Laurel, MD.
- 2013 - 2014** FIELD TECHNICIAN (INDIVIDUAL SURVEYS), Applied Archaeology and History Associates, Inc. Annapolis, MD.
- 2013** FIELD/MAPPING TECHNICIAN, Historic Management Resource Service. Milwaukee, WI.
- 2011 - 2013** OFFICE ASSISTANT/FIELD TECHNICIAN (INDIVIDUAL SURVEYS), Commonwealth Cultural Resources Group, Inc. Milwaukee, WI.

SELECTED CULTURAL RESOURCES AND RESEARCH REPORTS

Phase I Archaeological Survey for the Frederick County Sanitation Authority Water Supply Project: Pipeline and Water Treatment Facility Areas, Frederick County, Virginia. Prepared for ARCADIS, Inc. and Frederick Water.

Phase IB Survey and Monitoring for the Fort McHenry Gas Main Replacement Project. Prepared in compliance with the ARPA permit issued by the National Park Service Northeast Region Archeology Program.

Phase I Archaeological Survey for the Frederick County Sanitation Authority Water Supply Project: Opequon Creek Intake and Pump Station Area, Frederick County, Virginia. Prepared for ARCADIS, Inc. and Frederick Water.

Phase I Archaeological Survey for the Stream and Outfall Restoration Design for the Greendale Golf Course, Fairfax County, Virginia. Prepared for A. Morton Thomas and Associates, Inc.

Archaeological Recovery on behalf of the Army Corps of Engineers, West Point, New York. Prepared for the Army Corps of Engineers St. Louis District.

Multiple Archaeological Assessments for James River, Presquile, and Rappahannock River Valley National Wildlife Refuges, Prince George, Chesterfield, Essex, Caroline, and Richmond Counties, Virginia. Prepared for the U.S. Fish and Wildlife Service.

Archaeological Survey for the Interstate 64 Segment 3 Capacity Improvements Project Proposed Storm Water Management Features, York County, Virginia. Prepared for the Virginia Department of Transportation.

Phase IA Archaeological Survey for the DC United Soccer Stadium Project, Washington, D.C.

The First Annual Interim Report for the Generals Highway Project, Anne Arundel County, Maryland. Prepared for the Anne Arundel County Department of Planning and Zoning and the Maryland State Highway Administration.

JESSICA C. BRANNOCK, M.A.
APPLIED ARCHAEOLOGY AND HISTORY ASSOCIATES, INC.
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Ms. Jessica Brannock is an archaeologist for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Brannock has five years of professional archaeological experience in the Mid-Atlantic and has worked on a range of prehistoric and historic sites throughout the Chesapeake Bay region. She received a B.A. in both Anthropology and Environmental Studies from Salisbury University, Maryland in 2015, and a M.A. in Aegean Archaeology from the University of Sheffield, England in 2016, where she examined the functional relationship between Egyptian bread making and brewing. Ms. Brannock's professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians.

EDUCATION

2016 M.A. IN AEGEAN ARCHAEOLOGY, University of Sheffield, England, UK.

Dissertation: *"Why add bread to the brew? Investigation of bread and beer production in the eastern Mediterranean."*

2015 B.A. IN ANTHROPOLOGY, Salisbury University, Salisbury, MD.

Thesis: *"Chronology Reconstruction Based on Tobacco Pipes from the Makemie Site: The Father of Presbyterianism, and Early Colonial Commerce."*

2015 B.A. IN ENVIRONMENTAL STUDIES, Salisbury University, Salisbury, MD.

ARCHAEOLOGICAL FIELD EXPERIENCE AND EMPLOYMENT

2018 - Present ARCHAEOLOGIST, Applied Archaeology and History Associates, Inc., Annapolis, MD.

2017- 2018 COMMUNICATIONS INTERN, Maryland Historical Trust, Crownsville, MD.

2017 ARCHAEOLOGIST, St. Mary's College of Maryland, St. Mary's City, MD.

2014 -2015 FIELD TECHNICIAN (INDIVIDUAL SURVEYS), Salisbury University, Salisbury, MD.

2013 FIELD TECHNICIAN (INDIVIDUAL SURVEYS), Kerns Cultural Resource Management Consultants, Severna Park, MD.

PROFESSIONAL MEMBERSHIPS

The American Association for the Advancement of Science
The Archaeological Institute of America
The Society for American Archaeology

Amanda N. Gaster, B.S.
APPLIED ARCHAEOLOGY AND HISTORY ASSOCIATES, INC.
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Ms. Amanda N. Gaster serves as the assistant lab director at Applied Archaeology and History Associates, Inc. (AAHA). She received her B.S. in Anthropology, Sociology, and Psychology from Towson University with an anthropology concentration. During her academic career at Towson University, she studied under North American prehistorian Dr. Robert Wall, conducting fieldwork and laboratory work for a prehistoric village site located in Elkridge, Maryland. During her time at the site and in the laboratory, she performed artifact analysis and documentation of archaeological material ranging from 5,000 B.C. to the Colonial Period in Maryland, focusing predominately on Late Archaic, Early Woodland, and Late Woodland occupation. Ms. Gaster's experience in the laboratory and field provide expertise interpreting prehistoric lithics, ceramics, and features. She continues to develop her knowledge of prehistoric archaeology while expanding her career by understanding historic occupation in Maryland at AAHA.

EDUCATION

Bachelor of Science in Anthropology, Sociology, and Psychology
2013 - 2018 Towson University, Towson, MD.

Elkridge Prehistoric Village Archaeological Site (18AN30) Field School
2017 Towson University, Towson, MD. Focus on prehistoric Late Archaic, Early Woodland, and Late Woodland occupations. Developed experience identifying and conducting lithic, ceramic, and feature analysis while also conducting archaeological surveys, excavation, and site planning.

ARCHAEOLOGICAL FIELD EXPERIENCE AND EMPLOYMENT

2019-Present ASSISTANT LAB DIRECTOR, Applied Archaeology and History Associates, Inc., Annapolis, Maryland, USA
2019-2019 LAB TECHNICIAN, Applied Archaeology and History Associates, Inc., Annapolis, Maryland, USA
2017-2018 LAB TECHNICIAN, Anthropology Department, Towson University, Towson, Maryland, USA
2017-2018 RESEARCH ASSISTANT, Anthropology Department, Towson University, Towson, Maryland, USA

MEMBERSHIPS/INTERESTS/SKILLS

Anthropology Club – Towson University, Towson, Maryland, USA
Independent Research – Cultural Anthropological research on Multimodal Methodologies and Understanding Violence within Online Communities, Towson University, Towson, Maryland, USA
Title and Deed Research – Background in deed research to document a chain of title.

Alexander Donald Keim

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Education

- Ph.D. **2015 – Archaeology** Boston University, Boston, MA
- Dissertation title: “Boston Inside Out: A Brothel, A Boardinghouse, and the Construction of the 19th-Century North End’s Urban Landscape Through Embodied Practice
- M.A. **2005 – Social Science** University of Chicago, Chicago, IL
- B.A. **2004 – History and Archaeology** Boston University, Boston, MA

Cultural Resource Management Experience

- Archaeologist** – Baltimore, MD. Maryland Department of Transportation State Highway Administration Cultural Resources Section. Right-Of-Way Archaeologist, Laboratory Director. December 2015-present
- Archaeologist-GS-09-03** – Philadelphia, PA. Independence National Historical Park Archaeological Laboratory. Collections Manager, Laboratory Director, Volunteer and Internship, Historical Archaeologist July 2012 – November 2015
- Project Archaeologist** – Hawley, MA. Sanford Tavern Archaeological Excavation and Education Project. May 2011 – July 2012
- Co-Director** – Milton, MA. Wakefield Estate Summer Archaeological Institute.. June 2009 – May 2012
- Field Technician** – Berlin, NH. Phase III project for Monadnock Archaeological Consulting, LLC. May – June 2011
- Primary Investigator** – Boston, MA. Salvage excavation at 73 Joy St., a historic property in Boston’s Beacon Hill neighborhood. August 2010, September 2011
- Field Technician** – Mattapan, MA. Massachusetts DCR phase I and phase II prehistoric and historical archaeological project in Mattapan neighborhood of Boston for University of Massachusetts, Amherst Archaeological Services. December 2010
- Field Director** – Dedham, MA. Fairbanks House Archaeology Project. May – June 2010

Publications

Book Reviews

- Keim, Alexander D. The Archaeology of the North American Fur Trade by Michael S. Nassaney in *Historical Archaeology* 2016 50(4): 182-184 (in press) 2016

Book Chapters

- Keim, Alexander D. Sex Workers in the City: Presentation, Interaction, and the Social Constriction of 19th-century, Boston's Urban Landscape, in *Historical Archaeology of Sex Work* [working title], edited by Kristen Fellows, Anna Munns, Angela Smith (volume forthcoming) 2017(est.)
- Keim, Alexander D. In the Street: Personal Adornment and Movement in the Urban Landscapes of Boston, in *Archaeologies of Mobility and Movement*, edited by Mary C. Beaudry and Travis G. Parno, pp. 237-255, Springer, New York 2013

Technical Reports

- Keim, Alexander D. "Surveying 'A Large Pretentious Building of Two Stories' Report for Sanford Tavern Archaeological Excavation and Education Project" Prepared for the Sons and Daughters of Hawley, Inc., submitted to Massachusetts Historical Commission 2012
- Keim, Alexander D., Jennifer Wildt, and Sara Belkin "Looking for an 'Old stable at Milton facing road parallel with house' Wakefield Summer Archaeological Institute at the Wakefield Charitable Trust Property Milton, Massachusetts 2011 Report" Prepared for the Trustees of the Mary M.B. Wakefield Charitable Trust, submitted to Massachusetts Historical Commission 2012
- Keim, Alexander D. "The Landscape and Inhabitants of the Wakefield Estate in the Late 19th and Early 20th Centuries: Archaeological Excavation Report for the Wakefield Summer Archaeological Institute 2010" Prepared for the Trustees of the Mary M.B. Wakefield Charitable Trust, submitted to Massachusetts Historical Commission 2011
- Keim, Alexander D. "Very sacred to me are the memories that cluster around my old home...": Archaeological Sensitivity Assessment at the Mary Baker Eddy Historic House, 12 Broad Street, Lynn Massachusetts." Prepared for the Longyear Museum, submitted to Massachusetts Historical Commission 2010
- Keim, Alexander D. "Report for Archaeological Excavation at 65 Pleasant St., Dorchester, MA" Prepared for Historic Boston, Inc 2010
- Keim, Alexander D. and Jennifer Wildt "Let us organize to re-establish the contact between the land and the people.": Archaeological Excavation Report for the Wakefield Summer Institute 2009" Prepared for the Trustees of the Mary M.B. Wakefield Charitable Trust, submitted to Massachusetts Historical Commission 2010

Appendix B

Representative Photographs

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Area S-1



Photo Number:2280

Direction: W

Showing: Vegetation and ground conditions in Area S-1.



Photo Number:2281

Direction: S

Showing: Gravel access road running through southeast portion of Area S-1.



Photo Number:2285

Direction: W

Showing: Gravel access road running through southeast portion of Area S-1 from across off-ramp.



Photo Number:2286

Direction: S

Showing: Elevation difference between off-ramp and Area S-1, from across off-ramp.

Area S-2



Photo Number:0102

Direction: SW

Showing: Vegetation and ground conditions in Area S-2.



Photo Number:0104

Direction: NE

Showing: Edge of Area S-2, with paved footpath visible in background.

Area S-3



Photo Number:2311

Direction: NE

Showing: Stream running through Area S-3.



Photo Number:2313

Direction: SE

Showing: Standing water and rip-rap in wetland portion of Area S-3.



Photo Number: 2315

Direction: SE

Showing: Elevated sewer cap in wetland portion of Area S-3



Photo Number: 2318

Direction: E

Showing: Landscaped area along paved walkway at northwestern edge of Area S-3.

Area S-7



Photo Number:2559

Direction: S

Showing: Bike path running through a flat portion of Area S-7.



Photo Number:2560

Direction: NE

Showing: Gentle slope in Area S-7, with I-270 visible in right background.



Photo Number:2566

Direction: NE

Showing: Drainage ditch and culvert at the edge of the berm carrying I-270 in Area S-7.



Photo Number:S-7-10

Direction: E

Showing: Fieldstone formation representing possible historic feature in north portion of Area S-7.

Area S-9

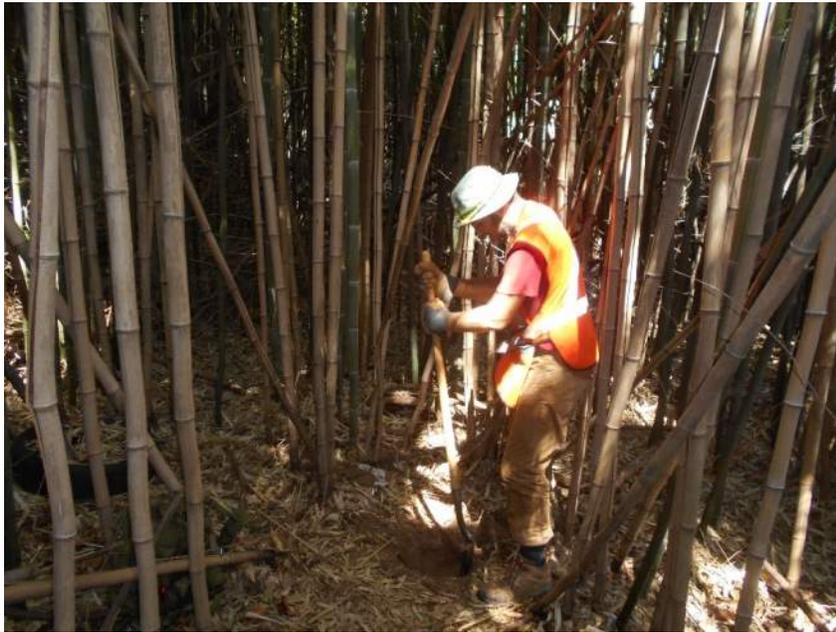


Photo Number: 0186

Direction: NW

Showing: Crew working in the dense bamboo stand in Area S-9.



Photo Number: 2534

Direction: NW

Showing: Slope down from Area S-9 to Aubinoe Farm Drive.



Photo Number: 2537

Direction: NW

Showing: Chain-link MDOT SHA ROW fence running through northern portion of Area S-9.



Photo Number: 2543

Direction: W

Showing: Drainage ditch along southern boundary of Area S-9.

Area S-10



Photo Number: S-10-25

Direction: SE

Showing: Crew working along Transect 7, at base of slope in southern portion of Area S-10.



Photo Number: S-10-8

Direction: SE

Showing: Drainage feature extending into Transect 1 in Area S-10 along Grosvenor Place.



Photo Number: S-10-10

Direction: N

Showing: Crew excavating STP 10-2-1 in northernmost tested portion of Area S-10.



Photo Number: S-10-26

Direction: SE

Showing: Drainage feature beneath Grosvenor Place in northernmost tested portion of Area S-10.

Area S-12



Photo Number:2525

Direction: W

Showing: Southern boundary of Area S-12 along the edge of the Clara Barton Parkway.



Photo Number:2527

Direction: N

Showing: Standing water on the surface of Area S-12.



Photo Number:2530

Direction: W

Showing: Marshy wooded portion of Area S-12 at the western edge of the survey area.



Photo Number:2529

Direction: NE

Showing: Eastern edge of Area S-12 showing the slopes of the berm carrying I-495.

Area S-13



Photo Number:2516

Direction: W

Showing: Flat area between road berms in Area S-13, showing marshy stream along north portion.



Photo Number:2520

Direction: NW

Showing: Flat, overgrown area between Clara Barton Parkway and berms in Area S-13.



Photo Number: 2515

Direction: SW

Showing: Stone culvert under Clara Barton Parkway in southeastern corner of Area S-13.



Photo Number: 2518

Direction: NE

Showing: Flat area at base of berm in Area S-13.

Area S-12/13



Photo Number: S-12/13-8

Direction: E

Showing: Field conditions at STP 12/13-14-17 with excavator, American Legion Bridge in background.



Photo Number: S-12/13-6

Direction: S

Showing: Rock outcropping along Transect 13 in Area S-12/13 near C&O Canal Site 1.



Photo Number:S-12/13-15

Direction: E

Showing: Disturbed area beneath American Legion Bridge deck in Area S-12/13.



Photo Number:S-12/13-16

Direction: S

Showing: Plummer's Island in Area S-12/13, rock outcropping in southern portion of island.



Photo Number: S-12/13-13

Direction: N

Showing: Slope up from wetland area on west side of American Legion Bridge in Area S-12/13



Photo Number: S-12/13-4

Direction: W

Showing: Slope descending from the bank of I495, defining western boundary of C&O Canal Site 3.

Area S-14



Photo Number: 2292

Direction: SE

Showing: Slopes up to I-495 berm in southernmost portion of Area S-14.



Photo Number: S-14-2

Direction: N

Showing: Floodplain portion of Area S-14 along path following west bank of Cabin John Creek.

Area S-15



Photo Number:0061

Direction: S

Showing: View from base of the berm along I-495 in Area S-15.



Photo Number:0062

Direction: E

Showing: Cleared vegetation along Transect 1 in Area S-15; existing vegetation visible along margins.

Area S-16a



Photo Number:192

Direction: NW

Showing: Drainage feature west of STP 16a-1-1 with the Connecticut Avenue overpass facilitating traffic above Rock Creek to the North.



Photo Number:194

Direction: S

Showing: Slope and vegetation conditions along Transect 2 in Area S-16.



Photo Number:245

Direction: SE

Showing: Rock Creek tributary bisecting Area S-16a from north-south.



Photo Number:261

Direction: N

Showing: Stone barrier supporting north bank of Rock Creek.

Area S-16b



Photo Number:273

Direction: N

Showing: Electric utilities along Transect 1 in Area S-16b.



Photo Number:276

Direction: SW

Showing: Drainage feature and water retention area situated under pedestrian walkway.



Photo Number:278

Direction: E

Showing: Pedestrian walkway and water retention area in Area S-16b.



Photo Number:280

Direction: SE

Showing: Ground and vegetation conditions in water retention area.

Area S-16c



Photo Number: 292

Direction: SE

Showing: Standing water along Transect 7 in Area S-16c.

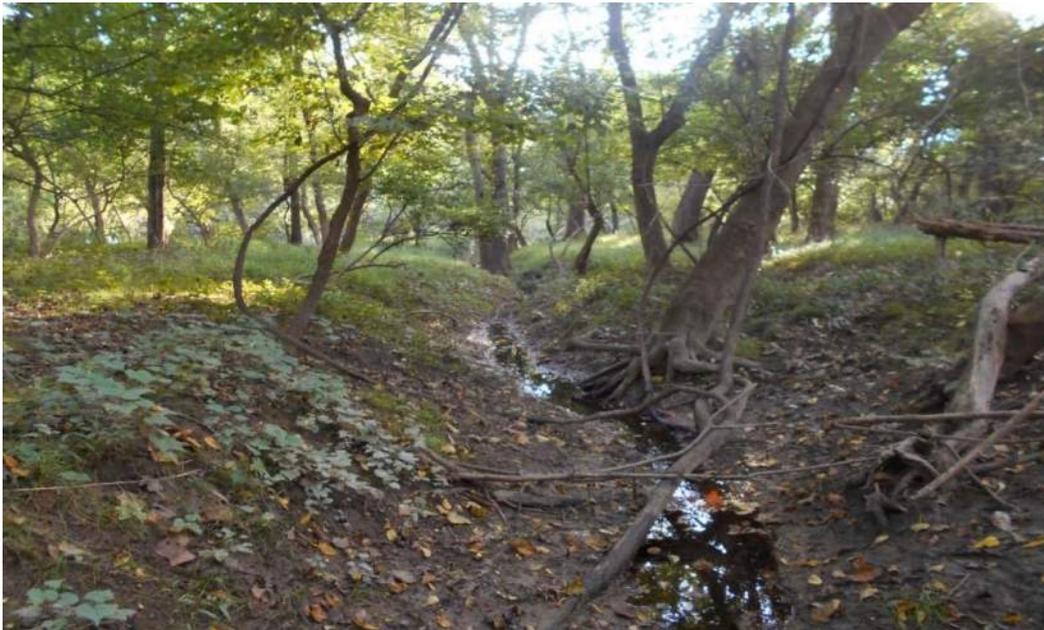


Photo Number: 302

Direction: N

Showing: Ground and vegetation conditions in Area S-16c. Narrow tributary extending south from Rock Creek.



Photo Number:282

Direction: W

Showing: Recreational Field and wood-line in Area S-16c.



Photo Number:288

Direction: SE

Showing: Playground area in Area S-16c.

Area S-17



Photo Number:0169

Direction: W

Showing: Ground conditions in wooded area in western portion of Area S-17.



Photo Number:0175

Direction: E

Showing: Ground conditions in the central wetland portion of Area S-17.



Photo Number:0172

Direction: S

Showing: Deeply-incised drainage running north-south through Area S-17.



Photo Number:0178

Direction: N

Showing: Rock Creek from the easternmost portion of Area S-17.

Area S-18



Photo Number:0073

Direction: W

Showing: Ground conditions in Area S-18 along Transect 2, toward New Hampshire Avenue.



Photo Number:0076

Direction: E

Showing: Ground conditions in Area S-18 along Transect 2.



Photo Number:0071

Direction: NW

Showing: MDOT SHA notice of eviction for homeless camp in Area S-18, dated June 2018.

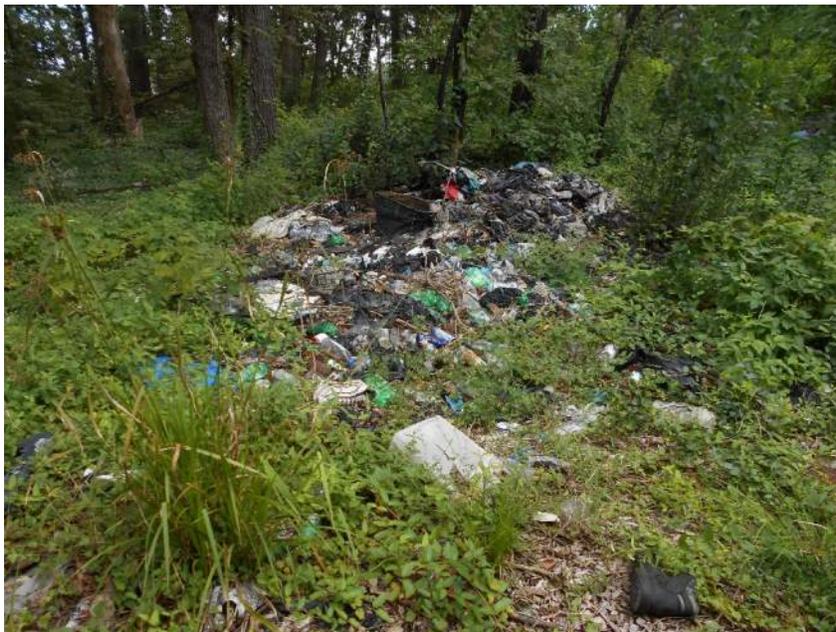


Photo Number:0069

Direction: NE

Showing: Trash dump in the south-central portion of Area S-18, related to recent homeless camp.

Area S-19



Photo Number:S-19-1

Direction: E

Showing: Sorghum field in Area S-19, laying out transect



Photo Number:S-19-5

Direction: W

Showing: Fence and weigh station near southwest corner of tested survey area.



Photo Number:S-19-7

Direction: E

Showing: Wooded area in south portion of survey area.



Photo Number:S-19-8

Direction: W

Showing: Creek dividing fields from woods in survey area.

Area S-20



Photo Number: S-20-2

Direction: NW

Showing: Wooded area containing B-6 Site/BARC Site 1.

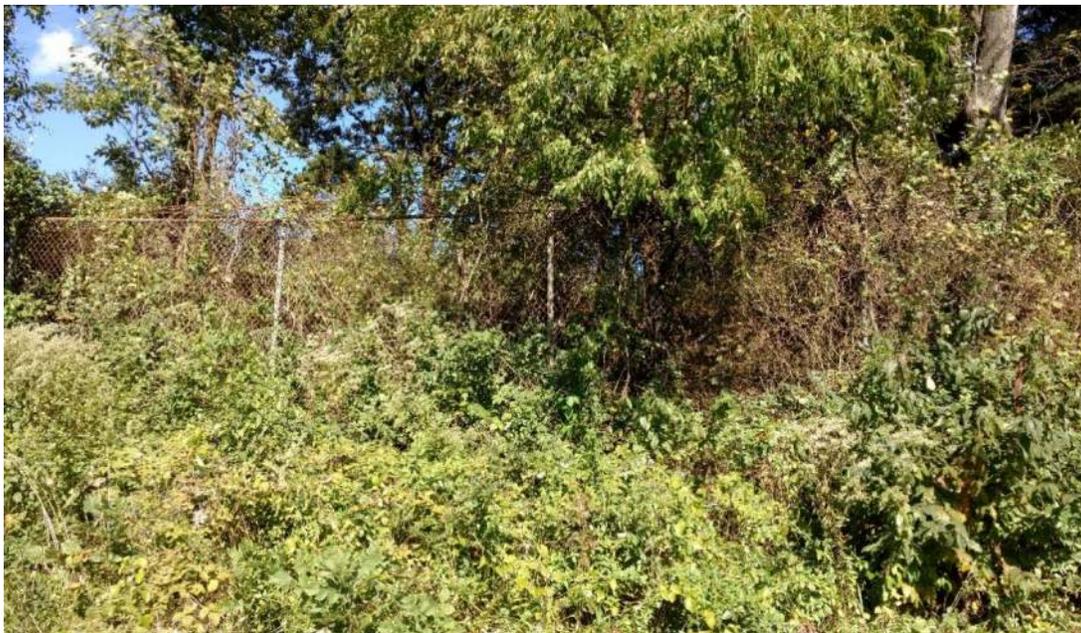


Photo Number: S-20-5

Direction: E

Showing: NE corner of survey area, with slope up to artificial terrace with Knights of Columbus building.



Photo Number:S-20-9

Direction: W

Showing: Woods, road, and sorghum field in Area S-20.

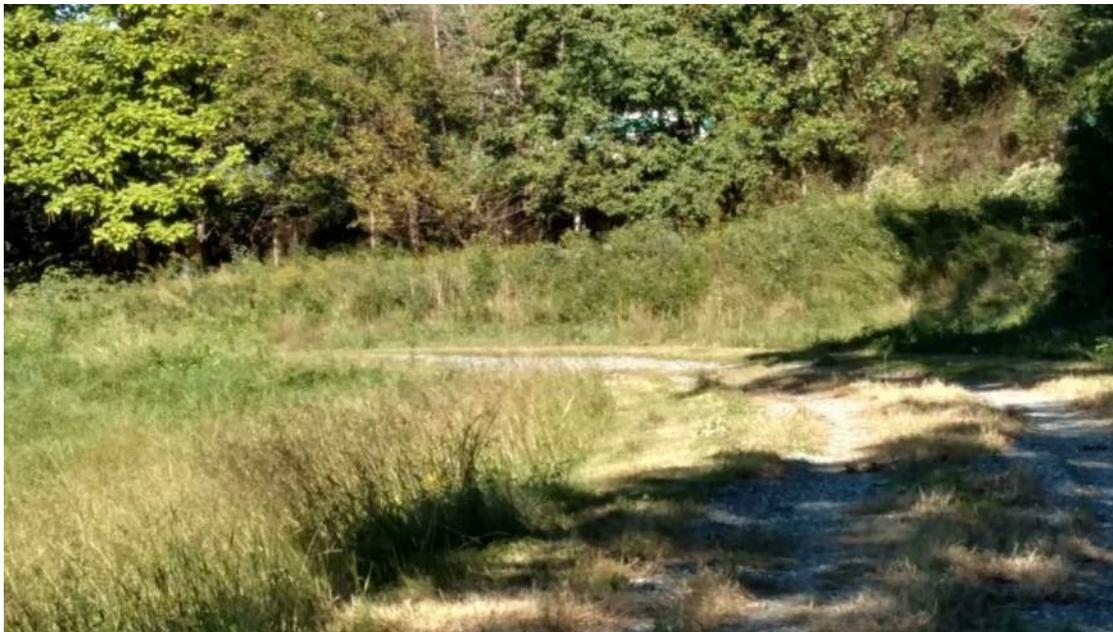


Photo Number:S-20-10

Direction: N

Showing: Gravel road running through Area S-20, at easternmost portion of the area.

Area S-21



Photo Number:0400

Direction: NW

Showing: Artificial push-pile in western portion of Area S-21.



Photo Number:0402

Direction: NW

Showing: Gravel access drive running through Area S-21 west of Little Paint Branch.



Photo Number: 0409

Direction: N

Showing: Wetland area in floodplain on west side of Little Paint Branch in Area S-21.



Photo Number:S-21-3

Direction: NW

Showing: Upland area on east side of Little Paint Branch in Area S-21.

Area S-22



Photo Number:S-22-3

Direction: NE

Showing: Ground vegetation conditions in wetland near STP 22-3-24.



Photo Number:S-22-10

Direction: E

Showing: Fence-line extending along the base of I-495 berm. Wetland conditions prevented further extension of Transect 1, and the excavation of Transect 2-4.



Photo Number:S-22-16

Direction: N

Showing: Cement culvert shown from the east bank of Little Paint Branch.



Photo Number:18

Direction: E

Showing: Ground and vegetation conditions in Area S-22, Transects 6-8.

Area S-25



Photo Number:S-25-1

Direction: SE

Showing: Paved road running through Greenbelt Park, Transects 3-9 written off due to road and slopes to the east and west in Area S-25.



Photo Number:S-25-2

Direction: E

Showing: Perimeter trail located on edge of slope descending westward toward the paved road in Area S-25.



Photo Number:S-25-3

Direction: W

Showing: Paved road preventing excavation of Transects 3-9 in Area S-25. Slopes shown to the west of road.



Photo Number:S-25-4

Direction: S

Showing: Ground and vegetation conditions surrounding Transects 16-18 in Area S-25.

Area S-26



Photo Number: S-26-2 (20181206_135957771)

Direction: W

Showing: Trench containing sewage piping located in the northern portion of the study area. Trench bisects Area S-26 from east to west. Excavation continued north of the trench.



Photo Number: S-26-8 (20181206_185315485)

Direction: NE

Showing: Cement debris in construction area around STPs 12-13 on Transects 10-11 in Area S-26.



Photo Number:S-26-10 (20181207_143811019)

Direction: E

Showing: Cement foundation adjacent to construction area in Area S-26.



Photo Number:S-26-15 (20181207_170243596)

Direction: SW

Showing: Ground and vegetation conditions in Area S-26.

Area S-27



Photo Number:S-27-2 (20181129_183957326)

Direction: E

Showing: Ground conditions and vegetation surrounding slope bisecting Area S-27.



Photo Number:S-27-3 (20181129_184027487)

Direction: NW

Showing: Water retention pond situated at the base of I-495 berm, located northwest of Area S-27.



Photo Number:S-27-10 (20181129_191130341)

Direction: NW

Showing: Cement and brick debris pile located about 3ft north of STP 27-2-8 in Area S-27.



Photo Number:S-27-11 (20181129_191133845)

Direction: E

Showing: Ground and vegetation conditions along Transect 2 in Area S-27.

Area S-28



Photo Number:113

Direction: SE

Showing: Hardened drainage feature at base of berm in Area S-28.

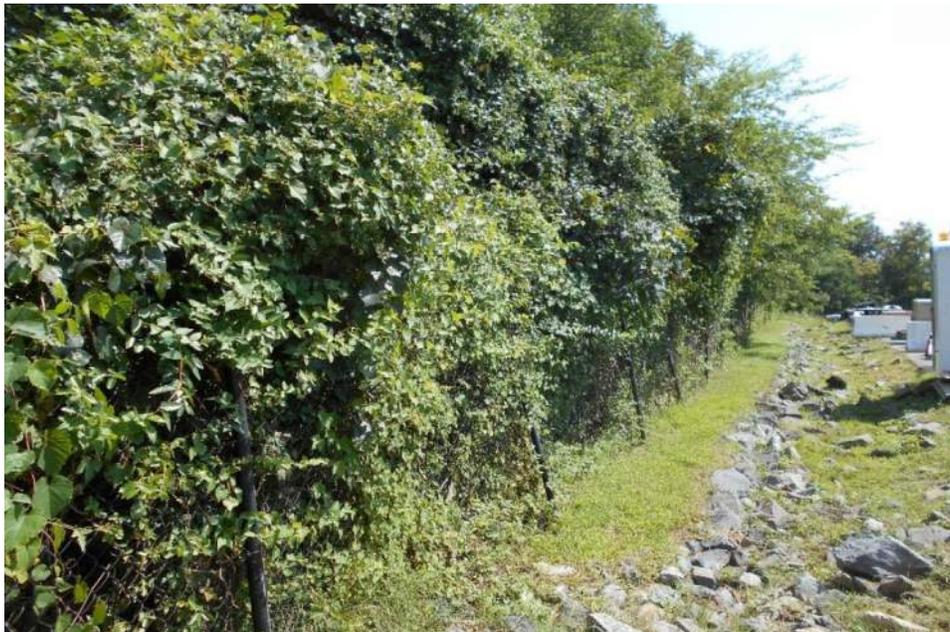


Photo Number:115

Direction: S

Showing: Fence-line along Area S-28 in Montgomery County motor pool facility, showing hardened drainage feature.



Photo Number:120

Direction: N

Showing: Ground conditions on front slope of road berm in Area S-28.



Photo Number:123

Direction: W

Showing: Fence along rear slope of road berm in Area S-28.

Area S-30



Photo Number:2555

Direction: NE

Showing: Flat area in tested portion of Area S-30, with I-495 visible in left background.



Photo Number:2554

Direction: W

Showing: Slope on edge of tested portion of Area S-30.

Area S-31



Photo Number:90

Direction: NW

Showing: Ground conditions in center of Area S-31.



Photo Number:92

Direction: S

Showing: Ground conditions in eastern portion of Area S-31.



Photo Number:97

Direction: NW

Showing: View along sound barrier near southeastern end of Area S-31.



Photo Number:99

Direction: SW

Showing: Sewer pipeline marker on edge of Area S-31 near bridge.

Area S-32



Photo Number:1 (20181130_142341944)

Direction: N

Showing: I-495 sound barrier along Transect 1 in Area S-32.



Photo Number:2 (20181130_142344270)

Direction: E

Showing: Outdoor Nursery School parking lot located in the untested portion of Area S-32.



Photo Number:3 (20181130_142341944)

Direction: S

Showing: Ground and vegetation conditions in Area S-32, south of slopes overlooking the recreational fields of North Chevy Chase Local park.



Photo Number:6 (20181130_142439347)

Direction: NW

Showing: Slope descending from the northwest bank of I-495 in Area S-32.

Area S-33



Photo Number: S-33-14

Direction: W

Showing: Vegetation and ground conditions in Area S-33.



Photo Number: S-33-15

Direction: SE

Showing: Rock Creek along southeast portion of Area S-33.



Photo Number:S-33-21

Direction: SE

Showing: Vegetation and ground visibility in Area S-33. West end.



Photo Number:S-33-23

Direction: SE

Showing: Rock Creek, high after recent rain, along Area S-33.

Area S-34



Photo Number:0039

Direction: SE

Showing: Ground conditions in the floodplain portion of Area S-34.



Photo Number:0045

Direction: NE

Showing: Berm carrying I-495 along the eastern edge of Area S-34.

Area S-35



Photo Number:0010

Direction: SW

Showing: Crew working in the undisturbed floodplain portion of Area S-35.

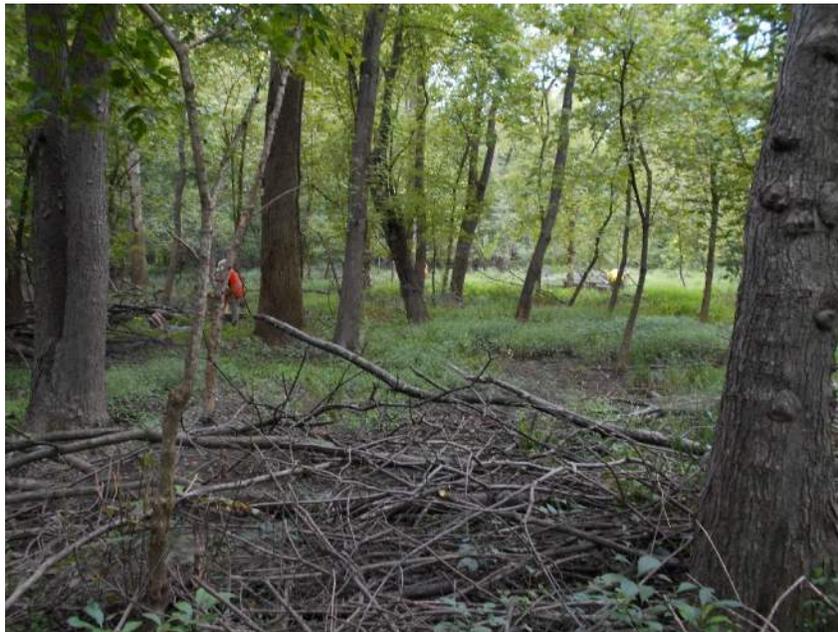


Photo Number: 0008

Direction: NE

Showing: Driftwood litter in the undisturbed floodplain portion of Area S-35.



Photo Number:0007

Direction: NE

Showing: Disturbed water retention area in northeastern portion of Area S-35.

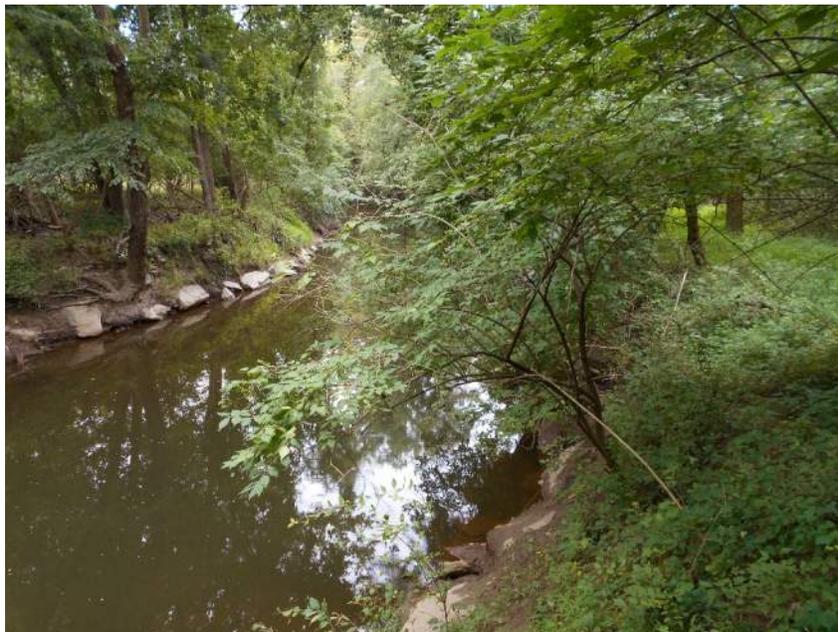


Photo Number:0009

Direction: S

Showing: View along Rock Creek showing hardened streambed improvements from edge of Area S-35.

Area S-36



Photo Number:2576

Direction: S

Showing: Paved footpath and floodplain along Sligo Creek in Area S-36.



Photo Number:2577

Direction: W

Showing: Slope and wooded area between footpath and Sligo Creek Site 1.



Photo Number:2581

Direction: SW

Showing: Flat upland area in Area S-36, within Sligo Creek Site 1.



Photo Number:S-36-1

Direction: N

Showing: Stone-lined possible well feature within Sligo Creek Site 1 in Area S-36.

Area S-38



Photo Number:0842

Direction: SE

Showing: Ground conditions in Area S-38, representative of entire survey area.



Photo Number:0485

Direction: W

Showing: Crew working in Area S-38.

Area S-40



Photo Number: S-40-1

Direction: NW

Showing: Wooded area in western portion of Area S-40.



Photo Number: S-40-4

Direction: SE

Showing: Tall grass in the central portion of Area S-40, within the expanded boundary for the Prator Farm site.



Photo Number:S-40-5

Direction: SE

Showing: Solar farm in the southeastern portion of Area S-40.



Photo Number:S-40-11

Direction: NE

Showing: Gravel access road traversing the northern portion of Area S-40, toward BARC office complex.

Area S-41



Photo Number:2329

Direction: SW

Showing: Ground conditions in northwestern portion of Area S-41, showing drainage trench.



Photo Number:2331

Direction: NW

Showing: Embankment slope down to I-495 Outer Loop.



Photo Number:2335

Direction: SW

Showing: View of I-495 Outer Loop (foreground) and Inner Loop (background) from Area S-41.



Photo Number:2337

Direction: NW

Showing: Ground conditions in Area S-41, on flat area between road embankment and right-of-way fence.

Area S-43



Photo Number:0132

Direction: S

Showing: One of several dirt paths connecting homeless camps in Area S-43.



Photo Number:0135

Direction: SE

Showing: Active homeless camp in northern portion of Area S-43.



Photo Number:0149
Showing: Bare surface of fill in Area S-43.

Direction:



Photo Number:0141
Showing: South slope of artificial landform containing Area S-43 down to normal ground level on left.

Direction: E

Area S-45



Photo Number:1 (20181128_135111182)

Direction: W

Showing: Drainage feature located in west most portion of Area S-45.



Photo Number:3 (20181128_135158793)

Direction: SW

Showing: Drainage feature in Area S-45.



Photo Number:9 (20181128_140415400)

Direction: E

Showing: Ground and vegetation conditions in Area S-45.



Photo Number:12 (20181128_153309269)

Direction: SW

Showing: Ground and vegetation conditions in Area S-45.

Area S-46



Photo Number:315

Direction: E

Showing: Unmarked access road along Transect 1 in Area S-46.



Photo Number:319

Direction: N

Showing: Piles of construction debris along access road.



Photo Number:320

Direction: SE

Showing: Slope off access road, Transect 3 written off.



Photo Number:327

Direction: S

Showing: Slope off access road in Area S-46.

Area S-47



Photo Number: 4 (20181128_193634350)
Showing: Ground and vegetation conditions in Area S-47.

Direction: W



Photo Number:5 (20181128_193732802)
Showing: Ground and vegetation conditions in Area S-47.

Direction: NE

Area S-48



Photo Number:0152

Direction: SE

Showing: Undisturbed wooded area (left) along the edge of highway disturbance (right) in Area S-48.



Photo Number:0163

Direction: SW

Showing: Wooded area on edge of slope down to Henson Creek on western edge of testable area in Area S-48.



Photo Number:0162

Direction: SE

Showing: Drainage feature directing water toward Henson Creek at base of slope in Area S-48.



Photo Number:0161

Direction: N

Showing: Wetland areas in the floodplain of Henson Creek in western portion of Area S-48.

Area S-49



Photo Number:S-49-6 (20181129_154718489)

Direction: NE

Showing: Sound barrier of I-495 and gravel access road in Area S-49.



Photo Number:S-49-3 (20181129_154639487)

Direction: E

Showing: Ground and vegetation conditions in Area S-49.

Area S-50



Photo Number:2574

Direction: N

Showing: Ground conditions in the heavily-overgrown portion of Area S-50.



Photo Number:2570

Direction: N

Showing: Lawn area and paved footpath occupying the western portion of Area S-50.

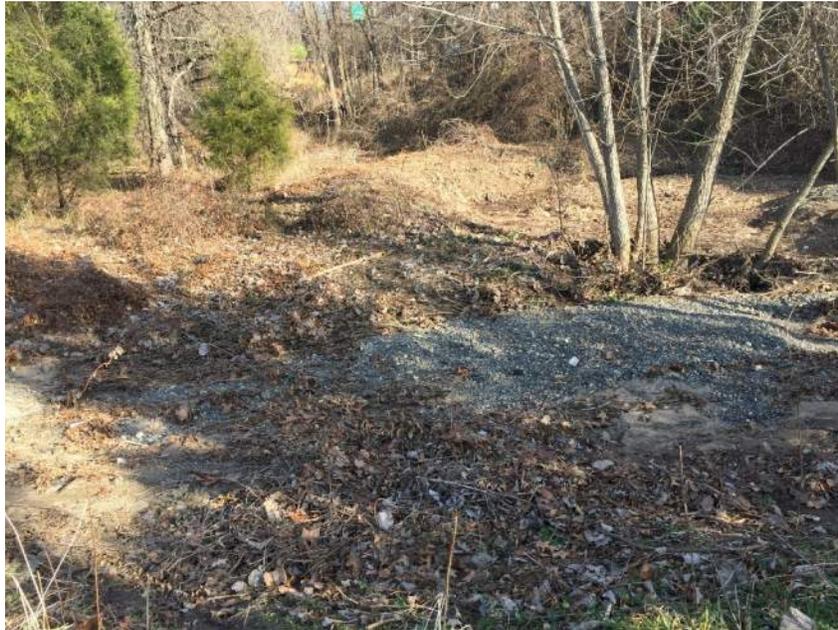


Photo Number:2571

Direction: E

Showing: Gravel fill on the surface between Sligo Creek and the lawn area in the western portion of Area S-50.



Photo Number:2567

Direction: SE

Showing: Improved drainage feature along the southern boundary of Area S-50.

Area S-51



Photo Number:329

Direction: NE

Showing: STP 51-1-1 surrounded by wetland vegetation in the northeast corner of Area S-51. I-495 sound barrier approximately 100 feet to the north.



Photo Number:330

Direction:

Showing: Ground and vegetation conditions in Area S-51, within wetland delineation area.



Photo Number:332

Direction: S

Showing: Ground and vegetation conditions in Area S-51, Granville Drive to the south.



Photo Number: 333

Direction: NE

Showing: Ground and vegetation conditions in Area S-51, wetland delineation flags visible to the northwest.

Area S-52



Photo Number:S-52-1

Direction: SE

Showing: Ground and vegetation conditions in Area S-52, facing southeast of Transect 1. Marked utility for petroleum pipeline shown.



Photo Number:S-52-4

Direction: S

Showing: Standing water and highway debris situated south of Transect 1 in Area S-52.



Photo Number:S-52-10

Direction: W

Showing: Ground and vegetation conditions in Area S-52 along Transects 1 and 2.



Photo Number:S-52-17

Direction: NE

Showing: Possible unmarked path along Transects 5-6 in Area S-52.

Appendix C

Artifact Catalog

(Intentionally Left Blank)

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
18MO22	CLARA BARTON PARKWAY SITE 1	13	1	001	9-6 n25	I	0-0.7	Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	4	1.47g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	1	002	9-6 n25	I	0-0.7	Ceramic	Refined Earthenware	Creamware	Unidentified	Body	1	0.69g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	2	001	4-5 s25	II	0.4-1.3	Lithic	Quartz	Debitage	Primary Flake	Complete	1	1.61g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	2	002	4-5 s25	II	0.4-1.3	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	1	1.39g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	3	001	7-3	I		Organic	Faunal	Unidentified	Unidentified	Fragment	1	2.39g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	4	001	8-3	II	~0.5	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	6	2.73g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	5	001	11-7	I	0.3-1.1	Lithic	Quartz	Debitage	Shatter	Complete	1	1.87g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	6	001	11-12	I	~0.7	Lithic	Quartz	Debitage	Primary Flake	Complete	1	3.68g	early stage biface flake or early stage biface
18MO22	CLARA BARTON PARKWAY SITE 1	13	7	001	11-12 w25	I/II	0.4-0.7	Lithic	Quartz	Debitage	Shatter	Complete	1	1.02g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	8	001	12-6	I	0-0.7	Ceramic	Refined Earthenware	Creamware	Unidentified	Body	1	0.42g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	9	001	10-2	I	0-0.4	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	1.14g	
18MO22	CLARA BARTON PARKWAY SITE 1	13	10	001	10-15	III		Glass	Colorless	Machine Made	Bottle, Medicinal	Complete	1	37.96g	"MISTOL"
18MO749	C&O CANAL SITE 1	12/13	1	001	10-15	II	1.0-1.8	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	2	0.26g	
18MO749	C&O CANAL SITE 1	12/13	1	002	10-15	II	1.0-1.8	Lithic	Quartz	Debitage	Tertiary Flake	Complete	3	8.31g	
18MO749	C&O CANAL SITE 1	12/13	2	001	10-16	I	~3.0	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	0.71g	
18MO749	C&O CANAL SITE 1	12/13	3	001	11-14	I	2.0-3.0	Lithic	Quartzite	Debitage	Shatter	Complete	1	1.99g	
18MO749	C&O CANAL SITE 1	12/13	3	002	11-14	I	2.0-3.0	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	2	0.44g	
18MO749	C&O CANAL SITE 1	12/13	4	001	11-15	I	~2.0	Lithic	Quartz	Debitage	Secondary Flake	Complete	2	0.34g	
18MO749	C&O CANAL SITE 1	12/13	5	001	11-16	I	~1.5	Lithic	Quartz	Debitage	Secondary Flake	Complete	4	0.52g	
18MO749	C&O CANAL SITE 1	12/13	6	001	12-16			Lithic	Quartz	Debitage	Secondary Flake	Complete	4	0.52g	
18MO749	C&O CANAL SITE 1	12/13	6	002	12-16			Lithic	Quartz	Debitage	Secondary Flake	Complete	1	3.67g	
18MO749	C&O CANAL SITE 1	12/13	6	003	12-16			Lithic	Quartz		Primary Flake	Complete	1	2.96g	
18MO749	C&O CANAL SITE 1	12/13	7	001	10-16 w25	I	0.4-2.0	Lithic	Quartz	Bifacial Flaked Tool	Biface	Complete	1	6.43g	INDETERMINATE STAGE
18MO749	C&O CANAL SITE 1	12/13	7	002	10-16 w25	I	0.4-2.0	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	1	2.7g	
18MO749	C&O CANAL SITE 1	12-13	8	001	10-16 w75	II	2.0-2.5	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	1	0.06g	
18MO749	C&O CANAL SITE 1	12-13	8	002	10-16 w75	II	2.0-2.5	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	0.64g	
18MO749	C&O CANAL SITE 1	12/13	9	001	10-16 w100	II	~1.5	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	0.79g	
18MO749	C&O CANAL SITE 1	12/13	10	001	11-16 w50	I	0-0.11	Glass	Opaque White (Milk Glass)	Unidentified	Tableware, Unid.	Base	1	12.29	
18MO749	C&O CANAL SITE 1	12/13	11	001	12-16 s25	II/III	2.0-2.5	Prehistoric Ceramic	Quartz Temper	No Surface Treatment	Vessel, Unid.	Body	1	5.26g	Accokeek
18MO749	C&O CANAL SITE 1	12/13	12	001	12-16 e25	II/III	2.2-2.6	Lithic	Quartz	Debitage	Shatter	Complete	2	4.18g	
18MO749	C&O CANAL SITE 1	12/13	13	001	12-16 w25	III		Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	2.81g	

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
18MO749	C&O CANAL SITE 1	12/13	14	001	12-16 w75	II	0.8-2.1	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	0.12g	
18MO749	C&O CANAL SITE 1	12/13	14	002	12-16 w75	II	0.8-2.1	Lithic	Quartz	Debitage	Primary Flake	Complete	1	2.81g	
18MO749	C&O CANAL SITE 1	12/13	15	001	12-16 w100	II	0.3-2.3	Lithic	Quartz	Debitage	Shatter	Complete	1	0.5g	
18MO749	C&O CANAL SITE 1	12/13	16	001	12-16 w125	II	0.4-2.3	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	0.88g	
18MO749	C&O CANAL SITE 1	12/13	17	001	10-15 n25	II		Lithic	Quartz	Debitage	Tertiary Flake	Complete	2	1.00g	
18MO750	C&O CANAL SITE 2	12/13	1	001	8-5	II	0-0.7	Glass	Colorless	Machine Made	Bottle, Unid.	Body	1	43.04g	
18MO750	C&O CANAL SITE 2	12/13	2	001	1-10	I	0-0.4	Glass	Colorless	Machine Made	Bottle, Unid.	Body	1	0.57g	
18MO750	C&O CANAL SITE 2	12/13	3	001	1-10 w25	I		Ceramic	Refined Earthenware	Refined White Earthenware	Unidentified	Body	1	3.74g	
18MO750	C&O CANAL SITE 2	12/13	4	001	1-10 w75	II	0.3-0.9	Lithic	Quartz	Debitage	Primary Flake	Complete	1	2.11g	
18MO750	C&O CANAL SITE 2	12/13	4	002	1-10 w75	II	0.3-0.9	Lithic	Quartz	Debitage	Tertiary Flake	Complete	2	0.74g	
18MO750	C&O CANAL SITE 2	12/13	5	001	1-10 w100	II	~1	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	3	0.51g	
18MO750	C&O CANAL SITE 2	12/13	5	002	1-10 w100	II	~1	Lithic	Quartz	Debitage	Primary Flake	Complete	2	1.00g	
18MO750	C&O CANAL SITE 2	12/13	6	001	16-8	II	0.3-0.6	Ceramic	Other (Ceramic)	Unidentified	Insulator	Fragment	1	3.1g	
18MO750	C&O CANAL SITE 2	12/13	6	002	16-8	II	0.3-0.6	Ceramic	Brick	Unidentified	Brick, Unid	Fragment	2	0.74g	Glazed
18MO750	C&O CANAL SITE 2	12/13	7	001	16-9	II	0.6	Glass	Colorless	Machine Made	Bottle, Unid.	Body	1	0.98g	
18MO750	C&O CANAL SITE 2	12/13	8	001	16-11	I	0.3	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	2	398.00g	
18MO750	C&O CANAL SITE 2	12/13	9	001	17-3	II		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	10.83g	
18MO751	C&O CANAL SITE 3	12/13	1	001	1-1	II	0.7-1.5	Glass	Olive Green	Machine Made	Bottle, Unid.	Body	1	3.2g	
18MO751	C&O CANAL SITE 3	12/13	1	002	1-1	II	0.7-1.5	Glass	Colorless	Machine Made	Bottle, Unid.	Body	1	2.1g	
18MO751	C&O CANAL SITE 3	12/13	2	001	1-4	II	0.5-1.0	Organic	Faunal	Oyster	Shell	Fragment	1	8.97g	
18MO751	C&O CANAL SITE 3	12/13	3	001	1-5	II	0.4-0.9	Glass	Colorless	Machine Made	Bowl, Unid.	Fragment	2	8.48g	
18MO751	C&O CANAL SITE 3	12/13	3	002	1-5	II	0.4-0.9	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	0.63g	Undecorated
18MO751	C&O CANAL SITE 3	12/13	3	003	1-5	II	0.4-0.9	Metal	Ferrous	Unidentified	Nail, Unid.	Unidentified	1	3.3g	
18MO751	C&O CANAL SITE 3	12/13	4	001	2-2	I	0-0.5	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	0.83g	
18MO751	C&O CANAL SITE 3	12/13	5	001	2-4	I		Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	2	1.65g	
18MO751	C&O CANAL SITE 3	12/13	6	001	2-3	I	0-0.6	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	0.49	
18MO751	C&O CANAL SITE 3	12/13	7	001	3-2	II	0.4-0.8	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	1	0.23g	
18MO751	C&O CANAL SITE 3	12/13	7	002	3-2	II	0.4-0.8	Metal	Ferrous	Unidentified	Unidentified	Unidentified	1	50.64g	thin, flat
18MO751	C&O CANAL SITE 3	12/13	8	001	3-4	I		Ceramic	Refined Earthenware	Yellow Ware	Unidentified	Body	1	1.37g	
18MO751	C&O CANAL SITE 3	12/13	8	002	3-4	I		Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	3	6.78g	
18MO751	C&O CANAL SITE 3	12/13	8	003	3-4	I		Ceramic	Other (Ceramic)	Other	Unidentified	Body	1	29.56g	domestic gray stoneware
18MO751	C&O CANAL SITE 3	12/13	8	004	3-4	I		Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	2.14g	
18MO751	C&O CANAL SITE 3	12/13	9	001	4-5	II		Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	29.56g	
18MO751	C&O CANAL SITE 3	12/13	9	002	4-5	II		Glass	Green	Mold Blown, Unid.	Bottle, Unid.	Lip/Neck	1	2.04g	hand finished lip
18MO751	C&O CANAL SITE 3	12/13	9	003	4-5	II		Glass	Aqua	Machine Made	Bottle, Unid.	Body	1	4.02g	Embossed: "UM"
18MO751	C&O CANAL SITE 3	12/13	10	001	1-1 w25	I	0-0.03	Glass	Aqua	Other	Window Glass, Flat	Fragment	1	0.62g	Width: 1 to 2mm

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
18MO751	C&O CANAL SITE 3	12/13	10	002	1-1 w25	I	0-0.03	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	29.56	
18MO751	C&O CANAL SITE 3	12/13	11	001	1-4 e25	I	0.3-1.0	Glass	Aqua	Other	Window Glass, Flat	Fragment	1	1.46g	Width: 1 to 2mm
18MO751	C&O CANAL SITE 3	12/13	11	002	1-4 e25	I	0.3-1.0	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	1.16g	
18MO751	C&O CANAL SITE 3	12/13	11	003	1-4 e25	I	0.3-1.0	Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	20.89g	
18MO751	C&O CANAL SITE 3	12/13	11	004	1-4 e25	I	0.3-1.0	Metal	Ferrous	Unidentified	Spike	Fragment	1	41.55g	
18MO751	C&O CANAL SITE 3	12/13	11	005	1-4 e25	I	0.3-1.0	Glass	Aqua	Unidentified	Bottle, Unid.	Lip	1	2.33g	hand-tooled lip
18MO751	C&O CANAL SITE 3	12/13	12	001	2-2 e25	II	~1	Ceramic	Refined Earthenware	Whiteware	Unidentified	Rim	1	0.55g	Banded; Brown stripe along rim
18MO751	C&O CANAL SITE 3	12/13	12	002	2-2 e25	II	~1	Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	1	0.05g	
18MO751	C&O CANAL SITE 3	12/13	13	001	3-2 w25	I	0-1	Metal	Tin	Unidentified	Can	Fragment	1	5.01g	
18MO751	C&O CANAL SITE 3	12/13	14	001	3-2 J1	II	~1	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	2	5.81g	
18MO751	C&O CANAL SITE 3	12/13	14	002	3-2 J1	II	~1	Metal	Ferrous	Unidentified	Spike	Fragment	1	27.91g	
18MO751	C&O CANAL SITE 3	12/13	14	003	3-2 J1	II	~1	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	1.04g	Floral, printed, underglaze
18MO751	C&O CANAL SITE 3	12/13	14	004	3-2 J1	II	~1	Ceramic	Refined Earthenware	Pearlware	Unidentified	Body	1	1.04g	Banded; blue band on one side, undecorated on other
18MO751	C&O CANAL SITE 3	12/13	15	001	3-4 R s25	I	0-0.7	Ceramic	Other (Ceramic)	Other	Unidentified	Body	1	5.27g	domestic gray stoneware, salt glazed. Black swirl on exterior, unglazed interior
18MO751	C&O CANAL SITE 3	12/13	15	002	3-4 R s25	I	0-0.7	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	2	0.86g	
18MO751	C&O CANAL SITE 3	12/13	15	003	3-4 R s25	I	0-0.7	Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	1	0.44g	
18MO751	C&O CANAL SITE 3	12/13	15	004	3-4 R s25	I	0-0.7	Lithic	Quartz	Debitage	Primary Flake	Complete	3	4.66g	
18MO751	C&O CANAL SITE 3	12/13	16	001	3-4 e25	I	0-0.08	Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	4	2.75g	
18MO751	C&O CANAL SITE 3	12/13	17	001	1-4 w25	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	1	0.22g	Width: 1 to 2mm
18MO751	C&O CANAL SITE 3	12/13	17	002	1-4 w25	I		Metal	Ferrous	Drawn (Wire)	Nail, Wire	Complete	1	9.54g	Length: 3 to 3.5 "
18MO751	C&O CANAL SITE 3	12/13	17	003	1-4 w25	I		Glass	Opaque White (Milk Glass)	Unidentified	Button, 1 Piece	Complete	1	1.33	4-hole, ridged pattern; Length 1.5cm
18MO751	C&O CANAL SITE 3	12/13	17	004	1-4 w25	I		Glass	Aqua	Machine Made	Bottle, Unid.	Base	1	13.05g	
18MO751	C&O CANAL SITE 3	12/13	17	005	1-4 w25	I		Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	4	2.91g	
18MO751	C&O CANAL SITE 3	12/13	17	006	1-4 w25	I		Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	2		
18MO751	C&O CANAL SITE 3	12/13	17	007	1-4 w25	I		Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	1	0.14g	Glazed
18MO751	C&O CANAL SITE 3	12/13	17	008	1-4 w25	I		Ceramic	Refined Earthenware	Pearlware	Unidentified	Body	1	0.5g	Molded lines
18MO751	C&O CANAL SITE 3	12/13	17	009	1-4 w25	I		Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	1	0.19g	yellow and white glazed
18MO751	C&O CANAL SITE 3	12/13	17	010	1-4 w25	I		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	33.89g	

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
18MO751	C&O CANAL SITE 3	12/13	17	011	1-4 w25	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	2	3.12g	Width: 2-3mm
18MO751	C&O CANAL SITE 3	12/13	17	012	1-4 w25	I		Metal	Ferrous	Unidentified	Rod	Fragment	1	88.83g	"U" shape
18MO751	C&O CANAL SITE 3	12/13	17	013	1-4 w25	I		Ceramic	Brick	Handmade	Brick, Handmade	Fragment	1	4.28g	
18MO751	C&O CANAL SITE 3	12/13	18	001	4-5 n25	I		Ceramic	Brick	Handmade	Brick, Handmade	Fragment	1	3.13g	
18MO751	C&O CANAL SITE 3	12/13	19	001	16-2	I	0.6	Glass	Colorless	Machine Made	Bottle, Unid.	Body	1	0.84g	
18MO751	C&O CANAL SITE 3	12/13	20	001	J6	I	0-0.1	Ceramic	Refined Earthenware	Whiteware	Unidentified	Body	3	1.62g	
18MO751	C&O CANAL SITE 3	12/13	20	002	J6	I	0-0.1	Glass	Opaque White (Milk Glass)	Unidentified	Marble	Complete	1	5.46g	swirled with brown
18MO751	C&O CANAL SITE 3	12/13	20	003	J6	I	0-0.1	Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	1	1.27g	Width: 2-3mm
18MO751	C&O CANAL SITE 3	12/13	20	004	J6	I	0-0.1	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	1	14.74g	
18MO751	C&O CANAL SITE 3	12/13	20	005	J6	I	0-0.1	Ceramic	Refined Earthenware	Rockingham-Type	Unidentified	Body	1	5.52g	
18MO751	C&O CANAL SITE 3	12/13	20	006	J6	I	0-0.1	Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	3.65g	
18MO751	C&O CANAL SITE 3	12/13	20	007	J6	I	0-0.1	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	0.62g	
18MO751	C&O CANAL SITE 3	12/13	21	001	J7	II	0.55-1.2	Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	1.31g	
18MO751	C&O CANAL SITE 3	12/13	21	002	J7	II	0.55-1.2	Metal	Ferrous	Drawn (Wire)	Nail, Wire	Complete	2	6.5g	
18MO751	C&O CANAL SITE 3	12/13	21	003	J7	II	0.55-1.2	Composite	Plaster	Plaster, Unidentified	Unidentified	Fragment	1	0.59g	Blue, gray painted
18MO751	C&O CANAL SITE 3	12/13	21	004	J7	II	0.55-1.2	Metal	Ferrous	Unidentified	Key	Fragment	1	7.94g	
18MO751	C&O CANAL SITE 3	12/13	21	005	J7	II	0.55-1.2	Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	1	3.04g	Width: 2-3mm
18MO751	C&O CANAL SITE 3	12/13	21	006	J7	II	0.55-1.2	Metal	Ferrous	Machine Cut	Nail, Cut	Fragment	5	12.22g	
18MO751	C&O CANAL SITE 3	12/13	21	007	J7	II	0.55-1.2	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	2	9.51g	
18MO751	C&O CANAL SITE 3	12/13	21	008	J7	II	0.55-1.2	Metal	Ferrous	Unidentified	Unidentified	Fragment	3	20.21g	very heavily corroded, amorphous
18MO751	C&O CANAL SITE 3	12/13	21	009	J7	II	0.55-1.2	Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	0.73g	
18MO751	C&O CANAL SITE 3	12/13	21	010	J7	II	0.55-1.2	Ceramic	Brick	Unidentified	Brick, Unid	Fragment	1	0.78g	
18MO751	C&O CANAL SITE 3	12/13	21	011	J7	II	0.55-1.2	Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	2	4.64g	bent/clinched shanks
18MO751	C&O CANAL SITE 3	12/13	21	012	J7	II	0.55-1.2	Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	1.24g	Burned
18MO751	C&O CANAL SITE 3	12/13	22	001	J8	I		Ceramic	Refined Earthenware	Ironstone/White Granite	Unidentified	Body	1	1.67g	
18MO751	C&O CANAL SITE 3	12/13	23	001	4-5	II		Lithic	Quartz	Debitage	Secondary Flake	Fragment	2	2.88g	mend
18MO752	CABIN JOHN SITE 1	7	1	001	2-20	II		Lithic	Rhyolite	Bifacial Flaked Tool	Biface	Fragment	1	4.90g	Long triangular biface, tip and base broken
18MO752	CABIN JOHN SITE 1	7	2	001	2-20 e25	I		Lithic	Quartz	Debitage	Tertiary Flake	Fragment	2	1.41g	
18MO752	CABIN JOHN SITE 1	7	2	002	2-20 e25	I		Lithic	Quartz	Debitage	Primary Flake	Fragment	1	3.93g	
18MO752	CABIN JOHN SITE 1	7	3	001	2-20 n25	II		Lithic	Quartz	Debitage	Shatter		1	3.69g	COBBLE SHATTER
18MO752	CABIN JOHN SITE 1	7	3	002	2-20 n25	II		Lithic	Quartz	Debitage	Tertiary Flake	Fragment	1	0.04g	
18MO753	CABIN JOHN SITE 2	7	1	001	1-33	II/III		Lithic	Quartz	Debitage	Tertiary Flake	Fragment	1	0.72g	BIFACE REDUCTION FLAKE

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
18MO753	CABIN JOHN SITE 2	7	2	001	1-33 s25	III	1.5'	Ceramic	Refined Earthenware	Refined White Earthenware		Body	1	0.33g	
18MO753	CABIN JOHN SITE 2	7	3	001	1-33 w25	II		Lithic	Quartz	Debitage	Secondary Flake	Fragment	1	1.02g	biface reduction flake with cortex
18MO754	ROCK CREEK SITE 1	16A	1	001	3-2	II	0.8-1.4	Lithic	Quartz	Debitage	Tertiary Flake	Fragment	1	0.71g	
18MO754	ROCK CREEK SITE 1	16A	1	002	3-2	II	0.8-1.4	Lithic	Quartz	Use Modified	Unifacially Retouched/Utilized Piece	Complete	1	2.49g	
18MO754	ROCK CREEK SITE 1	16A	2	001	3-2 e25	II		Lithic	Quartz	Debitage	Primary Flake	Complete	1	3.2g	
18MO754	ROCK CREEK SITE 1	16A	2	002	3-2 e25	II		Lithic	Quartz	Debitage	Scraper	Complete	1	12.41g	possible scraper due to use, wear, and rounded end/impact mark
18MO754	ROCK CREEK SITE 1	16A	2	003	3-2 e25	II		Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	1	0.09g	
18MO754	ROCK CREEK SITE 1	16A	3	001	3-3	II		Lithic	Quartz	Debitage	Shatter	Complete	1	4.45g	
18MO755	ROCK CREEK SITE 2	16A	1	001	14-9	I	0-0.5	Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	1	0.63g	
18MO755	ROCK CREEK SITE 2	16A	2	001	14-11	II	0.3-0.7	Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	2	2.96g	
18MO755	ROCK CREEK SITE 2	16A	3	001	14-12	II	0.3-0.7	Lithic	Quartz	Debitage	Shatter	Complete	1	2.53g	
18MO755	ROCK CREEK SITE 2	16A	4	001	14-12 w25 (R)	II	0.4-2.0	Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	1	1.46g	
18MO755	ROCK CREEK SITE 2	16A	5	001	15-11	II		Lithic	Quartz	Debitage	Shatter	Complete	3	2.71g	
18MO755	ROCK CREEK SITE 2	16A	5	002	15-11	II		Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	1	0.16g	no cortex
18MO755	ROCK CREEK SITE 2	16A	5	003	15-11	II		Lithic	Quartz	Debitage	Tertiary Flake	Complete	5	8.3g	
18MO755	ROCK CREEK SITE 2	16A	6	001	14-11 (NEAR)			Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	2	4.4g	Surface find near 14-11
18MO756	SLIGO CREEK SITE 1	36	1	001	1-3	II	0.35-1.4'	Metal	Ferrous	Unidentified	Unidentified	Fragment	1	7.87g	VERY HEAVILY CORRODED
18MO756	SLIGO CREEK SITE 1	36	2	001	1-3 n25	II	0.2-1.3'	Metal	Ferrous	Unidentified	Unidentified	Fragment	1	44.23g	
18MO756	SLIGO CREEK SITE 1	36	2	002	1-3 n25	II	0.2-1.3'	Glass	Amber/Brown	Machine Made	Bottle, Unid.	Fragment	1	1.52g	
18MO756	SLIGO CREEK SITE 1	36	3	001	1-2	II		Organic	Faunal	Oyster	Shell	Fragment	1	4.96g	
18MO756	SLIGO CREEK SITE 1	36	3	002	1-2	II		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	10.13g	cut or wrought
18MO756	SLIGO CREEK SITE 1	36	4	001	1-8	II		Organic	Faunal	Oyster	Shell	Fragment	2	7.43g	
18MO756	SLIGO CREEK SITE 1	36	5	001	2-7	I	0.0-0.6'	Organic	Faunal	Oyster	Shell	Fragment	4	3.84g	
18PR1131	GREENBELT PARKWAY SITE 1	26	62	001	11-12	IV		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	2	24.03g	VERY HEAVILY CORRODED

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18PR1131	GREENBELT PARKWAY SITE 1	26	62	002	11-12	IV		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	14.15g	cut or wrought, very heavily corroded
18PR425	PRATOR FARMSTEAD	40	52	001	1-13	I		Glass	Colorless	Machine Made	Bottle, Medicinal	Fragment	1	37.96g	Embossed: "MISTOL", nasal spray bottle
18PR425	PRATOR FARMSTEAD	40	52	002	1-13	I		Ceramic	Other (Ceramic)	Unidentified	Flower Pot	Body	1	3.79	
18PR425	PRATOR FARMSTEAD	40	53	001	1-13 e25	I		Glass	Amethyst/ Purple	Machine Made	Bottle, Unid.	Fragment	1	4.28g	
18PR425	PRATOR FARMSTEAD	40	53	002	1-13 e25	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	2	3.65g	
18PR425	PRATOR FARMSTEAD	40	54	001	1-13 e75	I		Glass	Aqua	Machine Made	Bottle, Unid.	Fragment	1	1.14g	
18PR425	PRATOR FARMSTEAD	40	54	002	1-13 e75	I		Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	0.68	
18PR425	PRATOR FARMSTEAD	40	54	003	1-13 e75	I		Organic	Floral	Coal	Coal	Fragment	1	5.55g	
18PR425	PRATOR FARMSTEAD	40	55	001	2-12	I		Metal	Ferrous	Unidentified	Unidentified	Fragment	1	3.04	Rifle casing
18PR425	PRATOR FARMSTEAD	40	55	002	2-12	I		Glass	Opaque White (Milk Glass)	Machine Made	Bottle, Unid.	Fragment	2	4.73	
18PR425	PRATOR FARMSTEAD	40	55	003	2-12	I		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	5	43.72g	very heavily corroded
18PR425	PRATOR FARMSTEAD	40	55	004	2-12	I		Glass	Aqua	Machine Made	Bottle, Unid.	Fragment	2	0.67g	
18PR425	PRATOR FARMSTEAD	40	55	005	2-12	I		Glass	Amethyst/ Purple	Machine Made	Bottle, Unid.	Fragment	1	1.63	
18PR425	PRATOR FARMSTEAD	40	55	006	2-12	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	1	1.48g	
18PR425	PRATOR FARMSTEAD	40	55	007	2-12	I		Metal	Unidentified	Unidentified	Unidentified	Fragment	1	0.40g	
18PR425	PRATOR FARMSTEAD	40	55	008	2-12	I		Glass	Olive Green	Machine Made	Bottle, Unid.	Fragment	1		
18PR425	PRATOR FARMSTEAD	40	55	009	2-12	I		Ceramic	Brick	Unidentified	unidentified	Fragment	1	1.49	
18PR425	PRATOR FARMSTEAD	40	56	001	2-12 w25	I		Glass	Opaque White (Milk Glass)	Machine Made	Jar, Canning	Lid	1	3.78	LID LINER
18PR425	PRATOR FARMSTEAD	40	56	002	2-12 w25	I		Glass	Opaque White (Milk Glass)	Machine Made	Bottle, Other	Fragment	1	7.57	
18PR425	PRATOR FARMSTEAD	40	56	003	2-12 w25	I		Metal	Ferrous	Unidentified	Hardware, Unid.	Fragment	1	58.15	TRIANGULAR PROFILE, 3" LONG
18PR425	PRATOR FARMSTEAD	40	57	001	2-13	I		Glass	Opaque White (Milk Glass)	Machine Made	Bottle, Unid.	Fragment	1	1.64g	
18PR425	PRATOR FARMSTEAD	40	57	002	2-13	I		Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	2	6.80g	Embossed
18PR425	PRATOR FARMSTEAD	40	57	003	2-13	I		Glass	Amethyst/ Purple	Machine Made	Bottle, Unid.	Fragment	1	0.27g	
18PR425	PRATOR FARMSTEAD	40	57	004	2-13	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	3	3.14	
18PR425	PRATOR FARMSTEAD	40	57	005	2-13	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	3	2.77g	

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
18PR425	PRATOR FARMSTEAD	40	57	006	2-13	I		Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	4.18g	Embossed; dark aqua
18PR425	PRATOR FARMSTEAD	40	58	001	2-13 s25	I		Organic	Floral	Coal	Coal	Fragment	1	12.64g	
18PR425	PRATOR FARMSTEAD	40	59	001	2-14 n25	I		Glass	Amethyst/ Purple	Machine Made	Bottle, Unid.	Fragment	1		
18PR425	PRATOR FARMSTEAD	40	59	002	2-14 n25	I		Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	1.46g	
18PR425	PRATOR FARMSTEAD	40	59	003	2-14 n25	I		Glass	Aqua	Machine Made	Bottle, Unid.	Fragment	1	0.68	
18PR425	PRATOR FARMSTEAD	40	59	004	2-14 n25	I		Glass	Aqua			Fragment	1	1.06g	
18PR425	PRATOR FARMSTEAD	40	59	005	2-14 n25	I		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	2.44g	
18PR425	PRATOR FARMSTEAD	40	60	001	2-14	I		Metal	Ferrous	Unidentified	Spike, Unid.	Fragment	1	101.84g	
18PR425	PRATOR FARMSTEAD	40	60	002	2-14	I		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	1	7.13g	cut or wrought, very heavily corroded
18PR425	PRATOR FARMSTEAD	40	60	003	2-14	I		Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	0.67g	Embossed
18PR425	PRATOR FARMSTEAD	40	60	004	2-14	I		Glass	Aqua	Flat, Unidentified	Window Glass, Flat	Fragment	1	0.62g	
18PR425	PRATOR FARMSTEAD	40	61	001	3-11	I		Ceramic	Refined Earthenware	Ironstone/White Granite	unidentified	Body	1	2.43g	1840-1910
18PR746	B-6/BARC SITE 1	20	6	001	1-11	II	0.7-1.3	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	4	204.00g	
18PR746	B-6/BARC SITE 1	20	7	001	1-11 w25	I		Ceramic	Brick	Handmade	Brick, Handmade	Fragment	1	2.67g	
18PR746	B-6/BARC SITE 1	20	7	002	1-11 w25	I		Ceramic	Coarse Earthenware	Unidentified	Tableware, Unid.	Body	1	0.64g	
18PR746	B-6/BARC SITE 1	20	7	003	1-11 w25	I		Ceramic	Refined Earthenware	Refined White Earthenware		Body	1	0.74g	Printed, underglaze
18PR746	B-6/BARC SITE 1	20	8	001	1-11 w25	II	~1	Ceramic	Refined Earthenware	Refined White Earthenware		Body	2	5.51g	undecorated
18PR746	B-6/BARC SITE 1	20	8	002	1-11 w25	II	~1	Lithic	Quartz	Debitage	Tertiary Flake	Complete	1	1.22g	
18PR746	B-6/BARC SITE 1	20	8	003	1-11 w25	II	~1	Metal	Ferrous	Unidentified	Unidentified	Fragment	1	24.21	
18PR746	B-6/BARC SITE 1	20	8	004	1-11 w25	II	~1	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	17	77.11g	
18PR746	B-6/BARC SITE 1	20	9	001	1-11 w75	I/II	0-0.8	Metal	Ferrous	Unidentified	Unidentified	Fragment	1	3.47g	Somewhat spherical, corroded amorphous concretion; Length 0.5"
18PR746	B-6/BARC SITE 1	20	9	002	1-11 w75	I/II	0-0.8	Ceramic	Brick	Handmade	Brick, Handmade	Fragment	4	422.00g	
ISO	ISO	18	x1	001	1-2			Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	5.56g	Embossed "COLA" with basketweave-like pattern
ISO	ISO	16A	x1	001	11-4	II	2.8	Organic	Floral	Charcoal	Charcoal	Fragment	2	0.68g	
ISO	ISO	16A	x14	001	15-16	II		Lithic	Quartz	Debitage	Unclassifiable Flake Fragment	Fragment	1	1.62g	

Site No.	SiteName	Area	LotID	SpecID	STP#	Strat	Depth (ft)	Material	Class	Type	Object	Part	Quantity	Weight	Comments
ISO	ISO	34	x2	001	4-3	C	2.5'	Metal	Ferrous	Unidentified	Unidentified	Fragment	1	4.05g	VERY HEAVILY CORRODED, AMORPHOUS LUMP
ISO	ISO	16A	x2	002	11-4	II	2.8	Lithic	Quartzite	Debitage	Unclassifiable Flake Fragment	Fragment	1	1.39g	
ISO	ISO	16	x23	001	9-21	III		Glass	Other (Glass)	Machine Made	Bottle, Unid.	Fragment	1	24.60g	TEAL
ISO	ISO	16	x24	001	2-7	III		Organic	Floral	Charcoal	Charcoal	Fragment	4	0.34g	
ISO	ISO	16	x24	002	2-7	III		Ceramic	Brick	Handmade	Brick, Handmade	Fragment	5	22.72g	
ISO	ISO	36	x29	001	1-14	II		Synthetic	Plastic		Button, Unid	Complete	1	4.52g	1.80" DIAMETER, TIGERS EYE LIKE APPEARANCE
ISO	ISO	17	x3	001	1-4	B	2.5-3'	Metal	Ferrous	Unidentified	Unidentified	Fragment	7	53.10	SEMI-CYLINDRICAL, VERY HEAVILY CORRODED, POSSIBLE NAIL OR WIRE FRAGMENTS?
ISO	ISO	36	x30	001	1-14 e25	II		Metal	Ferrous	Unidentified	Unidentified	Fragment	1	13.30g	VERY HEAVILY CORRODED, AMORPHOUS
ISO	ISO	36	x31	001	1-14 w25	II	0.4-1.9'	Metal	Ferrous	Drawn (Wire)	Nail, Wire	Fragment	1	7.55g	Length: 3.5 to 4"
ISO	ISO	36	x31	002	1-14 w25	II	0.4-1.9'	Glass	Colorless	Machine Made	Bottle, Unid.	Fragment	1	1.05g	
ISO	ISO	36	X33	001	3-16	I		Metal	Ferrous	Unidentified	Nail, Unid.	Fragment	2	7.88g	
ISO	ISO	17	x4	001	1-4 5 s25	B	2'	Metal	Ferrous	Unidentified	Unidentified	Fragment	5	39.74	VERY HEAVILY CORRODED, POSSIBLE NAIL/WIRE FRAGMENTS
ISO	ISO	9	x5	001	9-2	B		Glass	Amber/Brown	Machine Made	Bottle, Unid.	Fragment	1	0.43g	
ISO	ISO	9	x5	002	9-2	B		Ceramic	Brick	Unidentified	Unidentified	Fragment	1	1.07g	

Appendix D

Archaeology Survey Areas

REDACTED

Appendix E

Results and Recommendations of Archaeological Testing

REDACTED

Appendix F

Site Forms

REDACTED

Appendix G

Site Chains of Title

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Appendix G

Site Chains of Title

NOTE: CHAIN OF TITLE WAS NOT COMPILED FOR SITE 18PR1131 BECAUSE INITIAL DEED RECORD IS MISSING FROM SDAT DATA. CHAIN OF TITLE FOR THE PRATOR FARMSTEAD (18PR425) WAS COMPILED DURING A PREVIOUS INVESTIGATION (THOMAS ET AL. 1992).

CHAIN-OF-TITLE FOR POTTER SITE/CLARA BARTON PARKWAY SITE 1 (18MO22)

Date	Grantor	Grantee	Acres	Liber/Folio	Notes
12/18/1946	Elizabeth D. Yates and Alonzo Yates	United States of America	22.9851 7	1054:229	Conveys parcel of land for \$11,492.59. Parcel is described as located on the south side of the Washington aqueduct. Surveyed on 4/10/1940 by D.S. Kelly for the NCPPC, #105.31-480.
4/01/1912	American Land Company	Elizabeth D. Yates	48.233	226:404	Conveys parts of two parcels out of four parcels.
4/01/1912	William T. Perry	American Land Company	582.941	266:399	The six parcels described in JBL 222:110 (6/7/1911) have been consolidated into four parcels in this document.
6/07/1911	Harry W. Dowling and Benjamin F. Leighton, trustees, Estate of Amanda E. Dowling	William T. Perry	None Given	222:110	Parcel 6 is 35 1/8 acres.
4/13/1876	Thomas Anderson and George Peters, trustees Estate of Joseph G. White	Amanda E. Dowling	None Given	14:441	Conveys Lots 3,4,5, and 6. Lot #6 is described as part of "Carderock" and is 35 1/8 acres.
5/12/1866	Sallie J. Fitzhugh and John Saunders (her attorney)	Joseph G. White	35.125	2:679	Conveys property for \$1000. Includes Lot No. 4 and part of Lot No. 3 "Carderock".
12/08/1865	Ellen Fitzhugh	Sallie J. Fitzhugh	No specific acreage given	2:415	Conveys parcel for \$3000. Also sells everything on said land, e.g. animals, farm equipment, and other properties.
2/04/1860	Peregrine Fitzhugh	A. Ellen Fitzhugh	No specific acreage given	7:667	Conveys parcel for \$3000. Also sells everything on said land, e.g. animals, farm equipment, and other properties.
12/22/1853	James Dunlop trustee	Peregrine Fitzhugh	A. 323.687 5	4:259	Conveys Lot No. 3 in the division of David Peter's estate, part of "Carderock" and "James' Park."

Date	Grantor	Grantee	Acres	Liber/Folio	Notes
6/20/1812	Margaret Dick	Thomas Peters, David Peters, George Peters	1704.5 (lot 5)	P:674	“Carderock” and “James’ Park” included in 1704.5 acres of Lot No. 5

CHAIN-OF-TITLE FOR C&O CANAL SITES 1-3 (18MO749, 18MO750, 18MO751)

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
3/05/1959	Washington Biologists' Field Club, Inc.	United States of America	N/A	Not Specified	Location of C&O Canal Site III.
7/03/1935	Woodside Homes Corporation	United States of America	N/A	594:476	
3/14/1927	Frank P. Harmon and Anita Kite Harmon	Woodside Homes Corporation	275.74	422:134	Unclear how the property was granted to the Harmons.
2/26/1908	Clarence W. Colliere and Rita Colliere	Michael J. Keane	275.74	197:471	Unclear how the land was granted to the Collieres.
11/20/1919	Sylvester N. Labrot and Elizabeth H. Labrot	Frederick H. Gillet and John P. Story	537.636	290:66	Does not mention the land belonging to the Washington Biologists' Field Club
1/19/1916	Isaac T. Mann and Vernie Mann	Sylvester N. Labrot	537.636	254:98	Does not include the 37.2 acres of land belonging to the Washington Biologists Field Club.
7/01/1914	J. Selwin Tait and Sarah Selwin Tait	Isaac T. Mann	537.636	242:425	Carderock is granted to Mann, with the exception of the 37.2 acres of land acquired by the Washington Biologists Field Club.
3/30/1914	C. Francis Ownes, Assignee	J. Selwin Tait	537.636	240:439	
3/03/1908	Samuel Sewall Cissel and Ada May Cissel	Washington Biologists' Field Club	49.43	198:42	
2/26/1908	Samuel Sewall Cissel and Ada May Cissel	The Maryland Life Insurance Company of Baltimore	537.636	197:471	Cissel mortgage Carderock for \$6000.
8/05/1851	James Dunlop, Trustee	Lewis Welsh	49.43	5:474	Land is divided into two parcels, part of Carderock, and Plummer's Island.

**CHAIN-OF-TITLE FOR CABIN JOHN SITE 1 (18MO752) AND CABIN JOHN SITE 2
(18MO753)**

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
SITE 1					
1/06/1960	Alex C. Levin and Anne Levin	M-NCPPC	62.6195	2692:95	Includes two parcels
SITE 2					
6/29/1960	Alex C. Levin	M-NCPPC	67.0124	2753:393	Combines two parcels purchased by Alex C. Levin.
BOTH SITES					
5/17/1955	George W. O'Keefe and Eloise O'Keefe	Alec C. Levin	124.520	2057:501	
10/05/1956	MD State Road Commission and MD Board of Public Works	Alec C. Levin and Anne Levin	18.11	2285:560	Two parcels of land acquired for the "Relocated Route 240" project.
5/21/1956	Oscar B. Huffman	State of Maryland	18.92	2211:72	Deed totals three parcels of land.
10/10/1954	Edgemoor Land Company	George W. O'Keef	N/A	1983:394	Unclear how property transferred.
11/24/1947	Lucy P. Huffman	Oscar B. Huffman (Son?)	59.5	1118:252	Deed transfers eight separate parcels.
1/12/1926	James M. Mount and Zeru A. Mount	The Security Land Company	366.544	392:274	Conveys three separate parcels.
12/19/1925	Margaret B. Sherman	Floyd Davis	69	392:136	Sherman was living in Wisconsin. Property presumably divided from parcel 3.
9/22/1921	George P. Scriven, Elizabeth McQuade Scriven, Katherine Scriven	James M. Mount	325.158	310:71	
9/22/1921	Cornelia Elizabeth Scriven and Katherine Scriven	James M. Mount	40	310:76	.
7/12/1917	Margaret B. Sherman	Cornelia Elizabeth Scriven and Katherine Scriven	40	286:152	40 acre portion of the "Farm Property"
7/30/1915	George P. Scriven, Margaret B. Sherman, Kathrine Scriven	N/A	433.544	252:244	Deed divides property among three parties.
2/16/1912	Edward S. Bragg	Cornelia C. Bragg (Wife of Edward S. Bragg)	None Given	226:253	
12/15/1906	George Scriven and Bertha Bragg Scriven (his wife)	Edward S. Bragg	None Given	250:297	

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
9/24/1904	James B. Wimer and Mary M. Wimer	George P. Scriven	133.52	180:387	Conveys property that will be referred to as parcel 3.
9/1/1903	James B. Wimer and Mary M. Wimer	George P. Scriven	154.849	27:68	Conveys property that will be referred to as parcel 1.
9/01/1903	James B. Wimer and Mary M. Wimer	George P. Scriven	145.175	27:70	Deed conveys property that will be referred to as parcel 2.
2/10/1903	J. Hite Miller, Charles M. Barrick, and Cadwell C. Tyler	James B. Wimer	442	24:387	
11/10/1899	Phil H. Tuck, German H. Hunt, the Tenallytown and Rockville Railroad Land Company of Montgomery County	J. Hite Miller, Charles M. Barrick, and Cadwell C. Tyler	442	12:220	
1/24/1894	The Tenallytown and Rockville Railroad Land Company of Montgomery County	German H. Hunt	442	43:29	The TRRLC mortgages this property to George H. Hunt for \$5500.
5/13/1891	Annie Vance	The Tenallytown and Rockville Railroad Land Company of Montgomery County	442	27:6	
9/20/1890	Julian H. Miller and Anna L. Miller	Annie Vance	442	23:64	This deed merges two properties in partition of Thomas C. Magruder estate
8/05/1818	Thomas Magruder	C. Robert P. Magruder	442	U:221	Indenture
4/04/1814	Thomas Magruder	C. William Wilson	442	R:203	Indenture

CHAIN-OF-TITLE FOR ROCK CREEK PARK SITE 1 (18MO754)

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
3/27/1939	George A. Hamilton and Louise Hamilton	M-NCPPC	26.1678	729:420	“Clean Drinking”, “Labyrinth”, and “Claggett’s Purchase”.
10/29/1907	William P. Lipscomb and Lulie K. Lipscomb	George E. Hamilton	83.038	196:134	Restores under one owner parcel referred to as “Parcel 2”
10/28/1907	Eva P. Acheson [ne Hodges] and Mortimer H. Acheson	William P. Lipscomb	83.038	196:132	Part of a 103.25 acre parcel purchased in 176:112.
1/04/1904	William A. Hodges and Charles A. Prettyman	Eva P. Hodges	128.25	176:112	Two parcels of land. Site is on Parcel 2.
6/01/1893	Eliza D. Barton	Margaret C. Bohrer	103.25	39:78	Mortgage of “Clean Drinking”, “Labyrinth”, and “Claggett’s Purchase.”
5/27/1893	Margaret C. Bohrer	Eliza D. Barton	103.25	38:245	“Clean Drinking”, “Labyrinth”, and “Claggett’s Purchase.”
5/18/1872	Richard M. Williams, Trustee	Margaret C. Bohrer	261.75	11:283	Settlement of the Estate of Samuel Perry.
9/29/1857	Rufus A. Moore	Samuel Perry	85	6:243	Contains land on the east side of the Georgetown-Rockville turnpike.
11/22/1855	William W. Dennison and Hellen Ann Dennison	Rufus A. Moore	85	4:557	Contains land on the east side of the Georgetown-Rockville turnpike.
11/16/1854	Goodwin G. Williams, Trustee	Samuel Perry	444.25	3:498	
8/15/1855	Turner Alfred Ball	William W. Dennison	85	4:430	Contains land on the east side of the Georgetown-Rockville turnpike
3/28/1854	William A. Batchelor and Lucretia Ann Batchelor	Turner Alfred Ball	85	3:165	Contains land on the east side of the Georgetown-Rockville turnpike
8/16/1852	Comfort S. Whittlesey	William A. Batchelor	85	1:374	
11/27/1850	William A. Batchelor	Comfort S. Whittlesey	85	5:223	

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
12/05/1850	Clinton Levering and Jane B. Levering	William Batchelor	A. 85	5:125	Part of "Claggett's Purchase"
6/05/1849	John Marbury	Clinton Levering	236.33	4:89	
5/26/1849	Aletha Burnett <i>et al</i> (Charles A. Burnett estate)	John Marbury	236.33	4:86	This document conveys this property from a number of individuals to John Marbury.
12/01/1835	Elizabeth Davis	George Calvert	N/A	7:89	

TABLE 1. CHAIN-OF-TITLE FOR ROCK CREEK PARK SITE 2 (18MO755)

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
9/16/1942	United States of America (USA)	Maryland-National Capital Park and Planning Commission (M-NCPPC)	18.387	891:75	This is parcel "A", which was acquired from Paul Henderson and his wife 719:49.
11/08/1938	Paul Henderson and Michel Madden Henderson	USA	88.554	719:49	Document conveys the ownership of 3 parcels to the USA
7/17/1937	Newbold Development Corporation (NDC)	Paul Henderson	80	673:290	
1/10/1937	Edward L. Mahoney and Francis Mahoney	NDC	134	669:344	Parts of tracts called "Clean Drinking", "Labyrinth", "Claggett's Purchase", "Leeke Forest", and "Dann".
1/19/1927	William B. McGrann	Edward L. Mahoney and Joseph F. Kelly	134	399:139	Parts of tracts called "Clean Drinking", "Labyrinth", "Claggett's Purchase", "Leeke Forest", and "Dan".
5/29/1925	Annie R. Bohrer, Jay Louis Bohrer, Ralph W. Bohrer, executors	William B. McGrann	134	374:220	This document is a second, more detailed version of the deed conveying ownership to McGrann drawn up at the order of the Orphan's Court.
11/11/1894	Charles C. Bohrer will Margaret Bohrer	Charles C. Bohrer	134	46:38	
5/18/1872	Richard M. Williams, Trustee	Margaret C. Bohrer	261.75	11:283	
9/29/1857	Rufus A. Moore	Samuel Perry	85	6:243	Conveys a parcel of land described as "being part of Hyatts tract called 'Claggett's Purchase'."

CHAIN-OF-TITLE FOR SLIGO CREEK SITE 1 (18MO756)

Date	Grantor	Grantee	Acres	Liber/Folio*	Notes
7/21/1980	MDOT SHA and Maryland Board of Public Works	Montgomery County, Maryland	8.64	05641:708	This deed conveys to Montgomery County a parcel of land that the state acquired for the construction of I-495.
3/11/1959	Silver Spring Hospital Association	State Roads Commission Maryland	14/73, 0.21	2571:114	
7/21/1956	EIG Development Corporation	State of Maryland	3.881	2220:595	
3/15/1950	Elizabeth Edith Bean (a.k.a. Edith Elizabeth Bean)	EID Development Corporation	64.230 8	1358:127	Described as parts of tracts known as "Joseph's Park", "Grubby Thicket", and "Labyrinth".
11/03/1915	James W. Bean	Edith Elizabeth Bean	164.49	252:333	
8/11/1875	Edwin Stanton, receiver	Thomas Anderson	127.72 5	14:43	
7/14/1873	Thomas Anderson, trustee	First National Bank of Washington, DC	127.72 5	10:436	
1/02/1868	Smith Thompson and Mary A. Thompson	Thomas W. Riley	5:159	76.725	
10/13/1864	George M. Riggs and Janet M. Riggs	Mary Ann Thompson	204.5	1:367	
3/10/1863	George Smizer and Virginia E. Smizer	George M. Riggs	204.5	9:128	
3/05/1863	Columbia A. Laney and William H. Laney	Virginia E. Smizer and George W. Smizer	204.5	9:123	Columbia A. Laney and Virginia E. Smizer; Smizer received a 204.5 acre parcel.

Chain-of-Title For Site B-6/BARC Site 1 (18PR1133)

Date	Grantor	Grantee	Acres	Liber/Folio *	Notes
6/24/1994	United States of America	United States of America	361.9 7	9857:449	Includes five properties; study area is located on the South Farm.
4/1/1941	Anita E. McCoy et al.	United States of America	33.34 1	609:18	Sold to the United States of America for \$10,181.67; part of land conveyed in 391:208.
12/13/1932	James F. and Grace Edith White	Anita E. McCoy et al.	125.5 9	391:208	Part of parcel known as "Bachelors Choice" and "William and Elizabeth."
2/12/1923	Joseph S. and Ella McCoy	James F. White	125.5 9	190:369	Two parcels Joseph S. McCoy acquired in 1901 and 1906, less six acres McCoy donated for the construction of a schoolhouse.
11/12/1906	William G. Fisher et al.	Joseph S. McCoy	99.44	31:276	First parcel described in 190:369. Fisher represents the heirs of the late Jacob and Christine Fisher. Part of "Bachelor's Choice" and "William and Elizabeth."
9/14/1901	William G. and Florence E. Fisher	Joseph S. McCoy	32.15	5:160	Second parcel described in 190:369. Part of "Bachelor's Choice."
8/26/1892	Jacob J. Fink	Florence E. Fisher	24.25	21:564	Described as part of "Bachelors Choice."
8/10/1890	Jacob J. Fink	Florence E Fisher	24.25	16:156	Described as part of "Bachelors Choice"
5/10/1890	Jacob Fisher and Christina Fisher	William G. Fisher	23.12 5	14:717	Conveys parcel of land for \$138.70. Land known as part of "Bachelors Choice."
12/6/1882	Jacob Fisher and Christina Fisher	W.G. Fisher	1.5	2:718	Conveys property for \$50.00. Land is part of parcel known as "Bachelors Choice."

UNLESS OTHERWISE NOTED, LIBER REFERENCES PRINCE GEORGE'S COUNTY COUNTY DEED BOOKS